

OFFICIAL
GAZETTE

UNITED STATES
PATENT OFFICE

JAN. & FEB.

VOL. 726 & 727

1958

MICRO PHOTO INC
CLEVELAND OHIO 3

PATENTS

NOTICES

International Convention for the Protection of Industrial Property

Adherence of Turkey to the London 1934 revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective June 27, 1957, of Turkey to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

Nov. 26, 1957.

ROBERT C. WATSON,
Commissioner of Patents.

Erratum

All references to Pat. No. 2,816,353 to Stanley N. Johnson, assignor to Motor Wheel Corporation, for Method of Making Tapered Wheel Disks, appearing in the OFFICIAL GAZETTE of Dec. 17, 1957, should be deleted as the application was withdrawn from issue and the patent was not issued.

Disclaimer

2,697,218.—Arthur Philip Glenny, Hanworth, England. RE-SETTABLE PICK-OFF FOR CONTROL SYSTEMS FOR NAVIGATIONAL CRAFT. Patent dated Dec. 14, 1954. Disclaimer filed Nov. 26, 1957, by the inventor; the assignee, *The Sperry Gyroscope Company, Limited*, consenting.

Hereby enters this disclaimer to claim 1 of said patent.

Patents Available for Licensing or Sale

2,554,854. Thermometer Casing With Thermometer Illuminating Means. Sophia Chomea, 29 Jameson St., Newton, Mass. Correspondence to: Hyman F. Glass, 117 S. Columbus St., Alexandria, Va.

2,753,105. Package Opener. Luczlo Werner, 254 S. 21st St., Irvington, N. J.

2,775,344. Eyeglass Cleaning Compact. Thor Benediks, 2910 W. 8th St., Los Angeles 5, Calif.

2,799,200. Console for Key Actuated Musical Instruments and in Particular Electrical Organs. Henryk Spychala, Gdansk-Wrzeszcz, Poland. Correspondence to: Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

2,811,180. Automatic Closure Means for Tank Filling Line. Stoppani A.-G., Konigstrasse 29, Bern, Switzerland.

2,812,027. Variable Reverse Pitch Fan for Cooling Systems. Aldon E. Swan, Box 43, Guerneville Park, Calif.

2,812,862. Alphabetical Sorter. Harry A. Cullen, 2312 Avalon Drive, Sacramento 21, Calif.

2,812,918. Versatile Clip (Clamp Suitable for Securing Display Material on a Stand). Hugh A. Longino, Box 205, McLean, Tex.

General Electric Company is prepared to grant non-exclusive licenses under the following patents on reasonable terms to domestic manufacturers.

Applications for licenses under the following 9 patents may be addressed to: General Electric Company, Motor and Generator Division, 1 River Road, Schenectady 5, N. Y.

2,270,760. Transmission Dynamometer.

2,297,350. Dynamoelectric Apparatus.

2,386,701. Dynamoelectric Machine.

2,460,749. Dynamoelectric Machine.

2,606,946. Dynamoelectric Machine Cooling and Brush Lubrication.

2,662,195. Dynamoelectric Machine.

2,777,080. Dynamoelectric Machine.

2,780,737. Vapor Cooled Generator.

2,804,589. Control for Dynamoelectric Machine.

New Applications Received During November 1957

Patents	6,063
Designs	425
Plant Patents	4
Reissues	19
Total	6,511

Issue

Patents	897—No. 2,818,567 to No. 2,819,463, incl.
Designs	64—No. 181,829 to No. 181,892, incl.
Plant Patents	2—No. 1,672 to No. 1,673, incl.
Reissues	2—No. 24,413 to No. 24,414, incl.
Total	965

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of pending applications (excluding Designs).....	212,792
Total number of pending Design applications.....	6,640
Total number of applications awaiting action (excluding Designs).....	95,704
Total number of Design applications awaiting action.....	3,114
Date of oldest new application.....	Aug. 27, 1956
Date of oldest amended application.....	July 5, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS		DIVISIONS	
(I) STONE, I. G., CHEMICAL AND RELATED ARTS.....		6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.	
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS.....		16, 26, 37, 41, 42, 44, 48, 51, 54, 69, 70.	
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS.....		2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.	
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.....		7, 11, 17, 27, 34, 35, 39, 53, 62.	
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION.....		5, 8, 20, 29, 33, 36, 40, 52, 66.	
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS.....		1, 4, 9, 10, 18, 22, 23, 28, 45, 47.	
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.....		3, 15, 19, 25, 30, 32, 49, 55, 67.	
(CLASS.)-GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.		I, II, III, IV, V.	
DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)		Oldest Application	
		New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders.....		2-28-57	12-5-56
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps.....		2-19-57	10-29-56
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats.....		4-17-57	2-6-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways.....		3-18-57	11-29-56
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors, Fences; Oates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing.....		2-25-57	11-27-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines.....		3-20-57	3-8-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics, Photographic Apparatus.....		3-4-57	12-3-56
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles.....		4-8-57	1-16-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines.....		3-6-57	11-16-56
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making.....		3-15-57	1-28-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits.....		4-22-57	2-26-57
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls.....		3-4-57	12-11-56
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning.....		4-2-57	1-28-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes.....		4-3-57	2-20-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass.....		3-13-57	12-3-56
16. (II) Rose, R. H., (acting), Telephony; Recorders (part).....		8-27-56	8-1-56
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding.....		2-25-57	10-3-56
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices.....		3-1-57	1-2-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating.....		3-4-57	12-26-56
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors.....		1-28-57	11-6-56
21. (III) MADER, R. C., Textiles.....		12-18-56	10-1-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows.....		3-4-57	12-4-56
23. (VI) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education.....		12-31-56	7-16-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control.....		4-12-57	1-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making.....		6-6-57	1-25-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms.....		5-1-57	2-6-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids.....		3-21-57	2-28-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expandable Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes.....		3-25-57	11-3-56
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings.....		1-23-57	11-23-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling.....		2-6-57	7-12-56

2,792
8,640
5,704
3,114
1956
1956

NS

46, 50,
3, 64,
42, 44,
10, 70,
21, 24,
Designs.

34, 35,

33, 36,

22, 23,

30, 32,

V.

Location

ended

12-5-56

0-29-56

2-6-57

1-29-56

1-27-56

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11-3-56

1-23-56

7-12-56

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION

(Roman numerals in parentheses indicate Examining Group)

Oldest Application

New

Amended

31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils.....	12-14-56	11-2-56
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers.....	4-1-57	2-13-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements.....	3-5-57	12-5-56
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements.....	2-25-57	10-1-56
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding.....	4-25-57	4-17-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales.....	12-28-56	11-30-56
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits.....	2-5-57	2-7-57
38. (I) MARMELESTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols.....	5-7-57	5-16-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows).....	4-9-57	3-14-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages.....	6-3-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television.....	10-16-56	7-13-56
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part).....	12-3-56	11-16-56
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles.....	5-27-57	5-24-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes.....	11-28-56	9-28-56
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part).....	4-1-57	11-20-56
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part).....	3-11-57	12-13-56
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles.....	5-29-57	4-1-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers.....	3-4-57	9-19-56
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring.....	3-14-57	12-10-56
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber.....	5-6-57	5-3-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices.....	3-7-57	2-19-57
52. (V) NEFF, P. R., Supports and Racks.....	4-1-57	10-31-56
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifold; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators.....	4-23-57	4-8-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications.....	1-9-57	3-4-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators.....	10-8-56	8-14-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry.....	5-20-57	3-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending.....	4-3-57	3-6-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spitoons; Boring and Drilling; Paper Manufactures; Packaging (part).....	2-11-57	8-8-56
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating.....	2-25-57	11-14-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products.....	3-7-57	12-5-56
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths.....	3-5-57	9-24-56
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination.....	7-1-57	7-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds.....	2-20-57	12-3-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions.....	3-4-57	11-15-56
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures.....	2-6-57	7-23-56
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification.....	12-27-56	7-5-56
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators.....	2-26-57	11-13-56
70. (II) BREWRINK, J. L., Security Laws Administration.....		
I—BAILEY, J. S., Laminated Fabrics.....	1-3-57	9-6-56
II—LADY, J. E., Oscillators; Amplifiers.....	3-5-57	11-8-56
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres.....	2-18-57	9-4-56
IV—BERLOWITZ, W., Harrows and Diggers; Plows.....	3-20-57	12-26-56
V—ANGEL, C. D., Refrigeration; Roofs.....	3-4-57	3-4-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part).....	4-1-57	1-10-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts.....	6-2-57	6-10-57
B—GRAY, M. A., Household, Personal and Fine Arts.....	5-1-57	5-1-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents.....

Numbers 2,223,338 to 2,227,417, inclusive

Plant Patents.....

Numbers 434 to 436, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

1,754,293,	1,778,457,	1,778,750,	1,788,035,	1,789,371,	2,597,530. (See 2,597,528.)
1,795,214,	1,811,095,	1,813,923,	1,819,508,	1,828,094,	2,599,661, A. D. Richardson, Suspension galvanometer and magnet assembly, filed Jan. 25, 1956, D. C., N. D. Okla. (Tulsa), Doc. 3850, Consolidated Electrodynamics Corp. v. Midwestern Instruments Inc. Patent held invalid and not infringed (notice Nov. 22, 1957).
1,829,965,	1,849,651,	1,852,068,	1,866,603,	1,868,443,	2,625,381. (See 2,538,891.)
1,869,323,	1,870,702,	1,881,357,	1,883,238,	1,884,724,	2,637,065. (See 2,429,828.)
1,885,009,	1,893,049,	1,894,197,	1,895,247,	1,896,780,	2,671,515. (See 2,731,816.)
1,899,561,	1,907,555,	1,909,051,	1,920,342,	1,931,677,	2,693,926, J. Tatko, Pallet, platform or the like, filed May 13, 1955, D. C. Vt. (Burlington), Doc. 1836, Tatko Brothers Slate Co., Inc. v. Matthew Hannon. Patent held infringed; defendant enjoined; counterclaim dismissed Nov. 22, 1957.
1,936,162,	1,938,256,	1,941,447,	1,945,040,	1,945,557,	2,702,998, J. J. Purcell, Surgical stocking, appeal filed Dec. 2, 1957, C. C. A., 4th Cir., Doc. 7581, Johnson & Johnson et al. v. Carolina Lee Knitting Co., Inc.
1,947,229,	1,955,739,	1,955,800,	1,957,752,	1,964,375,	2,703,947, E. J. Petrusek et al., Fish lure, filed Sept. 23, 1955, D. C., S. D. N. Y., Doc. 103/330, Petrusek Bros., Inc. v. Rex Company, Inc. Order of discontinuance Dec. 3, 1957.
1,975,441,	1,976,558,	1,976,574,	1,977,683,	1,988,180,	2,707,280, E. G. Mayer, Girdles, filed Aug. 16, 1955, D. C., S. D. N. Y., Doc. 102/382, Rivoli Corset Co., Inc. v. Figure Builders Foundation, Inc. Order of discontinuance Nov. 26, 1957.
1,988,469,	2,007,380,	2,021,252,	2,026,357,	2,029,282,	2,719,058, F. E. Van Dusen, Silo unloader; 2,794,560, F. E. Buschbom, same, filed Dec. 2, 1957, D. C. Md. (Baltimore), Doc. 10213, Vandale Farm Machines, Inc. et al. v. Charles Collins.
2,029,639,	2,034,773,	2,038,401,	2,045,316,	2,046,237,	2,731,816, J. E. Hall, Sr., Process for conditioning wells for cementing; 2,671,515, same, Well bore cleaning scratcher, filed Nov. 30, 1957, D. C., N. D. Tex. (Fort Worth), Doc. 3789, B & W, Inc. v. Jesse E. Hall, Sr. et al.
2,047,003,	2,047,312,	2,048,814,	2,050,819,	2,052,316,	2,757,536, A. P. Heldenbrand, Tension machine, filed Feb. 6, 1957, D. C., W. D. Okla. (Oklahoma City), Doc. 7384, Arthur P. Heldenbrand v. Oil Field Pipe Service. Patent held valid and infringed as to claim 1; counterclaim dismissed; defendants enjoined (notice Nov. 27, 1957).
2,056,955,	2,057,640,	2,062,858,	2,063,311,	2,063,413,	2,793,612, H. B. Babson, Milk receiving apparatus, filed Dec. 2, 1957, D. C., S. D. Ind. (Indianapolis), Doc. IP/57c286, Babson Bros. Co. v. Farmer Feeder Co., Inc.
2,066,284,	2,073,477,	2,074,496,	2,075,501,	2,080,837,	2,794,560. (See 2,719,058.)
2,082,933,	2,086,546,	2,086,595,	2,092,893,	2,095,406,	Des. 170,167, M. Rosen, Gravy boat or the like, filed Sept. 17, 1956, D. C., S. D. N. Y., Doc. 113/70, English Silver Mfg. Co. v. F. B. Rogers Silver Co. Stipulation and order of discontinuance Dec. 3, 1957.
2,096,861,	2,100,279,	2,101,520,	2,102,671,	2,103,135,	Des. 173,281, R. B. Morrison, Laboratory table unit, filed Aug. 21, 1957, D. C., M. D. Pa. (Scranton), Doc. 6045, E. H. Sheldon & Co. v. Wood-Metal Industries, Inc. Injunction issued; defendants consent Dec. 2, 1957.
2,109,618,	2,121,103,	2,124,189,	2,124,478,	2,131,365,	Des. 180,653, J. A. Higier, Glove, filed Dec. 3, 1957, D. C., S. D. N. Y., Doc. 127/230, Crescendoe Gloves, Inc. v. Seleotà, Inc.
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2,209,939,	2,229,640,	2,230,212,	2,240,281,	2,246,659,	
2,246,696,	2,249,552,	2,250,268,	2,251,677,	2,252,746,	
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REISSUES

JANUARY 7, 1958

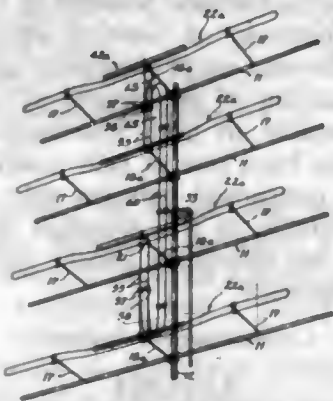
Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,413

RADIO FREQUENCY ANTENNAS

Robert S. Weiss, South Euclid, Ohio, assignor to Finney Manufacturing Company, Cuyahoga County, Ohio, a corporation of Ohio

Original No. 2,726,390, dated December 6, 1955, Serial No. 533,851, September 12, 1955. Application for reissue June 24, 1957, Serial No. 672,532
25 Claims. (Cl. 343—803)



21. A radio frequency antenna comprising a long driven dipole and a single, short, non-driven dipole arranged in closely spaced parallel relationship, the driven dipole having a length selected to render it resonant as a

dipole at least a half-wave long at a first selected frequency and having an L/D ratio of at least 40, the non-driven dipole having a length selected to render it resonant as a half-wave dipole at a second higher frequency which is substantially a harmonic resonant frequency of the driven dipole at least three times said first frequency, and the spacing of the driven and non-driven dipoles being from about 1% to about 7% of a half-wave length at said first frequency.

24,414

BRONZING LACQUER CONTAINING POLYALKYL ACRYLATE AND TRICHLOROFLUOROMETHANE

Robert J. Stetz, Westlake, and Edmund Rogers, South Euclid, Ohio, assignors to The Engine Parts Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Original No. 2,731,436, dated January 17, 1956, Serial No. 146,406, February 25, 1950. Application for reissue October 8, 1957, Serial No. 689,464
9 Claims. (Cl. 260—33.6)

1. A bronzing lacquer comprising a finely divided metallic pigment, a poly-alkyl acrylate lacquer base in a solvent for said lacquer base, and an amount by volume approximately equal to the foregoing ingredients of fluorochloromethane.

PLANT PATENTS

GRANTED JANUARY 7, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,672

ROSE PLANT

Francis Meilland, Cap Azura, Cap d'Antibes, France, assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania

Application April 29, 1957, Serial No. 655,930

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its compact habit of growth, the perfect form of its very double blooms, the good substance and long-lasting qualities of the flower petals, and the Roseine Purple general color tonality of its blooms which is well-maintained throughout their life.

1,673

ROSE PLANT

Francis Meilland, Cap Azura, Cap d'Antibes, France, assignor to The Conard-Pyle Company, West Grove, Pa., a corporation of Pennsylvania

Application April 29, 1957, Serial No. 655,931

1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the hybrid polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its strong and vigorous habit of growth both outdoors and in the greenhouse, its ability to make satisfactory growth and bloom in the greenhouse during dark, winter weather, its excellent foliage and the better than average resistance thereof to mildew and blackspot, the good form of its blooms which are more double than those of either of its parents, the intense iridescent Scarlet general color tonality of its blooms and their greater brightness than those of either parent, and the outstandingly good keeping qualities of the blooms as greenhouse cut flowers.

GENERAL AND MECHANICAL

said passage to and from a first position, in which one end of said component forms the base of a staple-forming recess in said die cylinder, from and to a second position in which said one end of said component is substantially flush with the surface of said die cylinder; means for moving staple wire across said recess; a continuously rotating cylinder adjacent to said die cylinder and having means operable in one rotated position of said die cylinder for forcing a length of wire into said recess to form a staple and operable in another rotated position of said die cylinder to engage the other end of said component to move the latter to said second position to eject the formed staple: the combination of limiting means respectively on said die cylinder and said component spaced from each other in the direction of movement of said component and being cooperable to limit movement of said component towards at least one of said positions, and shock absorber means interposed between said limiting means and being deformable in the direction of movement of said component for absorbing shocks incident to movement of said component.

5. A machine for strapping open cases comprising a table operable to rise from a lower position to a higher level, an anvil for a case to rest upon yieldably supported by and above said table, means for guiding straps into positions underneath the opposite ends of a case on said anvil with their opposite end portions projecting beyond the side walls of the case, releasable means for arresting upward movement of the case on said anvil during an initial phase in the upward movement of said table to cause relative approach of the rising table and the yieldable anvil, first strap bending mechanisms at the opposite ends of the anvil effective in response to relative approach of said anvil and said table to bend the oppositely projecting end portions of the straps underneath the case into contact with the side walls thereof so that their ends project a limited distance above the top edges of the case, means effective upon approach of said table and said

1. In a rotary stapling mechanism having a continuously rotating staple-forming die cylinder provided with a diametral passage therethrough; a component movable in

anvil to cause release of said arresting means, second strap bending mechanisms operative upon release of said arresting means and resumed upward movement of said anvil to bend the upwardly projecting ends of the straps into contact with the upper end edges of the case on said anvil, and nailing mechanisms supported above the anvil and operative during further upward movement of said table to drive nails through the strap ends and into the end walls of the case on said anvil.

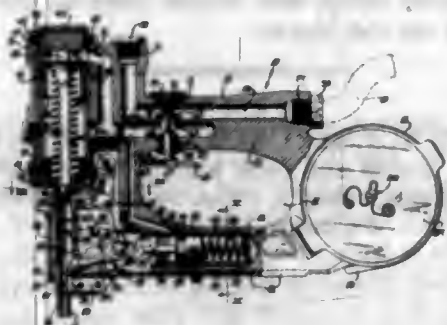
2,818,570

PNEUMATIC STAPLER

Harlan N. Faccou, Santa Ana, Calif.

Application September 25, 1952, Serial No. 311,481

6 Claims. (Cl. 1-44.4)



1. In combination in a portable pneumatic driving machine, a body structure including a handle portion connected to a base portion and a head portion, said head portion having a cylinder and a piston in the cylinder adapted to be connected to a driver, a sear member reciprocally mounted in said head portion for retaining engagement with the driver, a piston and cylinder carried by said base structure and connected to the sear, a spring normally biasing the piston to drive the same for urging the sear into driver restraining position, an air supply header in said handle, an air supply passage in said handle in ported communication with said header, a normally closed valve controlling movement of compressed air from the header to said delivery passage, said delivery passage communicating with said driver piston for urging the same in driver motivating direction and communicating with said sear piston to urge the same in opposition to said spring, said valve having a motivating stem projecting therefrom and exposed adjacent the forward portion of the handle, and a trigger mounted on said body and operable to act upon said stem to open the valve when the trigger is actuated to admit air into said delivery passage from the header for motivating the pistons in coordinated relation.

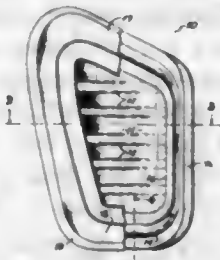
2,818,571

THIGH PADS FOR USE IN CONTACT SPORTS EQUIPMENT

Munro M. Grant, Elyria, Ohio

Application March 24, 1955, Serial No. 496,459

3 Claims. (Cl. 2-22)



1. A protective thigh pad for contact sports adapted to be worn upon the thigh of a player and comprising a rigid body portion, a pair of guide strips positioned upon the inner surface of said body portion at the edge thereof, a flexible tube containing air disposed between

said guide strips, said guide strips adapted to restrain the lateral thrust of said tube when said body portion is subjected to a sudden blow whereby the force of said blow is distributed throughout said tube.

2,818,572

SELF-ADHERING SECTIONAL UNDERARM ABSORBENT PAD

Dorothy C. Oliver, Portland, Oreg.

Application June 20, 1955, Serial No. 516,447

1 Claim. (Cl. 2-55)



A self-adhering underarm absorbent shield comprising in combination a backing sheet of moisture-proof flexible material elastically yieldable longitudinally and transversely and having the entire surface of one of its sides coated with an adhesive, a pair of absorbent pads adhesively secured to the backing sheet in abutting end to end relationship across the transverse center of the backing sheet whereby a transverse fold line for the backing sheet will be established between said pads, the length and width of the backing sheet being generally greater than that of said absorbent pads whereby to provide adhesive marginal portions for attaching the backing sheet to the underarm skin of the wearer with said absorbent pads in contact with the axilla and whereby the backing sheet will fold along the line of abutment of said absorbent pads, and the backing sheet being recessed inwardly at opposite sides of its said transverse center and thereat being of a width less than that of the abutting edges of the absorbent pads whereby those portions of the absorbent pads overhanging the transverse center of the backing sheet will protect the underarm of the user from the folded corners of the backing sheet.

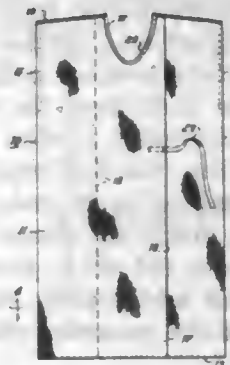
2,818,573

EXAMINATION GOWNS

Pearl O'Donnell, Fort Worth, Tex.

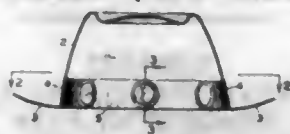
Application June 12, 1956, Serial No. 590,922

1 Claim. (Cl. 2-114)



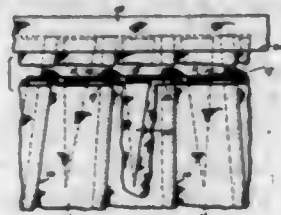
A medical examination gown including two sheets of cloth folded upon themselves to form the longitudinal halves of a sheath, one end of each folded sheet being stitched to provide a transverse shoulder portion and having a lateral arm opening adjacent the shoulder portion, the sheets having overlapping longitudinal margins extending laterally to the shoulder portions of each other and providing a coextensive closed opening therebetween extending longitudinally from said shoulder portions to the opposite end of the sheath, the overlapping margins of said sheets having a neck opening in one end thereof between said shoulder portions and being stitched to each other at the neck opening and to said shoulder portions on each side of said neck opening.

2,818,574
VENTILATING ATTACHMENT FOR HATS
 George C. Burnison, Portland, Oreg.
 Application July 21, 1955, Serial No. 523,499
 2 Claims. (Cl. 2-181.2)



1. A ventilating attachment adapted to be detachably fastened to the sweat band of a hat, comprising a grommet having a core composed of resilient material formed to predetermined dimensions, disks composed of tenacious material tapering to feathered edges, having greater diameter than the core, which are cemented together to form a covering for said core, a metal base registering with the inner surface of one of said disks and one side of said core, a neck integral with said base protruding through said tenacious material, a head formed on the free end of said neck adapted to pass through openings in a sweat band for the purpose of attaching said grommet to the exposed surface of said sweat band, and means to prevent accidental release of the grommet from the sweat band.

2,818,575
WAISTED WEARING APPAREL HAVING PLEATS
 Marie W. Hills, Seattle, Wash., assignor to Foster-Hochberg Manufacturing Co., Inc., a corporation of Washington
 Application March 25, 1957, Serial No. 648,006
 7 Claims. (Cl. 2-211)

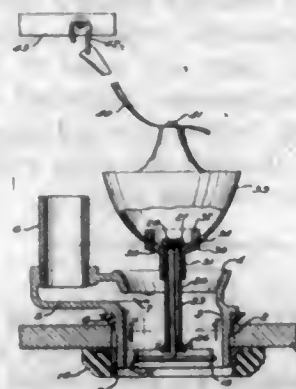


5. A waisted garment having stitched pleats extending from approximately the hip line to the waist limit thereof with said stitched pleats comprised of a succession of loops separated by connecting webs and characterized in that said webs progressively diminish in width toward said waist limit, the loops being all folded back in a corresponding direction so as to overlie the adjacent web and having a length, considered from the root end to the apex, at least as long as the transverse span of the webs, the inner flank of each loop of said stitched pleats presenting an open-end slit extending longitudinally on the approximate center line of the flank from the waist-line limit of the garment for a substantial portion of the length of the flank and having the two flaps which lie at opposite sides of said slit lapped so as to reduce said length of the loop progressively from the closed to the open end of the slit, the stitching for each pleat connecting the root ends together and additionally securing the apical end to the material of the garment which underlies said apex.

2,818,576
WATER CLOSET FLUSH VALVE ASSEMBLY
 Harry F. Smith, Lexington, Ohio, assignor to Mansfield Sanitary Pottery, Inc., Perrysville, Ohio, a corporation of Ohio
 Application March 15, 1956, Serial No. 571,806
 4 Claims. (Cl. 4-57)

1. A water closet flush valve assembly comprising a spud having a valve seat at its upper end, a valve guide including a rod secured within the spud near its lower end and including a straight portion positioned approximately on the axis of said spud, a float valve to seat on said valve seat, and means to guide said valve in its movements toward and away from said seat, said means

including a sleeve slidable on the straight portion of said rod, means to limit the movement of the sleeve on the



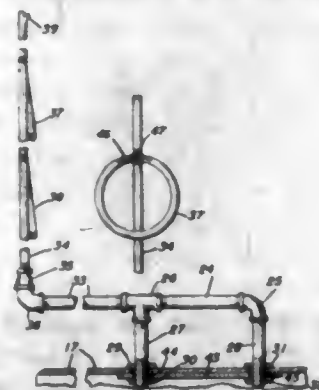
rod, a spool secured to the lower part of the valve and slidable on said sleeve and means limiting the movement of the spool on the sleeve.

2,818,577
FOOT SUPPORT FOR SHOWER BATHS
 Stanley S. Kubik and John Kubik, Los Angeles, Calif.
 Application July 3, 1956, Serial No. 595,691
 4 Claims. (Cl. 4-146)



1. In a foot support for removably fitting in a shower bath stall, an elongated body member, a linear base element arranged transversely at one end of said body member and connected thereto, and a plate adapted to support the foot of a shower user rigidly connected to the other end of the body member and disposed in a plane diagonal to the axis of the body member, said element being substantially parallel to the plane of said plate, said foot support being adapted to be positioned so that said base element engages a side bottom corner of the shower stall and the foot plate is arranged substantially horizontally with its outer edge bearing against a side wall of the stall opposite that corner against which the base element bears, the body member of the foot support being disposed to extend at a diagonal angle in the stall.

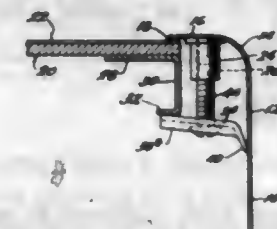
2,818,578
BATH TUB GRIP AND SYRINGE STAFF
 Edward C. Cantrell, El Paso, Tex.
 Application October 3, 1956, Serial No. 613,664
 3 Claims. (Cl. 4-185)



1. A bath tub grip and support comprising a U-shaped member having a gripping section with portions extended

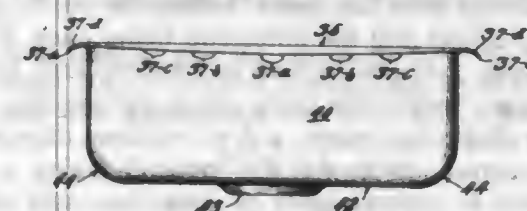
from the ends, means for clamping the extended portions in openings in a wall of a bath tub, and a staff having supporting rings pivotally connected thereon extended from one end of the gripping section.

2,818,579
MEANS FOR JOINING SINK TO DRAINBOARD
 Louis Katz, Oak Park, Ill., assignor to Elkay Manufacturing Company, Chicago, Ill., a corporation of Illinois
 Application July 23, 1954, Serial No. 445,241
 2 Claims. (Cl. 4-187)



1. A sink installation comprising a drain surface having an opening therein to receive a sink; a sink inserted into said opening having an outwardly extending horizontal rim with a downturned peripheral edge; a J-shaped bracket having a base, a main leg and a short leg, said J-shaped bracket being placed beneath said drainboard with its base flush with the opening and perpendicular with the drainboard, the legs extending horizontally away from the opening; a plurality of female threaded members secured in spaced relation at a mid-portion in the underside of the sink flange; a clamping flange having a rib reinforced body portion and an end bent at an acute angle, the body portion having a central opening; and a bolt passing through the clamping member with the bent end abutting the sink wall and the bend pointing downwardly, the other free end of the clamp body abutting the base of the J-shaped bracket whereby tightening the bolt jammingly engages the bent end of the clamp with the sink wall and simultaneously impresses the downturned peripheral edge of the sink rim into the drainboard top thereby effecting a water-tight seal.

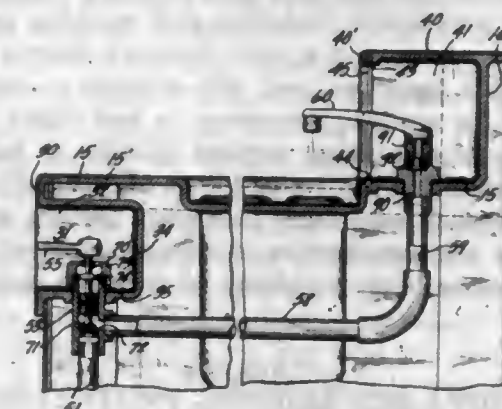
2,818,580
SINK BOWL STRUCTURE
 Andrew Harry Galley, Toronto, Ontario, Canada, assignor to John V. Galley, White Plains, N. Y.
 Application February 7, 1956, Serial No. 563,987
 10 Claims. (Cl. 4-187)



1. As a new article of manufacture, a unitary sink bowl structure having a sink bowl in the as-drawn shape adapted to be inserted in an opening in a sink deck, said sink bowl structure being comprised of thin, corrosion-resistant stainless metal having a depressed bowl curving outwardly at its upper marginal edge to form a resilient, continuous, outwardly-extending flange having a cold-worked structure and a width of about 3/4 of an inch to about 1 1/4 inches, said flange being upwardly arched in cross section with its outer free edge turned downwardly and of bowed contour in a vertical plane such that the level of the center sections of the outer free downturned edge is below the level of adjacent corner sections of the downturned outer free edge thereby providing a flange adapted to maintain a resilient, water-tight, self-sealing engagement with an upper surface of said sink deck, said bowl having an approximate rounded rectangular contour

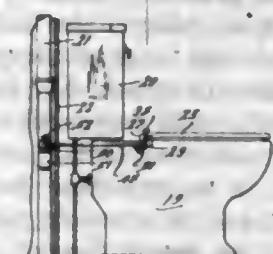
in the horizontal plane and having side and end walls outwardly curved in a horizontal plane and a bottom wall of accentuated radius with a drain opening, said side and end walls being joined integrally to each other and to said bottom wall by curved fillet sections, the radii of outward curvature of said side and end walls being substantially greater than the radii of curvature of said fillet sections, whereby the as-drawn shape of said sink bowl is maintained despite the stresses effectuated in the as-drawn structure thereby avoiding the need of heat treatment to relieve such stresses.

2,818,581
COMBINATION KITCHEN SINK
 Rudolph W. Miller, Brooklyn, N. Y.
 Application September 5, 1956, Serial No. 608,141
 7 Claims. (Cl. 4-187)



1. In a kitchen cabinet comprising the combination of a base cabinet having a forward working face, counter top with forward and rear edges and a sink mounted in said counter top, said sink being oriented in accordance with the forward and rear edges of said counter top, the improvement comprising water inlet connections for said sink having valve controls for said water substantially entirely behind the forward working face of said cabinet, immediately below counter top level and spout for water feed to the sink at the oppositely disposed rear edge of said sink.

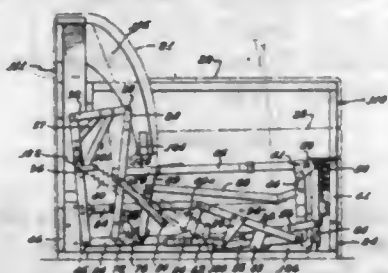
2,818,582
LOCAL VENT FOR TOILET
 Charles C. Rosselle, Detroit, Mich.
 Application September 8, 1953, Serial No. 378,924
 5 Claims. (Cl. 4-213)



1. In a vent mechanism for a toilet bowl, a toilet seat adapted to be hingedly connected to said bowl, said seat having a hollow portion and a plurality of openings in communication with said hollow portion through the bottom of said seat, a vent conduit having an inlet opening into said hollow portion to vent gases therefrom, power operated means for exhausting gases from said conduit, pressure controlled means in communication with said conduit and responsive to a predetermined low pressure therein to stop operation of said power operated means, valve means carried by said seat and normally closing said inlet, and operating means for said valve means cooperable with said seat to open said inlet upon predetermined movement of said seat toward said bowl.

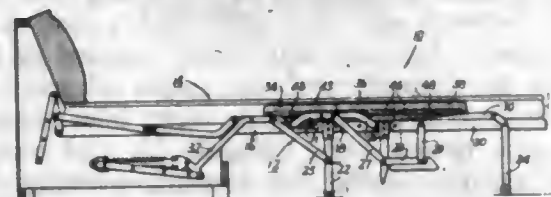
2,818,583 SOFA BED

Richard A. Nowell, Bell, and Billy M. Ikenberry, Los Angeles, Calif., assignors to Metalcraft Products Company, Los Angeles, Calif., a corporation of California
Application March 3, 1955, Serial No. 491,828
5 Claims. (Cl. 5-13)



1. A combined bed and sofa forming structure comprising: a sofa frame including arm portions and a back rest; guide means and a slide mounted therein mounted between said back rest and arm portions to mount said back rest for vertical movement; a bed frame including a plurality of articulated sections foldable to form a sofa and unfoldable to form a bed; one of said sections being disposed behind said back rest when folded; and means carried by said one section to engage said back rest and raise the same upon unfolding of said one section.

2,818,584 SOFA-BED BEDDING PROTECTOR Bernard Castro, Fort Lauderdale, Fla. Application January 30, 1956, Serial No. 562,148 5 Claims. (Cl. 5-13)

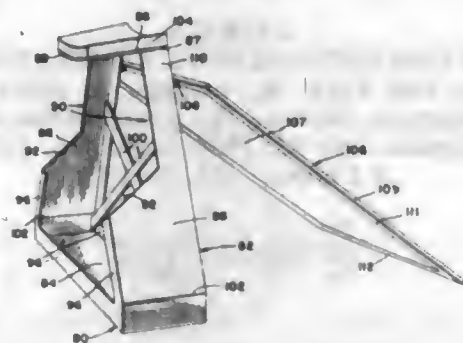


1. In a convertible bed which is adapted to be folded and unfolded and where the bedding is exposed at the sides to scissor-like action of the bed mechanism, a mattress, two side link mechanisms having bed springs stretched therebetween and supporting said mattress, each side mechanism including an intermediate section, a connecting section hinged thereto and an end section hinged to said connecting section, and links and levers pivoted to said sections and generally lying on the outside thereof, said sections being adapted to fold into U shape in the process of which said links and levers move past each other and said sections in scissors-like fashion, a first short flexible but somewhat stiff barrier-like member fastened to the end part of said intermediate section adjacent said connecting section, a second short barrier-like member similar to the first and fastened to said connecting section and extending the length thereof, and a third short barrier-like member similar to the first and fastened to the end part of said end section adjacent said connecting section, said members being positioned alongside said mattress between it and said links and levers, whereby during folding and unfolding of said bed said mattress is kept from interfering with said side mechanisms and being damaged thereby.

2,818,585 HEAD SUPPORT WITH PIVOTED BACKREST Ellen Hess Campbell, Harrisville, W. Va. Application December 28, 1955, Serial No. 555,842 4 Claims. (Cl. 5-327)

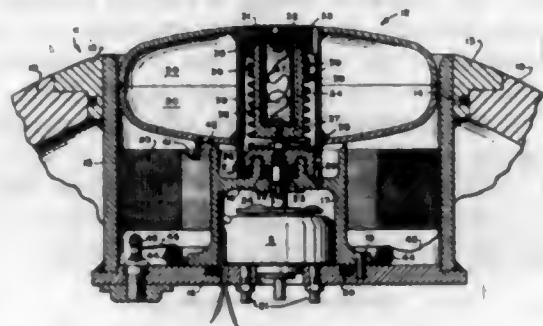
1. A neck and back support for supporting a person in reclining position comprising a generally upstanding

frame, an arcuate neck-rest arranged on the upper portion of said frame, and a back-rest connected at one end to said frame below said neck rest, said frame and said back-rest being so proportioned and so connected that



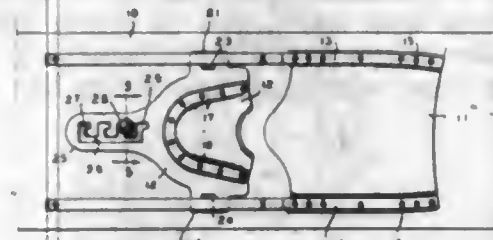
when said neck and back support is positioned for use said back-rest is inclined at a moderate angle and the portion of said neck-rest adjacent said back-rest lies substantially above the plane of said back-rest.

2,818,586 TORPEDO LOCATOR AND RETRIEVER Donald L. Dayer, Rexford, and Clyde E. Winstead, Jr., Scotia, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy Application October 9, 1956, Serial No. 615,000 8 Claims. (Cl. 9-9)



1. Apparatus for locating and recovering a torpedo disposed on the bed of a body of water, comprising: a cylindrical casing carried by the shell of the torpedo and extending into the space within the shell, the inner end being closed and the outer end being open, a circular buoy having a central cylindrical hollow hub forming a central space within the buoy and a surrounding annular space for displacing water, a dye container disposed within said central space and sealingly engaging a portion of said hub to prevent entry of water into said container, said container being maintained in engagement with said portion by pressure of water acting on one end of said container, resilient means for urging said container out of engagement with said portion to permit water to enter said container, said resilient means being so proportioned to the pressure of said water that said container is urged out of engagement with said portion when the buoy ascends to a position near the surface of the water, whereby dispersion of the dye in the water is obviated during the major portion of the ascension of the buoy, means for releasing the buoy from said casing, and a flexible member adapted to reel off from an annular supply of same carried within said casing, one end of said flexible member being secured to said buoy and the other end to a member disposed within said casing, said last named member being secured to said casing and adapted to be engaged by hoisting apparatus for raising the torpedo to the surface of the water.

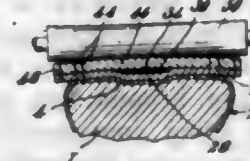
2,818,587 ADJUSTABLE WATER SKI BINDER Joseph P. Bridges, Lakeland, Fla., assignor to Cypress Gardens Skis Inc., Winter Haven, Fla., a corporation of Florida Application August 16, 1956, Serial No. 604,448 1 Claim. (Cl. 9-21)



A ski binding comprising a ski, a toe engaging binder for retaining the toe portion of a foot on said ski, means to secure the toe binder to said ski including a pair of guide bars, a portion of said guide bars being spaced from the ski and extending in substantially parallel relation rearwardly from the toe binder, means for engaging the heel portion of a person's foot on said ski comprising a generally Y-shaped plate having its arms adapted to extend in the spaces between said guide bars and the ski and having its stem extending rearwardly thereof, said stem being provided with a longitudinally extending elongated slot and a plurality of laterally extending L-shaped slots communicating therewith, a stud mounted in said ski and having a head with the shank thereof passing through and slidably engaging in either of said slots, the head of said stud being of greater transverse dimension than the width of either slot, an upstanding guide lug on each of said arms in opposed relation inwardly of said guide bars for cooperation therewith for preventing lateral movement of said arms but providing for arcuate movement of the Y-shaped plate whereby said Y-shaped plate is adjustable by a forward and lateral motion to release the shank of the stud from the L-shaped slots and permit said stem to be moved so its elongated slot registers with said shank of said stud for adjustment of said heel engaging means relative to said toe engaging binder.

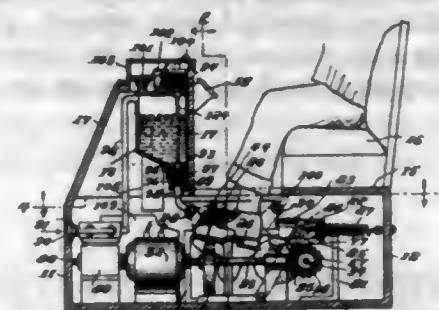
2,818,588 METHOD OF MAKING A MOCCASIN SHOE WITH A METATARSAL SUPPORT James P. Giblin, Milton, Mass., assignor to E. T. Wright & Co., Inc., Rockland, Mass., a corporation of Massachusetts Original application June 22, 1955, Serial No. 517,300, now Patent No. 2,795,864, dated June 18, 1957. Di- vided and this application April 9, 1957, Serial No. 651,638

6 Claims. (Cl. 12-142)



1. A method of making a shoe with a metatarsal support incorporated therein and with a substantially flat outsole and tread surface, comprising providing insole and outsole members of different yieldability such that the insole will yield readily under a pressure which will not produce appreciable yielding of the outsole, providing a midsole remolded so as to have an elevated metatarsal mound rising from its top side, applying pressure to the insole and outsole with the midsole sandwiched therebetween to cause the metatarsal elevation to be pressed upwardly into the insole without displacement of the outsole.

2,818,589 COIN CONTROL SHOE POLISHING STAND Isaac Carter, Dayton, Ohio Application June 9, 1953, Serial No. 360,455 1 Claim. (Cl. 15-31)

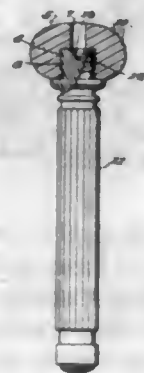


In a shoe polishing stand, the combination which comprises a housing having a base, side and end walls and a horizontally disposed upper panel, said upper panel having a foot receiving opening therein, a seat on the upper panel positioned whereby a foot of a customer on the seat may be inserted through the opening of the upper panel, said housing having an upright section positioned forwardly of the opening in the upper panel, a liquid polish tank mounted in the upright section of the housing whereby the polish is retained in close proximity to a shoe of a foot extended through the opening of the upper panel, a spray nozzle carried by a connection extended from the lower end of the liquid polish tank and the nozzle being positioned to spray liquid polish upon a shoe of a foot extended through the opening of the upper panel, a solenoid actuated valve in the connection from the tank to the spray nozzle, a stationary foot rest mounted in the housing and positioned to receive a foot extended through the opening of the horizontally disposed panel, parallel bars mounted in the housing and positioned on opposite sides of the foot rest, oppositely disposed brushes carried by blocks slidably mounted on said bars, a shaft rotatably mounted in said housing, discs having pins eccentrically positioned thereon rotatably mounted in the housing on an axis transversely disposed with respect to said parallel bars, means operatively connecting the discs to the shaft, the blocks on which the brushes are carried having pins extended therefrom, levers pivotally mounted in the housing and having slots in which pins extended from the brush carrying blocks are positioned, the levers being positioned to be engaged by the pins extended from the discs whereby upon rotation of the shaft the levers are actuated to slide the brush carrying blocks so that the brushes brush the sides of a shoe positioned on the foot rest, a spring in the housing with one end connected to the housing and the other to the upper ends of the levers for returning the levers and brushes, a cam shaft rotatably mounted in the housing and operatively connected to the transversely disposed shaft, a cam mounted on the cam shaft, a bracket slidably mounted in the housing and having a brush carrying arm extended therefrom, a brush on the extended end of the brush carrying arm, the cam on the cam shaft being positioned to engage the bracket for actuating the bracket to move the brush on the arm over a shoe on the foot rest, a spring mounted in the housing and connected to the bracket for actuating the bracket to return the brush, means for rotating the cam shaft, and means actuated by the rotating means of the cam shaft for providing pressure in the liquid polish tank.

2,818,590 APPLICATOR-DISPENSER Jacob W. Waddell, Waverly, Ohio Application September 2, 1953, Serial No. 378,106 1 Claim. (Cl. 15-104)

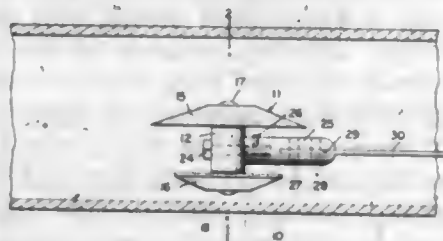
An article of the class described comprising an applicator head of generally oblate spheroidal form throughout

and having a socket in one flattened side and an opening from said socket to its opposite side, the surface of the head having a smooth circular area immediately surrounding said opening and a concentric area outwardly of said circular area and extending downwardly along the sides of said head which is provided with smooth, rounded annular ribs, the side wall of said socket having a screw-thread adapting said head for application to a container



of deodorant, whereby said opening may be filled with the deodorant, and an operating handle for said head, said handle having a threaded terminal receivable in said socket, and a seat portion engaged by the adjacent side of the head and said threaded terminal of said handle having a cavity centering on the head opening to receive surplus deodorant when screwing said head onto said handle.

2,818,591
SEWER CLEAN-OUT CUTTER
John N. Joynes, London Bridge, Va.
Application February 21, 1957, Serial No. 641,633
8 Claims. (Cl. 15-104.3)

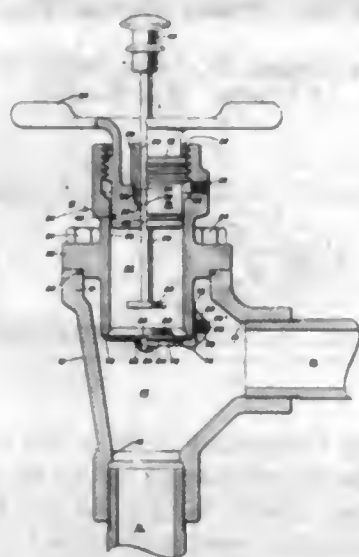


1. A sewer line cleaner comprising an enlarged hub having axle extensions projecting from opposite sides thereof, a cutter disc journaled on each of said extensions, one of said discs being of a diameter substantially equal to the inside diameter of a sewer line in which the cleaner is to be used, and the other cutter disc being of substantially smaller diameter than the first mentioned disc and spaced therefrom a predetermined distance to place said other disc within a sewer line so as to engage the inside surface thereof, and a flexible member secured to said hub for imparting longitudinal movement to said cleaner.

2,818,592
SOLUBLE PLUG INJECTOR
Domer Scaramucci, Oklahoma City, Okla.
Application April 25, 1955, Serial No. 503,510
10 Claims. (Cl. 15-104.06)

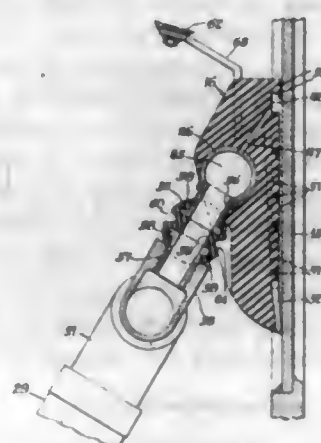
1. A soluble control plug injector having a valve housing body provided with a flow chamber having flow ports extending at an angle to each other and a plug chamber extending into the flow chamber in spaced alignment with one of the flow ports and terminating in an inner open end; an outwardly opening check valve closing said open end; and a closure plug in the other end of the plug chamber progressively advanceable to impose pressure on fluid

confined within the plug chamber for balancing the pressures between the plug chamber and the flow chamber,



said closure plug including means for ejecting a plug from the plug chamber.

2,818,593
WINDOW WASHER
Karl A. Klingler, Naperville, Ill.
Application September 26, 1952, Serial No. 311,564
8 Claims. (Cl. 15-127)

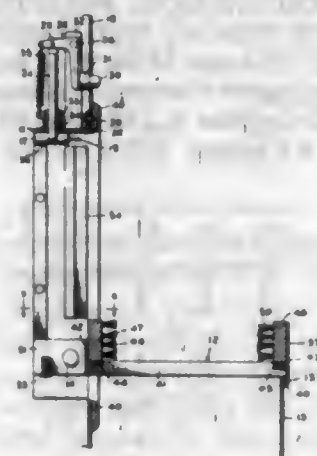


1. In a surface cleaning device, the combination of a head of resilient material having a chamber therein for containing a cleaning liquid and provided with a rectilinear portion defining a cleaning face comprising a central area of spaced apart ribs having longitudinal faces aligned in a single plane and forward, aft and side marginal portions surrounding said ribbed central area, a marginal rib extending along said forward and side marginal portions in spaced relation to said central area of ribs and cooperating therewith to provide a liquid distributing channel communicating with the spaces between the ribs of said central area, the said marginal rib normally projecting beyond the plane of the central ribbed area but being compressible to permit said central area of ribs to engage the surface to be cleaned, passageways leading from said chamber to said liquid distributing channel, and means for manipulating said head across the surface to be cleaned and for delivering cleaning liquid under pressure to said chamber.

2,818,594
AUTOMOBILE FOOT SCRAPER
Durham Boykin Dawkins, Alexandria, Va.
Application July 13, 1955, Serial No. 521,723
4 Claims. (Cl. 15-237)

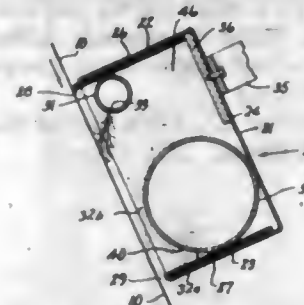
1. In a device of the kind described, a frame adapted to be let into the inside of the door of an automobile and to occupy a substantially upright position therein

and having upper and lower portions, a shoe cleaning platform receivable in an upright position thereof in said frame and having upper and lower portions, the lower portion of the platform pivoted in the lower portion of said frame to swing out to a substantially horizontal position, said platform having slots therethrough to permit the scrapings to fall to the ground, scraper means on the platform spaced by the slots, a solid cover adapted to occupy a substantially upright position outwardly of the frame and platform in the upright positions of said



frame and platform and having upper and lower portions, the upper portion of the cover pivoted to the upper portion of the platform to swing outwardly and downwardly with the platform and also to pivot with respect to the platform to preserve the upright position of the cover in the horizontal position of the platform to thereby open the slots of the platform, and a cover stop on the platform located in the upright position of the platform to be engaged by the cover in its position outwards of the frame and platform.

2,818,595
APPARATUS FOR CLEANING PAPER FOR PRINTING
Paul S. Rosewall, Chicago, Ill., assignor to Oxy-Dry Sprayer Corporation, Chicago, Ill., a corporation of New York
Application September 11, 1953, Serial No. 379,593
6 Claims. (Cl. 15-306)



1. Apparatus for removing dirt from paper as it is being fed to a printing press, said apparatus comprising means for feeding and guiding a web of paper, an elongated metal housing having a U shaped cross section, said housing having the length thereof extending across the web, felt strips disposed on the insides of the arms of the U and extending beyond the free edges of the housing, said housing being open only at the side opposite the bottom of the U, a compressed air pipe disposed within said housing along one side thereof and having air discharge openings facing the paper, said air discharge openings extending along a line across the web and being so oriented as to also face the opposite side of the housing, a suction pipe of substantially larger cross sectional area than the air pipe disposed within the housing and separated from the air pipe, said two pipes extending across the web, said suction pipe having the portion facing the paper bulged out toward the paper, said suction pipe hav-

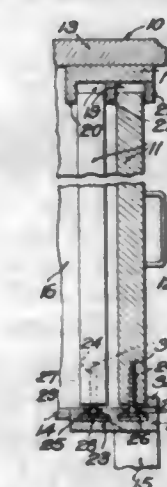
ing suction openings only along a narrow region extending the full length of the suction pipe with the openings being disposed in the portion of the pipe between the adjacent housing side and the said bulged out part of the pipe so that the suction openings face the adjacent felt strip, the housing providing a substantial region within the housing and outside of the two pipes, said region having substantial width and depth whereby air emerging from the compressed air pipe will dislodge dirt from the paper surface and the suction slots will remove the same.

2,818,596
SUCTION CLEANER CLAMP CONSTRUCTION
Eugene F. Martinez, East Cleveland, Ohio, assignor to Health-Mor, Inc., Chicago, Ill., a corporation of Illinois
Application May 20, 1955, Serial No. 509,758
10 Claims. (Cl. 15-327)



1. A clamp for a tank-type suction cleaner having a top closure with a clamp-receiving means and mounted on a dolly, including a laterally rigid spring secured at one end to the cleaner tank, the other end of the spring being bent outwardly of the tank and terminating in a bearing loop, a clamp link pivotally connected at one end to the bearing loop, a rigid clamp member pivotally connected to the other end of the clamp link, the clamp member having a first hook engageable with the means on the top closure, the dolly having a clamp-receiving means, and a second clamp hook on the clamp member engageable with the clamp-receiving means on the dolly.

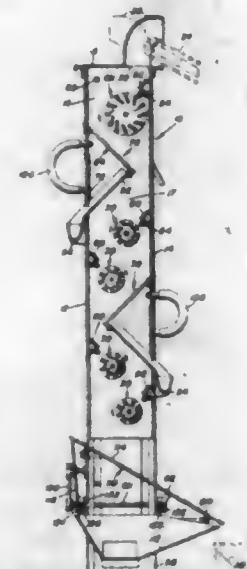
2,818,597
ADJUSTABLE GUIDE AND TRACK FOR SLIDING DOOR
Victor J. Bukolt and Albert A. Jurgella, Stevens Point, Wis.
Application February 4, 1954, Serial No. 408,096
4 Claims. (Cl. 16-87)



1. An adjustable guide and track means for a horizontally sliding door of a cupboard or like article of

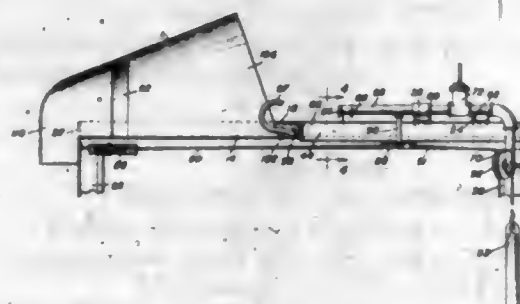
furniture comprising a horizontally disposed track member having in its top a longitudinally extending track-forming channel with a bottom and opposed sides, and at least two rigid elements adapted to extend downwardly from the bottom of a door at longitudinally spaced points, the lower projecting portions of said elements extending into said track channel and being slidable therein with their lower extremities resting on the bottom of the track channel to sustain the weight of a door, the opposite sides of the channel preventing lateral movement of the lower end of the door, at least one of said elements being a wood screw adapted for threading in the bottom of a door and adjustable to permit tilting of the door in its vertical plane.

2,818,598
OYSTER SHUCKING MACHINE
Raphael Q. Skrimetta, New Orleans, La.
Application February 16, 1956, Serial No. 565,916
20 Claims. (Cl. 17—9)



1. An oyster shucking machine comprising means defining a conveyor passage for the oysters to be shucked, means operatively associated with said conveyor passage means for delivering oysters thereto, rotatable impact means in said conveyor passage means for forcefully engaging said oysters to strike the shells and dislodge the meat therefrom and separating means associated with said conveyor passage means for separating and removing said meats from said shells.

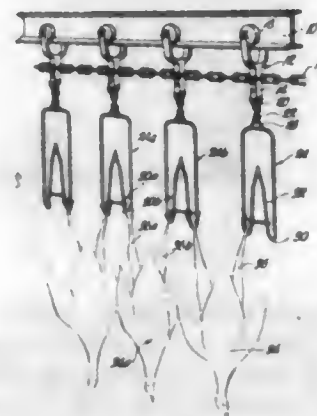
2,818,599
POULTRY EVISCERATOR
Russell F. Howe, Eagle, Mich.
Application April 23, 1956, Serial No. 580,004
8 Claims. (Cl. 17—11)



1. As a new article of manufacture, a poultry eviscerating device comprising a table having a top, sides on said top extending upwardly thereof, a track on said table, a nozzle, means including a slide mounting said nozzle for sliding movement on said track, said track extending longitudinally of said table, means carried by said table to support poultry in advance of said track

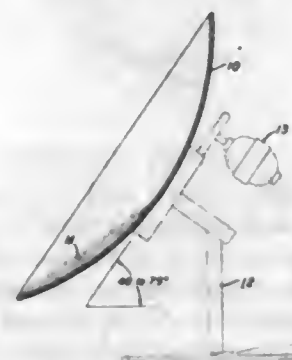
and nozzle so that upon movement of the nozzle the discharge end thereof moves into the poultry, means connected to said slide to move said slide and said nozzle on said track so that said nozzle may be so moved into the poultry, a conduit connected to said nozzle, and a valve in said conduit to regulate the passage of liquid through said nozzle and the poultry at the discharge end thereof.

2,818,600
METHOD OF CONVEYING POULTRY THROUGH PROCESSING EQUIPMENT
Ralph S. Zebarth, Hickman Mills, Mo., assignor to Gordon Johnson Equipment Company, Kansas City, Mo.
Application December 6, 1954, Serial No. 473,309
4 Claims. (Cl. 17—45)



1. In a method of processing a series of birds aligned in flank-to-flank relationship within a predetermined path of travel which includes connecting each leg of each bird with one leg of a bird next adjacent thereto in pairs while separately and individually suspending each interconnected pair of legs for substantially free swinging movement; and pulling the birds along said path of travel whereby pulling forces are transmitted from bird to bird throughout the series and the legs of each bird are stretched apart under influence of such forces while the birds are held against relative separation and against rotation.

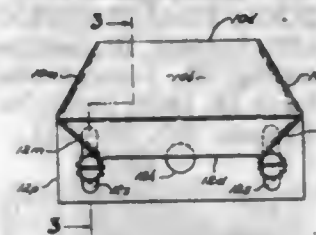
2,818,601
DISC-TYPE BALLING DEVICE
Jagdish C. Agarwal, Penn Township, Allegheny County, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application October 27, 1955, Serial No. 543,059
2 Claims. (Cl. 18—1)



1. A disc-type balling device adapted to roll moist pulverulent solids into balls each about 1/8 to 1 inch in diameter comprising a smoothly and uniformly curved dish of circular outline, means supporting said dish for rotation about its central axis and with a plane tangent to the dish at its central axis sloping at about 40 to 75° to the horizontal, the lowest point on said dish being located on its outer circumference, the depth of the dish equalling one-fourth to three-fourths the maximum radius multiplied by the tangent of the angle of repose of the balls, and power means for rotating said dish at a rate which retains

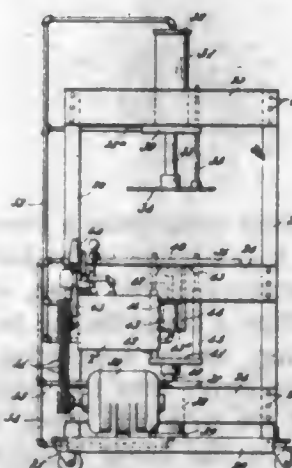
pulverulent solids on the dish until they accrete into balls and which discharges balls from the bottom portion of the dish.

2,818,602
PUTTY TOOL
Stephen J. Haretk, Maple Heights, and
Irvin W. McCulley, Cleveland, Ohio
Application April 18, 1956, Serial No. 578,980
2 Claims. (Cl. 18—3.5)



1. A tool for smoothing putty on a pane and sash, comprising a planar guide surface adapted to travel along the sash parallel to the pane, a planar putty smoothing surface having a distal edge adapted to be located closely adjacent the pane, and connecting means adjustably connecting said surfaces for permitting adjustment of the protrusion of the distal edge from said guide surface while maintaining a given angle between said surfaces, said connecting means extending away from said surfaces to serve as a handgrip portion during tool manipulation, both of said surfaces having leading and trailing edges curved out of the plane of their respective surfaces with each edge beveled at an obtuse angle with its associated distal edge for respectively guiding the travel of said tool and for forming a properly mitered corner on the putty in all positions of protrusion adjustment.

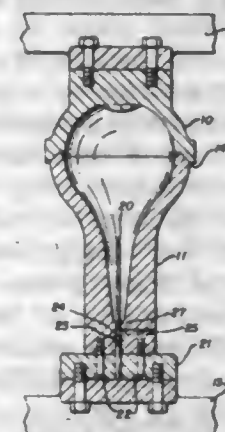
2,818,603
MACHINE FOR MOLDING RUBBER SHOE-SOLES
Ernest W. Dunbar, Taneytown, Md., assignor to Cambridge Rubber Company, Taneytown, Md., a corporation of Maryland
Application April 12, 1955, Serial No. 500,881
7 Claims. (Cl. 18—17)



1. In combination, in apparatus designed for use in forming rubber shoe soles, a rigid horizontal mold-supporting table, a rigid mold frame mounted on the table, the mold frame having an opening therethrough from top to bottom whose edge wall conforms to the contour of the sole to be formed, a cover for the frame having a lower surface which in reverse is a replica of the bottom surface of the desired sole, the cover being of such horizontal extent that it may rest upon the upper edge of the mold frame and completely close the opening at its top, a bottom plate whose edge is contoured and dimensioned so that the plate may fit within the lower part of the opening in the mold frame while resting on the upper surface of the table and thereby form a floor for a mold cavity whose side wall is provided by the frame and whose top wall is the cover plate, means for moving

the cover plate downwardly into contact with the upper surface of the frame and for holding it in contact with the frame under heavy pressure, means for moving the bottom plate upwardly in the opening in the mold frame for a predetermined distance thereby to conform moldable material resting on the bottom plate to the shape of the mold cavity and to a predetermined thickness, and means operative to move the bottom plate further up in said opening in the frame after the cover has been raised thereby to eject the formed sole from the opening in the frame.

2,818,604
BLEEDER PASSAGE MOLD FOR FORMING HOLLOW PLASTIC ARTICLES
Theodore A. Miller and Theodore A. Miller, Jr.,
Cuyahoga Falls, Ohio
Application January 7, 1955, Serial No. 480,367
2 Claims. (Cl. 18—39)



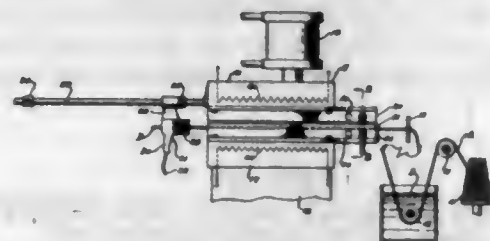
1. A mold for forming a hollow bulb having a substantially spherical hollow body and a long tubular neck portion providing the only aperture thereto by deposit, gelling, and thermosetting of a liquid dispersion of thermosetting material, said mold comprising a mold member having a substantially hemispherical cavity, a complementary mold member having a deep cavity with a conical portion merging into a substantially hemispherical portion at the meeting plane of the mold members, said conical portion terminating in a cylindrical bore of small diameter, a cylindrical pin having an axially inner end smaller in diameter than said bore and extending axially through the conical portion of said complementary mold member to a position beyond the path of flow of the liquid dispersion, the space between said pin and said bore providing a vent passage for venting air from the conical portion of the cavity, said pin having an axially outer end of greater diameter than the axially inner end thereof engaging the wall of said cylindrical bore to center said pin in said bore, and a vent to the atmosphere in said complementary mold member connecting with said vent passage.

2,818,605
METHOD OF MAKING A REFRACTORY MATERIAL
Herbert I. Miller, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application June 23, 1949
Serial No. 100,963
3 Claims. (Cl. 18—55)

1. The process which comprises intimately mixing powders consisting essentially of a refractory oxide of a metal selected from the group consisting of thorium, uranium and plutonium and of beryllium oxide, adding paraffin to the mixed powders, compacting the mixture under pressure of 5000 p. s. i., heating the compact to drive off the paraffin and then heating in the presence of air the compact to at least the sintering temperature to form a unitary structurally strong compact.

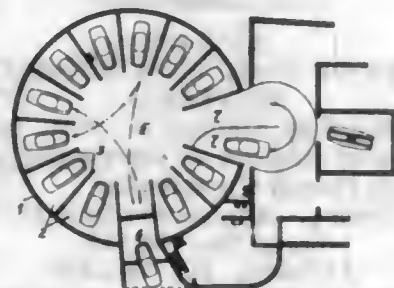
2,818,606 MANUFACTURE OF ARTICLES FROM THERMOSETTING MATERIALS

Roger B. White, Cleveland, Ohio, assignor to The Glastic Corporation, Cleveland, Ohio, a corporation of Ohio
Application October 27, 1952, Serial No. 317,076
2 Claims. (Cl. 18-55)



1. A method of manufacturing continuous lengths of a hardened thermosetting-plastic-impregnated-fiber rod in a mold cavity having a length less than that of the rod, comprising: providing a mold having an elongated mold cavity of a cross-sectional shape of the desired cross-sectional shape of the rod, such mold cavity having open entrant and exit ends, positioning a length of fiber impregnated with a thermosetting plastic material in said cavity and extending beyond both said ends, the plastic extending beyond the exit end being cured, the plastic extending beyond the entrant end being uncured, the cross-sectional area of the impregnated fibers extending beyond the entrant end being greater than that of the mold cavity such that portions of the plastic will be scraped or squeezed off onto the entrant end of the mold adjacent the cavity as impregnated fibers are pulled into the mold cavity, heating the surfaces of said mold cavity spaced from the entrant end thereof to a temperature above the curing temperature of said plastic in the desired time cycle of the molding operation, allowing the plastic-impregnated fibers to remain stationary for such time cycle and curing and then pulling the hardened plastic-impregnated fibers from the exit end of the cavity while simultaneously pulling in unhardened plastic-impregnated fiber into the entrant end, the act of pulling in the unhardened plastic into the entrant end scraping and squeezing off unhardened plastic onto the entrant end of said mold and continuously cooling the entrant end of said mold to a temperature below the partial curing temperature of the plastic so that the scraped or squeezed off plastic does not cure and will not be dragged into the mold cavity.

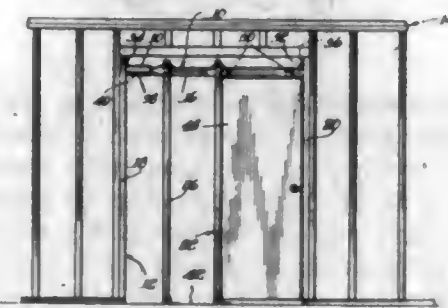
2,818,607
GARAGE INSTALLATION
Venantius Maissen, Chur, Switzerland
Application May 11, 1954, Serial No. 429,091
Claims priority, application Switzerland May 11, 1953
2 Claims. (Cl. 20-1.13)



1. In a building for storage purposes, a casing having an integral structure; said casing comprising a cylindrical outer side wall, a planar floor joined to the base of said wall, a flat continuous disc-shaped ceiling joined to the top edge of said wall, one or more horizontally extending disc-shaped intermediate layers defining superjacent stories, each of said stories having a plurality of spaced bearing partitions extending radially inwardly from said

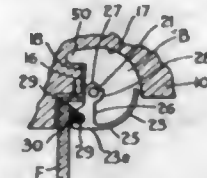
outer wall and joining opposed horizontal layers, said partitions terminating at a fixed distance inwardly of the wall to define a central circular maneuvering space in each story; at least one opening from the outside of the casing communicating with the circular space in one of said layers, and ramp means joining the maneuvering space of each of said stories.

2,818,608
SLIDING DOOR FRAME STRUCTURE
Edwin F. Lawrence III, Sterling, Ill., assignor to Lawrence Brothers, Inc., Sterling, Ill., a corporation of Illinois
Application March 29, 1956, Serial No. 574,727
9 Claims. (Cl. 20-11)



1. A knockdown door frame structure comprising header means adapted to be mounted in a horizontal position, attachment plate means on said header means and including portions with openings therethrough extending laterally and inclined upwardly from opposite sides of said header means, and a pair of separate jamb members having upper end portions extending through said openings and removably bound between laterally inner and outer margins of the openings of said plate means portions.

2,818,609
METAL SWING WINDOW STOP
Helmer Birkebeck Nielsen, Haney, British Columbia, Canada
Application October 11, 1955, Serial No. 539,798
14 Claims. (Cl. 20-52)

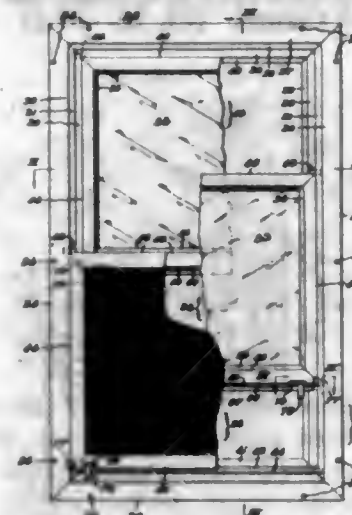


1. A window structure comprising a frame having side jambs each provided with parting strips and formed with vertically disposed recesses spaced from, and located in front of the parting strips, a cover for the recesses adapted to form a window stop, means supporting the cover to permit rotation of the cover into the recess, a window pane located between the strip and cover, and a resilient means adapted to press the cover against the window pane.

2,818,610
STORM WINDOWS
Charles P. Pengelly, Merchantville, N. J., assignor to Air Master Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application July 15, 1954, Serial No. 443,605
5 Claims. (Cl. 20-55)

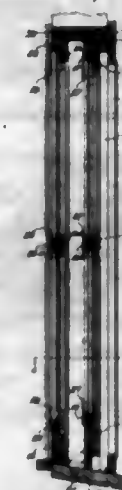
1. A storm window comprising a frame; a pair of guideways formed in the frame; a removable sash being of less width than the distance between said guideways; upper guide means mounted on each side of the sash and extending oppositely and laterally from the sash and normally positioned within the guideways; and lower guide, wedging and removal means comprising bolt means retractably and rotatably connected to the sash and normally extend-

ing laterally from the sash; a bolt head comprising curved wedge means formed on the outer end of the bolt means and normally positioned within the guideway, said curved wedge means being rotatable to a guideway locking or unlocking position; and spring means urging the bolt head



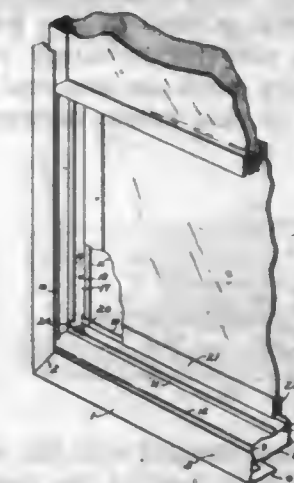
laterally away from the sash, said spring means also urging said curved wedge means into the guideway unlocking position to allow for sliding the sash within the guideways, said bolt means being retractable to provide for clearing said bolt head from said guideway for inserting or removing the sash from the frame.

2,818,611
PRIME AND STORM WINDOW COMBINATION
Fred Michael Andree, Youngstown, Ohio
Application March 2, 1955, Serial No. 491,629
4 Claims. (Cl. 20-55)



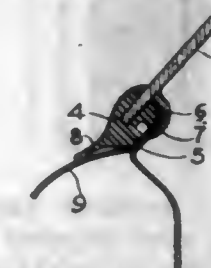
1. In a combination prime and storm window unit having a rectangular frame formed of oppositely disposed jambs, a sill and a jamb header, the oppositely disposed jambs having their inner surfaces formed in a plurality of steps and the jamb header having its lower surface formed in a plurality of steps, an outer casement frame hinged at one of its side edges to one of said steps on one of said jambs and an inner casement frame hinged at its side edges to another of the steps on one of said jambs, said casement frames being spaced with respect to one another, a transversely extending vent piece hinged to said sill beneath the outer casement frame and registrable therewith when in upright position and movable to a retracted position on said sill, said hinged vent piece engaging and retaining said outer casement frame when said vent piece is in upright position, a stool on said sill underlying and engaging said inner casement frame and spaced inwardly of said hinged vent piece, and registering weather strip formations on said stool and said inner casement frame.

2,818,612
STORM WINDOW CONSTRUCTION
Bernard E. Mendelsohn, Newton, Mass.
Application January 6, 1956, Serial No. 557,705
6 Claims. (Cl. 20-55)



2. A storm window construction comprising a closed frame with four sides having channels formed therein on each side and on the base, removable side channel members positioned longitudinally in the side channels and an inverted removable channel member in the base of the frame, a window element slideable longitudinally in said removable side channel members, and a pin at either side of the frame positioned below the top element of the inverted channel member providing means on which said window element may be pivotally swung subsequent to removal of said channel members.

2,818,613
FITTING OF PANES OF GLASS IN MOTOR
VEHICLES
Lucien Peras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, and Roger Petrigiani, La Rochelle, France
Application November 22, 1955, Serial No. 548,467
Claims priority, application France December 9, 1954
7 Claims. (Cl. 20-56.4)

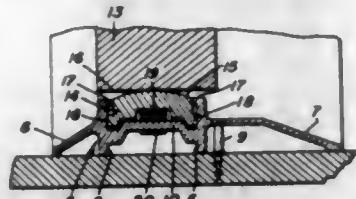


1. In a vehicle body construction having an opening for a transparent panel, a transparent panel in said opening, the body having a raised border portion extending at least about a part of the opening and defining a predetermined angle relative to the rest of the body, said predetermined angle substantially determining a plane in which said panel is disposed relative to the body, a resilient retaining strip disposed for resiliently and detachably holding said panel over the opening, said strip having a recess for receiving the panel and means for releasably engaging said border portion, said panel being larger than said opening and being disposed externally of said raised border portion, whereby said panel is removable only by a force having a predetermined value and being directed in an outward direction relative to said body.

2,818,614
THRESHOLD
Frank Lapka, Jr., Belleville, Ill.
Application July 23, 1956, Serial No. 599,609
2 Claims. (Cl. 20-64)

1. A threshold of the character described comprising: a bar of substantially H-shaped transverse section includ-

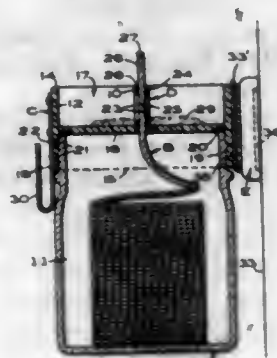
ing a raised longitudinal central portion having a notch in one end, a longitudinal sealing strip mounted for vertical reciprocation in the upper channel portion of the bar and engageable beneath the lower edge of a door, an undulated flat spring mounted longitudinally on said raised central portion of the bar and engaged beneath the sealing strip for yieldingly urging same upwardly, an anchoring hook on one end of said spring releasably engaged in said notch, outwardly and down-



wardly inclined flanges integral with the sides of the bar, and means for positively limiting the upward movement of the sealing strip, said means including intumed flanges on the upper portion of the bar having constant wiping contact with vertical surfaces of said strip, and downwardly offset flanges on the longitudinal marginal portions of the sealing strip movable beneath the second-named flanges and having constant sliding dust-proofing contact with the interior surfaces of the side walls of said upper bar portion.

2,818,615 DEODORIZER

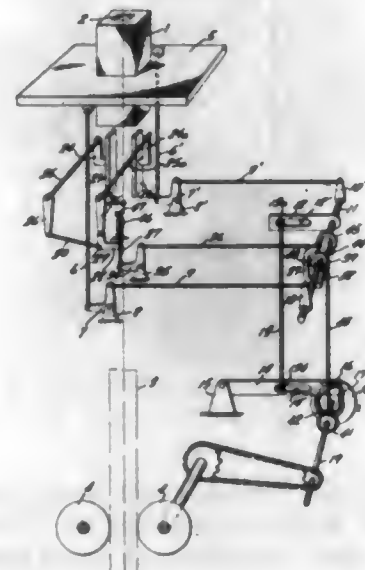
Robert E. Burness, San Francisco, Calif.
Application April 15, 1955, Serial No. 501,527
2 Claims. (Cl. 21-111)



1. In a deodorizer: a container having a supply of combustible deodorizing cord disposed therein; a cover defining an annular wall of substantial height, and having top and bottom rims; the cover including a horizontal partition extending across the annular wall, and being disposed substantially midway between the top and bottom rims thereof, thereby defining upper and lower recesses arranged above and below the partition, respectively; the lower recess being dimensioned to removably receive an upper neck portion of the container, with the partition providing a closure over the container; a vertically-arranged tube supported by the partition to extend thereabove, and having a bore through which the cord may be guided from the container to a position exterior of the cover, whereby a projecting end of the cord may be ignited to produce deodorizing fumes; the tube being disposed substantially centrally of the partition and spaced from said annular wall, with the upper recess extending circumferentially therearound; the entire partition from the tube to the annular wall being imperforate, whereby the upper recess provides an ash receptacle surrounding the tube on all sides of the latter for receiving and retaining embers and ashes of the cord; the annular wall extending to at least the elevation of the upper end of the tube to provide a protective barrier to confine the embers and ashes in the ash receptacle.

2,818,616 APPARATUS FOR THE CONTINUOUS CASTING OF METALS

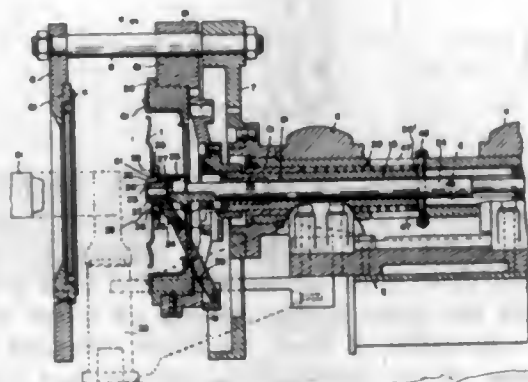
Irving Rossi, Morristown, N. J., assignor to Continuous Metalcast Co., Inc., Wilmington, Del., a corporation of Delaware
Application July 15, 1954, Serial No. 443,485
3 Claims. (Cl. 22-57.2)



2. Apparatus for the continuous casting of metals comprising a casting mold having a mold passage extending therethrough into which molten metal may be poured and from which a partially solidified casting may be withdrawn, a pair of cooling aprons located below the exit end of said mold passage, means to withdraw the casting from the mold, and means operated by said withdrawing means in timed relation thereto to cause said aprons to engage said casting and to move with the casting while they are held in engagement therewith and to disengage said casting and move in an opposite direction while they are disengaged from the casting.

2,818,617 WORK CHUCK

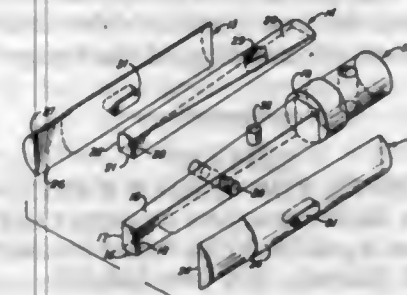
Edgar F. Caswell, Detroit, Mich., assignor to Kelsey-Hayes Company, a corporation of Delaware
Application October 10, 1955, Serial No. 539,403
11 Claims. (Cl. 22-58.5)



1. A work chuck comprising a reciprocable member having an abutment engageable with one side of a work part for advancing the same upon advance of said reciprocable member, a second member having an abutment engageable with a corresponding side of a second work part, and clamping means operated by advance of said reciprocable member and engageable with the other side of the second work part to clamp the latter against said second-mentioned abutment, the first-mentioned work part being advanced by said reciprocable member into engagement with the second work part after clamping of the latter by said clamping means.

2,818,618 FOUR-PART CORE PIN

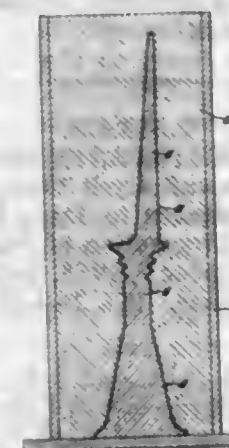
James W. Winship, Lake Orion, and Raymond C. Schumacher, Detroit, Mich., assignors to Bohn Aluminum & Brass Corporation, a corporation of Michigan
Application September 7, 1955, Serial No. 532,998
4 Claims. (Cl. 22-173)



1. A collapsible core pin which consists of only four individual parts as follows: a main core piece composed of a rounded lower face, a flat upper face, and two flat lateral faces, all of said flat faces tapering toward each other going toward the free end of the core, a top core piece slidable on the flat upper face of the main core piece, the top core piece having its lateral sides tapered inwardly corresponding with the taper of the lateral faces of the main core piece, and having an upper rounded face which tapers conversely to the taper of the flat upper face of the main core piece, the top core piece being formed with a slot, the main core piece carrying a pin which engages in the slot of the top core piece to provide for limited movement of the top core piece relative to the main core piece, a pair of side core pieces, each of the side core pieces being formed with a slot which is longer than the slot in the top core piece, the main core piece carrying a pin which passes through the main core piece and projects on both sides of the main core piece and engages in the slots of the side core pieces to permit the side core pieces a greater travel than the top core piece relative to the main core piece, whereby the core is permitted to collapse on two axes which are at right angles to each other.

2,818,619 REFRACTORY MOLD, METHOD OF MAKING SAME AND COMPOSITION THEREFOR

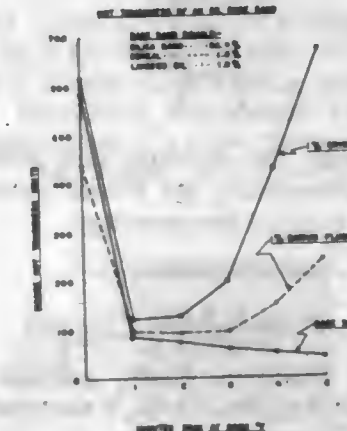
James P. Bradley and Robert R. Dohrmann, Bedford, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 31, 1957, Serial No. 637,586
9 Claims. (Cl. 22-193)



1. A mold composition consisting essentially of a mixture of an ethyl silicate solution and a grog comprising, by weight, approximately 65% to 90% of a pulverized fire clay, 9% to 34% of a finely comminuted refractory material, a small but effective amount of borax glass not in excess of 2%, and 0.15% to 1.5% of a setting accelerator for the ethyl silicate solution.

2,818,620 METHOD OF IMPROVING FOUNDRY SAND CORES

William H. Moore, Larchmont, N. Y., assignor to Meehanite Metal Corporation, a corporation of Tennessee
Application November 20, 1953, Serial No. 393,275
2 Claims. (Cl. 22-194)



1. The method of improving the hot strength of a sand core adapted for use in the casting of ferrous metals comprising adding to the sand mixture used for making said core, a preselected compound from the group consisting of an alkaline earth, and alkali metal fluoride in the range of from one-eighth percent by weight to three percent by weight, said sand mixture consisting essentially of sand and a binder from the group composed of cereal, oil, natural resin and clay, molding said core and heating said core to a temperature sufficient to render said binders effective but insufficient to render said fluoride effective.

2,818,621 HOLDER FOR EYEGLASSES

Anne A. Pretz, Bay Village, Ohio
Application September 15, 1955, Serial No. 534,511
2 Claims. (Cl. 24-13)

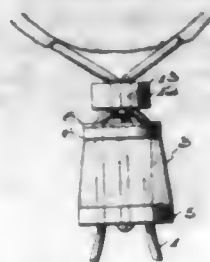


1. A carrier device for eyeglasses, comprising a tube having spaced openings in its rear wall, a pair of rings mounted in the openings, at least one other pair of rings supporting the first pair of rings, an ornamental pin having means secured to the second pair of rings, whereby said pin, when mounted on a garment of a user, is adapted to maintain the tube in substantially vertical position, with the rear wall of the tube abutting the garment of the user, whereby the tube is capable of free pivoting movement for positioning a temple of the eyeglasses within the holder.

2,818,622 BAG CLOSURE FASTENER

Merton L. Clevett, Jr., East Natick, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application November 17, 1954, Serial No. 469,568
4 Claims. (Cl. 24-30.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)
2. In combination with the drawstrings of a bag or the like, a fastener including an elastic member having a pair of spaced elongated openings normally of a diameter to

snugly and slidably receive the respective ends of the drawstring, washers on the opposite ends of said elastic



member, and means for drawing said washers toward each other for compressing the elastic member endwise and collapsing the walls of the openings.

2,818,623 BUCKLE

Edwin C. Elsner, Glendale, Calif., assignor to McJohn Corporation, Los Angeles, Calif., a corporation of California

Application July 12, 1954, Serial No. 442,822
7 Claims. (Cl. 24-75)



1. A buckle comprising two buckle parts, one part being provided with a bend, said parts interfitting each other in a plane parallel to the line of pull between said parts, a pivotal member movable in a plane transverse to said line of pull having a portion disposed between said abutment and said bend and carried by the part having the bend, said portion having an edge in abutment with said transverse abutment of said one part and an end engaged with said bend of the other part, said portion being disposed between said transverse abutment and said bend to hold the parts against longitudinal separation during engagement of the abutment and the abutment edge, spring means biasing the member in a direction to engage the edge thereof against said abutment, and said member being provided with a handle remote from the end thereof engaged with the bend and manually movable against the biasing force of the spring means to move the edge of said member out of abutting engagement with the transverse abutment.

2,818,624 HANGER

Henri André Fauteux, Hawkesbury, Ontario, Canada
Application February 3, 1953, Serial No. 334,913
3 Claims. (Cl. 24-137)



1. A hanger for suspending articles of apparel and the like comprising a body portion formed of relatively thin flexible material having a depending tongue lying within and surrounded by said body portion and free from said body portion on its opposite sides and bottom edge, the bottom edge of said tongue having a downwards and rearwardly sloping bevel that reaches below

the confronting and correspondingly bevelled marginal edge of the body portion whereby the tongue is hingeable rearwardly but is precluded from swinging forwardly through the body portion and serves to clampingly grip an inserted portion of a garment or the like through the body portion between the bevelled end of the tongue and the confronting edge of the body portion and a hook at the top for supporting said body and having transversely curved portions on opposite sides tending to bind on a line to prevent the creeping of the hanger suspended from the line.

2,818,625 TAPE CLOSER FOR SLIDER FASTENERS Monte Sinderman, Los Angeles, Calif. Application April 26, 1954, Serial No. 425,350 2 Claims. (Cl. 24-205.11)



1. In a slide fastener having opposed teeth racks and a slide received by said teeth racks for moving the racks into interlocking relationship, each of said teeth racks having a flexible bead portion and a plurality of teeth fastened to said bead portion in spaced relationship, the improvement of a combination stop and lock mechanism for locking said teeth racks together adjacent the free ends thereof which comprises: a hook member fastened in gripping relationship to the flexible bead of one of said teeth racks adjacent the last tooth thereof, said hook member having a hook portion formed thereon, and a U-shaped eye member positioned opposite said hook member having end portions and a central interconnecting portion, said end portions of said eye member being fastened in gripping relationship to the other of said flexible beads and positioned opposite said hook member, said eye member forming with the other of said flexible beads an expandable opening for readily receiving said hook portion of said hook member whereby to hold said flexible beads in locking side-to-side relationship, each of said hook and eye members being positioned in the path of movement of said slide for preventing movement of said slide in a closing direction beyond the last tooth of each of said tooth racks.

2,818,626 HIGH STRENGTH FASTENING DEVICE Arthur Henry Ralph and Cyril William Langley, Farnham, England, assignors to Dzus Fastener Co., Inc., Babylon, N. Y., a corporation of New York Application September 9, 1955, Serial No. 533,401 3 Claims. (Cl. 24-221)

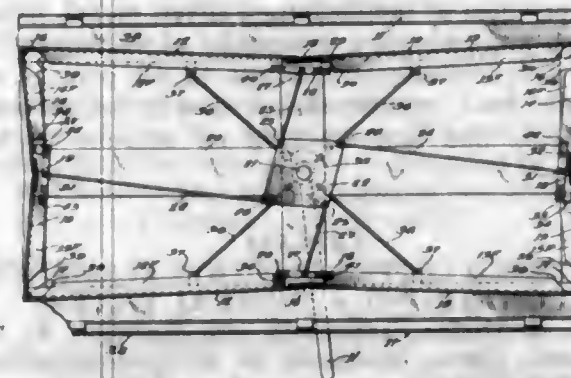


1. In a quick-acting, self-locking fastening device having a stud member formed with a head portion, a shank portion and a spiral cam locking slot extending upwardly from the bottom of the shank portion and a receptacle member formed with a base portion having an aperture

for receiving the shank of the stud member extending there-through with a resiliently mounted locking bar extending across the aperture and interengageable with the spiral cam slot when the stud member is rotated to locked position and which is released from engagement with the spiral cam slot when the stud member is counter-rotated to unlocked position, the improvement which comprises a pair of diametrically opposite laterally projecting lugs formed on the stud member above the spiral cam locking slot, said lugs presenting relatively broad upper surfaces which curve downwardly in the direction of their outer ends and a pair of cooperating rigid members formed on the base portion of the receptacle member and projecting into said aperture in diametrically opposite relationship, said rigid members presenting relatively broad lower surfaces which are curved in a manner complementary with the upper surfaces of the lugs and are interengageable therewith when the stud member is rotated to locked position so as to limit relative movement between the members.

2,818,627 FORMS

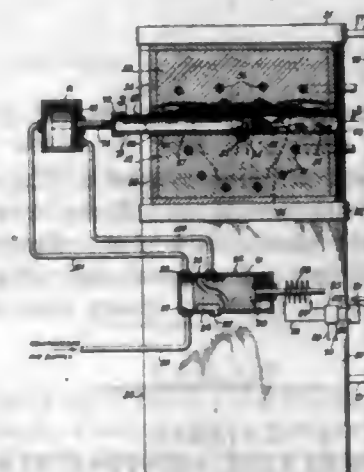
Herman J. Blasius, Forest Park, and Richard G. Reichle, Riverside, Ill., assignors to American Wilbert Vault Corp., Forest Park, Ill., a corporation of Illinois
Application April 7, 1955, Serial No. 499,952
1 Claim. (Cl. 25-128)



A collapsible form for molding a box-like receptacle of concrete or like material comprising upright side walls each including a pair of hingedly interconnected side wall sections, end walls each including a pair of hingedly interconnected end wall sections with the hinges for all of said walls being disposed on the inner sides thereof so as to present substantially smooth outer wall surfaces, and manually operable means for manipulating the said side wall sections and the said end wall sections into and out of collapsed position and into and out of extended or coplanar relationship about their hinged interconnections, said manually operable means including a vertically extending operating shaft arranged centrally within said form, vertically spaced horizontally extending cam plates carried by said operating shaft, each of said side wall sections and each of said end wall sections having a pair of vertically spaced laterally inwardly horizontally extending reinforcing flange members mounted on the inner surface thereof, a pair of side wall pusher bars each having one end portion rigidly attached to one of the said reinforcing flange members on one of said side wall sections at the inner end of said one side wall section, a pair of end wall pusher bars each having one end portion rigidly attached to one of the said reinforcing flange members on one of said end wall sections at the inner end of said one end wall section, push rods radially arranged about said cam plates, each of said pusher rods being pivotally interconnected at its radially outer end to one of said pusher bars and being pivotally interconnected at its radially inner end to one of said cam plates, said pusher bars extending across and spanning the hinged interconnections between said side and end wall sections and being spaced inwardly therefrom, and each

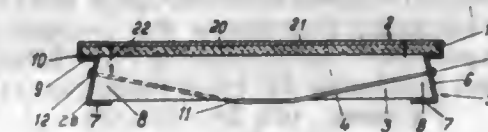
of said pusher bars having a laterally outwardly extending pusher arm arranged thereon at its other end portion so that each pusher bar and arm straddles an associated hinge to engage the adjacent one of said side or end wall sections on the inner surface thereof.

2,818,628 METHOD AND APPARATUS FOR FORMING HOLES IN CERAMIC WARE Richard E. Steele, Worthington, and Andrew R. Blackburn, Westerville, Ohio Application June 17, 1954, Serial No. 437,519 16 Claims. (Cl. 25-129)



9. A method for forming cups with conventional handles attached which comprises placing a mass of plastic ceramic material on a first of a pair of cooperable, permeable die members having opposed, contoured ware-forming surfaces defining a ware-forming cavity in the shape of a cup having a handle appendage attached when the die members are closed, closing said die members to form said mass into the shape of a cup having a handle appendage, moving a porous, fluid permeable punch through said appendage while said cup and appendage remain supported in said mold, forcing fluid under pressure from the interior of said punch outwardly there-through to facilitate removal of said punch without distorting the hole formed in the ware by said punch, withdrawing said punch from said appendage while maintaining at least atmospheric pressure in the hole at the end of said punch, and separating said cup, with handle attached, from said die members.

2,818,629 FORMS FOR CONCRETE STRUCTURES Axel G. W. Wedberg, Hagersten, Stockholm, Sweden Application August 17, 1954, Serial No. 450,348 7 Claims. (Cl. 25-131)



3. In a form for concrete construction, a panel comprising a molding plate supported by side members, cross cleats and tie-bars extending between said side members, said side members being shaped to form longitudinally wedge shaped pockets to receive the end portions of said cross cleats which end portions are complementary to said pockets, each cross cleat having a length greater than the distance between said side members and being mounted to form an obtuse angle at each end to the adjacent side member, each tie-bar being located adjacent to the corresponding cleat and having its central portion extending over the cleat and its two end portions adjacent to the opposite faces of such cleat, and means to secure

such tie-bar end portions to the proximate side members adjacent to the apices of said obtuse angles to thereby lock said cleat in its position between said side members.

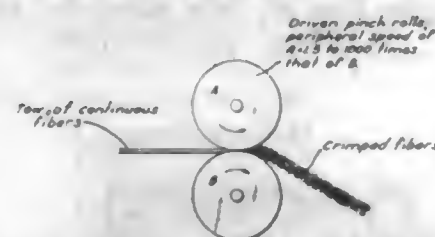
2,818,630

PROCESS FOR CRIMPING FIBERS

Edgar W. Le Boeuf, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application May 10, 1954, Serial No. 428,773

4 Claims. (Cl. 28-72)



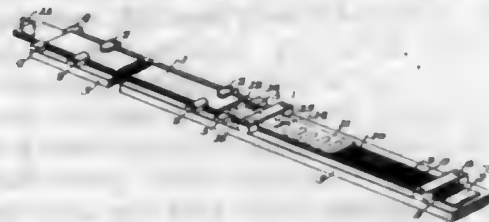
1. A process for crimping synthetic fibers comprising passing a continuous tow of said fibers between the nip of a pair of driven pinch rolls in the direction of rotation of said rolls; one roll of said pair being driven at a peripheral speed at least 1.5 times that of the other roll of said pair.

2,818,631

SHEATHED ELECTRIC HEATING ELEMENTS

Richard Lee Fearn, Homer City, Pa., assignor to Syntro Company, Homer City, Pa., a corporation of Delaware

Application August 16, 1952, Serial No. 304,785
10 Claims. (Cl. 29-155.5)



1. The process of making an electrical heating conductor comprising the steps of attaching electric terminals to the heating conductor ribbon, stacking the conductor between layers of a leached glass fabric backed with flexible metal tape to form an assembly, threading the stacked assembly through a partially flattened tubular sheath which offers some resistance, withdrawing the flexible metal tape leaving the heating conductor sandwiched directly between layers of the leached glass fabric within the tubular sheath, and applying pressure on the tubular sheath to convert the leached glass fabric into a powdered mass.

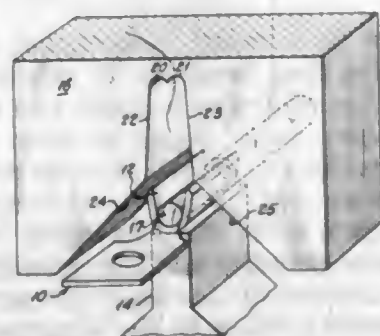
2,818,632

ELECTRICAL CONNECTION AND METHOD

Kemper M. Hammell, Harrisburg, Pa., assignor to AMP Incorporated, a corporation of New Jersey

Application September 24, 1952, Serial No. 311,265

7 Claims. (Cl. 29-155.55)



1. The method of making electrical connection to a conductor which comprises forming a connector of malleable

sheet metal with a ferrule-forming portion U-shaped in cross-section with the sides of the U flared to an inside diameter greater than that of the conductor and the diameter of the conductor being at least as great as the inside diameter at a point half the thickness of the conductor above the bottom of the U, inserting the conductor, and curling together the ends of the projecting sides of the U and driving them against the conductor, and forging at least a portion of the resulting ferrule and conductor to generally rectangular configuration of a width between 80 and 100 percent of the diameter of the conductor plus twice the thickness of the metal of said ferrule-forming portion before said forging and to a height between 60 and 85 percent of said width, said height being measured from the top of said curled ends to the mean depth below the maximum diameter, the forging including conforming the conductor by radial deformation and longitudinal extrusion to the inside surface of the ferrule.

2,818,633

ELECTRICAL CONTACT

Norman S. Hoyer, Pittsburgh, Pa., assignor to Gibson Electric Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application March 2, 1955

Serial No. 491,769

4 Claims. (Cl. 29-182)

1. An electrical contact comprising the pressed and sintered powders of molybdenum, silver, nickel, iron, and lampblack and consisting essentially of 40 percent to 75 percent molybdenum, 25 percent to 60 percent silver, 0.1 percent to 1 percent nickel, iron in an amount up to 1 percent and lampblack in an amount up to 0.5 percent.

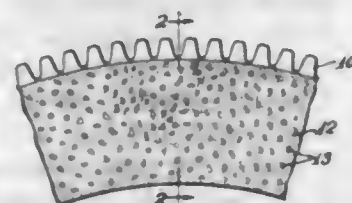
2,818,634

SINTERED COPPER FRICTION ELEMENTS CONTAINING A MINERAL FILLER

Clyde S. Batchelor, Trumbull, and Rudolph E. Steck, Stratford, Conn., assignors to Raybestos-Manhattan, Inc., Passaic, N. J., a corporation of New Jersey

Application March 17, 1954, Serial No. 416,932

3 Claims. (Cl. 29-182.5)



1. A friction element composed essentially of a major portion by volume of nonmetallic inorganic friction material and a minor portion by volume of sintered powdered metal comprising principally copper, providing a continuous metal binder retaining said inorganic material, from about 5% to about 35% by volume of said friction element being composed of relatively large particles of from about 20 to about 60 mesh size substantially uniformly distributed therethrough and selected from the group consisting of wollastonite, spodumene, kyanite, mullite and feldspar, the balance of said inorganic friction material being powdered and of a size all passing a 100 mesh sieve and of a volume smaller than the volume of said powdered metal.

2,818,635

TOOL FOR HUB CAPS

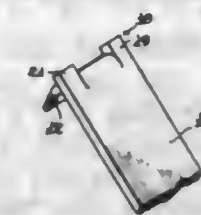
Einar F. Carlsen, Chicago, Ill.

Application August 27, 1954, Serial No. 452,621

1 Claim. (Cl. 29-245)

In a tool for removing a hub cap fastened to an automobile wheel by internal spring clips or the like and positioned on the wheel within a wheel shoulder so that

an annular breach between the outer periphery of the hub cap and the wheel shoulder is provided, the combination comprising a lever having a spade shaped tooth projection at its first end and projecting at a substantially 90° angle thereto and said spade shaped tooth projection extending transversely of the lever for insertion substantially its entire length in the annular breach, said lever having a manual gripping portion at the other end, said projection comprising a tang-like tooth bent from



the central portion of said first lever end and defining on either side thereof a pair of spaced ears, said ears extending the lever axially beyond said projection a distance not greater than the length of said tooth shaped projection and forming a fulcrum point at their transverse end surfaces so that movement of said lever radially outward with respect to said hub cap and around a fulcrum formed by the fulcrum point of the tool and the wheel shoulder will effect a removal of the hub cap from the wheel.

2,818,636

METHOD OF MANUFACTURING REINFORCED FLEXIBLE CONDUIT

David Wendell Fentress, Barrington, and Frank S. Schindler, Elgin, Ill., assignors to Chicago Metal Hose Corporation, Maywood, Ill., a corporation of Illinois

Application May 26, 1949, Serial No. 95,474

3 Claims. (Cl. 29-454)



1. The method of making a reinforced flexible conduit, which method comprises forming a pair of ring sections each with a radial annular portion and an outer flange projecting laterally therefrom, forming a reinforcing ring by coaxially joining said ring sections with the radial annular portions in abutting relation and with the flanges projecting in opposite directions and radially offset such that the inner diameter of the outer flange substantially corresponds with the outer diameter of the inner flange, placing a plurality of such reinforcing rings in predetermined spaced relation on a tubular conduit, and collapsing the conduit with outward formation of a corrugation between adjacent reinforcing rings which approach one another to telescope the flanges of adjacent rings.

2,818,637

METHOD OF SEALING TOGETHER THE GLASS MEMBERS OF ELECTRON TUBES

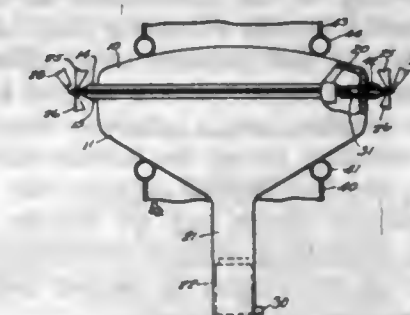
Theron W. Roberts, Toledo, Ohio

Application April 13, 1954, Serial No. 422,724

6 Claims. (Cl. 29-471.9)

1. The method of sealing together the hollow glass members of an electron tube which comprises mounting and hermetically sealing to the open edge portions of each member a metal sealing band comprising a comparatively thick, heavy metal strip extending throughout the periphery of the glass member and a comparatively thin web integral with and projecting outwardly beyond said thicker portion and beyond said glass members, the width

of the web being many times greater than its thickness, juxtaposing said members with said strips and webs parallel and said webs held spaced apart by said thicker strip portions, applying a clamping force directly to the outer faces of said webs and thereby bringing the webs together, applying a localized metal fusing heat to the outer edges



of the webs at one point in their periphery and advancing the point at which the heat is applied along said edges, the intensity of the heat and the rate of advance being such that the edges are rapidly sealed together and the fusion heat progressively withdrawn before the fused area extends inwardly substantially beyond the said edges.

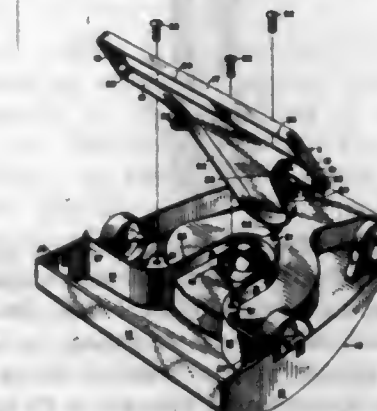
2,818,638

FLOCKING METHOD FOR SEALING JOINTS

Werner G. Seck, Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application March 16, 1951, Serial No. 215,949

1 Claim. (Cl. 29-527)



The method of sealing the joint between two separable mating surfaces comprising, machining both of said surfaces, applying a heat curable cement to at least one of said surfaces, applying a fibrous flock to said cemented surface and applying heat thereto to set the cement and bond the flock to said surface.

2,818,639

OPENER GUARDS

Carl C. Wilm, Denver, Colo., assignor to Magnex, Inc., Denver, Colo., a corporation of Colorado

Application February 26, 1957, Serial No. 642,512

6 Claims. (Cl. 30-16)

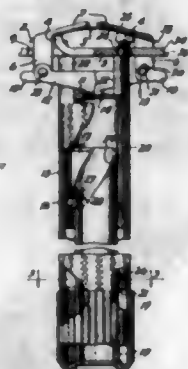


1. A guard for a container opener of the type comprising a handle of given dimensions, a punch extend-

ing from one end of the handle, and a fulcrum lug extending from the handle adjacent the base of the punch, said guard comprising a relatively thin, flexible, non-absorbent base member substantially greater in length than the overall length of the opener, said base member including a handle section having dimensions generally corresponding to the dimensions of the opener handle and a shield section extending from one end of the handle section, a first retainer strap affixed to and extending across the major portion of the handle section of the base member, and a relatively narrow second retainer strap extending across the handle section of the base member at the end thereof adjacent the shield section, the two retainer straps and the handle section of the guard being adapted to engage the handle, lug, and punch elements of the opener to mount the guard in predetermined position on the opener.

2,818,640
UNIT-HANDLING SAFETY-RAZOR CONSTRUCTION

John G. Roberts, Dobbs Ferry, N. Y., assignor to George C. Singer, Hastings-on-the-Hudson, N. Y.
Application June 26, 1952, Serial No. 295,617
13 Claims. (Cl. 30-60.5)



1. A safety razor comprising a blade-supporting plate having several mutually isolated blade-supporting locations, a handle secured to said plate, blade clamping means movable upon and away from said plate, a controller for said means and guided by said handle, and a flexible carrier in direct clamp-actuating relation with said means at said locations and constituting a flexible linkage between said means and said controller.

2,818,641
TOOL FOR CUTTING SHIELDED WIRE CABLE
Kenneth E. Peterson, New Cumberland, Pa., assignor to AMP Incorporated, a corporation of New Jersey
Application July 18, 1956, Serial No. 598,616
5 Claims. (Cl. 30-91)



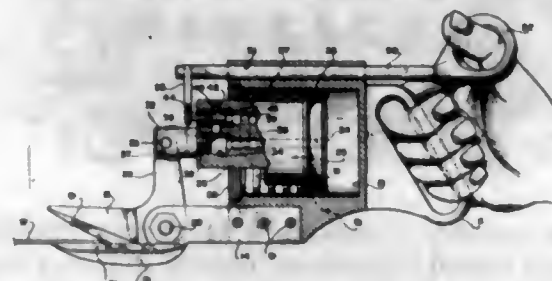
1. A device for severing the metallic braid on a shielded braid wire having an insulation sheath underneath the shielded braid including; a plurality of blades, each blade comprising a segment of a circle with a concave edge having a radius approximately equal to the radius of the insulation sheath, said blade having a plurality of acute angle notches therein which form teeth, said teeth being blunt in lateral cross section, whereby the blades cooperate to sever the metallic braid without rupturing the underlying insulation.

2,818,642
PAINT SCRAPER
Chester K. Judd, Jr., Bristol, Conn., assignor to The Fletcher-Terry Company, Forestville, Conn., a corporation of Connecticut
Application January 3, 1956, Serial No. 556,859
1 Claim. (Cl. 30-169)



A paint scraper including an upper clamping plate, a lower clamping plate, said upper clamping plate having a free end portion extending over a respective end portion of the lower clamping plate, a scraper blade between said clamping plates, an end portion of said blade being deflected downwardly over the end of the lower clamping plate by the respective end portion of the upper clamping plate and extending to a plane below the bottom of the lower clamping plate, the said free end portion of the upper clamping plate having its corner portions curved downwardly whereby the respective free end portion of said scraper blade is curved to dispose the opposite corners thereof below the intermediate free end portion of said blade and thereby cause said corners to contact a surface to be scraped and to flex before the intermediate portion comes into contact with the said surface, and a pair of skid members secured to the bottom of the lower clamping plate and having elongated free edge portions disposed along and spaced from the opposite sides of the said scraper.

2,818,643
POWER ACTUATED SNIPS OR SHEARS
Charles A. Dawson, Pacoima, Calif., assignor to Lockheed Aircraft Corporation, Los Angeles, Calif.
Application April 23, 1957, Serial No. 654,605
10 Claims. (Cl. 30-228)

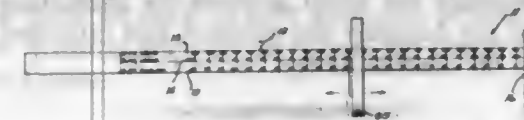


1. A tool of the character described comprising a cylinder, a pair of cooperable cutting blades, one being relatively fixed the other being pivoted, a piston operable in the cylinder and connected with the pivoted blade to actuate the same, a port system in the piston for receiving actuating fluid pressure and having a passage leading to the cylinder and a passage leading to the atmosphere, a valve in the piston passage system, the piston and valve being relatively movable between a first relative position where the valve prevents the flow of actuating pressure to the cylinder and puts the cylinder in communication with the passage leading to the atmosphere, and a second relative position where the valve permits the flow of actuating pressure to the cylinder and closes said passage leading to the atmosphere, and manually operable means for moving the valve relative to the piston to the second position and for restraining the valve against movement when the piston moves said other blade toward the active position.

2,818,644
WALLBOARD MEASURING AND CUTTING DEVICE
Claude T. Crawford, West Monroe, La.
Application April 15, 1955, Serial No. 501,505
1 Claim. (Cl. 30-293)

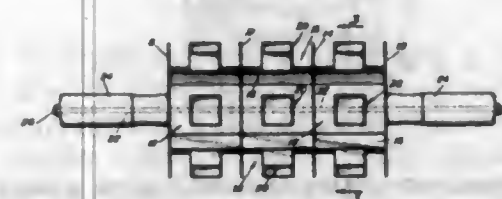
A wallboard measuring and cutting device comprising an elongated calibrated rod member having a flat bottom

surface slidably and supportingly engageable on a sheet of wallboard, or the like, a rectangular cutting blade secured in an inclined position of said rod member with a bottom corner portion thereof depending below the bottom surface of said rod member and extending substantially perpendicular to said rod member, a depending stop member slidably mounted on said rod member, said



stop member being adapted to engage the edge of a sheet of wallboard on which the rod member is disposed, and an arm pivotally connected to said stop member for rotation in a plane transverse to the longitudinal axis of said rod member and having a curved bottom edge frictionally engageable with the top surface of said rod member to hold said stop member in an adjusted position on the rod member.

2,818,645
DOUGHNUT AND PATTY SHELL CUTTER
Henry C. Martin, Santa Fe, N. Mex.
Application April 30, 1956, Serial No. 581,631
2 Claims. (Cl. 30-306)



1. For use in producing doughnuts which are uniform in size and square in shape; an elongated cylinder, a disk fastened centrally to each end of said cylinder, said disks being of a diameter greater than the cross-sectional diameter of said cylinder and cooperating with the cylinder in providing a roller, the marginal edges of said disks also serving as dough cutters, axially aligned hand-grips fixed centrally to and projecting outwardly beyond said disks, a plurality of longitudinally spaced rings encircling said cylinder and providing endless radial dough cutters, and lengthwise flanges extending along the peripheral surface of said cylinder between the radially projecting portions of said disks and rings and disposed at right angles to the latter and secured to said peripheral surface, the outer edges of said flanges providing additional cutters and giving the surface of the cylinder a honeycomb-like appearance and also defining uniform circumferentially extending rows of square doughnut cutters, each individual cutter having a small centralized rectangular hole cutter mounted on and carried by the peripheral surface of said cylinder.

2,818,646
AXIS-ORBITAL PLANE RECORDER
Charles E. Stuart, Ventura, Calif.
Application March 31, 1955, Serial No. 498,353
7 Claims. (Cl. 32-20)



1. An axis-orbital plane recording device comprising a U-shaped bow member having a front part and side parts

that are angularly directed toward each other, at their free ends, a nose-engaging means adjustably carried by the front part of the bow and cooperating, when on the bridge of the nose, with the mentioned side parts to support the bow member on the head, when said side parts are engaged in the notches formed between the ears and head, an adjustable orbital point indicating means carried by the front part of the bow, and an adjustable mandible axis indicating means carried by each side part forward of the ear-engaging portions of said side parts.

2,818,647
DENTAL INSTRUMENT
Abraham Berliner, New York, N. Y.
Application November 22, 1954, Serial No. 470,170
4 Claims. (Cl. 32-50)



1. A dental scaling or planing instrument comprising, in combination, an elongated tubular shank; a blade immovably secured to the inner end of said shank and having flattened wide front and rear faces and arranged for manipulation, by the shank, between a tooth and the adjacent gum structure; and a tube extending through said shank and having its inner end terminating inwardly of the outer edge of said blade and its outer end extending beyond said shank for connection to a source of oxygen to direct a stream of oxygen along the length of a face of said blade for localized application of oxygen during operative manipulation of said instrument.

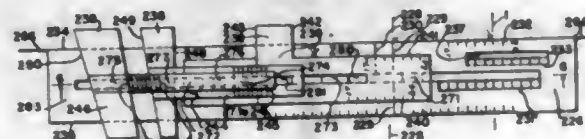
2,818,648
POSTURE MEASURING DEVICE
Hans Rudolf August Jochheim, Gothenburg, Sweden
Application April 6, 1956, Serial No. 576,676
5 Claims. (Cl. 33-8)



1. In a measuring equipment of the class described, in combination a vertical standard including a supporting foot plate, a plurality of measuring elements slidable upon said standard, one of said measuring elements comprising a forwardly directed horizontally shiftable gauge arm including a neck support arranged to locate various points on a person with reference to a point on the neck sup-

port, said neck support having arms to position the neck of the person, independent measuring elements carried by the neck support for the person's shoulders, back and breast, the measuring elements for the shoulders consisting of shoulder plates, each plate being carried by a separate arm system independent of the other, the arms extending at right angles to each other, one horizontal and laterally directed arm of the system being attached to the neck support and the other arms being movable with respect thereto, each said shoulder plate being tiltably connected with the lower end of the vertical arm of the system, the free ends of the two shoulder plates being directed generally towards each other.

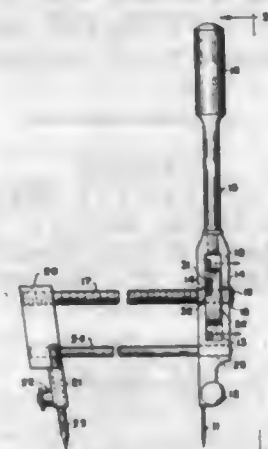
2,818,649
TROUSER DRAFTING SLIDE RULE
Aage T. Kolthoff and Hubert Louis Taylor,
New York, N. Y.
Application October 30, 1951, Serial No. 253,774
4 Claims. (Cl. 33—11)



1. In a trouser drafting slide rule, a trouser forepart drafting slide rule that comprises: three relatively dependent crotch line transparent slides telescopically mounted one on the other, said three transparent slides being slidably mounted on an opaque rectangular bottom or base rule wider and longer than any of the three slides, said bottom opaque rectangular rule having two long closed grooves in line cut through the center of the rule and running parallel to the long axis of the bottom rule, a short closed groove parallel to and nearly opposite one long closed groove, said long grooves cooperating with prongs of the three crotch line slides, and said short groove and one long groove also serving as windows through which marks are made along the indicia of a scale inscribed on one edge of the short closed groove and of a long groove, said bottom rectangular rule having a top face and a bottom face each inscribed differently, said top face being used exclusively for drafting a regular trouser, and said bottom face being used in addition to said top face when drafting a pleated trouser, said top face having along one of its long edges two similar scales equidistant from a solid index line across the face and perpendicular to the long edge, said solid index line indicating the location of the trouser midway line for regular design, said two similar scales being used for measuring the width of all trousers at the ankle or finished length line, the knee line, the crotch line, and for regular trousers only at the waist line, said top face having along its other long edge another solid index line drawn halfway across the face and parallel and close to the solid index line drawn completely across the face, for indicating the location of the trouser midway line for pleated trouser, said other long edge having also a scale opposite the two short grooves for determining at the crotch line the location of the midway line for regular design, a scale along the short groove closer to the ruler edge having one scale for determining the position of the midway line for pleated design at the crotch line and for the trouser back part, a scale along the short groove in line with the long groove for determining at the ankle or finished length line the location of the midway line for regular and pleated design, said bottom face having along one of its long edges a solid line marked across the face perpendicular to the long edge for matching with the pleats midway line at the waist line of the forepart, two similar scales unequally distant from the said solid line perpendicular to the long edge for measuring at the waist line the width of the forepart of a pleated trouser, two parallel

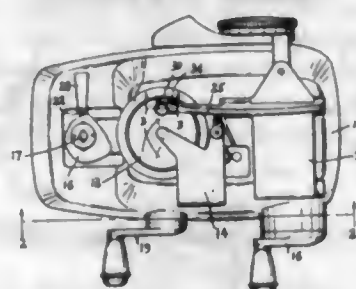
dash lines parallel to the solid line perpendicular to the long edge located between said solid line perpendicular to the long edge and the scale opposite the long groove for indicating the position of the wide pleats at the waist line of the forepart, and three substantially parallel solid lines obliquely inclined to the ruler long edge and located between the solid line perpendicular to the long edge and the scale opposite the short grooves for indicating at the waist line of the forepart the position and direction of the small pleats for pleated design.

2,818,650
COMPASS
Stephen J. Kanuch, Bridgeport, Conn.
Application June 4, 1954, Serial No. 434,537
4 Claims. (Cl. 33—27)



1. A compass comprising in combination, a body member; a centering element adjustably held in one end of said body member; a scribe-supporting member; a threaded shaft fixed to one of said members and slidably received by the other of said members; a bar fixed to one of said members, parallel with said threaded shaft and slidably received in said other member; a rotatable, hollow disc member slidably receiving said threaded shaft and mounted on the member that slidably receives said threaded shaft; a half-nut element mounted within said hollow disc; a leaf spring mounted within said hollow disc and in cooperating position relatively to said half-nut, to thereby urge said half-nut into cooperating relationship with the threads on said threaded shaft; and an operating lever connected to said half-nut element and extending out through the side wall of said hollow disc member, the construction and arrangement of the parts being such that said hollow disc member with the operating lever extending outwardly therefrom can be rotated without interfering with the member supporting it.

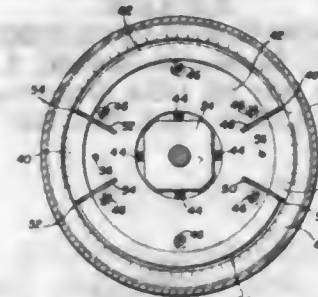
2,818,651
CUTTING MACHINE
Herman M. Polley, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application January 17, 1955, Serial No. 482,075
6 Claims. (Cl. 33—28)



1. A cutting machine of the character described comprising a table for supporting work to be cut, a rocker arm having a portion overlying the table, a cutter support

mounted for free rotary movement in said rocker arm and having a cutter adapted to engage work on the table, magnetic means carried by said rocker arm and magnetic means carried by said cutter support, said magnetic means having their respective poles positioned in adjacent spaced relation with each other and so related as to cause the cutter support, in response to the combined magnetic attractive force of each of said magnetic means, to assume a given position such as to locate the cutter in a predetermined plane.

2,818,652
TRANSIT
Allister L. Baker, Denville, N. J., assignor to Keuffel & Esser Company, Hoboken, N. J., a corporation of New Jersey
Application June 23, 1953, Serial No. 363,590
3 Claims. (Cl. 33—72)



1. A surveying instrument comprising a member carrying a divided circle, a vernier carrying member having graduations forming a pair of verniers permanently positioned relative thereto at diametrically opposite positions with respect to said divided circle and bearing means concentric with said divided circle mounting said members for rotation with respect to each other, both of said verniers lying in the plane of said graduated circle and being graduated to arcuate edges which if extended would form a continuous circle, the radius of said arcuate edges being of predetermined different length than the radius of the edge of said divided circle to which said divided circle is graduated so that a predetermined spacing between said edges of said verniers and said edge of said divided circle will be obtained when the parts are in proper adjustment and means for adjusting said vernier carrying member with respect to said bearing means to make the arcuate edges of said verniers concentric with the axis of rotation of said verniers and said divided circle.

2,818,653
COMBINED GRADE SET AND LEVEL ROD
Wade H. Henderson, Compton, Calif.
Application May 21, 1953, Serial No. 356,576
7 Claims. (Cl. 33—74)



1. A grade set rod, comprising: a first vertical rod section having a lower end for placement upon the ground

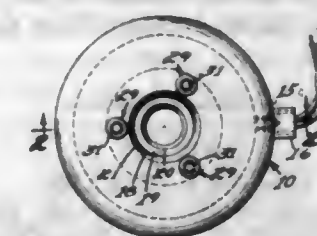
or other substantially horizontal surface; a second vertical rod section disposed alongside said first section and slidably adjustable lengthwise thereof, said rod sections being arranged in a common plane and having coplanar first faces extending parallel to said common plane, said second section having a linear scale on its said first face; clamping means operative to retain said second section in selected positions of vertical adjustment relative to said first rod section; and a target slidably adjustable on said second section along said first faces and registrable with the graduations of said linear scale.

2,818,654
FEELER HEAD FOR TUBING CALIPER
John V. Fredd, Dallas, Tex., assignor, by mesne assignments, to Otis Engineering Corporation, Dallas, Tex., a corporation of Texas
Application December 30, 1955, Serial No. 556,579
7 Claims. (Cl. 33—178)



1. A caliper device for caliper an internal tubing wall comprising a housing, a plurality of independently movable caliper feelers mounted on said housing, a plurality of individual pressure means each having a predetermined force for urging each of said feelers outwardly for caliper the tubing, means for supporting all of said individual pressure means for longitudinal movement relative to said housing without changing their predetermined force, and means for exerting an additional force for urging all of said feelers outwardly into tubing caliper position.

2,818,655
MAGNETIC TOOL GUIDE
Raoul Hugh de Gaston, Los Angeles, Calif.
Application February 10, 1955, Serial No. 487,340
4 Claims. (Cl. 33—189)



1. In a magnetic tool guide, a base of high magnetic permeability, said base being provided with a circular recess extending upwardly from its lower surface, a coil positioned in said recess and adapted to be connected to a source of electrical energy, a ring arranged in the lower portion of said recess and the bottom of said ring being flush with the bottom of said base, there being a central opening in said base, a cylindrical bushing snugly seated in said opening and having its lower end

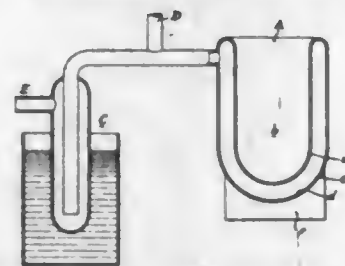
lying in the same plane as the bottom of said base, the upper inner surface of said bushing being countersunk, there being a counterbored aperture in the upper end of said base of greater diameter than said opening and communicating with said opening, said base being provided with a plurality of spaced parallel bores, each of said bores including an upper threaded portion, an intermediate smooth portion of less diameter than said upper portion, and a lower smooth portion of less diameter than said intermediate portion, pins each including a cylindrical shank extending through the lower portion of the bore and having their lower ends pointed for engagement with a work surface, an enlarged shoulder on the upper end of each of said pins seated in said intermediate portion, and a thumb screw having a threaded stem engaging the upper portion of each bore, and a knurled knob on the upper end of each thumb screw.

2,818,656

PROCESS OF SEPARATING VOLATILE COMPONENTS FROM LESS VOLATILE COMPONENTS BY DISTILLATION OR SUBLIMATION AT A LOW PRESSURE

Herman Cornelis Arnold Holleman, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 23, 1954, Serial No. 418,044
Claims priority, application Netherlands April 8, 1953
4 Claims. (Cl. 34-5)



4. A process for the rapid drying of a thermo-unstable biological material comprising the steps, placing a thin layer of the material on a first internal surface of a highly-evacuated vessel, cooling said surface to a temperature of not more than -50°C . and cooling a second internal surface spaced from said first surface to a temperature of not more than -60°C . while maintaining said temperatures to provide a mean free path for the molecules of a volatile constituent of said material between said surfaces in the order of the distance between said surfaces until said volatile constituent is evaporated and condenses on said second cooler surface and then increasing the temperature of said first surface to a temperature of not more than 40°C . and increasing the temperature of said second surface to not more than -1°C . to effect volatilization of the condensate on the second surface and evaporation into a second connecting evacuated vessel maintained at a temperature sufficiently low to provide a lower vapor pressure than that surrounding said second surface.

2,818,657

ROTARY DRYERS

John M. Wolfe, Meadville, Pa.
Application March 21, 1955, Serial No. 495,679
8 Claims. (Cl. 34-109)

1. A rotary dryer comprising an outer cylindrical shell, drive means operatively connected to said shell whereby said shell is rotated, a plurality of inner duct members, each of successively smaller cross section forming an axially extending duct within and connected to said shell, an opening into the interior of the shell at the end of each such duct member, means connected to said duct members supplying heated air thereto and means on the

periphery of each duct member extending outwardly from the periphery thereof to a line spaced from the interior of

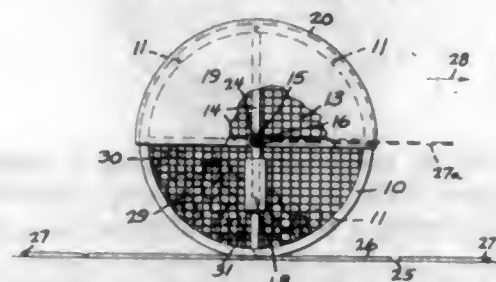


the shell and forming an axially extending trough with the duct wall, all of said means being substantially equally spaced from the interior of the shell.

2,818,658

CYLINDRICAL ROLLING CORN CRIB

Frank L. Barnes, Sioux Falls, S. Dak.
Application July 30, 1954, Serial No. 446,779
2 Claims. (Cl. 34-126)

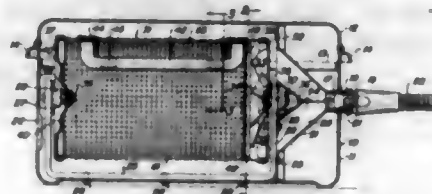


1. A cylindrical rolling corn crib comprising a crib member of substantially cylindrical shape, said crib having a plurality of openings exposed to the outer air, said crib being adapted to be rolled in a direction substantially at right angles to its longitudinal laterally positioned axis, said crib member including a door, a shield member for protecting the contents of said crib member against weather conditions including an arcuate shield enclosing an upper portion of said crib member, counter-balances attached to said arcuate shield to maintain said shield in an upper position when said crib member is rolled shafts attached at the ends of said crib and extending axially thereof, said shields being rotatably mounted on said shafts.

2,818,659

DRYER FOR WET ARTICLES

Copeland W. Hague, Warren, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application January 14, 1955, Serial No. 481,769
5 Claims. (Cl. 34-139)



1. A portable accessory adapted to receive warm air from the exhaust of a suction cleaner for drying wet articles comprising, a casing, said casing comprising a lower shell portion and a complementally formed upper cover portion, means for releasably joining said casing portions to form a closed drying chamber through which warm air may be circulated in contact with the wet articles for drying the latter, a perforate drum adapted to contain and tumble the wet articles in the presence of the warm air stream, means for rotatably mounting said drum in said lower casing portion, said drum comprising

a wire cage permitting the warm air to circulate through the drum over the articles contained therein, a door in the wire cage providing access to the interior thereof, turbine means on one end of said drum, an air inlet formed in one end of said casing adjacent said turbine means, a fitting detachably connected to said air inlet for conducting warm air from the exhaust of a suction cleaner to said inlet and into said casing and means between said air inlet and said turbine means for leading the warm air into a position to rotate said turbine means and to thereafter pass through said drum.

2,818,660

DRYER FOR COMPOSITE PAPER AND VENEER SHEET MATERIAL

Claude A. Burkholder, Fresno, Calif., assignor to General Box Distributors, San Francisco, Calif., a corporation of California

Application August 24, 1954, Serial No. 451,903
5 Claims. (Cl. 34-233)



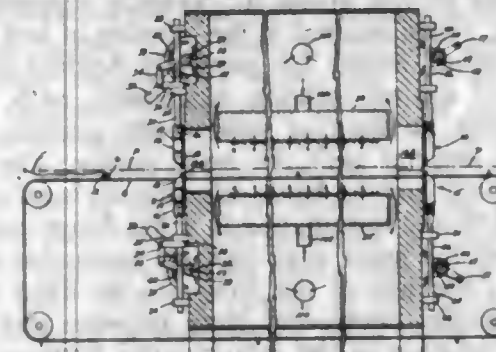
1. A kiln for preformed, continuously traveling, composite paper and wood veneer sheet material having freshly adhesively engaged laminations, comprising a housing, an open longitudinal frame mounted in the housing, a longitudinal driven conveyor assembly mounted on the frame, the sheet material being fed to, supported by, and advancing with said conveyor assembly, the latter including longitudinally extending upper and lower endless, foraminous conveyors having adjacent, cooperating runs between which the sheet material is engaged, longitudinally spaced pairs of cooperating upper and lower, transversely extending pressure rolls mounted on the frame, said adjacent runs and the engaged sheet material passing between each pair of pressure rolls under compression, baffle means forming a longitudinal passage above the upper conveyor and a longitudinal passage below the lower conveyor, means to introduce a flow of heated air into said passages, means forming vertical passages extending from said longitudinal passages to adjacent corresponding runs between the pairs of pressure rolls, said vertical passages directing the air flow against yet terminating adjacent but short of said corresponding runs, the heated air flow escaping from said vertical passages at said runs and into side portions of the housing separate from said longitudinal passages, and means to exhaust the heated air flow from said side portions of the housing.

2,818,661

AUTOMATIC DOOR AND CONVEYING SYSTEM

Sterling W. Warner, Fredericksburg, Va., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application November 6, 1953, Serial No. 390,514
5 Claims. (Cl. 34-242)



1. In combination with a chamber for treating a continuous running sheet of material, the chamber compris-

ing end walls having openings for the passage of the sheet material along a path extending through the chamber, means for supplying a gas into said chamber for use in supporting the sheet along said path and to dispose said path in any desired planular alignment substantially parallel to a plane extending through both openings, a door at each opening, guide means and means for reciprocating each door along a path extending in substantially parallel spaced relation with a surface of the end wall within said opening is defined, each of said doors being movable in a direction normal to the general plane of said path for said sheet to and from a position wherein the door at least partly closes its respective opening, each door comprising a section that is swingable with respect to the reciprocable means out of its normal position within the path of the door to expose at least a portion of its respective opening, each door comprising means for urging said section thereof into its normal position, said section of the door mounted adjacent the receiving opening being swingable inwardly thereof, and said section of the door mounted adjacent the discharge opening being swingable away therefrom, the edge portions of the doors, nearest the path of the sheet being approximately parallel thereto, and means for holding the doors in predetermined positions along their respective paths whereby said edge portions may be disposed closely to the path of the sheet.

2,818,662

SWITCHBOARD MESSAGE TABS AND HOLDERS THEREFOR

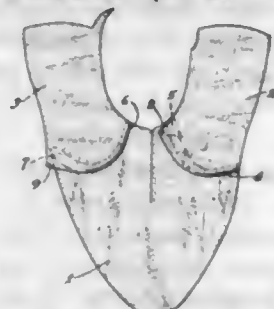
Virginia L. Payne, Chicago, and Donald B. Lytle, Wilmette, Ill.

Application November 6, 1953, Serial No. 390,605
2 Claims. (Cl. 35-66)



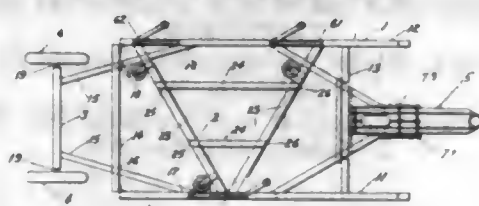
1. An information recording device for telephone switchboards comprising a short, wide magic slate pad divided into a plurality of separate information recording panels spaced side by side across the width of the pad from which the information recorded thereon can be separately erased, the spacing between adjacent information recording panels corresponding to the spacing between the keys or plugs of the switchboard, and a rigid holder therefor made of a resilient material, the pad comprising a wide, stiff backing strip, a plurality of flexible opaque flaps arranged side by side across the width of the stiff backing, the back surface of the opaque flap overlying the surface of the backing and adhering thereto upon the application of pressure by a stylus, a plurality of flexible transparent flaps, one overlying each of the opaque flaps, means binding the opaque and transparent flaps at their upper ends to the upper portion of the stiff backing, the opaque and transparent flaps being defined by substantially vertical conterminous edges, and the holder comprising a flat plate of approximately the same size as the pad, at least two tabs formed integrally with and extending outwardly from the upper edge of the plate, said tabs having slots therein so that the holder may be anchored to the switchboard, and a downturned clip formed integrally with the upper edge of the plate and extending along the upper edge of the plate continuously between the tabs for clamping the upper edge of the pad to the holder.

2,818,663
SHOE WITH SPRING STITCHED UPPER AND METHOD OF MAKING THE SAME
 Charles E. Copeland, Jefferson, Wis., assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York
 Application September 8, 1953, Serial No. 378,968
 8 Claims. (Cl. 36-45)



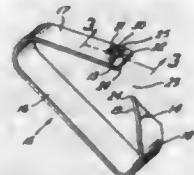
1. In a shoe, an upper including a vamp, and two quarters, said vamp being joined to a quarter at each side of the shoe by a line of stitching, the margins of the quarters and vamp being sprung relative to each other, the spring of said margins increasing upwardly to the top in one line of stitching and downwardly to the bottom in the other.

2,818,664
ROAD PLANERS AND THE LIKE
 Ralph W. Bond, West Springfield, Pa.
 Application January 12, 1953, Serial No. 330,851
 13 Claims. (Cl. 37-150)



1. A road planer comprising a main frame comprising two parallel ground engaging runners, a blade supporting frame supported on said main frame, means to support said blade supporting frame on said main frame, said supporting means comprising a lever pivotally mounted on said main frame and pivotally connected to said blade supporting frame at a point spaced from said main frame pivotal point, means to adjustably limit the upward movement of one end of said lever, said means to limit the upward movement engaging said lever at a point spaced from the pivotal connections whereby the upward movement of said blade supporting frame is adjustably limited with regard to said main frame, and resilient means to urge said blade supporting frame upward.

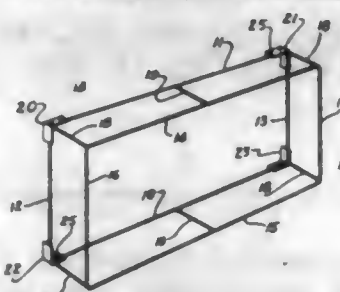
2,818,665
ANIMAL EAR TAG
 John A. Barger, Pass Christian, Miss.
 Application June 21, 1954, Serial No. 438,006
 2 Claims. (Cl. 40-3)



1. A tag for an animal ear tagging device comprising a flat body member having a pair of longitudinally opposite leg members thereon inclined inwardly toward each other, with one of said leg members being shorter than the other to provide an ear receiving space between the

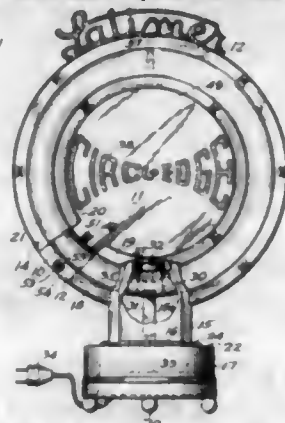
free ends thereof, an ear piercing prong formed at the free end of said short leg, with the long leg having an opening adjacent the free end thereof for receiving said prong therethrough, and an upright curved shell portion on said long leg arranged in a partial covering relation with said opening and open toward the free end of said long leg, whereby said prong, on inward movement of said legs toward each other to an initial position in which the long leg is substantially parallel to said body member, is movable over the free end of said long leg and within said shell so as to be guided thereby into said opening.

2,818,666
WIRE MESH SIGN PROTECTOR
 Eugene I. Wilson, Buffalo, S. Dak.
 Application November 3, 1955, Serial No. 544,758
 3 Claims. (Cl. 40-125)



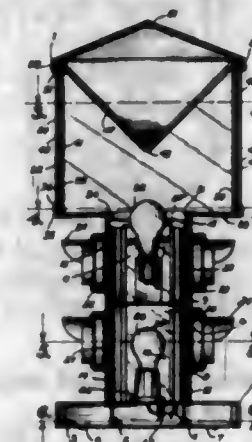
1. In a sign protector, the combination which comprises an inner frame of rectangular formation having mounting elements thereon at the four corners thereof, an outer frame of rectangular formation, means for attaching the outer frame to the inner frame at the four corners of the frames and intermediate of the sides of said frames, and a wire mesh covering extended over the outer surface and side and end portions of the frames.

2,818,667
ILLUMINATED SIGNS
 Maurice C. Latimer, Brooklyn, N. Y.
 Application October 5, 1955, Serial No. 538,688
 2 Claims. (Cl. 40-130)



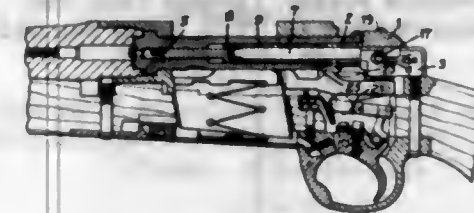
1. An illuminated sign comprising a pair of cooperating annular housing sections shaped to receive therein and therebetween an annular circular fluorescent lamp and normally to conceal said lamp, each of the sections surrounding an inner opening therein, means for fixedly supporting one section, means for pivotally supporting the other section, a sign secured in the opening of and to said one fixed section, means for normally holding the sections together against relative movement, each of the sections having an annular main body portion and a base portion integral with the body portion, the major part of said body portion being substantially semi-circular in cross section and terminating in a flat flange extending inwardly from the inner edge thereof, means for detachably securing the sign of the flange of the fixed section, a circular annular fluorescent lamp between and in coaxial spaced relation to the semi-circular portions of the sections, and springs secured to the fixed section and engaging the lamp for resiliently suspending the lamp within the sections.

2,818,668
ADVERTISING SIGNAL
 Rea M. Bruner, Colorado Springs, Colo.
 Application August 6, 1956, Serial No. 602,093
 6 Claims. (Cl. 40-132)



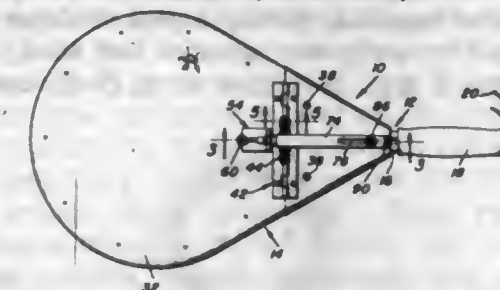
1. An advertising signal of the character described comprising, a base, a housing substantially square in cross section extending vertically above said base, a partition transversely of said housing dividing the housing into upper and lower compartments, said compartments each having openings in the four sides thereof, lens in said openings, the lens in the lower compartment carrying the "go" signal and the lens in the upper compartment carrying the "stop" signal, said upper compartment having an open top, an advertising compartment mounted on said upper compartment of the housing, said advertising compartment having a bottom provided with an opening conforming to the open top of the upper compartment of the housing, reflector means depending in said advertising compartment, said advertising compartment having removable spaced transparent side walls, advertising sheets slidable between said walls, light means in said upper and lower compartments of said housing, and means for alternately energizing said light means for indicating the "stop" and "go" signals, said "stop" signal and the advertising sheets being illuminated concurrently.

2,818,669
BOLT LOCK FOR A RIFLE
 Claude Alfred Perry, Olton, and Roger David Wackrow, Handsworth, England, assignors to The Birmingham Small Arms Company Limited, Small Heath, Birmingham, England
 Application February 19, 1954, Serial No. 411,524
 4 Claims. (Cl. 42-16)



1. A bolt action rifle comprising a hollow bolt composed of forward and rear parts rotatably secured together, a sear, a cocking piece therefor provided with a depending portion reciprocable within the bolt and having a groove extending transversely in its rear portion and a shoulder rearwardly of said groove, and a safety catch having a cam thereon and located in the lower half of the rear part of the bolt for rotation about a horizontal transverse axis, the catch including a thumb-piece and the cam being rotatable by said thumb-piece into a position to align with the groove in the cocking piece to permit cocking of the cocking piece while the bolt is in cocked position, and rotatable into another position to abut against said shoulder and thereby prevent forward movement of the cocking piece.

2,818,670
NET CARRYING CASE
 George A. Darkenwald, Billings, Mont.
 Application January 2, 1957, Serial No. 632,073
 4 Claims. (Cl. 43-11)



1. A carrying case for fish landing nets, said carrying case comprising a net supporting frame and a handle, upper and lower cover plates encasing said net supporting frame, said cover plates including sections, hinges hingedly mounting said sections for swinging away from each other, and a latch normally connecting together said sections and retaining said sections in a net encasing position.

2,818,671
FISH-ACTUATED, HOOK AND LINE JERKING FLOAT
 Houston L. Crouch, Los Angeles, Calif.
 Application April 10, 1953, Serial No. 348,007
 5 Claims. (Cl. 43-15)

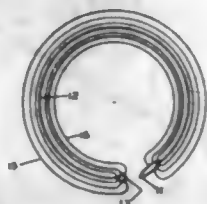


1. Fishing float apparatus adapted to be attached to a fishing line having a fish-hook suspended therefrom, comprising: a buoyant member; a portion of said buoyant member providing an open bottomed tube means provided with internal recess cam means; longitudinally reciprocable pipe means in slidably movable relationship with respect to the interior of said tube means and provided with lateral recess means; elongated plunger means in slidably movable telescoping relationship with respect to said pipe means and said tube means and provided with lateral recess means; spring means cooperatively arranged with respect to said plunger means and said pipe means whereby telescopically sliding movement thereof with respect to each other in a downwardly extending and elongating manner with respect to said buoyant member causes elastic deformation of said spring means; and locking-pin sphere means in selectively cooperative relationship with respect to said internal recess cam means of said tube means and said pipe and plunger lateral recess means whereby said pipe means and said plunger means may be selectively locked into and released from spring-deforming relationship with respect to each other.

2,818,672
ELECTRICALLY SHOCKING ANIMALS IN CONTACT WITH A PREDETERMINED REGION
 Conradin Otto Kreutzer, Meersburg, Bodensee, Germany, assignor to Fish Products Company, Lewes, Del., a corporation of Delaware
 Application May 6, 1955, Serial No. 506,597
 8 Claims. (Cl. 43-17.1)

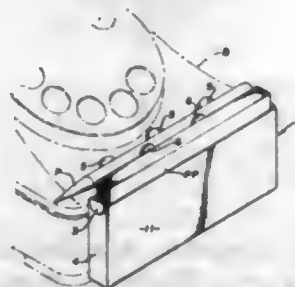
1. A method of electrifying a predetermined region of

a body of water, land or other given material to subject an animal of given size or specie in contact with that region to a desired degree of shock, such as a scare shock, stunning shock or killing shock, comprising: generating a primary electrical current composed of short, relatively widely spaced impulses, having a peaked shape which is characterized by steep vertical sides and an A. C. component which is high in relation to its D. C. component;



flowing said primary current through an electrical circuit including an elongate energy-transferring section having, for said A. C. component, a substantial inductive reactance value; and placing the energy-transferring section in close physical relationship to said predetermined region to establish therebetween an inductive energy-transferring coupling for inducing a current in said predetermined region of a large enough value to subject the animal to the desired shock.

2,818,673
TELEPHONE PAD AND PENCIL HOLDER OF ONE PIECE CONSTRUCTION
Frank E. Nedbalek, Cleveland, Ohio, assignor to
Carl J. Theken, Lyndhurst, Ohio
Application May 17, 1956, Serial No. 585,447
3 Claims. (Cl. 45—5)

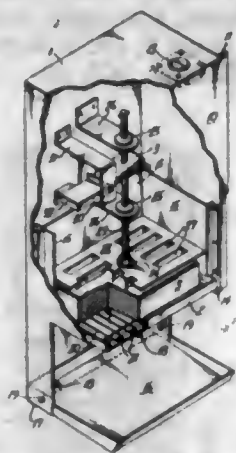


1. A pad and pencil holder of one-piece construction for attachment to a telephone base comprising a unitary sheet of stock bent to provide an open top box having parallel front and rear walls, and end walls each constituted by extensions of said front and rear walls that are bent to lie in nesting, contiguous relation, one of the extensions of each nesting pair having tab means folded over the other one of the extensions to hold the front and rear walls in spaced apart parallel relation, the rear wall having clips struck therefrom to engage said telephone base and secure the holder thereto, and the upper edge of one of said front and rear walls being formed to constitute a pencil holding means.

2,818,674
DISPENSING HOLDER FOR BAR SOAP
John F. Hennessy, Everett, Wash.
Application November 23, 1953, Serial No. 393,663
3 Claims. (Cl. 45—28)

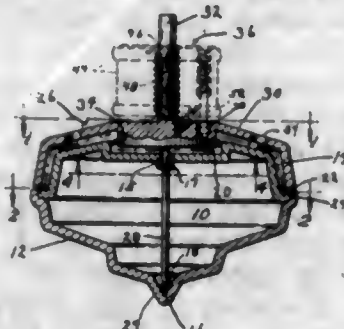
1. A dispensing holder for bar soap comprising a cabinet adapted to house a bar of soap therein, supporting means carried by said cabinet, a loose grating resting on said supporting means and including a frame having substantially parallel, fine wires disposed in coplanar relationship spanning said frame and defining therebetween elongated spaces unobstructed over substantially the full length of said wires, the lower surface of said grating being exposed and adapted to support a bar of soap on

its upper surface, and means restraining appreciable upward movement of said grating under the influence of



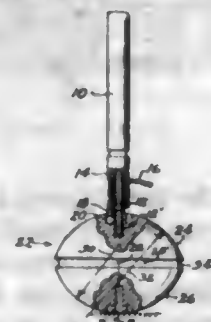
an upward force exerted by a hand engaging said grating or the soap bar thereon.

2,818,675
TOY TOPS
Marvin I. Glass, Chicago, and Fred Zant, Skokie, Ill.
Application June 8, 1954, Serial No. 435,298
3 Claims. (Cl. 46—69)



1. In a toy top adapted to operate on water as well as on land, including a hollow housing having a dish shaped completely closed lower section with a spinning point at the lower end thereof and an upper section rigidly secured to said lower section and forming the top of said housing, and said housing forming a water tight floating compartment, a spinner including an inverted dish shaped member in close proximity to the upper section of the housing and covering same to hide same from view, said spinner having a spindle extending into said housing and rotatable inside the spinning point of said housing, said spinner being rotatable with respect to said housing.

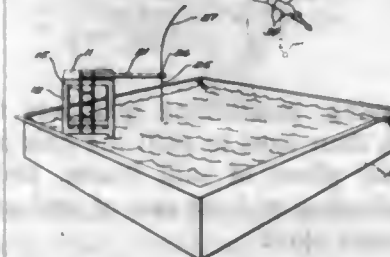
2,818,676
SPINNING TOPS
Frederick Jonker, Takoma Park, Md.
Application October 20, 1952, Serial No. 315,700
6 Claims. (Cl. 46—70)



1. A spinning top adapted to change its axis of rotation automatically, said top having a substantially circular cross-section in planes perpendicular to its main axis, and a middle plane perpendicular to said main axis and dividing the top into two halves; these two halves each having a continuous curved surface having such a shape that the distance from a point of said surface to the intersection of said main axis with a plane which is parallel to said middle plane and containing the center of gravity of the top, changes its value continuously as the angle

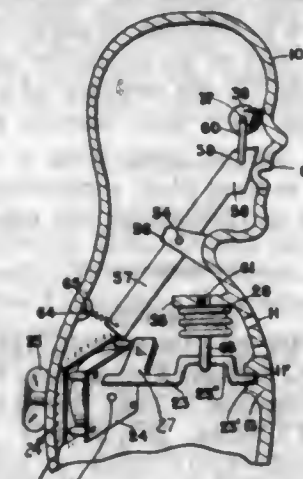
between said main axis and the line connecting said intersection and said point of said surface increases, when said angle is measured in such a manner that it is zero when said distance reaches its extreme value; driving means for said top, and means for detachably coupling said driving means to said top to initiate its spin; the last-named means defining an initial axis of spin for the top which is aligned with said main axis.

2,818,677
DIVING FIGURE TOY
Milford A. Saelde, Milwaukee, Wis.
Application August 20, 1956, Serial No. 605,049
5 Claims. (Cl. 46—116)



1. In a diving figure toy; a receptacle adapted to contain a quantity of water; a platform supported above the water in said receptacle; a diving board of spring material mounted on said platform with one end extending outwardly of said platform above the water in said receptacle, said diving board having an opening adjacent to its extending end; a guide secured at one end to the base of said receptacle and extending upwardly therefrom through the opening in said diving board, said guide presenting an arcuately formed portion above said diving board with the arc directed away from said diving board; a toy figure of a human being adapted to be propelled from a standing position on said diving board by a snap spring movement of the extending end of said diving board; and one or more loops secured to said toy figure for receiving said guide so that said guide may be threaded through said loops while said toy figure is being lowered into a standing position on said diving board; whereby the operator of the toy may snap the extending end of said diving board in its spring movement while said toy figure is in a standing position on it with said loops embracing said guide to propel said toy figure upwardly, and the arcuate portion of said guide will direct said toy figure into an arcuate path of travel corresponding to the path of travel of a human being in a natural diving movement into the water contained in said receptacle.

2,818,678
CRYING DOLL
Jerome H. Lemelson, Staten Island, N. Y.
Application January 14, 1954, Serial No. 406,557
3 Claims. (Cl. 46—118)



1. In a doll, a head having a torso joined thereto, a motor mounted in said torso, a sound emitting device

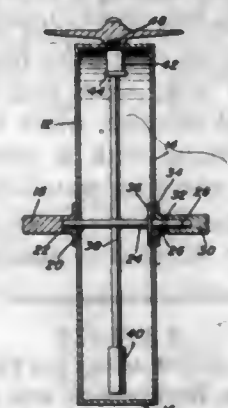
positioned in said torso, means operatively connecting said motor to said sound emitting device, the operation of said motor causing said sound emitting device to operate for producing an audible crying sound, said head having an opening formed therein defining the mouth of said doll, an arm mounted in said head and torso, the upper portion of said arm being normally urged into close proximity to said mouth and the lower portion of said arm being positioned in close proximity to said connecting means, said mouth receiving an externally applied object therein, said object engaging the upper portion of said arm and moving said arm to cause the lower portion thereof to engage said connecting means, said motor thereby being restrained from movement to discontinue operation of said sound emitting device.

2,818,679
PUPPETS, DUMMIES, MARIONETTES AND THE LIKE
Charles Tancredi, Brooklyn, N. Y.
Application March 13, 1956, Serial No. 571,336
5 Claims. (Cl. 46—135)



5. A hollow molded puppet head of flexible resilient sheet material, said head including a jaw cavity defined by walls disposed internally of the head and having a roof, a back wall, side walls and a bottom wall and all in one piece with the head, means providing wells having mouths opening into said cavity at the upper rear portion thereof, a jaw shaped and dimensioned to fill the cavity and be movable with respect thereto, and headed studs having shanks embedded in the jaw and heads received and gripped in the wells, the back of the jaw and back wall of the jaw cavity diverging downwardly away from the studs whereby to permit the jaw to be swung rearwardly with accompanying flexure of the walls of the cavity.

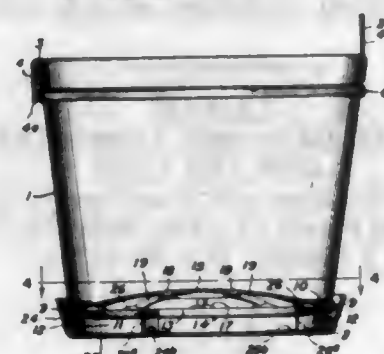
2,818,680
MAGNETIC TOY DRUM
Joseph Borsos, Allen Park, Mich.
Application July 27, 1956, Serial No. 600,488
3 Claims. (Cl. 46—240)



1. A toy comprising a hollow cylindrical drum having end plates, an object mounted for movement on the periphery of said drum, a laterally extending handle rigid with one end plate, a shaft journaled in the end plates, a rod rigidly mounted on said shaft in perpendicular relation, a weight on one end of said rod, and a magnet on the

other end of said rod, said object having a metallic insert subject to magnetic influence whereby the weight will maintain the magnet and object in constant position during rotation of the drum, said shaft projecting laterally from said drum, a handle attached to the outer end of the shaft in opposition to the handle on the end plate for rotating the shaft independently of the drum for moving the object about the periphery of the drum.

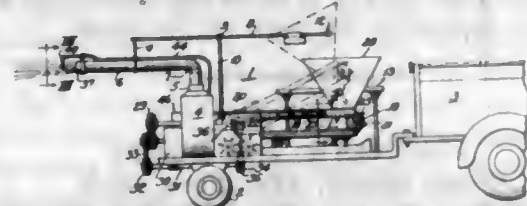
2,818,681
CONTAINER FOR PLANTS
Milo G. Coplen, Rockville, Md.
Application October 27, 1953, Serial No. 388,471
6 Claims. (Cl. 47-34)



1. A container for plants and their root balls comprising a side wall open at the top and bottom, said side wall having adjacent to but spaced upwardly from its lower edge an outwardly extending groove in its inner surface, the material of said side wall being continued from its lower edge and inwardly, thence upwardly, thence centrally as a flange sloping downwardly centrally and having a central opening therein, and a floor element resting on the uppermost part of said flange and having its outer edge in registry with said groove.

2,818,682
METHOD OF AND APPARATUS FOR SPREADING COMMINUTED MATERIAL SUCH AS TOP SOIL AND TOP SOIL CONTAINING SEED AND/OR FERTILIZER

Charles O. Finn, Cincinnati, Ohio, assignor to The Finn Equipment Company, Cincinnati, Ohio, a corporation of Ohio
Application March 17, 1954, Serial No. 416,812
5 Claims. (Cl. 47-58)

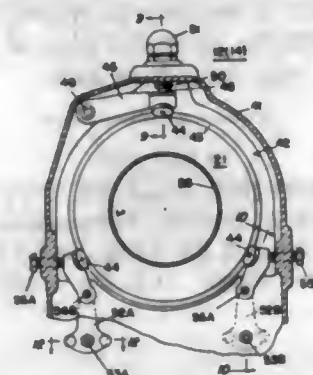


1. In a method of spreading a mixture of top soil, seed and fertilizer, that consists in developing a confined stream of swiftly moving air as a vehicle, introducing a mixture of comminuted top soil, seed and fertilizer into said stream, directing said mixture, while suspended in the air stream, over the ground with a sweeping motion and, while so suspended, spraying water into the same, thereby to settle dust and cause the mixture to lie on the ground surface upon which it is directed.

2,818,683
GLASSWARE LATHE
Chauncy W. Nieman, Bethlehem, and James B. Lawrence, Hellertown, Pa., assignors to Bethlehem Apparatus Company, Inc., Hellertown, Pa., a corporation of Pennsylvania
Application November 10, 1954, Serial No. 468,014
10 Claims. (Cl. 49-7)

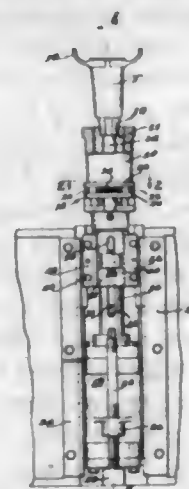
6. A sub-assembly for a lathe comprising a frame for attachment to the lathe bed, said frame having a large

opening therethrough in direction lengthwise of the bed, three arms pivotally mounted on said frame about said frame opening and carrying bearing members, a work chuck having peripheral track structure engaged by said bearing members rotatably to support said chuck within



said frame opening, positioning members for adjusting said arms about their axes to shift the axis of rotation of the chuck in the plane of said frame, and positioning members for adjusting at least two of said arms in direction normal to said plane.

2,818,684
GLASSWARE FORMING APPARATUS
Albert G. Lauck, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application March 5, 1956, Serial No. 569,623
5 Claims. (Cl. 49-69)

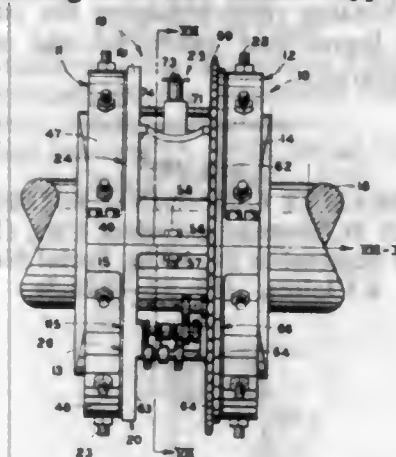


1. In glassware forming apparatus, a one-piece blow mold having its axis disposed vertically and formed with a cavity, the walls of which taper downwardly and inwardly, said mold having open upper and lower ends, a bottom plate adapted at times to close the lower end of the mold and at all times positioned coaxially with the latter, means supporting the bottom plate at a fixed elevation comprising a rod axially aligned with and depending from the bottom plate, means for reciprocating the blow mold axially relative to the bottom plate whereby to position the latter at times at an elevation above the upper end of the blow mold for the removal of a finished article of glassware resting upon said bottom plate, the blow mold reciprocating means comprising a tubular support telescoped over the bottom plate supporting rod and a piston motor operable to reciprocate the tubular support.

2,818,685
CRANKPIN REFINISHING DEVICE
Rodger F. Becker, Kalzamazoo, Mich.
Application November 7, 1955, Serial No. 545,177
10 Claims. (Cl. 51-5)

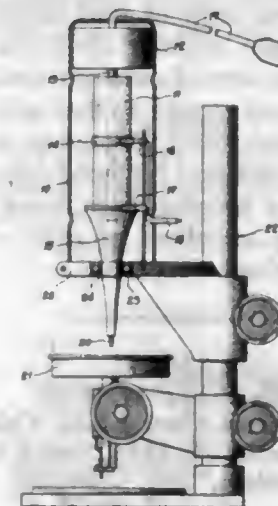
1. Apparatus supportable upon a pair of adjacent crankshaft webs for truing the crankpin therebetween, comprising: two circular adapters mountable, respectively, upon said webs, each adapter having an eccentric ring

on its inner face, said rings being substantially coaxial and locatable concentric with said crankpin, and one of said rings including an internal gear; a tool housing and means for supporting said housing upon said rings for movement in a circular path around and concentric with said pin; a cutting tool and means supporting same on



said housing for linear movement parallel with the axis of said pin; a gear train, including a pinion removably engageable with said internal gear, for effecting said linear movement upon movement of said housing through said circular path; and means for effecting said movement of said housing.

2,818,686
ROTATING ULTRASONIC DRILL
Mortimer E. Weiss, Flushing, N. Y., assignor to Gulton Industries, Inc., Metuchen, N. J., a corporation of New Jersey
Application February 28, 1956, Serial No. 568,224
6 Claims. (Cl. 51-56)

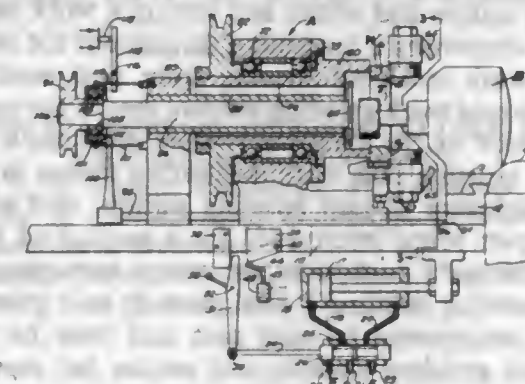


1. An ultrasonic drill comprising an electro-mechanically sensitive body; a horn fixedly attached to one end of said body; said horn being supported at its nodal surface within bearing means leaving said horn free to rotate; a tool end fixedly attached to the small end of said horn; means for rotating said horn and means for applying ultrasonic excitation to said electro-mechanically sensitive body.

2,818,687
INTERNAL GRINDING MACHINE
Ralph A. Quimby, Worcester, Mass., assignor to The Heald Machine Company, Worcester, Mass., a corporation of Delaware
Application July 18, 1956, Serial No. 598,580
8 Claims. (Cl. 51-95)

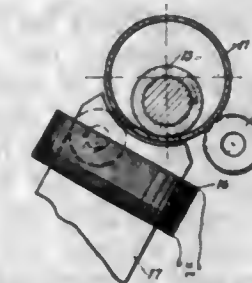
1. In an internal grinding machine, means to support a workpiece for rotation on a support-determined axis, a hollow backplate arranged in proximity to said support means to make contact with one end of said workpiece, means including a hollow spindle rotatably to support

said backplate on an axis eccentric to the said support-determined axis, a gage extending through said backplate



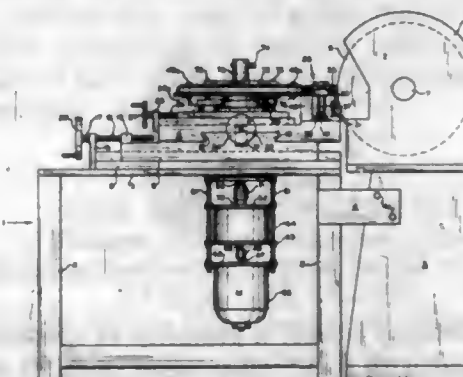
and a bearing member supporting said gage on an axis concentric with said support determined axis.

2,818,688
DEVICE FOR INSIDE MACHINING AS GRINDING, MILLING, ETC., OF TUBES AND METHOD FOR PERFORMANCE OF THIS OPERATION
Lennart Gregor Swedmark, Sandviken, Sweden, assignor to Sandvikens Jernverks Aktiebolag, Sandviken, Sweden
Application September 14, 1954, Serial No. 455,829
Claims priority, application Sweden September 15, 1953
7 Claims. (Cl. 51-103)



1. Apparatus for machining the inner cylindrical surface of tubes or other similar articles comprising a non-magnetic grinding wheel having a diameter smaller than that of the inner surface of the tube, means for rotating said grinding wheel, said rotating means including a spindle shaft supporting said wheel, said shaft having a portion of magnetic material adjacent said wheel, and magnetic means to cause said grinding wheel to exert a desired pressure upon the inner surface of the tube as said grinding wheel is rotated, said magnetic means comprising a magnet external of the tube and spaced laterally from said magnetic member, said magnet producing a magnetic force of such a polarity as to attract said magnetic portion of said shaft.

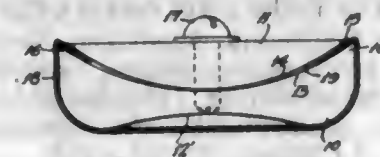
2,818,689
GRINDING APPARATUS
Melvin A. Jennings, Vassar, and Wesley Jennings, Royal Oak, Mich.
Application July 30, 1956, Serial No. 600,777
18 Claims. (Cl. 51-103)



1. Apparatus for use in conjunction with a rotary grinding wheel comprising a workpiece handling member hav-

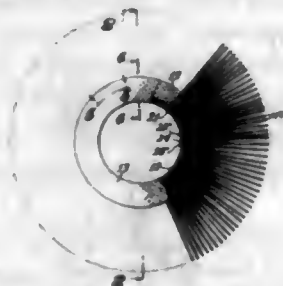
ing a work receiving opening movable in a substantially horizontal plane from a work loading station to a work grinding station and return and having a work supporting part for supporting a workpiece throughout the movement of said work receiving opening from said work loading station to said work grinding station; means for supporting a workpiece at the grinding station, said work supporting part assisting said work supporting means in supporting a workpiece at said grinding station, said work supporting part being interrupted for a portion of its length so that during a portion of the return movement of said work receiving opening a workpiece at said grinding station is unsupported by said part and may be removed from said grinding station; and means for moving said member.

2,818,690
SANDING DEVICE
Louis R. Pritikin, West Los Angeles, Calif.
Application August 20, 1956, Serial No. 604,893
4 Claims. (Cl. 51-187)



1. In a miniature sanding block for holding a plurality of sandpaper strips for cosmetic use: a lower member which in longitudinal section is of shallow U-form, said lower member including a medially disposed bottom web and a pair of arms projecting upwardly from the respective ends thereof and defining with said web, an elongated depression, said web being flexible and said end sections being relatively inflexible whereby said bottom member may be bowed in response to spreading end pressure applied to said arms; a cap having respective ends adapted to be related to the faces of said arms within said recess to provide pairs of jaws at the respective ends of the block, between which the ends of the sandpaper strips may be clamped; and means for applying between said lower member and cap, forces drawing said cap into said depression, causing the ends of said cap to exert a spreading action through the interposed ends of the sandpaper strips against said arms, and to thereby place the sandpaper strips under tension and to cause said lower member to bow toward said cap so as to provide a cushioning space between the stretched sandpaper strips and the bottom face of said lower member.

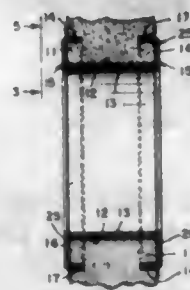
2,818,691
ABRASIVE WHEEL
Guy O. Leggett, Culver City, Calif., assignor to Merit Products, Inc., Culver City, Calif., a corporation of California
Application April 18, 1955, Serial No. 501,908
8 Claims. (Cl. 51-193.5)



1. In an abrasive wheel: a plurality of abrasive coated leaves arranged with their inner edges parallel to a common axis of rotation of said wheel and uniformly spaced circumferentially in a closed cylindrical array encircling and coaxial with said axis; an anchor sleeve of sheet

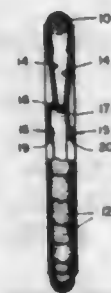
material having a large number of small perforations peripherally conforming to said cylindrical array encircled by said inner edges; a cylindrical film of bonding medium having portions thereof projecting into said perforations and having other portions extending past said inner edges and into spaces between adjoining leaves; and flat face binding rings engaging the respective side edges of said leaves and joined to said anchor sleeve at their inner margins.

2,818,692
ABRASIVE GRINDING WHEEL
Russell W. Bernstein, Culver City, Calif.
Application September 20, 1956, Serial No. 610,940
6 Claims. (Cl. 51-193.5)



1. A unitary replaceable abrasive grinding wheel adapted to be mounted between a pair of rigid plates for rotational use, said wheel comprising a plurality of leaves secured at one end thereof to a circular core to form a wheel, at least some of said leaves having an abrasive surface thereon, said wheel having a pair of circular grooves in the opposite sides thereof adjacent to said core and substantially concentric therewith, and a metal reinforcing member permanently adhered to each side of said wheel, said reinforcing members extending from the core of said wheel to said grooves, each of said reinforcing members having a circular right angular lip disposed within one of said grooves, the size of said lip being substantially equal to the size of said groove so that said lip substantially fills said groove, said wheel adapted to be removed from between said side plates and replaced with another wheel when said leaves have become worn down to the core, the core and reinforcing members of said wheel being discardable when said wheel is replaced.

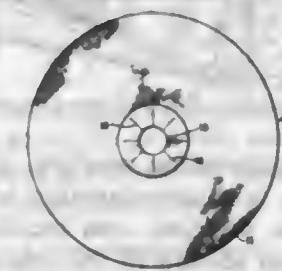
2,818,693
ABRASIVE WHEEL
Russell W. Bernstein and Aleck Block, Culver City, Calif.
Application October 15, 1956, Serial No. 616,014
7 Claims. (Cl. 51-194)



3. An abrasive wheel comprising a circular core, a plurality of abrasive segments having abrasive material on the outer side thereof, said segments being substantially oblong in shape, said segments being disposed so that their longer sides extend transversely across said core, said segments extending around the entire periphery of said core, with each of said segments overlapping substantially half of the adjacent segment, a pair of circular cardboard side pieces, the outer periphery of each of said side pieces overlying and being adhered to an end portion of each of said abrasive segments, said

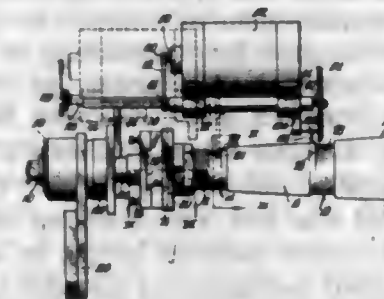
segments being held so that their midportions overlap and are held closely adjacent to said core with their ends disposed toward the center of said core.

2,818,694
ABRASIVE DISC
Berne Tocci-Guilbert, San Francisco, Calif., assignor to Berne Tocci-Guilbert, San Francisco, Calif., and Henry Gifford Hardy, jointly as trustees
Application January 25, 1955, Serial No. 483,900
3 Claims. (Cl. 51-195)



1. An article of manufacture being an abrasive disc for power rotating use comprising in combination a circular web of open weave fabric impregnated with abrasive and bonding medium leaving open spaces between the warp and woof of the fabric, said web having a circular aperture in the center thereof and providing opposite abrasive surfaces, pliable stiffening means covering a relatively narrow annular area of said web surrounding said aperture, said stiffening means being bonded to said web forming an integral nonabrasive gripping and holding area surrounding said aperture to be secured to power rotating means for rotation of said disc, and radial cuts extending outwardly from said aperture partially into the area of said stiffening means to leave an uninterrupted annular portion of said stiffening means between the outer ends of said radial cuts and the exposed abrasive surface.

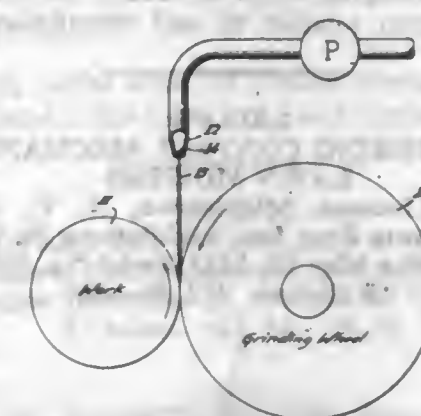
2,818,695
AXLE TUBE GRINDER
Charles R. Lockwood, Drexel, Mo.
Application December 13, 1954, Serial No. 474,702
1 Claim. (Cl. 51-241)



Apparatus for grinding an arcuate, external bearing surface upon an elongated axle tube or the like, said apparatus comprising: a grinding tool; a prime mover; means operably coupling the prime mover with the grinding tool; and structure adapted to be mounted on a generally cylindrical end portion of said tube having a central axis longitudinal to the tube and displaced from said surface thereof for mounting the tool and the prime mover directly and solely upon said portion of the tube for swinging movement relative to the tube, said structure including a cap directly connected with said portion of the tube, a frame assembly upon which the prime mover and the tool are mounted, and means pivotally mounting said assembly on said cap, said last-mentioned means including a plurality of successively interconnected, relatively reciprocable members, one of said members being fixedly mounted on the cap, and a pivot shaft mounted on the member most remote from the cap, said frame being pivotally mounted on said shaft, said members being rela-

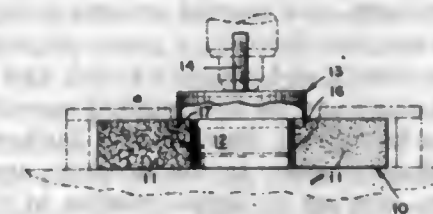
tively shiftable substantially perpendicularly to said axis to permit centering of the pivot shaft in alignment with said axis.

2,818,696
APPLICATION OF CUTTING FLUIDS IN GRINDING OPERATIONS
Reginald J. S. Pigott, Pittsburgh, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware
Application September 16, 1953, Serial No. 380,548
3 Claims. (Cl. 51-267)



1. Apparatus for applying a cutting fluid in grinding operations, said apparatus comprising, in combination with a grinding wheel and work piece, a nozzle directed at approximately right angles to the line of contact between the wheel and work piece, said nozzle having a sharp-edged, thin disc orifice, means for supplying a cutting fluid to said nozzle for discharge therefrom in a thread-like stream at a pressure of at least 250 pounds per square inch, said nozzle being positioned to direct the jet issuing therefrom into the space between the surfaces of the grinding wheel and the work piece and to the line of grinding contact.

2,818,697
METHOD FOR FORMING GROOVES IN ABRASIVE WHEELS
Aleck Block, Culver City, Calif.
Application September 20, 1956, Serial No. 610,936
6 Claims. (Cl. 51-281)

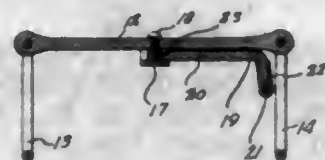


6. The method of forming a groove in the side of an abrasive wheel having a plurality of abrasive leaves comprising rotating a member having an edge, applying said edge to the side of said wheel so that the frictional engagement between the abrasive leaves of said wheel and said member causes the edge of said member to become heated, and simultaneously burning and cutting a groove in the edge of said wheel through the heating and rotation of said member.

2,818,698
SIDE REINING HORSE BIT
William O. Love, Andover, Ohio
Application September 7, 1956, Serial No. 608,520
1 Claim. (Cl. 54-71)

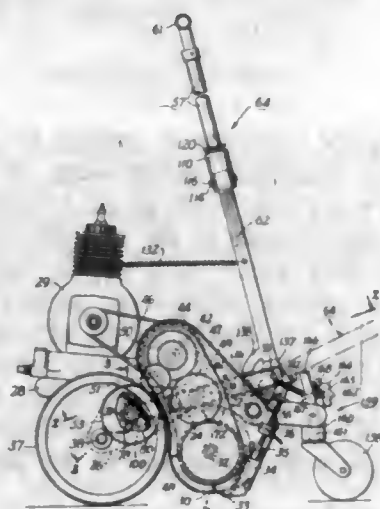
In a bridle bit, a transversely extending mouthpiece bar, rein rings pivotally connected to the opposite ends of the mouthpiece bar, a sleeve member rigidly secured to the intermediate portion of said mouthpiece bar, a generally L-shaped cheek arm engaged in said sleeve member and extending toward one end of said mouth-

piece bar, and a clamping screw threaded through said mouthpiece bar and extending into said sleeve member, said screw detachably securing said cheek arm in said



sleeve member, said cheek arm being formed with a plurality of spaced recesses, each adapted to receive the end of said clamping screw to secure the cheek arm in adjusted position relative to said mouthpiece bar.

2,818,699
POWER STEERING CONTROL MECHANISM FOR LAWN MOWERS
Richard D. Clemson, Middletown, N. Y., assignor to Clemson Bros. Inc., Middletown, N. Y.
Application May 18, 1953, Serial No. 355,524
19 Claims. (Cl. 56—26)

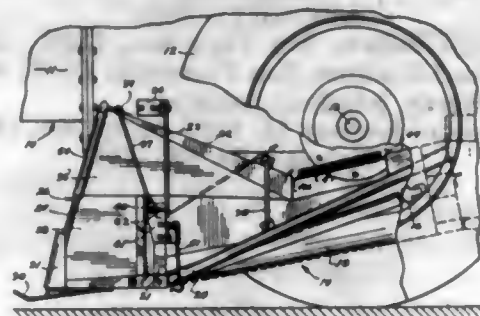


1. In a power lawn mower of the type having a pair of ground wheels, cutter mechanism, a motor and driving connections from the motor to said wheels and cutter, the combination therewith of a power steering control mechanism comprising a single control column having a handle area rigidly held thereon near the upper end of said control column, said control column being mounted to swing both up and down in a plane perpendicular to the axis of the wheels and laterally to left and right with respect to said plane and for longitudinal movement along its own axis to be moved closer to and farther from the axis of the wheels, means in the driving connection to each wheel for varying its speed relative to that of the opposite wheel, means controlling said speed-varying means respectively, one connected to each side of the control column, and engaged by it when it is moved to that side from an intermediate position, whereby when the column is swung to one side one wheel is driven ahead of the other, when the control column is swung to the other side the other wheel is driven ahead and at the intermediate position equal drive is applied to both wheels.

2,818,700
COTTON STRIPPER UNIT WITH COLLAPSIBLE HOOD
Thomas Blackman, Louisville, Ky., assignor to Minneapolis-Moline Company, Hopkins, Minn., a corporation of Minnesota
Application September 17, 1954, Serial No. 456,826
7 Claims. (Cl. 56—33)

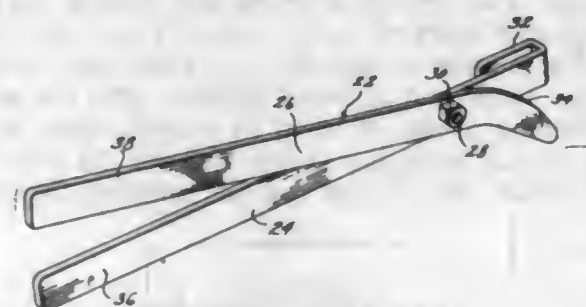
1. In a cotton harvester adapted to be mounted on a draft implement, a stripper unit for following along the plant rows and having mechanism for removing cotton from the plants, a gathering shield on the stripper unit for

guiding the plants into said mechanism as the harvester advances, said shield having upper and lower sections, the lower section being integral with the unit, the upper section pivotally associated with the lower section for vertical swinging movement between a raised operating position



and a lowered non-operating position, spring means connecting the unit to said upper section to yieldably retain said section in one position, and locking means on the unit for locking said section in the other position against action of the spring means.

2,818,701
CAM-LEVER TOOL FOR COUPLING AND UNCOUPLING DETACHABLE DRIVE CHAIN LINKS
John J. Erkkila, Frederick S. Dak.
Application August 6, 1956, Serial No. 602,356
2 Claims. (Cl. 59—7)



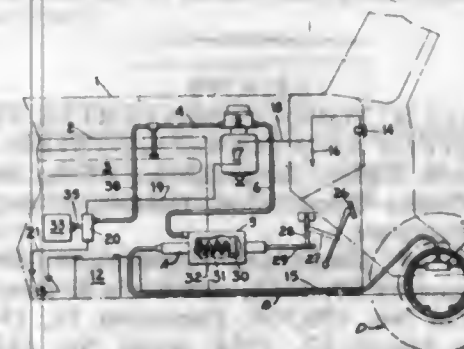
1. A tool adapted for use with a detachable link chain of the type having links formed of a pair of flat side members connected at one end by a bearing member and at the other end by a pintle member whereby the pintle member of one link is adapted for interlocking connection with the bearing member of an adjacent link, said tool comprising a first elongated, relatively wide, flat strap member, said strap member being transversely bent to form a U-shaped hook at one end thereof for gripping a side member of said one link and a second elongated, relatively wide, flat strap member having an elongated cam at one end thereof and engaging the edge of a side member on the opposite side of said adjacent link, and means adjacent said hook and said cam pivotally securing the second flat strap member to the side of the first flat strap member opposite that carrying the hook for enabling the members to effect the selective coupling and uncoupling of the links.

2,818,702
SUCTION POWER BRAKE
Raymond Deibel, Cheektowaga, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application February 12, 1954, Serial No. 409,846
6 Claims. (Cl. 60—14)

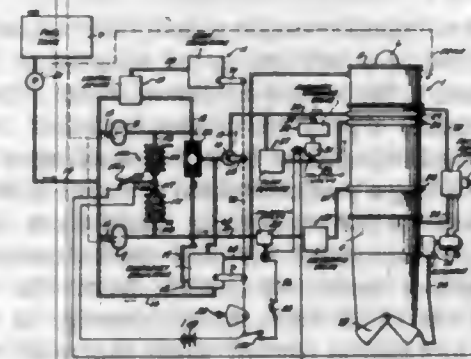
1. In an automotive vehicle having an engine with a primary source of suction, an engine driven oil pump and a brake, an accessory system comprising, a pneumatic cylinder connected to the primary source of suction, an auxiliary source of suction interposed between the cylinder and the primary source, a piston enclosed within the cylinder and connected to the brake, said piston mov-

ing so as to activate the brake when air is withdrawn from the cylinder by either the primary or auxiliary sources of suction, and pressure responsive means cou-

pling the inlet to said combustion section upon the ignition of said combustible charge comprising a control



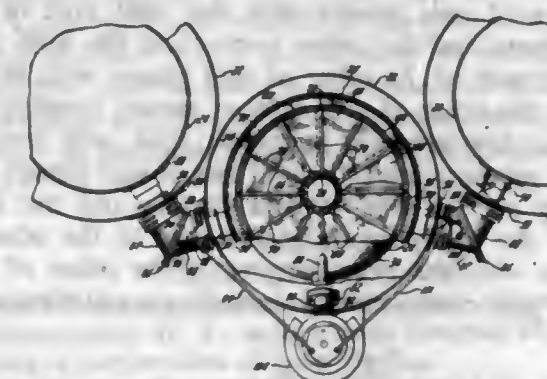
2,818,703
JET ENGINE FUEL, PRESSURE RATIO, AND NOZZLE AREA CONTROL
Irving W. Victor, Cincinnati, Ohio, assignor to General Electric Company, a corporation of New York
Application July 1, 1954, Serial No. 440,698
3 Claims. (Cl. 60—35.6)



1. In combination with a thermal powerplant comprising a compressor, combustion device, turbine variable area exhaust section in series flow relation and having a primary and an auxiliary fuel burning system, the combination of a fuel reservoir, fuel pumping means, conduit means including fuel flow regulating means connecting said fuel pumping means to said primary fuel burning system, conduit means including a shutoff valve connecting said fuel pumping means to said auxiliary fuel burning system, means for sensing the fluid pressure at the compressor discharge, means for sensing the fluid pressure of the gases at the turbine exhaust, means responsive to the ratio of said compressor discharge pressure to said turbine exhaust pressure to control the area of said variable area discharge section to maintain said ratio at a first predetermined value when said shutoff valve is open and to maintain said ratio at a second predetermined value when said shutoff valve is closed.

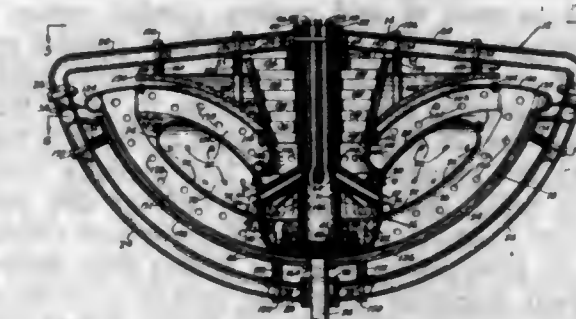
2,818,704
TURBINE ENGINE STARTING SYSTEM
Harry C. Karcher, Mansfield, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 30, 1952, Serial No. 317,805
12 Claims. (Cl. 60—39.14)

12. The combination in a gas turbine engine including a turbine-driven compressor, a combustion section having an inlet communicating with said compressor, and means for starting said engine, of, means for supplying a combustible charge to said combustion section, means for igniting said combustible charge, and valve means for



valve having radial array of pivotal overlapping shutter flaps positioned in the inlet of the said combustion section.

2,818,705
ROTARY JET PROPELLED ENGINE
Louis L. Ledet, Charleston Heights, S. C.
Application December 10, 1954, Serial No. 474,399
5 Claims. (Cl. 60—39.36)

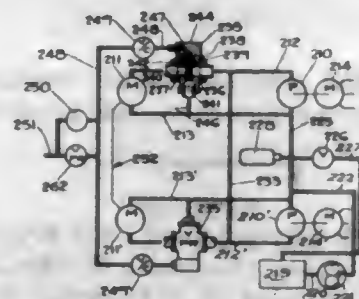


1. An internal combustion engine comprising a frame assembly, a stationary assembly carried by said frame assembly and disposed therewithin, said stationary assembly including a hollow stationary shaft and a housing having a hollow interior carried by and arranged in spaced relation about said shaft to define a combustion chamber wherein a fuel-air mixture can be ignited to create heat, a rotor assembly including jet exhaust means disposed within said frame and mounted for rotation about said housing with said shaft as its axis and in encircling relation to said combustion chamber, and air compression means including a portion thereof carried by and rotatable with said rotor assembly to produce air under pressure to said combustion chamber and to said rotor assembly with the heat generated in the combustion chamber heating the air forced into said rotor assembly to cause expansion thereof, means carried by said rotor assembly for guiding the expanded heated air from said combustion chamber to said exhaust means where escape therefrom to the atmosphere will create a thrust imparting rotation to said rotor assembly about said shaft, said housing being of annular form and including a louver plate in the form of a collar carried by said shaft in spaced concentric relation thereto to define the inner wall of the combustion chamber, said plate having a plurality of louver openings therethrough through which the air placed under pressure may enter into the combustion chamber.

2,818,706
HYDRAULIC SYSTEM
Fred J. Wright, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a corporation of Ohio
Application April 15, 1953, Serial No. 348,983
2 Claims. (Cl. 60—53)

1. A hydraulic circuit for driving two hydraulic motors mechanically interconnected to operate together, said circuit including two hydraulic pumps and two hydraulic

motors, means forming two conduits for high pressure hydraulic fluid, one connecting the high pressure output port of one of said pumps with the inlet port of one of said motors and the other connecting the high pressure output port of the other of said pumps with the inlet port of the other of said motors, means forming two conduits for low pressure hydraulic fluid, one connecting the low pressure intake port of one of said pumps with the exhaust port of one of said motors and the other connecting the low pressure intake port of the other of said pumps with the exhaust port of the other of said motors, by-pass conduit means including a relief valve in-

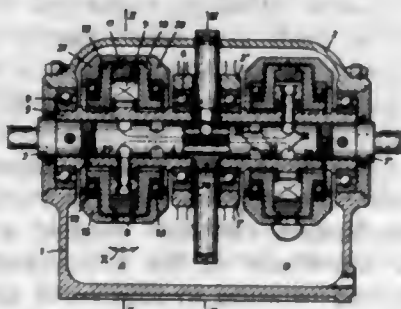


terconnecting said high and low pressure conduit means connected to each of said motors, conduit means connecting said pair of high pressure conduits, conduit means connecting said pair of low pressure conduits, said last named two conduit means functioning to cause the hydraulic pressures in said high pressure conduits to remain equal and the pressures in said low pressure conduits to remain equal, means supplying fluid to said pair of low pressure conduits, and accumulator means connected to said low pressure conduits for adding fluid thereto to replace fluid displaced from said circuit as a result of sudden increases in the output volume of said motors thereby preventing cavitation in said circuit.

2,818,707 ROTARY PUMP AND MOTOR HYDRAULIC TRANSMISSION

Erwin Sturm, Boll, near Goppingen, Germany
Original application October 9, 1950, Serial No. 189,207, now Patent No. 2,750,895, dated June 19, 1956. Divided and this application April 24, 1956, Serial No. 580,281

2 Claims. (Cl. 60-53)



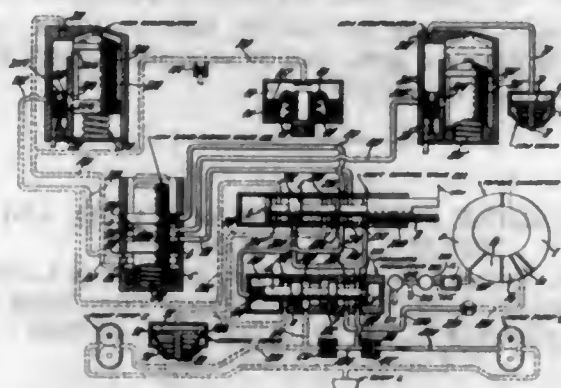
1. A hydraulic drive comprising a housing, ball bearings mounted in the housing, a liquid pump and a liquid motor, said pump and motor each including a vane drum, a hub for each drum rotatably supported by the bearings, an axial bore in each hub, said hubs and bores being axially aligned, a casing surrounding each vane drum, a carrier supporting each casing for free rotation, means slidably mounting each carrier in the housing, each casing being adjustable eccentrically with respect to its vane drum by sliding movement of each carrier, each of said casings and its vane drum defining a working chamber, means forming alternate radial slots and passages in each vane drum, a vane slidably mounted in each of said radial slots, a distributor shaft closely fitted into the bores of the hubs, said distributor shaft having longitudinal passages therein to establish communication between the working chambers of the pump and motor through the

radial passages in said vane drums, and complemental means on the distributor shaft and housing preventing rotation of the shaft yet allowing the shaft to follow radial movements and tilting movements of the vane drums.

2,818,708 HYDRAULIC TORQUE CONVERTER FLUID SUPPLY AND COOLING SYSTEM

Oliver Kenneth Kelley, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Continuation of abandoned application Serial No. 146,723, January 23, 1950, which is a division of application Serial No. 790,950, December 11, 1947. This application March 17, 1954, Serial No. 416,751
3 Claims. (Cl. 60-54)

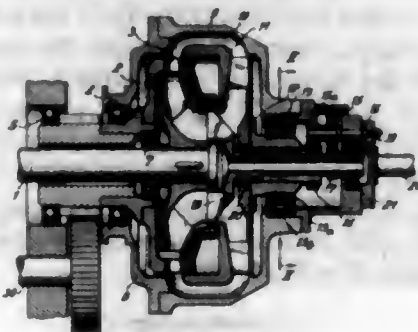


1. In a hydrodynamic torque transfer device, an impeller and a turbine in a working space adapted to be filled with liquid, means for supplying liquid under pressure to the working space, a pressure-responsive relief valve for permitting or restricting flow from the working space and thereby maintaining a predetermined pressure in the working space, a passage for conducting liquid from the relief valve, a lubrication system for said device connected to the passage and a restricted conduit from the working space around the relief valve to the passage to conduct liquid to the lubrication system when the relief valve is closed.

2,818,709 TORQUE CONVERTER

Albert Finsterwalder, Kohn-Bruck, Germany, assignor to Klöckner-Humboldt-Deutz Aktiengesellschaft, Kohn, Germany

Application September 10, 1956, Serial No. 609,005
2 Claims. (Cl. 60-54)



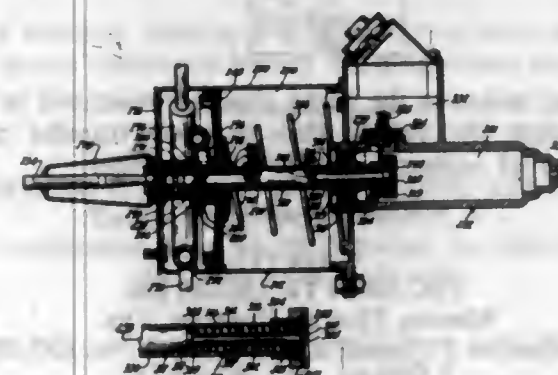
1. In a fluid operable torque converter: a pump wheel, a turbine, a first reaction member interposed between said turbine and said pump wheel so as to follow said turbine and to precede said pump wheel when looking in the direction of flow of the fluid for operating said torque converter, one-way brake means associated with said first reaction member to prevent reverse rotation of said first reaction member while allowing free forward rotation thereof, a second reaction member interposed between said first reaction member and said pump wheel, and a step-up gear train interposed between and positively drivingly interconnecting said first and second reaction mem-

bers so as to effect rotation of said second reaction member by said first reaction member at a speed higher than that of said first reaction member and in the same direction as the latter.

2,818,710 POWER ASSISTED ACTUATOR

Earl R. Price, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application February 19, 1954, Serial No. 411,386
31 Claims. (Cl. 60-54.6)

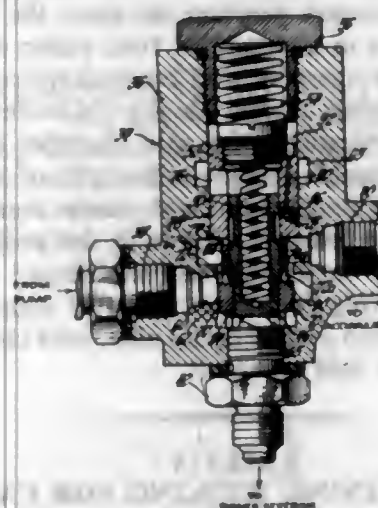


31. A hydraulic pressure producing device comprising a power cylinder, a hydraulic cylinder, a pressure responsive movable wall in the power cylinder, a pressure transmitting member acted on by the movable wall and provided with a fluid displacing portion in the hydraulic cylinder, manually operable valve means including a control member for controlling the operation of the movable wall, reaction means for transmitting a reaction force as a function of the pressure developed in said hydraulic cylinder to said manual control member, said means embracing two reaction elements each being capable of transmitting a reaction force to said control member that is dependent upon pressure in said hydraulic cylinder, and yieldable means arranged to absorb the initial reaction force acting on one of said elements.

2,818,711 PRIORITY VALVE

Clovis W. Lincoln, Joseph J. Verbrugge, and Phillip B. Zeigler, Saginaw, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 29, 1954, Serial No. 478,432
7 Claims. (Cl. 60-97)



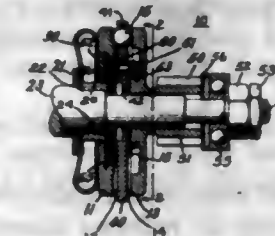
1. In a fluid pressure system comprising a plurality of fluid motors one of which must have fluid pressure available to it at all times, the combination of a valve receiving fluid from a source of fluid pressure and having outlets to a pressure container and to said one of said motors, said valve including a first member movable to control

the distribution of fluid as between said outlets, said member being incapable of depriving said one motor of more than a predetermined amount of the output of said source of fluid pressure, and a second movable member through which said first member is controlled, as determined by the pressure prevailing in said pressure container and the pressure in the fluid circuit including said one motor.

2,818,712 SLIPPING CLUTCH

Edwin W. Barnes, Baltimore, Md., and Albert L. Hardy, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York

Application November 8, 1954, Serial No. 467,323
11 Claims. (Cl. 64-29)

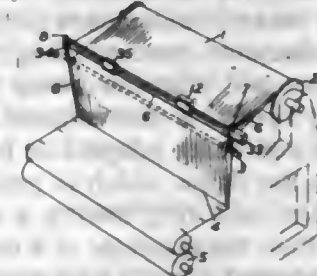


1. A slipping clutch comprising a rotatable driving member having a face with wavelike contours thereon, a rotatable driven member having a face with wavelike contours thereon similar to the contours on the driving member face, a plurality of guided rollers disposed between said faces, one of said members being axially movable in either direction, guide means for maintaining the phase relationship between said rollers the same as that between the peaks of said wave-like contours on said members and means for applying a predetermined force for urging said one member toward the other member to maintain the rollers in contact with said faces.

2,818,713 KNITTING MACHINE

Allan William Henry Porter, Burton-on-Trent, England, assignor to F. N. F. Machinery Manufacturing Company Limited, Burton-on-Trent, England, a British company

Application April 26, 1954, Serial No. 425,445
8 Claims. (Cl. 66-125)



1. Apparatus for ascertaining at predetermined intervals variations in the average rate of feed of yarn per stitch in a flat warp knitting machine having a positively driven warp beam let-off mechanism, comprising mechanism for marking a yarn at time intervals of a predetermined number of courses of stitches, an adjustable index mark, means to lead the marked yarn past the said mark and thence to the knitting point, and indicator means operable at intervals of the said number of courses.

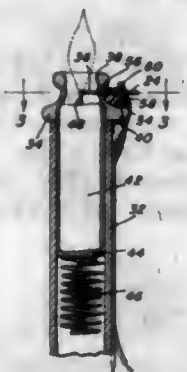
2,818,714 CANDLE LIGHTER

Robert H. Inns, Chicago, Ill.

Application June 22, 1956, Serial No. 593,251
1 Claim. (Cl. 67-3)

A candle lighter comprising a support for a candle, an electrically insulative cap on said support overlying said candle, an electrode holder on said cap, electrodes ad-

justably carried by said electrode holder, means for connecting said electrodes to a high voltage source, said support comprising a cylindrical tube, said cap having a bore in alignment with said tube, a candle in said tube, said cap having an upper portion having a bore of reduced diameter, said cap having apertures in said reduced upper portion extending transverse to and communicating with said bore, said electrodes adjustably extending through



said apertures in said bore, said candle engaging the upper portion having a bore of reduced diameter holding said candle below said electrodes with said candle having a wick extending upwardly and being disposed between said electrodes, said support further including a plate in said tube, and a spring in said tube urging said plate to a raised position, said spring urging said candle against said upper portion of said cap having a bore of reduced diameter to maintain said wick between said electrodes.

2,818,715
LIGHTER FOR BLIND PERSONS
Juan R. Polack, New York, N. Y., assignor of one-fourth to Lucio Landerer, Washington, D. C.
Application August 6, 1952, Serial No. 302,873
1 Claim. (Cl. 67-7.1)

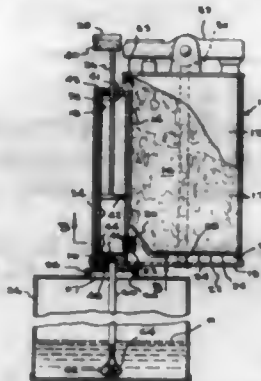


Apparatus of the character described comprising the combination of a pyrophoric lighter with a detachable cigarette holding means, said means consisting of a ring having an inner diameter corresponding to that of a conventional cigarette, said diameter being precisely dimensioned to slidably receive a conventional cigarette by line contact therewith and being adapted to hold the end of a cigarette adjacent the flame which is produced by operation of said lighter, said ring having a thickness that is substantially less than the diameter of a conventional cigarette, and being located closely adjacent to the flame of said lighter when the same is operated, said ring also being manually accessible at all times on both sides thereof and being rigidly secured to the casing of said lighter in a fixed position, said ring having an annular interior bevelled surface, said bevelled surface flaring outwardly and away from said lighter, whereby a blind person can readily position a cigarette in said ring in proper spaced relationship with said flame.

2,818,716
CIGARETTE LIGHTER AND FUELING DEVICE THEREFOR
Mecom Morris, Houston, Tex.
Application November 9, 1956, Serial No. 621,340
9 Claims. (Cl. 67-7.1)

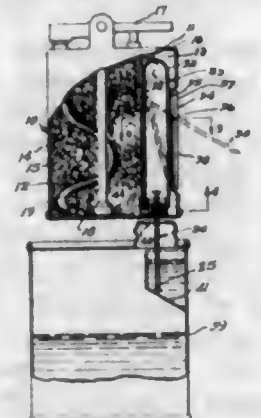
1. A lighter and fuel injecting device therefor comprising a lighter casing including communicating wick and pump chambers; a fuel container engageable with the casing in communication with the pump chamber; a pair

of check valves, one arranged for flow of fuel from the fuel container to the pump chamber and the other for flow of fuel from the pump chamber to the wick chamber;



and pump means in the pump chamber operative to pump fuel through the valves, thus to effect transfer of fuel from the fuel container to the wick chamber.

2,818,717
CIGARETTE LIGHTER
Mecom Morris, Houston, Tex.
Application February 8, 1957, Serial No. 639,057
3 Claims. (Cl. 67-7.1)

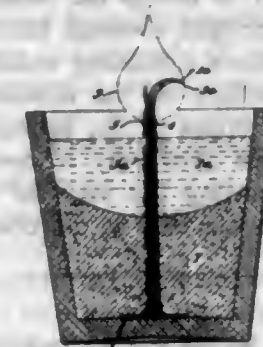


1. In a lighter, an upstanding casing having a reservoir and a chamber having an outlet port connecting said chamber in communication with said reservoir, there being an opening in the bottom of said casing connecting the interior of said chamber with the exterior of said casing, a filler mechanism mounted in said chamber, said mechanism comprising an upstanding hollow tube normally within said chamber and having the lower end provided with means normally closing said opening, said tube being mounted in said chamber for projectile and contractile movement into and out of said chamber and adapted when in the projected position to have the lower end thereof submerged in a supply of fuel, pump means positioned within said chamber and operatively connected to said tube, said pump means having its outlet side connected in communication with said chamber outlet port, and manually actuable means exteriorly of said casing and operatively connected to said pump means for actuating the latter when said tube is in the projected position and has the lower end thereof submerged in a supply of fuel for conveying fuel from said fuel supply through said tube, said pump means outlet side, said chamber outlet port, and into said reservoir.

2,818,718
SELF-SUSTAINING WICKING FOR CANDLE LIGHTS
William A. Roberts, Cincinnati, Ohio, assignor to The Atkins & Pearce Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio
Application May 18, 1956, Serial No. 585,709
6 Claims. (Cl. 67-22)

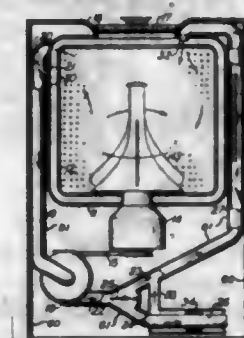
1. A candle wicking comprising a body of textile strands, an external reinforcing wire of flame-destructible

metal extending longitudinally along one side of the body, and an additional pair of textile strands forming a crossed



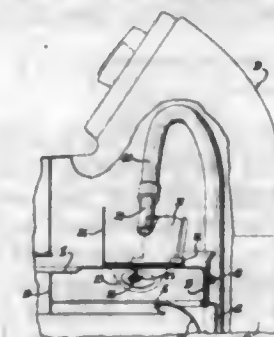
helical winding, binding the wire to the body at spaced apart points where the helical windings cross each other.

2,818,719
COMBINED WASHING AND DRYING APPARATUS
Kermit R. Cline, Richmond, Va.
Application May 19, 1952, Serial No. 288,733
14 Claims. (Cl. 68-19)



10. Washing and drying apparatus comprising a closed tub having an opening for the insertion of clothes, a cover to close said opening, a basket within said tub for receiving fabric articles to be washed and dried, an air inlet conduit for directing air into said tub, means for heating air in said inlet conduit, an air outlet conduit communicating with said tub, a blower connected to said inlet and outlet conduits for circulating air through said inlet and outlet conduits, an air intake from the atmosphere to said inlet conduit, valve means for selectively directing air from said outlet conduit for recirculating air passing through said outlet conduit or for supplying fresh air from the atmosphere through said air intake and means for transferring heat from air passing through said outlet conduit to fresh air supplied to said inlet conduit.

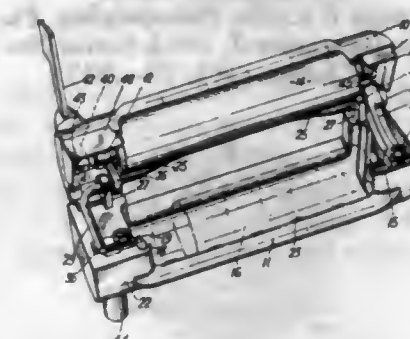
2,818,720
ANTI-SYPHONING FLUID INLET SYSTEM FOR WASHING MACHINES
Peter Eduard Geldhof and Robert E. Lake, Benton Harbor, Mich., assignors, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application July 9, 1953, Serial No. 367,036
6 Claims. (Cl. 68-207)



1. An anti-siphoning inlet for clothes washing machine comprising a ring adapted to fit within the upper margins

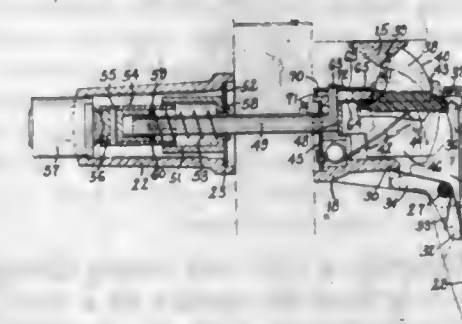
of a tub and having a flange extending inwardly therefrom and sloping downwardly toward the tub, the inner margins of which flange define a clothes receiving opening, an embossment on said flange having a generally horizontal top surface and having a depression therein opening therethrough at an angle, an angularly extending nozzle mounted on said embossment in vertically spaced relation with respect thereto and inclined to direct a stream of water through said opening at the angle thereof, and an imperforate baffle cooperating with said nozzle and extending upwardly from said flange along the inner side of said flange and said nozzle, to deflect water flowing over the top of said flange away from the region of said nozzle.

2,818,721
CLOTHES WRINGERS
Frederick Roy Sibbald, Greenford, England, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application June 24, 1955, Serial No. 517,833
Claims priority, application Great Britain June 30, 1954
4 Claims. (Cl. 68-262)



1. A clothes wringer comprising a pair of frame members, a pair of rollers, one in each of said frame members, a torsion bar spring forming a hinged connection between said frame members for relative movement of the latter and corresponding relative movement of said rollers, said torsion bar being unitary for the length of said rollers and having an end fixed to one of said frame members and the other end movable, and latch means on the other frame member mounted for movement to one position into engagement with said movable end of said torsion bar to transfer the torsion bar pressure to said rollers by relative movement of the latter about said torsion bar hinge, and said latch means movable to a second position out of engagement with said movable end to release said other frame member and said rollers from the force of said torsion bar and permit relative movement of said frame members about said torsion bar hinge.

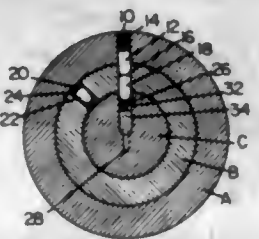
2,818,722
DOOR LATCH MECHANISM
Herbert G. Shaw and Nathan Kulbersh, West Haven, Conn., assignors to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application April 26, 1955, Serial No. 503,972
14 Claims. (Cl. 70-146)



7. Door latch mechanism including inside and outside housings, an inside handle pivoted to the inside housing

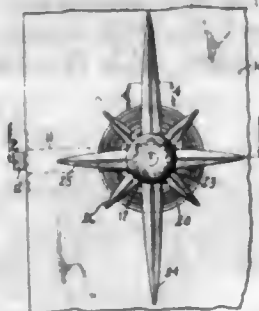
a latch bolt movably mounted in the inside housing to be pivotally retracted about either of two axes, one at each side of the bolt, by engagement with one side or the other of the bolt with a door strike, a release lever pivotally mounted in the inside housing to normally engage and prevent retraction of the bolt about one axis, means connecting said handle to said lever to move the latter to position to disengage the bolt upon movement of the housings, an inside handle pivoted to the inside housing, and connected to said release lever to actuate the same, an axially movable bar adapted to pass through a door into the outside housing and engaging said slidable member, means carried by the outside housing for axially moving said bar, means for restraining said bar against axial movement in one position to which it is rotated, means carried by the inside housing for rotating said bar to such position, and key-operated lock mechanism carried by the outside housing and connected to said bar to return it to its original position wherein said bar is capable of axial movement.

2,818,723
CYLINDER LOCK
Morris J. Levin, Philadelphia, Pa.
Application December 3, 1952, Serial No. 323,791
3 Claims. (Cl. 70-383)



2. A key-actuated combination lock comprising an outer barrel, a central barrel and an inner core, concentric with each other, a key-way in said core, means in said core adapted to coact with a second means in said central barrel to establish a locking combination both said means being adapted to be actuated by a key insertable into said key-way, a third means in said central barrel coacting with a fourth means in said outer barrel to lock said combination in position, said first means comprising tumblers slidable in a series of bores, and said second means comprising tumblers slidable in a second series of bores, and a plurality of balls in staggered arrangement between said first and second series of tumblers when their respective bores register.

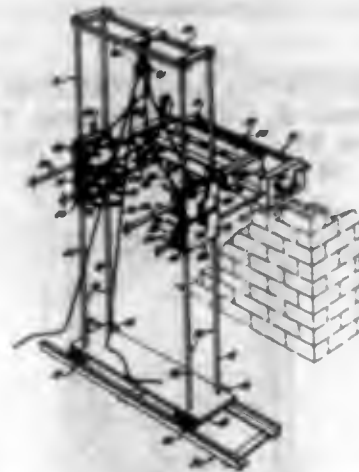
2,818,724
ESCUTCHEON PLATE FOR DOOR LOCKS
Richard J. Ohno, Branford, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application September 28, 1955, Serial No. 537,235
4 Claims. (Cl. 70-452)



3. In combination, a door lock casing having a sleeve portion projecting from the surface of a door, an inner ornamental disklike member having a central opening through which said sleeve portion is received to mount said member against the face of the door, and an outer

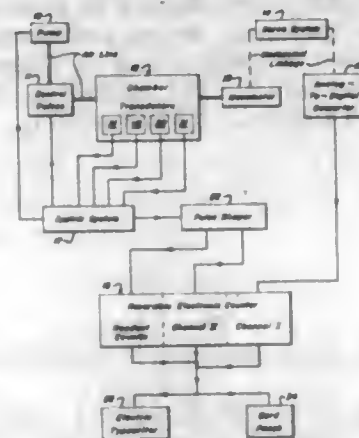
pronged element removably secured to said sleeve, the rear face of said pronged element abutting the face of the disklike member to clamp the latter against the face of the door, said pronged element having a hub portion and pronglike members extending radially therefrom between which the surface of the disklike member is exposed, and the rear edges of the prongs of said pronged element being dishd outwardly to overlie said disklike member while permitting the ends of the prongs to lie in close contact with the face of the door.

2,818,725
BUILDING BLOCK LAYING DEVICES
David Joseph, Paterson, N. J.
Application October 22, 1953, Serial No. 387,579
9 Claims. (Cl. 72-129)



7. Apparatus for the laying of building blocks to form a wall, said apparatus comprising: an open vertical elevator frame; a first carriage mounted to reciprocate in said frame; a second carriage reciprocally mounted above said first carriage in said frame; a mortar dispenser tray having spaced openings therein carried by said second carriage; a block laying receptacle carried by said first carriage; means for locking said carriages together; means on said first carriage for horizontally reciprocating said receptacle; means on said second carriage for horizontally reciprocating said dispenser; and means supporting said frame for horizontal movement.

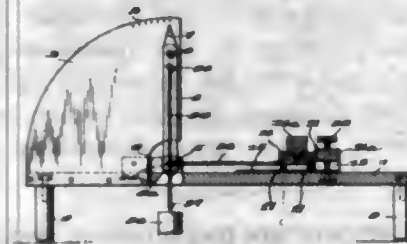
2,818,726
AUTOMATIC CALIBRATING SYSTEM FOR PRESSURE TRANSDUCERS
Edward L. Amonette and George W. Rodgers, Albuquerque, N. Mex., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application October 17, 1955, Serial No. 541,103
3 Claims. (Cl. 73-4)



1. The system for calibrating electromechanical pressure transducers comprising means for applying variable absolute pressure to at least one transducer; a mercurial

manometer for measuring the pressure, having a servo-controlled scanner for following the top of the mercury column; an analog-to-digital converter mechanically coupled to the scanner and capable of representing an incremental change in pressure, as evidenced by a change in the position of the scanner, by an electrical impulse of appropriate polarity; electrical counting means for maintaining a continuous algebraic count of electrical impulses received from said converter whereby a continuously available measurement of pressure applied to the transducer is maintained; means for recording the count upon command of the transducer; and means for sequentially connecting the electrical outputs of a plurality of pressure transducers to the recording means without disturbing the applied pressure.

2,818,727
HARDNESS TESTING APPARATUS
Maynard R. Euerard, Short Hills, N. J.
Application April 25, 1956, Serial No. 580,535
2 Claims. (Cl. 73-78)

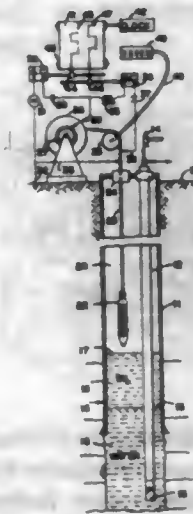


1. Apparatus for testing the surface qualities of an impressionable test specimen having a flat surface comprising a test frame; means for securing said test specimen to said frame with its flat surface in a horizontal plane; a deformation body, said body having depending supporting portions with spherical segment surfaces at the lower extremities thereof, said spherical segment surfaces contacting said specimen surface to support said deformation body thereon and to cause a degree of surface deformation thereof; means for applying a lateral force to said deformation body tending to cause lateral movement thereof, said force applying means comprising a substantially vertical operating lever pivotally secured at its lower end to said test frame and movable in a vertical plane through the longitudinal axis of said frame, a weight chain secured at its upper extremity to the upper end of said operating lever and hanging freely therefrom, a weight secured to the lower extremity of said weight chain, and an actuating chain secured at one end to said deformation body and at the other end to said weight chain intermediate its extremities at a junction point of substantially the same elevation as said chain connection to said deformation body, whereby upon pivotal movement of said operating lever in a direction away from said deformation body, a force is transmitted to said deformation body through said actuating chain tending to cause movement of said deformation body toward said operating lever; and means for indicating the lateral force required to be applied to said deformation body to cause commencement of lateral movement thereof.

2,818,728
PRODUCTION TESTING OF WELLS WHILE VARYING PRODUCING CONDITIONS
Ralph E. Hartline and Daniel Silverman, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware
Application August 14, 1953, Serial No. 374,178
9 Claims. (Cl. 73-155)

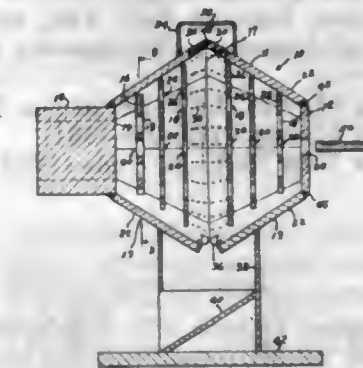
1. The method of testing wells which produce both oil and water which comprises the steps of changing the rate of withdrawal of liquids from near the well bottom to change the producing conditions of a well and initiate

continuing changes in its bottom-hole pressure which during a period of time continuously vary the production of liquids from the formations into the well bore, and substantially simultaneously locating and recording with respect to time successive positions of both the liquid level and the oil-water interface therein during said period of



time, while said level and said interface are each moving between two equilibrium positions, one of said equilibrium positions being a position of static equilibrium and the other being a position of producing equilibrium, whereby values of bottom-hole pressure and corresponding production rates of oil and water respectively can be computed.

2,818,729
BULLET TRAP
Ralph M. Ferguson, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application July 15, 1955, Serial No. 522,408
6 Claims. (Cl. 73-167)
(Granted under Title 35, U. S. Code (1952), sec. 266)

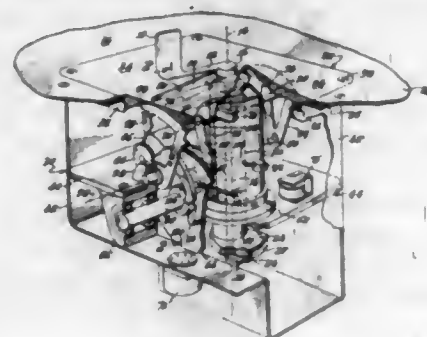


1. A bullet trap comprising an armored chamber, said chamber having spaced parallel first and second end walls and connecting side walls, said first end wall having a bullet-receiving opening therein, said second end wall comprising an armored steel block having an inner face disposed substantially perpendicular to the path of standard steel bullets fired into said chamber through the bullet-receiving opening in said first end wall, said armored block being sufficiently bullet-resistant to prevent bullets penetrating through it and escaping from the chamber, said armored block formed from standard naval homogeneous armor plate and having a Brinell hardness number of approximately 255 so that the impact pressures between the armored block and the bullets cause fragments of the bullets smashed on the armored block to fuse to the armored block at the point of impact and oppose the progressive increase in the size of the indentation in the block caused by successive impacts with high velocity bullets.

2,818,730

RETRACTABLE AIRCRAFT INSTRUMENT

Gabriel M. Giannini and Arthur E. Miller, Pasadena, and Milford D. Gibson, Los Angeles, Calif., assignors to G. M. Giannini & Co., Inc., Pasadena, Calif., a corporation of New York
Application August 5, 1955, Serial No. 526,682
12 Claims. (Cl. 73—180)

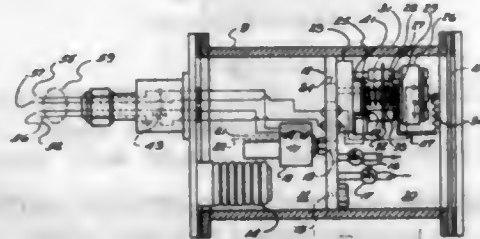


2. In a device for sensing a physical property of an airstream adjacent an outer surface of an aircraft, a frame having an apertured outer face and adapted to be mounted in an aircraft with the outer face substantially flush with an outer surface thereof, a support mounted on the frame for movement between an operating position and an idle position, a sensing element mounted on the support, the sensing element extending through the aperture beyond said surface in operating position of the support and being withdrawn inwardly of said surface in idle position of the support, control means actuable to shift the support between its said positions, shutter means responsive to the control means and acting to close the aperture when the support is in idle position, and shutter means responsive to the control means and acting, when the support is in operating position, to close that portion of the aperture not occupied by the sensing element.

2,818,731

SURFACE RECORDING UNDERWATER PRESSURE MEASURING DEVICE

Clyde A. Whittaker, Panama City, Fla., assignor to the United States of America as represented by the Secretary of the Navy
Application May 29, 1956, Serial No. 588,198
3 Claims. (Cl. 73—301)
(Granted under Title 35, U. S. Code (1952), sec. 266)



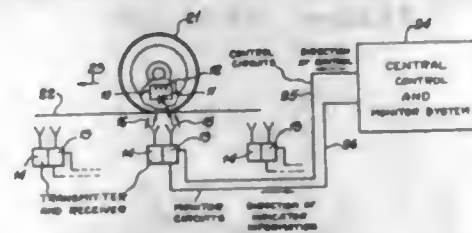
1. In apparatus for measuring underwater pressure variations due to the overhead passage of waves and swells in which a pressure-difference sensitive element varies an impedance in a bridge circuit to provide a pressure reading and in which the calibration of the apparatus is checked by inserting a known impedance in the bridge circuit, an underwater pressure pickup unit comprising a liquid filled fluid tight container, an inner wall separating the container into two compartments one of which has rigid walls and a gas filled compressible bellows and the other of which has a flexible outer wall adapted to be subjected to sea pressure, a differential pressure sensing device mounted to be subjected to the pressures in the two compartments, a breather orifice in the inner wall to provide for slow equalization of pressure in the two compartments, a normally closed rotary slide

valve mounted in the inner wall and having three positions in which it is, respectively, closed, open and open, for providing in each of its open positions rapid pressure equalization in the two compartments, surface controlled means for rotating the slide valve step by step from one position to the next in sequence, a calibrating circuit, and means operative to close the calibrating circuit when the valve moves from open position to open position and to interrupt the calibrating circuit when the valve moves from open position to closed position.

2,818,732

DEVICE FOR REMOTE TEMPERATURE MEASUREMENT

Frank K. Bennett, Iselin, N. J., assignor to Gulton Industries, Inc., a corporation of New Jersey
Application February 8, 1955, Serial No. 486,879
5 Claims. (Cl. 73—362)

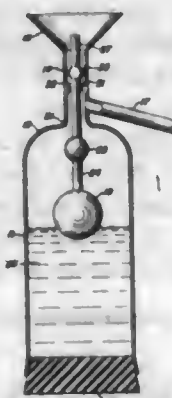


1. A remote temperature measurement system comprising a temperature sensitive capacitor whose dielectric constant varies with temperature and an inductance in a closed circuit, electromagnetic wave transmission and receiving means directed to transmit and receive signals to and from said circuit, said transmission frequency having at least one value in the range of resonant frequencies of said circuit, means in said receiving means responsive to the resonant frequency of the signal emitted by said circuit upon excitation from said transmitted signal, and indicating means cooperating with said receiving means for indicating the temperature affecting said capacitor as a function of the frequency of the received signal.

2,818,733

SELF-CLOSING LIQUID RECEIVER

William E. Stanley, Jr., Crete, and Ernest Fruehauf, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application April 20, 1956, Serial No. 579,637
4 Claims. (Cl. 73—426)

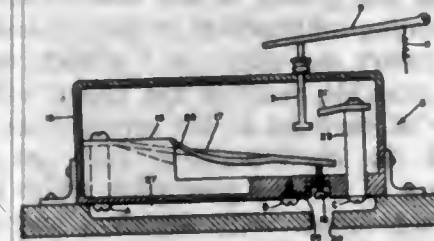


1. A self-closing liquid receiver comprising a vessel provided with an upper end-closure, a filling conduit positioned in said upper end-closure, a side-arm conduit extending downwardly from said filling conduit and a float means within said vessel adapted to close the lower end of said filling conduit by rising to that position in response to the action of liquid entering said vessel through said filling conduit.

2,818,734

SHOCK ACTUATED MECHANISM

Boyd A. Howe, Farmingdale, N. Y., assignor to the United States of America as represented by the Secretary of the Navy
Application May 20, 1954, Serial No. 431,303
8 Claims. (Cl. 74—2)
(Granted under Title 35, U. S. Code (1952), sec. 266)

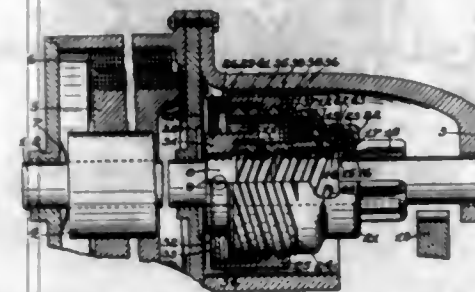


2. A shock actuated device adapted to release a trigger mechanism, comprising a housing, a pin slidably secured in said housing and adapted to engage such trigger mechanism, a support mounted on said housing remote from said pin, and a snap spring secured on said support, said snap spring including a plurality of tines and a groove in said support receiving the ends of said tines, said snap spring being normally out of contact with said pin and the tines being compressed whereby said spring is snapped through dead center into pin engaging position to release such trigger mechanism.

2,818,735

STARTER GEARING FOR INTERNAL COMBUSTION ENGINES

John J. Sabatini, Horseheads, N. Y., assignor to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware
Application February 23, 1956, Serial No. 567,354
6 Claims. (Cl. 74—7)



1. In an engine starter drive a motor including a stationary field and an armature mounted on a rotary shaft, a hollow screw shaft fixed thereon, a control nut threaded on the screw shaft, a pinion slidably journaled on the motor shaft for movement into and out of mesh with a gear of the engine to be started, means for coupling the pinion to the control nut; said motor shaft being mounted with freedom for limited longitudinal movement, yielding means biasing the motor shaft axially away from its normal operative position and means rendered operative by longitudinal displacement of the motor shaft responsive to the mutual attraction of the field and armature when the motor is energized for positively traversing the pinion into partial mesh with the engine gear responsive to rotation of the motor shaft.

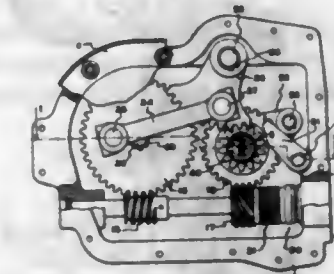
2,818,736

DRIVE MECHANISM FOR AUTOMATIC WASHING MACHINES AND THE LIKE

Max J. Lochle, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application October 27, 1954, Serial No. 465,011
11 Claims. (Cl. 74—81)

11. A drive mechanism comprising a reversible input shaft, a high-speed output shaft, a driving connection between said input shaft and said high-speed shaft in-

cluding selectively operable engaging means depending upon direction of input shaft rotation, an oscillatory output shaft coaxial and journaled with respect to said high-speed shaft, said oscillatory shaft tending to rotate at high-speed with said high-speed shaft, an oscillatory driving member journaled on said oscillatory shaft, a clutch between said oscillatory driving member and its shaft engaged by relative axial movement, means biasing said clutch into engagement, means moving said clutch to a disengaged position responsive to transmis-

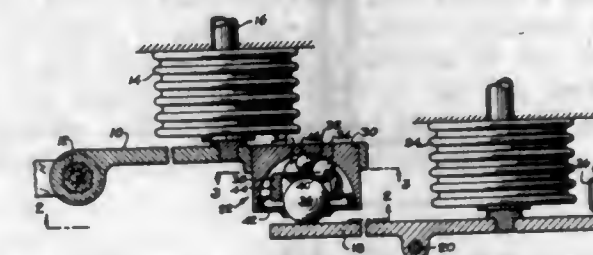


sion of power to said high-speed shaft, and cooperating means between said oscillatory output shaft and its associated driving member preventing re-engagement of said clutch when said oscillatory shaft is rotating with said high-speed shaft at a velocity exceeding maximum velocity of said driving member, said cooperating means comprising shoulder means formed on said oscillatory output shaft and shift lock means journaled on said oscillatory driving member for engaging said shoulder means.

2,818,737

SPHERICAL CONTACT BEARING

Hillard E. Barrett, East Orange, and Ella A. Gallo, Englewood, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware
Application December 6, 1951, Serial No. 260,288
5 Claims. (Cl. 74—96)



1. A force balanced lever system comprising a pair of relatively movable members at least one of which is a lever; and a contact bearing for transmitting a force between said members; said contact bearing comprising a spherical roller element having rolling point contact with one of said members, means secured to the other of said members and having a spherical surface, a plurality of spaced spherical balls of equal radius disposed between and rollably engaging said element and said spherical surface, and cage means movable with said plurality of balls for maintaining the spacing of said balls while permitting rolling of said balls along said element and surface.

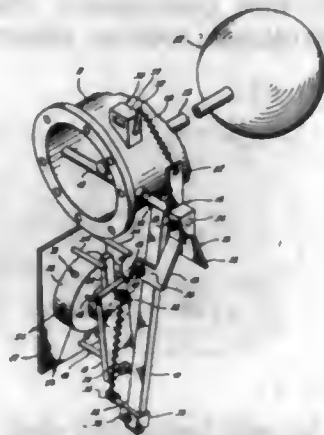
2,818,738

SNAP ACTING MECHANISM

Horace V. Smith and George A. Repal, Houston, Tex., assignors to Oil Metering and Processing Equipment Corporation, Houston, Tex., a corporation of Texas
Application April 5, 1957, Serial No. 651,026
11 Claims. (Cl. 74—97)

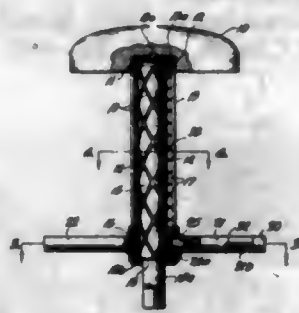
1. A snap acting mechanism for snapping a first arm from one side to another by movement of a rotatably oscillating control member, said mechanism comprising, an adjustable engaging member secured to the control

member for movement therewith, a second arm mounted for rotation on the control member and movable by the adjustable engaging member upon predetermined movement of the engaging member, a third arm pivotally mounted for oscillating movement about its pivot mount, contact means on the third arm adapted to contact and move the first arm, and resilient tension means connected



to a point on the second arm on one side of the pivotal mount of the third arm and to a place on the third arm remote from its pivotal mount whereby movement of the second arm by the adjustable engaging member snaps the first arm from one position to another through its contact with the contact means.

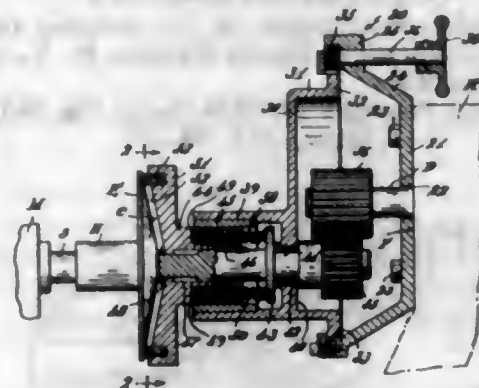
2,818,739
SQUEEZE DRIVEN ROTATING DEVICE
Vestel O. Dowdle, Kansas City, Mo.
Application May 24, 1955, Serial No. 510,817
1 Claim. (Cl. 74-127)



A squeeze driven rotating device comprising a palm bar, a cylindrical sleeve having substantially opposed longitudinal slots therein fixed to said palm bar at right angles thereto, a cylindrical rotatable member partially enclosed by and held relative the palm bar by said sleeve, a pair of reversed sets of parallel spiral grooves formed in the surface of said rotatable member, said sets of grooves running from the vicinity of one end of the enclosed portion of the rotatable member to the vicinity of the other end of said enclosed portion whereby said rotatable member at any point in transverse cross section is equivalent to a ratchet wheel, a finger bar assembly comprising a perforated band encircling part of said enclosed portion of said rotatable member and also encircled by said sleeve and a pair of finger bars attached to said band and extending outwardly therefrom through said slots in said sleeve, said finger bar assembly movable from an extended position near the free end of said sleeve to a contracted position near said palm bar, resilient means positioned between said sleeve and said rotatable member operative to tend to maintain the latter in said extended position, a hollow portion formed in the inner end of one finger bar, the walls of said hollow portion encircling said perforation in said band to form a continuous cavity therewith, a spring-loaded dog in said continuous cavity, said spring driving said dog centrally

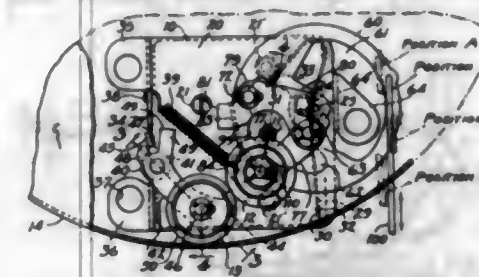
against the face of said rotatable member, and a protrusion on said dog face contacting said transverse member and engageable in one groove of said sets of grooves to serve as a ratchet pawl, and means for alternately fixedly setting said dog so said protrusion will engage selectively only grooves of one of said two reversed sets of grooves whereby motion of said finger bar assembly from its extended to its contracted position will cause said protrusion to engage one groove of said selected set of grooves thereby translating longitudinal motion of said finger bar assembly to rotary movement in a predetermined direction of the rotatable member the upper walls adjacent the palm bar of each set of the reversed set of grooves undercut and the lower walls of each set of grooves sloped, the face of the dog protrusion which is to engage alternatively said upper walls undercut and its opposite face sloped whereby said protrusion readily engages one of the grooves in a selected set in the contracting motion of the finger bar assembly and readily disengages from said groove in the extending motion of said finger bar assembly.

2,818,740
SPEED CHANGING MECHANISM OF THE FRICTION TYPE
Emil S. Wuertz, Quincy, Mass., assignor to The Murray Company of Texas, Inc., Dallas, Tex., a corporation of Delaware
Application August 17, 1955, Serial No. 528,918
4 Claims. (Cl. 74-191)



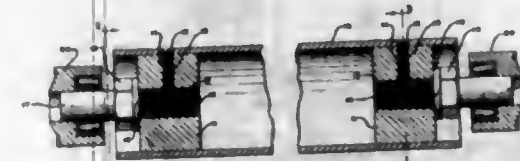
1. In combination with a driven shaft having a pinion fixed thereto, a rotatable support coaxial with the driven shaft, the support carrying bearings for a transmission shaft whose axis is parallel to and radially spaced from that of the driven shaft, means preventing axial motion of the transmission shaft relatively to the driven shaft, a pinion fixed to the transmission shaft near one end of the latter and which constantly meshes with the pinion on the driven shaft, a driving shaft whose axis is parallel to that of the driven shaft, a conical friction drive element fixed to the driving shaft, a complementary driven, conical friction element splined to slide axially along the transmission shaft and which constantly contacts the friction driving element so as to be driven by the latter, the rotatable support having a hollow boss coaxial with the transmission shaft and into which the latter projects, the driven, conical friction element having an elongate thick-walled hub which slides within said hollow boss, the hub having an elongate, tubular bearing for the transmission shaft and having axially extending bores within the thickness of its wall, coiled compression springs seated in said bores and which are so constructed and arranged as constantly to urge the driven friction element in an axial direction away from the rotatable support, means to limit such axial motion, and means for turning the support about the axis of the driven shaft thereby to vary the eccentricity of the transmission shaft relatively to the driving shaft.

2,818,741
PHONOGRAPH TURNTABLE DRIVES
Raymond C. Siebert, Avon, N. Y., assignor, by mesne assignments, to The General Industries Company, Elyria, Ohio
Application May 7, 1954, Serial No. 428,191
6 Claims. (Cl. 74-200)



6. A motor transmission mechanism for selectively driving a phonograph turntable of the type having a pendant peripheral flange at any of a plurality of different speeds, comprising the combination of a motor-driven pulley rotatable on a vertical axis and which is provided with a plurality of friction drive pulley portions of successively smaller diameters proceeding upwardly of its length, an idler wheel, a support for said wheel, a rotatable adjustment member, horizontally operative camming means operable in response to corresponding rotative movement of said member in either opposite direction to respectively so move said support as to move said idler wheel laterally out of engagement with any pre-engaged pulley portion, vertically operative cam means operative in response to said rotative movement of said member to laterally displace said wheel from a pre-engaged one of said pulley portions, and means for effecting transmission of driving torque from said idler wheel to said turntable.

2,818,742
QUICK CHANGE SHAFT
Clyde Veach, Grays Knob, Ky.
Application November 10, 1955, Serial No. 546,080
1 Claim. (Cl. 74-230.3)

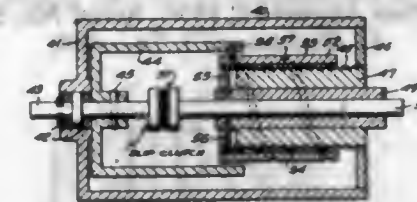


The combination of a tubular roller, a cylindrical block having an axial threaded bore mounted in each end portion of said roller, said roller having an opening in the wall thereof adjacent each block, a shaft having a threaded portion thereon threaded into each of the cylindrical blocks, a set screw threaded into each cylindrical block through said openings and at right angles to each shaft and each engaging the threaded portion of a shaft, and a washer and nut on each shaft abutting each cylindrical block to space a bearing on the shaft from said cylindrical blocks.

2,818,743
MOTION TRANSFORMING APPARATUS
Norman C. Zatsky, Valley Stream, N. Y., assignor to Reeves Instrument Corporation, New York, N. Y., a corporation of New York
Application May 10, 1954, Serial No. 428,716
11 Claims. (Cl. 74-393)

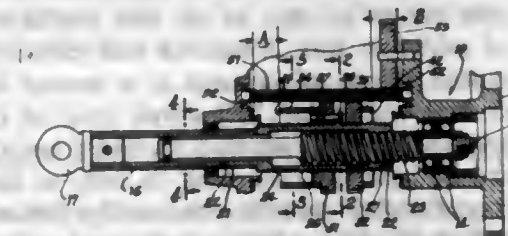
4. Motion transforming apparatus comprising a fixed member having a threaded portion, a rotatable cam member threadably engaging the threaded portion of said fixed member, said cam member being movable longitudinally in response to rotation thereof, input means adapted for rotation of said cam member, a support, a rotatable output shaft, said output shaft being journaled in said sup-

port and held against longitudinal movement therein, and means for coupling the output shaft to said rotatable cam member, said coupling means including a cam follower carried by the output shaft and engaging with the rotatable



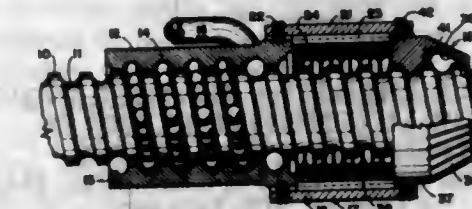
cam member whereby rotation and longitudinal movement of the cam member will determine the direction and amount of angular movement imparted to the output shaft.

2,818,744
LINEAR ACTUATOR WITH JOINTLY ADJUSTABLE STOPS
Steven M. Moody, Grand Rapids, Mich., assignor to Lear, Incorporated, Grand Rapids, Mich., a corporation of Illinois
Application March 9, 1956, Serial No. 570,482
4 Claims. (Cl. 74-424.8)



1. Adjustable stroke-setting mechanism for linear actuators of the nut and screw type in which extension and retraction of the operating member of the actuator is effected by rotating the screw in a non-rotatable but axially-traversable nut and which actuator includes a framework comprising: a cylindrical part secured to the nut for traverse therewith, said part having a thread on its periphery, a stop nut threadably engaged on said thread and adapted to abut a portion of the frame to limit the stroke upon actuation of the nut, and means for moving said stop nut along its thread to alter the length of the stroke in at least one direction.

2,818,745
SCREW CLEANING DEVICE
Leonard P. Spontell, Cleveland, Ohio, assignor to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio
Application February 11, 1955, Serial No. 487,544
12 Claims. (Cl. 74-459)



1. A device for cleaning the surface of a helically grooved screw comprising a plurality of wiping members formed with wiping surfaces shaped to conform to portions of the screw surface, said members being positioned to form a series of separate axially spaced wiping areas adapted to engage axially spaced portions of the screw and clean the surface thereof upon relative movement therebetween, and means for resiliently urging said wiping surfaces toward the screw, the zones between said axially spaced areas being adapted to receive foreign matter removed from the screw.

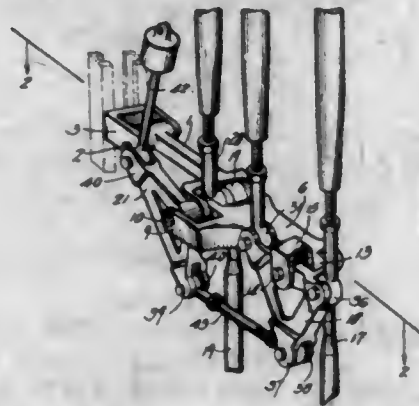
2,818,746

FLIGHT CONTROLS MIXING LEVER

Jack M. Hart, Lockport, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application August 12, 1955, Serial No. 528,140

12 Claims. (Cl. 74-480)



1. A flight controls mixing means for a two rotor helicopter comprising a first triangular bell crank, a first link pivoted at one of its ends to a first end portion of said first triangular bell crank, a second triangular bell crank pivoted at the center of one of its side portions to the other end of said first link, a second link parallel to the first link pivoted at one of its ends to a second end portion of said first triangular bell crank and at its other end to a first end portion of said second triangular bell crank, a third link pivoted at one of its ends to the frame of the helicopter and at its other end to the first end portion of said first triangular bell crank, output linkage to control the collective pitch of the fore helicopter rotor pivoted to a second end portion of said second triangular bell crank, output linkage to control the collective pitch of the aft helicopter rotor pivoted to a third end portion of said second triangular bell crank, output linkage to control the fore and aft helicopter rotors cyclic pitch pivoted to the first end portion of said first triangular bell crank, collective pitch input linkage pivoted to the center of the side portion of the second triangular bell crank for moving the fore and aft collective pitch output linkages equally and parallel, corrective trim input linkage pivoted to the third end portion of said first triangular bell crank for rotating said first bell crank, moving said second link and rotating said second bell crank to thereby move the fore and aft collective pitch output linkages in opposite directions, and fore and aft cyclic pitch input linkage pivoted to the first end portion of said first triangular bell crank for displacing said first bell crank, moving said second link, and rotating said second bell crank to thereby move the fore and aft collective output linkages in opposite directions.

2,818,747

ADJUSTABLE THROTTLE CONTROL INDICATOR FOR AUTOMOTIVE VEHICLES

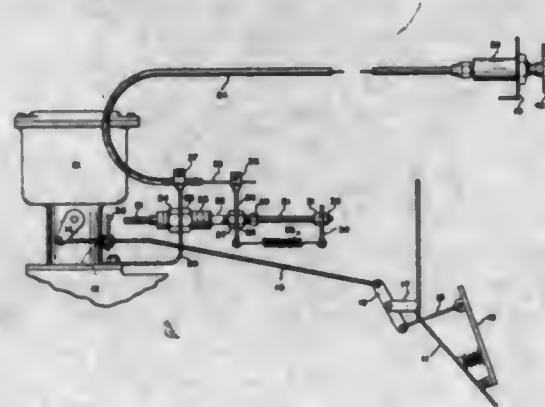
James C. Rich, Portland, Oreg.

Application October 22, 1954, Serial No. 464,074

4 Claims. (Cl. 74-482)

1. In an automotive vehicle having a throttle valve and an accelerator pedal and linkage connecting said pedal with said valve, an adjustable throttle control indicator including a slidable rod, a supporting bracket, a stationary outer sleeve secured in said supporting bracket, an inner sleeve slidable in said outer sleeve and extending beyond said outer sleeve, said rod slidably mounted in said inner sleeve, a settable arm secured on said inner sleeve, spring means exerting a force tending to move said rod in one direction with respect to said arm, a stop on said rod limiting the movement of said rod with respect to said arm under the force of said spring means,

an engaging element on said linkage so positioned as to engage said rod and move said rod against the force of said spring means when said throttle is being opened, whereby further opening of said throttle after said element has engaged said rod will be resisted by said spring means, the position of said arm determining the extent to which said throttle can be opened before said element



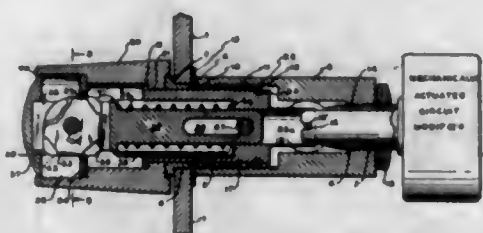
2,818,748

TAMPER PROOF ACTUATOR

Axel Arnold Lawson, Arlington, Va., and Chester W. Ross, Washington, D. C., assignors to Melpar, Inc., Alexandria, Va., a corporation of New York

Application September 4, 1952, Serial No. 307,814

13 Claims. (Cl. 74-548)



1. In combination, a mechanically actuated circuit modifying device, a rotatable shaft for actuating said device, a rotatable hollow knob, an annular clutch member having internal serrations and secured internally of said hollow knob, a cam wheel having alternate high and low points arranged and adapted respectively to mesh and fail to mesh with said serrations, means securing said cam wheel to said rotatable shaft, and a device for actuating said cam wheel into mesh and out of mesh with said serrations.

2,818,749

AUTOMOBILE STEERING WHEEL

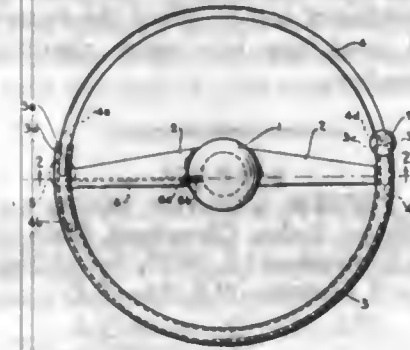
Steve Bayko, Penhold, Alberta, Canada

Application January 28, 1954, Serial No. 406,667

3 Claims. (Cl. 74-552)

1. An automobile steering wheel comprising a hub for mounting on the automobile steering column; a pair of spokes radiating therefrom; a wheel rim supported by said spokes and consisting of two telescopically related segments, one of which is integral with said spokes and in the form of a hollow arcuate tube and the other is an arcuate rod receivable therein and circumferentially pro-

jectable from one end of said arcuate tube to complete the circle of said rim; and a spinner knob mounted on the arcuate rod segment of said wheel rim, near an end



thereof, and selectable engageable with opposite ends of the hollow arcuate tube segment to limit the telescopic sliding movement of said rod segment in both directions.

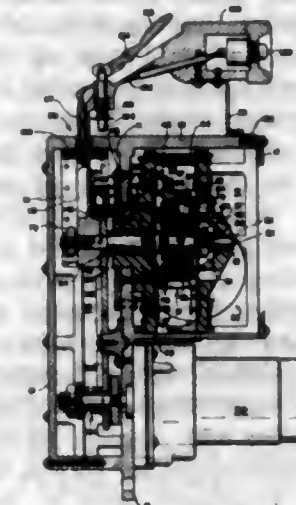
2,818,750

POWER CONTROLLERS

George A. Kwasniewski, Moundview Township, Ramsey County, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application May 31, 1951, Serial No. 229,233

7 Claims. (Cl. 74-625)



1. Apparatus of the class described comprising, in combination: control means adjustable through a range of motion to vary a condition; manual means and motor means for causing adjustment of said control means; means limiting the range through which said control means can be adjusted by said motor means and said manual means; and means included in said manual means for disabling said limiting means so that said control means can be manually adjusted throughout its entire range.

2,818,751

STEPLESSLY VARIABLE RATIO POWER TRANSMISSION GEAR

Oscar Halfdan Jorgensen, St. Ives, New South Wales, Australia

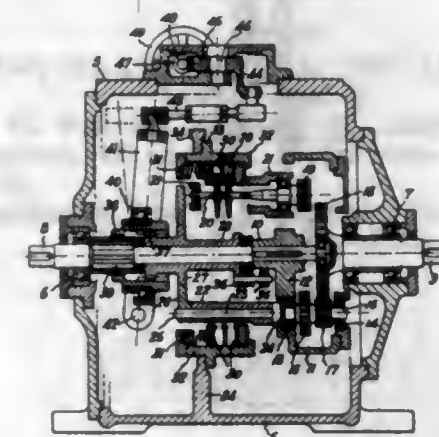
Application July 20, 1955, Serial No. 523,241

Claims priority, application Australia July 28, 1954

4 Claims. (Cl. 74-690)

1. Steplessly variable-speed power transmission devices comprising, an input shaft, a lantern carrier keyed on said input shaft, a plurality of planetary idler gears freely revolvably mounted on said carrier about axes parallel with and equally spaced from the axis of said input shaft and from each other, a sun-wheel mounted coaxially relatively to said input shaft and meshed by said idler gears, an output shaft whereon said sun-wheel is fixedly mounted, swing brackets equal in number to and respectively associated with said idler gears and each pivotally

mounted by its inner end about the axis of its idler gear, spline shafts equal in number to and respectively borne in the outer ends of said swing brackets, satellite gears respectively keyed on said spline shafts and meshing said



idler gears, coned discs keyed on said spline shafts, a stack of annular rings between which said discs engage from inside said rings, a stationary yoke ring within which said rings are keyed, and spring means for applying an axially directed loading to said stack.

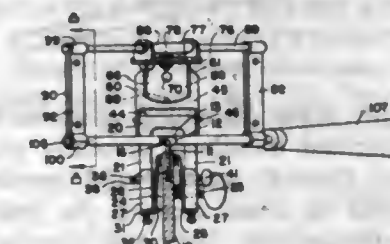
2,818,752

CHAIN SAW SHARPENING AND JOINTING APPARATUS

Elof Granberg, Burnaby, British Columbia, Canada, assignor to Nygran Industries Ltd., Vancouver, British Columbia, Canada

Application July 1, 1955, Serial No. 519,595

9 Claims. (Cl. 76-31)



1. In apparatus for sharpening and jointing a chain saw while on the cutter bar thereof, a base, means for clamping the base to a cutter bar over the saw chain thereof, a support mounted on the base for movement towards and away from the latter, means for adjusting the support towards and away from the base, a bracket carried by the support extending substantially parallel to the cutter bar, said bracket being tiltable relative to the support, securing means for retaining the bracket in adjusted positions on the support, a sleeve rotatably mounted on the bracket and extending generally at an angle to the plane of the cutter bar, means for securing the sleeve in adjusted positions on the bracket, a frame having a rod slidably and swingably extending through the sleeve, and a file carried by the frame spaced from and substantially parallel with the rod, said file extending across the cutter bar plane.

2,818,753

REVERSE TAPER BORING TOOL

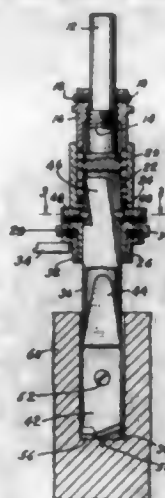
Guy O. Leggett, Van Nuys, Calif.

Application August 20, 1956, Serial No. 605,177

12 Claims. (Cl. 77-58)

1. A reverse taper boring tool comprising a shaft, an integral bifurcated extension of the shaft, a cutting blade comprising an extension of one of the bifurcations, an auxiliary cutting blade in the space between the bifurcations, the auxiliary blade being pivotally mounted with

respect to the main blade and including a cam element for shifting it about its pivotal point, the cam element

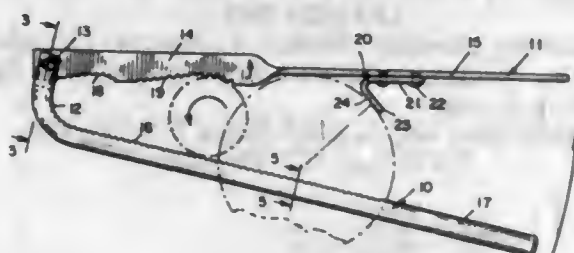


comprising an integral angular extension of the upper end of the blade.

2,818,754

MANUALLY OPERATED SERRATED LID REMOVER FOR SCREW THREADED CONTAINERS

John T. Kubik and Stanley S. Kubik, Los Angeles, Calif.
Application September 17, 1956, Serial No. 610,338
4 Claims. (Cl. 81-3.44)



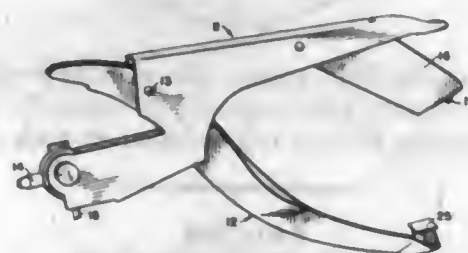
1. An opener for screw threaded containers comprising a pair of elongated members pivotally attached together at one end thereof, one of said members being substantially circular in cross section, the other of said members being substantially flat, said circular member having a substantially right angular curved portion adjacent the pivotal end thereof, said curved portion spacing the remainder of said circular member from said flat member, said circular member having a row of serrations disposed along the surface thereof directed toward said flat member, said serrations extending along part of said curved portion and continuously a substantial distance along said circular member, the free end of said circular member being free of serrations to provide a handle portion, the pivotal end of said flat member having a short curved row of serrations extending from said pivot along said flat member and a longer curved row of serrations spaced from said short row by a land, said serrations being directed toward said circular member, said flat member having a right angular twist disposed adjacent the midportion thereof adjacent the end of said longer row of serrations, the free end of said flat member providing a handle portion, a gripping member comprising a flat base extending substantially parallel to the handle portion of said flat member, means securing said base to said flat member, a gripping portion formed integrally with said base, said gripping portion extending at an acute angle with respect to said base and being directed toward said circular member, said gripping portion having a plurality of spaced teeth, said gripping member being disposed along said flat member at a position substantially aligned with the end of the row of serrations on said circular member, said elongated members adapted to be manually pivotally moved toward and away from each other, the teeth and serrations on said circular mem-

ber, flat member and gripping member being adapted to extend substantially radially with respect to a container top held between said members so that said serrations and teeth engage and cooperate with the notches in the edge of said container top to effect the removal or tightening of said container top upon simultaneous rotation of said members.

2,818,755

ZIPPER REPAIR TOOL

Henry Kahn, Cleveland, Ohio
Application September 12, 1955, Serial No. 533,567
2 Claims. (Cl. 81-5.1)

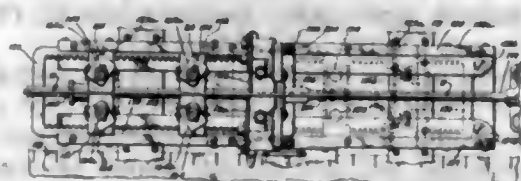


1. In a zipper repair tool, mounting means, a pair of opposed stringer-engaging means, one of said pair of stringer-engaging means comprising a first face edged on two sides by opposing upstanding converging flanges which briefly extend parallel to each other at their converged ends whereby said one stringer-engaging means substantially duplicates the top wing of a conventional slider body, said one of said pair of stringer-engaging means being mounted on said mounting means, the other of said pair of stringer-engaging means comprising an element having a substantially planar top face, a supporting stem fixed to the underside of said element and extending laterally centrally downwardly therefrom to said mounting means and being affixed to said mounting means, said mounting means comprising at least two bodies linked together for movement with respect to each other in defined relationship, said one of said pair of stringer-engaging means being associated with one of said bodies and said other of said pair of stringer-engaging means being associated with another of said bodies, each of said pair of stringer-engaging means being positioned with respect to its associated body to be in juxtaposed facing relationship to the other of said pair of stringer-engaging means in one relative position of said bodies and to back away from said juxtaposed facing relationship upon relative movement of said bodies to other relative positions, the conformation of each of such pair of stringer-engaging means being such that in juxtaposed facing relationship said planar top face overlies said first face, and the width of said planar top extends across a majority of the minimum distance between said flanges.

2,818,756

WIRE STRIPPERS

Arthur E. Moeller, Chicago, Ill., assignor to Runzel Cord & Wire Co., Chicago, Ill., a corporation of Illinois
Application April 21, 1955, Serial No. 502,847
21 Claims. (Cl. 81-9.51)



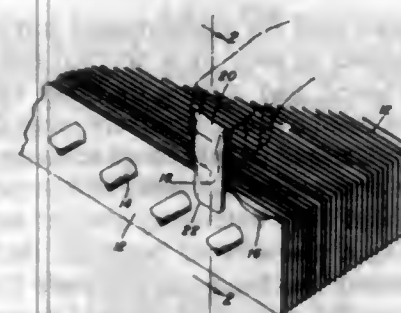
2. A wire stripper for removing an insulation coating from an end of a wire comprising, means for gripping such a wire in position to hold said wire stationary, means for severing the insulation on said wire in spaced relation to one end of said wire, means adjustably movable to-

ward and away from said last named means for gripping said insulation between said severing means and said one end of said wire, and means connected to said severing means and said gripping means for simultaneously moving said severing means and said gripping means away from said holding means and toward said one end of said wire to strip said insulation between said severing means and said one end of said wire from the latter.

2,818,757

HEAT EXCHANGE COIL FIN STRAIGHTENER

Henry J. Pille, Marshalltown, Iowa, assignor of fifty percent to Max E. Weltzell, Marshalltown, Iowa
Application October 12, 1956, Serial No. 615,545
3 Claims. (Cl. 81-15)

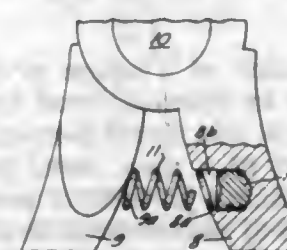


1. A tool for straightening the fins on a heat exchanger coil comprising a pair of parallel closely spaced jaw members, a curved interconnecting portion at one end of the jaw members with the other end of the jaw members being free for receiving the fin therebetween and sliding between adjacent fins on the coil, said jaws being spaced apart a distance substantially equal to the thickness of a fin whereby sliding movement of the jaws on the fin will straighten the same.

2,818,758

SPRING LOADED PLIER TYPE TOOL

John E. Swanson, Wade Hampton Connell, and Joseph Fenimore Cooper, Jr., Duluth, Minn., assignors to Diamond Calk Horseshoe Company, Duluth, Minn., a corporation of Minnesota
Application March 27, 1956, Serial No. 574,326
1 Claim. (Cl. 81-417)

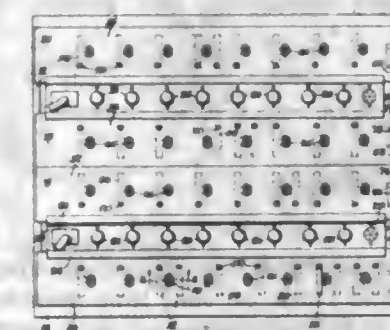


A tool comprising a pair of opposed jaw members each having handle elements extending rearwardly therefrom in crossed relation, means pivotally connecting said handle elements at their point of crossing for movement toward and away from each other about a transverse axis, the handle elements of said jaw members having opposed substantially parallel surfaces facing each other immediately rearwardly of and adjacent to said pivot means, one of said handle elements having a cylindrical recess extending inwardly of its stated surface at substantially right angles thereto, a compression type spiral spring having one end portion disposed within said recess, the outer diameter of said spring being substantially equal to the inside diameter of said recess, and a soft metal anchor plug disposed within said one end portion of the compression spring and bottomed within said recess, the major portion of said plug being disposed within the confines of said spring and portions of said plug being deformed to extend outwardly between the convolutions of said spring to embrace the same and to tightly engage with

2,818,759

TUNING MEANS FOR ELECTRICAL MUSICAL INSTRUMENT

Richard H. Peterson, Chicago, Ill., assignor, by mesne assignments, of one-half to Solomon Heytow, Chicago, Ill.
Application June 16, 1952, Serial No. 293,739
8 Claims. (Cl. 84-1.01)

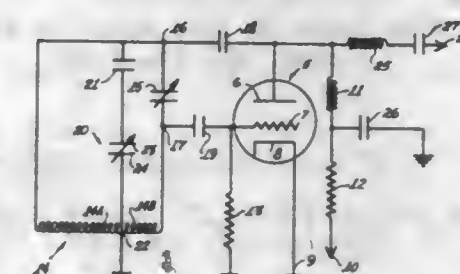


1. An electronic musical instrument comprising at least two audio-frequency tuned oscillators, a trimmer tuner adjustably associated with each oscillator, player-operated control means, and means interconnecting said control means and said trimmer tuners for causing simultaneous tuning adjustment of all of said oscillators in the same direction.

2,818,760

MODULATION SYSTEM FOR ELECTRICAL MUSICAL INSTRUMENT

James M. Spencer, Glendale, Calif.
Application September 28, 1953, Serial No. 382,544
5 Claims. (Cl. 84-1.04)



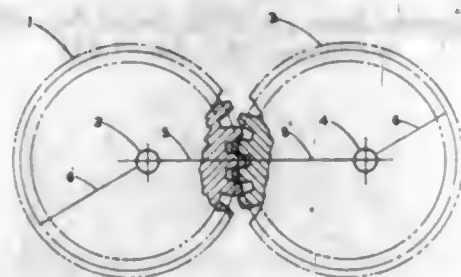
1. Electro-acoustic translating apparatus responsive to externally applied mechanical vibratory movement, as produced by vibratory elements of a musical instrument, said electro-acoustic translating apparatus being cooperable with power supply means, amplifying means and sound producing means for sound producing purposes, said electro-acoustic translating apparatus comprising: an electron oscillator tube including a cathode, anode, and control grid; output detector means; said anode being operatively connected to said output detector means; a tuned resonant circuit operatively connected at one end thereof to said anode and operatively connected at the other end thereof to said control grid in oscillator frequency-determining relationship with respect to said electron oscillator tube; and modulating condenser means having stationary plate means and mechanically vibratable element means in capacitive relation thereto, said vibratable element means being physically mechanically vibratable in response to mechanical input thereto, said modulating condenser means being effectively connected to said cathode and said anode of said electron oscillator tube and also being connected in parallel to and across a portion of said tuned resonant circuit less than the whole

tuned resonant circuit connected between said anode and said control grid, thus being in frequency and amplitude modulation relationship with respect to said electron oscillator tube.

2,818,761

ELECTRONIC TONE GENERATOR

Richard E. Williams, Manchester, N. H., assignor to Wilbespan Research Labs, Inc., Manchester, N. H.
Application March 21, 1950, Serial No. 150,892
5 Claims. (Cl. 84-1.25)

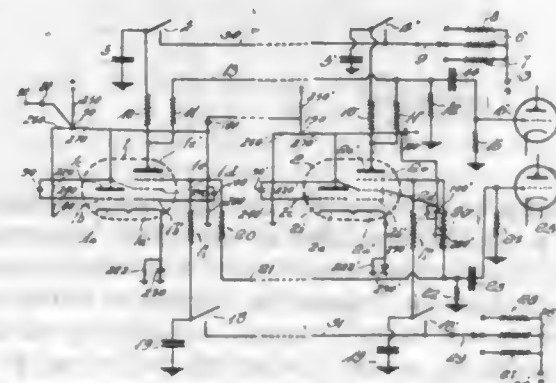


1. A tone generator having a cycling tone member and an endless sound track on said tone member, said sound track having a first discrepancy at a start-end spot of waveform generation thereon, and said sound track having included in its length at least one additional discrepancy substantially similar to that of said start-end spot, said first and additional discrepancies being substantially equally spaced along the length of said sound track, and means for cycling said sound track at a speed equal to a vibrato rate divided by the total number of said discrepancies.

2,818,762

ATTACK AND DECAY SYSTEM USING TRIODE-PENTODE TUBES

Walter J. Anderson and Howard E. Holman, Chicago, Ill., assignors, by mesne assignments, to Chicago Musical Instrument Company, Chicago, Ill., a corporation of Illinois
Application August 30, 1955, Serial No. 531,497
7 Claims. (Cl. 84-1.26)

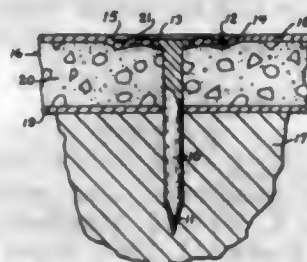


1. The combination comprising an output system; a series of similar flip-flop circuits coupled in cascade and producing output oscillations at octave separation, each of said circuits comprising a vacuum tube having a triode section and a pentode section; a source of positive potential; keying circuits for each of said cascaded flip-flop circuits for selectively connecting the plate and the suppressor grid of the pentode section thereof to said source of potential and to said output system for impressing positive potential on said plate and said suppressor grid, thereby withdrawing oscillations from said circuit and delivering same to said output system; and means for and actuable by each of said keying circuits for controlling as a function of time the rate of starting and stopping delivery of oscillations to said output system.

2,818,763

NAIL FOR PLASTERBOARD

Arthur H. Dunlap, Seattle, Wash.
Application March 9, 1953, Serial No. 341,286
3 Claims. (Cl. 85-28)

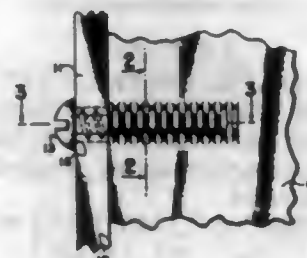


1. An improved nail for plasterboard having an elongated shank adapted to pass by a pointed end, through a sheet of plasterboard, and having its other end made integral with a thin head of comparatively large diameter for depressing the outer face of said sheet so as to completely lie in a shallow depression inwardly of the normal plane of said surface, said head extending at right angles to said shank and having a plurality of openings into which the plasterboard beneath the head can protrude for relief and for contact by cement applied to fill said depression, both the top and under surfaces of said head being devoid of any projections and said under surface being devoid of any concavity near its perimeter.

2,818,764

SCREW AND SHEET METAL SOCKET THEREFOR

Harold K. Switzer, Alexandria, Ky.
Application April 28, 1954, Serial No. 426,095
6 Claims. (Cl. 85-32)



6. The combination of a coarse pitch, sharp thread, pointed screw and an internal thread formation adapted to receive said screw, said thread formation being formed as an integral part of a sheet metal piece in an edge thereof and comprising a plurality of narrow bands, each band being one-half as wide as the pitch of said screw, said bands protruding outwardly alternately from opposite sides of said sheet in arcs which lie in spaced parallel planes disposed normal to the central axis of said internal thread formation, and the inside diameter of said internal thread formation being slightly undersized relative to the main body portion of the screw, whereby the screw upon being threaded into the thread formation must spread the bands slightly thereby providing a tight fit between the screw threads and the internal thread formation.

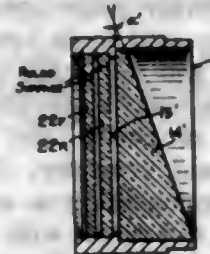
2,818,765

METHOD AND MEANS FOR ACHROMATIZING PRISMS

Leon V. Foster, Irondequoit, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application October 8, 1956, Serial No. 614,500
9 Claims. (Cl. 88-1)

1. A prism unit comprising a light dispersing prism and means for achromatizing the prism comprising a pair of diffraction gratings positioned in optical alignment with

the prism, the blaze of one grating being positioned opposite to the blaze of the other grating to produce a residual dispersion which substantially compensates the dispersion of the prism.

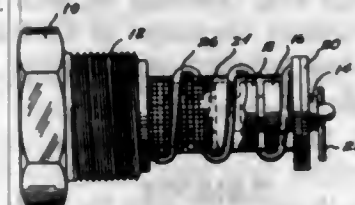


ual dispersion which substantially compensates the dispersion of the prism.

2,818,766

METHOD FOR OIL ANALYSIS

Paul C. Hutchinson, Lexington, Mass., assignor to Baird Associates, Inc., Cambridge, Mass., a corporation of Massachusetts
Application July 11, 1955, Serial No. 521,252
3 Claims. (Cl. 88-14)

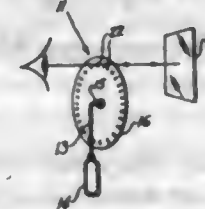


1. That improved method which comprises collecting small metallic particles of colloidal size occurring in the lubricating oil of an engine in an absorbent body which is supported in the stream of the lubricating oil as it circulates through the said engine, and spectrographically analyzing the particles for determining the abrasion of engine parts as a result of wear.

2,818,767

OPTICAL TOY

Paul Soo Hoo, Boston, Mass.
Application November 30, 1956, Serial No. 625,498
1 Claim. (Cl. 88-16)



In combination, a supporting rod, an arm on one end of said rod extending perpendicular thereto, a handle loop on the other end of the rod, a disc member rotatably mounted at its center on said arm, washer means on the arm on opposite sides of the disc member supporting said disc member parallel to said rod, said disc member being formed adjacent its periphery with identical, evenly spaced, radial slots located at identical distances from the center of the disc member, a plurality of concentric rows of markings on the rear surface of the disc member arranged circularly around said center inwardly of the slots and at different radial distances from said center, and a mirror disposed parallel to said disc member and spaced rearwardly therefrom, said mirror being arranged so that the reflections of said markings may be viewed on said mirror through said slots.

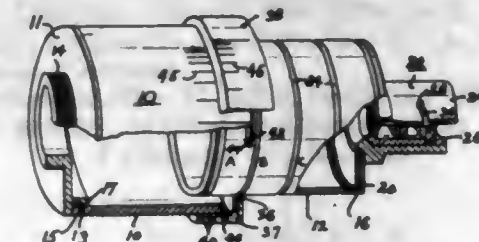
2,818,768

PHOTOGRAPHIC EQUIPMENT

Merrin J. Updegraff, Dayton, Ohio
Application March 10, 1953, Serial No. 341,393
7 Claims. (Cl. 88-24)

1. In a device for making color transparencies from movie film and the like, the combination including a

base, a support mounted on said base, a light unit having a tubular end portion, said light unit being adjustably carried by said support, a film holder having a cylindrical portion slidable over the tubular end portion of said light unit so as to be removably secured to said light unit and rotatable relative thereto, a lens holder, and means for adjustably supporting said lens holder on said support, said supporting means including means for universally tilting said lens holder relative to said support whereby image distortion may be corrected, said lens holder comprising an outer tube provided with a threaded projection at one end thereof adapted to fit the threaded lens supporting aperture of a standard camera, the outer diameter of said tube being such that the tube may receive the cylindrical portion of said

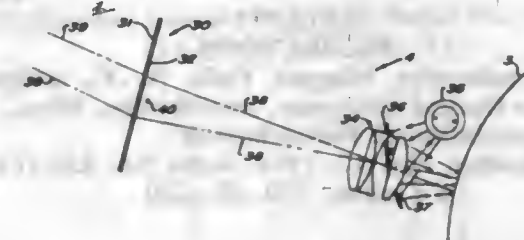


film holder for interchangeably supporting said film holder, a sleeve having an internal groove, the other end of said outer tube threadedly engaging said sleeve, an annular coil spring recessed in said internal groove, said sleeve being adjustable on said outer tube whereby the distance between the threaded projection at one end of the tube and the coil spring recessed in the sleeve at the other end of the tube is variable, and a lens supporting inner tube adapted to telescopically slide within said outer tube, said inner tube having a plurality of equally spaced annular grooves in the periphery thereof, said annular coil spring providing a releasable detent for engaging said spaced annular grooves whereby said inner and outer tubes may be telescoped together to a predetermined position.

2,818,769

OPTICAL PROJECTION SYSTEM FOR WEIGHING SCALE INDICATION

Lawrence S. Williams, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey
Application October 25, 1954, Serial No. 464,210
3 Claims. (Cl. 88-24)



1. In a system for displaying indications of load on a weighing scale, in combination, a housing, a rotatable indicia bearing chart, a pair of guide rods within the housing extending substantially parallel to the surface of the chart, a slidable lens carrier suspended from two points, of one of the guide rods and bearing on one point of the other guide rod, an optical projection system carried by the lens carrier and comprising a member having a viewing screen on its one side and a Fresnel lens on its other side and a projection lens for projecting onto the screen images of indicia in the field of view of the projection lens, a light source extending along the path of the lens carrier and adjacent the chart, and an apertured concave cylindrical mirror carried on the lens carrier and adapted to focus light from the light source onto the chart in the field of view of the projection lens, the

projection lens viewing the chart through the aperture of the mirror, adjustment means to position one guide rod in parallel relationship to the chart and in a location properly distant from the chart for focusing the optical system, and positioning means to adjust the other guide rod in horizontally parallel relationship to the chart for vertical zero adjustment of the optical system.

2,818,770

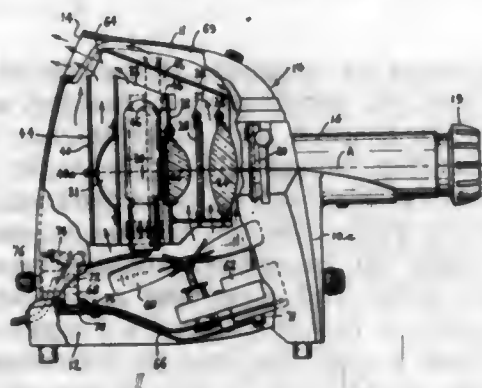
ABSTRACT PATTERN LAMP PROJECTING MEANS
Vincent F. Cilurzo, Burbank, Calif.
Application November 14, 1956, Serial No. 622,090.
8 Claims. (Cl. 88-24)



1. Means for projecting a quasi-focused pattern of light upon an area comprising a housing having light reflective means therein and multiple light transmissive means therethrough, a source of light within said housing, a light-converging lens also within said housing, the recited elements arranged to cause at least a part of the light reaching said lens having been reflected by that part of said light reflective means of said housing between said light source and said lens and to form a quasi-focused pattern of light from said lens upon said area; other light from said source passing only through said light transmissive means to form a distorted representation of said source upon said area adjacent to and surrounding light reaching said area from said lens.

2,818,771
PROJECTORS

John T. Armbruster, Niagara Falls, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application May 17, 1954, Serial No. 430,110
8 Claims. (Cl. 88-26)



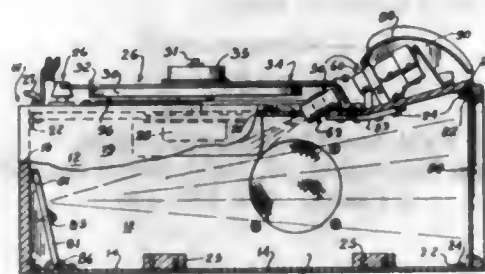
5. An optical projector comprising a main housing having an objective adjustably carried thereby, said housing having top, front, rear and side walls which interconnect so as to substantially completely enclose the

interior of said main housing above the bottom thereof, the bottom portions of said front, rear and side walls together defining a relatively large open bottom, an interior housing carried by said main housing and having interconnected top, rear and side walls in spaced relation to the top, rear and side walls respectively of said main housing and serving to enclose a light source and light condensing means of said projector, the top and rear walls of said interior housing being so angularly disposed relative to each other as to provide with said interior side walls an upwardly and rearwardly directed funnel-shaped interior surrounding said light source and said light condensing means, said interior top, rear and side walls at the upper and rear parts thereof being so spaced from each other as to define an upwardly and rearwardly directed exhaust opening therebetween for said funnel-shaped interior, an upwardly and rearwardly directed opening of slightly larger size in the upper rear portion of said main housing in spaced general alignment with said first mentioned opening, whereby heated air from said interior housing will be discharged upwardly and rearwardly through said openings in such a manner as to cause a simultaneous discharge of air from all of the air channels formed between said interior housing and said main housing.

2,818,772

MOVIE PHONOGRAPH

Richard C. Greenaway, Los Angeles, Calif., assignor to Monarch Records Incorporated, Los Angeles County, Calif., a corporation of California
Application March 7, 1955, Serial No. 492,582
1 Claim. (Cl. 88-27)

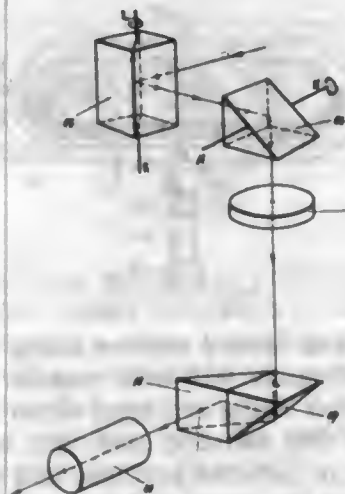


A device of the kind described comprising a cabinet having a bottom wall, an end wall, side walls, a top wall having an inclined portion, a phonograph unit, including a needle, mounted on said top wall, said unit including a motor, a turn table driven by said motor, a spindle projecting beyond said turn table, a record mounted on said turn table and having an aperture to receive said spindle, a change disc mounted on said record, said disc having a hub for reception of said spindle, a rim engaging said record for substantially one third of its circumference, said rim having a plurality of teeth, the same including a non-radial edge adapted to maintain contact with said needle for a predetermined length of time and a connecting edge, a depending flange having apertures spaced at a predetermined distance apart, a picture band on said flange, said band having apertures in register with the apertures of said flange, pictures carried by said band in alignment with said apertures, the indexing of said pictures controlled by said connecting edge, a projecting unit on the inclined surface of said top wall, an auxiliary projector unit on the opposite side of said picture band, said unit being mounted in an opening in said top wall and extending into said cabinet, a reflector mirror mounted on the bottom and end walls of said cabinet and in alignment with said picture and projecting units, and a screen in the opposite end wall to receive the projected real image of said picture.

2,818,773

PANORAMIC TELESCOPE

Albert Bouwers, The Hague, Netherlands, assignor to N. V. Optische Industrie "De Oude Delft," Delft, Netherlands
Application July 24, 1950, Serial No. 175,613
Claims priority, application Netherlands August 10, 1949
1 Claim. (Cl. 88-33)

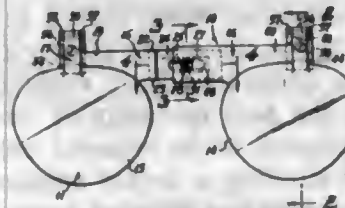


In a panoramic telescope having an objective and an eye piece, an inverting system comprising a set of four reflecting surfaces arranged in optical alignment, a first and second of said four reflecting surfaces being located in the object space of said objective so as to successively reflect light rays before entering said objective, the first reflecting surface being disposed vertically and rotatable about a vertical axis so as to permit scanning of the object space in a horizontal direction, the second reflecting surface being rotatable about a horizontal axis parallel to said second reflecting surface so as to permit scanning of the object space in vertical direction through an angle predetermined by the height of said first reflecting surface, a third and fourth of said reflecting surfaces being fixedly mounted so as to successively reflect light rays travelling from the objective towards the eye piece, the third reflecting surface being disposed under an angle of 45° with respect to the optical axis of the objective and the fourth reflecting surface being disposed under an angle of 45° with respect to the optical axis of the eye piece, the distance between said first and said second reflecting surfaces and between said second reflecting surface and said objective being as small as permitted by the rotational movements of said first and second reflecting surfaces.

2,818,774

REMOVABLE ATTACHMENT LENSES FOR SPECTACLES

Roland H. Olmhausen, Cambridge, Ohio
Application June 1, 1954, Serial No. 433,599
8 Claims. (Cl. 88-41)



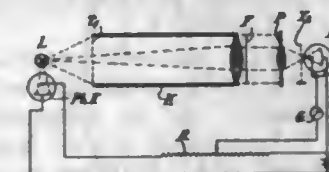
1. An ophthalmic attachment for providing a pair of normal vision spectacles with a desired working distance power comprising an auxiliary attachment assembly made up solely of a pair of molded plastic units each comprising integrally formed lens elements, bridge segments and hinge arms each said hinge arm having a lateral hinge axis and being disposed at right angles to the plane of the concave surface of its lens which is formed to the desired optical curvature and has its optical axis spaced from the longitudinal plane of its hinge arm axis to as-

sure a predetermined horizontal disposition of the optical axis of its lens; means for connecting said bridge segments to effect a unitary assembly of said pair of molded plastic units; and means individual to each hinge arm for pivotally supporting each of said pair of molded units and adapting said supporting means for respective connection to the frame portion of a respective normal vision spectacle lens, said means including spectacle frame engaging formations to clamp said frame portion of said spectacle frame so as to resist lateral and vertical relative movement of said molded plastic units with respect to said spectacle lenses once the clamp means is tightened.

2,818,775

METHOD OF AND APPARATUS FOR OBJECTIVELY TESTING OPTICAL SYSTEMS

Friedrich Christian Ullrich, Bad Kreuznach, Rhineland, Germany, assignor to Jos. Schneider & Co., Kreuznach, Rhineland, Germany
Application May 11, 1954, Serial No. 429,030
Claims priority, application Germany May 12, 1953
7 Claims. (Cl. 88-56)

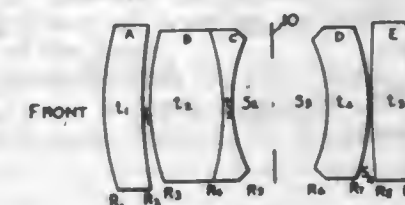


1. A method of testing an optical system, comprising the steps of projecting a test pattern through said system upon a light-transmissive surface bearing a congruent pattern, said patterns consisting of alternately light and dark but otherwise identical sectors of a circle, aligning said congruent pattern with the projected pattern, relatively rotating said patterns, relatively displacing said patterns along the optical axis of said system, measuring the amount of light traversing said surface, in different relative axial positions of said patterns, by photoelectrically converting said light into a pulsating current, and ascertaining the relative axial position of said patterns in which the amplitude of pulsations of said current reaches a maximum.

2,818,776

OBJECTIVE LENS

John D. Hayes, Rochester, and Lena M. Hudson, Brighton, N. Y., assignors to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application January 16, 1956, Serial No. 559,252
3 Claims. (Cl. 88-57)



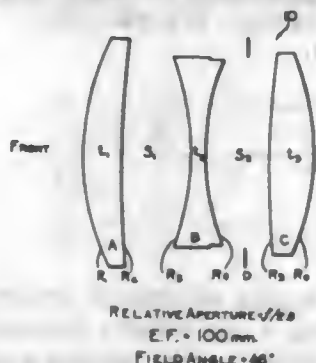
1. A photographic objective or the like having a relative aperture at least as large as $f/2.3$ which is corrected for spherical and chromatic aberrations, coma, astigmatism and curvature of field comprising four air spaced lens components in optical alignment with each other, the two innermost of said components being of negative meniscus form, the concave sides thereof facing each other and facing a diaphragm located therebetween, the last-mentioned components being situated between two outer components of positive power, the component adjacent to the front side of said diaphragm being a compound lens having on its front side a double convex element which is cemented to a double concave element thus providing an interface therebetween which is convex toward said dia-

phragm, said interface having a radius of curvature that is 2.0 to 3.0 times longer than the equivalent focal length of said objective and is 3.5 to 5.5 times longer than the overall length of said objective, the component adjacent to the rear side of said diaphragm being a single lens, the combined negative power of the innermost components being between $-1.5P$ and $-2.1P$ where P represents the power of the entire objective and the combined positive power of the outermost components being between $+1.9P$ and $+2.4P$, and the axial thickness of the rearmost negative meniscus lens being between 14% and 20% of the overall length of said objective.

2,818,777

TRIPLET TYPE OBJECTIVE LENS

Lena M. Hudson, Brighton, and John D. Hayes, Rochester, N. Y., assignors to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application June 25, 1956, Serial No. 593,669
3 Claims. (Cl. 88-57)



1. A photographic objective having a relative aperture of at least $f/2.8$ and a field angle of at least 46° and comprising a front and a rear positive lens between which an air spaced double concave lens is optically aligned, said objective being constructed according to the numerical data given in the table herebelow in which R_1 to R_6 designate the radii of the refractive surfaces of the lenses, starting at the front of the objective, t_1 to t_3 designate axial thicknesses of the respective lenses, S_1 and S_2 designate the axial spaces between the lenses, n_D represents the index of refraction of the lens material for the D line of the spectrum and ν represents the dispersion of said lens material,

E. F. = 100

Lens	Radius	Thickness	Space	n_D	ν
A	$R_1 = 43.09$	$t_1 = 6.06$	$S_1 = 11.42$	1.700	48.0
	$R_2 = 3441.3$				
B	$R_3 = -53.4$	$t_2 = 1.61$	$S_2 = 10.08$	1.720	29.3
	$R_4 = 45.1$				
C	$R_5 = 292.5$	$t_3 = 5.85$		1.720	47.5
	$R_6 = -42.1$				

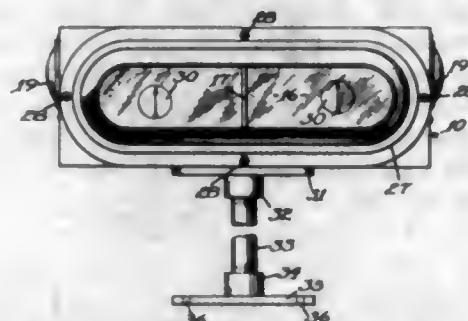
2,818,778

TWO WAY VIEWING DEVICE FOR VEHICLES

Guy Edward Falciglia, Greenwood, R. I.
Application April 8, 1954, Serial No. 421,742
1 Claim. (Cl. 88-87)

In a two-way viewing device for a vehicle, an elongated housing, a partition positioned in said housing intermediate its ends and defining a pair of compartments therein, a lens positioned in each end of said housing, a translucent viewing screen mounted in said housing and covering substantially the front thereof, said screen adapted to be viewed by an occupant of the vehicle, a shade surrounding said viewing screen, first and second angularly arranged mirrors positioned in each of said compartments

for directing images from the lenses to said viewing screen, the first mirrors being arranged at an angle of approximately 45° with respect to the lenses, the second mirrors being arranged at an angle of approximately 15° with respect to the bottom of the housing, said first mirrors being arranged in a generally vertical plane, the second mirrors being arranged in a generally horizontal

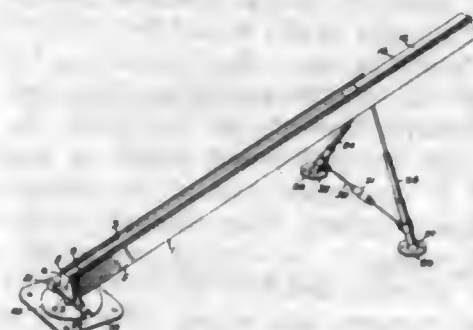


plane, said first and second mirrors being arranged at an angle of approximately 90° with respect to each other, said second mirrors being arranged closer to the viewing screen than the first mirrors, said first mirrors picking up the image in an inverted position, said second mirrors serving to reinvert the image and transmit it to the screen in its true normal upright position whereby persons can view images right side up.

2,818,779

NON-TIP OFF LAUNCHER

Casper J. Koeper, Huntsville, Ala., assignor to the United States of America as represented by the Secretary of the Army
Application April 24, 1952, Serial No. 284,191
8 Claims. (Cl. 89-1.7)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A non-tip off rocket launcher comprising an elongated built up steel section having parallel upper and lower plates, a pair of elongated parallel upstanding web members secured to said upper plate, each said web member having an upwardly and outwardly directed flange forming a double rail, said double rail adapted to be received in notches provided in the fin section of a rocket supported on said launcher, said double rail guiding the initial flight of said rocket, a single rail extension of said double rail secured to said top plate, said single rail having an upper curved surface disposed a short distance below the upper surface of said double rail, and having a transverse width slightly less than the distance between the web members of said double rail, said single rail adapted to be engaged only by a cylindrical bourrelet encircling a rocket adjacent its forward end after said bourrelet has traveled beyond the forward extremity of said double rail.

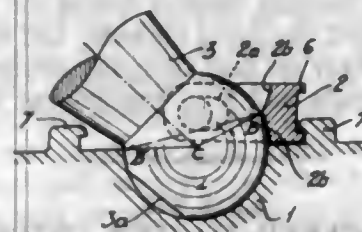
2,818,780

COUPLING DEVICES OF MORTAR-TYPE GUNS

Arvo Ensio Saloranta and Martti Ensio Saloranta, Helsingfors, Finland
Application December 27, 1954, Serial No. 477,848
6 Claims. (Cl. 89-37)

1. A coupling device for mortar-type guns having a gun barrel provided with a ball-shaped end pivot at its

rear end, which is flattened on at least one side, and a base member upon which the gun barrel stands, said base member being provided with a socket, shaped as a segment of a sphere corresponding to the ball-shaped end pivot of said barrel, for receiving the same, said coupling device comprising a rockable, rigid coupling element

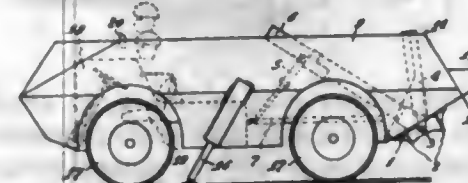


mounted on said base member at points on opposite sides of said socket for rocking movement on an axis extending above said socket in a plane including the center of the socket, said coupling element having a concave spherical surface for contacting the ball-shaped end pivot, which contact surface together with the inside of the socket covers a centric angle larger than 180° .

2,818,781

MOBILE MORTAR

Walter Ruf, Bottighofen, Switzerland
Application November 22, 1955, Serial No. 548,477
Claims priority, application Switzerland
November 26, 1954
5 Claims. (Cl. 89-40)

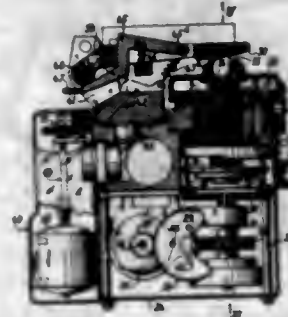


1. A mobile mortar comprising, in combination, a wheeled body, a mortar barrel, pivot means pivotally supporting said mortar barrel at its forward end in said body, said body being provided with an opening in its lower portion for passage of the rear barrel end exteriorly of the body, a base plate pivotally connected to said rear barrel end adapted to rest upon the ground when the barrel is in extended position for firing and to lie against said body across said opening when the barrel is in retracted position within the body, and means connected to said body and selectively to said base plate for moving said base plate and the barrel connected thereto into extended position and retracted position.

2,818,782

DIRECTING APPARATUS

Joseph Raymond Jasse, Paris, France, assignor to Societe Nouvelle des Etablissements Brandt, Paris, France, a French body corporate
Application May 12, 1953, Serial No. 354,454
Claims priority, application France May 14, 1952
1 Claim. (Cl. 89-41)



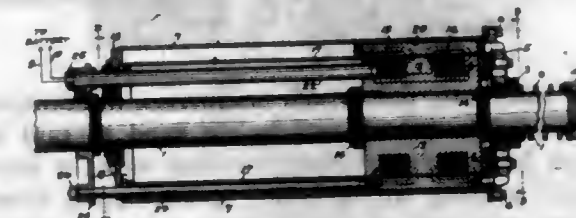
In a directing device for launching pieces, adapted to launch selfpropelled projectiles, this launching piece in-

cluding a carriage and an anemometric device, in combination: a support adapted for being fixed on said carriage, a turret mounted on said support to rotate about a first axis, a cradle mounted on said turret to pivot about a second axis perpendicular to said first axis, a nut journaled in said support, an auxiliary manually operable member, means for connecting said member to said nut for turning it in said support so as to bring about a setting in elevation or direction depending on the direction of the pivotal axis of said cradle, a screw screwed into said nut, said cradle bearing on one of the ends of said screw, two reversible electric motors mounted on said support to drive said screw and said turret and connections which are electromagnetic, electromechanical, and electronic, for connecting said motors to said anemometric device so that said device receives corrections in elevation and direction one of which is dependent on the component of the wind in the plane of fire and the other is dependent on the transverse component of the wind.

2,818,783

ELECTROMAGNETIC RECOIL SYSTEM FOR A GUN

George R. Carlson, Glencoe, Ahmed D. Kafadar, Chicago, and Severin Raynor, Wlanetka, Ill., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application April 22, 1953, Serial No. 350,402
10 Claims. (Cl. 89-42)

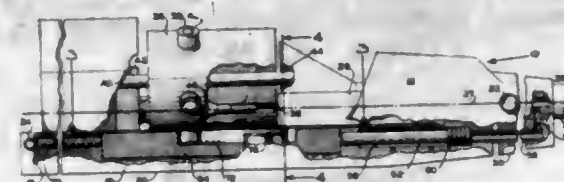


1. A recoil mechanism for a gun comprising a support, a gun barrel reciprocable in recoil and counterrecoil, a member of good electrical conductivity fixed to said support, electromagnetic flux generating means mounted adjacent said member and movable in unison with said barrel, and means for energizing said electromagnetic flux generating means whereby relative motion between the said electromagnetic flux generating means and said member during recoil and counterrecoil produce a force to oppose said motion.

2,818,784

BLOCK ACTUATOR FOR A REVOLVER-TYPE GUN

Charles H. Stevens, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application June 19, 1953, Serial No. 362,977
3 Claims. (Cl. 89-155)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A revolver-type weapon comprising a receiver, a drum including cartridge chambers and corresponding index rollers, and an actuator biased to a battery position and disposed on said receiver for slidable operation in rearward and forward strokes from and to said battery position including outlet and inlet blocks respectively provided with oppositely disposed bearing surfaces, said actuator being provided with communicating grooves for engaging said rollers including a straight groove for battery position retention of said chambers in a firing posi-

tion, a pair of grooves of substantially equal curvature extending oppositely from said straight groove, and a pair of sockets in the bottom of said grooves, said blocks being slidably disposed in said sockets and spring-biased to a normal position therein with a corresponding pair of said bearing surfaces respectively connecting roller engagement surfaces of said curved grooves and said straight groove to control rotation of said chambers to said battery position and with the remaining pair of said bearing surfaces engaging said actuator to directly transmit forces from said rollers thereto, said outlet block including a ramped surface and said inlet block including a pair of ramped surfaces for respective engagement with said rollers to slide said inlet block out of said normal position during said rearward stroke and consecutively to slide said outlet and inlet blocks out of said normal position during said forward stroke.

2,818,785

IMPROVEMENTS IN AUTOMATIC GUNS HAVING A DETACHABLE BARREL

Bernard Maillard, Geneva, Switzerland, assignor to Brevets Aero-Mecaniques S. A., Geneva, Switzerland, a Swiss society

Application July 22, 1954, Serial No. 445,099
Claims priority, application Luxembourg July 27, 1953
4 Claims. (Cl. 89-193)



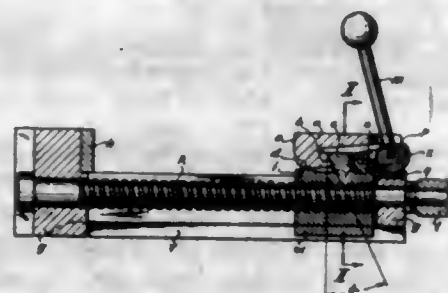
1. An automatic gun which comprises, in combination, a breech case, a barrel detachably fixed to said breech case, said breech case being provided with at least one cylindrical housing for receiving gases tapped from said barrel, one end wall of said housing being provided with a passage extending therethrough, a cylinder carried by said barrel having one end thereof located opposite the outer face of said housing end wall when said barrel is fixed on said breech case, said barrel being provided with at least one tap conduit connecting the bore thereof with the other end of said cylinder, and a piston in said cylinder provided with a longitudinal passage extending therethrough, this passage being in line with said first mentioned passage, the outer end of said piston being shaped to fit against the outer face of said housing end wall when the powder gases escaping from the bore of said barrel through said tap conduit push said piston against said end wall, whereby said two passages are connected together end to end with a gas-tight fit when said gases are to flow therethrough.

2,818,786

VICE FOR HOLDING WORKPIECES

Wilhelm Hammer, Ingolstadt, Germany

Application November 22, 1954, Serial No. 470,495
Claims priority, application Germany November 25, 1953
8 Claims. (Cl. 90-60)



1. A vise for workpieces comprising the combination of a stationary clamping element and a movable clamping element, means for drawing said elements together for clamping a workpiece therebetween, one of said clamping

elements having an inclined abutment portion on the inner face thereof, an unguided elbow lever tiltingly and freely mounted on said last mentioned clamping element adjacent the abutment portion thereof, said lever having a clamping face and a claw-like foot element, said foot element in turn having an arcuate surface in bearing engagement with and slidable along the inclined abutment portion of the said clamping element during the tilting of said elbow lever on said clamping element, and means for tilting said elbow lever on said clamping element through a predetermined angle and into engagement with a work-piece.

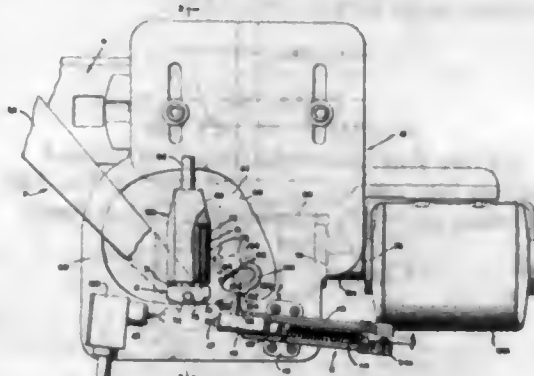
2,818,787

POWERED MASTER UNITS

Allen D. Gunderson, Racine, Wis., assignor to George Gorton Machine Co., Racine, Wis., a corporation of Wisconsin

Original application March 18, 1955, Serial No. 495,245.
Divided and this application August 6, 1956, Serial No. 602,377

16 Claims. (Cl. 90-62)



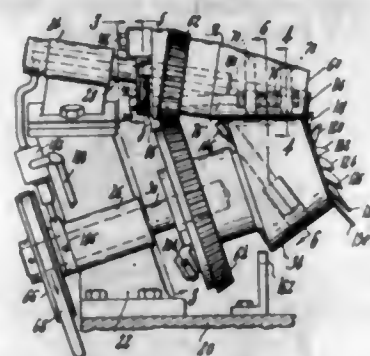
1. A powered master unit including, in combination, a master plate structure; a driving shaft journaled in said master plate structure normal to the general plane thereof; a tracer stylus holder mounted on said driving shaft at one side of said master plate structure in position disposed radially of said shaft; powered drive means for rotating said driving shaft to revolve said tracer stylus holder; an endless master profile surface on said master plate structure surrounding and of a diameter greater than the maximum length of said tracer stylus holder, a tracer stylus mounted on said tracer stylus holder for movements radially toward and from said surrounding master profile surface; and biasing means on said tracer stylus holder acting to continuously bias said tracer stylus radially outwardly into tracing engagement with and around said master profile surface as said tracer stylus holder is rotated by said power driven shaft.

2,818,788

MACHINE FOR MAKING PAPER FLOWER POTS

James A. Kirk, East Walpole, Mass.

Application August 16, 1955, Serial No. 528,685
11 Claims. (Cl. 93-36.2)



1. A machine for making a frusto-conical cup from a one-piece paper blank in the form of a sector of an annulus with a disk and a series of curved fingers extend-

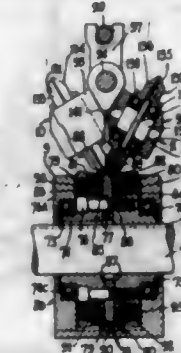
ing from the concave edge of the sector, said machine comprising a base, two frusto-conical rolls rotatably mounted on said base in mutual tangency, one of said rolls having a portion with dimensions equal to the dimensions of the cup to be formed from said blank, means for rotating said rolls at equal peripheral speeds, means carried by said one roll for gripping the leading end of a blank presented to the nip of the rolls, whereby the blank is wrapped around said one roll as the rolls rotate, means on the other said roll for successively folding said disk and fingers into a common plane as the blank is fed between the rolls, and means on said other roll for fastening together the end portions of a blank after it has been wrapped around said one roll, said other roll having means for operating said gripping means to grip the end of a blank and to release the blank after the ends thereof have been fastened together.

2,818,789

MACHINES FOR FORMING FOLD LINES IN BOARDS OR SHEETS

Wilfred Kirby, London, and Flavius Kingsford Daniels, Dartford, England, assignors to Vickers-Armstrongs Limited, London, England

Application July 6, 1954, Serial No. 441,474
Claims priority, application Great Britain July 6, 1953
1 Claim. (Cl. 93-58.1)



A machine for producing fold lines in sheet blanks made of fibrous material, the machine including at least one unit that comprises first, second and third rotary fold-line-forming members, a peripheral edge on each of the first and second fold-line-forming members for contacting one side of the sheet blank, a peripheral edge on the third fold-line-forming member for contacting the opposite side of the sheet blank, the peripheral edge of the first member lying in a first plane and the peripheral edge of the second member lying in a second plane that is inclined with respect to the first plane, the peripheral edge of the third member lying in a third plane and the first and second rotary members lying on opposite sides of the third plane, the third rotary member comprising a disc having a bevelled peripheral portion on each side, the bevelled peripheral portions of the disc meeting to provide the said peripheral edge of the third rotary member, a sheet-supporting shroud ring on each side of the peripheral edge of the disc and rotatable therewith, the shroud rings respectively abutting against and masking the bevelled portions of the disc apart from its peripheral edge, and spring means supporting the shroud rings and urging them against the disc while permitting deflection of the shroud rings towards the axis of rotation of the disc comprising the third rotary member.

2,818,790

CURB AND GUTTER LAYING MACHINE

William E. Canfield and Roy W. Smith, Albemarle, N. C., assignors, by mesne assignments, to E. L. Hardin Associates, Inc., a corporation of North Carolina

Application November 15, 1954, Serial No. 468,794
8 Claims. (Cl. 94-46)

1. In an apparatus for forming relatively broad strips from paving material, such as concrete, asphaltic material

and the like, on a surface, said apparatus having a frame movable longitudinally upon said surface, a longitudinally extending mold carried by said frame and being open at its rear end and having side walls extending downwardly into close proximity to said surface, said apparatus also having means for feeding paving material to a point adjacent and above the level of the front end of said mold; the combination of a plurality of extrusion devices spaced



below said point and having their rear ends communicating with the front end of said mold, said extrusion devices being arranged in substantially side-by-side relationship, communicative means between the discharge end of the feeding means and each of said extrusion devices, and laterally adjustable deflecting means adjacent the discharge end of the feeding means for directing predetermined amounts of the paving material fed therethrough into each of the extrusion devices simultaneously.

2,818,791

TAMPER ATTACHMENT FOR TRUCK WHEEL

John M. Kennedy III, Denver, Colo.

Application February 1, 1954, Serial No. 407,267
5 Claims. (Cl. 94-49)



5. In a tamper adapted to be suspended from the body of a highway truck, comprising a guide plate having vertically separated guides, a crosshead in each guide and mounted for reciprocation, a tamper bar attached to both crossheads holding them in spaced relation, means comprising a crank shaft provided with a crank, a lever of the first class having one end connected with the crank by means of a rigid rod, a pivot carried by the guide plate about which the lever rocks, the other end of the lever lapping the tamper bar, a detent pivotally connected with the tamper bar, means comprising a spring operatively associated with the detent for normally positioning its lower end above and in contact with the outer end of said lever whereby when the latter moves upwardly it will raise the tamper bar, and means comprising a pin projecting from the guide bar, and a cooperating cam surface on the detent for moving it out of engagement with the lever when the tamper bar has been raised to a predetermined height to permit it to return to its lower position.

2,818,792

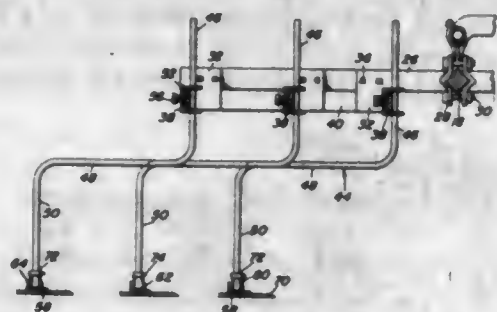
WEEDING DEVICE

John W. Lynch and Frederick H. Zeltz, Lubbock, Tex.

Application March 16, 1955, Serial No. 494,612
8 Claims. (Cl. 97-144.1)

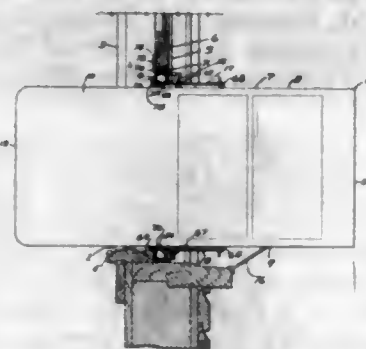
8. A cultivating and weeding device comprising a mobile frame, a plurality of tines vertically adjustably mounted on said frame, and a plurality of flat plates disposed in a generally horizontal plane, said plates being mounted

on the lower end of said tines for limited free pivotal movement about a generally longitudinal axis whereby the plates may be adjusted to generally define the contour of the soil being cultivated with the plates being



freely pivotal for generally paralleling the soil surface in spaced relation below the same when the soil is being cultivated, said pivotal connection between the tines and plates being disposed adjacent the center of the top surface of the plates.

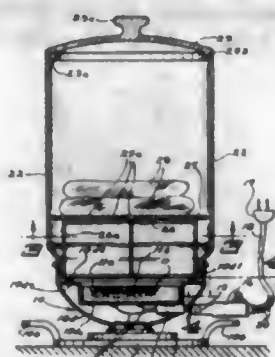
2,818,793
WINDOW MOUNTING ATTACHMENT FOR ROOM AIR CONDITIONERS
Paul E. Hord, Tebbetts, Mo.
Application May 26, 1954, Serial No. 432,429
7 Claims. (Cl. 98—94)



1. A window mounting attachment for supporting a room air conditioning unit having a shell enclosing air cooling and circulating apparatus in a window opening beneath the lower sash of a vertically movable window comprising, a hollow substantially rectangular sleeve having an opening therethrough for receiving a room air conditioning unit whereby said sleeve encompasses said unit shell and is adjustable thereon, said sleeve being of less width than the width of the window opening, channel-shaped members mounted on the upper and lower portions of the sleeve and extending across the width thereof and cooperating with the sleeve to define upper and lower trackways, said channel on the lower portion of the sleeve being adapted to rest on a window ledge below the lower sash of a vertically movable window with the channel on the upper portion below said lower sash, U-shaped extension frames having a vertical member connected to parallel channel shaped legs arranged at the ends of the sleeve with the legs slidable in the trackways for movement of the extension frames toward and away from the sleeve, said channel shaped legs having spaced flanges defining inwardly opening ways, an extensible member in each of the extension frames and having end portions secured to the sleeve and to the vertical member of the extension frames remotely of the sleeve respectively, said extensible members being of sheets of flexible material having a plurality of vertical folds therein defining a plurality of vertically extending panel portions hingedly connected at said vertical folds, vertically extending strips in the panel portions providing vertical rigidity to the panel portions, said extensible members having upper and lower portions extending into the ways between the flanges of the respective leg members, means forming a weathertight engagement of the

portions of the extensible members between the flanges of the legs of the extension frames, resilient sealing strips on the extension frames and channels for making a weathertight mounting in the window opening, means in one of the trackways and fixed relative to the sleeve and having operative engagement with the respective legs of the extension frames in said one trackway for selectively moving said extension frames toward and away from the sleeve and holding said extension frames in tight engagement with the sides of the window opening, means removably engageable with the extension frame operating means from inside the opening in the sleeve whereby said removable means may be used to actuate the operating means for moving the extension frames only when the airconditioning unit shell is out of the sleeve, and adjustable means fixed relative to the sleeve for retaining the air conditioning unit shell in selected adjusted position therein.

2,818,794
FOOD WARMING DEVICE
William C. Aslesen, Minneapolis, Minn.
Application August 26, 1954, Serial No. 452,420
2 Claims. (Cl. 99—341)

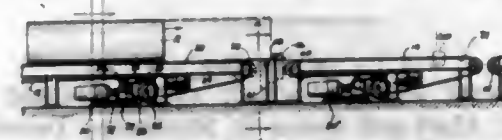


2. A food warming device having in combination, a base member having a plate-like supporting portion of comparatively great diameter and an upper upwardly flaring portion having a narrow bottom portion secured to said portion and having a chamber therein, a plate supported in and by the wall of said chamber having a second chamber therein, a heating element disposed within said second chamber and supported by said plate, a vertically elongated jar of transparent material adapted to contain water and having a bottom portion of reduced transverse dimension, said base member having an upper terminal flange within which said portion removably fits, said jar being supported on said plate, a frame formed of wires or rods having horizontal portions at an angle to each other and circumferentially spaced vertical leg portions resting on and supported by the bottom of said jar closely adjacent the wall thereof, a perforated plate supported on said horizontal portions on which food, such as wieners, can be placed in layers to be heated and steamed, and a cover of small vertical dimension for closing the top of said jar spaced quite a distance above said plate whereby a vertically elongated chamber is formed above said plate adapted to contain wieners supported on said plate.

2,818,795
ROLL CONVEYING AND BANDING MECHANISM
George W. Gustafson, Hoquiam, Wash., assignor to Lamb-Grays Harbor Co., Inc., Hoquiam, Wash.
Application August 24, 1956, Serial No. 606,101
10 Claims. (Cl. 100—4)

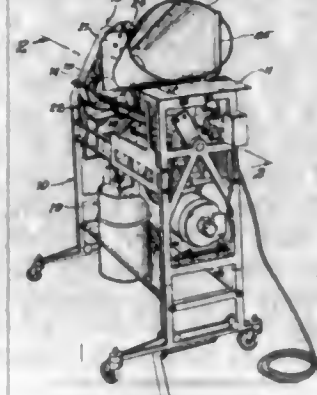
1. In combination; a banding machine that is operable incident to its being energized, through one banding cycle, a power driven conveyor leading to the receiving side of said banding machine for the endwise conveyance of a roll thereon into said banding machine to a position for the application of a band about its forward

end portion, a power driven conveyor at the discharge side of said machine for receiving the roll from the first conveying means and to coast therewith for the conveyance of the roll through the banding machine after receiving a band about its forward end portion, and reversible to reverse the direction of movement of the roll



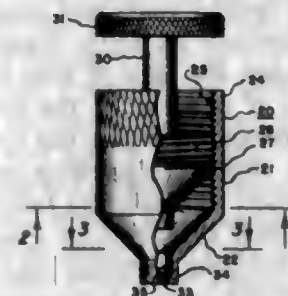
after passing through the machine to dispose its rearward end portion in position for receiving a band thereabout, and means operable by the moving roll, incident to the disposition by a conveyor of an end portion thereof in banding position to energize said machine for a banding operation.

2,818,796
COMPACTOR FOR A TYING MACHINE
Benjamin H. Bunn, Chicago, Ill., assignor to B. H. Bunn Company, Chicago, Ill., a corporation of Illinois
Application September 16, 1953, Serial No. 380,557
4 Claims. (Cl. 100—27)



4. In combination a tying machine and a compactor for bundles of loose fibrous material to be tied thereby, said compactor comprising a receptacle for a portion of each bundle having an inner surface defining an opening of progressively decreasing cross-sectional area from one end of the receptacle to the other, means for pivotally mounting said receptacle on a tying machine with the wide part of the receptacle adapted to receive the material to be tied, means for closing the opening in the receptacle at the part having the smallest cross-sectional area, and a stationary stop against which the material protruding from the compactor may rest to steady the pivoted compactor while the bundle is being tied.

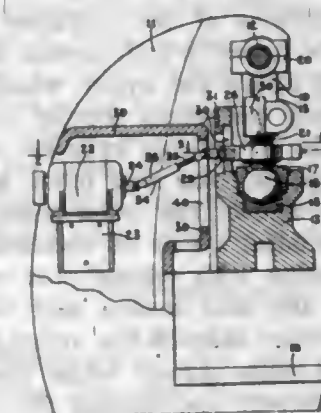
2,818,797
FRUIT AND VEGETABLE PRESS
Wallace T. Bailor, Lemon Grove, Calif., assignor of one-third to Warren H. F. Schmieding, San Diego, Calif.
Application July 9, 1954, Serial No. 442,365
1 Claim. (Cl. 100—98)



A vegetable press having a container for the vegetable, said container having a bottom wall, said bottom wall

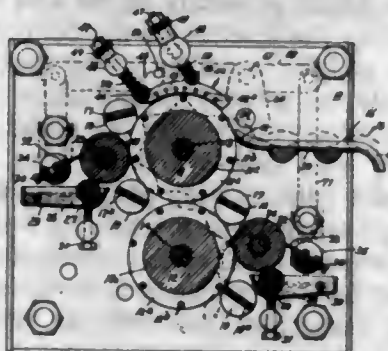
having an opening; a rotatable plunger within the container, said plunger having a substantially flat bottom at right angles to the direction of axial movement of the plunger; means for simultaneously rotating and moving the plunger downwardly for compressing the vegetable therebelow; means within the opening forming a plurality of passages arranged parallelly of the axis of the plunger and leading from the interior of the container and forming a plurality of knife sections having their cutting edges facing upwardly, all of said cutting edges terminating in a flat plane lying parallelly with the plane of the bottom of the plunger, said passages comprising a plurality of series of aligned holes passing parallel to the axis of the plunger through said means, there being V-shaped grooves in the upper surface of said means intersecting said aligned holes, adjacent faces of adjacent grooves intersecting one another along respective lines defining said knife edges.

2,818,798
POWER PRESSES
Ronald Frederick Deykin, Erdington, Birmingham, England, assignor to Hordern, Mason and Edwards Limited, Birmingham, England, a British company
Application November 29, 1954, Serial No. 471,873
Claims priority, application Great Britain December 7, 1953
7 Claims. (Cl. 100—257)



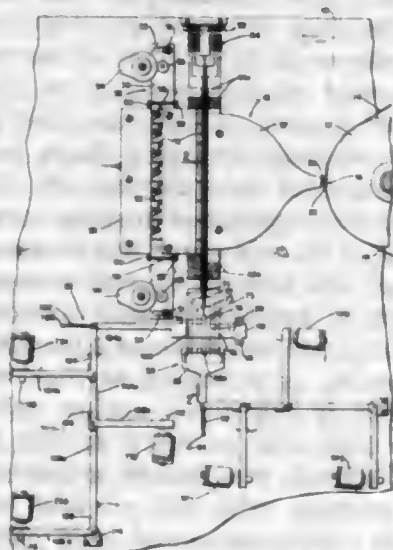
1. In a power press of the kind comprising a frame, a bed, a ram guided by said frame for reciprocating movement towards and away from said bed, and a power driven crank rotatably journaled in said frame for driving said ram; the combination of a single connecting rod connecting said crank and said ram and including a screw component and a nut component relatively rotatable to effect lengthening and shortening of said connecting rod, a supporting member mounted on said connecting rod and rockable therewith in its plane of movement, torque path of movement of said element on said supporting member and an element on said ram, said elements having respective mutually engaging faces parallel to the path of movement of said element of said supporting member and in consequence of rocking movement of the connecting rod in its own plane but transverse to a path of movement of said element on said supporting member in consequence of rotation of said supporting member on the connecting rod about the axis thereof, so that said supporting member is permitted to rock with said connecting rod but is restrained against relative rotation thereto about said axis, a rotary driving member journaled in said support, gear means operatively connecting said driving member with one of said screw and nut components to rotate same and hold same in the required position of adjustment, means for retaining the other of said components against rotation, a rotary operating device mounted on said frame and an extensible shaft having universal joint means operatively connecting said operating device and said driving member.

2,818,799
MEANS FOR APPLYING PRINTING TO PLASTIC
 Henry Milton Hayward, Eastwood, near Sydney,
 New South Wales, Australia
 Application August 18, 1954, Serial No. 450,705
 Claims priority, application Australia August 21, 1953
 3 Claims. (Cl. 101—37)



1. A machine for printing on the curvilinear surface of individual tubular container units serially connected by a seam, comprising, in combination, a frame, upper and lower wheels each including a hub and mounted in said frame, flanges at the opposite ends of each wheel, the inner adjacent peripheral portions of the flanges of said wheels being in close proximity, circumferentially spaced parallel pins mounted in the opposite flanges of each wheel and cooperating with the peripheral surface of the wheel hub to provide recesses for receiving the said curvilinear surfaces of the container units, a feed table leading to the upper wheel, means downstream of the feed table and above the upper wheel to guide the connected units into the recess thereof with the seams resting on the pins, a printing cylinder at the side of the upper wheel opposite the feed table, a second printing cylinder at the side of the lower wheel opposite the first mentioned cylinder, a pair of rotatable unit locator blades for cooperation with related pins on each of the wheels to engage the said seams, said blades of each pair disposed at either side of the related printing cylinder to hold the units steady while their curvilinear sides are being printed, and means for synchronously operating the wheels, printing cylinders, and locator blades.

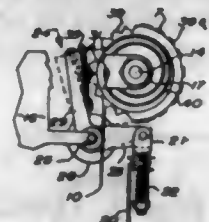
2,818,800
WIRE PRINTER
 Robert J. Orrange, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
 Application December 23, 1953, Serial No. 400,009
 12 Claims. (Cl. 101—93)



1. In a wire printer, a plurality of print wires movable axially to undergo printing impact, a corresponding number of axially movable drive wires respectively aligned

with said print wires, a number of perforated elements each having a normal position in which perforations are aligned with all of the drive wires and adjustable to positions in which perforations are only aligned with different ones of said drive wires, and means for moving each of the perforated elements to its different positions for individual character selection.

2,818,801
TYPE POSITIONING MECHANISM
 Norman E. Hart and Bruce E. Robinson, Toledo, Ohio, assignors to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey
 Application February 13, 1956, Serial No. 565,052
 2 Claims. (Cl. 101—99)



1. In a printer, in combination, a plurality of rotatably mounted printing members which are adapted to be selectively positioned, a bell crank mounted to pivot about an axis, a plurality of resilient pawls, a finger on each pawl, means including fasteners for so individually and adjustably mounting the pawls on the bell crank that each pawl is slidable in a plane to locate the fingers relative to said fasteners and radially relative to said axis, means carried by the bell crank for limiting pivotal movement of the pawls about the axes of the fasteners, and means for pivoting the bell crank cyclically, whereby the fingers are moved into cooperative relationship with the printing members to accurately align the printing members during a printing operation.

2,818,802
HAND STAMPS
 William D. Kneec, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
 Application October 11, 1956, Serial No. 615,292
 8 Claims. (Cl. 101—111)



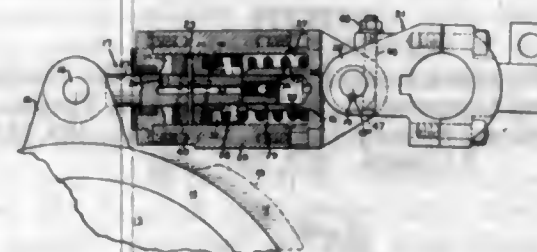
1. A hand stamp including, in combination, a supporting member having spaced-apart legs connected by a cup-shaped bridging member; an inner frame member shiftably mounted between the legs of said supporting member; printing means at one end of the inner frame member; first retaining means to retain the inner frame member in a position in which the printing means is exposed; second retaining means to retain the inner frame member in a position in which the printing means is concealed in the cup-shaped bridging member and consequently is inoperable to print; and securing means for securing the inner frame member in either said exposed or said concealed position.

2,818,803
SILK SCREEN STENCIL AND HOLDER
 Alvin K. Leverson, Tacoma, Wash.
 Application June 30, 1954, Serial No. 440,567
 2 Claims. (Cl. 101—127.1)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



1. A device of the character described comprising a generally rectangular piece of silk or the like of the type used in the silk screen process; a first rigid member substantially the width of the rectangular silk fastened to the silk at one end thereof across its width; a second similar rigid member fastened across the width of the silk at the other end of the rectangle; a spring for maintaining the screen in tension by urging the two rigid members in opposite directions, including a first arm lying generally in a plane parallel to the plane of said first rigid member, a second arm similar to said first arm and lying generally in the plane of said first arm, and an arcuate portion joining said arms and urging them apart and lying generally in a plane transverse to the plane formed by said silk and said rigid members and passing over said plane in a region substantially at least as remote from that center line of said rectangle which is transverse to said rigid member as is the edge of said rectangle parallel to said center line; and means on said rigid member lying generally on said center line of said rectangle engaged by said arms of said spring whereby said spring urges said rigid elements in opposite directions to maintain said silk in tension.

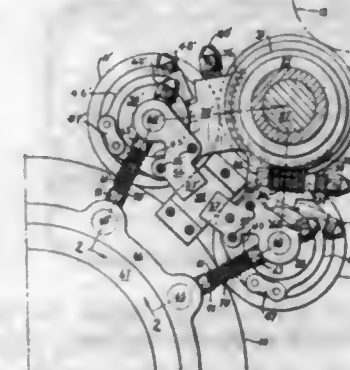
2,818,804
PRINTING MACHINE IMPRESSION MECHANISM
 Charles A. Harless, Riverside, Conn., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
 Application February 15, 1956, Serial No. 565,630
 8 Claims. (Cl. 101—247)



1. In a printing machine having a pair of cooperating printing cylinders and a support for one of said cylinders movably mounted for movement in one direction to increase impression pressure and in the other to throw off the impression, the combination with the said support of an operating mechanism comprising cooperating hydraulic cylinder and piston elements defining a working space, and a spring for applying impression pressure and acting between said piston and cylinder in a direction to reduce said working space, a crank, and means connecting one of the said hydraulic elements to the support and the other to the crank, the last said means being positioned so that the spring acts to force the cylinder carried by the said support in the first said direction.

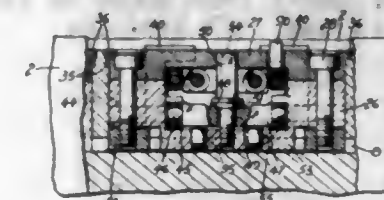
726 O. G.—5

2,818,805
ROLLER SOCKET MOUNTING FOR PRINTING MACHINE INK MECHANISM
 Charles A. Harless, Riverside, Conn., and Burton C. Polglase, Jr., White Plains, N. Y., assignors to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
 Application May 5, 1954, Serial No. 427,728
 13 Claims. (Cl. 101—348)



8. In a printing machine inking mechanism having a plate cylinder, an ink drum and a form roller operatively engaging the two, a roller mounting comprising a fixed concentric sleeve surrounding the ink drum shaft, an eccentric bushing mounted rotatively about the ink drum axis upon the said sleeve, a strap carried by the eccentric and supporting a roller socket, a worm carried by the strap and a worm wheel sector carried by the eccentric for adjusting their relative angular position to regulate roller distance from the drum axis, and means for adjusting the strap and bushing angularly and bodily about the drum axis to regulate the roller distance from the plate cylinder axis.

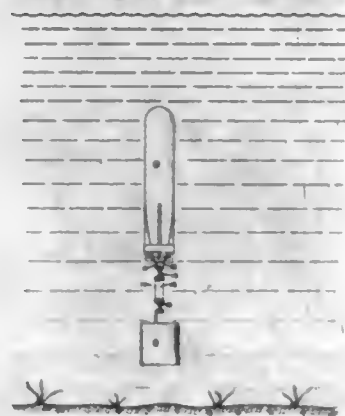
2,818,806
PRINTING PLATE CYLINDER
 Charles A. Harless, Riverside, Conn., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
 Application February 11, 1953, Serial No. 336,236
 9 Claims. (Cl. 101—378)



1. In a printing cylinder, plate clamping mechanism comprising spring means for engaging under the substantially aligned straight edges of a pair of neighboring plates and rigid clamping means for engaging under the opposite straight edges of the plates and holding the same against the action of the spring means, the rigid clamping means comprising a series of hooks including two neighboring sets of hooks, each set comprising two pairs of neighboring hooks for engaging in recesses under a said plate, means for holding the hooks in plate engaging position and comprising a separately adjustable member for holding each pair of hooks in plate engaging position, a differential connection between the two hooks of each pair and its said adjustable member, and means for individually and independently adjusting the position of each said adjustable member, whereby one of the said pairs of hooks may be displaced circumferentially from the other pair, and the four hooks of the two pairs will engage in aligned recesses under a slightly skewed plate.

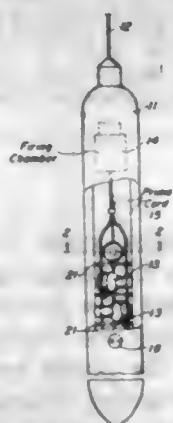
2,818,807
MEANS FOR RELEASING BUOYANT OBJECTS
UNDERWATER

Edward J. J. Tracey, Jr., State College, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 17, 1957, Serial No. 672,529
4 Claims. (Cl. 102—13)



1. In a device for releasing an auxiliary weight from a submersible buoyant object the combination comprising: a plurality of thin gelatine strips assembled in face-to-face relationship, said gelatine strips having a first end portion, a middle portion and a second end portion; first means adapted for connection to the buoyant object and to grip said first end portions, said means comprising first and second oppositely disposed pressure bars disposed inwardly of and adapted to grip said first end portions of the outer gelatine strips, and means to advance said pressure bars toward said gelatine strips whereby said gelatine first end portions may be securely clamped between said pressure bars; and second means adapted for connection to the auxiliary weight and to grip said gelatine second end portion, said means comprising third and fourth oppositely disposed pressure bars disposed inwardly of and adapted to grip said second end portions of the outer gelatine strips, and means to advance said pressure bars toward said gelatine strips whereby said second end portions may be securely clamped between said pressure bars.

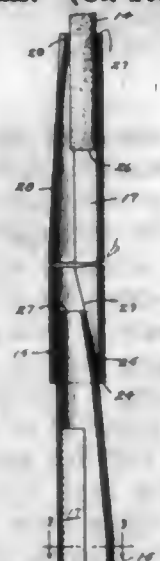
2,818,808
JET PERFORATING GUN
Winnefred Sheldon Dill, Midland, Tex.
Application April 7, 1954, Serial No. 421,562
1 Claim. (Cl. 102—20)



In a jet gun for perforating casing in oil wells or the like, the combination of a carriage, a series of shaped charges of explosive stacked in the carriage in such a way that each charge is adapted to direct a jet outwardly through casing at an angle of 120 degrees from the jets of the immediately adjacent shaped charges, a Primacord for firing said charges, said Primacord having three sections to provide three parallel burning paths of travel, each section passing through every third charge to cause the charges to fire in rapid and regular uni-directional sequence but with the sections of Primacord laying in straight lines, and reflection plates, one for each charge,

placed between the charges, said reflection plates being made of iron or steel, means for supporting said plates on the sides of said charges for free oscillation in said carriage and with each reflection plate in substantial contact with one of said charges on the rear side thereof insofar as the direction of the sequence of firing of the charges is concerned.

2,818,809
DYNAMITE CHARGE HOLDER
Irene Roy, Thetford Mines, Quebec, Canada
Application December 2, 1955, Serial No. 550,743
3 Claims. (Cl. 102—22)



1. A dynamite charge holder comprising a sheet of magnetizable metal formed into a substantially cylindrical inner tubular member having a generally smooth surface, a substantially cylindrical longitudinally corrugated outer tubular member formed integrally with and encompassing said inner tubular member, said inner and outer tubular members having one end thereof crimped to form a tapering reduced end portion and having the opposite end thereof open, and a radial longitudinally extending rib carried by and extending inwardly of said inner tubular member, said rib having the end thereof adjacent the open end of said tubular members tapered outwardly and the end thereof adjacent the crimped end of said tubular members terminating inwardly of the adjacent end of said tubular members, said holder being adapted to have the crimped end thereof telescoped within the open end of a second similar holder.

2,818,810
AMMUNITION
Claude T. Reynolds, Kane, Ill., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia
Application February 9, 1954, Serial No. 409,154
3 Claims. (Cl. 102—42)



1. A top wad for shot shells having an imperforate disc shaped body with an integral flange on the periphery of the disc normal to the plane thereof and extending not more than about half way around said disc.

2,818,811
AMMUNITION
Frederick Kempler, Toronto, Ontario, Canada, assignor to Levy Auto Parts Co. Ltd., Toronto, Ontario, Canada, a corporation of Ontario
Application February 11, 1953, Serial No. 336,410
11 Claims. (Cl. 102—45)

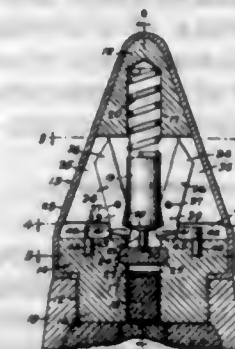
1. In a piece of ammunition, a cylindrical casing with a first chamber, a propellant powder in said first cham-

ber, a ring member within said casing, the outer surface of said ring member embracing the inside wall of said propellant powder chamber, locating means for locating said ring member therein against displacement longitudinally thereof, the outer surface of said ring member being formed with a groove to define a second chamber together with the inside wall of said propellant powder



chamber, a primer fuse material in said second chamber, said ring member being formed with passages extending from said first chamber to said second chamber, said casing having rearward escape means for gases generated by said propellant powder upon ignition, said ring member having an internal chamfer on the edge adjacent the front of said first casing.

2,818,812
FUSE
Donald H. Shenk, Huntsville, Ala., assignor to the United States of America as represented by the Secretary of the Army
Application October 14, 1952, Serial No. 314,757
4 Claims. (Cl. 102—79)
(Granted under Title 35, U. S. Code (1952), sec. 266)

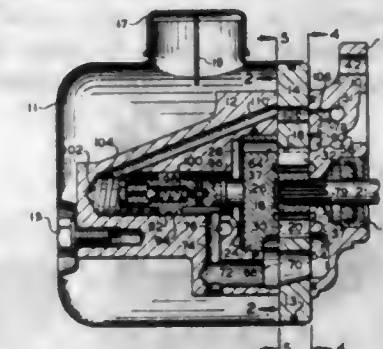


1. In a fuse of the type described, a fuse body having a first longitudinal axis of symmetry and a bore coaxial with said axis, there being a slot in said body transversely of and intersecting said bore between the ends thereof, a firing pin slidably fitting said bore, a barrier member slidably fitting said slot and movable in response to centrifugal force from a first position obstructing said bore to a second position free of said bore, first spring means urging said member into first position, second spring means urging said firing pin rearwardly into position engaging a recess in said member when in first position to hold the same against movement, a control arm pivoted intermediate its ends within said body for movement about a second axis normal to and laterally offset from said longitudinal axis, the centroid of said arm being forward and radially outward of said second axis, a latch member pivotally mounted on an axis parallel with the said first longitudinal axis normally engaging the rear end of said control arm and responsive to centrifugal force to remove from said normal engagement to free the said control arm for said movement about said second axis whereby upon such movement the rearward end thereof engages said pin and moves the same forwardly to release said barrier member.

2,818,813
POWER TRANSMISSION
Raymond B. Pettibone, Detroit, and Russell H. Hallman, Royal Oak, Mich., assignors to Vickers Incorporated, Detroit, Mich., a corporation of Michigan
Application September 9, 1954, Serial No. 454,863
4 Claims. (Cl. 103—42)

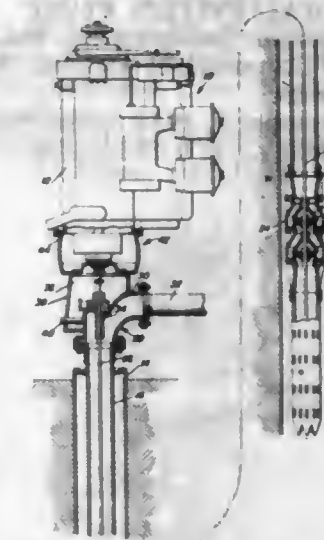
1. A vane type fluid pump comprising: telescopically disposed rotor and stator elements having inlet and outlet

zones included therebetween; a pair of body members each having a flat plane surface abutting opposite sides of said rotor and stator; an outlet connection port in one of said body members; inlet port means to overlie said inlet zones; a pair of axially opposed outlet ports to overlie each outlet zone, one of said pair being in each of said flat plane surfaces; means including a passage through said stator for manifolding the fluid discharged



into said pair of outlet ports prior to delivery to said connection port; passage means in said one body member for conducting the manifolded fluid to the outlet connection port and forming a restriction to flow of the manifolded fluid; and compensating valve means in the other body member controlled by the pressure drop across said restriction to by-pass fluid from said outlet zones to said inlet zones and thus maintain said pressure drop substantially constant.

2,818,814
POWER PLANT AND CONNECTOR FOR DEEP WELL PUMPS
Charles R. Woods, San Antonio, Tex.
Application November 8, 1954, Serial No. 467,531
4 Claims. (Cl. 103—87)

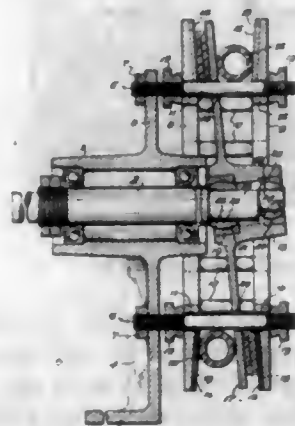


1. In combination with a vertical deep well pump shaft, an internal combustion engine including a crankshaft aligned with said pump shaft, and an adapter for directly connecting said crankshaft to said pump shaft, said adapter comprising a dished housing having an opening in its bottom wall and forming an oil sump for said internal combustion engine, an oil seal sleeve secured to said housing at said opening and projecting upwardly therefrom, and a connector sleeve associated with said seal sleeve and secured to said crankshaft and said pump shaft so as to connect the shafts for common rotation.

2,818,815
LIQUID TRANSFER MACHINE
Ernest R. Cornell, Thorold, Ontario, Canada
Application June 1, 1956, Serial No. 588,747
3 Claims. (Cl. 103—149)

1. A liquid transfer machine comprising a frame, a driven shaft journaled therein, a pair of annular plates

fixed together in spaced relation to each other, said plates being axially adjustably fixed to said frame in coaxial relation to said shaft, a third plate having a hub tiltably mounted on said shaft and a peripheral portion disposed between said annular plates, said shaft having an eccentric portion engaging said hub to impart tilting movement to said hub and third plate on revolution of said shaft, a pair of flexible tubes each having a loop disposed between the

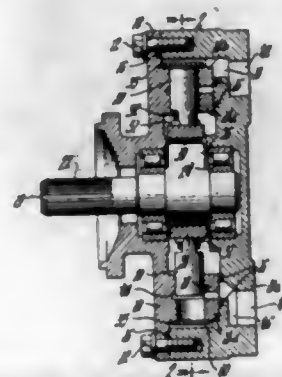


peripheral portion of said third plate and one of said annular plates, each said annular plate having on the inner surface thereof a plurality of radially extending ribs engaging one of said tube loops, said third plate compressing said tube loop against said ribs on tilting movement thereof, means for feeding liquid to one end of each of said tubes, and means for discharging liquid from the other end of each of said tubes.

2,818,816

RADIAL PISTON PUMP

Howard W. Christenson, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 6, 1954; Serial No. 473,164
2 Claims. (Cl. 103-174)

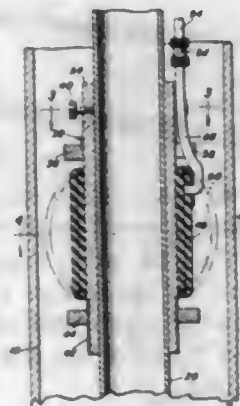


1. A pump or the like comprising a pair of housing members, one of said members being formed to provide a plurality of radially arranged cylinders, each cylinder being without end walls and having a laterally disposed port in open communication with the corresponding ports of the other cylinders, the other of said housing members including a portion formed to encircle said cylinders in spaced relation and having therein a discharge passage open to the clearance between the outer ends of said cylinders and the said encircling portion and an inlet passage common to said laterally disposed ports, a piston in each of said cylinders, powered means for reciprocating said pistons and a ring element surrounding said cylinders to close the outer ends thereof, said element being wider than such ends and serving as a valve controlling the discharge from the cylinders into said discharge passage.

2,818,817

APPARATUS AND METHOD FOR EXCLUDING AIR BUBBLES FROM SUBMERGED WELL PUMP

Dean H. Aulman, Woodland, Calif., assignor of one-half to Harry E. Aulman, Woodland, Calif.
Application June 6, 1956; Serial No. 589,704
9 Claims. (Cl. 103-203)

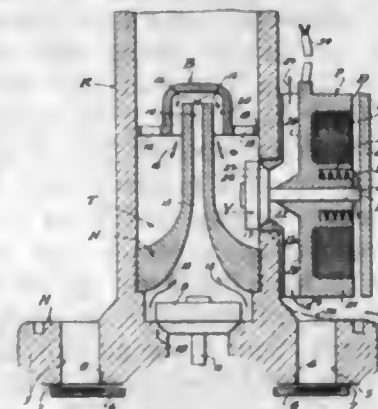


1. A protective device for submerged pumps in well casings comprising an inflatable member, means for supporting said member in a well casing at a position between the pumping water level in the casing and a higher level at which water enters the casing from a water producing strata, means for inflating the member to a size at which it intercepts the incoming water from the higher level and slows its speed of down flow from the higher water level to the intake of a submerged pump to a speed just less than that at which entrained air bubbles will naturally rise out of the water, thereby eliminating the entrainment for air bubbles to the inlet of the submerged pump.

2,818,818

PUMPING EQUIPMENT

Friedrich W. Pleuger and Johann Christian Grober, Hamburg, Germany, assignors, by mesne assignments, to Friedrich Wilhelm Pleuger, Hamburg, Germany
Application March 29, 1955; Serial No. 497,629
Claims priority, application Germany April 8, 1954
5 Claims. (Cl. 103-220)



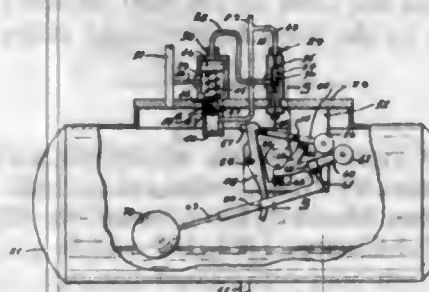
1. For use in a well riser in association with a submerged deep well pump having a discharge valve through which liquid and entrained foreign matter flows upwardly into the well riser, a foreign matter removal device comprising a flared nozzle arranged in the riser immediately above said pump discharge valve with its larger end in position to receive the discharge from the pump, said nozzle having a flow passage of progressively smaller cross section in the direction of flow to provide for flow of material from the region of the discharge valve at a progressively increasing velocity, a foreign matter collection chamber adjacent the nozzle, said chamber being arranged to discharge into the riser, deflecting means mounted adjacent the upper end of the nozzle and adapted to deflect the discharge from the nozzle into the collection chamber, the flow passage through said collection chamber being of larger cross section than that of the upper end of the nozzle, whereby the flow velocity of

the material leaving the nozzle decreases to permit foreign matter to settle in the collection chamber, a foreign matter removal passageway venting the collection recess to the well outside the riser, a valve for the passageway, means for biasing said valve toward flow occluding position, and remote control means for unseating the valve.

2,818,819

AUTOMATIC CONDENSATE RETURN TRAP AND STEAM SYSTEM

Thelbert C. Heard, Wichita, Kans.
Application April 9, 1954; Serial No. 422,152
2 Claims. (Cl. 103-248)



2. In combination with a steam system, a condensate return trap inserted therein and comprising: a pressure tank having a check valve control condensate inlet and a check valve controlled condensate outlet; a main steam control valve which includes a casing which is in communication with a pressure steam supply line, with the interior of the pressure tank, and with the atmosphere, said casing including opposed valve head seats; a valve stem reciprocable in said casing and carrying opposed tandem valve heads for seating alternately on the respective seats, one head controlling the flow of pressure steam to the interior of the tank and the other head controlling the venting of the interior of the tank to the atmosphere; spring means urging the valve stem in a direction to seat one of said heads on its seat; a steam pressure actuated plunger carried by the valve stem for urging the stem in the opposite direction to seat the other valve head on its seat against said spring means, said casing affording connection to a second steam pressure supply line to actuate said plunger; a pilot valve controlling the flow of pressure steam into the casing from said second supply line and having a valve actuating element; a float within the tank; and mechanism actuated by said float for contacting the pilot valve actuating element, for closing and holding the pilot valve closed during filling of the pressure tank, and for releasing the pilot valve element to open the pilot valve when condensate in the tank accumulates to a predetermined level, the coordinated action between the pilot valve and the main valve being such that when the pilot valve is open only that head of the main valve which controls the flow of pressure steam to the interior of the tank is unseated, and when the pilot valve is closed only the vent control head of the main valve is unseated.

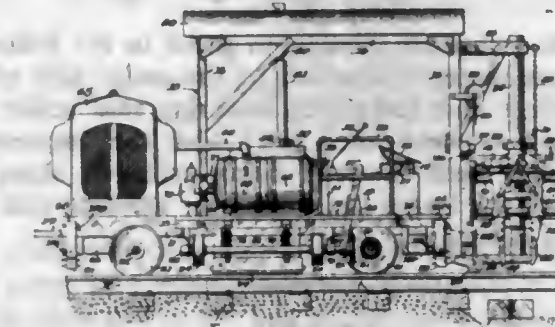
2,818,820

RAILWAY TIE POSITIONING APPARATUS

Ray C. Williams, Chicago, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application April 27, 1953; Serial No. 351,447
20 Claims. (Cl. 104-2)

2. Apparatus for positioning railway ties, comprising a car for traveling on a track extending over the ties, a vertically disposed hollow mast carried by the car outboard of one end and centrally relative to the track, track-engaging indexing means carried by the car for indicating car positions in which the mast is disposed directly above a desired tie location along the track, electromagnetic brake means cooperable with the track

to hold the car in any of said positions, a tong carriage mounted on and guided by the mast for vertical sliding movement, a hydraulic cylinder mounted in the mast and connected to the tong carriage for positioning the carriage along the mast, horizontal guide means mounted on the carriage in laterally spaced relation to extend longitudinally of the track, two pairs of tie-clamping tongs each slidable along respective of said guide means and depending below the carriage, a hydraulic cylinder for each pair of tongs to open and close the same, a pair of double hydraulic cylinders each connected to one pair of

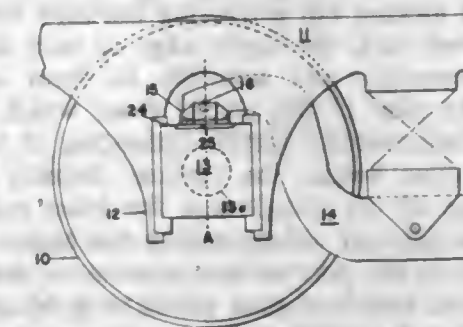


tongs for normally holding said pair of tongs in a centered position transversely aligned with said mast and for shifting said pair of tongs in either direction relative to said centered position independently of the other pair of tongs, a source of hydraulic fluid under pressure connected to said cylinders for operation thereof, and valve means controlling the operation of the cylinders including separate valves for the chambers of said double cylinders operable to cause each double cylinder automatically to dispose its associated pair of tongs in said centered position.

2,818,821

EQUALIZER SUPPORTS

Harry M. Cregler, Schenectady, N. Y., assignor to Alco Products, Incorporated, New York, N. Y., a corporation of New York
Application June 10, 1955; Serial No. 514,551
7 Claims. (Cl. 105-223)



1. A structure to support an equalizer bar upon a journal box of a railway vehicle comprising supporting means on the box top, a curved portion on the equalizer bar resting on the supporting means to permit the bar to tilt thereon, upstanding engaging walls on the supporting means, and an element extending laterally from the equalizer bar to rotatably engage such upstanding walls, said walls coacting with said element to prevent axial movement of the bar in relation to the box but to permit rotation of the bar in relation to the box.

2,818,822

MOLD BOARD FOR CONFECTIONERY MACHINE

Robert L. Greenburg, Englewood, N. J., assignor to National Equipment Corporation, New York, N. Y., a corporation of New York
Application November 23, 1956; Serial No. 624,048
1 Claim. (Cl. 107-3)

A mold board comprising a single sheet of plywood provided with a plurality of angularly-extending, parallel

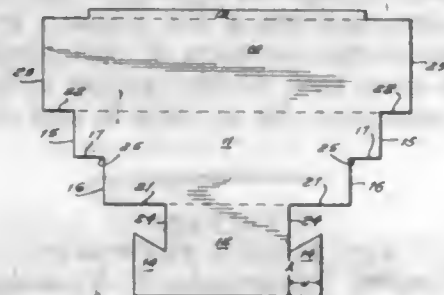
slots closed at their ends by terminating short of the opposite edges of the board, said slots being equally spaced apart and defining strip elements between them, mold impression-members secured to said strip elements, said mold impression-members being arranged in longitudinally-extending rows, with the members in one row being



arranged in staggered relation to those in the following row, a mesh material attached to the under side of the plywood sheet and completely covering said under side and located between the sheet and the impression-members, the mesh material being extended along the side edges of the board and means for securing said material along said edges.

2,818,823 SHINGLE

Herbert Abraham, New York, N. Y., assignor to The Ruberoid Co., New York, N. Y., a corporation of New Jersey
Application October 2, 1953, Serial No. 383,747
2 Claims. (Cl. 108-7)



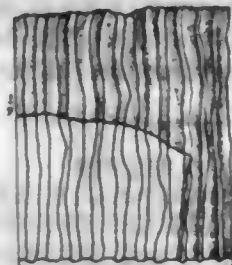
1. A double-coverage T-lock flexible interlocking shingle comprising a head portion, a shank portion, and an intermediate portion all of equal height, the shank portion having a locking tab projecting outward from each side of its lower end, the upper edge of each tab being inclined downwardly and inwardly to form an acute angle with the side of the shank from which the tab projects, the intermediate portion consisting of two steps each of the same height, the vertical distance between the lower edge of the shingle and the inner end of the inclined upper edge of either locking tab being one-half of the height of the intermediate portion of the shingle and equal to the height of each of the steps of said intermediate portion, the width of the lower step at each side of the intermediate portion being greater than the width of a locking tab.

2,818,824 ASBESTOS-CEMENT BOARD, SIDING AND SHINGLE

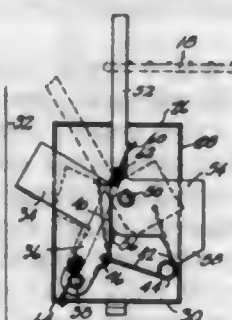
Clinton I. Read, Trumbull, and Francis H. Reilly, Stratford, Conn., assignors to Tilo Roofing Company, Inc., Stratford, Conn., a corporation of Delaware
Application August 22, 1952, Serial No. 305,754
7 Claims. (Cl. 108-8)

1. A wall covering such as boards, sidings, shingles and the like, comprising a sheet of asbestos fibers and cement, said sheet having a series of alternating ridges and valleys embossed in one face of said sheet, said ridges and valleys extending continuously from one edge of said sheet to an opposite edge thereof, said sheet also having a series of spaced bands of pigmented material applied to the embossed face thereof, said bands extending continuously from one edge of said sheet to an opposite edge thereof

and being so disposed with respect to said ridges and valleys that said bands follow the general direction of said ridges and valleys, but with single bands of pigment-



2,818,825 SAFETY DEVICE FOR REFRIGERATORS James F. Marek, Mishawaka, Ind. Application March 5, 1954, Serial No. 414,415 4 Claims. (Cl. 109-63.5)



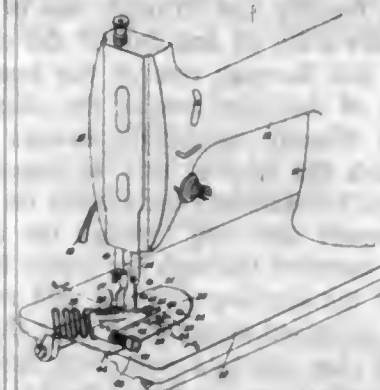
1. In combination, a cabinet having a removable shelf and a door opening adapted to be sealed by a door, a support means for mounting said support in said cabinet adjacent to said door opening, an abutment member pivoted to said support and shiftable between a retracted position clear of said door and a projected position intercepting said door in its movement from open to closed position, spring means for urging said abutment member to a retracted position when said abutment member is moved in one direction past a neutral position and to a projected position when said abutment member is moved in the opposite direction past said neutral position, a trip member pivoted to said support and having a set position engaging said abutment member to position it retracted, and spring means normally urging said trip member to abutment-releasing position, said trip member including a portion engageable with said shelf to hold it in said set position, said trip member including a cam for engaging said abutment member whereby, movement of said trip member from set to release position displaces said abutment member past neutral position to release said first named spring for swinging said abutment member to projecting position.

2,818,826 MANUFACTURE OF TUBULAR TRIMMING Victor J. Sigoda, Great Neck, N. Y., assignor to Man-Sew Corporation, New York, N. Y., a corporation of New York

Application June 1, 1950, Serial No. 165,555
16 Claims. (Cl. 112-136)

1. In a sewing machine, in combination, stitch-forming mechanism, a feeding mechanism including a feed dog, a first presser device including a presser bar and a presser foot carried thereby, said feed dog and said presser foot being arranged and disposed substantially rearwardly of the stitch-forming mechanism but in line therewith, a folder mounted adjacent to and rearwardly of the stitching mechanism adapted to fold and direct a fabric strip along a path angularly intersecting the line

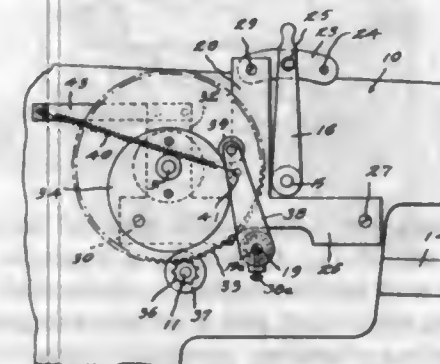
of stitching rearwardly of the stitch-forming mechanism and to invert and refold said strip and to direct it forwardly to the stitching mechanism to be seamed thereby into a tubular trimming, a second presser device mounted in operative relation to said folder to cooperate with a surface adjacent the needle hole to hold said strip in



fixed position during the seaming operation, means to disengage said second presser device during the feeding of said strip, and means adjacent the needle in which said trimming may be inserted to be inverted following seaming and directed rearwardly past the stitch-forming mechanism to be drawn by said feed members and from the machine.

2,818,827 MACHINE ATTACHMENT FOR EMBROIDERY STITCHER

Morris A. Zucker, Bronx, N. Y.
Application April 7, 1953, Serial No. 347,260
2 Claims. (Cl. 112-158)

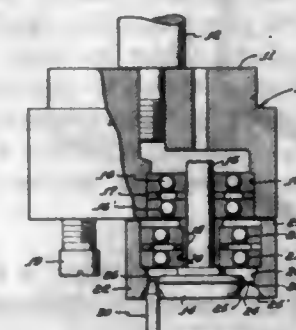


1. An attachment for zigzag sewing machines of the type having a head, a cam shaft mounted in said head, a cam fixed to said cam shaft, a bifurcated pull arm engaging said cam, a link pivotally secured to said pull arm, a second link pivotally secured to said first link, a shaft spaced from said cam shaft, said second link having one end thereof fixed to said shaft, a third link having one end journaled on said shaft, a second shaft journaled in said head and having one end thereof fixedly secured to the opposite end of said third link, a regulating lever secured to said second shaft, a second lever fixed on said first shaft, a fixed shaft mounted on said head, a second cam journaled on said fixed shaft and engaged by said second lever, a gear fixed to said second cam, a drive gear fixed on said cam shaft and meshing with said gear on said second cam, and means for driving said cam shaft for rotating said first cam and through said gears rotating said second cam.

2,818,828 SPINNING TOOL Friedrich Schachter, Goteborg, Sweden, assignor, by mesne assignments, to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware Application May 7, 1956, Serial No. 583,223 5 Claims. (Cl. 113-32)

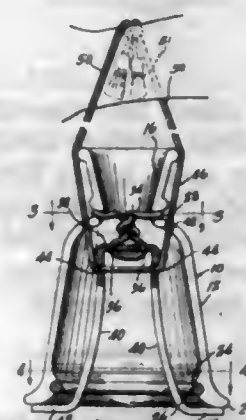
1. A tool for spinning the wall of a recess formed in the nosepiece of a writing instrument to facilitate uni-

versal rotation of a ball therein comprising: a chuck having axially and rearwardly disposed connecting means; an eccentrically disposed spinning disc rotatably mounted in the face of said chuck; a spinning ring rotatably mounted by the chuck and concentrically surrounding the spinning disc, said spinning disc and said spinning



ring being provided with spinning surfaces lying in a common plane transverse to the axis of rotation of the chuck, and so arranged in the face of the chuck that a center of rotation of the chuck and a nosepiece positioned between said spinning surfaces will be coaxial during a spinning operation, the spinning surface of the disc being convex and that of the ring concave.

2,818,829 COMBINATION MEGAPHONE AND BELL Homer D. Hendricks, Bangor, Mich. Application April 27, 1956, Serial No. 581,120 6 Claims. (Cl. 116-2)

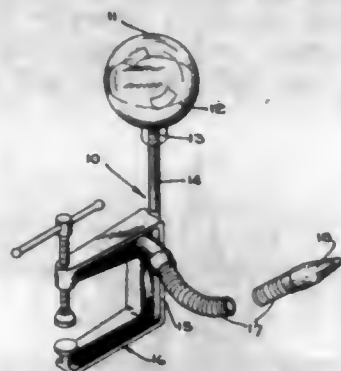


1. A combination megaphone and bell comprising a hollow body formed open at both ends; a mouthpiece communicating with the body at one end thereof and extending from said end to provide a handle; a carrying cord extending into the body, said body being slidable in an axial direction on the cord; and a clapper suspended by said cord within the body for swinging movement relative to the body, responsive to grasping of the handle and swinging of the body by a user, said body when slidably moved in one direction on the cord engaging the clapper against swinging movement.

2,818,830 VIBRATION INDICATOR George W. Kester, Lansing, Mich., assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware Application November 27, 1953, Serial No. 394,760 4 Claims. (Cl. 116-114)

1. A device for indicating vibrations of an object comprising a transparent envelope of predetermined shape, means mounting said envelope in any one of a plurality of operating positions on an object, and a

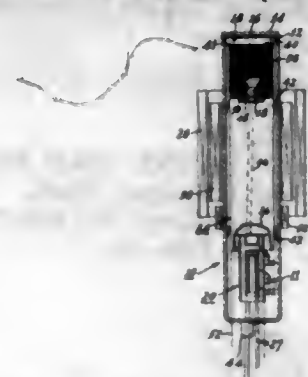
quantity of liquid partly filling said envelope and providing a visible reference surface for detecting and indi-



cating vibrations when said envelope is disposed in any one of said plurality of operating positions.

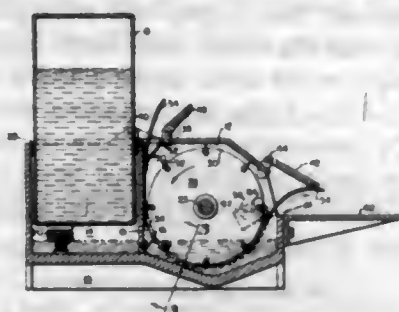
2,818,831 MEANS FOR OBTAINING A UNIFORM EVAPORATED DEPOSIT

Benjamin H. Vine, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application February 18, 1955, Serial No. 489,050
7 Claims. (Cl. 118-49)



1. An evaporator shield for evaporating photoconductive material comprising a hollow tubular metallic member, a hollow tubular mesh screen having one open end connected to one open end of said member, an annular conductive ring connected to the other open end of said screen, and a flat mesh screen member connected to said ring and closing the aperture therein.

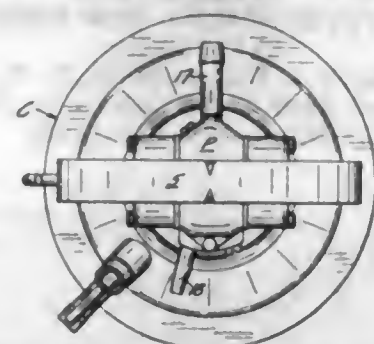
2,818,832
BOX TOE BLANK CONDITIONING MACHINE
George H. Bushway, North Hampton, N. H., assignor to Shu-Conditioner Inc., Hampton, N. H., a corporation of New Hampshire
Application May 20, 1954, Serial No. 431,110
4 Claims. (Cl. 118-426)



1. A machine for conditioning box toe blanks and the like, comprising a housing providing a liquid-holding chamber therein, a shaft rotatably supported in opposite walls of the housing and disposed horizontally through the chamber, a member fixed to the shaft between and spaced from said walls and having a periphery disposed concentrically of the shaft, a plurality of pins disposed in circumferentially spaced bores in the member and having sharp outer ends projecting outwardly from its periphery, means providing a blank engaging land disposed

closely adjacent to and extending arcuately and concentrically about the portion of said periphery which is below said shaft and providing a channel between the land and periphery through the bottom liquid-containing portion of the chamber, the housing walls of the chamber extending closely about the periphery of the member and having a blank feeding slot through one of said housing walls at and forwardly of one end of the channel and a blank ejecting slot through one of the housing walls at and rearwardly of the other end of the channel, the land being disposed directly to receive blanks fed into the chamber through the feeding slot, to impale the blanks on said pins and to maintain the blanks on the pins during passage thereof into and through the channel upon rotation of the member through the liquid from the feeding slot toward the ejecting slot and said rotation of the member being disposed directly to eject the blanks outwardly through the ejecting slot, and fixed means for stripping the blanks from the pins adjacent to and directing them outwardly through the ejecting slot.

2,818,833
MILK PAIL COVER AND PULSATOR ASSEMBLY
Lloyd F. Bender, Hayward, Wis., assignor to National Cooperatives, Inc., Chicago, Ill., and Albert Lea, Minn., a corporation of the District of Columbia
Application December 15, 1954, Serial No. 475,513
4 Claims. (Cl. 119-14.46)

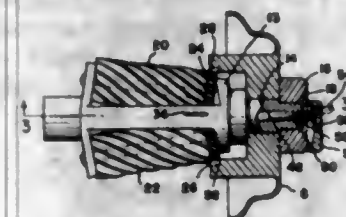


1. In combination with a milk pail lid having a well therein, said well being defined by a depending substantially vertical wall portion having a substantially horizontal ledge at its upper end and a second substantially vertical wall portion extending upwardly from said ledge, a pulsator unit having a lower portion thereof communicating with and depending within said well, the lower portion of said unit which depends within said well including a generally radially directed annular flange having a lower surface portion of generally inverted frusto-conical configuration and a lip concentric with and depending from said frusto-conical surface, a normally flat annular resilient sealing ring of generally rectangular configuration, said sealing ring having its upper surface engaged against said frusto-conical surface and deformed thereby into generally frusto-conical shape with its lower surface engaging against the well defining wall portions afforded by the juncture of said first generally vertical wall portion and said ledge and with its inner surface engaged against and surrounding said lip, and said sealing ring, when deformed into such frusto-conical shape, having its outer edge forcibly engaged against said second generally vertical wall portion of the lid to hold the pulsator unit within said well while the lower surface of the ring effects a seal.

2,818,834
PENCIL SHARPENER
Horace Keech, Erlton, and Donald H. Lehr, Andubon, N. J., assignors to C. Howard Hunt Pen Co., Camden, N. J., a corporation of New Jersey
Application December 17, 1954, Serial No. 475,871
4 Claims. (Cl. 120-96)

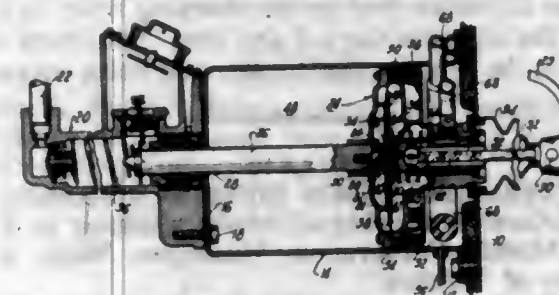
1. A pencil sharpener comprising support means, a cutter carrier journaled in said support means, cutters

rotatably mounted in said carrier, a crank handle secured to said carrier, a stop member comprising a slide lying between said cutters and having the entire length of its sides respectively mounted in opposed slots in said carrier, and a stem integral with said slide engaged in an axial bore in said carrier, the ends of said slots limiting the travel of the stop member, a pin engaged in said axial



bore and in a bore in said handle and adapted to engage said stem, said pin having an enlarged head which is adapted to engage the exterior of said handle, a control member secured to said handle and having a cam face opposite the bore in the handle to variously limit the movement of said pin and in turn the movement of said stop member towards the handle.

2,818,835
POWER ASSISTED MASTER CYLINDER
Edward E. Hupp, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application January 9, 1952, Serial No. 265,563
12 Claims. (Cl. 121-41)

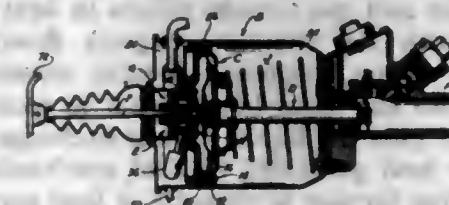


9. For use with a power assisted master cylinder, an actuating device comprising a first pressure responsive movable member adapted to be subjected on its rear side to a substantially constant pressure and on its front side to a controlled pressure, a second pressure responsive movable member operatively associated with said first member and having an opening therethrough, the front side of said second member being subjected to said constant pressure and the rear side of said second member being subjected to said controlled pressure, and an actuating member carried by said first member and projecting through the opening of said second member whereby the opposite ends of said actuating member are subjected to said constant pressure, said actuating member being operable to cause the development of the same differential unit pressures over both said first and second pressure responsive movable members, said actuating member being retracted upon by said second member only after a predetermined differential pressure over said second member has been attained.

2,818,836
PNEUMATIC SERVO-MOTOR
Earl R. Price and Edward E. Hupp, South Bend, Ind., assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application September 19, 1955, Serial No. 534,951
3 Claims. (Cl. 121-41)

1. A pneumatic fluid pressure servo motor comprising a power chamber, a movable wall in said power chamber, an axially extending valve member in said movable wall, a first coaxially positioned annular valve seat facing rear-

wardly of the rearwardly positioned end of said axially extending chamber, a first axially movable generally tubular valve member in said axially extending valve chamber having generally radially outwardly extending flange portions adjacent its opposite ends, one of said flange portions being rearwardly positioned from and adapted and arranged to overlap and close off said first annular valve seat, and the other of said flange portions being a flexible member the radially outer edges of which are rigidly supported by the walls of said valve chamber to form an enclosed chamber, a second valve member having a first portion projecting through the axially extending opening of said first tubular valve member and having an enlarged portion



positioned forwardly of the forward flange of said first tubular valve member, a second annular rearwardly facing valve seat on said enlarged portion of said second valve member adapted and arranged to abut the forward flange of said first tubular valve member and form a seal therewith, a control member projecting into said servo-motor and swivelly connected to said second valve member, first means guiding said first portion of said second valve member for axial movement, and second means guiding said enlarged portion of said second valve member, said first and second means being supported by the movable wall and being spaced on opposite ends of said first valve member.

2,818,837
VAPOR GENERATOR
Martin Frisch, New York, N. Y., assignor to Foster Wheeler Corporation, New York, N. Y., a corporation of New York
Application August 30, 1954, Serial No. 452,946
11 Claims. (Cl. 122-240)



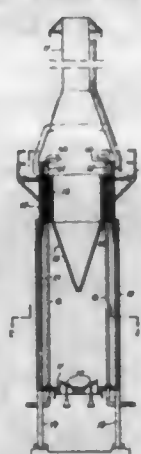
1. A vapor generator having a vapor-liquid drum, comprising a setting having four contiguous walls and a gas outlet, a vapor generating furnace, superheater furnace, and resuperheater furnace disposed in said setting, said vapor generating furnace comprising spaced banks of vapor generating tubular members arranged to define a chamber therebetween; said superheater furnace comprising spaced banks of vapor generating tubular members, and at least one bank of superheating tubular members, said banks of vapor generating tubes and bank of superheating tubes being arranged in relationship with each other to define a chamber therebetween; said re-

superheater furnace comprising spaced banks of vapor generating tubular members, at least one bank of resuperheating tubular members, said banks of vapor generating tubes and said bank of resuperheating tubes being arranged in relationship with each other to define a chamber therebetween, means for separately fuel firing each of said furnaces to produce combustion gases in each of the furnace chambers, each of said furnaces having a gas outlet, gas passage means in communication with said furnace gas outlets and the setting gas outlet to respectively receive combustion gases from the furnace gas outlet of each furnace and to conduct the combustion gases to said setting gas outlet, and a superheater member disposed in said gas passage means in heat exchange relationship with the combustion gases flowing there-through, said vapor generating tubular members communicating with the vapor-liquid drum to receive liquid therefrom and pass the liquid in heat exchange relationship with the heat generated by fuel combustion in the vapor generating furnace to vaporize at least some of said liquid and to deliver the vapor and liquid to said vapor-liquid drum, said bank of superheater tubular members being in communication with the vapor-liquid drum and the superheater member to respectively receive vapor from the vapor-liquid drum and pass the vapor in heat exchange relationship with heat generated by fuel combustion in the superheater furnace and to deliver heated vapor to the superheater member, said bank of resuperheater tubular members being adapted to receive relatively cool vapor and to pass the vapor in heat exchange relationship with heat generated by fuel combustion in the resuperheater furnace.

2,818,838

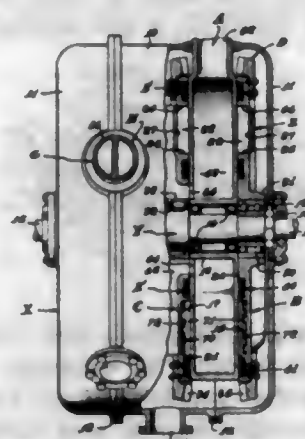
VERTICAL TUBE HEATERS

John W. Throckmorton and John S. Wallis,
New York, N. Y.
Application February 2, 1955, Serial No. 485,631
8 Claims. (Cl. 122-356)



1. A tubular heater comprising a tall cylindrical furnace chamber, a single cylindrical bank of vertical tubes within the furnace chamber close to the inner wall thereof, means for connecting the tubes into a plurality of arcuate coils uniformly distributed within the furnace chamber, each of said coils being composed of an inlet tube and an outlet tube, said inlet tubes being adjacent to each other on one side of the furnace and having inlet connections thereto at the bottom of the furnace and said outlet tubes being adjacent to each other and located on the opposite side of the furnace and having outlet connections thereto at the bottom of the furnace, one or more burners centrally located at the bottom of the chamber and projecting flame upwardly within the center of the cylindrical tube bank, whereby heat is applied to all of the tubes by radiation, and symmetrical jumpers at the top of the furnace in the path of the exit gases connecting each arcuate coil to at least one of its inlet and outlet tubes.

2,818,839
ROTARY POWER MACHINE
Hellmut R. Voigt, Los Angeles, Calif.
Application October 25, 1954, Serial No. 464,339
13 Claims. (Cl. 123-14)

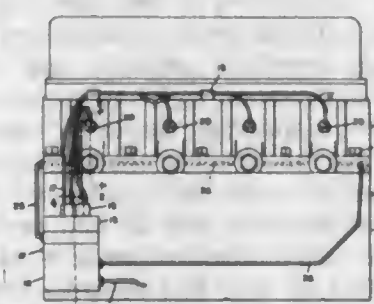


12. A rotary internal combustion engine of the character described including, a circular stator with opposite axially disposed faces, a pair of counter-rotating rotors, one a charging rotor and the other a power rotor and each with an axially disposed face juxtapositioned to a face of the stator, drive means synchronously connecting the rotors, a chamber formed in each rotor and opening at the face thereof, valve means in the stator and controlling flow of fluids from the charging rotor to the power rotor, and including, a slide shiftably carried in an opening extending axially through the stator, and fuel handling means adapted to introduce fuel to the charging rotor to be received in the chamber thereof and then transferred to the chamber in the power rotor by the said valve means.

2,818,840

CYLINDER HEAD CONSTRUCTION

Frank McGowen, Muskegon, Mich., assignor to Continental Motors Corporation, Muskegon, Mich., a corporation of Virginia
Application August 3, 1955, Serial No. 526,267
7 Claims. (Cl. 123-32)

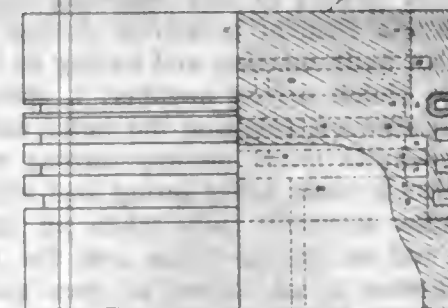


1. In a multi cylinder internal combustion engine of the compression ignition type having a cylinder head, a fuel induction system for said engine including a fuel injection pump having fuel discharge means and a fuel overflow means, and a plurality of fuel discharge lines leading respectively from said fuel discharge means to the engine cylinders, a plurality of fuel injection nozzle assemblies, said fuel discharge lines carrying fuel under pressure to said fuel nozzle assemblies, said cylinder head having a plurality of transverse bored openings and in each of which a nozzle assembly is fitted, a hollow plug secured in the outside portion of each bored opening to back up the nozzle assembly and to seal against leakage of fuel therefrom, said cylinder head having a longitudinal bore intersecting each of said bored openings, each of said plugs having openings placing the interior of said longitudinal plugs into open communication with said longitudinal bore, means connecting the fuel pump overflow means with one end of said longitudinal bore to flow said overflow fuel therethrough and in heat exchange

relation with respect to each of said fuel nozzle assemblies, and means connecting the other end of said longitudinal bore with the fuel supply system on the suction side of said pump.

2,818,841
PISTONS

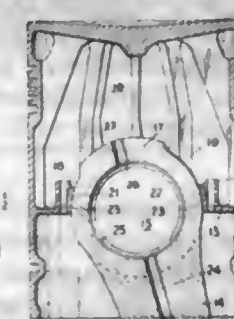
William M. Nichols, Schenectady, N. Y., assignor to Alco Products, Incorporated, New York, N. Y., a corporation of New York
Application April 11, 1955, Serial No. 500,592
3 Claims. (Cl. 123-41.35)



1. A piston for an internal combustion engine of the compression ignition type comprising a cylindrical body having two portions of reduced diameters adjacent its top; groove means in the periphery of the reduced portions; a sleeve on the reduced portions to close the groove means to form a passageway adapted to conduct the coolant for the piston; and an annular insert in the sleeve having a piston ring groove therein.

2,818,842
PISTONS

Frederic C. Tromel, Schenectady, N. Y., assignor to Alco Products, Incorporated, New York, N. Y., a corporation of New York
Application August 30, 1954, Serial No. 452,789
6 Claims. (Cl. 123-41.38)



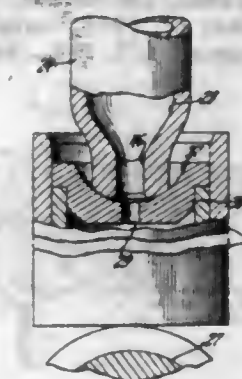
1. In a piston and connecting rod assembly for an internal combustion engine of the class in which coolant is supplied through the connecting rod to the interior of the piston, in combination, a hollow piston having opposed bosses projecting inwardly from its skirt, a partition extending to the skirt of the piston to define a chamber therein for the reception of coolant, a connecting rod having a portion which extends through the partition into the chamber, means on the partition to form a substantial seal between the partition and connecting rod portion thus to confine coolant in the chamber, a wrist pin supported by the bosses to connect the rod to the piston, and means to permit the draining of coolant from the piston chamber.

2,818,843
PUSH ROD

Mark H. Frank, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 15, 1955, Serial No. 534,481
2 Claims. (Cl. 123-90)

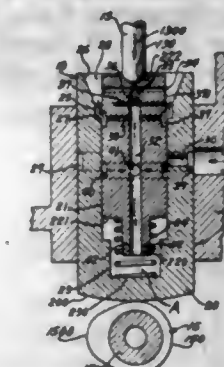
1. A push rod for employment in the valve actuating mechanism of an internal combustion engine and com-

prising an elongated tubular member having axial thrust bearing means at the opposite ends thereof, said tubular member being formed to provide passage means extending throughout the length of said push rod and through said axial thrust bearing means, said passage means being of larger cross section between said ends than at said ends, said tubular member having wall thicknesses between said ends that are less than at said ends, said



passage means of larger cross section and said wall thicknesses between said ends being relatively constant throughout the greater part of the length of said push rod between said ends and axially changing toward said ends into passage means of smaller cross section at said ends and into wall thicknesses of greater thickness at said ends, said tubular member between the bearing surfaces of said axial thrust bearing means being formed by the same wall means.

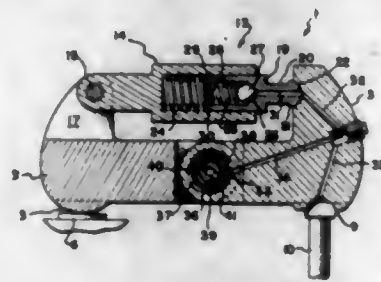
2,818,844
HYDRAULIC LASH ADJUSTERS
George Wood, Southfield Township, Mich.
Application September 13, 1956, Serial No. 609,560
4 Claims. (Cl. 123-90)



1. In a hydraulic lash adjuster for the cam actuated valve train of an internal combustion engine having lash adjuster bores in the block thereof each with an oil pressure port communicating therewith, said hydraulic lash adjuster being slidable axially in a lash adjuster bore as an element of said valve train and comprising a cylinder having one closed end and one open end, a piston reciprocally mounted in said cylinder forming a pressure chamber in the closed end thereof, a compression spring in said pressure chamber constantly urging said piston toward the open end of said cylinder, the said piston having an axial bore and counterbore therein communicating with said pressure chamber, said piston having a bleed port communicating with said counterbore and a valve seat formed at the point of transition between said axial bore and said counterbore, a ball in said axial bore disposed adjacent said seat closing off said bleed port responsive to oil pressure within said piston and said pressure chamber, the said cylinder having an exhaust port formed at the upper end thereof, the said piston being formed with circumferential grooves and transverse bores therein communicating with its axial bore whereby to function as a valve spool and provide pressure oil flow from said pressure port through said piston and cylinder

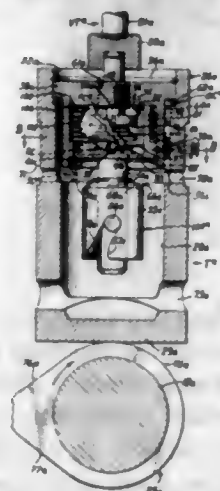
when the engine valve controlled by said valve train is closed and to hydraulically lock the said piston in said cylinder in the position assumed thereby when said engine valve is opened by said cam actuated valve train.

2,818,845
HYDRAULIC SELF-ADJUSTING ROCKER ARM
Carl F. Yandt, Lacrescent, Minn.
Application October 17, 1955, Serial No. 540,999
8 Claims. (Cl. 123—90)



8. A rocker arm assembly for operating a valve in an internal combustion engine comprising a supporting pipe connected to the engine, a rocker arm formed by two pivotally interconnected parts, said rocker arm parts having their pivotal connection about said pipe, one of said parts having a pair of upstanding ears, the other of said parts having an upstanding portion with a socket therein, and an hydraulic take-up unit pivotally connected at one extremity to the upstanding ears of the said one part of the rocker arm and having its other extremity removably engaging the socket in the upstanding portion of said other rocker arm part.

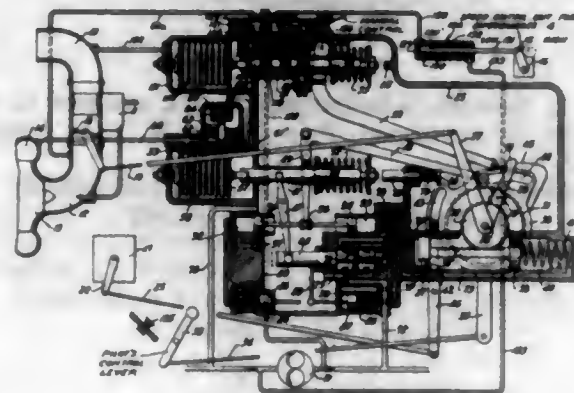
2,818,846
MECHANICAL SELF-ADJUSTING VALVE TAPPET
Glenn T. Randol, Mountain Lake Park, Md.
Application February 26, 1957, Serial No. 642,474
24 Claims. (Cl. 123—90)



1. In a mechanical compensating tappet for operating the valves of an internal-combustion engine, comprising: a pair of telescopically-related relatively movable cylindrical body members each having a longitudinal bore closed at one end to form an end wall and open at the other; an internal annular shoulder formed adjacent the open end of one of said body members; a circular flange on the other body member normally spaced from said shoulder to provide a predetermined cold-engine operating clearance between said body members; an annular internal groove formed in the surface of the longitudinal bore of the one body member adjacent its open end; a split retainer ring engaging said internal groove for abutment by an overlying peripheral marginal portion of the flange aforesaid to establish said operating clearance; friction clutch means having a driving and driven member telescopically disposed in the longitudinal bore of the other body member; a split retainer ring engaging an in-

ternal annular groove adjacent the open end of the other body member bore for preventing axial displacement of the clutch driving member and accommodating relative rotative movement thereof; a cylindrical stem member depending centrally from the clutch driving member into the longitudinal bore of the one body member; inertia means responsive to tappet motion including an element movably disposed on said stem member and having an operative connection therewith to rotate said driving member in one direction; a dished spring washer operably disposed normally under tension between the annular shoulder and opposite side of the marginal portion aforesaid for resisting closure of said operating clearance; a one-way extensible element projecting through the end wall of the other body member and having its inner end secured to the clutch driven member; a spring-loaded valve actuating element engaging the outer end of said extensible element to resist one-way turning movement thereof to project it while under spring load with the operating clearance aforesaid fully taken up during the tappet cycle; and an engine-driven cam for imparting reciprocable motion to said tappet to open and close a selected engine valve.

2,818,847
INTERNAL COMBUSTION ENGINE CONTROL
Frank C. Mock, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application May 15, 1942, Serial No. 443,042
41 Claims. (Cl. 123—103)

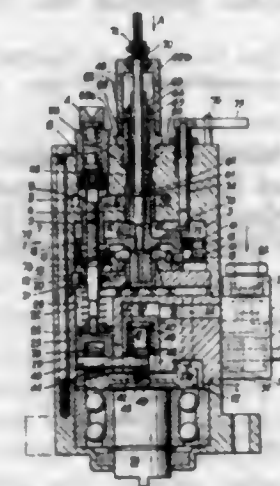


1. In a control for an internal combustion engine having a multiple step supercharging system, a variable datum charging pressure control, automatic means for varying the supercharging step, common means for varying the datum of the charging pressure control and for modifying the operation of the automatic means, and means for automatically increasing the datum of the charging pressure control upon increase in the supercharger step.

2,818,848
FUEL INJECTION PUMPS
William Friedlander, Hinchley Wood, Esher, England, assignor to Mono-Cam Limited, London, England, a company of Great Britain
Application March 15, 1955, Serial No. 494,502
Claims priority, application Great Britain March 17, 1954
17 Claims. (Cl. 123—139)

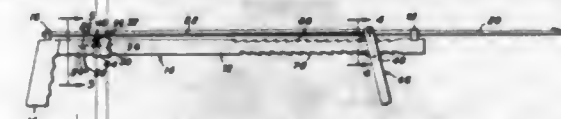
1. A fuel injection pump for an internal combustion engine comprising a pump housing, a fuel inlet connection on the exterior of said housing, at least one pump cylinder located within the housing, a piston reciprocable within each cylinder, a fuel passage connecting said fuel inlet connection to each cylinder, a spill passage in each piston, a spill chamber formed in the housing, an element slidable on each piston in its direction of reciprocation to determine the point in the stroke of the piston at which the spill passage therein will be placed in communication with the spill chamber, a regulating member operatively

connected to each sliding element and mounted within the spill chamber for displacement in said direction, a passage connecting said fuel passage to said spill chamber, a restrictor pin extending into said connecting passage to restrict the flow of fuel therethrough and operable externally of the housing to set the pump for a predetermined engine speed by controlling the flow of fuel from the spill chamber through the connecting passage to the fuel passage to produce a back pressure within the spill chamber which is a function of the amount of fuel spilled therein, means responsive to the difference in the pressures prevailing in said spill chamber and said fuel passage respectively and operative to adjust the position of said



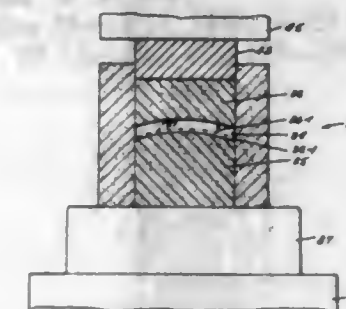
regulating member in said direction in accordance with the magnitude of said difference, and spring means disposed between said restrictor pin and said regulating member tending to urge the latter towards a position corresponding to maximum delivery of the pump and arranged such that, at least for low engine speeds, variation of the setting of the pump by movement of the restrictor pin in the sense to increase the engine speed simultaneously reduces said restricting effect of said pin in said connecting passage and increases the loading in said spring means and movement of the restrictor pin in the sense to reduce the engine speed simultaneously increases said restricting effect and reduces the loading on said spring means.

2,818,849
SPEAR GUN
George Bryant Woods, deceased, late of Washington, D. C., by Doris McKay Woods, executrix, Washington, D. C., assignor of one-third to Edward F. Connors, Jr., Washington, D. C.
Application October 4, 1954, Serial No. 460,106
5 Claims. (Cl. 124—22)



1. A spear or harpoon gun comprising a barrel having a hand grip at its rear end, a trigger pivotally carried by the barrel adjacent the hand grip, guide means on the barrel for holding a spear in firing position on the barrel, said spear having means engageable with the trigger for holding it in the guide means, a lever vertically straddling the barrel and carrying pawls which are disposed above and below the barrel, said barrel having ratchet teeth formed on its upper and lower sides cooperating with the pawls, said pawls being alternately engaged with their adjoining ratchet teeth so that the lever may be walked forwardly on the barrel and an elastic band carried by the lever and adapted to be positioned behind the spear and tensioned by the forward movement of the lever to propel the spear when the trigger is pulled.

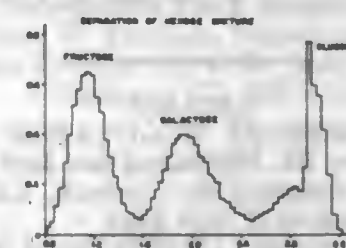
2,818,850
CUT OFF BLADES FOR ABRASIVE BODIES AND THEIR PRODUCTION
Henry Schwarzkopf, Pelham Manor, and John G. Van Otterloo, Pleasantville, N. Y., assignors to Consolidated Diamond Tool Corporation, Yonkers, N. Y., a corporation of New York
Application July 6, 1955, Serial No. 520,221
9 Claims. (Cl. 125—15)



4. In a cutting disk for cutting hard abrasive material having a strong inner drive disk and separated tooth-like arcuate cutting segments having inner edge surfaces united to successive peripheral edge regions of said disk, each segment being about $\frac{1}{16}$ to $\frac{3}{16}$ inch thick, and having a main radially extending segmental cutting section consisting of 2% to 6.5% of diamond dust held dispersed and bonded in a hard material consisting of 35% to 55% tungsten carbide and the balance of 45–65% consisting essentially of a metal selected from the group consisting of nickel and cobalt and mixtures thereof, the thickness of the disk being less than that of the transverse thickness of said cutting segments, integral inner edge surface portions of consecutive arcuate sections of at least one of said segments having different radial dimensions thereby giving the inner edge surface of the one segment at least one eccentric edge irregularity with respect to said drive disc so that rotation of said disk causes loose abrasive particles to be radially displaced from the main regions of the junction between the drive disk and its cutting segments.

2,818,851
SEPARATION AND ANALYSIS OF POLYHYDROXY SUBSTANCES
Joseph X. Khym and Leonard P. Zill, Oak Ridge, Tenn., Continuation of application Serial No. 296,588, July 1, 1952. This application February 7, 1956, Serial No. 563,869

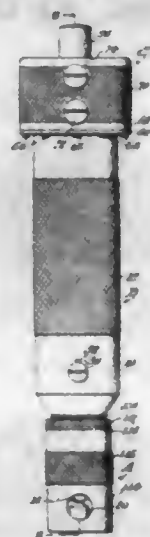
20 Claims. (Cl. 127—55)



1. In a process for separating those polyhydroxy substances capable of uniting with borate ions to form charged polyhydroxy borate complex ions, the steps of contacting an aqueous solution containing borate ions and those polyhydroxy substances of the group consisting of sugars, sugar alcohols and glycosides with a basic anion exchange resin to sorb complex ions formed by the reaction between said polyhydroxy substances and said borate ions on said resin, displacing the sorbed complex ions from said resin by step-wise eluting with increasing amounts of an aqueous solution having a pH from 6.5 to 10 and containing exchangeable ions, the exchangeable ions including a substantial amount of borate ions, and collecting successive portions of the resultant eluate.

2,818,852

SPRING-PRESSED SURGICAL INSTRUMENT
 Heinz W. Kugler, College Park, Md., assignor to the
 United States of America as represented by the Secre-
 tary of the Army
 Application June 27, 1956, Serial No. 594,331
 6 Claims. (Cl. 128-2)
 (Granted under Title 35, U. S. Code (1952), sec. 266)

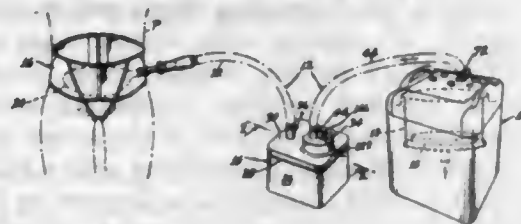


1. A manually operable surgical cutting device for obtaining specimens of skin and tissue for microscopic examinations, which comprises in combination, a tubular barrel-handle member having, when in operative position, an upper end and a lower end, a rotatable spindle housed in the barrel member and having a pair of oppositely directed stem portions, one of which is an upper stem portion projecting beyond the upper end of the barrel, the other of which stem portions is a bottom stem portion projecting beyond the lower end of the barrel, a free-wheeling coupling element in the barrel adjacent to its upper end, a coil spring encircling the spindle and having a lower end secured to the barrel and an upper end secured to the free-wheeling coupling element, locking means releasably connecting the spindle to the free-wheeling coupling element for applying increasing tension to the coil spring responsively to actuation of the free-wheeling coupling in one direction, a tissue-cutting tool carried by the bottom stem portion of the spindle, increasing tension in the coil spring withdrawing the spindle and cutting tool into the barrel-handle member, and a top closure cap assembly for closing the upper end of the barrel member including finger-release mechanism for releasing the resulting tensioned coil spring for reversely actuating the spindle, to impact the tissue-cutting tool against an anatomical surface for enabling the tool to cut a specimen of skin and tissue to be examined.

2,818,853

PRESSURE REGULATOR

Thomas C. Huxley III, Manhasset, and Jack Isreell, Tuckahoe, N. Y., assignors to Conitech, Ltd., Chauncey, N. Y., a corporation of New York
 Application November 15, 1955, Serial No. 546,857
 15 Claims. (Cl. 128-30)



1. A pressure regulator comprising a reservoir having an inlet adapted to be operatively connected to a cyclically operable pump which at times supplies compressible fluid at super atmospheric pressure and at other times withdraws said fluid, said reservoir being further provided

with an outlet, means for permitting substantially unrestricted flow of said fluid at super atmospheric pressure into said reservoir through said inlet, means for preventing the withdrawal of said fluid from said reservoir through said inlet, and means for restricting the flow of fluid at super atmospheric pressure out of said reservoir through said outlet, whereby the flow of said fluid out of said reservoir is of greater duration than the flow of said fluid into said reservoir, and means for venting said reservoir to the atmosphere, said last mentioned means being operable only during the time said pump is operating to withdraw fluid and being effective a predetermined time after said portion of the pump cycle commences, whereby to discontinue the flow of said fluid at super atmospheric pressure out of said reservoir through said outlet.

2,818,854

METHOD FOR MOBILIZING THE SACRO-ILIAC

Julian Willard Johnson, Minneapolis, Minn.
 Application May 11, 1953, Serial No. 353,927
 1 Claim. (Cl. 128-69)

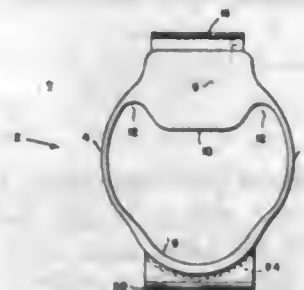


The method of mobilizing the human sacro-iliac articulation for correction of a displacement thereof which includes applying a firm supporting counterforce in a localized area beneath the lateral portion of the sacrum adjacent to the sacro-iliac, but clear of the posterior superior and inferior spines of the ilium, with the patient in a supine dorsal position upon a supporting surface, flexing the knee of the leg on the afflicted side to the point where the foot thereof is about even with the knee of the opposite leg and then rotating that foot outwardly and abducting the thigh until the pelvis of the patient is approximately balanced upon the counterforce support, and finally while maintaining a relaxed condition moving the flexed leg downward until the calf strikes the supporting surface to thereby cause the innominate to rotate forward and downward relative to the sacrum and correct the displacement of the sacro-iliac articulation.

2,818,855

SURGICAL DEVICE

Anthony P. Miller, Atlantic City, N. J.
 Application February 11, 1954, Serial No. 409,579
 6 Claims. (Cl. 128-79)

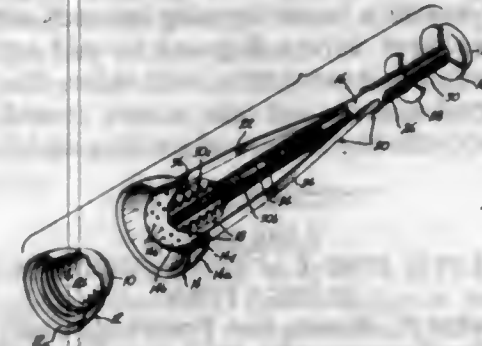


1. A surgical device comprising an endless elastic member adapted to encircle the penis, the uppermost portion of the inner surface of the device being formed with an inwardly extending projection to provide local pressure upon the dorsal vein to restrict the flow of blood outwardly from the penis, and the device being formed with a reinforced portion extending over only the lower portion thereof to apply uniformly distributed pressure to the ventral portion of the penis so as not to close off the urethra.

2,818,856

CERVICAL CAPS AND APPLICATORS THEREFOR

Gerald C. Kohl, Tacoma, Wash.
 Application August 29, 1955, Serial No. 531,090
 21 Claims. (Cl. 128-127)



15. In combination, a cervical cap comprising a relatively thin, soft and flexible, impermeable membrane of cup form and a relatively thick, semi-rigid and resiliently flexible rim member joined continuously to the membrane around the perimeter thereof and having a plurality of annular relatively thin and resiliently flexible cervix-gripping ribs extending around the inside thereof, and an applicator for said cap comprising an annular semi-rigid and resiliently flexible cup-like holder element retaining the cervical cap nested snugly therein, an elongated handle means, holder support means fixed to said handle means and supportingly connected to said holder element for normally maintaining the latter substantially coaligned with said handle means while permitting tilting of said holder element relative to said handle means, and means operable to indicate seating of the cervical cap on a cervix, comprising an elongated element carried by said elongated handle means to extend lengthwise thereof and slidably lengthwise relative thereto, said elongated element having one end portion projecting from said handle means normally into the interior of said annular holder element to be engaged by and thrust endwise by contact with the cervix during application of the cap thereto, and said elongated element having gauge means on the end portion thereof opposite from said first end portion, said gauge means being movable from an initial position to a displaced position relative to the handle means accompanying said endwise thrust of the elongated element thereby to indicate seating of said cap.

2,818,857

COLD WEATHER FACE MASK

Hubert Wilkins, Montrose, Pa., and Abraham L. Lastnik, Newton, Mass., assignors to the United States of America as represented by the Secretary of the Army
 Application March 14, 1956, Serial No. 571,580
 11 Claims. (Cl. 128-141)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



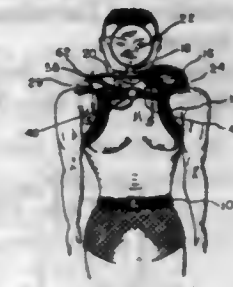
1. A cold weather face mask comprising a flexible sheet composed of a unicellular, elastomeric insulating material containing a multiplicity of minute, non-interconnecting cells distributed throughout its interior and having a smooth, thin skin of unexpanded elastomeric material covering that surface of said sheet which is next

to the face of the wearer to minimize frosting said sheet being designed to conform closely against a wearer's face and having sufficient thickness to insulated against low temperatures.

2,818,858

UNDERWATER BREATHING APPARATUS

Carl H. Holm, Erica, Va., assignor to Old Dominion Research and Development Corporation, Erica, Va., a corporation of Virginia
 Application March 12, 1954, Serial No. 415,918
 10 Claims. (Cl. 128-142)

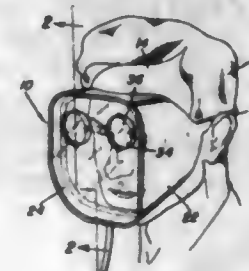


1. Underwater breathing apparatus comprising, an eye and nose mask, a mouthpiece including an exhalation valve secured to said mask, a source of breathable gas, a conduit for conducting gas from said source to said mouthpiece, a pressure operated demand valve in said conduit and positioned adjacent said source for regulating the discharge of gas from said source to said conduit, hydrostatic pressure responsive means, connecting conduits for transmitting operating pressure to said demand valve from the hydrostatic pressure responsive means, means for positioning said hydrostatic pressure responsive means in the region of the suprasternal notch and in front of the body of the user, whereby said demand valve is operable by the hydrostatic pressure prevailing in the region of the suprasternal notch, a safety collar inflatable by restricted flow of gas from said source, an inflating conduit between the source and collar, valve means in said last named conduit responsive to a predetermined hydrostatic pressure to pass inflating gas to said collar, another valve means responsive to a predetermined relatively low gas pressure at said source also to pass inflating gas to said collar, a second inflating conduit between the source and collar in which the last named valve means is located, and a gas recharging valve for said source, the said relatively low pressure responsive valve forming a part of said gas recharging valve.

2,818,859

PROTECTIVE MASK

Rayford W. Peterson, Sebastopol, Calif.
 Application October 15, 1956, Serial No. 615,876
 3 Claims. (Cl. 128-146)



1. A protective mask comprising a generally flat face member, a rearwardly extending peripheral wall on said face member, means for attaching the peripheral wall to the head of the wearer with the face member disposed in spaced relation to the mouth, nose and eyes of the wearer, means for discharging air into the space between the face of the wearer and the face member, said face member having openings in alignment with the eyes, and

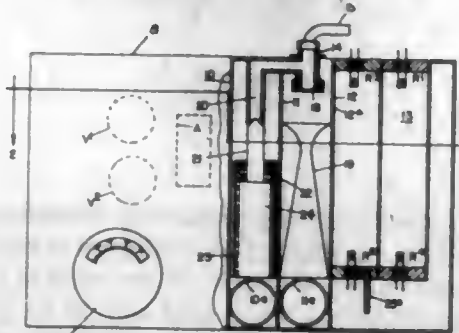
lenses mounted rearwardly of and in alignment with said openings, thereby providing an air passage between said lens and said base member, said air passage acting as a discharge outlet of air whereby the lenses will be protected from foreign particles and fogging.

2,818,860

METHOD OF AND MEANS FOR MAINTAINING DESIRED PERCENTAGES OF OXYGEN IN OXYGEN TENTS OR OTHER SPACES

Carl H. Holm, Erica, Va., Joseph A. Green, Washington, D. C., and Patrick W. Gorman, Erica, Va., assignors to Old Dominion Research and Development Corporation, a corporation of Virginia

Application November 17, 1955, Serial No. 547,439
16 Claims. (Cl. 128—191)

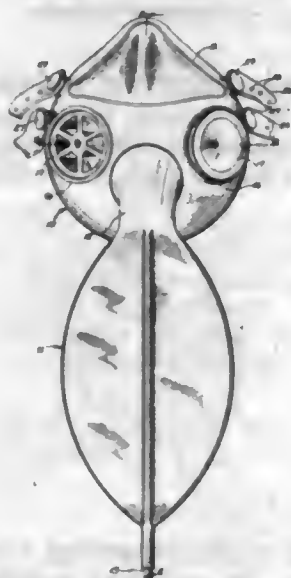


1. In combination, an oxygen tent, power means for setting up a flow of breathing medium to and through said tent, a source of oxygen supply, an electrically operated control valve for the oxygen supply, a Wheatstone bridge circuit and source of E. M. F. thereto, from which bridge a potential is delivered upon imbalance of the bridge, two sets of resistance elements disposed in the legs of the bridge, a first closed chamber in which one set of the resistance elements of the bridge is disposed in a reference atmosphere, a second closed chamber in which the other set of resistance elements is disposed, and means for setting up a flow of sampling breathing medium through the second closed chamber, from the interior of the tent and means for electrically actuating the oxygen control valve by the imbalance of the said bridge.

2,818,861

OXYGEN MASK

Allan M. Russell, Shaker Heights, Ohio
Application August 7, 1952, Serial No. 303,030
15 Claims. (Cl. 128—205)



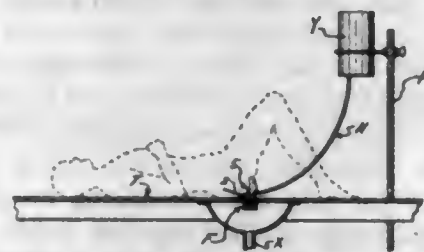
1. A mask for the administration of a gas having a face piece formed of soft, pliable material, said face piece having a nasal section and an oral section, a malleable wire frame embedded in said material at said nasal section to stiffen said face piece, said frame being a wire-like substantially triangular loop of material disposed in the up-

per part of the mask having one portion following the upper contour of the mask near the edge and the lower portion extending across the mask, said portions of the loop being bendable in different zones to conform to facial configurations of the wearer, said face piece being formed to provide a turret opening on each side of said oral section, check valves disposed in said openings to allow inhalation and exhalation, said valves thereby stiffening said oral section, and inlet means at said oral section to provide for the ingress of gas into said face piece.

2,818,862

APPARATUS FOR FACILITATING COLONIC IRRIGATION

Evelyn R. Wanek, San Francisco, Calif.
Application December 14, 1953, Serial No. 398,118
3 Claims. (Cl. 128—227)

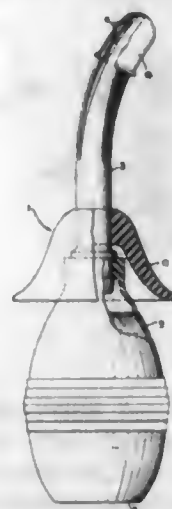


1. Colonic irrigation apparatus comprising an upwardly extending collector, drainage and injecting-tube-supporting device in the form of an integral rigid shell, said shell having an upstanding rear deflecting wall curved forwardly and then downwardly at its upper portion for positioning oppositely to the lower buttocks portion of a prostrate person, said shell having an elongated open forward portion defined by a pair of spaced, side wall elements extending forwardly from said rear wall and contoured on concave curvatures at their forward edges and spaced apart and shaped with said curvatures to contact the crotch and the inner sides of the buttocks cheeks and anal declivity to surround the anus, said forward edges at their lower portions converging to form a closed end for said opening disposed at a point a short distance above the lower end of said shell, the lower portion of said shell below said opening being tubular and of elliptical cross sectional shape for communication with drainage facilities and having in the rear portion thereof, sealed means for accommodating and supporting a flexible, forwardly extended irrigation tube.

2,818,863

FEMININE SYRINGE

Herbert O. Hoffman, Virgil E. Scobey, and Western Wiles, Ashland, Ohio, assignors to The Faultless Rubber Company
Application November 25, 1955, Serial No. 549,212
3 Claims. (Cl. 128—251)



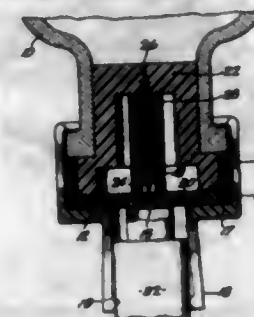
1. In a feminine syringe, a rubber bulb having a neck opening for engaging a discharge tube, said neck opening

having an end section of generally funnel shape in its inner surface and including a shoulder at its inner end, a threaded ferrule seated in said neck on the inner surface thereof and having a reduced diameter flange engaging said shoulder, a discharge tube engaging said ferrule and bearing on said ferrule flange to seal said bulb, said ferrule having a cup-receiving flange of reduced diameter provided on the end of said flange and positioned axially inwardly thereof, and an apertured cup member having a flange engaging said cup-receiving flange to be positioned thereby.

2,818,864

GUIDE CAP

Gilbert Hudson, Glendale, Calif., assignor to Adapt, Inc., Las Vegas, Nev., a corporation of Nevada
Application November 14, 1955, Serial No. 546,582
2 Claims. (Cl. 128—272)

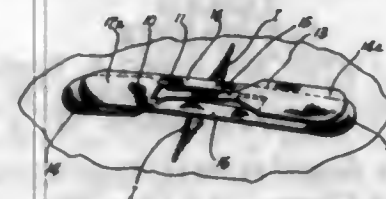


1. An aligning and holding cap for guiding a syringe to the covered needle in a self-sealing dispensing stopper of a vial, said cap comprising a first portion having circular slotted walls adapted to fit over the top of said vial, a lip at one end of said circular walls, a second portion connected to said first portion including circular slotted walls having an inwardly extending flange and defining an opening adapted to guide and maintain in position a syringe in operative relationship with said covered needle.

2,818,865

ADHESIVE TAPE FOR SURGICAL DRESSINGS

George W. Jacoby, Jr., Wooster, Ohio
Application September 8, 1953, Serial No. 378,983
1 Claim. (Cl. 128—334)



An adhesive tape assembly for surgical dressings comprising a strip of adhesive tape having an adhesive coating on the entire surface of one face thereof, a narrow central section therein and end portions of a greater width, a second strip of adhesive tape having an adhesive coating on the entire surface of one face thereof having a slot in the medial axis thereof, said slot being of a width equal to the width of said narrow portion of the first strip and of a length greater than the width of the end portions of the first strip, the first strip being in engagement with the slot in the second strip when the first strip is inserted into said slot and then revolved to position both strips into parallel relation.

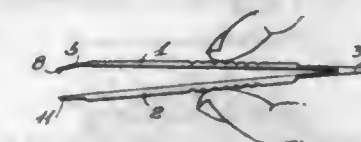
2,818,866

CORNEOSCLERAL SUTURING FORCEPS

Wesley C. Thomas, Brunswick, Ga.
Application July 5, 1956, Serial No. 595,974
8 Claims. (Cl. 128—334)

1. Corneoscleral suturing forceps comprising a pair of coating tongs for stabilizing the peripheral lip of the

cornea adjacent the eyeball during a sewing operation, one of said tongs terminating in a pallet having a transverse offset wall therein forming a transverse ridge, the other of said tongs being bifurcated on the end thereof adjacent said pallet and formed into a pair of transversely spaced tines, said pallet operable to support the peripheral lip of the cornea in abutment with the transverse wall



thereof and said tines operable to maintain the peripheral lip of the cornea in position on said pallet whereby a curved needle connected with wound sewing thread may be passed between said tines through coaptation margin emerging through the exterior surface of the cornea just beyond the termini of said tines and restricted from penetrating the interior surface of the cornea by the position of said pallet.

2,818,867

BINDING POST

Alex G. Flax, Chicago, Ill.
Application April 10, 1956, Serial No. 577,413
6 Claims. (Cl. 129—12)

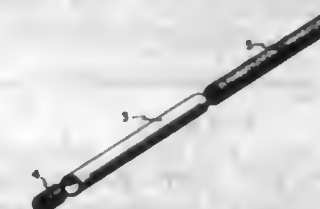


1. An extensible binding post for use with a binder including a base plate and an apertured cover plate adapted for engagement with said binding post, said post comprising a hollow outer post having a longitudinal cavity therein, a hollow inner post disposed within the cavity of the outer post, said inner post being threaded at one end to engage such base plate and having an internal collar, adjacent the other end thereof a transverse web located within the cavity of said outer post, a centrally located aperture in the web, a pin fixed in the aperture in said web at one end, said pin extending through said collar and terminating in a head portion, a normally compressed helical spring disposed about the pin between the head of said pin and said internal collar capable of further compression by relative axial movement of the inner and outer posts.

2,818,868

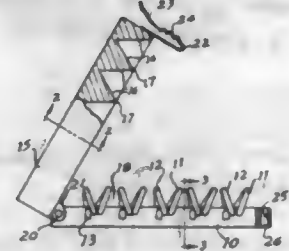
POLYETHYLENE TEREPHTHALATE TOBACCO SMOKE FILTER

Joseph T. Rivers, Jr., West Chester, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application August 4, 1954, Serial No. 447,826
3 Claims. (Cl. 131—10)



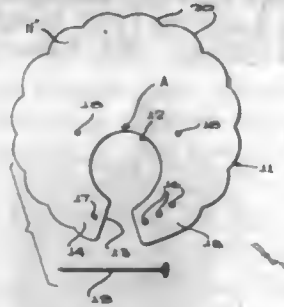
1. A filter for tobacco smoke comprising polyethylene terephthalate filaments having a denier per filament within a range of from about 0.1 to about 10, and a retaining tube having said filament disposed therein.

2,818,869
HAIR CLIP
 James P. Rose, Atlanta, Ga.
 Application December 9, 1955, Serial No. 552,031
 12 Claims. (Cl. 132—32)



1. In a device of the character set forth, a base, a plurality of pairs of resilient normally diverging hair engaging fingers on the base, and means for moving said fingers of each pair toward each other to engage hair therebetween.

2,818,870
HAIR ACCESSORY
 Oscar R. Francis, Yuma, Ariz.
 Application September 11, 1956, Serial No. 609,316
 3 Claims. (Cl. 132—46)



1. In a hair holder, a flat sheet fabricated of resilient material and shaped to a generally circular outline, said circular sheet having an aperture located eccentrically of the axis of said circular sheet forming a larger end on one side of said aperture and a smaller end on the opposite side of said aperture, said smaller end being interrupted by a slit extending from said aperture to its associated peripheral edge, the edge portions adjacent said slit defining opposed end flaps, said flaps being movable toward each other into overlapping relation to form a frusto-conical shaped body, and releasable interengageable means on said end flaps for holding the end flaps in overlapped relation, the larger end of said body being adapted to bear against the hair of a human head and the smaller end of said body defined by said aperture being adapted for extension therethrough and holding of a lock of hair of said human head.

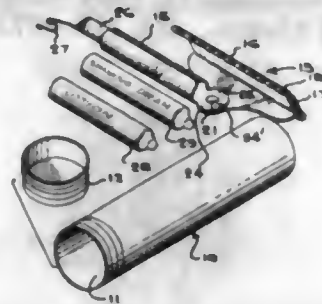
2,818,871
HAIR BARRETTE
 John R. Beaudry, Minneapolis, Minn., assignor, by mesne assignments, to Charles, Inc., Minneapolis, Minn., a corporation of Minnesota
 Application June 1, 1953, Serial No. 358,622
 8 Claims. (Cl. 132—48)



1. An unjointed hair barrette comprising a single generally flat and elongated molded strip of at least semi-flexible material and having a generally flat surface and free end portions, said strip being bendable at a point substantially midway between its ends to permit said generally flat surface to be doubled back upon itself and

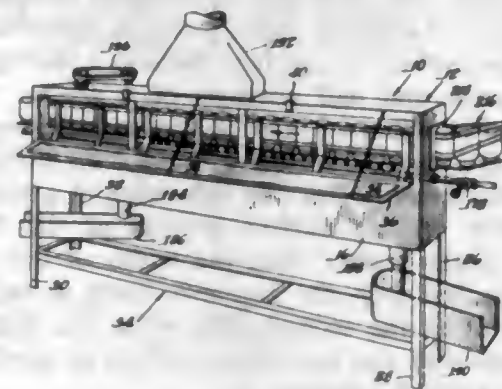
to bring said end portions into opposed and adjacent relative positions, said generally flat surface having a plurality of gripper elements extending longitudinally thereof and functioning to positively engage hair when the latter is passed between the doubled portions of said surface to extend transversely of the length thereof, and cooperative securing means carried by said end portions of said strip to retain said surface in such doubled-back position and said end portions in opposed and adjacent relation.

2,818,872
DISPOSABLE SHAVING KIT
 Wensan Wang, Tokyo, Japan
 Application October 19, 1956, Serial No. 617,160
 3 Claims. (Cl. 132—80)



1. A disposable shaving kit comprising a receptacle having an open end, a razor including a backing member, and a hollow handle positioned rearwardly of and in spaced parallel relation with respect to said backing member insertable into and withdrawable from said receptacle through the open end thereof, said handle having one end connected to said backing member for swinging movement from the parallel position to a position perpendicular to said backing member, a first container filled with talcum powder housed within said handle and withdrawable through the other end thereof, a second container filled with shaving cream, a third container filled with after-shave lotion, said second and third containers being each insertable into and withdrawable from said receptacle through the open end thereof, and a removable cap closing the open end of said receptacle.

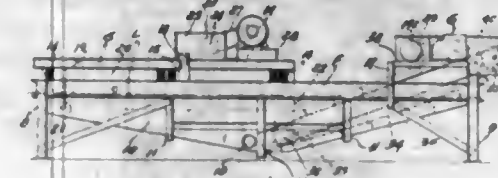
2,818,873
JAR WASHER
 Carl Raymond Carlson and Robert S. Bonzi, Rockford, Ill., assignors, by mesne assignments, to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois
 Application August 22, 1952, Serial No. 305,738
 8 Claims. (Cl. 134—70)



1. An apparatus for treating breakable glass jars and the like, comprising a pair of horizontally disposed elongated parallel spaced fixed support means adapted to support thereon a series of inverted jars with at least a portion of the open mouths of the jars uncovered, elongated guide means disposed for frictional engagement with side surfaces of the jars supported on said support means, an endless belt having a portion thereof disposed

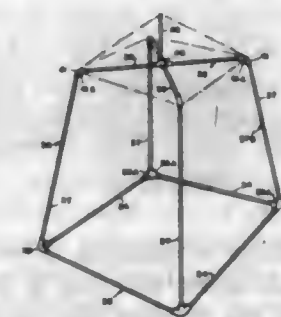
parallel to said guide means for frictional engagement with opposite side surfaces of the jars, means for resiliently biasing said portion of the endless belt toward the guide means and against the jars with substantially uniform pressure, a series of spray nozzles disposed for projecting jar treating sprays upwardly between said spaced support means and into the jars, an elongated guide member disposed above said support means for engaging upper closed ends of the jars and preventing the jars from lifting unduly under the influence of the sprays, and means for driving said endless belt to move said portion relative to said guide means for advancing and rotating jars therebetween whereby all of the interior surfaces of the jars are presented uniformly to the sprays projected by said nozzles.

2,818,874
VIBRATORY PARTS WASHER AND DEGREASER
 George W. Behnke and Russell G. Westcott, Durand, Mich., assignors to Simplicity Engineering Co., Durand, Mich.
 Application January 9, 1956, Serial No. 557,978
 3 Claims. (Cl. 134—133)



2. A parts washing device comprising a main frame, a liquid tank supported by said main frame, a vibratable frame including an open ended perforate basket, means yieldably supporting said vibratable frame on said main frame so that said basket depends into said liquid tank, vibrating means connected to said vibratable frame for vibrating the latter, means interconnected between said vibratable frame and said main frame and being adjustable relatively to the latter to vary the amplitude of vibration of said vibratable frame, conveyor means mounted on said main frame in a position to receive washed parts from said vibratable frame, and means for driving said conveyor means.

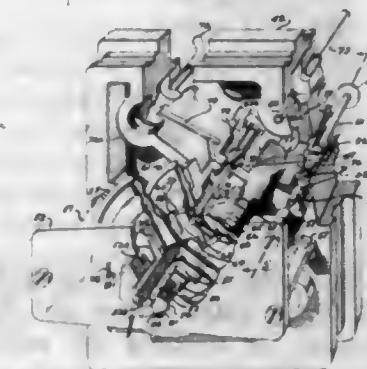
2,818,875
TENT FRAME
 Bernard L. Denn, Portland, Ore.
 Original application July 22, 1952, Serial No. 300,190, now Patent No. 2,757,677, dated August 7, 1956.
 Divided and this application June 4, 1956, Serial No. 589,323
 2 Claims. (Cl. 135—3)



1. A frame for a tent of the umbrella type, said frame comprising a base frame made up of a plurality of interconnected separable tubular sections of equal length and interconnected at the corners of the base frame by identical corner fittings, each of said corner fittings comprising three outwardly diverging arm portions reinforced relative to each other by integrated webs, a plurality of upwardly extending corner posts each made up of a plurality of interconnected separable tubular sections equal in length to those of the base frame and removably secured

at their bottom ends to said corner fittings, a plurality of radiating tubular sections removably secured at their outer ends to the top ends of said corner posts by identical fittings and at their inner ends to a single fitting, each of said last mentioned identical fittings comprising two angularly related arm portions reinforced relative to each other by an integrated web, and a roof-supporting vertical pole removably secured to said single fitting.

2,818,876
INSTRUMENTS
 Ambrose E. Le Van, Hatfield, Pa., and William D. Huston, Rochester, N. Y., assignors to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
 Application January 19, 1954, Serial No. 404,906
 6 Claims. (Cl. 137—82)

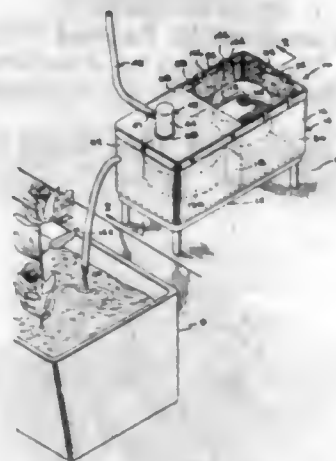


6. In a unitary pressure responsive fluid output pressure control arrangement, the combination including a main base upon which is mounted an output pressure capsule, said capsule having an exhaust aperture on one wall thereof, an input pressure capsule, a plate having supporting members spacing the same from said main base, said capsules being maintained in assembled alignment between said main base and plate, supply and exhaust pressure valve means located in and operated by movement of said output capsule, said main base having supply pressure connection means and a supply passage leading therefrom to a valve chamber controlled by said valve means, centrally located relatively stiff reinforcing plates on each of said diaphragms, each of said plates having an area not less than 18% of and not more than 62% of the projected area of said capsule so that the energy available by operation of said capsule will be above 1.4 times the energy of an unreinforced diaphragm capsule, a measured variable pressure passage in said base connected to said supply passage through an orifice, orifice cleaning means mounted on said base and having a reciprocable plunger for cleaning said orifice, a controlled pressure passage in said base connected to said output pressure capsule, a flapper and nozzle measuring instrument having means operating said flapper and nozzle relative to each other, supporting posts mounted on said base carrying said measuring instrument, piping means connecting said flapper and nozzle measuring instrument with said measured variable pressure passage, and a sleeve casing slidably engageable with said base within which said capsules and said measuring instrument are carried, said cleaning means being accessible from the exterior of the assembly.

2,818,877
WATERING SYSTEM FOR PLANTS AND THE LIKE
 Fritz O. Swanson, Astoria, N. Y.
 Application March 29, 1957, Serial No. 649,523
 6 Claims. (Cl. 137—135)

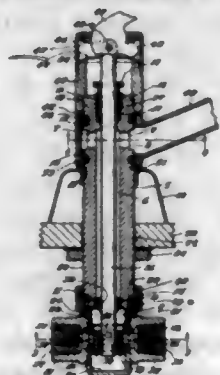
1. In a watering system for periodically and automatically watering plants or the like comprising a tank including reservoir and control compartments and means

for defining a first predetermined level of fluid therein below the full capacity of the tank, valve means communicating with the reservoir compartment for filling both compartments of the tank to a level above the first predetermined level from a source of pressurized fluid, siphon means communicating with the reservoir compartment for automatically emptying the reservoir compartment in response to a fluid level above the first predetermined level, means communicating with the control compartment assisting fluid contained therein to evaporate into



the atmosphere, first level-responsive control means operatively connected to the valve means and disposed in the control compartment for opening the valve means and permitting fluid to enter the compartments when the fluid in the control compartment reaches a second predetermined level, and second level-responsive control means in the reservoir compartment operatively connected to said valve means for retaining said valve means open to obtain said first predetermined level in both compartments thereby activating the siphon means.

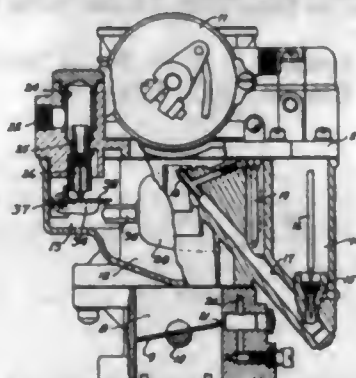
2,818,876
MIXING VALVE AND SWING FAUCET
John J. Russell, Bellerose, N. Y.
Application December 24, 1953, Serial No. 400,316
2 Claims. (Cl. 137-359)



1. A mixing valve including an elongated tubular body having an axial bore therein and a threaded exterior surface, a valve seat within said bore, a valve stem longitudinally slidable within said bore and spaced from the inner wall of the bore to provide a passage therein, radial discharge passages in said body communicating with said bore, a valve plug member on said stem cooperating with the valve seat in the bore, an operating lever pivotally connected to said stem and fulcrumed to longitudinally move the stem, mounting means cooperating with the thread on the body member for mounting the said valve on a separate member, a mixing valve unit including a cup-shaped member having a recess therein and a valve sleeve rotatable in said recess, the said sleeve having radial ports therein and the said cup-shaped member having radial openings disposed to register with the said ports in the sleeve, the recess in the said cup-shaped member being adapted to receive a reduced portion at the end of the body member and the said reduced portion being

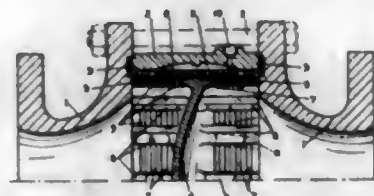
adapted to longitudinally position the said sleeve in the said cup-shaped member, a piston secured to the end of the valve stem and slidably fitting within the sleeve and the said member, means slidably securing the sleeve to the piston to cause rotation of the sleeve and permit axial sliding movement of the piston within the sleeve, and means including a nut carried on said unit and fitting the thread of said body for detachably attaching the said unit to the lower end portion of the body.

2,818,879
CARBURETOR CONSTANT LEVEL DEVICE
James T. W. Moseley, Richmond Heights, Harold A. Carlson, Brentwood, and Ralph H. Herron, Normandy, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application October 23, 1952, Serial No. 316,474
2 Claims. (Cl. 137-423)



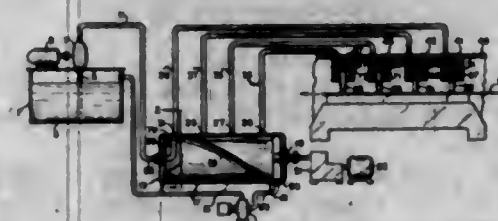
1. Carburetor constant level bowl structure comprising a pivotal support, a fuel inlet valve actuating element pivotally carried by said support, a fuel inlet valve received in said bowl structure in position to be actuated by said element, a plurality of floats independently pivoted on said support and individually engageable with said element for actuating said inlet valve, cooperating parts on said valve actuating element and adjacent bowl structure normally limiting pivoting of said element in the direction for withdrawing said valve from the receiving bowl structure, and other cooperating structure on said valve actuating element and said floats, normally limiting pivoting of said floats in the same direction.

2,818,880
VALVES
Johannes B. Ratelband, Barendrecht, Netherlands
Application April 20, 1954, Serial No. 424,434
Claims priority, application Netherlands May 1, 1953
1 Claim. (Cl. 137-525)



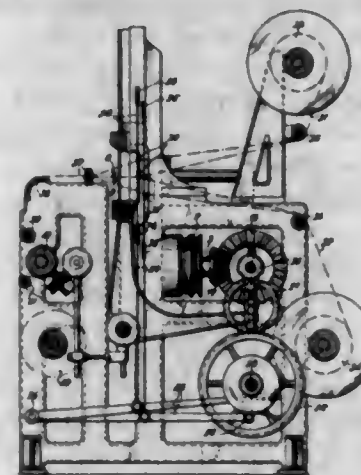
A valve comprising a housing provided with a removable insert, the latter forming a partition between the inflow side and the outflow side of said housing and having on either side of said partition a circular wall provided with flow passages and surrounded by a sleeve-like diaphragm, the outer side of said diaphragm defining a chamber adapted to receive pressure fluid, a plurality of longitudinal ribs being provided on the inner surface of said circular wall of said insert on either side of said partition and distributed around the circumference of said insert, and said circular wall having a plurality of annular grooves disposed on both sides of said partition and extending to said ribs, thereby, forming slots between said ribs.

2,818,881
SEQUENTIAL PUNCHING APPARATUS
Frank E. Bonser, Hyman Brier, and Leo J. Novak, Dayton, Ohio, assignors to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
Application May 21, 1953, Serial No. 356,472
2 Claims. (Cl. 137-624)



1. Apparatus for fluid control comprising a casing having apertures in linear alignment, a rotatable member in the casing and having a channel communicable with the exterior of the casing for the passage of fluid into the channel, lands on the periphery of the member extending longitudinally thereof engageable with the interior of the casing and defining a slot extending longitudinally of and partially around the member, said rotatable member and casing defining a chamber internally of the casing and separated from said slot by said lands, said casing having a drain opening outwardly thereof from the chamber through which fluid is pumped by contact with the rotatable member.

2,818,882
SHUTTLELESS LOOM
Karl Haberhauer, Bielefeld, Germany, assignor to Durkoppwerke Aktiengesellschaft, Bielefeld, Germany
Application September 1, 1955, Serial No. 532,074
Claims priority, application Germany September 2, 1954
23 Claims. (Cl. 139-123)

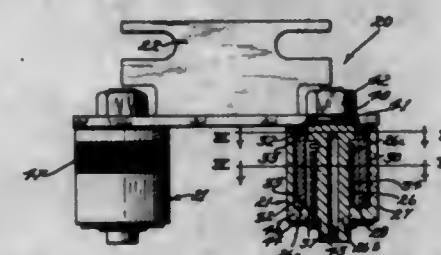


1. In a shuttleless loom, in combination, a pair of parallel weft-inserting needles, each of said needles having an eyelet means and a hook; means for simultaneously reciprocating said needles through a pair of warp sheds so that during operation of the loom any one of said needles is adapted to thrust a thread passing through the eyelet means thereof through one of said warp sheds during a forward stroke of said needles, and so that the hook of the respective other of said needles is adapted to engage said thread at the end of the forward stroke of said needles for drawing said thread through the other warp shed during the return stroke of said needles.

2,818,883
LOOM SHUTTLE CHECKING DEVICE
George H. Hufferd, Shaker Heights, Ohio
Application January 6, 1955, Serial No. 480,127
31 Claims. (Cl. 139-161)

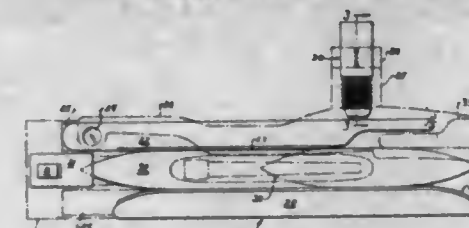
1. In a loom having a shuttle and a picker stick therefor, the improvement of a checking device for checking

the picker stick as it approaches the outer and inner ends of its path of travel comprising inner and outer relatively rotatable parts having formed thereon confronting cylindrical surfaces, said outer part comprising a receptacle and being charged with a viscous fluid having a predetermined viscosity, the diametral clearance between said surfaces being in the order of approximately twice the thickness of a boundary layer of the said viscous fluid thereby to form a fluid film between the surfaces, one of



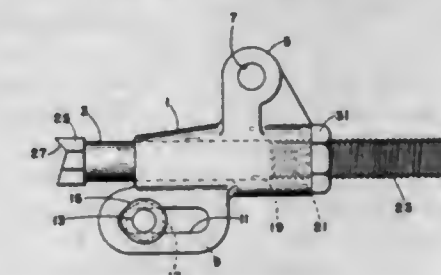
said parts having a plurality of circumferentially spaced longitudinally extending grooves formed in a corresponding one of said cylindrical surfaces, thereby to provide reservoirs for the fluid at the surfaces, sealing means between said surfaces to seal said fluid between the surfaces, means mounting one of said parts stationarily to the loom, and actuating means operatively connected to said picker stick and to the other of said parts for effecting relative rotation between said parts, thereby to shear the boundary layer of the fluid film between the surfaces.

2,818,884
LOOM SHUTTLE BOXING
Walter A. Sherwood, Hempstead, N. Y.
Application August 11, 1954, Serial No. 449,103
11 Claims. (Cl. 139-186)



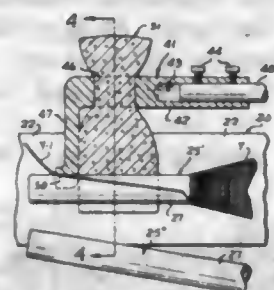
1. Loom shuttle boxing mechanism comprising a movable binder, a hydraulic check opposing movement of the binder by a shuttle and variable orifice means for regulating the resistance of the check as a shuttle moves into the box.

2,818,885
TRANSFER LATCHES FOR WEFT REPLENISHING LOOMS
Sherwood O. Dodge, Medford, Mass., assignor to H. F. Livermore Corporation, Allston, Mass., a corporation of Delaware
Application April 19, 1955, Serial No. 502,462
7 Claims. (Cl. 139-243)



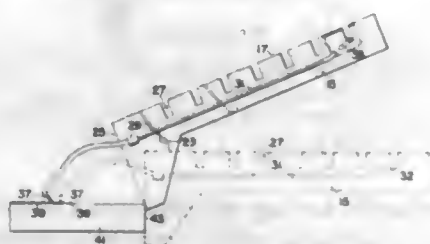
1. A transfer latch for weft-replenishing mechanism having in combination a tubular body, means for pivotally attaching it to a transferer, a latch finger in screw-threaded engagement with the interior of the tubular body, and means preventing relative movement of the finger and body.

2,818,886
TRANSFER FORK FOR LOOMS
 John J. Addis, Easley, S. C.
 Application December 30, 1954, Serial No. 478,752
 4 Claims. (Cl. 139—244)



1. In a loom having a filling replenishing mechanism including a hopper for containing a supply of bobbins and a transfer arm for engaging the head of each successive bobbin and transferring the same into a shuttle in a transfer operation; an improved transfer fork comprising a bar fixed to said transfer arm and being provided with a downwardly projecting head on its free end, an elongated sponge rubber cushion element fixed to said bar closely adjacent said head and normally extending downwardly substantially beyond the lower end of said head, and the width of the cushion element being substantially equal to the distance between the front and rear walls of a shuttle to thereby prevent the stem of an expelled bobbin from becoming lodged between the stem of a partially filled bobbin and either wall of the shuttle in the course of a transfer operation.

2,818,887
SCREEN TENSIONING TOOL
 Virgil L. Esrey, Memphis, Tenn.
 Application July 25, 1955, Serial No. 524,150
 6 Claims. (Cl. 140—109)

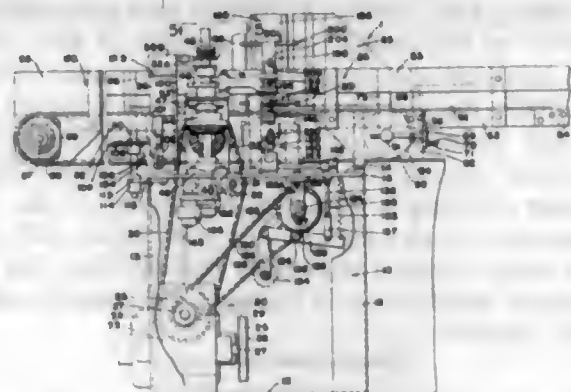


1. A tool adapted for the tensioning of screen wire on a frame, comprising an elongated body member having a top and a pair of spaced sides depending from said top, said body member including a depending abutment portion at one end thereof, said abutment portion having an outer face which is disposed substantially perpendicular to the longitudinal axis of said body member and adapted to engage a frame, said body member being transversely slotted downwardly from the top thereof to form a plurality of longitudinally spaced slots extending transversely of said body member, a pair of lugs projecting from the opposite sides of said body member, a screen engaging member removably engaging said body member, said screen engaging member comprising a pair of spaced elongated fingers, each terminating in a hook adapted to engage screen wire, and a slot engaging section remote from said hooks joining said fingers at the rearward ends thereof, said slot engaging section being removably and selectively inserted in one of said slots whereby said screen engaging member is adjustable for various size frames, said slot engaging section comprising a pair of loops and a forwardly projecting U-shaped tip interposed therebetween, said loops being engaged with said body adjacent said one of said slots whereby longitudinal movement of said screen engaging member relative to said body member is limited and downward movement of the rearward end of said screen engaging member relative to said body member is limited, said tip underlying a por-

tion of said top forward of said one of said slots whereby upward movement of the rearward end of said screen engaging member relative to said body member is limited, said spaced fingers respectively engaging said lugs whereby said lugs are effective to limit upward movement of said screen engaging member relative to said body member during the use of said tool for tensioning screen wire.

2,818,888
METHOD AND APPARATUS FOR CONTINUOUSLY DETECTING AND CORRECTING LIGHTWEIGHT PACKAGES

Harold B. Atwood and Robert B. Wilson, Sherman, Tex., assignors to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey
 Application April 27, 1955, Serial No. 504,184
 40 Claims. (Cl. 141—1)



1. An apparatus for detecting and correcting weight deficiencies in packages of a fluent material comprising, in combination, a scale means, means for transferring packages onto and off said scale means, electrical sensing means responsive to deflection of said scale means so as to signal the presence of packages having a relatively small weight deficiency and packages having a weight deficiency below a predetermined minimum, electrical means responsive to packages having any weight deficiency as signalled by said sensing means for correcting said weight deficiency, and electrical reject means responsive to packages having a weight deficiency below a predetermined minimum as signalled by said sensing means.

39. In a process wherein a succession of packages are each filled with a predetermined volume of fluent material by means of a filling apparatus and it is required that each filled package have a weight in excess of a predetermined minimum, a method of detecting deficiencies in the weight of said packages comprising the steps of, weighing each of said succession of filled packages, sensing only the presence of lightweight packages having either a relatively small weight deficiency or a weight deficiency below said predetermined minimum, rejecting each of said packages having a weight deficiency below a predetermined minimum, and electrically signalling the presence of a preselected number of weighed packages, having any weight deficiency, in a succession of a predetermined number of said packages.

2,818,889
SAFETY CUTOFF FILLER NOZZLE
 Otto J. Krause, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
 Application January 26, 1956, Serial No. 561,393
 6 Claims. (Cl. 141—208)

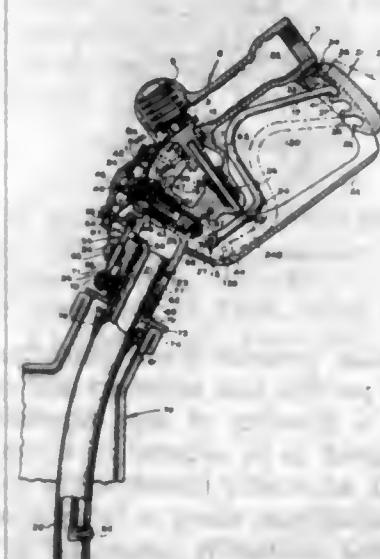
1. In a device for insertion in a container to be filled with liquid comprising a valve body having a liquid passage therein, a valve mechanism for controlling the flow of liquid through said passage, said mechanism including a valve, a chamber in said body, a pressure responsive member associated with said chamber, a discharge nozzle connected to said passage downstream of said valve, an air duct communicating with said chamber at one end

and disposed at its other end adjacent the discharge end of said nozzle, means continuously evacuating said chamber when liquid flows through said valve, and means actuated by said pressure responsive member to close said valve when air is prevented from entering said chamber, the improvement comprising a spring element exterior to said nozzle and substantially extending down the length



thereof, said element retained at one end to said nozzle and the other end secured to said body and having an intermediate portion spaced from said nozzle, and a valve assembly normally adapted to close the said other end of said duct and to open the same when said intermediate portion is biased toward said nozzle to actuate said valve assembly.

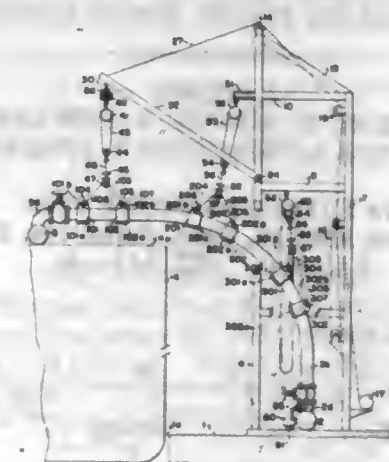
2,818,890
AUTOMATIC LIQUID DISPENSING NOZZLE
 Martin A. Ryan, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
 Application February 27, 1956, Serial No. 567,875
 2 Claims. (Cl. 141—225)



1. In an automatic shut-off dispensing nozzle for insertion in the spout of a container to be filled with liquid comprising a valve body with a liquid passage therein, a valve in said body adapted to be seated in a constricted portion of said passage to control the flow of liquid therethrough, a valve spring urging said valve to a closed position, a diaphragm and chamber associated therewith, said chamber and said constricted portion being in communication with one another whereby air will be aspirated from said chamber during flow of liquid, a lever having a position for manually opening said valve against the pressure of said valve spring, a friction latch for holding the lever in said position, a discharge nozzle communicating with said passage, an air duct inside said nozzle and having one end opening to said chamber, the

other end of said air duct in communication with an orifice disposed adjacent the discharge end of said nozzle whereby air is drawn from said orifice through said chamber into said constricted opening when fluid flows therethrough and said air duct is unobstructed, and an operative connection between said diaphragm and said valve whereby when air is prevented from entering said chamber said diaphragm will be moved to operatively actuate a mechanism for releasing said lever from said friction latch so as to release said valve and permit it to close, the improvement comprising an annular sleeve disposed around said discharge nozzle and adapted for limited sliding movement thereon relative thereto, a helical compression spring disposed to normally bias said sleeve toward the discharge end of said discharge nozzle, a valve actuating member on said sleeve, a valve assembly secured to the inside of said nozzle, said assembly having a valve seat therein disposed in said air duct in communication with the said other end of said air duct and in communication with said orifice, a normally seated valve in said assembly having a valve stem extending through the wall of said nozzle, said valve stem adapted to come into contact with said valve actuating member when said nozzle is inserted in said spout in such a manner so as to bias said sleeve toward said nozzle when said sleeve comes into contact with the marginal surfaces of said spout, thereby allowing air to be drawn from said orifice to said air duct.

2,818,891
APPARATUS FOR SUPPORTING AND MANIPULATING FLEXIBLE CONDUIT CONNECTIONS
 Christopher E. Loeser, Scotch Plains, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
 Application September 26, 1956, Serial No. 612,313
 1 Claim. (Cl. 141—388)



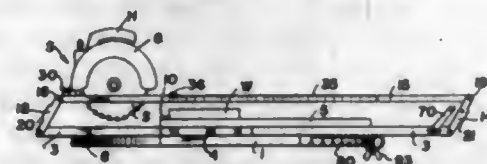
An apparatus for the common support and manipulation of a plurality of flexible conduits, each having an inner end and an outer end, wherein the inner ends of said conduits are connected in substantially horizontal coplanar relation to a first, fixed and rigid conduit system, and the outer ends are adapted for connection in substantially horizontal coplanar relation to a second conduit system movable horizontally, vertically and arcuately with reference to said first system, which apparatus comprises a plurality of conduit clamps, engaged in series relationship with each conduit and spaced longitudinally thereof, each series consisting of a first spaced pair adjacent said outer conduit end, a second spaced pair adjacent the inner end of said conduit, and a third spaced pair intermediate said first and second pairs, said plurality of conduit clamps further being disposed as parallel rows of pairs from conduit to conduit, a loop sling connected between each pair of clamps, a tower based in substantially symmetrical relation to said first conduit system, extending vertically upward therefrom and including two vertical corner posts disposed in a

vertical plane adapted for substantially parallel alignment of said second conduit system therewith and forwardly thereof, a first stage portion of said tower disposed horizontally thereof at a level vertically of said tower, which level is substantially above the upper limit of vertical movement of said second conduit system, a second stage portion of said tower disposed horizontally thereof at a level vertically spaced above said first stage portion, a yoke boom which includes two parallel leg portions each having corresponding inner and outer end portions, and a cross frame yoke portion connecting the outer ends of said leg portions, a pivotal support for the inner end of each leg portion on one of said tower vertical corner posts, substantially at the level of said first stage, said supports adapted to provide for arcuate movement of said yoke portion toward and away from the plane common to said tower corner posts, forwardly thereof, a trolley rail suspended from said yoke frame portion in parallel, arcuately movable relation thereto, a first hoist mechanism suspended from said trolley rail by means of a trolley freely movable between the ends of said rail, a second hoist mechanism suspended at the level of said first tower stage portion midway of said tower corner posts and forwardly of the vertical plane common thereto, a third hoist mechanism suspended at the level of said first stage portion inwardly of the plane common to said corner posts and midway between said posts, a loading beam supported by and dependent from each of said hoist mechanisms in horizontal relatively parallel relation one to another, a series of pulleys dependent from each of said loading beams to engage and support said conduit clamp, loop slings with said first, second and third pairs of clamps supported respectively by means of said respective slings, pulleys loading beams dependent from said first, third and second hoist mechanism respectively, means, remote therefrom to actuate said hoist mechanisms, and means to raise and lower said yoke boom arcuately on said leg portion pivotal supports.

2,818,892

SAWING MACHINE USING A PORTABLE ELECTRIC SAW ON A TRACKWAY ENGAGING THE WORK

Ira E. Price, Cleveland, Ohio
Application June 16, 1955, Serial No. 515,916
4 Claims. (Cl. 143-6)



1. In a sawing machine, the combination of a base frame, a table member thereon having a work supporting surface, a work clamping upper frame member above and parallel to the work supporting surface and base frame and means connecting the upper frame to the base frame including parallel pivoted link members at the ends thereof, a saw-carrying sub-frame for supporting a power driven saw unit, said sub-frame being slidably mounted upon the upper clamping frame, said upper frame serving to clamp and hold the work piece to the supporting surface while the motor and saw-carrying sub-frame is moved along the upper frame.

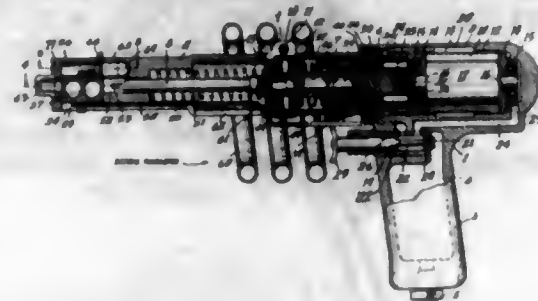
2,818,893

POWER OPERATED MAGAZINE FED SCREW DRIVER

Ernest H. Shaff, Lake Worth, Fla., assignor to The Aero Equipment Corporation, a corporation of Ohio
Application May 31, 1956, Serial No. 588,295
13 Claims. (Cl. 144-32)

13. An air operated screw driver comprising a body with a grip, a neck on the end of said body, said neck

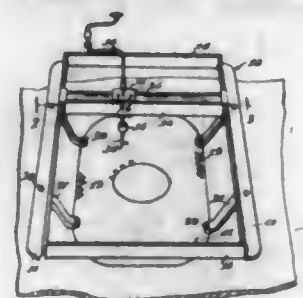
defining a bore for a tool bit and a feed hole intersecting the bore, an air motor in said body, a tool bit rotatable in said bore, means for relatively reciprocating said neck and bit between an extended position and a retracted position of the bit inwardly of said feed hole, means drivingly connecting said motor to said bit, an air inlet passage having a manually operable valve therein formed in said body and opening to said motor, a passage formed



2,818,894

CONSTANT PRESSURE SCREW EXTRACTOR WITH RIGHT-ANGULARLY ADJUSTABLE SUPPORTING STRUCTURE

Roy G. Miller, Honolulu, Territory of Hawaii
Application September 24, 1956, Serial No. 611,578
2 Claims. (Cl. 144-32)

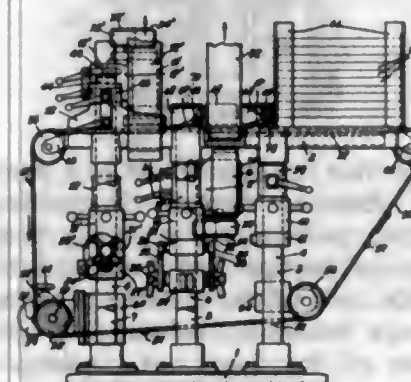


2. In a constant pressure screw extractor, a frame including spaced parallel side members and spaced parallel end members, a plurality of legs depending from said frame and adapted to be secured to a supporting structure, a crossbar adjustably connected to said frame and mounted for adjustment along a longitudinal axis thereof, a screw block adjustably connected to said crossbar and mounted for adjustment along an axis which is at right angles to the longitudinal axis of the frame, said screw block being provided with a longitudinally extending bore defining a recess extending upwardly from the bottom of said screw block, said recess defining in said screw block a shoulder, a sleeve seated in said recess and having its upper end abutting said shoulder, a securing element extending through said screw block and engaging said sleeve, there being a threaded opening in said sleeve, a drive screw arranged in threaded engagement with the threaded opening in said sleeve, a socket member connected to the upper end of said drive screw, an operating means detachably connected to said socket member, a ratchet detachably connected to the lower end of said drive screw, and a screw point arranged beneath said ratchet.

2,818,895

PLANING MACHINE, FOR WOODWORKING, IN PARTICULAR FOR PARQUET

Walter Zuber, Rheineck, Switzerland, assignor to Hasler & Co., Rheineck, Switzerland, a firm
Application December 21, 1955, Serial No. 554,523
Claims priority, application Switzerland August 17, 1955
1 Claim. (Cl. 144-118)

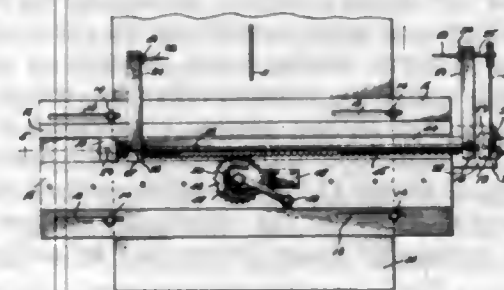


A planing machine for wood working, in particular for parquets and comprising in combination at least one cutter, in which knives of said cutter rotate in a guiding device of a work table about a disk-shaped inner work table, concentric with said cutter and in the plane of the cutting edges, said cutter being supported on a bearing bracket which carries also a drive motor and whose height is adjustable and which can be swung out laterally and is supported on a machine frame, the adjustment of the height of said cutter and said bearing bracket carrying said cutter drive motor being equipped with a fine adjustment and a high-speed setting either of which can be operated, said height adjustment device of said bearing bracket being provided with a threaded ring which can be displaced vertically on a column of said machine frame, and whose rotation is prevented, and whose position can be adjusted by means of a profile cam supported on a roller, with reference to a fixed supporting sleeve of said column, and with a fine adjustment nut which is screwed on the threaded portion and supporting said bearing bracket.

2,818,896

BENCH SAW LATHE ATTACHMENT

John R. Bailey, Asheville, N. C., assignor of one half to Lydia A. Shock, Asheville, N. C.
Application September 10, 1954, Serial No. 455,276
2 Claims. (Cl. 144-205)



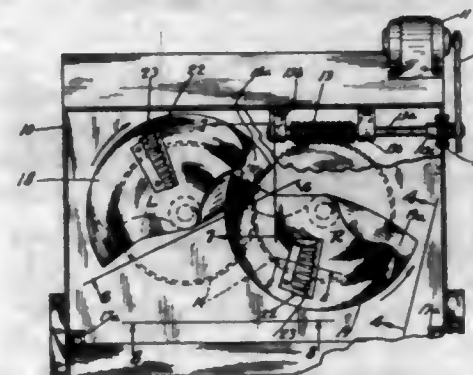
1. A lathe attachment for a bench saw table comprising a base plate, means for securing the base plate on said table in angular relation to the longitudinal axis of said table, guide means on said base plate, a carriage bed mounted on said base plate intermediate of said guide rails, uprights mounted on the ends of said carriage bed, a rod interconnecting said uprights longitudinally of said carriage bed, arms mounted on said rod, means on the outer ends of said arms for mounting a piece of material

between said arms for operation thereon by the bench saw, means for rotating said last named means and means for causing the reciprocation of said carriage bed.

2,818,897

CRISS-CROSS VEGETABLE SLICING MACHINE

Hyman Schachet, Denver, Colo.
Application December 8, 1954, Serial No. 473,933
1 Claim. (Cl. 146-78)

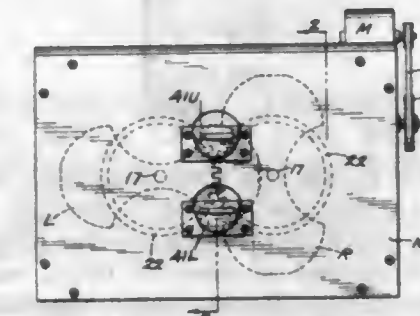


A vegetable slicing machine comprising: drive means, a drive shaft operatively connected to the drive means for rotational movement, a driven shaft mounted in spaced parallel relation to the drive shaft, gear means interconnecting the drive and driven shafts to effect rotation thereof in opposite directions, two substantially semicircular disks each having a radius greater than one-half the distance between the drive and driven shafts mounted thereon for rotational movement, each disk including a radial slot and a cutting blade mounted adjacent said slot, each disk having at least one planar face, the planar faces of both disks lying on the same side thereof and being arranged in coplanar relation, portions of both faces along the edge of both disks being cut away to form means whereby said portions may overlap while maintaining the coplanar relation of the planar faces, said portions of said disks overlapping one another to form a metal support in all rotarial positions thereof except when a blade moves between the axes of rotation.

2,818,898

VEGETABLE SLICERS

Hyman Schachet, Denver, Colo.
Application December 16, 1955, Serial No. 553,630
5 Claims. (Cl. 146-78)



1. A vegetable slicer having a pair of slicing disks mounted for coplanar rotation about spaced parallel axes, said disks being of the type having opposed inwardly arcuate sides terminating in paddle shaped ends, oppositely arranged transversely corrugated slicer knives near the ends of the paddles and adjacent the following edges thereof, the loci of the knives coinciding where they cross a line joining the centers of disk rotation; means for feeding vegetables to be sliced into the paths of the slicer knives at symmetrically positioned points above and below the level of the axes of rotation, each disk having a bridge plate projecting rearwardly from each slicer

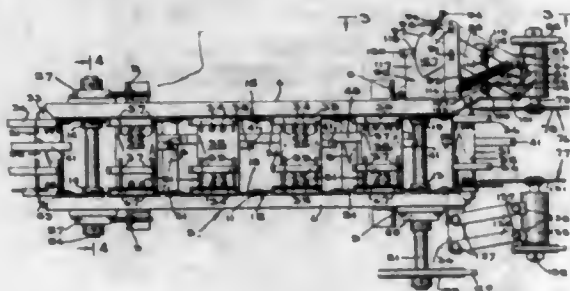
knife positioned and arranged to overlap the leading edge of the following disk and form a support for the vegetable until the paddle surface of said following disk crosses the feed point.

2,818,899

FRUIT END TRIMMER

William de Back, St. Nicolas-Waes, Belgium, assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware

Application June 9, 1953, Serial No. 360,479
7 Claims. (Cl. 146—81)



6. In fruit trimming apparatus, a frame, means mounted on said frame for guiding fruit for movement in a predetermined path, trimming means mounted on said frame adjacent said guiding means in position to trim fruit guided thereby, said trimming means being adjustable on said frame transversely of said guiding means to determine the depth to which said trimming means will trim, gauging means connected to said trimming means and responsive to the size of fruit measured transversely of said guiding means for adjusting said trimming means, and resilient means connected between said gauging means and said trimming means and arranged to yieldably resist movement of said gauging means without adjustment of said trimming means when said trimming means is held in any transverse position of adjustment.

2,818,900

LAUNDRY BAGS

Benjamin Forman, Brooklyn, N. Y.

Application November 30, 1955, Serial No. 549,940
1 Claim. (Cl. 150—1)



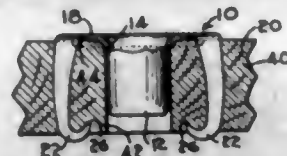
In an article of the character described, a net bag for laundry, two grommets mounted through the wall of the bag at its mouth rim region so that when the mouth of the bag is opened in circular form; said grommets shall be substantially diametrically opposite each other and including two washers of pliable material positioned on the outer surface of the bag; said washers being carried on said grommets respectively; each of said washers being of a size whereby it presents an exposed perimetral lane around the grommet; the mouth of the bag being closed by having the front and back of the bag against each other to form adjacent plies at rim region and so that the grommets are at the side edges of the bag, respectively; said plies being gathered together in a sinuous format whereby said washers are on the outside of it and a safety pin having its pointed part stuck through one of the grommets, said gathers between the grommets and the other grommet; said safety pin being closed.

2,818,901

THREADED INSERT WITH PRONGS EXTENDING FROM AN END FLANGE

Philip D. Becker, Hingham, and Henrik S. Johnsen, Medford, Mass., assignors, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware

Application November 10, 1954, Serial No. 467,924
1 Claim. (Cl. 151—41.73)



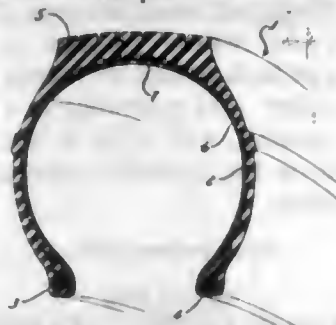
A fastening device for attachment to a panel to receive a cooperative fastener element comprising a center threaded fastener portion, an attaching flange disposed about the fastener portion and being substantially perpendicular to the axis of the fastener portion, a series of attaching prongs extending substantially perpendicular from the plane of the flange, said prongs each being formed from the periphery of the flange by a shear extending generally circumferentially and progressing gradually radially outwardly therefrom to intersect the outer periphery of the flange and to form an arcuate portion, and a circumferential groove in said flange and disposed at the inside edge of the base of the prongs intersecting the ends of the shear whereby stresses occurring at the base of the prongs are directed circumferentially.

2,818,902

SEALING COMPOUND FOR TUBELESS TIRE

Joseph Michael Schutz, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application October 21, 1952, Serial No. 315,964
6 Claims. (Cl. 152—347)



1. A pneumatic tire comprised of a rubbery tread portion, an open bellied fabric body portion terminating in inextensible edge portions to define in combination with a wheel rim a cavity for retaining air under pressure, a rubbery air impervious liner portion adhered to and covering the cavity defining surface of said fabric body and extending from one edge portion to the other edge portion, and a rubbery sealing layer adhered to said liner portion and extending substantially the width of said tread portion, said sealing portion comprising a rubbery copolymer of butadiene and styrene copolymerized at a temperature of about 41° F., a sulfur content of .5 percent by weight based on the copolymer content and an iron oxide content of about 30 percent by weight of copolymer.

2,818,903

PIVOTED BAR BENDING APPARATUS HAVING MEANS FOR RELIEVING EXCESS CLAMPING PRESSURE AT REGION OF BEND

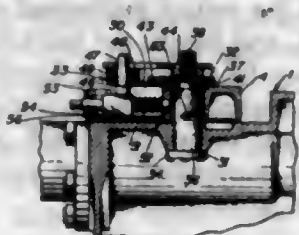
Claude H. Warren and Gerald M. Pollard, Vallejo, Calif.

Application June 2, 1953, Serial No. 359,238
3 Claims. (Cl. 153—40)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Bar-bending apparatus comprising a table, means for rotating the table, a bar-bending shaft projecting out-

wardly of the table, adjustable means rotatable with the table for pressing a table-supported bar against said shaft, a clamp rotatably mounted on the shaft for pressing said bar against the table, means threadedly mounted on the shaft for pressuring said clamp, fixed bracing means abutting the trailing portion of said bar and



holding said bar against lateral movement for producing a bend in the bar as the rotated table carries it about said shaft, and lever means coupling together said table and said clamp pressuring means, rotation of said lever means with said table rotating said threaded pressuring means sufficiently during the bending operation to relieve excess clamping pressure caused by bar upsetting.

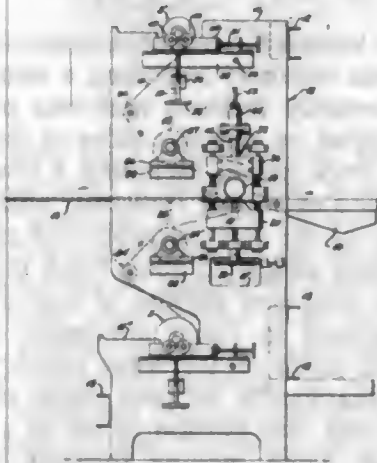
2,818,904

PRESS FOR WEBS

Francis X. Ambrose, San Diego, Calif., assignor to Alsynite Company of America, San Diego, Calif., a corporation of California

Application August 8, 1955, Serial No. 527,024

14 Claims. (Cl. 154-1)



12. A press for continuously pressing together material sandwiched between two in-running webs comprising a pair of upright end frames, a horizontally disposed lower roll, means for mounting the lower roll comprising an end bearing assembly at each end of the roll and a pair of vertically extending spaced apart guide members attached to each frame and in guiding engagement with each of said bearing assemblies, biasing means on said spaced apart guides urging said bearing assembly downward and adjustable support means attached to the frame and in supporting engagement with said bearing assembly for moving the bearing assembly and the lower roll up and down while said biasing means urges the bearing assembly downward; and upper horizontally disposed roll for pressing engagement with said lower roll to press together the webs and the material sandwiched therebetween; means for mounting the upper roll comprising an end bearing assembly at each end of the upper roll, a pair of vertically extending support guide members attached to each of said frames and in guiding engagement with each of said bearing assemblies for the upper roll; biasing means associated with said vertically extending spaced apart guide members and urging said bearing assemblies for the upper roll upward; means for supporting the upper ends of an upper and lower spool of web stock, each of said spool support means being attached to said frame members and comprising a base member pivotally attached to said frame members, a secondary member

slidably mounted on said base member, a pair of rollers mounted on said slide member and adapted to rollingly support the end of each spool; means for applying resistance to the rolling movement of each spool; guide means over which said web from the spool is led to between said roll; and fluid pressure means associated with each of said upper bearing assemblies for applying pressure thereto to urge said upper roll toward said lower roll to apply pressure to the web and material passing between said rolls, said fluid pressure means comprising a cylinder mounted on each of said upright end frames, each of said cylinders having a closed upper end and an open lower end, said closed upper end having an outlet to a pressure source, said open lower end receiving a plunger reciprocal within said cylinder and extending down out of said cylinder, said lower end of said piston being secured to said upper bearing.

2,818,905

ELECTRIC CABLES

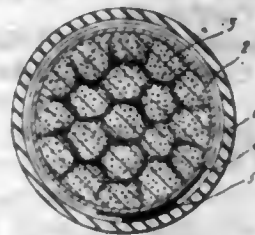
George Herbert Simmonds, Erith, and Hector David Stewart, Bexleyheath, England, assignors to British Insulated Callender's Cables Limited, London, England, a British company

Application January 4, 1956, Serial No. 557,401

Claims priority, application Great Britain

January 12, 1955

8 Claims. (Cl. 154-2.25)



2. The method of manufacturing a buoyant cable which comprises extruding polyethylene in which a blowing agent has been incorporated to form long rods of expanded polyethylene, assembling a plurality of the rods together side by side, enclosing the assembly within an annular conductor having an internal diameter substantially equal to the diameter of the assembly and temporarily raising the assembly to a temperature sufficiently high to ensure the permanent expansion of the rods to an extent substantially to fill the interstices between them and their enclosure and the welding together of their contiguous surfaces to form an integral structure but not so high as to destroy their cellular structure.

2,818,906

ORGANOPOLYSILOXANE COMPOSITIONS CONTAINING BOTH LEAD- AND BUTYL-TIN-2-ETHYLHEXOATES AND GLASS FABRIC LAMINATES EMPLOYING THE SAME

Orville A. Braley, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application December 10, 1954

Serial No. 474,605

4 Claims. (Cl. 154-2.6)

3. A laminate comprising a plurality of layers of glass fabric bonded and impregnated with an organopolysiloxane resin having an average from 1 to 1.6 organic groups per silicon atom, said groups being selected from the group consisting of monovalent hydrocarbon radicals and halogenated aryl hydrocarbon radicals, from .01 to .2% by weight based on the weight of the resin of lead 2-ethylhexoate and from .2 to .8% by weight based on the weight of the resin of a compound of the formula



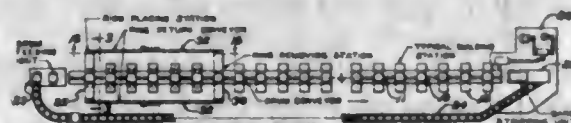
where n is an integer from 1 to 3 inclusive.

2,818,907

TIRE BUILDING MACHINERY

John P. Sapp, Kent, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application May 26, 1955, Serial No. 511,203
30 Claims. (Cl. 154-9)



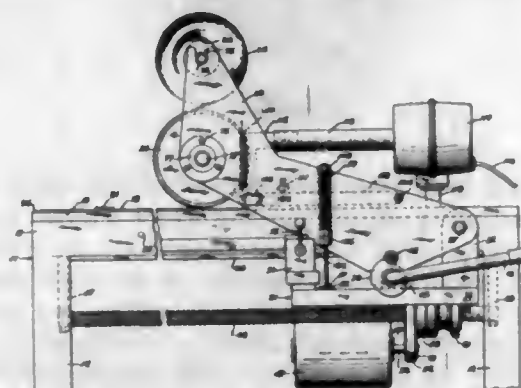
1. A tire-building machine comprising a series of tire-building stations, means for moving a tire-building drum in succession to said stations, means at one of said stations for fitting a generally cylindrical drum-extension ring coaxially to an end of the drum, said ring and said end of the drum having means mutually interlocking to fasten the ring coaxially to the drum so that the ring is carried by the drum from station to station, and means at another of said stations for disengaging the ring from the drum.

2,818,908

MACHINE FOR APPLYING PRESSURE-SENSITIVE SHEET TO FLAT OBJECTS

James H. Byrnes, Oakland, and James C. Borger, Burbank, Calif., assignors, by direct and mesne assignments, to Westoak Machine Corp., Oakland, Calif., a corporation of California

Application September 22, 1955, Serial No. 535,951
15 Claims. (Cl. 154-41)



1. A paper coating machine comprising, in combination with a roll of pressure-sensitive paper, a table having a rectangular upper surface upon which a succession of sheets may be positioned for paper coating operations, means for coating each sheet positioned on said upper surface with a length of pressure-sensitive paper from said roll applied in accurate registry with each said sheet; said means comprising a plurality of stops arranged in spaced relationship along one longitudinal marginal edge of said table for positioning each sheet to be coated in true rectangular relation with said upper surface, a carriage including a framework, a pair of roll mounts pivotally mounted on said framework at opposite sides of said table; one of said pair of mounts rotatably supporting said roll of pressure-sensitive paper, a pressure-roller rotatably mounted in the other of said pair of mounts; the axis of said pressure-roller being in right angle relationship to said one longitudinal marginal edge of said table and directly underlying the axis of said roll and parallel thereto, said pressure-roller being adapted to receive paper unrolled from said roll, means for pivoting said roll mounts to lower and raise said pressure-roller and said roll in unison to place said pressure-roller in pressure-engagement with each said sheet positioned on said table and to disengage said roller from each said sheet, means for effecting periodic forward movement of said carriage from one end of said table to the other and for effecting the unrolling of paper from said roll as well as for applying through the medium of said pressure-roller a continu-

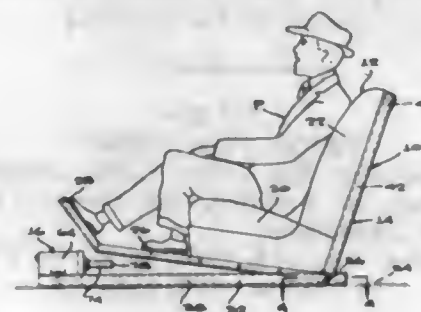
ous length of paper to each sheet positioned on said table, means for severing the sheet-applied continuous length of paper from the paper remaining on the roll at the end point of application thereof to each said sheet, means for effecting the return movement of said carriage to its initial position, means for grasping and retaining the severed free end of the paper on the return movement of said carriage to its initial position, and means for releasing said severed free end of the paper from said last named means upon the initiation of each succeeding forward movement of said carriage for applying a successive length of the pressure-sensitive paper to a succeeding sheet positioned on the upper surface of said table.

2,818,909

SAFETY SEAT ASSEMBLY FOR VEHICLES

Daniel A. Burnett, Bakersfield, Calif.

Application February 17, 1956, Serial No. 566,215
6 Claims. (Cl. 155-9)



1. A collision actuated safety seat assembly for vehicles comprising a seat assembly including a bottom-seat portion and a rearwardly inclined back-seat portion, guide track means secured on opposite sides of the seat assembly, said guide track means including a lower elongated guide track portion extending forwardly adjacent the bottom-seat portion of the seat assembly and an intersecting rearwardly-inclined elongated guide track portion extending adjacent the back-seat portion of said seat assembly, guide means secured in linear alignment on the back-seat portion, said guide means being slidably received in the lower and rearwardly inclined guide track portions permitting the back seat portion to tilt to a horizontally disposed position when moving forward on the guide track means, and collision-actuated retaining means extending between the seat assembly and the guide track means for retaining the seat in a vertical position against the force of inertia below a predetermined value.

2,818,910

TIGHTENER FOR FOLDING WHEEL CHAIR

Dean Hawkins, Conrad, Mont.

Application November 18, 1955, Serial No. 547,767
1 Claim. (Cl. 155-30)



A collapsible wheelchair comprising a pair of side members mounted for movement towards and away from each other, said side members each embodying lower tubular rails, means extending between said side members for retaining said side members in their open position away from each other, so that the seat of the wheelchair will not accidentally pinch the occupant of the chair whereby the wheelchair can be used in greater comfort, said means comprising first and second body members of similar construction each provided with a longitudinally

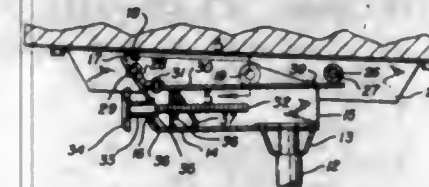
extending bore, a section of each of said bores being threaded, a shaft extending into each of said bores and having an exteriorly threaded portion threadably engaging the threaded portion of said bore, a U-shaped yoke mounted on the outer end of each of said shafts and straddling a rail of the side member, each of said yokes embodying a pair of spaced apart fingers each terminating in a flat end portion having an aperture, there being apertures in the rails of said side members registering with the apertures in said fingers, securing elements extending through said registering apertures for maintaining the yoke connected to the rail, ears connected to said body members, a pin pivotally connecting the ears of said body members together, there being a recess in one of said body members defining a shoulder, and a lip extending from the other of said body members for engaging said recess and shoulder, there being a space between the rails and the yokes so that sufficient clearance is provided when the shafts are being pivoted.

2,818,911

TILTABLE OFFICE CHAIR

Charles W. Syak, Girard, Ohio, assignor to Trumbull Development Corporation, Girard, Ohio, a corporation of Ohio

Application November 5, 1954, Serial No. 467,086
2 Claims. (Cl. 155-77)



1. A chair iron for a tiltable swivel chair comprising a housing mounted on a spindle and a chair spider having depending portions pivotally secured to said housing, said housing comprising an elongated horizontally disposed member having spaced vertical side walls and a front wall joining said vertical side walls, and means forming said pivotal mounting comprising pivot members engaging depending portions of said chair spider and said side walls and located rearwardly of said front wall of said housing and forwardly of said spindle, the top edges of said side walls inclining downwardly and rearwardly of said pivotal members, a bracket secured to said front wall and extending inwardly of said housing on a horizontal plane, and a leaf spring one end of which is secured to said bracket and extending longitudinally of said housing in spaced relation to the top of said chair spider and the bottom of said housing, a support rod on said chair spider between said depending portions thereof, a roller on said support rod engaging said leaf spring adjacent the free end thereof, a fulcrum member disposed in said housing between the front wall thereof and said spindle and movable therebetween, and a threaded screw rotatably positioned in said housing and threadably engaged in said fulcrum member for moving the same, the fulcrum member engaging the bottom of said leaf spring between said pivotal members and said front wall, said support rod and roller being located rearwardly of said spindle.

2,818,912

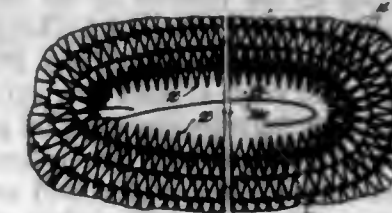
AUXILIARY CUSHION FOR AUTOMOBILE SEATS AND METHOD OF PRODUCING THE SAME

Ralph K. Odor, Jr., Edmond, Okla.

Application January 16, 1956, Serial No. 559,433
5 Claims. (Cl. 155-182)

1. A device of the kind described comprising an elongated, continuous coil spring having a series of spiral rings, said coil spring being wound into a plurality of convolutions with the rings of each convolution inter-

leaved with the rings of next-adjacent convolutions; a continuous locking element threaded through the rings for maintaining the same in interleaved relationship; and



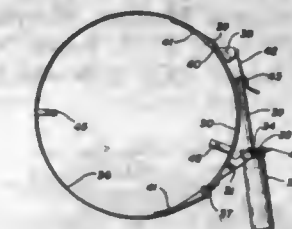
take-up means drawing the innermost of said convolutions inwardly to hold all of the convolutions in a taut condition.

2,818,913

PERIPHERAL COMPRESSION TYPE TIRE BEAD SEATING DEVICE

Harry G. Twiford, Denver, Colo.

Application March 28, 1955, Serial No. 497,185
3 Claims. (Cl. 157-1.21)



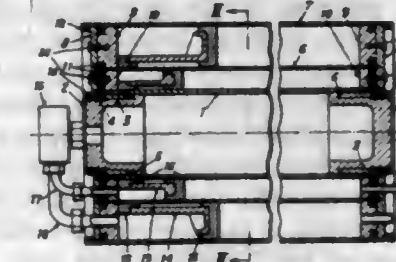
1. Apparatus for spreading the beads of a rubber tire comprising a resilient shoe adapted to conform with the periphery of a held tire, said shoe extending a minor distance around the periphery of said tire, a thin, flexible band secured to one end of said shoe and extending the remaining distance around said tire, an air cylinder interconnected with said shoe, the opposite end of said band being interconnected with the piston of said cylinder for quickly and forcibly reducing the peripheral length of said band in contact with said tire so as to squeeze an encircled tire, band guide means on the opposite end of said shoe for holding said band thereon, and take-up means between the end of said band and said piston for initially adjusting the peripheral length of said apparatus.

2,818,914

SYSTEM OF CONTAINERS FOR AT LEAST TWO LIQUIDS AND A PRESSURE GAS

Hans Thomann and Arnold Steck, Vaduz, Bartlegrosch, Liechtenstein, assignors to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company of Switzerland

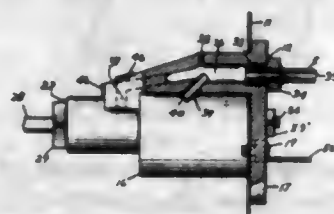
Application February 26, 1954, Serial No. 412,840
Claims priority, application Switzerland February 28, 1953
1 Claim. (Cl. 158-36.5)



A system of containers for at least two liquids and one pressure gas, comprising in combination a central flangeless tube threaded internally at each end, two lids slidably inserted one from each end of said tube to form a pressure gas chamber with said tube, each lid having a shoulder at its inner end and a screw thread at its outer end, a screw-threaded ring screwed into each of the said threaded ends of the tube, a packing ring having in the initial condition a parallelogram shape cross section and

consisting of a soft metal, arranged between the said shoulder and the inner end face of the said screw threaded ring on each lid, the said lids being forced outwardly by gas pressure applied to the interior of the said pressure gas container and deforming the said packing rings to a rectangular cross section between the said shoulder and the said screw-threaded ring, at least two cylindrical liquid containers coaxially surrounding the said pressure gas container and one another, annular free-pistons arranged between the outer wall surface of the said central pressure gas container and the inner wall surface of the smallest coaxial liquid container, and between the inner and outer wall surfaces of the surrounding liquid container, respectively, lids common to the said liquid containers at both ends of the latter and anchored to the said lids of the said central pressure gas container, and ducting means putting the said pressure gas container into controllable communication with the said liquid containers.

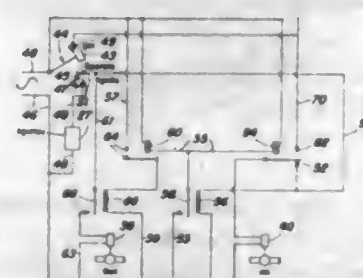
2,818,915
RESERVE FUEL SUPPLY FOR VEHICLES
 Nicholas Leonard Pfeiffer, Merriam, Kans.
 Application July 25, 1955, Serial No. 524,098
 1 Claim. (Cl. 158—46.5)



A reserve fuel supply for use in an automotive vehicle having a main fuel tank with a filler neck and a removable cap thereon with a vent in said cap and a fuel pump for drawing fuel through a fuel line and delivering such fuel into a carburetor of an engine comprising, an auxiliary fuel tank for positioning in spaced relation to the main fuel tank, said auxiliary fuel tank having an opening in the upper portion thereof, a valve body of non-magnetic material fixed to the auxiliary fuel tank in closing relation to the opening therein with a portion of said valve body extending into the auxiliary fuel tank, said valve body having a valve chamber therein, a passage in the valve body having one end communicating with the valve chamber and adapted for connection with a fuel line from the main fuel tank for receiving fuel from said main fuel tank, a duct communicating with the valve chamber and extending to a point at the lower portion of the auxiliary fuel tank, a second passage in the valve body communicating with the valve chamber between the duct and first-named passage and adapted for connection with a flow line leading to the fuel pump, an upwardly extending vent communicating the first-named passage with the upper portion of the interior of the auxiliary fuel tank, an orifice member positioned with its upper end in the first-named passage partially restricting flow therethrough, said orifice member being spaced upstream from the vent and inclined downwardly at an acute angle to the direction of flow in said first-named passage and terminating in downwardly spaced relation thereto, said orifice member having a passage therein communicating with the interior of the auxiliary fuel tank therebelow, said vent and orifice member being spaced from each other and extending in opposite directions to cooperate whereby air is drawn from the interior of the auxiliary fuel tank through the vent when a portion of the fuel flowing from the main fuel tank through the first-named passage passes through the orifice member into the auxiliary fuel tank thereby automatically filling the said auxiliary tank and thereafter effecting circulation to and from the auxiliary fuel tank aerating the fuel therein, a valve member operable in the valve chamber and arranged to normally

restrict flow through the duct whereby during normal operation the fuel pump applies suction to the valve chamber drawing fuel from the main fuel tank through the first-named passage to the valve chamber and then through the second passage to the fuel line to the pump and a portion of said fuel passes through the orifice into the auxiliary fuel tank to maintain same substantially full, said valve body having an elongate bore communicating with the valve chamber, a plunger of magnetic material slidably mounted in the bore and connected with the valve member, a magnetic coil fixed on the valve body concentric with the plunger and spaced therefrom in surrounding relation thereto, and means selectively energizing the magnetic coil for activating the plunger to move the valve member and close the first-named passage thereby whereby suction from the fuel pump draws fuel from the auxiliary fuel tank through the duct, valve chamber and second passage and flow line, and removal of fuel from the auxiliary fuel tank draws air through the fuel line to the first-named passage and into the auxiliary fuel tank.

2,818,916
GAS IGNITER TORCH
 Frederick Cowan, Syosset, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
 Application December 20, 1954, Serial No. 476,103
 15 Claims. (Cl. 158—115)

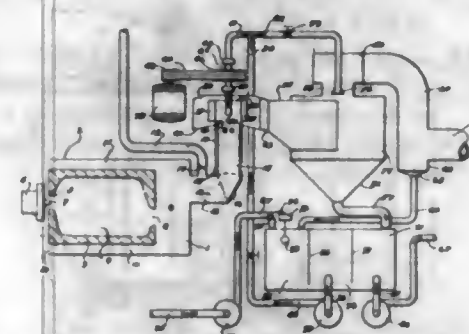


1. A gas igniter torch of the type described comprising a conduit into which gas and air are admitted adjacent one of its ends for passage to said other end, an electrical igniter provided in said conduit downstream of the admission of said gas and air but remote from said other end, individual normally closed air and gas valve means for controlling the admission of air and gas to said conduit, electrical means operative to control said valve means and said igniter including a manually controllable switch means operative when moved to one position to activate said electrical igniter and cause said air valve means to open, a first electrical timer activated by such positioning of said switch means to cause said air valve means to close after it has been opened a predetermined time, a second electrical timer operative after a further predetermined time to cause said gas valve means to open, said switch means having another operative position wherein it is effective to prevent energization of the igniter and cause the gas valve means to close but cause the air valve means to open.

2,818,917
PROCESS OF EVAPORATING MOISTURE FROM SYRUP-FORMING SOLUTIONS
 Daniel B. Vincent, Tampa, Fla., assignor to Prentice E. Edrington, Washington, D. C.
 Original application June 27, 1949, Serial No. 101,662, now Patent No. 2,684,713, dated July 27, 1954. Divided and this application May 19, 1954, Serial No. 430,866

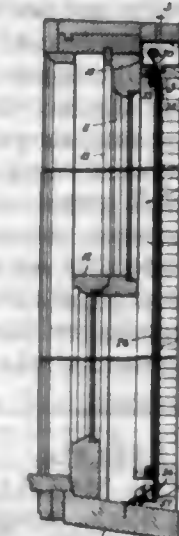
13 Claims. (Cl. 159—48)
 1. A continuous process of removing moisture from solutions and suspensions of materials which form syrupy, gel-like, viscous fluids when concentrated which comprises the steps of passing a stream of highly heated

combustion gases at high velocity and at atmospheric pressure into an evaporating zone, passing a stream of liquid into said evaporating zone along an axis common to the two streams, countercurrent to said gas stream, and in such manner as to impinge upon the gas stream so as to produce a state of turbulence, forming a single, re-



sultant concurrent stream of the gases, vapors and finely divided liquid particles in turbulent, intimate contact, moving the so-formed resultant linear stream away at substantially right angles to the axis of impingement to a separately enclosed separating zone of quiescence remote from the evaporating zone and withdrawing from said separating zone, cooled, vapor-laden exhaust gas.

2,818,918
COMBINATION SCREEN AND STORM WINDOW
 Robert G. Lohr, Lexington, N. C.
 Application June 26, 1956, Serial No. 593,883
 1 Claim. (Cl. 160—23)



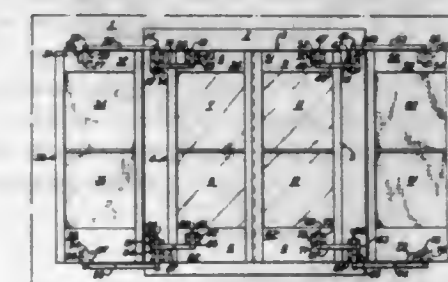
A storm window assembly comprising an elongated roller housing adapted to be secured to the upper portion of a window frame, said housing including a bottom wall having an elongated opening, a pair of depending flanges extending from opposite edges of said opening, one of said flanges terminating in an upwardly reverted screen holding flange, a spring-tensioned roller in said housing, a transparent flexible sheet wound about said roller and extending downwardly through said opening, an elongated bar fixed along one edge thereof to said sheet, a reverted locking flange carried by the opposite edge of said bar, and a bracket including an inverted U-shaped keeper fixed to the lower edge of the window frame, said locking flange engaging with said keeper to hold said sheet in extended position, said bracket also including an upwardly extending flange terminating in a downwardly reverted screen holding flange opposed to said first mentioned screen holding flange.

2,818,919
WINDOW FRAME AND SASH ASSEMBLY
 Joseph Sylvan, Birmingham, Mich.
 Application March 29, 1956, Serial No. 574,734
 2 Claims. (Cl. 160—91)
 1. A window frame and screen sash assembly comprising, in combination, a window frame having opposed



jamb portions provided with opposed runways and a sill portion provided with a sill channel in line with said runways, said runways provided with opposed linearly extending recesses in the bottoms of the runways, a screen sash disposed within said runways and having side rails

2,818,920
WINDOW CONSTRUCTION
 Frederick D. Blauvelt, Montclair, N. J.
 Application October 30, 1956, Serial No. 619,182
 6 Claims. (Cl. 160—92)

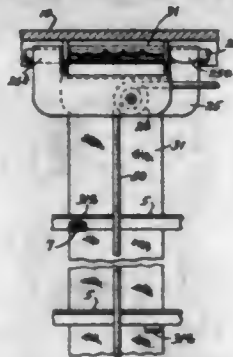


1. In combination with a window opening in a vertical wall, a sash containing glass or screening adapted to register with and close a part of said opening and a second sash containing screening or glass adapted to register with and close the same part of said opening, a first radial arm mounted on the face of said wall to one side of said opening for pivotal movement through a horizontal angle of about 180°, a pivotal connection between the upper end of said first sash and the outer end of said first rod permitting a turning movement of said sash in a horizontal plane, a second radial arm, longer than said first radial arm mounted on the face of said wall, to one side of and above said opening, for pivotal movement through a horizontal angle of about 180°, a pivotal connection between the upper end of said second sash and the outer end of said second arm permitting a turning movement of said second sash in a horizontal plane whereby either sash may be swung to inoperative position along said opening while the other sash is swung into operative position.

2,818,921
VENETIAN BLIND
 Brooks Walker, San Francisco, Calif.
 Application February 20, 1956, Serial No. 566,566
 5 Claims. (Cl. 160—168)

1. A Venetian blind, including a head rail, said head rail having a longitudinally extending downwardly facing groove formed therein, a tilt rod rotatably mounted in said groove, means for rotating said tilt rod, washers fitted transversely into said groove and centering said tilt rod therein, ladder tapes mounted on said tilt rod

and having spaced rungs, slats supported by said ladder tapes, lift cords, turn pulleys for said lift cords, a lift cord turn pulley bracket for each turn pulley, said turn

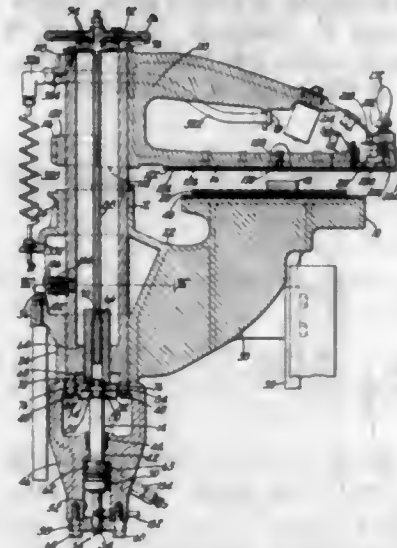


pulley bracket having a pair of upwardly extending ears spaced to lie on either side of a ladder tape and each having a down turned portion adapted loosely to engage said tilt rod.

2,818,922

CUTTING PRESSES

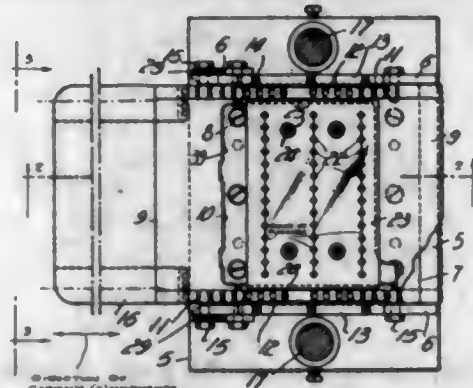
Frank E. Stratton and Fred T. MacKenzie, Beverly, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application February 11, 1955, Serial No. 487,634
3 Claims. (Cl. 164—23)



1. A cutting press comprising a work support, a spindle mounted at one side of the work support, a hollow post, means mounting the post on the spindle comprising a thrust bearing carried at the upper end of the spindle, and a screw threaded sleeve mounted in the lower end of the post and resting upon the bearing, a platen secured to the post and extending over the work support, and means for varying the height of the platen relatively to the support comprising a hand wheel at the upper end of the post, a reduced portion at the upper end of the sleeve having therein an opening of polygonal cross section, and a rod secured to the hand wheel and having a depending portion of polygonal cross section extending through the reduced portion of the sleeve for sliding movement longitudinally thereof, whereby upon rotation of the hand wheel the sleeve is rotated relatively to the post to effect movement of the platen heightwise of the support.

2. A cutting press comprising a frame casting having at its forward end a horizontally extending work support, and at its rear end a hollow portion, a post slidably mounted in the hollow portion of the frame casting, a platen secured to the post for angular movement about the axis of the post across the work support, and means for limiting lateral angular movement of the platen located within the frame casting and comprising reentrant portions of the frame casting positioned on opposite sides of the post and forming stops, and buffer members carried by the post within the hollow portion for engaging the stops.

2,818,923
MACHINE FOR MANUFACTURING GRIDS
Diego Felipe Juan Di Pascuale, Enrique Dinardi, and Raul Eneström, Cordoba, Argentina
Application May 11, 1954, Serial No. 429,049
1 Claim. (Cl. 164—87)

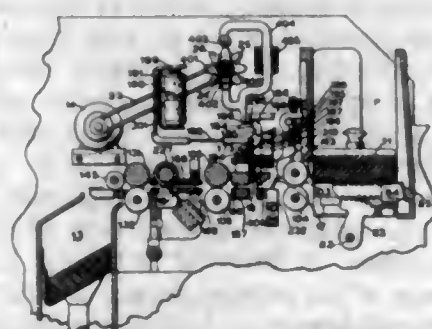


In a punch, in combination, a support including a lower die and having an upper surface for supporting material to be punched, a carriage movable on said support and having formed therein a cut-out having an outline and contour matching that of the particular material to be punched and designed to receive said material so that the material when emplaced in said cut-out of said carriage and on said surface of said lower die will be moved along with the carriage, an upper die vertically reciprocable for cooperating at each stroke with predetermined parts of said lower die, a plate resiliently suspended from said upper die and normally disposed below the lower end of said upper die and operable to engage the material in advance of the upper die during the downward stroke of the upper die to restrain any movement and wrinkling thereof, means operable for feeding said carriage during each upward stroke of the upper die, whereby said carriage will present different parts of the material to the dies between successive strokes of the upper die, and means operable on both lateral sides of said carriage for registering the carriage in position for upper and lower die cooperation immediately before the completion of each downward stroke of the upper die.

2,818,924

PUNCHING MECHANISM

Ernest U. Lang, Niles, Mich., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application September 12, 1955, Serial No. 533,774
1 Claim. (Cl. 164—124)



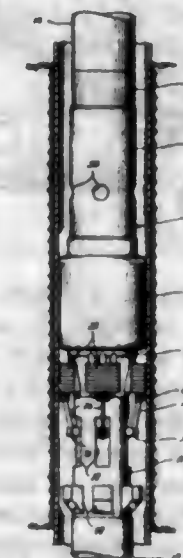
A punching mechanism for moving paper stock and the like comprising a female die and a male punch movable into and out of said die, said punch successively comprising an inclined cutting surface at its distal end adapted to form one end of a rectangular opening in the paper upon entry of the punch into the die, a second cutting surface above said first surface and oppositely inclined with relation to said first surface and adapted to form the remainder of said opening upon movement of said punch out of the die, and a shank portion above said second cutting surface the rearward edge of which is disposed forwardly in the

direction of paper feed from the rearward edges of said cutting surfaces to allow free movement of the paper between reciprocations of said punch.

2,818,925

WELL APPARATUS

Henry U. Garrett and Clifford M. Peters, Longview, Tex., assignors, by mesne assignments, to U. S. Industries, Inc., a corporation of Delaware
Application August 13, 1954, Serial No. 449,632
1 Claim. (Cl. 166—131)



In a well, a well casing, a well tubing extending into said casing, said tubing carrying casing gripping means exteriorly thereof which are expansible into gripping relationship with said casing, an expansible packing surrounding said tubing and connected to said casing gripping means for expansion of the packing into sealing relationship with the casing upon expansion of the gripping means, means for expanding said gripping means including a part disposed within said tubing and movable relative thereto, a linkage between said part and said gripping means and transmitting force generated by movement of said part to said gripping means to thereby expand the same, a fluid passageway through the wall of said tubing communicating between the interior and exterior of the tubing and spaced proximate to said packing, a valve member internally of said tubing and movable relative thereto to open and close said fluid passageway, and a wire line tool movable through said tubing and selectively engageable with said part and valve member to transmit force thereto to respectively expand said gripping means and to move the valve member between both its fluid passageway opening and closing positions.

2,818,926

WELL TOOL ANCHOR RELEASE

Derrel D. Webb, Houston, Tex., assignor to Houston Engineers, Inc., Houston, Tex., a corporation of Texas
Application March 4, 1955, Serial No. 492,251
7 Claims. (Cl. 166—212)

1. A tool comprising an elongated hollow body member, means to slidably connect the upper end of said body member to the lower end of a pipe string, a freely movable driver piston mounted in the upper end of said body member, said driver piston having an upper end adapted to be contacted and moved by the lower end of said pipe string upon downward movement of said string, a circulating sleeve mounted in spaced relation to and within said body member, the lower portion of said driver piston extending into the space between said body member and circulating sleeve and fitting snugly therebetween, an inwardly extending shouldered portion on said body member, a first chamber formed by said body member, said circulating sleeve, the lower end of said driver piston

and said shouldered portion, a release cylinder slidably mounted on said body member, a fixed piston on said body member, a second chamber formed by said body member and said release cylinder, said chamber being closed at its top by said piston and at its bottom by a second shouldered portion extending inwardly from said release cylinder, a slip cage, carrying slips, movably mounted on said body member below said release cylinder, said cage being adapted to be contacted and moved



by said release cylinder upon downward movement thereof, a passage from said first chamber to said second chamber, a trapped fluid media substantially filling said passage and said chambers, whereby upon longitudinal movement of said string relative to said body said driver piston is contacted and caused to move downwardly, causing the fluid in said first chamber to move into said second chamber thereby moving said release cylinder upwardly and releasing said slips.

2,818,927

PORTABLE SHIELD

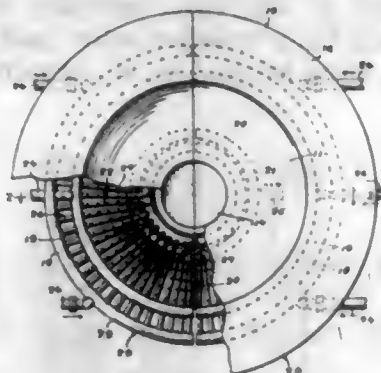
Charles J. Broussard, Lake Charles, La., assignor of one half to W. T. Castleberry, Houston, Tex.
Application February 14, 1956, Serial No. 565,505
2 Claims. (Cl. 169—1)



1. In a portable shield for use in fighting fires, a hollow housing including a pair of curved vertically disposed side walls, a horizontally disposed bottom wall, a pair of doors hingedly connected to said side walls, said housing and doors comprising a plurality of hollow pipes adapted to be connected to a source of fluid under pressure, and valves for controlling the flow of fluid through said pipes, and a fire resistant covering on said housing, and spaced apart support members secured to the upper portion of said housing, skids for supporting said housing, and hinge means for said doors adapted to have fluid passed therethrough, said hinge means comprising a bushing, a vertically disposed conduit rotatably mounted in said bushing and provided with a plurality of apertures for the passage therethrough of fluid, said bushing and conduit having certain of said pipes connected thereto.

2,818,928

PORTABLE SHIELDED BOOTH AND WALLS
 Charles J. Broussard, Lake Charles, La., assignor of one half to W. T. Castleberry, Houston, Tex.
 Application February 14, 1956, Serial No. 565,506
 3 Claims. (Cl. 169—1)



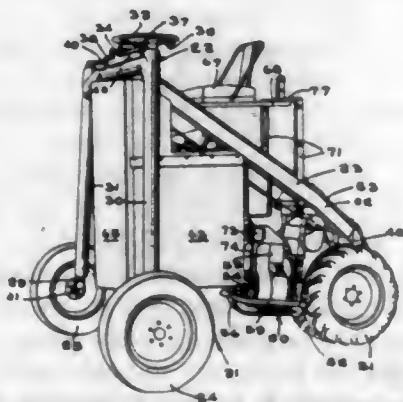
1. A portable fire fighting booth comprising a hollow body member, said body member including a side wall and a horizontally disposed bottom wall, said body member being made of a fire resistant material, and a plurality of conduits arranged contiguous to the outer surface of said body member and adapted to have a cooling fluid pass therethrough, said conduits having insulation arranged therearound, and wheels for supporting said booth, said conduits being arranged in upper and lower sections, pipes interconnecting said conduits together, there being apertures in certain of said pipes for egress therethrough of fluid onto said body member, said body member having a frusto-conical shape, the top of said body member being of greater diameter than the bottom thereof.

2,818,929

THREE-WHEELED VEHICLE HAVING A HIGH ARCHED FRONT FRAME

Joseph B. Kucera, Traer, Iowa, assignor to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
 Original application April 27, 1950, Serial No. 158,578, now Patent No. 2,657,093, dated October 27, 1953. Divided and this application February 24, 1953, Serial No. 338,419

12 Claims. (Cl. 180—25)



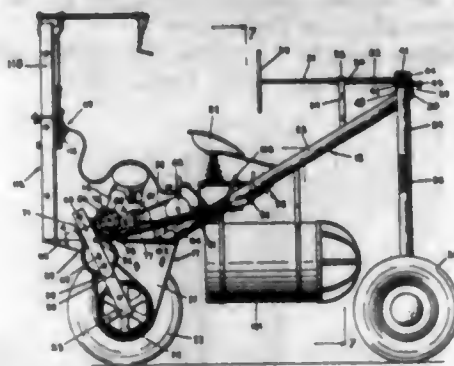
1. A vehicle comprising a relatively high and wide arched end frame, a pair of dirigible support wheels mounted one on the lower end of each leg of said arched frame, a downwardly sloping narrow central frame having the higher end thereof connected to said arched frame, a depending support member downwardly projected from the lower rear end of said central frame, a relatively narrow transmission unit supported by said depending member and positioned below said central frame, a pair of drive support wheels mounted upon opposite sides of said transmission unit, and an engine supported by said depending member below said central frame and connected to the forward end of said transmission unit to have driving engagement with said drive support wheels through said transmission unit.

2,818,930

THREE-WHEELED VEHICLE HAVING A HIGH ARCHED FRONT FRAME

Joseph B. Kucera, Traer, Iowa
 Original application August 7, 1948, Serial No. 43,086, now Patent No. 2,647,795, dated August 4, 1953. Divided and this application May 19, 1953, Serial No. 355,944

4 Claims. (Cl. 180—25)



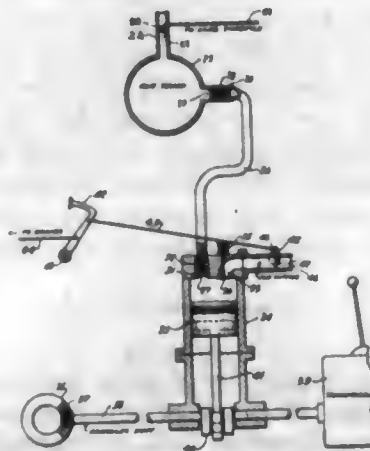
1. A vehicle comprising a frame having a transverse upright front frame section of an inverted U-shape, steerable front wheels at the lower free ends of the legs thereof, an inclined longitudinal frame section connected at its upper end with the base portion of said U-shaped front frame section, a support member extended rearwardly from the lower end of said longitudinal frame section having a horizontal portion and a vertical leg depending from said horizontal portion, traction means disposed beneath said horizontal portion and operably supported on said vertical leg, an engine mounted on the upper surface of said horizontal portion of said support member, and power transmission means connecting said traction means with said engine.

2,818,931

INTERNAL COMBUSTION ENGINE

Marion Mallory, Detroit, Mich.
 Continuation of application Serial No. 23,958, April 29, 1948. This application March 19, 1956, Serial No. 572,599

5 Claims. (Cl. 180—54)



3. In an automotive vehicle having an internal combustion engine for driving the same, an intake passage-way for said combustion engine having a throttle valve controlling the flow of motive fluid through said engine, a compressor, a driving connection between said compressor and said vehicle for actuating said compressor, valve controlled air inlet and exhaust ports for said compressor, conduit means including a storage chamber connecting the exhaust port of the compressor with the combustion chamber of said engine, valve means for controlling the flow of compressed air through said conduit from said storage chamber to the combustion chamber, means for opening and closing said valve means and said throttle valve in unison, a valve controlling the supply of air to said compressor, and a valve actuator for said

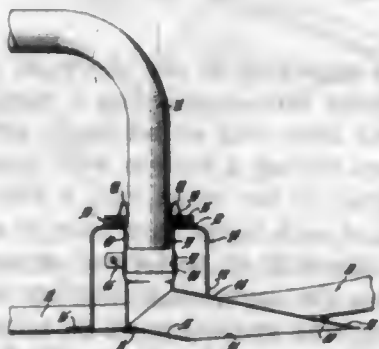
last mentioned valve, said compressor having an air intake passageway, said last mentioned valve controlling said compressor air intake passageway, said valve actuator comprising means for opening said valve in the compressor intake passageway whenever the motive fluid throttle valve is in closed position.

2,818,932

EXHAUST MEANS

Arnold E. Deeley-Jones, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 4, 1955, Serial No. 479,806
3 Claims. (Cl. 180-64)



1. Exhaust means for use with automotive vehicles and which include, an exhaust conduit connected to an engine and extended rearwardly of said vehicle, said conduit being curved near the after end thereof to extend towards a side panel of said vehicle, an opening formed through said side panel, a bracket secured to said side panel over said opening, a sleeve member secured to said bracket for receiving the end of said exhaust conduit therein, means secured to said bracket for centering said exhaust conduit in spaced relation within said sleeve, and an extension member secured to said sleeve and formed to extend obliquely towards the rear of said vehicle and through said opening, said extension member being disposed in spaced relation to said side panel and being adapted to direct exhaust gases therethrough and rearwardly of said vehicle.

2,818,933

VEHICLE COWL WITH TWO PORTION INSTRUMENT PANEL

William J. Tell, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 24, 1953, Serial No. 375,867
3 Claims. (Cl. 180-90)

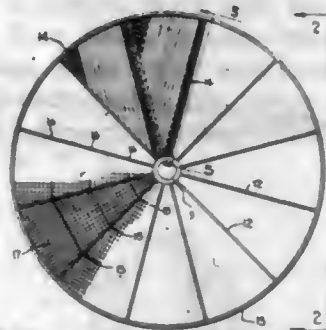


3. An instrument panel including elongated lower and upper portions forming rear and top walls of a cowl chamber in a vehicle such as an automobile, said lower portion being a permanent structural member of said vehicle and serving as a support for instruments utilized in operating said vehicle, said upper portion extending in a forward direction from an upper lengthwise margin of said lower portion and removable for access to said chamber and connections to said instruments, and releasable means attaching said upper portion in position.

2,818,934

MOISTURE-TRANSFERER FOR AIR-CONDITIONING

Neal A. Pennington, Tucson, Ariz., assignor of one-fifth to Robert H. Henley, Tiptonville, Tenn., and one-fourth to Roger Sherman Hoar, South Milwaukee, Wis.
Application February 3, 1955, Serial No. 485,932
16 Claims. (Cl. 183-2)



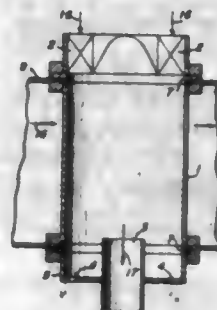
1. A rotatable cylindrical transferer for use in an air-conditioning unit, to transfer, between two air-streams passing through said unit, a thermodynamic characteristic of air, said transferer comprising: a wheel-like casing, having spokes, a hub, and a rim, said hub and said rim being of substantially the same width in an axial direction, at least some of said spokes being incomplete; a packing of liquid-absorbing corrugated paper, the corrugations of which run axially of the casing, said packing being capable of being impregnated with a non-volatile liquid, and completely filling the casing, and being packed therein with such compactness as to remain freely air-permeable in an axial direction and yet be so self-supporting as to be substantially immovable with respect to the casing during the rotation of the casing even in a vertical plane; and means to retain the packing in the casing.

2,818,935

COMBINED CENTRIFUGAL SEPARATOR AND HEAT EXCHANGER

Roland Kemmetmüller, Vienna, Austria, assignor to Wagner-Biró Aktiengesellschaft, Vienna, Austria, an Austrian firm

Application October 26, 1954, Serial No. 464,761
Claims priority, application Austria November 11, 1953
6 Claims. (Cl. 183-32)



1. A combined heat exchanger and centrifugal separator comprising a passage for fluid to be heated, said passage being bounded by at least two opposite walls, a generally cylindrical separator shell extending across said passage from one to the other of said walls, said separator shell being adapted to transmit heat to a relatively cold fluid in said passage from a relatively hot gas within said shell, inlet gas guides at one end of said shell for guiding flue gas into said shell, and dust collecting and discharge means at the other end of said shell, insulation means at each end of said shell adjacent said walls interposed between said shell and said inlet gas guides and between said shell and said dust collecting and discharge means, whereby the said inlet gas guides and said dust collecting means will retain heat from said relatively hot gases passing through said separator.

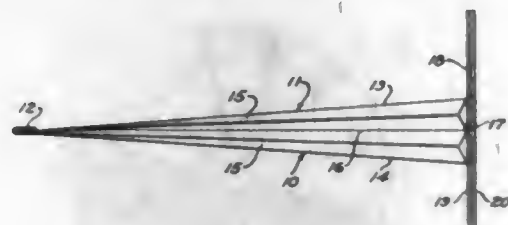
2,818,936

SUCTION CLEANER FILTER BAGS

William D. Copley, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application February 21, 1955, Serial No. 489,476

1 Claim. (Cl. 183—51)



A filter bag adapted to be connected with a conduit conducting dirt laden air in a suction cleaner, comprising a bag body provided with a portion defining an entrance to the bag, a first member arranged in one plane and having an opening through which the bag marginal end projects, said opening being of less cross section than said body to flare said projecting marginal end along a surface of said member surrounding said opening, and a second plane member attached to said first member to secure said projecting flared end therebetween whereby said members are an integral part of the bag, said second member having an inlet of less size than said opening and communicating therewith and adapted to be connected with the cleaner conduit, one of said members having a marginal edge free of said body to provide a mounting flange adapted to be seated in the cleaner to support the bag therein.

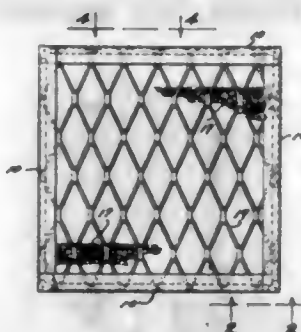
2,818,937

FRAME FOR PANEL FILTER

Jacob K. Brixius, Parma, Ohio, assignor to Air-Maze Corporation, Cleveland, Ohio, a corporation of Delaware

Application January 5, 1955, Serial No. 479,880

2 Claims. (Cl. 183—69)



1. A frame for supporting filter material having a plurality of sides connected together forming a closed frame, each side being channel-shape in section with the web of the channel forming a portion of the outer periphery of the frame and the two flanges of the channel forming a pair of hollow ribs at each edge of said web, said flanges extending outwardly beyond the plane of said web at other than right angles to said web and then inwardly beyond the plane of said web at approximately right angles to the plane of said web for retaining the filter material in said frame, said web being severed from said flanges at the frame corners, said web at each corner having portions bent outwardly, said outwardly bent web portions of adjacent sides abutting each other, said flanges of adjacent sides overlapping at each corner, and means securing said abutting webs together.

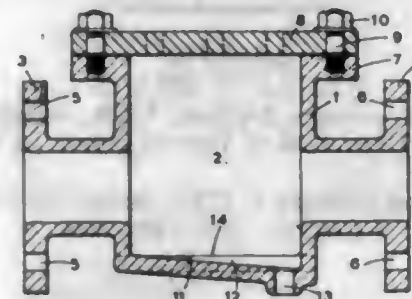
2,818,938

STEAM SEPARATORS

John Eric Steel, Morpeth, England, assignor to Steels Engineering Installations Limited, Sunderland, England, a corporation of Great Britain

Application April 18, 1955, Serial No. 501,927

3 Claims. (Cl. 183—112)



1. A steam separator of the character stated comprising a rectangular box constituting a separating chamber having flanged inlet and outlet ducts and a detachable cover, said box having a bottom well sloping downwardly from the inlet to the outlet side, a pair of steps forming a portion of said bottom wall one at each side of the well, and a plurality of perforated separator plates assembled within the separating chamber and disposed in spaced side by side vertical position across the chamber between the inlet and outlet ducts with their lower edges supported upon said steps.

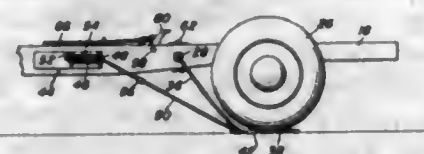
2,818,939

EMERGENCY BRAKING DEVICE FOR VEHICLES

Marshall H. Benn, Brentwood, Calif.

Application May 13, 1955, Serial No. 508,055

1 Claim. (Cl. 188—4)



A vehicle brake comprising a rotary shaft attachable to side frame members of a vehicle transversely thereof in front of each vehicle rear wheel, a pair of brake plates, a coiled cable for each plate on each end of said shaft suspending said plates and responsive to gravity pull of said plates to uncoil and rotate said shaft to lower the plates to the ground in front of said wheels for sliding rearwardly by said wheels under the same, means for limiting rearward sliding of said plates comprising for each plate a bracket attachable rigidly horizontally to one side member forwardly of said shaft, a second cable attached at one end to one of said plates for pull thereon by sliding of said plate, said second cable being slidable in said bracket rearwardly by rearward sliding of said plate and having its other end provided with an enlarged terminal member on one side of the bracket, a coil spring on said other end of said second cable interposed between said bracket and enlarged member and normally sliding said second cable forwardly, a stop on said second cable on the other side of said bracket engaging said bracket to limit forward sliding of said second cable, and means attachable to said members for releasably restraining the shaft rotation in one direction.

2,818,940

CHOCK

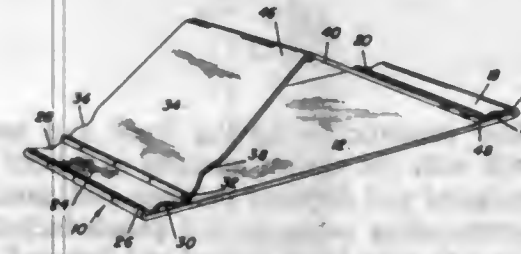
Lawrence J. Boyle, Myrtle Creek, Oreg.

Application August 30, 1954, Serial No. 452,938

1 Claim. (Cl. 188—32)

A foldable vehicle wheel chock comprising a rectangular base plate, a comparatively short link plate hingedly secured at a first edge to a first transverse edge of said

base plate, said link plate including a surface portion engageable in overlying juxtaposition on an upper surface portion of said base plate, a wheel engaging plate hingedly secured at a first edge to an edge of said link plate opposite said first edge of said link plate extending angularly upwardly therefrom, and a support plate hingedly secured at a first edge to an edge of said wheel engaging plate opposite the first edge of said wheel engaging plate, said support plate being extendable angularly downwardly toward said base plate, said support plate including an edge portion opposite the first edge of said support plate pivotally secured adjacent a transverse edge opposite the



first transverse edge of said base plate, said base plate including a plurality of downwardly projecting gripping teeth on a lower surface thereof, said support plate being hingedly secured at the edge opposite the first edge thereof to a first edge of a second link plate, said second link plate being hingedly secured to a transverse edge portion of said base plate opposite the first transverse edge portion thereof, the combined length of said second link plate and said base plate being equal to the combined length of said first link plate, said wheel engaging plate and said support plate, said second link plate resting on said base plate forming a stop for said support plate.

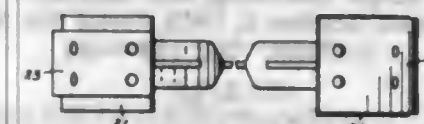
2,818,941

MOTOR VEHICLE BRAKE CONSTRUCTION

Harmond E. Berno, Plymouth, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application March 18, 1955, Serial No. 495,298

3 Claims. (Cl. 188—78)



1. In a servo brake for a motor vehicle, a rotatable drum, a stationary mounting plate, primary and secondary brake shoes mounted upon said plate, actuating means for expanding said brake shoes toward said drum, means interconnecting said primary and secondary brake shoes to transfer self-energizing force from said primary brake shoe to said secondary brake shoe, and friction lining of different widths mounted upon said brake shoes for frictional engagement with said brake drum, said primary lining being substantially narrower than said secondary lining.

2,818,942

SHOCK ABSORBER

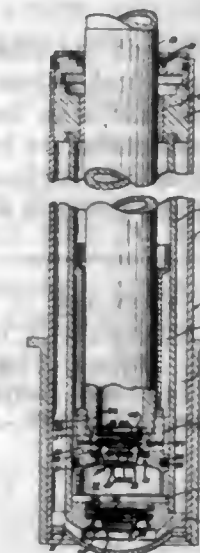
Charles V. Bliven, Belleville, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application March 23, 1956, Serial No. 573,516

1 Claim. (Cl. 188—88)

In a shock absorber for a motor vehicle having sprung and unsprung members, a pair of concentric cylinders of different diameters connected to each other and to one of said members and forming an annular reservoir chamber therebetween, an end member interconnecting adjacent ends of said cylinders, valve means carried by said end member controlling the flow of fluid between said reservoir chamber and the inner of said pair of cyl-

inders, a piston rod connected to the other of said first mentioned members and extending into said inner cylinder, a piston mounted upon the inner end of said piston rod, said piston having a single central opening therein forming the sole path of fluid communication through said piston between the portions of said inner cylinder on opposite sides of said piston, said piston opening being in the form of a stepped bore with the larger diameter portion of said bore being remote from the piston rod end of said piston, a flat valve seat between the stepped portions of said bore facing the piston rod end of said piston, a pair of opposed cup shaped valve elements hav-



ing juxtaposed peripheral flanges secured together to form a hollow generally cylindrical housing, spring means urging the peripheral flange of said housing into seating engagement with said flat valve seat to control the flow of fluid through said piston opening in one direction, said housing having axially aligned openings in its opposite ends walls, a flat valve disc within said housing adapted to cover the opening in the end wall of said housing adjacent the piston rod end of said piston to control the flow of fluid through said piston opening in the opposite direction, and a coil spring within said housing urging said disc valve towards its seated position.

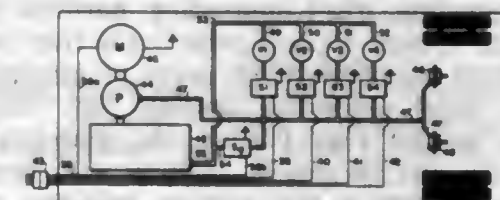
2,818,943

BRAKE SYSTEM

Maynard Campbell Coward, New Kensington, Pa.

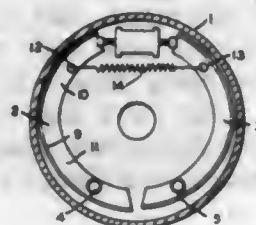
Application February 9, 1955, Serial No. 487,051

5 Claims. (Cl. 188—106)



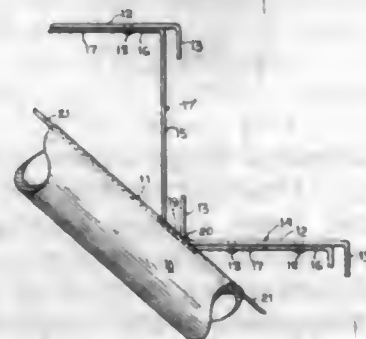
4. A brake system including a hydraulic circuit having a first line adapted to actuate a brake mechanism, a plurality of parallel lines branching from said line and rejoining one another to form a return line for the hydraulic circuit, pressure-responsive valve means in each parallel line, each of said valve means being adapted to open at a different pressure, first means in each parallel line to render said valve means operable selectively, an additional line connecting the first line to the return line, a normally open valve in said additional line, and means to close said valve upon actuation of said first means in each parallel line.

2,818,944
DOUBLE CURVATURE BRAKE SHOE
 Robert Barany, Hamilton, Ontario, Canada
 Application September 6, 1955, Serial No. 532,441
 3 Claims. (Cl. 188—250)



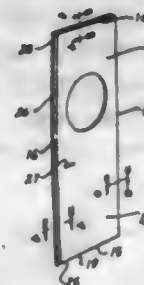
1. In a braking system of the class described, a symmetrical, one-piece, rigid brake shoe having two longitudinally curved friction surfaces, each friction surface having the same radius of curvature but a different center of curvature, only one of said surfaces being adapted to frictionally engage a brake drum at the same time.

2,818,945
STAIR CONSTRUCTION
 Frederick L. Holzer, Chicago, Ill.
 Application May 14, 1954, Serial No. 429,913
 1 Claim. (Cl. 189—43)



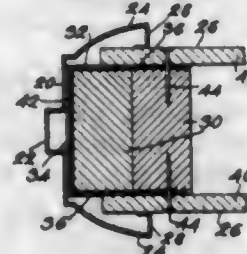
A stair construction comprising a pair of parallel extending tubular stringers, each of said stringers provided on the top longitudinal surface thereof with laterally extending spaced apart flanges providing therebetween a longitudinally extending channel, a plurality of Z-shaped tread supporting members formed from a relatively flat bar bent to provide a riser portion and reversely extending top and bottom tread supporting portions of substantially equal lengths, said top and bottom tread supporting portions being of a length equal to half the distance between riser portions of corresponding tread supporting members, a removable tread connecting oppositely corresponding tread supporting portions in end abutment with respect to each other, said riser portions of each of said members at its point of junction with said bottom tread supporting portion bent diagonally with respect to said riser portion and said tread supporting portion and in parallel relation with respect to said stringer to form a heel portion, said heel portion being of a width equal to the space between said channel forming flanges so as to be slidably contained therebetween, a spacer bar of a width equal to the distance between said channel forming flanges so as to be slidably contained therebetween and of a length equal to the distance between riser portions of said tread supporting members to space said heel portions of said members in spaced relation with respect to each other, said spacer bar engaging said heel portions in said channel so as to prevent lateral movement of said heel portions in said channel and to align the members of one stringer with the corresponding members of the other stringer.

2,818,946
DOOR CONSTRUCTION
 Vernon Edwin Noel and Romer G. Weyant, Elkhart, Ind., assignors to B & N Aluminum Welding Corp., Elkhart, Ind., a corporation of Indiana
 Application September 9, 1955, Serial No. 533,395
 2 Claims. (Cl. 189—46)



1. A door construction having front and rear sheet metal panels with the central portions in spaced relation and a corrugated pad disposed between said panels, three of the corresponding edges of said panels including one top and one side edge being shaped and fastened together to form a continuous marginal recess for fitting into a door frame, the joint between said three corresponding edges being formed by the front panel having a peripheral edge folded back in a reverse direction along its inner side, said rear panel having its corresponding edge turned toward the front panel and extending into engagement with the latter, the terminal portion of said edge being turned laterally so as to fit under the folded back portion of the front panel, the corner formed by the junction of the forwardly turned top and side edges being closed by a tab extending from the top edge and overlying the side edge, and the remaining pair of corresponding edges being joined to form a box-like section for fitting against the hinge-carrying side of the door frame, the hinged edge of said door being relatively straight and the opposite edge being cambered to present a concave face toward its rear panel.

2,818,947
DRYWALL DOORFRAMES
 Ralph Goldberg, Denver, Colo.
 Application October 3, 1955, Serial No. 537,915
 1 Claim. (Cl. 189—46)



In combination with a metal door frame of the type having a lateral panel presenting an outer face forming a door-receiving surface and terminating at opposite sides thereof in rearwardly extending sides spaced to receive and lap dry wall panels placed along the sides of wooden frame members forming a door opening, a plurality of U-shaped strap members of nailable material disposed at spaced points along said frame and each including a bight portion rigidly affixed to the inner face of said lateral panel and rearwardly extending leg portions, said leg portions being spaced apart a distance substantially equal to the width of the wooden frame members and extending beyond the ends of said sides of the door frame and in inwardly spaced relation thereto to define dry wall-receiving pockets whereby when the dry wall panels are received within such pockets said legs will pass along the sides of the wooden frame members and inside the dry wall panels with the sides of the door frame lapping the dry wall panels and with the free ends of the legs present-

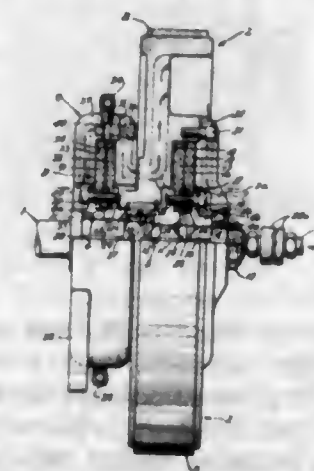
ing end portions beyond said sides to receive fasteners extending through the dry wall panels and such end portions and into the wooden frame members, and each bight portion having its inner face spaced outwardly from the inner face of said lateral panel to present localized wooden frame-engaging surfaces at spaced points along said door frame.

2,818,948
ATTACHMENT CLIP FOR WALL SIDING MEMBERS
 Clayton Jones, Jacksonville, Fla.
 Application January 4, 1954, Serial No. 401,888
 3 Claims. (Cl. 189—88)



1. An object supporting clip of the class described comprising; an upper sheet metal member having a flat portion adapted for permanent affixation flat against a wall surface, a shelf portion extending outwardly from the lower edge of said flat portion, an apron portion extending downwardly from the outer edge of said shelf portion and an inwardly and downwardly inclined leg portion extending from the lower edge of said apron portion; a lower member having a body portion, an outwardly extending upper ledge portion, and an outwardly extending lower trough portion adapted and arranged to receive a portion of the object to be supported; said ledge portion being positioned behind said apron portion; and an adjustable screw interconnecting said shelf portion of said upper member and said ledge portion of said lower member in adjustable spaced positions, said leg portion being disposed to bear against said body portion of said lower member in a direction forceably to retain said lower member against said wall surface.

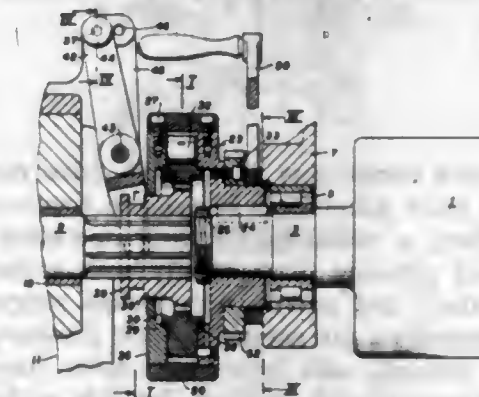
2,818,949
BRAKE-CLUTCH CONSTRUCTION
 James L. Giffen, Hudson, N. Y., assignor to Emhart Manufacturing Company, Hartford, Conn., a corporation of Delaware
 Application July 8, 1954, Serial No. 442,171
 11 Claims. (Cl. 192—18)



1. A drive and brake mechanism comprising a rotary member to be driven and to be braked, a brake member, a rotary driving member, two clutch units, each unit having a portion fastened to one of said members, each said clutch unit having a flexible clutch plate secured

to said fastened portion of the unit, means for applying pressure on one side of said plate of one of said clutch units to force into clutching surface engagement with a wall of one of said members the portion of said plate remote from the secured portion of said plate to couple the rotary members, and means for increasing the pressure on one side of said plate of the other of said clutch units to force into clutching surface engagement with a wall of one of said members the portion of said plate remote from the secured portion of said plate to couple one of the rotary members to the brake member; and wherein the space between the said portion of each clutch plate and the wall with which said portion is clutchingly engageable normally freely communicates with space on the opposite side of the plate and wherein said communication is broken only when said portion of the clutch plate is pressed into clutching engagement with said wall.

2,818,950
RATCHET
 Charles A. Harless, Riverside, Conn., assignor to R. Hoe & Co., Inc., New York, N. Y., a corporation of New York
 Application December 3, 1952, Serial No. 323,845
 13 Claims. (Cl. 192—48)



9. A ratchet drive mechanism comprising an outer ring having internal ratchet teeth, a pair of face plates attached to the said ring for forming a housing, means for mounting one of the said face plates on a shaft for supporting the ring therefrom and forming a drive connection between the ring and the said shaft, an internal ratchet drive member carrying pawls in cooperating relation to the teeth of the said ring, means for rotatably supporting the said inner ratchet member in the housing, an axially movable clutch member slidably positioned within the inner drive member, the clutch member and inner ratchet member having cooperating spline teeth, the clutch member having also a circular hub, and the second said face plate having a circular opening fitting around the same to complete an oil housing.

2,818,951
FRICTION BANDS HINGE CONNECTIONS
 George L. Hart, Providence, Ky.
 Application April 25, 1956, Serial No. 580,629
 6 Claims. (Cl. 192—80)

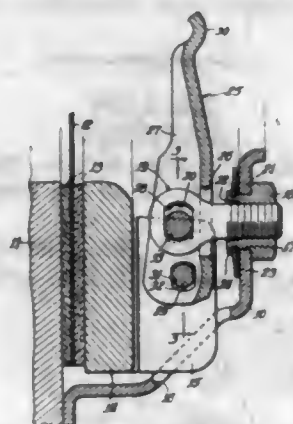


1. In combination, a drum member and a second member adjacent to each other for relative rotation, an element mounted on said second member near the periphery of the drum, said element having a broad, flat stem provided with cylindrical recesses in opposed sides and hav-

ing a common axis in a plane intersecting the drum and at right angles to the axes of the latter, a device partially embracing the free end of the stem and having flat surfaces engaged with said sides and provided with bosses fitting rotatably in said recesses to permit the device to oscillate, and a friction band engaged with the periphery of the drum and attached across its entire width to said device.

2,818,952

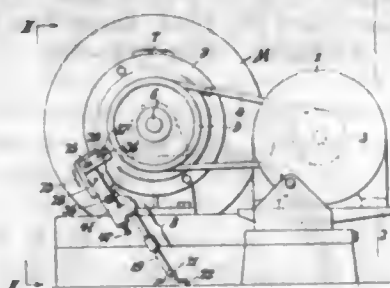
LEVER DESIGN FOR SPRING-LOADED CLUTCH
Louis Ross, Rockford, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application March 21, 1955, Serial No. 495,549
11 Claims. (Cl. 192-99)



1. A clutch comprising a rotatable drive member and a pressure plate adapted to be packed together for conjoint rotation; a radially extending operating lever for shifting said pressure plate axially with respect to said drive member; and anti-friction means supporting said lever, comprising a pin carried by said pressure plate and extending through said lever, said lever having a pin-receiving aperture with opposed flat side walls on which said lever has rocking contact with said pin; a support carried by said drive member and having an opening therein with opposed flat side walls; a fulcrum roller in said opening having rolling contact with the flat side walls thereof; and said lever having a second opening with opposed flat side walls located radially inward from said pin-receiving aperture for receiving said roller for effecting rolling action of said lever on said roller during movement of said lever.

2,818,953

OVERLOAD RELEASE TORQUE ARMS
Albert H. Hall, Philadelphia, and Ellsworth J. McCloskey, Norristown, Pa., assignors to The American Pulley Company, Philadelphia, Pa., a corporation of Pennsylvania
Application January 3, 1956, Serial No. 557,113
8 Claims. (Cl. 192-150)

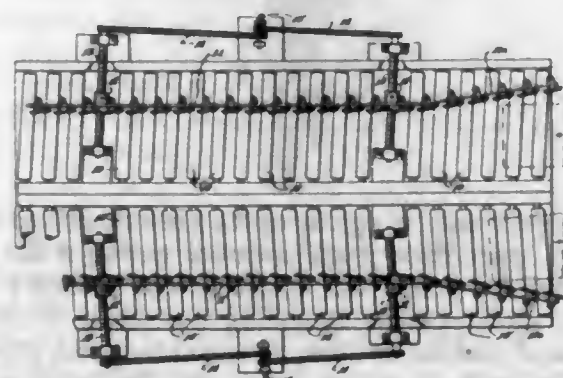


1. In a torque arm for the purpose described, pivotally connected at one end to a fixed anchorage, means for connecting the distal end of the arm to an eccentrically disposed projection on a rotary member of a machine with capacity for self release when a predetermined force is

applied by the rotatable member, said means including an element pivoted to the arm at the distal end thereof and provided with a jaw for engaging the projection on the rotary member of a machine from one side, and a stud on a lateral lever extension at the distal end of the arm for engaging the projection on the rotary member from the opposite side; and yielding means embodied in the arm for normally maintaining the pivoted element in operative position relative to the projection on the rotary machine member.

2,818,954

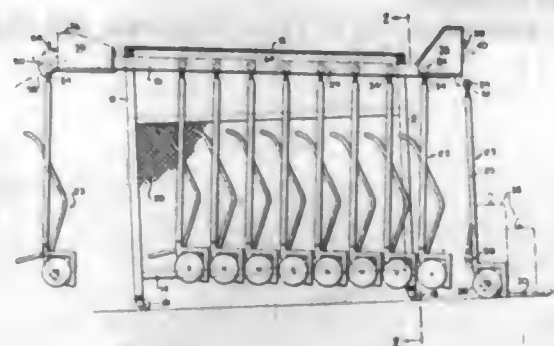
SIDE GUIDE FOR CONVEYORS
Earl C. Vice, Ashland, Ky., assignor to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio
Application April 23, 1954, Serial No. 425,080
7 Claims. (Cl. 193-35)



1. A side guide for a conveyor having rollers defining a pass line comprising a supporting member mounted adjacent the rollers of said conveyor longitudinally and parallel to the plane thereof, and a plurality of disc-like guide elements mounted on said member, said guide elements being mounted in substantially parallel vertical planes at an angle to the axis of said conveyor with the upper portions thereof extending above said pass line.

2,818,955

COIN CONTROLLED SERVICE UNIT DISPENSERS
Wells Stackhouse, Havertown, Pa., assignor to American Locker Company, Inc., Boston, Mass., a corporation of Delaware
Application August 14, 1953, Serial No. 374,324
7 Claims. (Cl. 194-4)

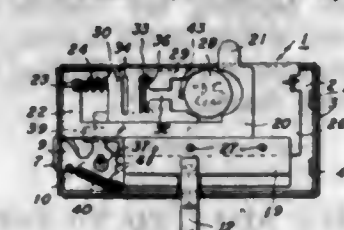


1. A dispenser for hand trucks and the like, comprising a substantially horizontal rail, a stand adapted to support the rail in elevated position on and above a floor with free space therebeneath, a plurality of truck supporting carriages including casters disposed to ride on and along the rail, means preventing lateral release of the carriages from the rail, coin controlled means at one end of the rail for dispensing said carriages therefrom one at a time, the other end of the rail being adapted to receive additional carriages, and means for preventing release of the carriages from said other end of the rail.

2,818,956

COIN CONTROLLED LOCK
David L. Lukens, South Orange, N. J., assignor, by mesne assignments, to McLaney Manufacturing Corporation, Miami Beach, Fla., a corporation of New York
Original application March 23, 1953, Serial No. 344,151, now Patent No. 2,715,434, dated August 16, 1955. Divided and this application December 30, 1953, Serial No. 401,255

1 Claim. (Cl. 194-78)



A coin-controlled lock comprising a casing having an opening for reception of a lug to be locked to the casing and having a coin-admitting slot, a bolt movably mounted in the casing and having spaced portions selectively registerable with the opening for respectively holding and releasing a lug inserted therein, an operating member of elongated U-shape slideable in the casing having the bolt slideably mounted on its bottom and having front and rear arms upstanding from its bottom beyond the respective ends of the bolt, said front arm projecting through one end portion of the slot for actuation manually toward the other end portion of the slot to slide the operating member and having a portion within the casing opposed to the adjacent end of the bolt requiring interposition of a coin of predetermined size in order for movement of the operating member toward the bolt to slide the bolt to a position bringing a releasing portion thereof into register with the lug-receiving opening in the casing so as to release the lug, and means holding the bolt in said position, the opposite end of the bolt when so held being engageable by the rear arm of the operating member to prevent movement of the bolt and operating member sufficiently toward the first named end portion of the slot to cause the front arm of the operating member to clear enough of the length of the slot to permit removal of the coin through the slot.

2,818,957

KEY LEVER AND TYPE BAR ASSEMBLIES OF TYPEWRITERS AND LIKE MACHINES
Edward Charles Brace, Westgate-on-Sea, England
Application May 25, 1954, Serial No. 432,254
Claims priority, application Great Britain May 27, 1953
1 Claim. (Cl. 197-27)



A typewriter or like machine comprising a series of assemblies of key levers and type bars, each assembly including a key lever, a type bar and a link of dumb-bell shape, the said link connecting the end of the key lever which is remote from the key thereon to the end of the type bar which is remote from the type thereon, the interconnection between said link and said ends of said key lever and type bar being provided by interengaging heads and recesses on the respective members, the said heads being cylindrical and the said recesses being part circular and open at their axial ends, the arc of each of said part circular recesses extending more than 180 degrees whereby the said interengaging cylindrical heads can be disengaged therefrom only by relative axial movement, thus ensuring that an operative printing or return movement imparted to either the key lever or the type bar of an assembly

produces a corresponding movement of the other said element, two pivotal mountings being provided for the key levers and type bars of said assemblies the axes of which are substantially parallel to the axes of said recesses, and a comb-like housing element for said assemblies, said element having a plurality of open-ended slots to provide a separate slot for each assembly, the said pivotal mountings and the link and adjacent interconnected ends of the key lever and type bar of each assembly being disposed and located in a said slot in said comb-like housing element, each said slot being of limited width so as to permit operative printing and return movement of said assembly on its said pivotal mountings while preventing undue relative movement of the elements of said assembly in directions parallel to the axes of said pivotal mountings and said recesses such as would allow disconnection of said link from said key lever and type bar.

2,818,958

ESCAPEMENT PAWL CONTROL
Thurston H. Toepfen, Hyde Park, and Robert A. Donnan, New Paltz, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 29, 1955, Serial No. 556,153
8 Claims. (Cl. 197-85)



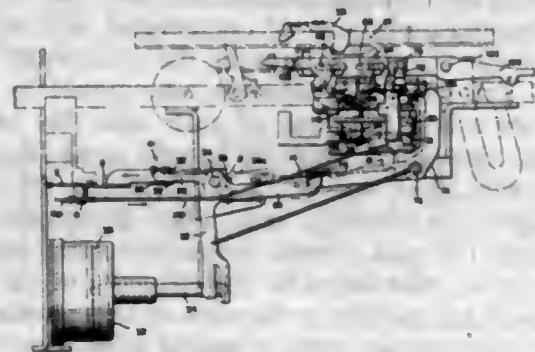
1. In a typewriter having a carriage including a carriage rack spring biased in character spacing direction, an improved pawl control for the escapement action of the carriage comprising an interposer, means pivotally mounting the same for movement into and out of a tripping position, said interposer being further provided with means permitting transverse movement relative to said pivotal mounting means, a holding pawl mounted for pivotal movement only with respect to said mounting means from a rest position wherein it is biased into engagement with said rack to a release position, means interconnecting said interposer and said holding pawl to lift said holding pawl out of said rack in response to said interposer being moved to tripping position, and means responsive to carriage movement during an escapement action for disengaging said interposer from said holding pawl to permit the latter to re-engage said carriage rack.

2,818,959

PAWL CONTROL
Neil D. Walton, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 19, 1954, Serial No. 469,870
6 Claims. (Cl. 197-94)

4. In a typewriter having a power operated carriage return mechanism and a plurality of pawls engageable with the escapement rack for a proportional escapement operation, a device for grouping the plurality of pawls during a carriage return operation and latching them in grouped position until the carriage stops at an assigned position, said device comprising a pawl grouping lever pivoted on

said typewriter frame, means operable in response to a carriage return operation for rocking said grouping lever from a rest position to a grouping position to group said pawls, a latch for locking said grouping lever in pawl

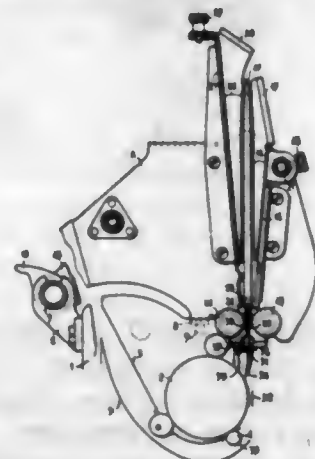


grouping position after said plurality of pawls have been grouped, a grouping latch release, and means operable in response to a predetermined pawl striking an assigned rack tooth to operate said grouping latch release to ungroup said pawls.

2,818,960

ACCOUNTING APPARATUS FOR APPLICATION TO TYPEWRITERS OR THE LIKE

Enzo Ascoli, Giovanni Cereghetti, and Christian Tschurr, Yverdon, Switzerland, assignors to Pallard S. A., Sainte-Croix, Switzerland, a corporation of Switzerland
Application March 2, 1955, Serial No. 491,732
Claims priority, application Switzerland March 2, 1954 9 Claims. (Cl. 197—128)

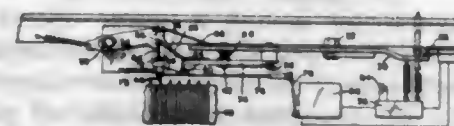


1. An accounting apparatus adapted to be mounted on the carriage of an office machine, particularly a typewriter, comprising a driving device including rollers for moving at least one account card and introducing the latter automatically into said apparatus, a single spring barrel, a reversing device connecting said spring barrel to said rollers, so as to enable them to be driven in both directions, a governor for controlling the expansion of the spring of said spring barrel, and a friction device through which the rewinding of said spring may be effected.

2,818,961

ELECTRONIC TABULATION

Thurston H. Toepfen, Hyde Park, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application December 27, 1955, Serial No. 555,529
7 Claims. (Cl. 197—176)



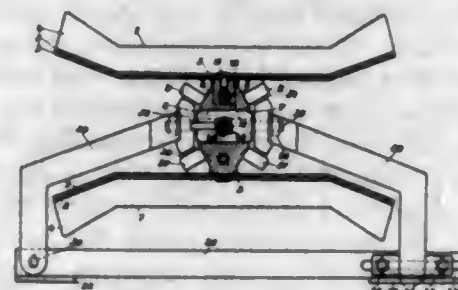
5. In a business machine having a movable carriage, a tabulating mechanism for releasing said carriage for

power driven movement, a tab check lever in said tabulating mechanism, spring biased means urging said tab check lever normally into an operative position, a plurality of counter stops selectively engageable with said tab check lever when the latter is in its operative position, and sensing means for emitting an impulse in response to the detection of a predetermined condition on said movable carriage, a device for selectively restraining said tab check lever from engagement with said counter stops comprising means blocking the operation of said tab check lever by said spring biased means, and means responsive to an impulse from said sensing means for disabling said blocking means.

2,818,962

CONVEYOR BELT ADAPTED TO PASS THROUGH CURVES

Robert Hörth, Vlotho-Kalldorf, Germany, assignor to Friedrich K. H. Stübbe, Vlotho (Weser), Germany
Application October 4, 1954, Serial No. 460,195
Claims priority, application Germany October 10, 1953 16 Claims. (Cl. 198—137)



1. In a conveyor arrangement: a conveyor belt comprising a plurality of first belt portions resistant against bending in transverse direction of said belt and a plurality of flexible second belt portions connected to said first belt portions and of a channel-like shape with the channel extending in transverse direction of said belt, the arrangement being such that said first and second belt portions alternate with each other, a flexible pulling member extending in longitudinal direction of said belt and being fastened to said first belt portions, said pulling member being twistable about its longitudinal axis and being provided with three running surfaces triangularly arranged with regard to each other and extending in longitudinal direction of said belt, said pulling member being substantially inextensible in longitudinal direction thereof, a plurality of supporting stands arranged in spaced relationship to each other, and a plurality of rollers stationarily supported by said stands and arranged for rolling engagement with said triangularly arranged surfaces.

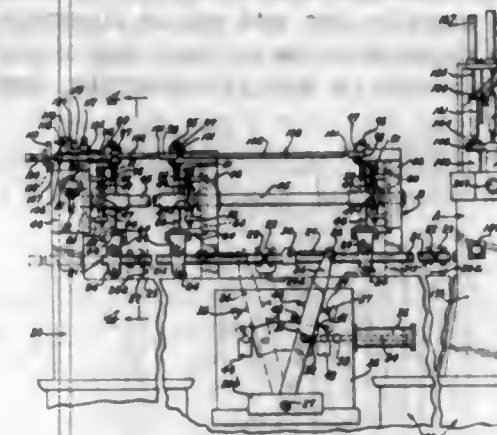
2,818,963

APPARATUS FOR HANDLING AND SHUTTLING PARTS

Frank De Bulgne, Birmingham, Mich., assignor to La Salle Tool, Inc., Detroit, Mich., a corporation of Michigan
Application February 1, 1956, Serial No. 562,865
16 Claims. (Cl. 198—19)

1. In a device for shuttling a workpiece along a row of progressive work stations, a pair of parallel shuttle bars adapted to extend at a lowered position along said row in position straddling said workpiece, means on said bars at each station for gripping a workpiece therebetween when said bars are moved toward each other from an unclamping to a clamping position, supporting means for said bars, the latter being shiftable longitudinally with respect to said supporting means and being interengaged therewith to shift laterally and vertically, therewith, reciprocating means cooperable with said supporting means to reciprocate the same and said bars transversely to and from the clamping and unclamping positions, second reciprocating means engaging said bars to reciprocate the

same longitudinally to and from advanced and retracted positions, third reciprocating means cooperable with said supporting means to reciprocate the same and said bars

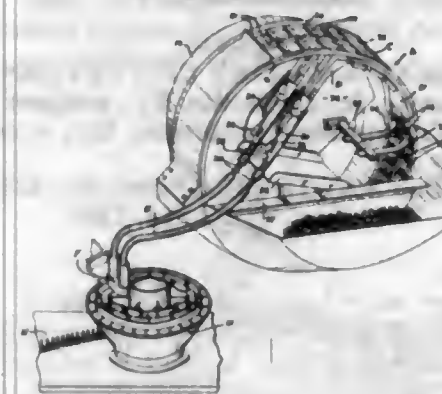


vertically to and from said lowered position and a raised position above said row, and control means cooperating with said reciprocating means for selectively reciprocating the same in a predetermined cycle of movements.

2,818,964

APPARATUS FOR THE CONTROLLED FEEDING OF CARTRIDGE CASES AND OTHER ARTICLES

Victorin Picard and Roland Cote, Quebec, Quebec, Canada, assignors to Canadian Arsenals Limited, Ottawa, Ontario, Canada, a company under the Government Companies Operation Act
Application May 31, 1955, Serial No. 512,038
3 Claims. (Cl. 198—32)



1. A distributor for receiving a series of downwardly moving closely spaced cartridge cases or other elongated, generally cylindrical, asymmetrically longitudinally weighted articles with the heavier end foremost from a substantially vertical tube and for re-orientating said articles as a moving series of closely spaced symmetrically disposed articles extending with their major axes transverse to the direction of such movement, said distributor comprising a platform arranged beyond the discharge end of said tube to receive and support each article discharged therefrom, means disposed around said discharge end adapted lightly to engage each said article to maintain the same erect on said platform, a fixed, generally conical, downwardly tapering casing and within said casing a central rotatable hub member to which are secured a plurality of upwardly extending fingers each adapted to engage an article standing on said platform and to propel it beyond the edge thereof and projecting radially from said hub member a series of circumferentially spaced partitions each adjacent pair of which forms with the hub member and the fixed casing a generally convergent cavity for receiving and retaining erect an article caused to fall thereinto by one of said fingers, a fixed arcuate plate underlying said partitions to support the heads of articles received in said cavities, said plate extending

around only a minor portion of said distributor, a circumferential flange member extending outwardly from said rotatable hub member and underlying said plate to support the heads of articles in said cavities impelled beyond the end of said plate by said partitions, a pulley forming part of said hub member and disposed above said flange member, an endless belt extending around a portion of said pulley along a straight path and back to said pulley, said pulley being arranged so that said belt presents its outer face to the peripheral surfaces of the articles supported by said flange member, a second endless belt disposed to converge with the first said belt in the vicinity of the point where said first belt extends tangentially away from said pulley, the casing of the distributor serving to define said cavities being interrupted at such point to permit the articles to move outwardly of the distributor to the space between the belts, means for resiliently urging said belts together to maintain a friction grip on the articles, means for supporting the heads of said articles propelled by the belts beyond the edge of said flange member, and drive means for rotating said hub member and said belts.

2,818,965

RUNWAY FOR CONVEYOR BELTS PASSING THROUGH CURVES

Robert Hörth, Vlotho-Kalldorf, Germany, assignor to Friedrich K. H. Stübbe, Vlotho (Weser), Germany
Application July 26, 1954, Serial No. 445,806
Claims priority, application Germany July 24, 1953 14 Claims. (Cl. 198—182)

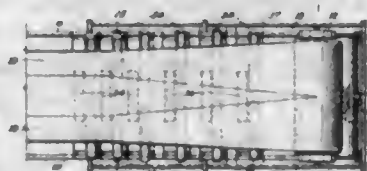


1. A single track runway arrangement for a conveyor belt which is adapted to pass through a curved path and is provided with axles respectively carrying a running roller and interconnected by a flexible pulling member, while guiding rollers are provided for stabilizing said running rollers, said runway arrangement comprising in combination: a runway rail arranged for engagement by said running rollers and composed of spaced rigid sections and interposed flexible connecting means, said flexible connecting means being made of elastic material and having a running surface hardness sufficient to withstand the pressure exerted thereupon by said running rollers and sufficiently flexible to allow a certain bending of the runway rail in one and the same plane from a straight line into a curved line; and supporting means connected to said runway rail and extending in the direction of the pressure exerted by said running rollers upon the runway rail, said runway rail also being provided with runway surfaces arranged for engagement by said guiding rollers, said runway surfaces being located laterally of said supporting means, and said guiding rollers being so arranged that the pressure exerted by said guiding rollers upon said runway rail comprises a component opposed to the pressure exerted upon said runway rail by said running rollers, the axes of rotation of said guiding rollers and running rollers forming acute angles with each other.

2,818,966

TRAVELING BELT CONVEYOR WITH POCKET COLLECTOR FOR CONVEYING LIQUIDS AND SEMI-LIQUIDS WITHOUT SPILLAGE
Melville K. Gill, Clearwater, Fla., assignor to Tennessee Corporation, New York, N. Y., a corporation of New York

Application March 3, 1954, Serial No. 413,906
13 Claims. (Cl. 198-192)



1. An endless traveling belt conveyor assembly combination with a collecting pocket for conveying liquids and semi-liquids without spillage which comprises a main fixed frame, a movable sub-frame hinged to one end of said frame adjacent to a loading point and having a free end capable of moving through a vertical arc, a tail pulley mounted on said movable frame and capable of moving through said vertical arc with the said movable frame, adjusting means cooperatively associated with the free end of said movable frame to adjust it in a selected position in said vertical arc, a head pulley mounted at the other end of said main fixed frame adjacent to the discharge point, an endless belt passing around said tail pulley and said head pulley and above said main frame and said movable frame when conveying liquids and semi-liquids from the loading point to the discharge point, said belt at and adjacent to said tail pulley and loading point being provided with a collecting pocket capable of being swung in said vertical arc to adjust the shape and position of the belt and the bottom of said collecting pocket to receive and retain the full volume of influx of a load of liquid or semi-liquid without spillage, a series of longitudinally spaced belt troughing idler assemblies disposed from the loading point to the discharge point between said tail pulley and said head pulley for supporting and guiding the said endless belt above said main frame and said sub-frame, each of said belt troughing idler assemblies having a major axis in a vertical plane normal to a vertical plane of the longitudinal axis of the conveyor and being provided with multiple adjustments for angular, vertical horizontal and axial adjustments, each of said assemblies comprising a bottom roller, a pair of side rollers, a mounting member common to all said rollers, means cooperating with said mounting member and side rollers for angular adjustment of the side rollers relative to the axis of the bottom roller for shaping the contour of the belt to carry liquids and semi-liquids, and means cooperating with said first-named means for axial shifting of the side rollers to various positions of adjustment independently of their angular positions whereby the depth and cross section area of the trough of the belt and the collecting pocket can be properly dimensioned to suit the nature of liquid or semi-liquid loaded, the quantity of the liquid or semi-liquid material loaded, the rate of feed, the speed of the belt and other operating conditions prevailing at any given time and whereby liquids and semi-liquids can be loaded into the aforesaid collecting pocket and can be carried on the belt without spillage over the sides of the belt or over the loading end thereof.

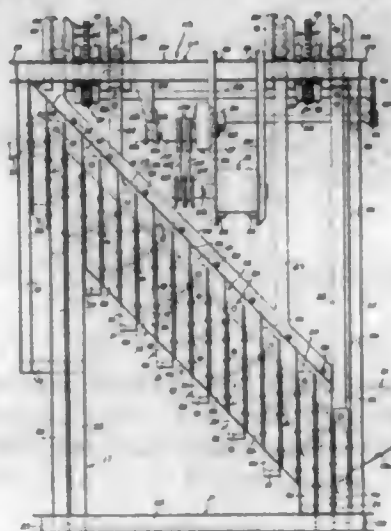
2,818,967

ELEVATING CONVEYOR

Aubrey B. Bogle, Highland Park, Mich.
Application August 17, 1953, Serial No. 374,740
4 Claims. (Cl. 198-219)

1. An elevating conveyor comprising an upright frame structure, a succession of multiple substantially vertical

parallel guideways disposed in an inclined path in said frame structure, a multiplicity of vertically reciprocable article carriers disposed in said guideways and arranged in said inclined path, said article carriers having forwardly and downwardly directed article supports thereon, said supports being movable into and out of alignment with one another in response to the reciprocation of said carriers in said guideways, a pair of connecting members,



each connecting member being operatively attached to alternate article carriers, and reciprocatory mechanism having a pair of oppositely-reciprocating elements operatively connected to said connecting members respectively and adapted to oscillate said connecting members simultaneously in opposite directions and reciprocate the two sets of said carriers connected thereto in said guideways simultaneously in opposite directions.

2,818,968

SPIRAL AND LIKE CONVEYORS

Robert M. Carrier, Jr., Louisville, Ky., assignor to Carrier Conveyor Corporation, Louisville, Ky., a corporation of Kentucky

Application May 21, 1954, Serial No. 431,566
8 Claims. (Cl. 198-220)



1. In combination, a support, a structure carried by said support for oscillation of said structure in a substantially horizontal plane about a generally vertical axis, said structure having a material supporting surface which is curved about such axis, and drive means connected to said structure to oscillate the latter through a predetermined angle about such axis irrespective of the load of material thereon and in a substantially horizontal plane at different speeds in opposite directions such that the material on said surface slips thereon in one direction for conveying in a curved path along said surface, said drive means comprising a drive shaft, and duplicate quick return crank link mechanisms driven by said shaft and connected to said structure at diametrically opposite points thereof, one of said mechanisms being inverted and turned end for end with respect to the other of said mechanisms, so that said mechanisms may both be driven by the same shaft.

2,818,969

PACKAGE CASE

Robert H. Klein, San Mateo, Calif.
Application October 13, 1955, Serial No. 540,260
1 Claim. (Cl. 206-41.2)

A one piece package case for repeated use in holding cigarette packages which, when emptied, are discarded,

comprising a container conforming generally to the size and shape of such a package, the said container having a top and a bottom, side walls lying in parallel but not opposed relationship, the side walls each having an opening extending the length of the container, the said openings in the side walls being arranged so the opening in one side wall is in opposed relation to the other side wall, a front wall and a rear wall arranged in parallel but not opposed relationship, the front wall having an

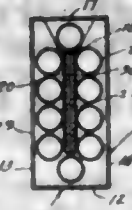


opening extending the length of the container and arranged in adjoining relationship to the opening in one of the side walls, and the rear wall having an opening extending the length of the container and arranged in adjoining relationship to the opening in the other side wall, the adjoining openings forming diagonally arranged corner openings adapted to receive a cigarette package, and the top and bottom having openings adjoining the corner openings for the withdrawal of cigarettes from the package.

2,818,970

ROTARY DISPOSABLE CIGARETTE BOX

John A. Pough, Bridgeport, Conn.
Application January 25, 1957, Serial No. 636,258
2 Claims. (Cl. 206-41.2)



1. A cigarette box comprising an upstanding container having a bottom, a pair of side walls rising from said bottom, an end wall connecting each of the adjacent ends of said side walls together, and a top closing the upper ends of said side and end walls, an upright support having a pair of upstanding flat surfaces arranged in parallel relation positioned in said container so that the flat surfaces are parallel to and spaced from the container side walls with the lower and upper ends thereof adjacent to and spaced from the bottom and top respectively of the container, said support being fixedly secured to the container end walls, an endless belt surrounding and freely movable about said support, and a plurality of tunnel members each adapted to receive a cigarette arranged exteriorly of and transversely of said belt and carried by said belt, there being an aperture in one of said end walls for withdrawing a cigarette from a tunnel member when in registry with said aperture, one of said container side walls having a slot for application therethrough of a hand-applied moving force to adjacent tunnel members to effect movement of said belt.

2,818,971

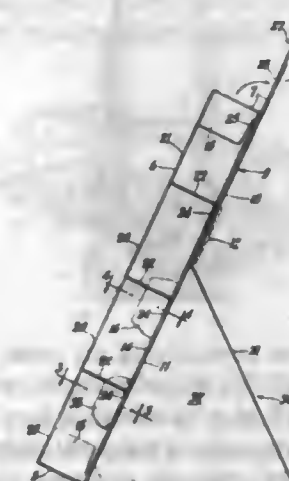
FOLDING PAPERBOARD DISPLAY CARTON

Orison W. Stone, Valley Cottage, N. Y., assignor to Continental Can Company, Inc., a corporation of New York

Application December 2, 1955, Serial No. 550,604
3 Claims. (Cl. 206-45.25)

3. A folding paperboard display carton of generally rectangular form having a front panel, one-piece top and

bottom panels formed by integral extensions of said front panel, a back panel formed by integral extensions of said top and bottom panels, said back panel extensions overlapped and secured together intermediate the top and bottom of the carton, one-piece side panels formed by

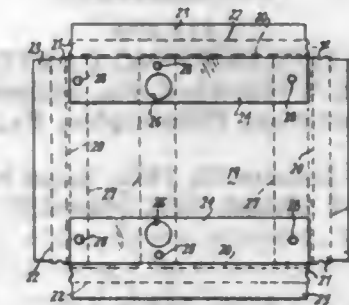


integral extensions of said front panel and terminating in tuck flaps at the back of the carton, the back panel extension from said top panel projecting beyond the point where it is secured to the other back panel extension to form an easel.

2,818,972

PALLET AND SKID REINFORCEMENT

Paul E. Claus, Kirkwood, Mo., assignor, by mesne assignments, to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application July 27, 1953, Serial No. 370,403
1 Claim. (Cl. 206-46)



In a shipping package comprising a paperboard container having an article therein, the container comprising connected together upright side walls and a bottom closure panel secured to the side walls, and an interior, article engaging skid formed of a plurality of relatively narrow slat members, each of the slats being spaced apart and in contacting relationship with adjacent interior portions of the bottom panel, supporting members comprised of spaced apart runners in contacting relationship with adjacent exterior portions of the panel and at substantially right angular overlapping relationships with portions of the slats and with portions of the bottom panel fixed between the overlapping portions of the slats and the supporting member, there being an opening in at least two slats, the openings being directly over the overlapping portions of the slats and the supporting members thus providing closed bottoms for the openings, at least two legs of the article having the ends thereof in the said openings so as to prevent lateral movement of the article in and relative to the container, and means securing the slats and supporting members to the bottom panel.

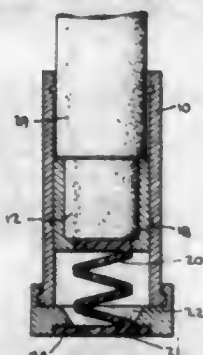
2,818,973

COSMETIC CONTAINERS

Santy M. Croce, Hauppauge, and John W. Solomon, New York, N. Y., assignors to Coty, Inc., New York, N. Y., a corporation of Delaware

Application June 3, 1955, Serial No. 513,138

2 Claims. (Cl. 206—56)



2. A cosmetic case comprising an outer cylinder, a follower holder adapted for simultaneous rotative and axial movement in said cylinder to advance or retract a stick of cosmetic substance therein, a base rotatably connected to the bottom end of said cylinder, an extensible element connected at the top end thereof to said holder and at the bottom end thereof to said base, said extensible element comprising a folded resilient plastic member having a connected series of flat, folded plate sections each normally overlying each other whereby the resilience of the material thereof forms natural hinges between the folded plate sections, said cylinder being formed with an internal, spiral groove, a projection on said holder engaging said groove, the top plate section of said series of sections being planar and dovetailed into the bottom of said holder, and the bottom plate section thereof being likewise planar and dovetailed into said rotatable base so as to be movable therewith, and mutually engaging flanges respectively on the top of said base and on the bottom of said cylinder, said cylinder and said base being formed of resilient plastic material whereby said flanges may be snap-fitted to each other.

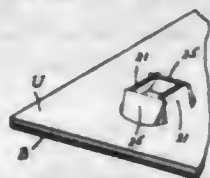
2,818,974

RAYON SHIPPING CARTON

James E. Talbot, Wynnewood, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application January 20, 1954, Serial No. 405,157

7 Claims. (Cl. 206—65)



1. A rigid laterally stiff tray for yarn package shipping containers comprising two layers of corrugated cardboard adhesively secured to each other, said cardboard layers having continuous unbroken edges, a plurality of interlocking sockets for yarn package mandrels in the layers, said sockets formed by two tongues in the lower layer extending through a registering aperture in the upper layer and interlocked with two tongues integrally and bendably formed with the upper layer at right angles to the protruding tongues on the bottom layer.

2,818,975

PICKLE SORTING MACHINE

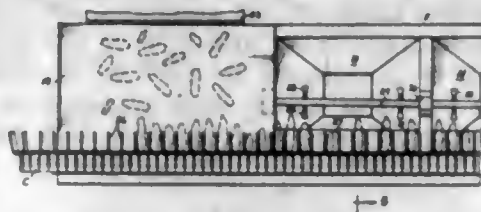
Earl J. Van Holten, Wauwatosa, Wis., assignor to J. G. Van Holten & Son, Inc., West Allis, Wis., a corporation of Wisconsin

Application January 24, 1955, Serial No. 483,558

6 Claims. (Cl. 209—91)

1. In a machine for sorting pickles into different length sizes, the combination of a frame, a lengthwise extending

rotary shaft, a plurality of sorting stations through which said shaft extends, a pickle knocker on said shaft at each station, and means for feeding pickles past said sorting stations in individual pockets of varying length so that



the free end of a pickle projects from its pocket in a sorting station corresponding to the desired sorting length and in the path of the knocker at this station acting on the free end of the pickle to remove the pickle from said pocket.

2,818,976

USE OF NAPHTHENIC AMINES IN PHOSPHATE FLOTATION

Thomas H. Lentz, St. Louis Park, and Harold Wittcoff, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware.

No Drawing. Application November 18, 1954

Serial No. 469,836

2 Claims. (Cl. 209—166)

1. A process for the treatment of phosphate ore for the separation of phosphate minerals from pulp mixtures containing the same together with silica and other impurities, which comprises adding to the pulp a small amount of a naphthenic amine, subjecting the mixture to a froth flotation operation, separating silica and other impurities as froth and recovering the phosphate minerals in the underflow.

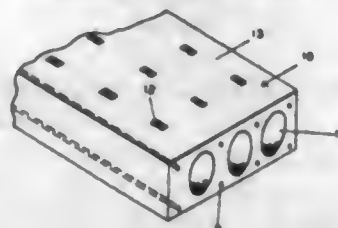
2,818,977

FILTER BOTTOMS

Chester E. Crist, Columbus, Ohio, assignor to Robert F. McGivern, Columbus, Ohio

Application April 8, 1955, Serial No. 500,201

2 Claims. (Cl. 210—291)



1. A filter bottom comprising a filter bed supporting member having a conduit passageway formed therein and provided with an effluent and influent port, and a plurality of nozzle openings at spaced intervals in the top wall of said member and communicating with said conduit passageway, each of the nozzle openings being in the form of a vertical nozzle port which communicates at its upper end with an elongated recess formed in and below the supporting surface of said member, said elongated recess being of substantially greater length than the corresponding dimension of the nozzle port with the nozzle port located intermediate the length thereof and being of a width less than the diameter of the large gravel which is adapted to be supported on said supporting surface to prevent the gravel from entering the recess and thereby seating on and sealing the upper end of said nozzle port.

2,818,978

BARREL RACK

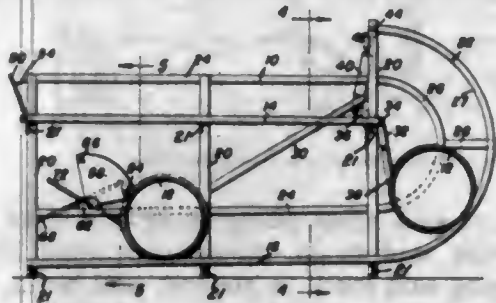
Jack C. Post, Medina, Ohio

Application March 1, 1954, Serial No. 413,011

3 Claims. (Cl. 211—49)

1. A barrel rack comprising a framework forming a pair of vertically spaced trackways being elongated and

provided with guide rails for engaging a barrel, a U-shaped frame interconnecting adjacent ends of said trackways and forming a continuation thereof, said trackways being slightly inclined to facilitate rolling movement of the barrels, means for lowering the barrels from the upper trackway to the lower trackway, and means for sequentially discharging a single barrel from the lower trackway, said discharge means including a pair of right angular plates pivotally mounted at one corner to the guide rails adjacent the lowermost end of the lower trackway, a pair of rods interconnecting said plates and secured to the re-



mote corners thereof, a handle for pivoting the plates about a horizontal axis, and spring means returning said plates to a normal position against the upper surface of the guide rails, the forward rod normally lying in the path of movement of a barrel and the rearward rod normally spaced above the path of movement, said rearward rod moving downwardly into the path of movement of the next adjacent barrel and the forward rod raising out of the path of movement of the forwardmost barrel when the plates are pivoted rearwardly thereby permitting the discharge of a single barrel.

2,818,979

DEVICE FOR HOLDING HYPODERMIC NEEDLES

Jay Rose, New York, N. Y.

Application January 19, 1954, Serial No. 404,903

5 Claims. (Cl. 211-60)



1. A device for holding hypodermic needles in a vertical position, in which the needle has a hub with an opening therein, oppositely-disposed flat side faces and a pointed tubular end extending from the hub, comprising parallel longitudinally-running opposing side members spaced to receive and bear against the oppositely-disposed flat side faces of the needle hub so as to prevent the turning of the needle when disposed therebetween, bottom restricting portions running along the lower parts of the side members adjacent the pointed tubular end of the needle to support the hubs of the needles, and providing spaces therebetween through which the pointed tubular ends of the needles may extend, whereby the side members hold the needles against rotation when the hub openings are being cleaned with a rotary brush tool.

2,818,980

WIRE TRAY FOR DRAINING PARTS OF MILKING MACHINES

Bernard H. Losching, Janesville, Wis., assignor to

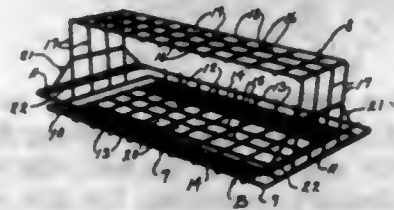
The Schlueter Co., Janesville, Wis.

Application April 27, 1954, Serial No. 425,824

1 Claim. (Cl. 211-126)

A wire basket for the draining, drying and storing of articles comprising a bottom tray including a lower rec-

tangular frame rim, an upper rectangular frame rim extending beyond the ends of the lower frame rim, groups of longitudinally extending closely arranged side wires and an intermediate group of longitudinally extending wires spaced a greater distance apart than the wires of the side groups, cross U-shaped brace wires connecting the longitudinal wires and extending across the lower frame and having upturned legs secured to the upper and lower frame rims, said cross brace wires defining in connection with the intermediate group of wires a number of



rectangular cells, an elevated rack extending longitudinally of the tray and constituting a handle and including inverted U-shaped longitudinally extending wires with the legs thereof secured to the lower frame rim, the longitudinal wires of the rack being spaced the same distance apart as the intermediate group of wires of the tray and being spaced within the side group of wires, and cross wires connecting the wires of the rack defining in connection therewith a number of rectangular cells with the cells of the rack vertically aligned with the cells of the tray for receiving teat cups.

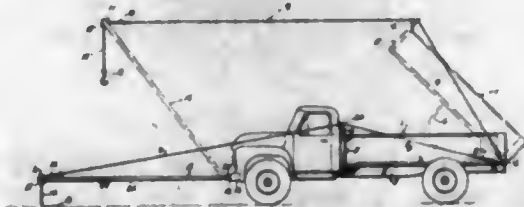
2,818,981

LIFTING BOOM AND MEANS FOR OPERATIVE ATTACHMENT TO A VEHICLE

Ray H. Helmbigner, Ione, Oreg.

Application June 20, 1955, Serial No. 516,705

1 Claim. (Cl. 212-8)

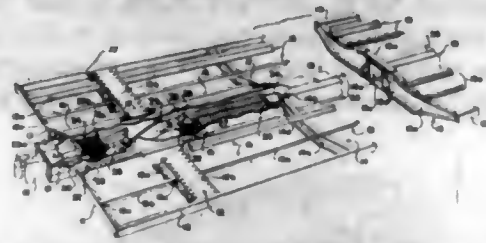


An attachment for a truck having a driver's cab, a forward bumper and a power actuated dump body, comprising in combination a pair of masts removably secured to the forward corners of the dump body, a main lifting boom swingably attached at its rear end to said bumper and extending forwardly therefrom, an extension boom adjustably attached to the forward end of the main lifting boom, a pair of cables attached to the forward end of the main lifting boom and extending rearwardly over and supported by said masts, the rearmost ends of said cables being attached to the bottom rear corners of the dump body, whereby upward and rearward tilting of the dump body will impart a corresponding upward swing to the boom, each of said masts extending upwardly and outwardly from said forward corners of the dump body to a height where the distance between their top ends is greater than the width of the cab whereby said cables will clear the cab throughout their operative range, the angle of upward and outward extension of each mast being such that the downward and inward pull of its respective cable from the top of the mast to its point of attachment to said boom is offset by the downward and outward pull of the cable from the top of the mast to its point of attachment to said bottom rear corners of the dump body, whereby said masts are under compression at all times and thereby stabilized against deflection.

2,818,982

CUSHION UNDERFRAMES

Frank L. McCafferty and Albert H. Johnson, Butler, Pa., assignors to Waugh Equipment Company, New York, N. Y., a corporation of Maine
Application September 30, 1954, Serial No. 459,424
6 Claims. (Cl. 213-8)

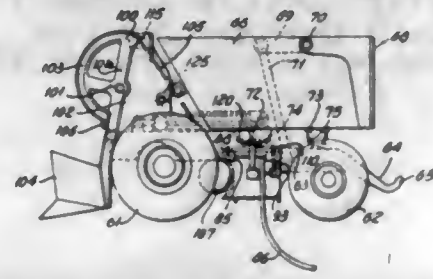


1. In a cushion underframe for railway cars, the combination of end sills, side sills connecting the end sills, a pair of bolsters connecting the side sills adjacent the end sills, cross bearers connecting the side sills between the bolsters, the bolsters and cross bearers having aligned openings, a rigid draft and buffing column extending lengthwise of the underframe through said openings and resting on parts of the bolsters and cross bearers, and a plurality of cross ties each having its outer end secured to one of the side sills and its inner end resting upon the upper side of the column, the column being movable endwise relatively to the bolsters, cross bearers, and cross ties.

2,818,983

MOBILE MATERIAL HANDLING MACHINE

Letterio Freni, Montevecchio, Cagliari, Italy, assignor to Atlas Copco Aktiebolag, Nacka, Sweden, a corporation of Sweden
Application September 1, 1955, Serial No. 531,930
5 Claims. (Cl. 214-78)



3. A material handling machine comprising a mobile frame, a scoop, a supporting arm structure carrying said scoop and pivotally mounted at one end of said frame for swinging on a horizontal axis from a low digging position through substantially 180° to a raised discharge position of the scoop, a power operated reel in said frame, a flexible member connecting said reel and said arm structure and capable of being wound on or off said reel, respectively, a guide structure for said flexible member provided on said arm structure and projecting from the arm structure on the side of the arm structure facing the frame when the scoop and arm structure is in raised position, a material container carried by the frame in a forward position for receiving material from the scoop in the discharge position of the scoop and movable along said frame from said forward position to a rearward discharge position and having a discharge opening at the rear end of said container, a wall covering said discharge opening, means for moving the container from said forward position to said rearward position, and means for moving said wall to uncover the opening upon movement of said container into said rearward position.

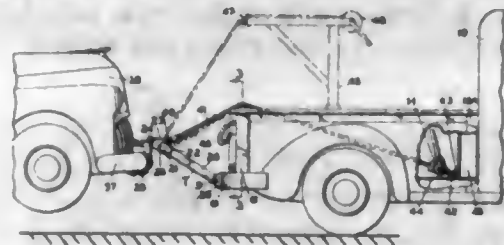
2,818,984

HOIST AND TOWING EQUIPMENT

Creon H. Nims, Portland, Ore.
Application April 2, 1956, Serial No. 575,546
3 Claims. (Cl. 214-86)

1. A hoisting and towing attachment for a pickup truck of the type having vertically opening stake pockets formed

in the rear end portions of the sides thereof and a horizontally rear bumper cross member secured thereto, comprising, a pair of bars, means pivotally and detachably securing the forward ends of said bars to said cross member in laterally spaced relation, means connecting the rear ends of said bars, means carried by said last-named means for connection to a towed vehicle, a beam extending transversely of the rear end of said truck, means on op-

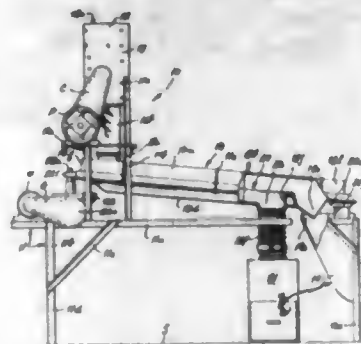


posite ends of said beam engaging in said stake pockets for positioning said beam, means depending from said beam engaging said truck to support said beam, a roller journaled medially on said beam, a flexible connector having one end secured to said means connecting said bars, said connector extending forwardly and being trained over said roller, and means on said truck connected to the forward end of said flexible connector for pulling said connector and raising said bars.

2,818,985

APPARATUS FOR RECLAIMING CONTENTS OF FILLED ENVELOPE PACKAGES

Hans O. Irmscher, East Hempstead, N. Y., assignor to National Tea Packing Company, Inc., a corporation of New York
Application January 6, 1951, Serial No. 204,762
5 Claims. (Cl. 214-305)



1. In a spoilage reclaiming apparatus of the character described, an impeller for rotating at high speed on a horizontal axis, a casing surrounding said impeller in close proximity thereto and having an upper chute inlet and a lower passageway outlet, means for rotating said impeller at high speed to project filled envelope articles received through said upper chute inlet in a downwardly directional path into said passageway outlet, said passageway outlet being formed with an impact wall extending in a substantially vertical plane in said path below the level of the path of rotation of said impeller to serve as a target surface area against which said articles collide for bursting the envelopes thereof to free the filling.

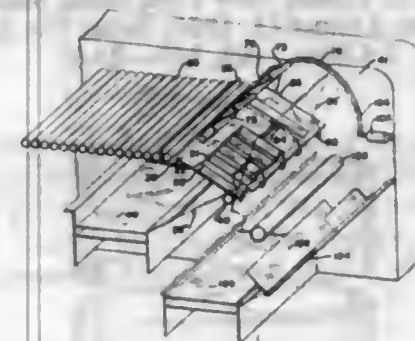
2,818,986

BREAD DEPANNER

Hiram E. Temple, York, Pa., assignor, by mesne assignments, to Capitol Products Corporation, a corporation of Pennsylvania
Application July 14, 1954, Serial No. 443,250
8 Claims. (Cl. 214-308)

1. In a device for removing bread loaves from baking pans, a dumping structure having a table for supporting a row of pan straps, a fixed pan stop on said table adjacent one side thereof, a pusher member carried by said table

on the opposite side thereof, means for moving said pusher member toward said pan stop for pushing the row of pan straps solidly thereagainst to locate the pan straps in predetermined position on said table, means for rotating said dumping structure for at least partially inverting said positioned row of pan straps, and pan strap arresting means supported by said dumping structure for rotation therewith as said dumping structure rotates to said position for at least partially inverting said positioned row of pan straps, said pan strap arresting means including a shaft adjacent the rearward end of said table supported at its ends on the ends of said dumping struc-

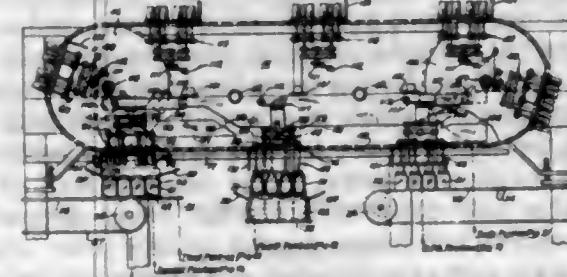


ture in parallel spaced relation with respect to the pan strap supporting surface of said table to provide therebetween an opening through which pan straps are delivered to said table, and including interceptor bars mounted on said shaft and extending forwardly therefrom toward the forward end of said table, said interceptor bars being laterally spaced with respect to each other to receive and engage top portions of said pan straps between adjacent loaves of bread upon said inversion of said dumping structure to arrest the pan straps while permitting the loaves of bread to drop from said pan straps between said interceptor bars.

2,818,987

JAR HANDLING MACHINE

Robert F. Krupp, San Lorenzo, and Robert C. Oliver, Hayward, Calif., assignors to Gerber Products Company, Fremont, Mich., a corporation of Michigan
Application April 11, 1955, Serial No. 500,546
18 Claims. (Cl. 214-309)

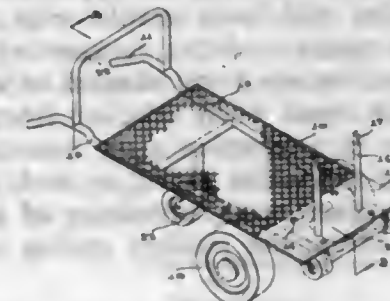


1. Container handling apparatus comprising a pallet, said pallet having at least two parallel plates, a resilient, container-engaging member depending from said pallet, first means connected to one of said plates extending through said container-engaging member and secured to the end of said container-engaging member remote from said plates, second means connected to another of said plates and engaging the portion of said container-engaging member remote from the portion engaged by said first means, third means for moving said plates relative to each other to deform said resilient container-engaging member to grip and disengage a container positioned adjacent said container-engaging member, and fourth means for moving said pallet in a direction substantially transverse to the direction of movement of said plates, said third means being actuated by movement of said pallet.

2,818,988

MASONRY BLOCK CART

Richard W. Dunkin, Anderson, Ind.
Application December 17, 1954, Serial No. 475,898
2 Claims. (Cl. 214-384)

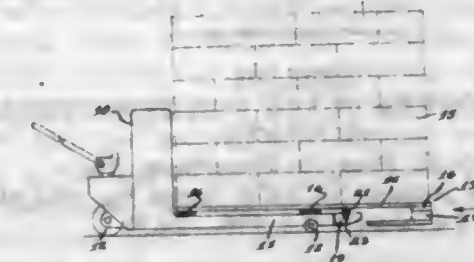


1. In a hand truck for celled masonry blocks having a platform supported inwardly of one end by a pair of wheels, the improvement consisting in providing a horizontally disposed plate in the upper face of said platform intermediate said wheels and said one end, said plate having at least two longitudinally extending rows of spaced apertures, a socket on the under face of said plate and in registry with each of said apertures, a plurality of tines projecting perpendicularly with respect to said platform and having one end of each received in selected ones of said sockets for engagement by the other end in the openings in celled masonry blocks, and means on said one end of said platform for rollably supporting said one end thereof.

2,818,989

PALLET TRUCK

Kenneth O. Burke, San Leandro, Calif., assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application July 25, 1956, Serial No. 600,050
3 Claims. (Cl. 214-621)



1. In a pallet lifting and supporting truck comprising a liftable frame, a plurality of horizontal parallel spaced tines projecting forwardly from the frame, said tines designed for supporting engagement with a medial cross-member of a pallet, said member extending in a direction generally transverse to the length of the tines at a point near the free end of the latter end at substantially the center of gravity of the pallet; the improvement which comprises a swingable load stabilizing finger pivoted to one of the tines at a point forwardly of the cross-member and engageable with the pallet and a counterbalance operable normally to position the finger in supporting contact with the pallet.

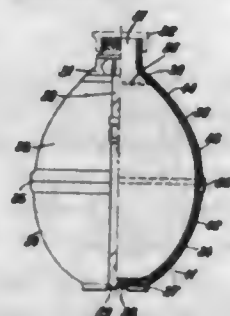
2,818,990

CASE-BOTTLE WITH AN INSULATING COVERING

Richard Sommerfeld, Berlin, Germany
Application April 9, 1954, Serial No. 422,204
Claims priority, application Germany April 11, 1953
2 Claims. (Cl. 215-13)

1. A canteen comprising, in combination, a bottle having a bottle-neck, an upper portion merging into said bottle-neck and widening away from said bottle-neck, and a lower portion; a rigid upper annular cover means surrounding said upper portion of said bottle and having a smaller opening for said bottle-neck and a lower annular edge portion defining a wider opening from which

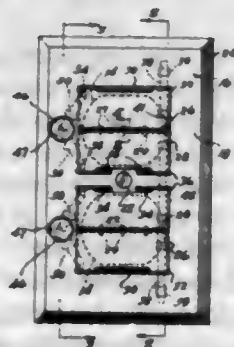
said lower portion of said bottle projects so that said upper cover means is held by said upper portion against movement away from said bottle-neck; a detachable rigid lower cup-shaped cover means enveloping said lower portion of said bottle and having an upper annular edge portion overlapping said lower annular edge portion of said upper cover means in sliding engagement, said cup-shaped lower cover means being adapted to serve as an eating or drinking vessel when detached from said bottle by movement in a direction away from said bottle neck with said edge portions sliding on each other, said upper and lower cover means consisting of a synthetic plastic material; an annular resilient sealing and fasten-



ing means having an upper sealing portion tightly engaging said bottle neck in sealing engagement, and a lower widening sealing portion tightly engaging the outer surface of said upper cover means along an annular sealing portion adjacent said smaller opening for sealing the same and for holding said upper cover means against pressure toward said bottle neck; and strap means including a portion passing about said upper sealing portion of said annular sealing means, and another portion passing about said upper and lower cover means, said other portion including two strap parts and means for detachably connecting said two strap parts to each other so as to permit detachment of said cup-shaped lower cover means.

2,818,991 SAFETY COVER PLATE FOR ELECTRICAL OUTLETS

Alvin G. Hess, St. Petersburg, Fla.
Application August 24, 1956, Serial No. 606,063
3 Claims. (Cl. 220-24.3)

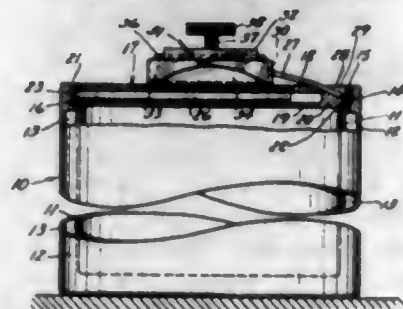


1. A safety cover plate for a duplex electrical receptacle comprising: a plate element having a pair of like plug-receiving openings; a pair of cover flaps overlying each opening, the flaps of each pair being hinged to the plate element at opposite sides of the associated opening for swinging movement outwardly of the plate element from a normal position closing the opening, the flaps of each pair having side portions projecting laterally substantial distances beyond the respective sides of the associated opening to overlie the plate element along opposite sides of the opening, the plate element having a plurality of apertures at one side of each opening; a button mounted adjacent each opening in one of the apertures for depression therein by a user; a pair of levers extending from each button, said levers being fulcrumed intermediate their ends on the underside of the plate element wholly outside the area of the adjacent opening,

and being engaged at one end by the associated button so as to be rocked responsive to depression of the button, said levers including fingers at their other ends projecting through others of said apertures into engagement with one of the side portions of the respective flaps; and resilient, yielding means carried by the plate element in engagement with the respective flaps and tensioned to bias the flaps to said normal position thereof.

2,818,992 RELEASEABLE COVER AND SEAL FOR CONTAINERS

Giles C. Ekola, New York Mills, Minn.
Application August 15, 1955, Serial No. 528,501
1 Claim. (Cl. 220-24.5)



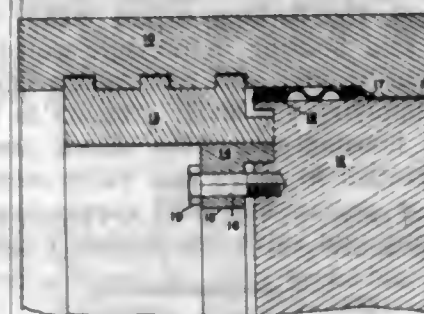
A container having a releasable cover and seal therefor comprising an open-topped container member; a cover having a top surface and rigid therewith a depending circumferential surface about the periphery of said top surface which adjoins the inner surface of said container member adjacent the open top thereof in inwardly disposed adjacent relationship at a closure position of said cover; means limiting movement of said cover from its closure position into said container member; a pair of laterally spaced longitudinally extended handle members rigid with the top surface of said cover and projecting outwardly thereof at the closure position thereof, said handle members defining a longitudinally extended space therebetween; a closed fluid system comprising a longitudinally extended yieldable resilient tube member confined in said space and defining an expansible and contractible fluid chamber, a circumferentially extending expansible and contractible sealing tube of generally flat construction and which normally maintains a flat contracted position being carried by said cover about said depending circumferential surface and adapted to be disposed between said depending surface and the inner surface of said container member at the closure position of said cover, and a connecting conduit between said tube member and said sealing tube; said cover having an indentation formed in the top surface thereof which is generally aligned with said tube member and extends to said depending surface of said cover to provide access to the adjacent wall of said sealing tube; said connecting conduit being disposed in said indentation; and means carried by said cover and engageable with said tube member for expanding and contracting the fluid chamber defined thereby; whereby said sealing tube is in expanded sealing relationship between the inner surface of said container member and the depending circumferential surface of said cover when said fluid chamber is contracted and said sealing tube is in contracted releasable relationship with the inner surface of said container member when said fluid chamber is expanded.

2,818,993 PRESSURE VESSEL CLOSURE

Harold M. Alt, Dunkirk, N. Y., assignor to Alco Products, Incorporated, New York, N. Y., a corporation of New York
Application November 28, 1955, Serial No. 549,231
1 Claim. (Cl. 220-46)

In a pressure vessel closure of the class which has a removable cover disposed within a cylindrical shell and

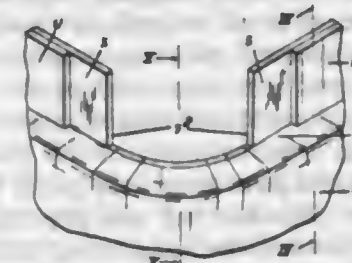
held against hydrostatic pressure by a shear ring, the cover and shell forming an annular joint therebetween, a sealing device for such joint comprising a shoulder in the shell opposite the cover and inward of the shear ring and an annular bellows seal extending axially of the



shell, the inner edge of the seal being welded to the shell shoulder and the outer edge of the seal being welded to the cover, the arrangement of the seal being such that it expands axially to compensate for any differential in thermal expansion between the shell and cover.

2,818,994 METHOD OF MAKING CORNERS OF SHEET METAL ARTICLES AND ARTICLE PRO- DUCED THEREBY

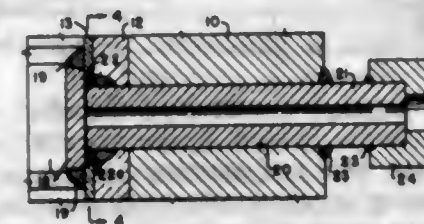
Arthur Greig and William Price, Perivale, Greenford, England, assignors to The Hoover Company, North Canton, Ohio, a corporation of Ohio
Application May 7, 1952, Serial No. 286,552
Claims priority, application Great Britain May 9, 1951
7 Claims. (Cl. 220-62)



1. A method of forming an offset corner in a sheet of metal which comprises: working the sheet to form a shoulder and an offset edge extending therefrom substantially parallel to the plane of said sheet, removing a portion of said offset edge to form offset edge portions with a gap therebetween, working the metal to form a corner in said shoulder at said gap and position the separated offset edge portions substantially normal to each other, and closing said gap by a gusset to form a continuation of the offset edge portions around said corner.

2,818,995 VESSEL WITH PROTECTIVE METAL LINING

Howard Q. Duguld, Darien, Conn., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application December 13, 1954, Serial No. 474,724
4 Claims. (Cl. 220-63)

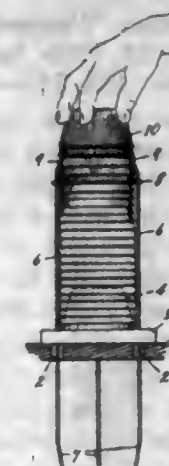


1. A metallic vessel having a steel outer shell; a protective metal lining disposed within the shell with one face thereof adjacent the inner surface of the shell, said lining being formed of several pieces and laid with the margins thereof spaced apart to provide an intervening

slot; means comprising welds of protective metal within said slot between the steel shell and said margins of the lining connecting the lining to the outer shell, said welds covering completely the surface of the shell between said margins; a strip of protective metal disposed against the other face of the lining and spanning said slot; and continuous welds of protective metal joining said strip to the said other face of the lining, said shell and the welds within said slot having a telltale hole extending there-through and through said welds and communicating directly with the space immediately beneath said strip.

2,818,996 DISPENSER FOR STACKED DISHES

Virgil L. Glither, Sturgis, Mich., assignor to Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.
Application April 9, 1956, Serial No. 576,864
4 Claims. (Cl. 221-46)



4. A dispenser for stacked paper dishes having yieldable walls including a support member having a plurality of spaced holes therethrough, a holder comprising a base plate adapted to be positioned on said support member and having a plurality of holes therethrough aligned with the holes in said support member, laterally spaced uprights vertically reciprocable in said holes in said base plate and said support and acting to laterally hold said base plate on said support, said uprights having portions at their upper ends supportedly engaging the upper of a stack of dishes arranged within the holder while permitting upward withdrawal thereof from between the uprights.

2,818,997 DOMED TOP DISPENSING CAN

John Henschert, River Forest, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application December 16, 1954, Serial No. 475,725
1 Claim. (Cl. 222-143)



A dispensing container comprising a body portion having an inwardly dome-shaped bottom end, said end being provided with a downwardly opening continuous circular groove concentric to the center of said bottom, an outwardly dome-shaped top end terminating in a man-

ually controllable dispensing device, said top end having an upstanding friction seat disposed below and outwardly from said manually controllable dispensing device and a stacking and dispensing device shielding cap having a depending skirt dimensioned so as to frictionally engage said seat and project upwardly about the dispensing device on said top end, said cap having a raised continuous circular rib at the periphery of its upper end extremity, said rib being dimensioned and positioned so as to be engageable in the groove in the bottom end of a container stacked thereon, said upper end extremity of said cap being disposed above and out of contact with said dispensing device.

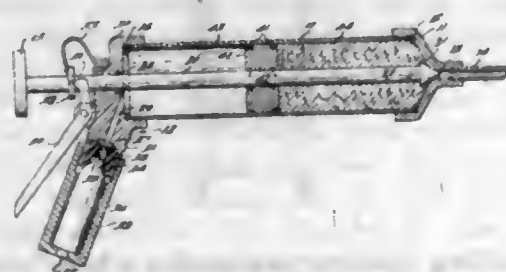
2,818,998
DISPENSER INCORPORATING AIR-EXHAUST MEANS FOR USE WITH SEMI-FLUID MATERIALS

James T. Jones, Wentzville, Mo.
Application January 26, 1956, Serial No. 561,705
7 Claims. (Cl. 222-179)



1. In a dispenser for fluids of such stiff consistency as to flow only under substantial pressure, such dispenser incorporating a vessel and a base therefor through which such substances are dispensed, an air-exhaust charging vent comprising a passage through the base of such vessel and communicating with the atmosphere, and a substantially upright tube erected upon the base of such vessel in communication with said passage and extending for the greater part of the depth of such vessel, said tube having a closed upper end and a plurality of substantially horizontal lateral ports spaced vertically from each other whereby, on forcing a supply of such stiff fluid into the vessel's top, air is exhausted through the tube and the vessel base without any discharge of such fluid there-through.

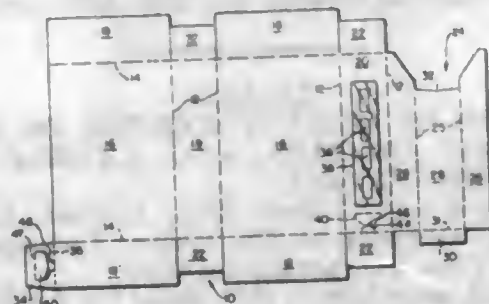
2,818,999
GAS-OPERATED CAULKING GUN
Paul H. Miller, Berkley, Mich.
Application May 17, 1954, Serial No. 430,126
4 Claims. (Cl. 222-323)



4. A dispensing gun having a hollow housing, removable discharge nozzle means attached to the forward end of said housing, said nozzle having a discharge passageway therein, handle means attached to the forward end

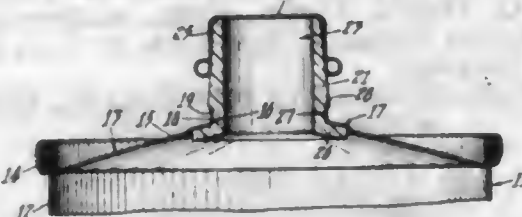
of said housing, rod means extending longitudinally through said housing and terminating at its forward end in valve means adapted to seat against the interior surface of said nozzle and close said discharge passageway, the rearward end of said rod projecting through said handle means, free-floating piston means mounted on said rod in said housing in pressure-sealed relationship with said housing and said rod, means carried by said handle for supplying gas under pressure to the rearward end of said housing, triggering means associated with said rod operative to move said valve means and open said discharge passageway, and means associated with said rod urging said valve into normally closed position.

2,819,000
DISPENSING CARTON
Sidney A. Boguss and Jacob Schultz, Malden, Mass.
Application February 28, 1956, Serial No. 568,385
7 Claims. (Cl. 222-454)



1. A dispensing carton comprising a paperboard blank folded on score lines to rectangular box form and adhesively secured together at its ends to retain the blank in such form, a paperboard partition providing a measuring chamber within and along one wall of the box, said wall and a panel of said partition being in opposed spaced relation and forming opposite walls of the measuring chamber and a substantial portion of said panel being cut away at the top end of the chamber and providing a relatively large opening between the measuring chamber and the remaining interior of the box, and means including a movable closure member at the bottom end of said chamber adapted in open position to dispense the contents from the chamber and in closed position to retain the contents in the chamber.

2,819,001
CONTAINER WITH PLASTIC NOZZLE AND METHOD OF ATTACHING NOZZLE
Ralph K. Pottle, Georgetown, Conn., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application July 23, 1954, Serial No. 445,282
16 Claims. (Cl. 222-566)



1. A container for corrosive liquids, comprising a sheet metal body having a sheet metal end member seamed thereto, said end member having an inclined surface terminating in an upright collar surrounding a dispensing mouth and terminating in an upstanding peripheral raw edge, a tubular deformable nozzle of resilient plastic material disposed within said mouth, said nozzle having a peripheral channel for snugly receiving said end member collar therein, said channel terminating at its upper end in an annular shoulder engaging the raw edge of the collar, said deformable plastic nozzle terminating

at its inner end in a laterally extending axially deflected peripheral flange disposed in clamping engagement with the inner inclined surface of said end member to hold the upstanding raw edge of its said collar in clamped engagement with said channel shoulder, and a removable cap having a depending skirt thereon for closing the outer end of said nozzle, whereby the aforesaid clamped engagement of said end member with the nozzle provides sufficient torque resistance therebetween to hold the same against relative rotation during manipulation of said cap.

2,819,002
COMBINATION COAT AND TROUSER HANGER
Howard Lawrence Fitch, Des Moines, Iowa
Application March 31, 1955, Serial No. 498,275
4 Claims. (Cl. 223-88)



1. In combination, a coat hanger having two rod bar portions each extending downwardly and outwardly in opposite directions, a wide base portion hooked over each of said two rod bar portions and extending in a vertical plane downwardly therefrom, and two spaced apart upwardly extending wide fingers on each of said base portions; said upwardly extending fingers being in spaced vertical planes directly below the area of their said base portion that is hooked over one of said rod bar portions and having their upper ends terminating in a horizontal plane below the lowest horizontal plane of that part of their base portion that is hooked over one of said rod bar portions whereby the unit will not cant when weight is placed on said fingers.

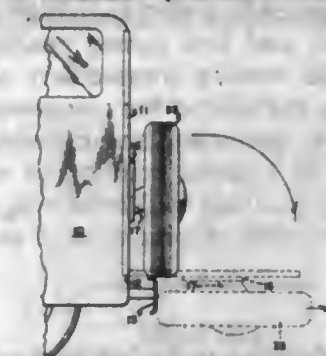
2,819,003
ADJUSTABLE GARMENT HANGER
Charles F. Carrico, Atlantic City, N. J.
Application April 5, 1957, Serial No. 650,948
1 Claim. (Cl. 223-88)



A garment hanger comprising a body including a plate having in its underside a plurality of crossing grooves, said plate having a center opening at the point of crossing of the grooves; a suspension hook including a shank loosely positioned through the center opening and a cross head on the shank engageable in any of said grooves responsive to rotation of the suspension hook within the plate and axial movement of the suspension hook following said rotation in a direction to engage the cross head in the selected groove; an enlargement formed upon the shank of the suspension hook upwardly from

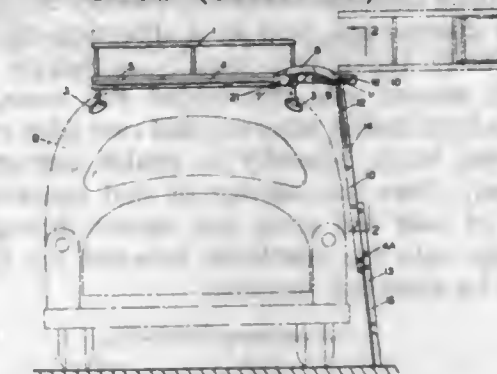
the plate; and a compression, coil spring extended about the shank and held under compression between the plate and enlargement for resiliently, yieldably biasing the cross head into the selected groove of the plate.

2,819,004
OUTSIDE SPARE TIRE MOUNTING FOR STATION WAGONS AND TRUCKS
Stanley S. Kubik and John Kubik, Los Angeles, Calif.
Application June 13, 1955, Serial No. 515,094
5 Claims. (Cl. 224-42.21)



1. An outside spare tire mounting for vehicles of the type having a hinged tailgate and a rear bumper extending along the rear of the vehicle beneath the tailgate, said mounting comprising a substantially rectangular stationary plate attached to the outside of the tailgate, said plate having a pair of oppositely disposed parallel vertical tracks at the side edges thereof, a substantially rectangular bracket having three screwthreaded members projecting outwardly therefrom, said members being adapted to removably hold a spare tire, said bracket having a roller disposed adjacent each of the four corners thereof, said rollers being movably mounted in said track to permit movement of said bracket with respect to said plate, stop means disposed adjacent the top and bottom of at least one of said tracks to limit the movement of said bracket with respect to said plate, said bracket being so disposed that the spare tire held thereon has its top edge beneath the top edge of the tailgate and its bottom edge adjacent the top of the rear bumper, said spare tire adapted upon the lowering of the tailgate to pivot upon the rear bumper, moving said bracket toward the top of the tailgate to permit movement of the tailgate to horizontal position.

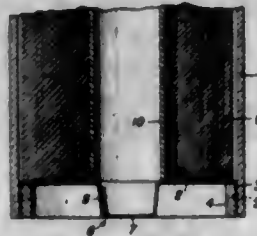
2,819,005
LUGGAGE CARRIERS
John F. Roberts, Portland, Oreg., assignor of one-half to Eric Ladd, Portland, Oreg.
Application October 5, 1953, Serial No. 384,059
1 Claim. (Cl. 228-48)



In combination with a luggage rack adapted for mounting on the top of a vehicle and having a horizontal rod mounted thereon to extend transversely of the vehicle with said rack having a transverse dimension less than that of the vehicle, an extensible access ladder for said rack, said ladder having side rails and rungs extending therebetween, a bearing mounted on said rod for axial sliding and pivotal movement thereon, an arm having one end

rigidly secured to said bearing and extending generally parallel to said rod, said ladder having an elongated longitudinal slot in the upper end portion of one of said side rails, a pivot mounted in the end of said arm opposite said bearing and having its axis perpendicular to the axis of said rod, said pivot engaging through said slot for sliding and pivotal movement therein, said bearing, said arm, and said pivot engaged in said arm and the slot in said ladder providing means whereby said ladder may be pivoted from a position parallel to said rod with the rungs vertical to a position with said side rails substantially upright the rungs extending perpendicularly to said rod, said ladder when in said first named position being slidable by moving said bearing transversely on said rod to position said ladder parallel to the transverse axis of said rod and coextensive therewith, and clamping means for fixing said bearing in a select position of adjustment on said rod and hence securing said ladder in a desired position of adjustment with respect to said rod.

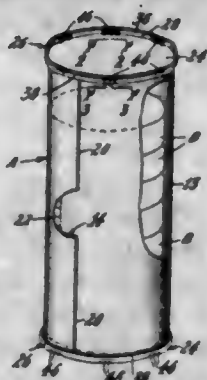
bottom end of the drum including a flat steel bottom member having a depending flange at its periphery, a fiber board collar disposed within the depending flange, fastening means for securing the collar to the body wall and



for clamping the flange of the bottom member therebetween, said steel bottom member having an integral depending center support of less width than the core of the contained body, the lower end of said support lying in the plane of the edges of the drum body.

2,819,006

COMPOSITE CONTAINER CONSTRUCTION
Donald G. Magill, Great Neck, N. Y., and Harold R. Vitense, Berwyn, Ill., assignors to American Can Company, New York, N. Y., a corporation of New Jersey
Application August 27, 1954, Serial No. 452,546
5 Claims. (Cl. 229-5.5)



1. A sealed container for packaging pressure-generating products, comprising a tubular fibrous body having a gas proof lining material on its interior surface and having a gas permeable raw edge at one end thereof, and a metal end member secured to said body, said end member having a peripheral countersink wall seated within an end of said body, marginal portions of said metal end member and said tubular fibrous body being interfolded in an end seam wherein the interior fibres of said tubular body are exposed at said raw edge thereof, peripherally spaced marginal portions of said metal end member embodied in said end seam being laterally offset and spaced outwardly from said body to provide a plurality of continuous open channels extending entirely through said end member countersink wall in a direction axially of said tubular body and thence radially outwardly and axially inwardly around said interfolded end seam, said open channels terminating adjacent said raw edge of said tubular fibrous body, whereby to enable entrapped gas to pass freely from the interior of said container into the interior of said end seam and thence through said raw body edge into the interstices between the fibres of the body to be absorbed thereby.

2,819,007

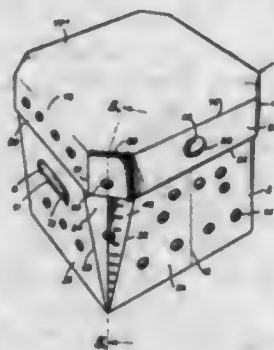
FIBER DRUM WITH METAL BOTTOM END HAVING CENTER SUPPORT
Harold A. Bergstrom, Van Wert, Ohio, assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application February 17, 1955, Serial No. 488,867
4 Claims. (Cl. 229-5.5)

1. A fiber drum for a hollow cored body, comprising a convolutely wound fiber body, a heading for closing the

2,819,008

SHIPPING CONTAINER

Roger L. White and Richard C. Miller, Lawrence, Kans., assignors to The Lawrence Paper Company, Lawrence, Kans., a corporation of Kansas
Application September 30, 1955, Serial No. 537,701
6 Claims. (Cl. 229-23)

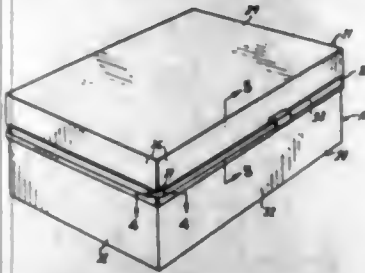


1. A container for facing and packing of fruit for shipment comprising, a tubular liner member having a plurality of connected side walls wherein opposed side walls have parallel upper portions and inwardly and downwardly inclined lower portions, a score line defining the juncture of the upper and lower portions, the lower ends of the lower portion defining a bottom opening and the upper ends of the upper portions of the side walls defining a top opening, the periphery of the top opening being substantially greater than the bottom opening, corner panels connecting the adjacent side walls, said corner panels each being defined by pairs of score lines diverging from the lower ends of the liner member to the score lines defining the juncture of the upper and lower portions of the adjacent side walls and then converging to the upper ends of the side walls, a cover having a panel substantially engaging the parallel upper portions of the side walls, inter-engaging means on the cover flanges and side walls of the liner member for retaining the cover in closing position on the upper portion of the liner member whereby the closed liner member is inverted and fruit faced in the liner member on the inside of the cover member and then the liner member filled while in inverted position, an outer box having side walls and corner panels substantially corresponding in shape to the lower portion of the side walls of the liner, a bottom closure on the outer box whereby the outer box with a closed bottom is telescoped over the lower portion and the side walls of the outer box snugly engaged with the side walls of the liner member and the bottom of the outer box closes the bottom opening in said liner, and inter-engaging means on certain side walls of the outer box and liner member for retaining the outer box on the liner member.

2,819,009

RETAINING NOTCH FOR A CONTAINER

Frank A. David, Jr., St. Louis, Mo., assignor, by mesne assignments, to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application August 26, 1954, Serial No. 452,340
7 Claims. (Cl. 229-47)

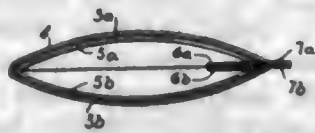


1. In an improved paperboard container having at least four upstanding connected together walls resulting in corners and a closed bottom, a cover member including a top panel with sides substantially coextensive in width with the said walls and slightly flexible, but resilient flanges depending from and integral with the side edges thereof, the flanges each having side edges and overlapping an upper marginal portion of the walls and with adjacent side edges in close proximity to the said corners, and a band under high tension contactingly encircling the flanges to maintain same in substantially parallel relationship with adjacent marginal portions of the walls; the said improvement comprising a restricted band entrance opening at least from one side edge of a flange, the said entrance being in communication with and terminating in a vertically disposed edge-like seat for said band, the band being of greater width than the width of the restricted entrance, the seat being of greater width than the width of the restricted entrance and of slightly greater width than the width of the band, to hold a portion of the band positioned on the said seat solely by the restricted band entrance until the band is tightened and to retain the flying sharp ends and side edges of the band when it is severed under the high tension required to maintain the flanges in said substantially parallel relationship with upper marginal portions of their adjacent upstanding walls.

2,819,010

SEALING ENVELOPES

Jose Amiguet, Havana, Cuba
Application May 24, 1954, Serial No. 432,001
4 Claims. (Cl. 229-62)



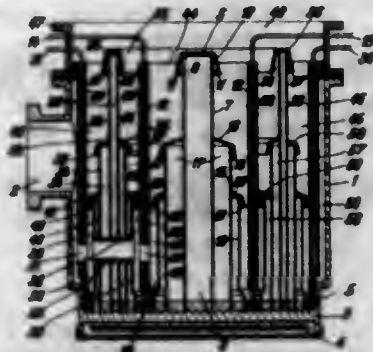
1. A sealable envelope comprising a front portion and a rear portion provided with respective lip portions together defining a mouth, a non-hardening adhesive on the insides of said lip portions, and a pair of protective strips intermediate said lip portions each covering the adhesive on a respective one of said lip portions and removably secured thereto by said adhesive, said protective strips being provided with registered unattached extremities folded over and lying next to each other between the

main portions of said protective strips, said lip portions being provided with lugs extending laterally beyond said front and rear portions adjacent said folded-over extremities, said extremities facing away from said lugs.

2,819,011

HIGH VACUUM DIFFUSION PUMP

Otto Winkler, Balzers, Liechtenstein
Application June 13, 1951, Serial No. 231,318
Claims priority, application Switzerland June 19, 1950
12 Claims. (Cl. 230-101)

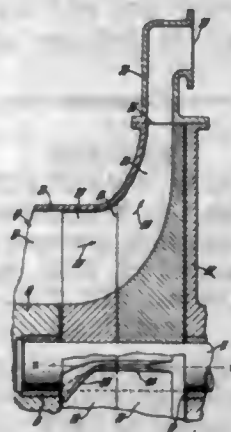


1. A high vacuum diffusion pump comprising, in combination, a pump housing providing at the bottom thereof a container for a supply of working medium, means for evaporating the working medium, tubular separating walls in said housing arranged to divide the pump housing space into partial housings, one of the tubular separating walls being arranged within and surrounded by the other tubular walls, conduits for the vaporized working medium in each of said partial housings, discharge nozzles for the vaporized working medium at the discharge ends of said conduits, said conduits and nozzles forming partial pumps in said partial housings, each of the opposite surfaces of each of said separating walls bounding the two partial pumps separated by each such wall being arranged in the path of the working medium vapor clouds formed by the nozzles of said partial pumps, means for cooling said separating wall surfaces to cause condensation and precipitation of the vapor clouds in the partial pumps, said pump housing providing a common space with which all of the partial pumps communicate separately and independently of each other, so that said partial pumps operate in parallel.

2,819,012

CENTRIFUGAL COMPRESSOR

Robert P. Atkinson, Indianapolis, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 22, 1950, Serial No. 202,273
11 Claims. (Cl. 230-119)



1. A centrifugal compressor comprising a vaned rotor rotatable about an axis, means defining an inlet to the rotor for entrance of air axially of the rotor, and means

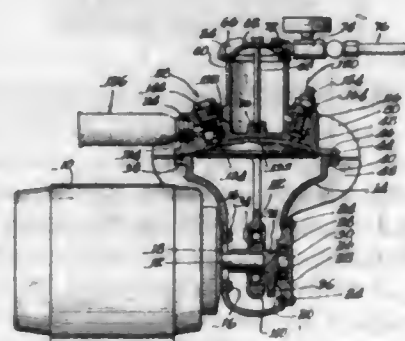
defining a diffuser for air discharged from the outlet of the rotor, the rotor being formed to discharge air radially relative to the rotor, the vanes of the rotor defining an air flow path from inlet to outlet the area of which varies from inlet to outlet to provide an even variation in air velocity along the path, the intercept of the mean surface of the path by a plane containing the axis of rotation being tangent to the resultant of the centrifugal force vectors due to tangential velocity of the air and to velocity of the air in the path defined by the said intercept of the mean surface at each point along the said mean surface.

2,819,013

DIAPHRAGM COMPRESSOR PUMP

Jens A. Paasche, Chicago, Ill., assignor to Cline Electric Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application August 13, 1953, Serial No. 374,073
7 Claims. (Cl. 230-170)



1. Air supply apparatus comprising a base, a reservoir unit, a reciprocable diaphragm, cooperable with said reservoir unit to provide a variable capacity chamber, means mounting said diaphragm between said base and said reservoir unit, means securing said reservoir unit on said base, means connected with said diaphragm for reciprocating said diaphragm, said reservoir unit comprising a casting having a centrally located upstanding open-ended storage tank and inlet and outlet valve chambers offset laterally of said tank, passageway means connecting said inlet valve chamber with said first mentioned chamber and with the exterior of said casting, other passageway means connecting said outlet valve chamber with said first mentioned chamber and with said tank, means closing the open end of said air storage tank, a one-way inlet valve means in the inlet valve chamber for passing air into said first mentioned chamber when the diaphragm is moved to expand the first mentioned chamber, and a one-way outlet valve means in the outlet valve chamber for passing air from said first mentioned chamber into said storage tank when said diaphragm is moved to collapse said first mentioned chamber.

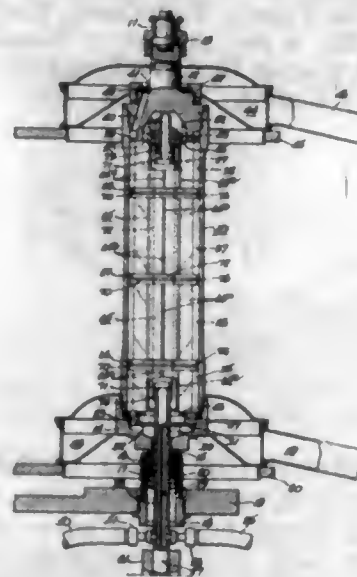
2,819,014

CENTRIFUGAL PHASE CONTACTOR

Kenneth H. Zabriskie, Jr., Wilmington, Del., assignor to The Sharples Corporation, a corporation of Delaware
Application November 19, 1951, Serial No. 257,102
13 Claims. (Cl. 233-15)

1. A countercurrent centrifugal contactor comprising a rotor, means for feeding a liquid phase to one end of said rotor, means for feeding another liquid phase to the other end of said rotor, means at each end of said rotor for centrifugally separating said phases, means for discharging said phases in separated condition from said rotor, means for maintaining predominantly unidirectional flow of each phase through said rotor and countercurrent flow

of said phases with respect to each other under substantially the same relative angular velocity conditions, and



means intermediate the ends of said rotor for intimately mixing said phases while undergoing said countercurrent flow.

2,819,015

CENTRIFUGAL CONTACTOR

Robert T. Vaughan, Rockledge, Pa., assignor to The Sharples Corporation, a corporation of Delaware
Application November 19, 1951, Serial No. 257,129
6 Claims. (Cl. 233-15)



1. In a centrifugal machine of the type having a rotor, a plurality of stages in said rotor, said stages comprising successive mixing and separating zones, the sub-combination which comprises a mixing zone assembly having a central shaft running therethrough, a blade mounted on said shaft, a first baffle assembly driven by the rotor and mounted in axial spaced relation to the blade, a second baffle assembly driven by the rotor and mounted in axial spaced relation on the opposite side of said blade, each of said baffle assemblies comprising spaced baffle plates having a plurality of apertures therein for permitting complete flow of liquid in either direction through the mixing zone assembly with the apertures in one baffle plate of the baffle assembly positioned out of axial alignment with the apertures in another baffle plate of said baffle assembly, and means for effecting relative rotational movement between said shaft and said rotor.

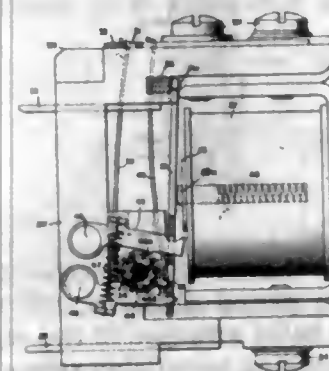
2,819,016

STEPPING RELAY ACCUMULATOR

Reynold B. Johnson, Palo Alto, Calif., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application July 5, 1952, Serial No. 297,355
7 Claims. (Cl. 235-61)

7. In a device of the class described, relay means including an armature, shaft means having ten rotative positions, said shaft means having a number of eccentric conductive segments equal to said positions, a common

contact ring engaging one end of said shaft, said shaft means rotatably supported by said armature, means upon energizing said relay means for causing said shaft to be stepped through said positions, a plurality of contact means, there being at least one of said contact means corresponding to each of said segments, an additional contact means for engaging said ring as said shaft is

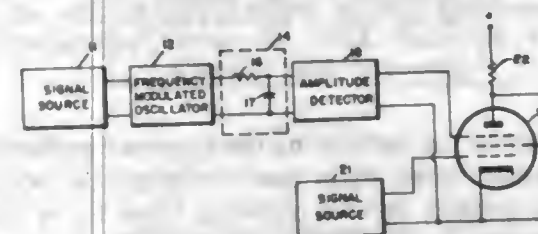


stepped from the first to the last of said positions, each of said contact means engaging the corresponding one of said segments as said shaft is stepped through said positions, and additional contact means for respectively engaging said ring and said shaft during the interval as said shaft is stepped from the last to the first of said positions.

2,819,017

RECIPROCAL ANALOG ELECTRICAL CIRCUIT

Richard C. Palmer, Pompton Plains, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application August 7, 1952, Serial No. 303,050
3 Claims. (Cl. 235-61)



3. An electrical circuit for performing division, comprising a multi-grid electron tube; a source of signals which are representative of the divisor; means for producing a signal which is a reciprocal of said divisor signal, said reciprocal signal producing means comprising means for transforming said divisor signal into a frequency modulated signal, a frequency sensitive voltage divider energized by said reciprocal signal producing means, means to obtain from said voltage divider an amplitude modulated signal corresponding to said divisor signal, and means for applying said reciprocal signal to a grid of said tube; whereby the output of said tube represents the instantaneous quotient of said division.

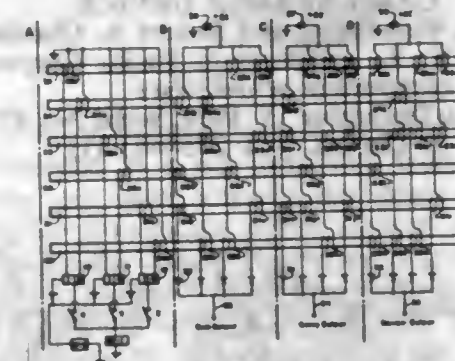
2,819,018

MAGNETIC DEVICE FOR ADDITION AND SUBTRACTION

Edward W. Yetter, Chadds Ford, Pa., assignor to Sperry Rand Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 29, 1955, Serial No. 518,849
12 Claims. (Cl. 235-61)

1. A device for adding and subtracting binary numbers comprising a plurality of groups of cores with two cores in each group, said cores having substantially linear B-H curves, input means for each group of cores, each input means having two outputs respectively representing binary "0" and binary "1" and including means for applying a momentary change of magnetizing force to one core of

its associated group when producing the binary "0" output and for applying a momentary change of magnetizing force to the other core of its associated group when the input means is producing a binary "1" output, means connected to each input means for causing the latter to produce one or the other of its two outputs, sum output means comprising a plurality of series circuits each of which series circuits has coils located on such of said cores that at least one series circuit has potentials induced in all of its coils when a sum output signal is appropriate, said sum output means also including means for combining the outputs of its series circuits and for applying a bias to the series circuits so that it has no output unless all of the coils of one of the series circuits have potentials concurrently induced therein, carry output means including a plurality of series circuits having coils located on such of said cores that at least one series circuit has

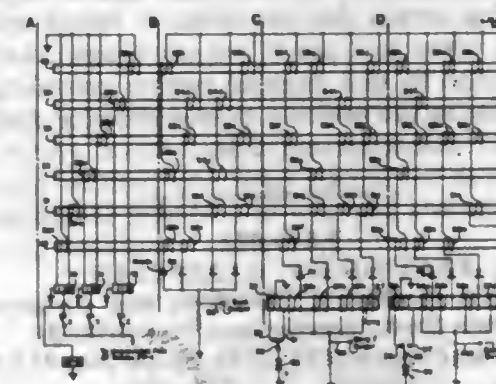


potentials induced in all of its coils when a carry output signal is appropriate, said carry output means also including means for combining the outputs of its series circuits and for applying a bias to its series circuits so that it has no output unless all of the coils of one of the series circuits of the carry output means have potentials concurrently induced therein, and borrow output means including a plurality of series circuits having coils located on such of said cores that at least one series circuit has potentials induced in all of its coils when a borrow output signal is appropriate and which borrow output means includes biasing means that prevents current from flowing in any of said series circuits of the borrow output means unless all of the coils in any one series circuit have potentials concurrently induced therein, the outputs of the series circuits forming the borrow output means being combined to provide a borrow output.

2,819,019

BINARY ADDING AND SUBTRACTING DEVICE

Edward W. Yetter, Chadds Ford, Pa., assignor to Sperry Rand Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 29, 1955, Serial No. 518,909
26 Claims. (Cl. 235-61)



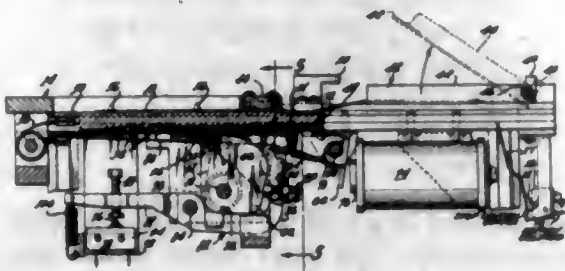
1. A device for adding and subtracting binary numbers comprising a plurality of groups of cores with two cores in each group, input means for and complementary to each group of cores, each input means having two outputs respectively representing binary "0" and

binary "1" and including means for applying a magnetizing force to one core of its complementary group when producing a binary "0" output and for applying a magnetizing force to the other core of its complementary group when producing a binary "1" output, means connected to each input means for causing the latter to produce one or the other of its two outputs, sum output means inductively coupled to said cores for producing a sum output signal, carry output means inductively coupled to said cores for producing a carry output signal, borrow output means inductively coupled to said cores for producing a borrow output signal, and switching means for selectively rendering the carry output means or the borrow output means inoperative.

2,819,020

CARD READER DEVICE

John S. Baer, Woodbury, and Robert A. Oberdorf, Merchantville, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application December 15, 1954, Serial No. 475,447
12 Claims. (Cl. 235-61.11)



4. A perforated card reader mechanism comprising a drive member, means for providing angular advance and return motions of predetermined amplitude to said drive member, cam means coupled to said drive member, a slide for holding a card to be sensed, said slide being movable in advance and return directions in the plane of said angular motions, said slide having toothed surfaces thereon and including an aperture encompassing perforation positions of a card to be sensed, stepping pawl means responsive to said cam means and normally operatively engaging said toothed slide surfaces to provide incremental advancing movements to said card holding slide, holding pawl means normally operatively engaging said toothed slide surfaces, resilient feeler member means normally spaced from a card to be sensed on said slide, actuating finger means responsive to said cam means and engaging said feeler members to enter said feeler members into perforations in said card through said aperture in said slide, output signalling means including switch means responsive to the position of said actuating fingers, return control means responsive to the position of said slide for disengaging said pawls from said toothed slide surfaces, means mounted in fixed relation to said angular motion providing means for providing a return movement to said slide when said pawls are disengaged, and means in fixed relation to said angular motion providing means and responsive to the position of said slide for disengaging a card on said slide from said slide.

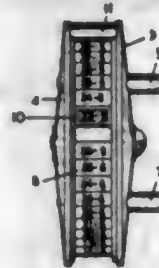
2,819,021

FECUNDITY CALENDAR

Gerrit Hendrik Heetbrink, Haarlem, and Coenraad Van Emde Boas, Amsterdam, Netherlands
Application February 23, 1954, Serial No. 411,974
3 Claims. (Cl. 235-86)

1. A fecundity calendar for determining the power of conception of women and being based on the division of a cycle into the first infertile period, the fertile period and the second infertile period, and comprising a cylindrical box-shaped casing, a date band mounted within said casing and adapted to be passed over the circum-

ferential wall of said casing, a stationary zero-index on the periphery of said casing over said band, two cursors adjustable over the circumferential wall of the casing and said band and a plurality of numbers provided on said casing corresponding to the variable duration of a menstruation period, by means of which numbers the one

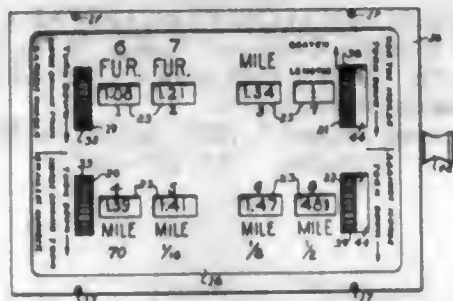


cursor is set for the shorter and the other cursor for the longer menstruation period observed, the numbers provided on the casing being arranged in two separate groups of numbers corresponding to variable values of the longer and the shorter menstruation period respectively, said cursors each having an opaque portion covering said date band.

2,819,022

CALCULATORS

James Hitchin, San Diego, Calif.
Application November 30, 1954, Serial No. 472,111
6 Claims. (Cl. 235-86)



1. In a device for calculating the expected performance of a race horse based upon past performance records, a tape having printed thereon running times for a race of a given distance in increments of one-fifth of a second, means to move said tape past an indicating point, a second tape having thereon a series of numbers in sequence representing beaten lengths, means to separately move said second tape past an indicating point, and means for selectively coupling said tapes for simultaneous movement, whereby when said first tape is moved until the winning time of a given race appears at its indicating point, said second tape is separately moved until zero appears at its indicating point, the said tapes are coupled, and the second tape is then moved until its indicating point reflects the number of lengths by which a given horse was beaten, the first tape at its indicating point will give the running time of said horse.

2,819,023

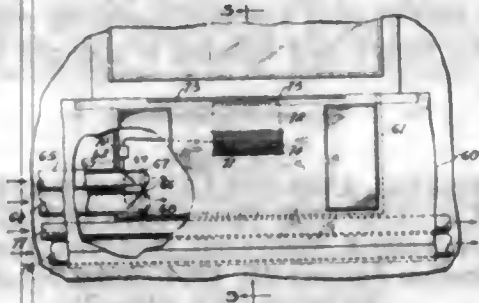
AIR CONDITIONING APPARATUS

Harrison W. Marshall, Pleasantville, N. Y., assignor to Buensod-Stacey, Incorporated, New York, N. Y., a corporation of Delaware
Original application July 21, 1949, Serial No. 106,016.
Divided and this application February 27, 1952, Serial No. 273,640

3 Claims. (Cl. 236-13)

1. In a high pressure air conditioning system, a pressure reducing air distributing box comprising an enclosure constructed and arranged to receive air at high pressure and reducing the pressure thereof before discharge into the zone, a high pressure cold air conduit connection to said box and a high pressure warm air conduit connection to said box, damper means in each of said conduits con-

trolling admission of warm and cold air at high pressure into said box, damper motor means within said enclosure connected to said damper means, temperature control means within the confines of said box automatically controlling the proportions of warm and cold air admitted into said box in accordance with the ambient zone temperature, air being reduced in pressure as it enters the box, and restricted outlet slot means in said box directing

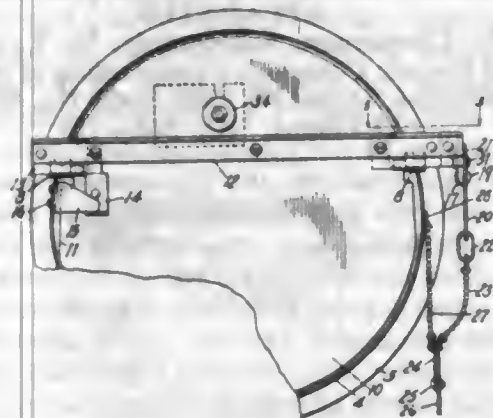


mixed air therefrom into a zone and further reducing the static pressure, a duct in said box having an inlet open to the zone and an outlet adjacent said outlet slot means and directly open to said zone, said temperature control means including a temperature responsive element located in said duct so that as air is delivered to the zone through said slot means and passes out through its outlet, air at zone temperature will be induced to flow over said temperature responsive element by the air passing through said outlet slot means.

2,819,024

VARIABLY COUNTERBALANCED DRAFT REGULATOR GATE

Edward A. Field, Mendota, Ill.; Amy Field and City National Bank and Trust Company of Chicago, executors of the will of said Edward A. Field, deceased
Application January 15, 1957, Serial No. 634,343
7 Claims. (Cl. 236-45)



7. In a draft regulator having a gate swingable in a housing about an axis that is off center with respect to the center of area of the gate, a torque arm secured to the gate to project generally horizontally in the closed position of the gate, a weight swingably supported by said arm to swing in an arc about a point spaced from the pivot axis of said gate, stop means coacting between said arm and the support for said weight to limit swing of the weight relative to the arm at a predetermined point in the swinging motion of the weight, and other weight means balancing said gate exclusively of said first weight.

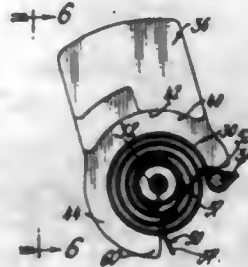
2,819,025

VALVE MEANS

John G. Else, Royal Oak, and Donald S. Pike, Whitmore Lake, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 1, 1954, Serial No. 459,710
1 Claim. (Cl. 236-101)

An exhaust manifold heat valve comprising a housing having a passage therethrough, a valve shaft extending through said passage with one end thereof project-

ing from said housing, a valve member mounted on said shaft for opening and closing said passage, a weight secured to said end of said shaft for biasing said valve member towards the open position and having a hub disposed concentrically about said shaft and having an outside diameter greater than the outside diameter of said shaft, the portion of said weight adjacent said shaft being recessed to form a plane wall normal to said shaft and immediately adjacent said spring and an arcuate surface concentric about said shaft, a thermostatic coil spring disposed in said recess adjacent said housing and having

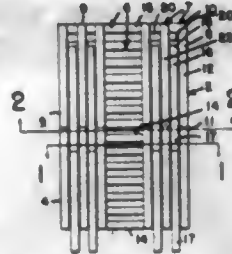


one end thereof fastened to said hub and the other end thereof fastened to a pin projecting from said housing for biasing said valve towards the closed position, said wall forming a radiation shield adapted to confine the heat radiated from said housing to the space in and around said spring, a U-shaped spring stop disposed in an arcuate opening formed in said plane wall, the center of said spring being secured to said weight at the center of said opening, the opposite ends of said spring forming a pair of divergent arms positioned to strike said pin when said valve member is in either of its extreme positions.

2,819,026

ROAD CONSTRUCTION

John Battice Leyendecker, Houston, Tex.
Application December 17, 1953, Serial No. 398,690
1 Claim. (Cl. 238-10)



A portable oil field road for wheeled vehicles comprising a plurality of sections adapted to be fitted together for forming a continuous road, each of said sections including a plurality of spaced laterally extending members, a pair of rows of longitudinally extending members secured to said lateral members, said rows being spaced for accommodating the wheels of a vehicle, said members in each row being staggered in longitudinal relation to the next adjacent member whereby alternate longitudinal members of a row project beyond one end of a section and are recessed at the opposite end of such section so that adjacent sections may be fitted together by placing the projecting members of one section in the recess of an adjacent section, and strap means for weaving among said longitudinal members of adjacent sections for retaining them in position.

2,819,027

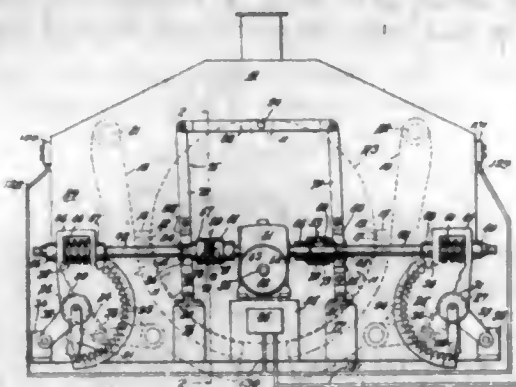
CAGE ADJUSTER

Forest H. Neely, Philadelphia, Pa., assignor to Bath Iron Works Corporation, Bath, Maine, a corporation of Maine

Application August 4, 1955, Serial No. 526,435
1 Claim. (Cl. 241-89)

In combination with a hammermill type crusher having a rotor with hammers and having two sets of screen bars on a respective side of said rotor pivotally mounted

to move to and from said rotor, a screen bar adjusting mechanism comprising a first and second positioning means for separately adjusting the relationship of a respective set of screen bars with said rotor, power means rotatable in two directions, first and second clutch means for separately and independently connecting a respective positioning means to said power means for separately and independently adjusting said screen bars, actuating



means connected to said clutch means for separately connecting said first and second positioning means one at a time to said motor and electrical control means for controlling the directions of rotation of the power means and having two switches, each separately actuating said control means and positioned in relation to a respective engaging position of said actuating means so that a related switch on actuation moves a respective set of power coupled screen bars to and from said rotor.

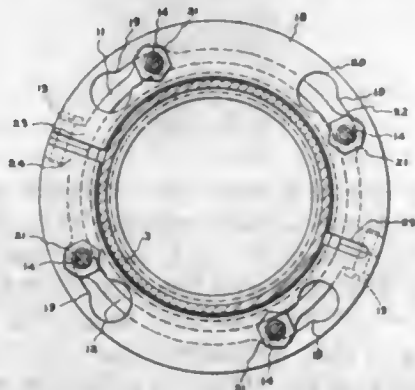
2,819,028

WASTE DISPOSAL APPARATUS

Bernard J. Brezovsky and Fred W. Moore, Louisville, Ky., assignors to General Electric Company, a corporation of New York

Application October 15, 1956, Serial No. 615,821

3 Claims. (Cl. 241-100.5)



1. Waste disposal apparatus for use with a sink having a drain opening comprising a housing enclosing a grinding chamber having an inlet opening for water and waste material at the upper end thereof, a sleeve adapted to be disposed in said drain opening, a first flange on the upper end of said sleeve adapted to overlie the marginal edge of said drain opening, a second flange projecting outwardly from the lower end of said sleeve, a third flange located on said housing adjacent said inlet opening and projecting outwardly therefrom, a support ring encircling the upper end of said housing, a fourth flange on said support ring inwardly projecting therefrom and overlying said second flange, said support ring including a pair of semi-circular segments and fastening means for securing said segments together with said fourth flange in overlying engagement with said second flange, a plurality of vertically disposed studs carried in threaded holes in said support ring and adapted to clamp said sleeve in said drain opening, each of said studs being provided with a nut on the lower end thereof, and a mounting ring

encircling said housing below said third flange, said mounting ring being frictionally supported on a portion of said housing below said third flange and including a plurality of elongated apertures each having an enlarged portion adapted to receive one of said nuts and a circumferentially extending slotted portion adapted to receive only the studs supporting said nuts, whereby said sleeve and support ring may be clamped to said sink and thereafter said housing and said mounting ring supported on said nut before said housing is clamped to said support ring.

2,819,029

DIFFERENTIAL AND COLLECTIVE ROTOR BLADE PITCH CONTROL FOR CONVERTIPLANE

Nicholas J. Medvedeff, Hanover, Mass.

Application January 18, 1954, Serial No. 404,501

9 Claims. (Cl. 244-7)



1. In a convertiplane having a fuselage, a single wing and pair of rotors vertically spaced with respect to said wing, said rotors being movable from an operating position spaced laterally of said fuselage to a stowed position up against said fuselage, means for swinging said rotors from said operating position to said stowed position, a source of power for causing said rotors to rotate, and means for simultaneously varying the pitch of the blades of said rotors while said rotors are in operation.

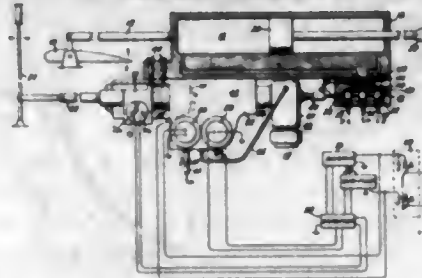
2,819,030

COMBINED MANUAL AND AUTOMATIC SERVO APPARATUS

Horace H. Christensen, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application August 30, 1956, Serial No. 607,235

12 Claims. (Cl. 244-76)



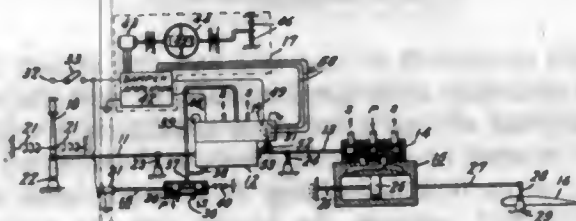
10. In a servo system for effecting control of a steerable craft in any of several modes including manual, damped manual and full automatic; power drive means including a movable output member connected to position the steering member of said craft; control means including first and second relatively movable members and operatively responsive to relative movement between said members to control operation of said power drive, said control means first member being fixed with respect to said power drive output member and said control means second member being relatively movable with respect thereto; a manual input member; a servo motor including first and second relatively movable motor elements with said first element being fixed to said control means second member and said servo motor second element being fixed to said manual input; automatic control signal means including automatic pilot apparatus and automatic damping apparatus operative to produce control signals indicative respectively of long term and transient steering error; means responsive to either or both said automatic control signals selectively to control the operation of said servo motor; means operable when actuated to center said manual input and said servo motor second element with

respect to said power drive output member; means operable when actuated to center said servo motor relatively movable elements with respect to each other; selector switch means settable in manual, damped manual and full automatic positions; and means controlled by said selector switch means operative to disable said first centering means and actuate said second centering means when said switch means is in its manual position, to disable both said centering means when said switch means is in its damped manual position, and to actuate said first centering means and disable said second centering means when said switch means is in its full automatic position.

2,819,031

HYDRAULIC POSITIONING APPARATUS

Horace H. Christensen, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 20, 1954, Serial No. 476,257
10 Claims. (Cl. 244-78)



8. A hydraulic steering system for a dirigible craft comprising an electro-hydraulically operated positioning motor adapted to receive a manual position signal and to transmit a combination of said manual signal and a position signal introduced by said positioning motor, a pilot valve connected to control the operation of said positioning motor, electromagnetic solenoids arranged for positioning said pilot valve, an electrical attitude stabilization device connected to energize said solenoids, a source of electric power for energizing said stabilization device, hydraulic positioning apparatus connected for operation in response to said combination of signals from said positioning motor for positioning a control surface of the dirigible craft to be steered, a center-lock device for said positioning motor comprising a piston having a wedge-shaped tip, said positioning motor having an integral shaft including a transverse slot therein for reception of said wedge-shaped tip, a spring for biasing said wedge-shaped tip into said slot to center and lock said shaft, a cylinder enclosure surrounding and supporting said piston, connections for hydraulically pressurizing said cylinder enclosure for biasing said piston into the unlocked position, said connections including a solenoid valve connected for energization from said source of electric power, said solenoid valve being operable upon interruption of said electric power connections to interrupt said hydraulic pressure connections to release said center-lock device for operation thereof.

2,819,032

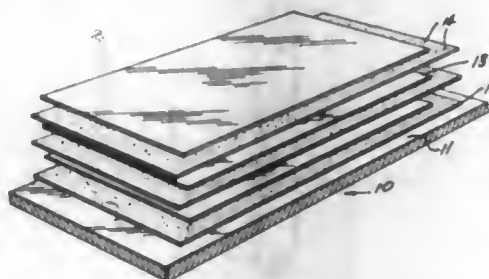
AIRCRAFT FUSELAGE HAVING PANEL DAMPING MATERIAL

Arthur J. Detrie, Santa Monica, and Eugene J. O'Neill, Paul J. Stayboldt, and Matha M. Miller, Los Angeles, Calif., assignors to Douglas Aircraft Company, Inc., Santa Monica, Calif.

Application October 20, 1953, Serial No. 391,604
(Filed under Rule 47(a) and 35 U. S. C. 116)
1 Claim. (Cl. 244-119)

In an airplane having a fuselage including a plurality of spaced longitudinal and circumferential brace members constituting a multiplicity of frames and a stressed skin covering of relatively thin but stiff metallic sheets attached to and traversing said frames, the skin portion traversing a frame being subject to forces normally productive of vibration in said skin portion wherein said

vibration, unless inhibited, would cause the development of sound waves in the audible range directed toward the interior of the fuselage, the combination with such skin portion of: a damping panel attached in intimate contact with said skin portion, said panel being comprised of a sheet of metallic foil, said sheet per se having substantial strength in shear, compression and tension but substantially no resistance to bending or buckling, and a layer of pseudo-plastic pressure sensitive adhesive material on one face of said foil sheet, said material being per-



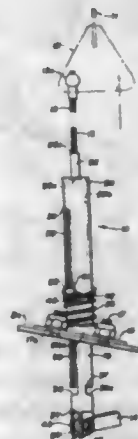
manently soft and permanently tacky and being subject to substantial internal working when yieldably deformed; said damping panel being attached to and carried by said skin portion solely by the pressural adhesion of said adhesive material; such adhesion bonding said foil sheet to said skin portion in parallelism therewith and preventing buckling or independent bending of said foil sheet and effectually providing a unitary damping construction of said panel and said skin portion to inhibit the production of sound waves in the audible range.

2,819,033

RETRACTABLE FITTING FOR RELEASE SYSTEM

William C. Boyce, Dallas, Tex., assignor to Chance Vought Aircraft, Incorporated, Dallas, Tex., a corporation of Delaware

Application June 1, 1955, Serial No. 512,359
12 Claims. (Cl. 244-137)



1. An extendible connector device comprising a fixed member having a tubular wall provided with a slot; a first movable member having a connector and further having a tubular wall provided with a slot, said first movable member being axially slidable, with respect to said fixed member, between retracted and extended positions; and a second movable member having a connector terminal and further having a projecting portion rotatable and slidable, in said slots provided in said walls, about and along the axes of said fixed and first movable members to a predetermined position wherein interference of said projecting portion with said walls of said fixed and first movable members locks all of said members in a retracted relationship.

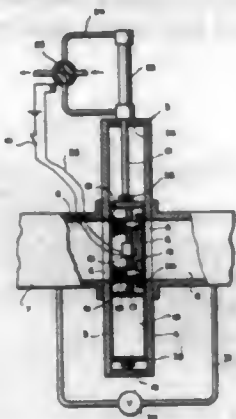
2,819,034 GATE VALVE

Oscar C. Holderer, Huntsville, Ala., assignor to the United States of America as represented by the Secretary of the Army

Application June 3, 1955, Serial No. 513,173

8 Claims. (Cl. 251-29)

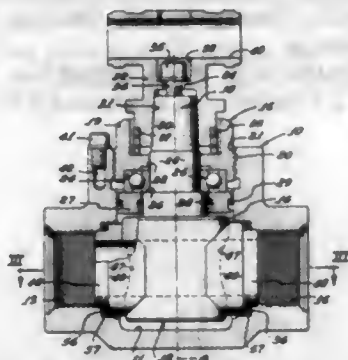
(Granted under Title 35, U. S. Code (1952), sec. 266)



6. A gate valve comprising a movable gate, said gate having a seatable gate plate movable over a restricted distance at an angle to the normal line of movement of the gate, said gate plate seatable by differential pressure across said gate, means responsive to substantially zero pressure across said gate to bias said gate plate to unseated position, and means responsive to the unseated position of said gate plate operative to move said gate.

2,819,035 HIGH-PRESSURE VALVE ASSEMBLY

Clifford P. Graham, North Hollywood, Calif.
Application May 6, 1955, Serial No. 506,545
9 Claims. (Cl. 251-170)



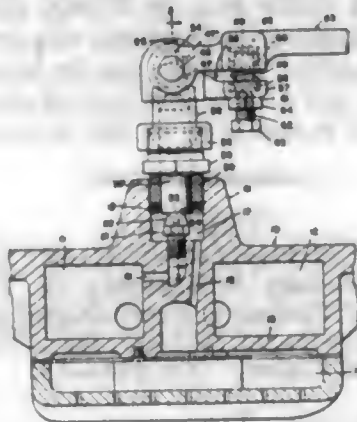
3. In a high pressure valve means, the combination of: a valve body provided with oppositely aligned ports for flow of fluid therethrough; a ported valve member mounted for rotation about an axis between said ports to control flow of fluid; a ported valve seat member for each of said ports; means on said valve body and means on each of said valve seat members defining enclosed annular spaces between each seat member and said valve body; and sealing means positioned in each of said annular spaces including a seal ring of resilient material under compression to urge said seat member against said valve member, and a non-yielding rigid ring member limiting relative movement between said valve body and said seat member.

2,819,036 STEAM PRESSING MACHINE VALVE ASSEMBLY

Anthony Tallento, Rochester, N. Y.
Application April 4, 1956, Serial No. 576,091
3 Claims. (Cl. 251-260)

1. A valve control assembly for steam pressing machines comprising, a sleeve member adapted for connection with a steam head, a valve body slidably received in said sleeve and having a valve element at one end, a mounting head rigid with one end of said sleeve and having a bore there-

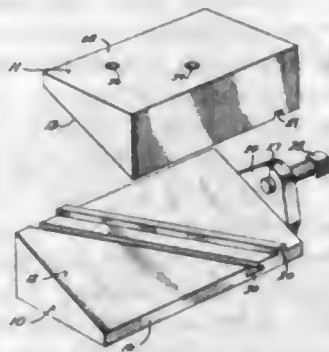
in disposed at right angles to the bore of said sleeve, a cross-shaft journaled in the bore of said mounting head and having a transverse notch in that portion registering with the bore in said sleeve, a ball partially received in said notch and engaging that end of said valve body remote from said valve element, and means for oscil-



lating said cross-shaft to cam said ball and impart movement of said valve body longitudinally of said sleeve, the last mentioned means including a handle rigid with and disposed normal to said cross-shaft, said mounting head having a projection underlying said handle, and spring means disposed between the handle and the projection to normally space these members apart.

2,819,037 LEVELING DEVICE

Norman M. Wilkin, Menomonee Falls, Wis.
Application October 12, 1955, Serial No. 540,120
4 Claims. (Cl. 254-104)



1. A pair of blocks having mated plane surfaces adapted to be placed in face to face relation with said surfaces at an angle to the horizontal whereby movement of one block relative to the other in the general direction of greatest lift raises or movement in the opposite direction lowers an object supported by said blocks, the mated surface of one of said blocks having directional guiding means shaped for engagement with the other block, said means being positioned to force relative movement of the blocks to conform to a direction at an angle to the direction of greatest lift.

2,819,038 RESERVOIR SAMPLING

John E. Eckel, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application January 14, 1955, Serial No. 481,853
4 Claims. (Cl. 255-1.4)

1. An apparatus for obtaining an uncontaminated sample from a subterranean formation immediately below a borehole which comprises a percussion-type bit, a reciprocating-type pneumatic motor adapted to drive said bit against the formation and to break the formation into small particles, first conduit means adapted to supply compressed air to said motor and to operate said motor, said first conduit means also being adapted to supply a separate

stream of air to the bottom of the borehole in the vicinity of the bit to lift said particles above the bit, a basket attached to said apparatus above said bit and adapted to



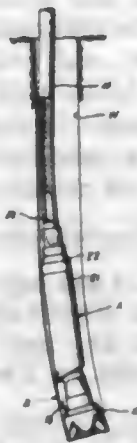
collect the particles lifted above the bit, means to vent the exhaust air from the motor and from the bottom of the borehole to the surface of the earth, and means for sealing the collected particles within the basket.

2,819,039

DEFLECTING TOOLS

Onos M. Lindsay, Long Beach, Calif., and William G. James, Denver, Colo., assignors to Eastman Oil Well Survey Company, Denver, Colo., a corporation of Delaware

Application December 24, 1954, Serial No. 477,437
13 Claims. (Cl. 255-1.6)



1. A deflecting tool including, an upper tubular section, a lower tubular section in telescoping relationship with respect to the upper tubular section, means interconnecting the sections for axial movement relative to each other whereby the sections may be moved to a first position in which the sections are extended and to a second position in which said sections are more fully telescoped, means for rotatively connecting the sections in all positions of the sections, spring means normally urging the sections toward said first extended position, an expander element on the lower portion of the lower section and having an external inclined surface, and a radially movable deflecting element carried by the upper section and disposed in a plane above the expanding surface of the expander when the sections are in said first position, movement of the sections to said second position effecting a movement of said deflecting element with respect to the inclined surface of the expander whereby said deflecting element is moved radially outwardly when said sections are in said second position.

2,819,040

DEFLECTING TOOL

William G. James and Thomas M. Frisby, Englewood, and John A. Hamman, Denver, Colo., assignors to Eastman Oil Well Survey Company, Denver, Colo., a corporation of Delaware

Application July 13, 1956, Serial No. 597,672
19 Claims. (Cl. 255-1.6)



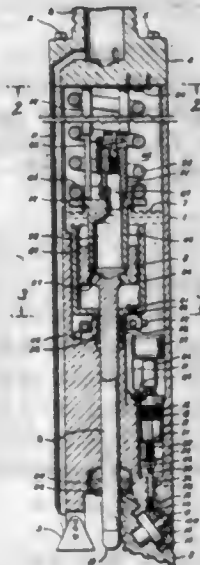
14. A deflecting tool adapted to be lowered in a well bore including an outer sleeve and at least one section movable longitudinally relative to the sleeve and axially within the bore from an extended position to a retracted position, means normally urging the section toward an extended position, an expander having an external inclined expanding surface mounted on the lower end of said section, a radially movable deflecting wedge, flexible means for connecting the wedge to said sleeve whereby the wedge is flexed radially with respect to said sleeve upon co-acting with the expander when the section is moved toward a retracted position, said flexible connecting means including at least one lobe cut joint.

2,819,041

PERCUSSION TYPE ROCK BIT

William J. Beckham, Houston, Tex.

Application February 24, 1953, Serial No. 338,237
13 Claims. (Cl. 255-4.4)



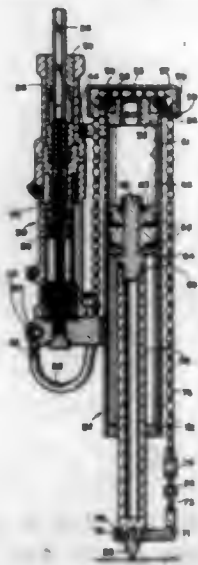
13. A percussion type rotary drilling bit comprising a hollow body adapted to be rotated within a well bore to perform a drilling operation, a cutter rotatably mounted on the lower end of said body for rotation relative thereto in response to rotation of said body during the drilling operation, a percussion plunger slidably mounted for axial reciprocating movement within said body, said plunger being movable upon actuation thereof to strike the bottom of the well bore, and means operated by the cutter in response to rotation thereof to intermittently actuate said percussion plunger.

2,819,042

ROCK DRILLING APPARATUS

Jacob E. Feucht, Garfield Heights, Ohio, assignor to Cleveland Rock Drill Division, Westinghouse Air Brake Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application November 10, 1954, Serial No. 468,080
6 Claims. (Cl. 255—52)

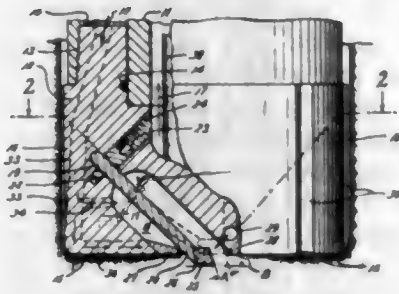


1. In a drilling apparatus, a feed cylinder formed with first and second closed ends, a stationary piston in said cylinder and a piston rod extending through said cylinder first end, an abutment-engaging point on the free end of said rod, means admitting pressure fluid between said piston and said cylinder second end for effecting feeding motion of said cylinder relative to said piston, a drilling motor, interengaging guiding means between said motor and cylinder enabling longitudinal guided movement of the former on the latter roller means within said cylinder second end, and means translating feeding motion of said cylinder into said longitudinal movement of the motor at a greater rate of speed including a taut flexible member passing over said roller means and extending therefrom along diametrically opposed sides of said cylinder with one end attached to said motor and the other end attached to the free end of said piston rod.

2,819,043

COMBINATION DRILLING BIT

Homer I. Henderson, San Angelo, Tex.
Application June 13, 1955, Serial No. 515,131
3 Claims. (Cl. 255—61)



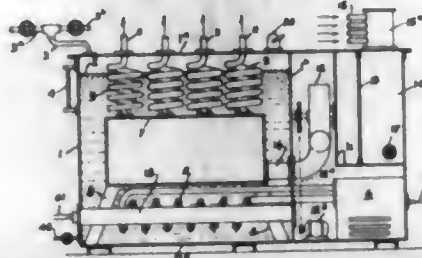
1. A drill bit for rotary type earth boring adapted to be secured to the lower end of the drill pipe, and adapted for drilling either hard or relatively soft media, comprising, in combination, a bit body having an upper and a lower end and having spaced recesses projecting laterally and upwardly at a definite angle from the said lower end into said bit body, a spring having an upper and a lower end mounted in each recess, the upper end of said spring secured to the bit body at the top of said recess, the lower end of each spring projecting downwardly and out of the recess and slightly below the lower end of said bit body, a drag type cutting head adapted for cutting soft media integrally mounted on the lower end of

each spring, each said spring adapted to be flexed upwardly by an upward force of a predetermined magnitude moving said drag type cutting head upward into said recess, chips of an extremely hard material mounted on the face of the lower end of said bit body and adapted for cutting hard media.

2,819,044

AIR-CONDITIONING APPARATUS

George Bungas, Pittsburgh, Pa.
Application August 30, 1955, Serial No. 531,459
5 Claims. (Cl. 257—9)

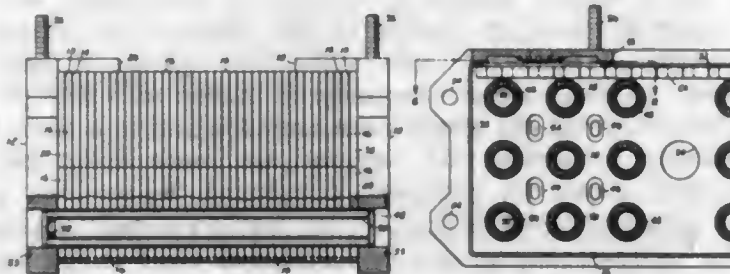


1. Air conditioning apparatus comprising a cabinet, a transverse vertical partition in said cabinet forming a machinery compartment and an air conditioning compartment, a body of water in said air conditioning compartment, an air receiver chamber in said machinery compartment adapted to receive air to be conditioned, a blower in said machinery compartment having its inlet connected to said receiver chamber, an outlet pipe leading from said blower through said partition into said air conditioning compartment, a plenum chamber mounted in said air conditioning compartment and enveloped by said water, said outlet pipe being connected thereto, a helically coiled outlet tube leading from said plenum chamber and extending through a wall of said air conditioning compartment, the capacity of which is substantially less than that of said plenum chamber, a heating tube within said air conditioning compartment and enveloped by said water and being mounted above the floor of said tank and below said plenum chamber, a refrigerant tube within said air conditioning compartment enveloped by said water and being mounted above said tank floor and below said plenum chamber.

2,819,045

HEAT EXCHANGER

Richard Henry Pearse, Jr., and Alan George Butt, La Crosse, Wis., assignors to The Trane Company, La Crosse, Wis.
Application December 4, 1953, Serial No. 396,125
2 Claims. (Cl. 257—241)



2. A heat exchanger comprising spaced substantially flat tube sheets, a plurality of spaced fins between said tube sheets, said fins lying in planes substantially parallel to said tube sheets, closure means extending along the peripheral edges of the fins to enclose the spaces between the fins and the spaces between the tube sheets and the fins, first tubes extending through said fins and into open

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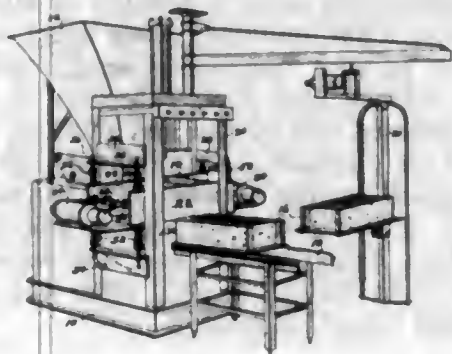
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ings in said tube sheets, said first tubes being brazed to said fins, second tubes inside of said first tubes, corrugated fins in the spaces between the first and second tubes, means brazing said corrugated fins to said first and second tubes, means closing said second tubes to limit movement of a first heat exchange fluid to the spaces between said first and second tubes, a supply manifold secured to one of said tube sheets, said supply manifold being adapted to be connected to a source of a second heat exchange fluid and having a passageway communicating with the space between said one tube sheet and the fin adjacent thereto, a discharge manifold secured to the other of said tube sheets, said discharge manifold having a passageway communicating with the space between the other of said tube sheets and the fin adjacent thereto, said fins having openings therethrough, the openings in alternate fins being offset from the openings in the other fins to cause said second heat exchange fluid to flow in a zigzag path from one tube sheet to the other tube sheet.

2,819,046

VIBRATION ABSORBING APPARATUS

Albert C. Jandris and Joseph A. Jandris, Gardner, Mass.
Application November 13, 1953, Serial No. 391,827
3 Claims. (Cl. 259-72)



1. Apparatus of the class described comprising a base, a former for cementitious blocks thereon, a pair of bars one at each side of the block former, the bars being secured to the block former, means to intermittently vibrate the bars, means supporting the bars to float so as to vibrate, said bar supporting means being mounted on the base and absorbing vibration to substantially prevent vibration in the base and other parts of the apparatus, said bar supporting means comprising springs resting at one end on the bars at the upper edges thereof and springs on which the bars rest, and resilient pads interposed between each spring and its bar, the bars and former being suspended by the springs and being damped both up and down.

2,819,047

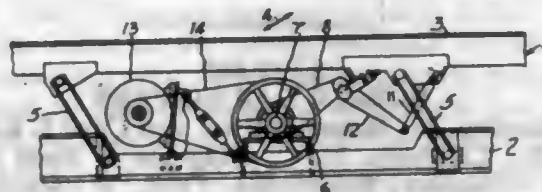
CONVEYOR FOR MIXING AND DE-AERATING

Robert M. Carrier, Jr., Louisville, Ky., assignor to Carrier Conveyor Corporation, Louisville, Ky., a corporation of Kentucky

Application December 1, 1953, Serial No. 395,414
5 Claims. (Cl. 259-72)

1. A device for mixing materials during conveying comprising a conveyor trough having a longitudinally extending material supporting surface, means supporting said conveyor trough for vibration along a path that is upwardly inclined with respect to said trough, drive means for vibrating said trough at a frequency and amplitude effective to progressively toss materials on said trough angularly upward and longitudinally, said material supporting surface comprising a series of steps thereacross, each step consisting of an upwardly inclined portion of inclination generally the same as, but not greater

than, that of such inclined path of vibration of said trough and of projected length longitudinally of said trough greater than the longitudinal advance of the



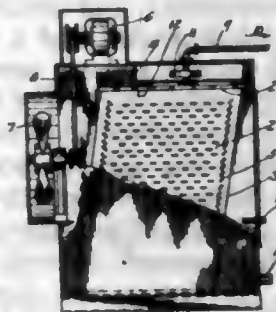
trough during each stroke of vibration, whereby said materials are mixed as they are conveyed longitudinally of said trough.

2,819,048

INDUCED DRAFT WATER SAVING AND COOLING TOWER

Lesley L. Gilliland and Roland E. Cedarholm, Gadsden, Ala.

Application August 25, 1954, Serial No. 452,132
1 Claim. (Cl. 261-24)



A water saving and cooling tower of the class described comprising, a main outer case approximately oblong in cross section, two similar supporting panels mounted in the case and positioned opposite each other and near the wider opposite walls of the case, said case having a closed flat bottom and partly open top, the bottom edges of said panels resting upon the bottom of the case, each of said panels having a plurality of slanting slots formed in its vertical edge portion and a plurality of horizontal slots formed in its center portion between the slanting slots, said slanting slots positioned with their inner ends directed toward the bottom of the case, a flat piece of stiff water proof material positioned and supported on the top edges of said panels, said flat piece having a plurality of slots formed therethrough, a plurality of water proof flexible material slats, these slats supported in the case by having their end portions inserted in the said slots in the panels; a pipe for water, said pipe connected to an elbow, the elbow positioned over the top of the case and directed downward, a piece of pipe connected to said elbow, a round shallow drum attached to the pipe leading from the elbow, said drum having a plurality of holes in its bottom for water to pass therethrough and onto the said flat piece with slots therein; an electric motor mounted upon the top of the case, the motor having a shaft and pulley thereon, a round housing mounted in the upper portion of one wall opposite one of said panels, a fan mounted in said housing, said fan being adapted to draw air out of the case, said fan having a shaft and pulley thereon, a connecting belt on the pulley on the motor shaft and the pulley on the fan shaft for operating the fan, said fan being adapted to draw air through the partly open top of the case and the slots in the said flat piece

in the top of the case and discharge the air through the said fan housing; a drain pipe positioned in the lower edge portion of a wall of the case, an additional drain pipe positioned in the wall and above the other drain pipe as an overflow pipe.

2,819,049

BUBBLE CAP TOWERS

Earl Manning, Jr., Houston, Tex., and Cyril J. Kaemmerlen, Jr., Charlotte, N. C., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application July 7, 1953, Serial No. 366,472
3 Claims. (Cl. 261-114)



1. A bubble tower containing a tray deck which includes a flat, horizontal part adapted to support a body of liquid, said deck part having a single, substantially unobstructed vapor passageway extending therethrough and bounded by enclosing side surfaces that are situated substantially entirely beneath the level of the top of said deck part; and a vapor-deflecting cap device positioned directly over said vapor passageway and including a top wall spaced above the said deck part and a small number of narrow, peripherally located support members which collectively occupy only a small fraction of the cap periphery and the interior surfaces of which form substantial vertical extensions of said enclosing side surfaces, said top wall having an area and outline substantially the same as the area and outline of said vapor passageway and providing a downwardly concave, smooth deflecting surface having the lowest part at the center and rising to the outer periphery thereof, the said periphery being the highest part of the surface, to deflect vapor that ascends through the vapor passageway substantially through a right angle, said cap device being laterally open between said support members from said periphery of the deflecting surface to the said deck part and the space beneath the deflecting surface providing a free and direct path for the flow of vapor from the top of said vapor passageway to the cap periphery at the level of said deck part for the efflux of vapor laterally into said body of liquid throughout the full height of the cap device.

2,819,050

CHECK VALVE FOR RECTIFYING COLUMN
Clifford Andrew Huggins and Griffin C. Thrift, Wichita, Kans., assignors to Koch Engineering Company, Inc., Wichita, Kans., a corporation of Kansas
Application May 11, 1955, Serial No. 507,568
4 Claims. (Cl. 261-114)



1. A check valve construction for use in a rectifying tower having a predetermined aperture plate across which liquid flows, comprising a valve seat formed integral with such plate, reciprocally movable closure means surmounted on said valve seat and removable therefrom by gaseous pressure exerted from beneath such plate, and retaining means limiting the movement of said closure

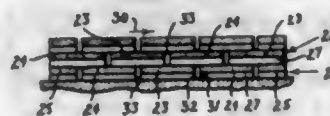
means from said seat, said retaining means comprising a spider member having a plurality of supporting posts, each of said posts having a reduced terminal end portion insertable in a plate aperture, said end portions being of sufficient length to traverse such plate thickness, converging arm members angularly disposed to said posts, a channel portion joining said arm members, said channel portion having a passageway disposed parallel to the normal flow of fluid across such plate surface whereby fluid may flow therethrough and resistance to fluid flow across the plate surface is maintained at a minimum.

2,819,051

REGENERATIVE MASS AND TILES FOR USE IN SUCH A MASS

Ford W. Harris, Los Angeles, Calif., assignor to Wulff Process Company, Huntington Park, Calif., a corporation of California

Application May 9, 1955, Serial No. 506,825
4 Claims. (Cl. 263-51)

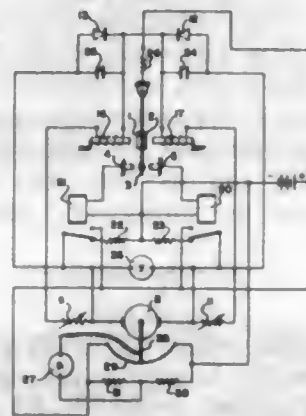


1. In a regenerative mass, a plurality of layers of tile, each tile having a flat, unbroken plane upper surface and a plurality of parallel longitudinal semicircular grooves in the lower surface, each layer consisting of a plurality of said tile disposed side-by-side and abutting, and a plurality of said tile disposed in longitudinal alignment with a transverse space between each two longitudinally-aligned adjoining tile in that layer, the tiles in adjoining layers being staggered longitudinally and transversely, all of said grooves being parallel to each other and parallel to the longitudinal axis of the mass.

2,819,052

ACCELERATION MEASURING APPARATUS
Hans Jurgen Dudenhausen, Stuttgart, Germany, assignor to Intavex, Inc., New York, N. Y., a corporation of New York

Application January 27, 1954, Serial No. 406,484
10 Claims. (Cl. 264-1)



1. An accelerometer comprising a ferromagnetic armature, two electromagnets fixed with respect to each other in position to develop, upon energization of their windings, differently directed fields in a region of space, means supporting said armature within said region for motion with respect to said magnets upon acceleration of said armature, a first contact coupled to said armature for motion therewith relative to said magnets, second and third contacts positioned with respect to said magnets to be separately engaged by said first contact upon accelerations of said armature in different directions, two electrical circuits each including the winding of one of said magnets, and means including said contacts for selectively

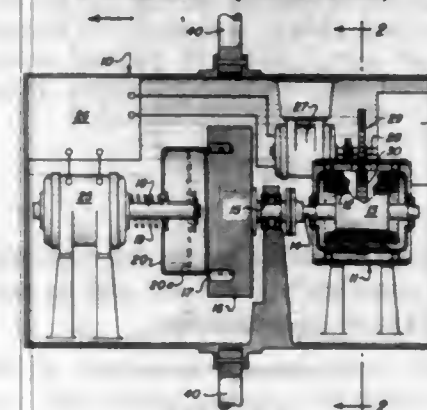
energizing said circuits upon engagement of said first contact with said second and third contacts respectively such that the magnet energized exerts upon said armature a force tending to separate the contacts so engaged.

2,819,053

ACCELERATION INTEGRATOR

Kenneth E. Pope, Albuquerque, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application March 20, 1957, Serial No. 647,460
6 Claims. (Cl. 264-1)

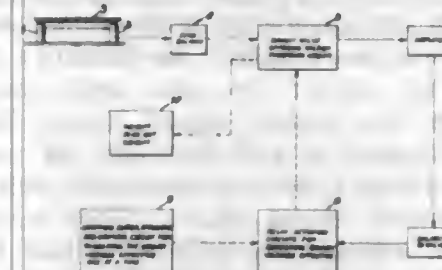


1. An acceleration integrator comprising a rigid outer housing, a first shaft rotatably supported therein, a synchronous motor for driving said first shaft, said motor having a rotatable field case, a magnetized element having a cylindrical flux gap and mounted on said first shaft, a second shaft rotatably supported within the outer housing and axially aligned with the first shaft, a spring-restrained eddy-current drag cup slidably mounted on said second shaft and positioned to penetrate said flux gap in response to linear acceleration axially along said first and second shafts whereby a torque is applied to said drag cup proportional to said acceleration, feedback means responsive to the rotation of the second shaft for driving the field case of the motor at the velocity of the second shaft, and means for sensing the velocity of rotation and angular displacement of the motor field case.

2,819,054

BINARY WEIGHING SYSTEM

Matthew T. Thorsson, Moline, Ill., assignor to Fairbanks, Morse & Co., Chicago, Ill., a corporation of Illinois
Application August 19, 1955, Serial No. 529,527
16 Claims. (Cl. 265-70)



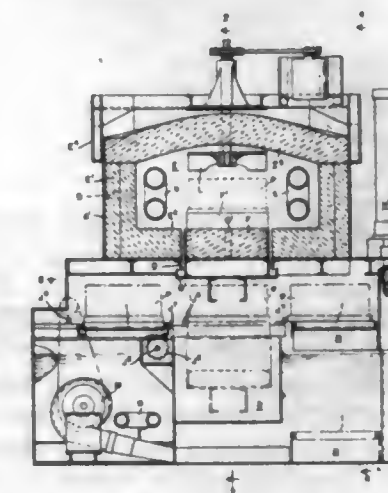
1. An electrical weighing system comprising means to produce a voltage in the system proportional to an applied load, binary number resistor means including a first and a second relay circuit to automatically produce in the system a voltage of equal magnitude and opposite phase to the load voltage, stepping circuit means including a plurality of comoving contactor arms and arranged to continue in operation uninterruptedly throughout a weighing cycle after its initial energization, time delay means connected in said stepper-circuit means to control the period between operations of the stepping means by controlling the energization of the actuating coil therein, balance detector means connected in circuit with said sensing means

and said opposing voltage producing circuit to detect both phase and magnitude voltage differences between the voltage created by the sensing means and the voltage produced by the opposing voltage circuit, a contactor operated by said balance detector to close a circuit through a comoving contactor arm of the stepping means to either the first relay circuit or the second relay circuit depending on the phase of the voltage detected, certain of said coils in said first relay circuit being initially energized by the closure of said detector and being held energized by their own holding circuits to maintain certain of the binary value resistors in the opposing voltage producing circuit effective to create, after a complete stepping cycle, a voltage in the opposing voltage circuit of equal magnitude and opposite phase to the applied load voltage, and read-out means for the system including read-out coil windings operative in accordance with those parallel resistance paths remaining closed in the opposing voltage producing circuit.

2,819,055

HEAT TREATING FURNACE

Walter H. Holcroft and Mathew R. Larson, Detroit, Mich., assignors to Holcroft & Company, Detroit, Mich., a corporation of Michigan
Application April 25, 1955, Serial No. 503,470
7 Claims. (Cl. 266-4)



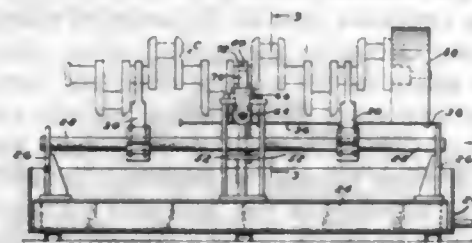
1. A heat treating furnace comprising a normally closed and sealed metallic housing, a refractory lining in the upper central portion of said housing enclosing the heat treating chamber, a separate vestibule chamber beneath said heat treating chamber provided with work inlet and exit openings, a liquid holding quench well in the lower portion of said vestibule chamber, a casing forming a dry well within said quench well beneath said heat treating chamber, an elevator in said dry well for raising and lowering work between said vestibule and heat treating chamber, doors for closing and sealing said entrance and exit openings, conveyor means for the work between the entrance side and the elevator and between the elevator and exit side, and means at the latter side for lowering the work into the quench well and for raising the same.

2,819,056

APPARATUS FOR HEAT-TREATING STEEL
James E. Ayres, Detroit, Mich., assignor to Induction Heating, Inc., Fostoria, Ohio, a corporation of Ohio
Application June 13, 1955, Serial No. 515,093
7 Claims. (Cl. 266-4)

1. A machine for heat-treating circular portions of elongate steel articles which comprises, a supporting device for said articles, a double pair of slides on said machine, each pair operating in a direction transversely to the other, one pair of slides supporting a means to form a closed heating ring when in operating position and adapted to be moved away from operating posi-

tion, and the other of said slides movably supporting a means to form a closed quench ring when moved to the conduit being contained within the second, a source of cooling air at the end of the conduit which is away from

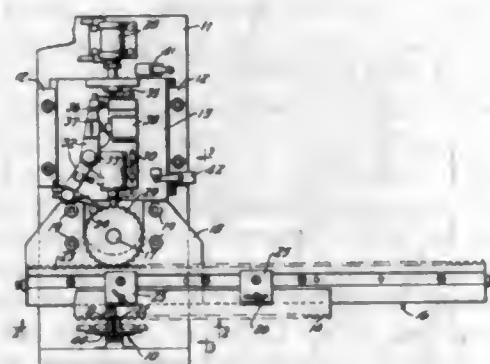


same operating position, said slides being operable in such sequence that an article may be heated and immediately thereafter quenched.

2,819,057

RACK-TOOTH HARDENING MACHINE

Charles A. Pethybridge, New Britain, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut
Application October 18, 1955, Serial No. 541,208
5 Claims. (Cl. 266-4)



2. Rack heat-treating means, comprising a frame including elongated guide means, a base slidably guided by said guide means, feed means for reciprocating said base along said guide means, a traverse slide including work-supporting means and guided in further guide means on said base generally transverse to said first guide means, said slide including a rack elongated along the axis of said further guide means, a gear revolvably carried by said base and in constant mesh with said rack, slide-locating means including a reciprocable tooth-engaging element for holding a transverse position of said rack, indexing means including actuating means coordinated with the cycle of operation of said feed means and of said locating means for indexing said slide by one rack tooth for each withdrawal of said locating means.

2,819,058

REELING APPARATUS

Myles Morgan, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts
Application June 11, 1954, Serial No. 436,096
5 Claims. (Cl. 266-5)

1. A reeling apparatus comprising a pouring reel having a vertical axis of rotation, a tight-fitting horizontal cover for said reel, first vertical conduit extending through the said cover in a manner generally coaxial with the said axis of rotation of the reel, a second vertical conduit attached to the cover and communicating with the interior of the reel for removing air therefrom, the first

the cover, and an actuating means for removing the cover and conduits completely from the reel to permit the removal of coiled product therefrom.

2,819,059

APPARATUS FOR TRANSFERRING HIGHLY REACTIVE MOLTEN METALS

Rudolph T. Breymeler, Niagara Falls, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Application June 25, 1954, Serial No. 439,296
3 Claims. (Cl. 266-38)



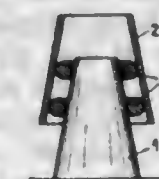
1. Apparatus for transferring metal which is highly reactive with atmospheric air in the molten state comprising, in combination, a furnace for heating a container of said metal to convert the solid metal therein to the molten state; first conduit means, having first and second ends, adapted at said first end for insertion into said heating furnace and communication with the interior of said container; second conduit means, having first and second ends, substantially parallel to said first conduit means in the region of said first end and adapted to receive molten metal for transferral to a reaction vessel at said second end; generally U-shaped conduit means having an external diameter smaller than the internal diameter of said first and second conduit means, one leg thereof slidably mounted in said first conduit means through said second end and adapted to pass there-through to the bottom of said container, and the other leg thereof slidably mounted in said second conduit means through said first end thereof; packing means mounted at said second end of said first conduit means and said first end of said second conduit means for providing a gas-tight seal between the atmosphere and the annular spaces formed between the internal surfaces of said first and second conduit means and said legs of said generally

U-shaped conduit means mounted therein; gas inlet means associated with said first conduit means for passing an inert gas through the annular space between the internal surface of said first conduit means and said leg of said generally U-shaped conduit means slidably mounted therein, and valve means associated with said first end of said first conduit means for closing off said conduit to the atmosphere.

2,819,060

NON-RESONANT SPRING DEVICES HAVING ELASTIC CUSHIONING RINGS

Hermann J. Neidhart, Geneva, Switzerland
Application January 11, 1954, Serial No. 403,359
Claims priority, application Switzerland January 16, 1953
9 Claims. (Cl. 267-1)

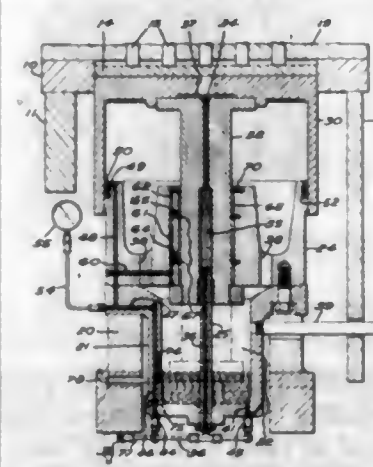


1. A resilient device of the character described comprising inner and outer members disposed for relative reciprocation along a substantially rectilinear path, said inner member having at least one elongated, outwardly frusto-conical surface converging in one direction along said path and said outer member defining at least one elongated, inwardly frusto-conical surface converging in the same direction along said path, the surfaces of said members, respectively, being disposed in concentrically spaced, partially telescoped relationship, and a plurality of toroidal elastic rings, each coaxially disposed between said members in circumferential engagement with an opposed pair of said frusto-conical surfaces thereof and in axially spaced relationship, whereby relative rectilinear movement of said members along said path to move said surfaces into further telescoped relationship will roll said rings axially along said surfaces while radially and elastically compressing the rings therebetween to provide elastic resistance to such movement, at least two of said rings differing in their elastic response to deformation.

2,819,061

POWER PRESS CUSHION LUBRICATING APPARATUS

Leiv S. Platou, Buffalo, N. Y., assignor to Niagara Machine & Tool Works, Buffalo, N. Y.
Application March 30, 1955, Serial No. 497,956
4 Claims. (Cl. 267-1)



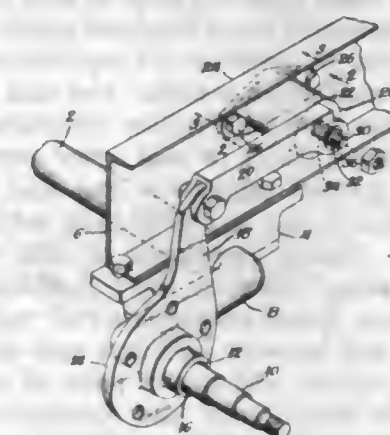
1. In a power press, a bed structure and a pressure pad associated therewith, an annular piston fixed at its lower portion to said bed structure, said pressure pad including a depending cylindrical member extending slidably about said annular piston and a depending piston

extending slidably into said annular piston, means for maintaining air pressure between said annular piston and said cylinder member to yieldably urge said pressure pad to raised position, oil pump means comprising an opening in said depending piston and a plunger fixed with respect to said bed structure and extending upwardly for sliding engagement in said opening, and oil pressure passage means for conducting oil under pressure from the oil pump means to the interior and exterior peripheries of said annular piston.

2,819,062

AXLE ASSEMBLY

Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application October 21, 1953, Serial No. 387,347
4 Claims. (Cl. 267-8)

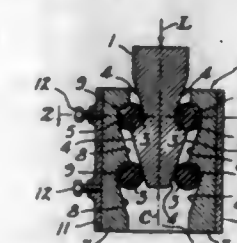


1. In an axle assembly of the trailing wheel type a vehicle body, a bearing bracket provided on the vehicle body, a shaft journaled in said bearing bracket, a crank connected to the shaft outboardly of the bracket, a spindle connected to the crank in spaced relationship to the shaft, a brake flange journaled on the spindle, a link disposed above and substantially parallel to said crank and having one of its ends pivotally connected to said flange above said spindle, a double acting hydraulic shock absorbing device connected to the vehicle body, a shaft projecting from one end of said device, and a nonrotatable connection between said shaft and the other end of said link, said flange, link and shock absorbing device coacting to distribute braking torque forces to said body to resist relative movement of the body and spindle toward each other, said crank and link having effectively unlimited range of movement, said link being disposed normally at a relatively flat obtuse angle to a plane through the spindle and the pivotal connection between the flange and the link.

2,819,063

RESILIENT SUPPORTS

Hermann J. Neidhart, Geneva, Switzerland
Application July 13, 1956, Serial No. 597,618
Claims priority, application Switzerland
September 23, 1948
12 Claims. (Cl. 267-63)



1. A support structure for resiliently mounting one member on another for relative reciprocation along a predetermined substantially rectilinear path, comprising an outer member that is symmetrical with reference to

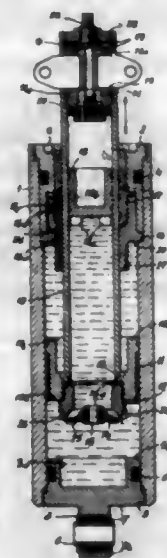
a median plane parallel to said path and has a pair of spaced wall portions defining a first pair of inwardly facing surfaces that converge in one direction along said path toward said plane; said first pair of surfaces, in the region of their greatest separation, merging into a second pair of inwardly facing surfaces that converge in the opposite direction along said path toward said plane; an inner member disposed between said wall surfaces of said outer member, said inner member being symmetrical with reference to said plane and having opposite sides defining a third pair of surfaces respectively facing outwardly toward said first pair and converging in the same direction toward said plane; and said third pair of surfaces, in the region of their minimum separation, merging into a fourth pair of surfaces that converge in said opposite direction toward said plane; and a pair of substantially identical solid elastic rollers of rubberlike material and of circular cross-section when unstressed disposed on opposite sides of said inner member, each of said rollers, when said support is unloaded, being confined under appreciable radial compression in positions of equilibrium between said surfaces of said outer member and said surfaces of said inner member with said rollers simultaneously rollably engaging said surfaces of said outer member in the region of their greatest separation and said surfaces of said inner member in the region of their minimum separation, whereby relative movement of said members in either direction along said path will be yieldingly resisted only by increasing radial compression of said rollers as they roll along and between said first and third pairs of surfaces or said second and fourth pairs of surfaces, depending upon the direction of said movement; said support structure having at least two such sets of rollers and confining surfaces spaced along said path with all of said rollers being under substantially identical degrees of radial compression at all positions of said members along said path, whereby the spaced sets of rollers and confining surfaces elastically resist relative oscillation or twisting of said members about axes normal to said predetermined path and parallel to said median plane.

2,819,064

SUSPENSION DEVICES FOR VEHICLES

Lucien Jules Peras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France, French works under the control and the authority of the French Government

Application July 7, 1954, Serial No. 441,825
Claims priority, application France August 24, 1953
5 Claims. (Cl. 267-64)



1. A suspension device for resiliently interconnecting two parts of a vehicle comprising, in combination, a cylindrical casing adapted to be connected to one part of the vehicle, a tubular member slidably received in said casing and adapted to be connected to the other part of the

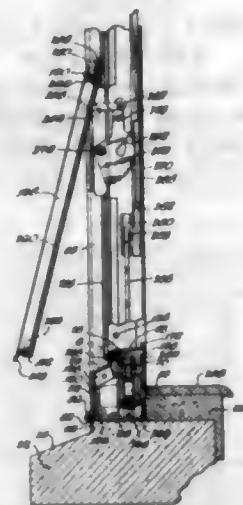
vehicle, a piston member connected with said slidable member and slidable against the inner wall of said cylindrical casing, said piston member having a hollow head provided with a central orifice of predetermined diameter providing communication between the interior of said slidable tubular member and the interior of said cylindrical casing on a first side of said piston member, said casing being adapted to be filled with a liquid and said slidable member being adapted to be at least partially filled by said liquid flowing through said orifice, a float member slidable interiorly of said slidable tubular member and engaging the inner wall of said slidable tubular member to prevent fluid communication from one side of said float member to the other, whereby to separate the interior of said slidable tubular member into two zones of variable volume, one of said zones being adapted to receive the liquid contained in said cylindrical casing and the other of said zones being adapted to contain a compressible fluid, the head of said piston member further comprising a plurality of channels providing communication between the interior of said slidable tubular member and the interior of said casing on said first side of said piston, said channels being provided with one-way valve means permitting flow of liquid from the interior of said slidable tubular member but preventing flow of liquid thereinto through said channels, and means providing continuous communication between the interior of said slidable member and the interior of said casing on the other side of said piston, the surface of said float facing said central orifice and said head being provided with cooperating abutment means to prevent interruption of communication through said head between said orifice, and said means providing continuous communication between the interior of said slidable member and the interior of said casing on the other side of said piston when said float moves toward said orifice.

2,819,065

AWNING WINDOW STRUCTURE

Earl P. Jones, Fort Lauderdale, Fla., assignor to Gate City Sash and Door Company, Fort Lauderdale, Fla., a corporation of Florida

Application May 25, 1954, Serial No. 432,269
10 Claims. (Cl. 268-23)



9. A sash assembly for awning type window structure comprising a window sash, a channel-shaped mounting member positioned at each end of said sash, each of said mounting members including a pair of parallel flanges and a connecting wall, said window sash having a hinge projection formed on each end thereof and extending into a slot in the associated connecting wall and pivotally mounted on the associated parallel flanges, a toothed sector pivotally mounted on each pair of said parallel flanges between said parallel flanges, each sector having

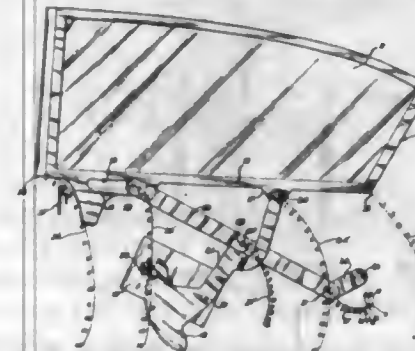
an arm formed integral therewith, a link for each sector pivotally connected at one end to the associated arm and extending through a slot in the associated connecting wall and pivotally attached to the adjacent edge of said sash.

2,819,066

WINDOW REGULATOR

John T. Hadwin, Jr., Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application August 11, 1955, Serial No. 527,804
5 Claims. (Cl. 268-126)



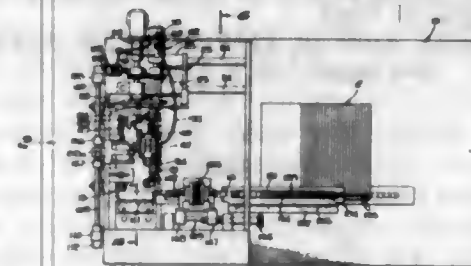
1. In a window control mechanism for raising and lowering a window in a motor vehicle body, a regulator gear pivotally mounted upon the body, an actuating arm having its lower end movable with said regulator gear and its upper end pivotally connected to the lower edge of said window rearwardly of the center thereof, a second arm pivotally connected intermediate its ends to an intermediate part of said actuating arm, a horizontal guideway at the lower edge of said window forwardly of the center thereof, means slidably connecting the forward end of said second arm to said guideway, a short link having its lower end pivotally connected to the lower end of said second arm, means pivotally connecting the upper end of said link to said body at a point spaced rearwardly and above the connection of said link to said second arm to effect an initial rearward movement of the upper end of said second arm and a subsequent downward movement thereof to move the forward portion of the window first generally rearwardly and then generally downwardly.

2,819,067

CHECK SHINGLING MACHINE

Theodore P. Dusenbury, Los Angeles, Calif., assignor, by mesne assignments, to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application December 22, 1955, Serial No. 554,890
5 Claims. (Cl. 270-58)



1. A device for use in forming a shingled strip from a stack of sheets, comprising in combination: a frame having a table surface, a pair of longitudinally extending horizontal parallel guides fixed on said frame at one side thereof, a crosshead mounted to move longitudinally on said guides, a laterally extending bar fixed to the crosshead and extending toward the other side of the frame, a transfer member mounted for vertical movement on said bar, a sheet gripping device mounted on the transfer member, means for reciprocating the crosshead on said guides from a first position overlying the stack of sheets

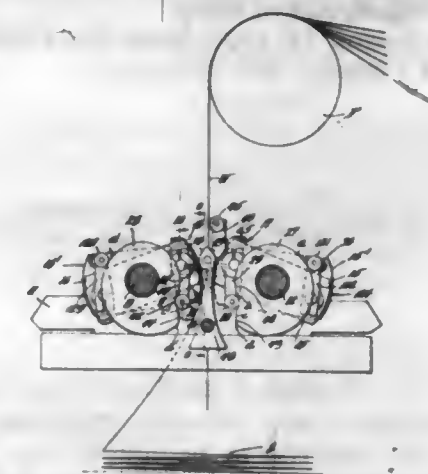
to a second position overlying the table surface on which a sheet is to be deposited, means carried on said bar adapted to move the transfer member vertically at the first position of the sheet gripping device for lifting a sheet from the stack, a pressure foot engageable with a sheet carried by the sheet gripping device at the second position of the sheet gripping device, and means for actuating said pressure foot to engage the sheet for depositing same on the table surface when the sheet gripping device has been moved to its second position.

2,819,068

ZIG-ZAG INTERFOLDING MACHINE

Raymond M. Loase, Hawthorne, N. Y., assignor, by mesne assignments, to American Type Founders Co., Inc., Elizabeth, N. J., a corporation of Delaware

Application August 17, 1954, Serial No. 450,356
3 Claims. (Cl. 270-73)



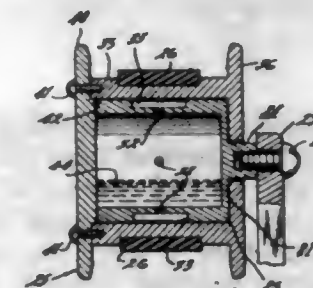
1. In an interfolding machine for folding a web in zig-zag fashion, blade means and jaw means mounted for bodily translation about parallel axes to insert said blade means into the bite of said jaw means to introduce a fold in said web, said blade means and said jaw means being adapted for rotation about axes independent of said axes of translation, cam means for rotating the blade means and jaw means in directions contrary to the direction of translation to maintain the blade means co-planar with the bite of said jaw means through a common arc of the paths of translation which extends both above and below the plane of the axes of translation, said jaw means comprising two jaws one of which is rockable independently of its translation and rotation, means urging said rockable jaw toward said other jaw to define the bite thereof, and independent cam means for rocking said rockable jaw away from said other jaw at the end of said common arc to release the folded web.

2,819,069

INTERNAL DRAG ROLLER

Warren R. Isom, West Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application May 25, 1953, Serial No. 356,940
10 Claims. (Cl. 271-2.3)



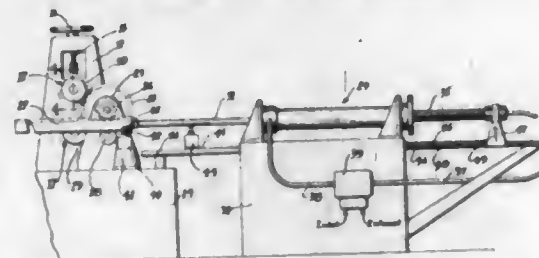
1. In a film drive system having a drive sprocket for pulling film over an inertia drum, a drive sprocket, an

inertia drum, a tensioning means between said sprocket and drum, said film being adapted to approach said drum in a loose loop and pass over said tensioning means to said sprocket in a tight loop, a pressure roller, means for supporting said roller for movement into and out of contact with said drum, said roller being adapted to contact film passing over said drum, and means within said roller for applying a uniform internal viscous drag to the surface of said roller and a resistance to the passage of film over said drum, said viscous drag means including a fixed inner cylinder and an outer cylinder rotatable with respect to said inner cylinder.

2,819,070

MECHANICAL MOVEMENT PARTICULARLY FOR FEED APPARATUS

Richard F. Herr, Warren, Ohio, assignor, by mesne assignments, to The Herr Equipment Corporation, Warren, Ohio, a corporation of Ohio
Application August 18, 1953, Serial No. 374,903
4 Claims. (Cl. 271-2.4)

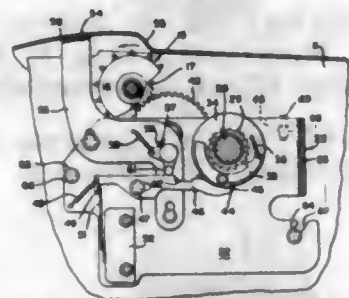


1. Apparatus for feeding a predetermined length of material, comprising a pair of rolls providing a pass through which the material to be fed extends and between which such material is gripped, a gear for each of said rolls, a reciprocable rack having driving engagement with each of said gears for effecting simultaneous rotation of said gears in a clockwise direction upon movement of said rack in one direction and for effecting simultaneous rotation of said gears in a counter-clockwise direction upon movement of said rack in the opposite direction, and clutch means for effecting driving engagement between one of said gears and its respective roll in one direction of movement of said rack and for effecting driving engagement between the other of said gears and its respective roll in the opposite direction of movement of said rack.

2,819,071

AUTOGRAPHIC REGISTER

Charles H. Dietz and John H. Kroemer, Dayton, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application February 4, 1955, Serial No. 486,255
8 Claims. (Cl. 271-2.4)



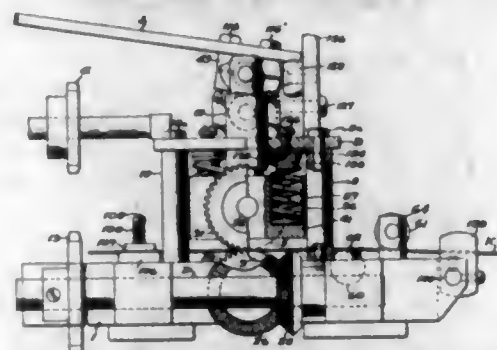
1. In an autographic register, including relatively stationary side frames, a transverse shaft journaled between said side frames, pin feeding devices on said shaft for advancing record strip material through the register, and a gear fast on said shaft, a mounting plate releasably connected in parallel, adjacent relation to one of said side frames intermediately thereof, power means for rotating said shaft mounted on said plate, said means including a gear meshing with the gear on said shaft, and

means including a single releasable connecting element engaging with said one side frame and said mounting plate providing for unitary installation and removal of said plate and power means thereon.

2,819,072

AUTOMATIC ROLL FEED FOR PUNCH PRESSES

Joseph Wittek, Sherman Oaks, Calif.; Rudolph Wittek, administrator of said Joseph Wittek, deceased
Application September 23, 1955, Serial No. 536,253
4 Claims. (Cl. 271-2.4)

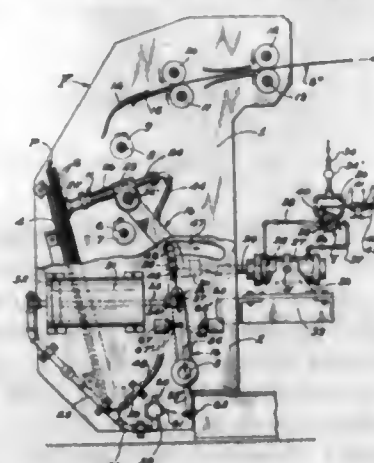


1. In a roll-feed mechanism for feeding strip stock into a punch press having a vertically reciprocating ram carrying an actuator finger: upper and lower feed rolls; a fixed frame in which the lower roll is journaled; a deck fixedly supported by said frame above the upper roll; a pair of leader pins vertically slidable in said deck; journals carried by the lower ends of said pins, in which said upper roll is journaled; means spring-loading said journals downwardly; a cam shaft bridging between the upper ends of said pins and journaled thereto; a fulcrum roller carried by said deck below said cam shaft; cam means on said shaft and bearing against said fulcrum roller; and a release lever attached to said cam shaft and including an actuator arm projecting generally radially therefrom and horizontally beneath said actuator arm for engagement thereby; said cam means including a rapidly rising cam face terminating in an apex, and a substantially dwell face following said apex, said apex, in approaching an on-center position on said fulcrum roller, effecting an elevation of said upper roll to a release position within a relatively small portion of the stroke of said lever, and said dwell face allowing a wide range of further downward movement of the release lever with only a moderate further elevation of the upper roll.

2,819,073

SHEET FEEDING APPARATUS

Lloyd G. Murray, Youngstown, Ohio, assignor to The Aetna-Standard Engineering Company, Pittsburgh, Pa., a corporation of Ohio
Application April 20, 1955, Serial No. 502,615
9 Claims. (Cl. 271-11)



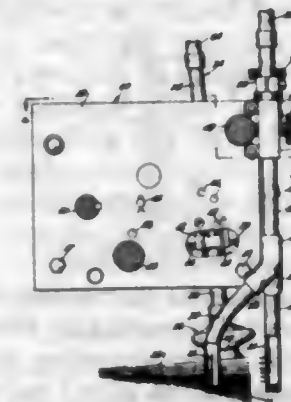
1. Apparatus for feeding electrically conductive sheets of magnetic material including, a stack support for holding a stack of sheets in generally vertical position, a mag-

netic roll adjacent said stack support, a pickup arm having a suction head supported at one end thereof, said pickup arm being mounted for movement in advancing and retracting directions between a position in which said suction head is more remote from said stack support than said roll and a position in which said suction head is closer to said stack support than said roll and is adapted to engage a sheet on said stack support, means for creating suction at said pickup head during a portion of the movement of said arm in retracting direction whereby a sheet will be picked up by said pickup head and removed from said stack, valve means operable by movement of said pickup arm for relieving the suction at said suction head substantially when a sheet carried thereby engages said magnetic roll during movement in retracting direction and before said arm reaches the end of said movement in retracting direction, means for imparting movement to said pickup arm in said advancing and retracting direction, and control means for said pickup arm advancing and retracting means whereby said arm, after being fully retracted, will start movement in advancing direction immediately upon, but not until, contact between the sheet being fed and said magnetic roll is broken.

2,819,074

SHEET SEPARATING MECHANISM

Leo C. Williams, Pearl River, N. Y., assignor, by mesne assignments, to Michle-Goss-Dexter, Incorporated, a corporation of Delaware
Application May 10, 1954, Serial No. 428,520
19 Claims. (Cl. 271-26)



1. In a sheet separator for separating sheets one at a time from the top of a supply thereof, a hollow upwardly extending elongated element having a cam surface thereon facing a side edge of said supply, a sheet gripping sucker pneumatically and mechanically connected to said element, an operating member for said sucker connected with said element, the connection between said element and said member being a pivot permitting swinging movement of said element and said sucker in opposite directions laterally of said supply, means for operating said member to move said element and said sucker vertically toward and away from said supply, a fixed follower arranged for engagement by said cam surface, said cam surface acting to swing said element and said sucker in one of said lateral directions upon vertical movement of said element and said sucker in one direction, and yieldable means acting to swing said element and said sucker in the other of said lateral directions upon vertical movement of said element and said sucker in the opposite direction.

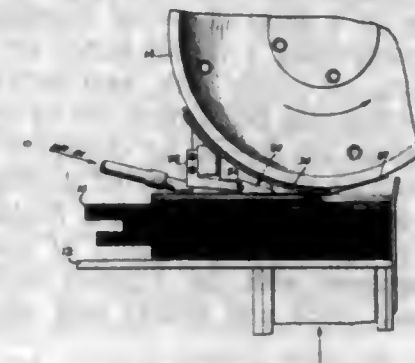
2,819,075

SHEET-SEPARATING DEVICE

Alonzo W. Noon, Los Altos, Calif.
Application December 20, 1954, Serial No. 476,444
5 Claims. (Cl. 271-26)

1. A device for separating the top sheet from a stack of sheets of material pervious to air comprising a substantially flat surface having a plurality of perforations

dispersed within an area of said flat surface which is less than the area of a top sheet, means to position said substantially flat surface on said top sheet, and means to

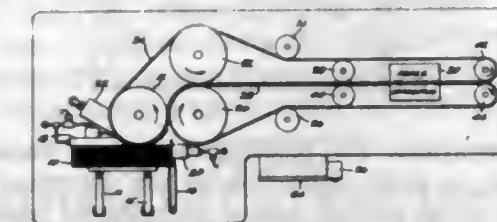


apply air under sufficient positive pressure through the apertures in said flat surface against said top sheet to force air through said top sheet thereby separating it from the stack.

2,819,076

PAPER-HANDLING APPARATUS

Paul H. Wendt, Los Altos, and Kenneth R. Eldredge, Palo Alto, Calif.
Application April 29, 1955, Serial No. 504,708
9 Claims. (Cl. 271-27)

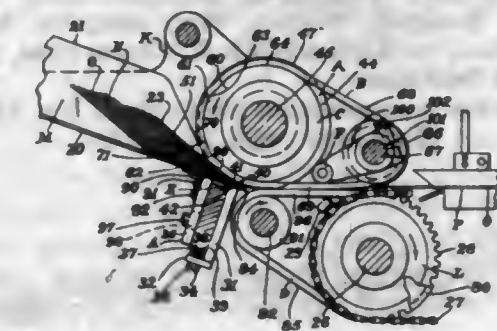


1. Apparatus for separating sheets from a stack comprising a drum having a groove, means to rotatably support said drum with its periphery in proximity to said stack of sheets, stationary suction means in and extending along a portion of said groove, a movable finger extending outward from said suction means and away from said drum surface, and means to retract said finger into said suction means to permit a sheet from said stack to be drawn against said drum surface to be movable therewith.

2,819,077

SHEET FEEDING DEVICE

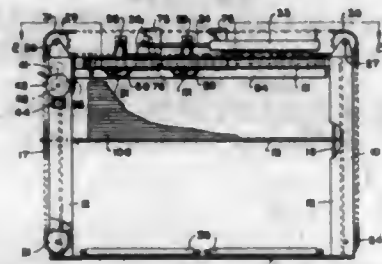
Harold J. Goss, Nashua, N. H., assignor to The International Paper Box Machine Company, Nashua, N. H., a corporation of New Hampshire
Application July 13, 1953, Serial No. 367,438
10 Claims. (Cl. 271-35)



1. Apparatus for individually and successively sliding each endmost sheet from the end of a stack of sheets of uniform thickness, said apparatus comprising nonyielding sheet separator means including a freely revoluble roll having a smooth antifriction circumferential surface in engagement with the exposed surface of each endmost sheet and forming one side of a nonyielding sheet passage equal in height to the thickness of a sheet and located along the leading edge of an endmost sheet in the

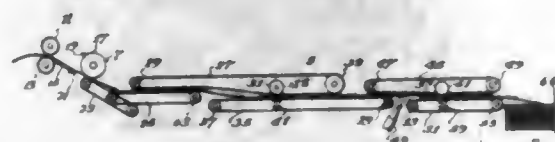
stack; a flexible friction feeder belt having a stretch advancing continuously from proximate the exposed surface of an end sheet in said stack along the plane of said passage and up to a sheet conveyor mechanism; sheet feeder means comprising a feeder pulley of less radius than, and rotating co-axially with, said roll, said pulley normally supporting said belt stretch out of contact with each endmost sheet but having an elongated circumferential projection with gradually tapered leading and trailing edges for periodically moving said feeder belt outwardly, radially beyond the periphery of said roll into frictional engagement with the exposed surface of an end sheet of said stack and sliding said sheet through said passage.

2,819,078
PANEL FEEDING APPARATUS
Robert Auguste Durand, New Westminster,
British Columbia, Canada
Application March 14, 1955, Serial No. 494,176
7 Claims. (Cl. 271-39)



1. In apparatus for feeding the upper panel from a panel stack, a guide extending in the direction in which panels are to be moved, and a plurality of panel movers adjacent the guide; each panel mover comprising a vertical pin, a support mounted to pivot about the axis of the pin and normally extending substantially in the direction of panel movement, a roller mounted on the support with its axis spaced from and lying in a substantially horizontal plane extending at right angles to the pin axis, power means connected to the roller for rotating the latter, and means yieldably inclining the support and roller towards the guide in the direction of panel movement; said inclined rollers on engaging an upper panel lying therebeneath moving said panel against the guide and the inclining means being sufficiently yieldable to permit the rollers at this time to swing about the pins to their normal positions parallel to the guide whereby they move the panel along the latter.

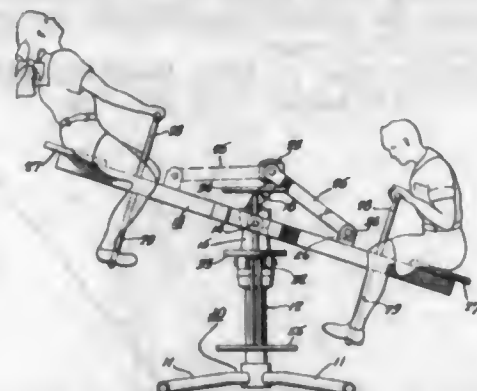
2,819,079
SHEET FEEDING MECHANISM
Delton C. Beaulieu, Neenah, Wis., assignor, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware
Application September 20, 1954, Serial No. 457,175
5 Claims. (Cl. 271-76)



1. In combination with a cutter-layboy adapted to form vertical stacks of uniform size sheets from a continuous length of paper, a sheet feeding means for delivering the sheets from the cutter to the layboy comprising a high speed tape conveyor extending downwardly and forwardly from said cutter, a first relatively low speed horizontal tape extending from a position below and adjacent to the forward lower end of said high speed tape to receive sheets from the latter, a first overlapping tape disposed above a portion of said high speed tape con-

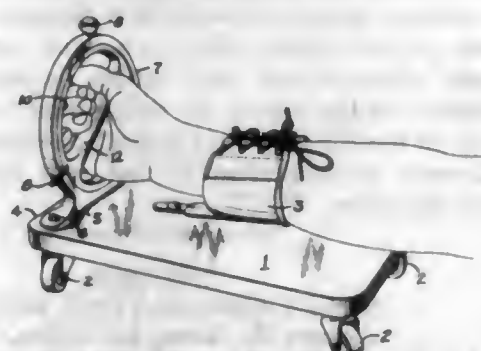
veyor in closely overlying relation thereto and lapping said first low speed tape, said first overlapping tape operating at a speed greater than said first low speed tape, a pair of rolls disposed at a position along said first low speed tape and adapted to press the leading edge of each sheet as it reaches such position, thereby causing the succeeding sheet to overlap the trailing edge of said sheet, a second low speed horizontal tape disposed at a position spaced forwardly of and below said first low speed tape in position to receive sheets from said first low speed tape and to convey said sheets to said layboy, a second overlapping tape lapping the forward end of said first low speed tape and said second low speed tape in closely overlying relation thereto and operating at the speed of the former, said second low speed tape operating at a speed less than said first low speed tape and said second overlapping tape, and an additional pair of rolls disposed at a position along said second low speed tape and adapted to press the leading edge of each sheet to thereby increase the amount of overlap of the sheets.

2,819,080
COMBINED SEE-SAW AND MERRY-GO-ROUND
Louis Pittaluga, Willow Grove, Pa.
Application September 26, 1955, Serial No. 536,675
1 Claim. (Cl. 272-30)



In a see-saw device, the combination comprising a bearing member extending vertically from a supporting surface, a rigid teeter board extending on opposite sides of said bearing member and mounted for rotation about a vertical axis defined by said bearing member, a second bearing member located in position offset from the axis of said first bearing, and a single rigid link universally mounted at one of its ends to said second bearing member and at its opposite end to said teeter board at a location longitudinally spaced from its mounting about said vertical axis.

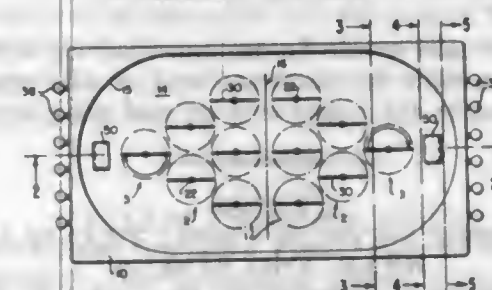
2,819,081
EXERCISERS
John Touraine, Miami Beach, Fla.
Application October 3, 1955, Serial No. 537,924
4 Claims. (Cl. 272-67)



1. An exerciser comprising a platform, an upwardly directed outer ring secured to said platform, an inner ring having an annular groove extending about its outer circumference and having a diametrical hand-grip secured thereto, and single means for retaining said inner ring

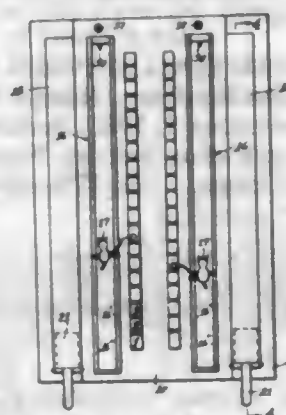
concentric with and rotatable within said outer ring and for permitting at will variation of the forces required to rotate said inner ring with respect to said outer ring, said single means comprising a plurality of set screws disposed about the circumference of said outer ring and extending therethrough into the annular groove in said inner ring and into at will variable frictional engagement with the bottom wall of said groove.

2,819,082
SIMULATED HOCKEY GAME
James B. Peters, Lynn, Mass.
Application January 7, 1955, Serial No. 480,374
3 Claims. (Cl. 273-85)



1. A table hockey game comprising a game board including a rectangular playing field enclosed within side and end walls and two opposed playing mechanisms on the board facing each other at opposite sides of a line extending transversely through the center of the field, each of said mechanisms comprising three relatively spaced playing units each embodying a rotary shaft extending vertically through the board and carrying an arm extending laterally outward therefrom over the field, the three units having a combined arm-swing diameter substantially equal to the width of the field and disposed directly opposite three like units at the opposite side of said line, two like units opposing two units at said opposite side of the line and disposed rearwardly of and intermediately between each three units and a single like unit opposing a unit at said opposite side of the line and disposed rearwardly of and intermediately between each two units, bearing means respectively supporting the shafts for rotation on fixed vertical axes relative to the board, and means including a plurality of levers pivoted to the board and projecting outwardly from the ends thereof and associated with the shafts beneath the board for respectively rotating the shafts individually, the last named means including mechanism normally pivoting said outwardly projecting ends of the levers upwardly and means at the other ends of the levers for rotating the shafts when said outwardly projecting ends of the levers are depressed.

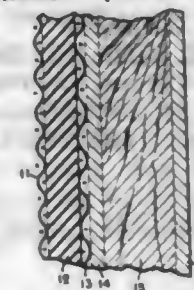
2,819,083
RACE GAME APPARATUS
Murray M. Schiffman, New York, N. Y.
Application August 21, 1956, Serial No. 605,246
7 Claims. (Cl. 273-86)



1. In a race game device, the combination with a member presenting a path, a member carrying an electric motor and serving as a contestant in such game; said contestant

being positioned for movement along said path and arranged to move therealong upon actuation of said motor, a plurality of sets of successively spaced electrically conductive segments arranged successively along the path, a first electrically conductive arm carried by the motor-carrying member, in contact always with one of the segments along said path and capable of being in contact with any two successive segments along the path, at least one set of successive spaced electrically conductive segments arranged successively in the form of a commutator, a rotatable shaft, a second contact arm arranged to be moved by said shaft; said second contact arm being electrically conductive and in contact always with one of the segments of the commutator and capable of being in contact with any two successive segments of said commutator; one of said contact arms, at every rest position thereof, being in contact with two adjacent segments of those segments it is associated with; the number of segments in each of the mentioned sets being identical and all correspondingly positioned segments of all the sets being electrically connected respectively, a source of electrical energy, means electrically connecting one terminal of said energy source with a terminal of the motor; the other terminal of the energy source being electrically connected to the second contact arm; the other terminal of the motor being electrically connected to the first contact arm and means operable by an element which is adapted to be propelled in speculative fashion, for turning said shaft in either direction whereby the second contact arm is moved along the commutator a distance equal to the length of one commutator segment; the length of each commutator segment being substantially equal.

2,819,084
ELECTRICALLY SCORING TARGET
Forrest W. Brown, New Canaan, and Kenneth J. Chichester, Stamford, Conn., assignors to The Reflectone Corporation, Stamford, Conn., a corporation of Connecticut
Application April 19, 1955, Serial No. 502,447
6 Claims. (Cl. 273-102.2)

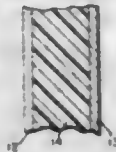


1. An electrically scoring target of laminated construction which includes two spaced electrodes adapted to be momentarily short-circuited by a bullet passing there-through comprising; a first electrode which includes a flexible, resilient, electrically conductive, rubber diaphragm tending to reseal itself after a bullet has passed there-through; a flexible layer of metallic material in contact with one side of said diaphragm to produce an electrode of substantially low electrical resistance which tends to reseal itself by reducing the size of the bullet hole; a layer of electrically conductive material constituting the second electrode spaced from said first electrode; and a layer of insulating material disposed between said electrodes to establish electrical insulation therebetween.

2,819,085
ELECTRICALLY SCORING TARGET
Forrest W. Brown, New Canaan, and Kenneth J. Chichester, Stamford, Conn., assignors to The Reflectone Corporation, Stamford, Conn., a corporation of Connecticut
Application June 13, 1955, Serial No. 515,032
6 Claims. (Cl. 273-102.2)

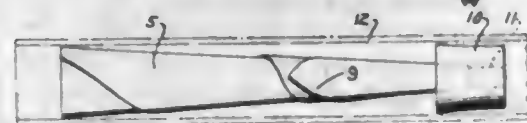
1. An electrically scoring target of laminated construction comprising; a first substantially thin and flexible

layer of electrically conductive material; a second, substantially rigid, layer of non-hygroscopic foamed plastic material; a third substantially thin and flexible layer of electrically conductive material; said layers being bonded



to one another to produce a substantially rigid laminated target construction which when supported at its lowermost edge stands self erect, and said layer of plastic material being substantially thicker than the layers of electrically conductive material.

2,819,086
YIELDABLE TIP DART
Richard L. Nelson, Battle Creek, Mich.
Application August 26, 1955, Serial No. 530,673
5 Claims. (Cl. 273—106.5)



1. A dart adapted for impulsion from a blow tube, said dart comprising a slender conical body, and a relatively soft yieldable tip on the small end of said body, said yieldable tip being substantially of the same outside diameter as the large end of said conical body, and the small end of said conical body extending part way through said yieldable tip, said conical body and yieldable tip being substantially concentric.

2,819,087
PICK-UP DEVICE FOR RECORD PLAYERS
Pasquale L. Cerone, De Witt, N. Y.
Application June 21, 1952, Serial No. 294,803
2 Claims. (Cl. 274—23)

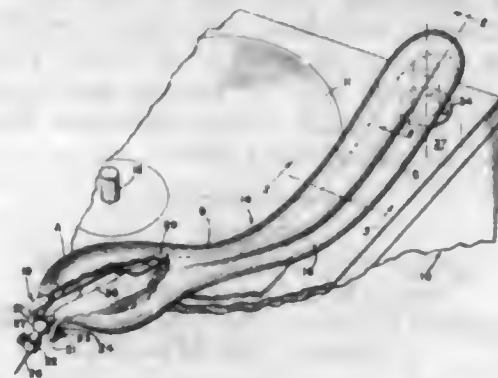


1. A pick-up device for record players comprising a supporting member, a tone arm mounted on said support for movement about a horizontal pivot toward and from the record and about a vertical axis radially of the record, a head mounted on the end of the arm remote from said axes and being provided with an electrical pick-up device having a stylus to engage the sound grooves of the record, a mass of shiftable granulated material of high specific gravity carried by said head separate from said pick-up device, and counterbalancing means acting on said arm whereby the arm exerts a slight downward pressure on the stylus.

2,819,088
TONE ARM CONSTRUCTIONS FOR PHONOGRAPHS
Earl D. Boisseller, Glen Ellyn, and Otto Felix, Chicago, Ill., assignors to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application July 16, 1952, Serial No. 299,162
4 Claims. (Cl. 274—23)

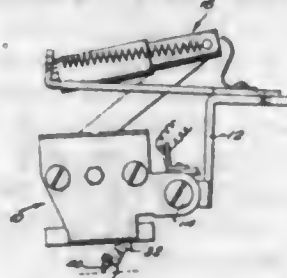
4. In combination, an acoustic type phonograph tone arm comprising a relatively thin-walled generally tubular body and integral head portion both constituting a resonant

ing body, a needle holder carrying a needle and fulcrumed at the forward end of said head portion, a stylus arm



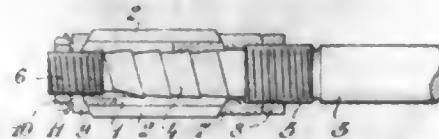
connected to said needle holder and received within said head portion with the rearward end of said stylus arm being secured to the upper wall of said head portion.

2,819,089
RECORDING METHOD USING TRANSLATING HEAD AND STYLUS
Harry A. Williams, Philadelphia, Pa., and John H. Sherwood, Fairfield, and Samuel A. Oliva, Danbury, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York
Application January 11, 1952, Serial No. 266,028
7 Claims. (Cl. 274—46)



1. The method of making a sound recording by means of an embossing stylus having a groove-forming portion, which comprises the steps of moving a record blank by and in contact with said groove-forming portion, pressing said stylus against said moving record blank to force the record material down and from beneath said groove-forming portion in a flowing movement laterally and upwardly along the sides of the groove-forming portion of said stylus that are oppositely located intermediate the leading and trailing surfaces of said groove-forming portion so as to swage a groove in said record blank having spoil banks along both edges thereof, holding said stylus in such a manner that predominantly more of said material is flowed to one of said stylus sides than to the other of said sides and so that one of said spoil banks rises to a substantially higher level than the other spoil bank, and vibrating said stylus in accordance with sound signals to be recorded on said record blank.

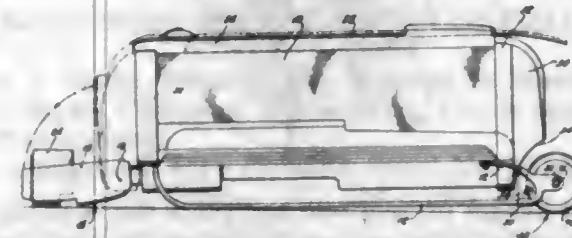
2,819,090
GRIPPING DEVICE
Sigfrid Linus Stenberg, Nassjo, Sweden
Application November 9, 1953, Serial No. 391,028
Claims priority, application Sweden November 11, 1952
2 Claims. (Cl. 279—2)



2. An adjustable reamer comprising in combination, a mandrel having a thread the pitch of which is great as compared with the depth of thread and screw-threaded portions on opposite ends of said thread, an expandable collet surrounding said thread and having a correspond-

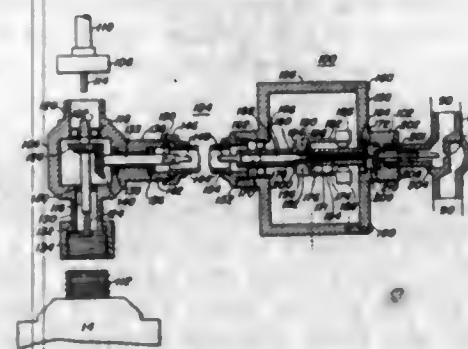
ing internal thread for allowing axial adjustment of said collet and said member with relation to each other by a relative rotation thereof, reaming cutters axially mounted on the outer surface of the collet, the collet and said cutters being formed with conically tapered ends, an adjusting nut having a correspondingly conical recess on one of said screw-threaded portions for engaging the respective tapered end of the collet and the cutters for holding said collet and cutters against relative rotation, a locking nut on said screw-threaded portion for cooperation with said adjusting nut, a ring freely mounted on the other screw-threaded portion of the mandrel, said ring having a conical recess for engagement with the respective conical end of the collet and the cutters, an adjusting nut on said screw-threaded portions outside said ring, and a locking washer between said ring and said adjusting nut for arresting the latter in position.

2,819,091
VACUUM CLEANER DOLLY
Robert C. Lampe, Stamford, Conn., assignor to Electrolux Corporation, Old Greenwich, Conn., a corporation of Delaware
Application June 29, 1953, Serial No. 364,587
2 Claims. (Cl. 280—8)



1. In a wheel dolly for a tank type vacuum cleaner having a pair of supporting runners at opposite sides thereof, each runner having a reversely bent portion, the combination of a base member mounted on each of said runners at the reversely bent portion thereof and comprising a pair of sheet metal stampings, each stamping of each pair being a mirror image of the other and each stamping having a groove therein conformably fitting over one-half of said reversely bent portion of its associated runner, means for securing each pair of stampings together with said portion of the associated runner clamped within said groove, aligned axle openings in each pair of stampings, a cylindrical flange extending from each stamping around each opening, the flanges of the stampings of each pair meeting to form a bearing surface, an axle extending between said base member and mounted in said bearing surfaces, and wheels mounted on said axle.

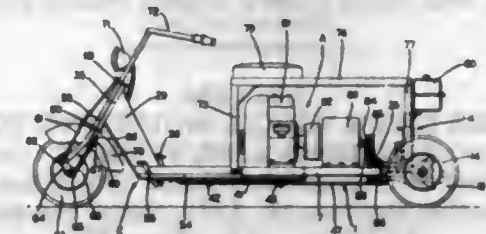
2,819,092
HYDRAULIC SNUBBING DEVICE RESPONSIVE TO SPEED FOR VEHICLE STEERING MECHANISM
Ronald R. Proctor and Albert H. Arens, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio
Application October 12, 1955, Serial No. 540,007
3 Claims. (Cl. 280—90)



1. A snubber unit for attachment to the steering linkage of a wheeled vehicle comprising, in combination, a

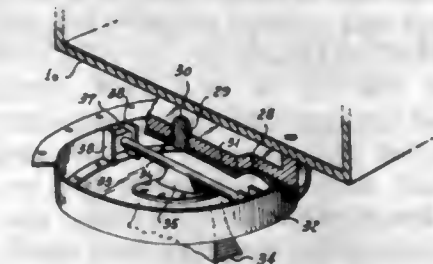
housing encompassing a cylinder with a piston operating therein, said piston having a piston rod extending outside said housing, means to connect said piston rod to said steering linkage, a liquid passageway leading from one end of said cylinder and communicating with the other end of said cylinder, a first variable-orifice valve controlling liquid flow through said liquid passageway, a liquid reservoir communicating with said liquid passageway, a valve-controlled by-pass around said valve, a second variable-orifice valve controlling liquid flow through said by-pass, said second variable-orifice valve controlling the sudden movement of said steering linkage by impeding the movement of liquid in said by-pass passageway.

2,819,093
SUSPENSION MECHANISM FOR MOTOR DRIVEN VEHICLES AND THE LIKE
Homer E. Geiser, near Dalton, Ohio
Application September 16, 1954, Serial No. 456,423
17 Claims. (Cl. 280—112)



1. Vehicle body suspension including a vehicle body member, a vehicle frame member, a first semi-circular transverse support member mounted on the frame member, a second semi-circular transverse support member slidably mounted on the first semi-circular member, tilting spring means connected to the first semi-circular member and second semi-circular member, cushioning spring means connected to the second semi-circular member and the body member, and a stabilizing bar solidly connected to the second semi-circular member and slidably connected to the body member.

2,819,094
PNEUMATIC SUSPENSION FOR VEHICLES
Rene Gouirand, New York, N. Y.
Application November 9, 1954, Serial No. 467,684
5 Claims. (Cl. 280—115)

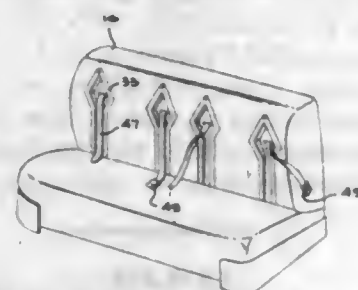


1. A pneumatic suspension comprising: a body, a pneumatic chamber mounted for pivotal movement on a vertical axis beneath the body and closed at its bottom by a diaphragm, a wheeled frame beneath the diaphragm and secured thereto, a transverse rod rigid with the wheeled frame and having shoes at its opposite ends, and upright guides rigid with the wall of the pneumatic chamber and cooperating with said shoes for relieving the diaphragm of draft and braking strains.

2,819,095
SAFETY SEAT AND SEAT BELT CONSTRUCTION FOR MOTOR VEHICLES
John Joe Haltmar, Jr., Ennis, Tex.
Application May 11, 1956, Serial No. 584,329
2 Claims. (Cl. 280—150)

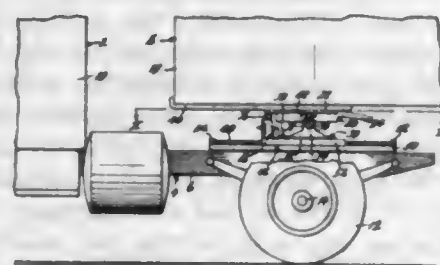
1. In a motor vehicle, a chassis, a seat mounted on said chassis, said seat being provided with a cushioned

back portion having a substantially rigid rear frame and a flexible front wall, a transverse horizontally extending plate secured to said rear frame, means defining a plurality of spaced tubular passages connecting said plate to said front wall, respective rigid, vertically extending ver-



tically recessed face plates secured in said front wall and being formed with horizontal slots communicating with said passages, respective flexible safety straps extending into said passages through said horizontal slots, and means connecting said straps to said chassis behind said seat.

2,819,096
SHIFTABLE FIFTH WHEEL MOUNTING FOR AXLE LOADING ADJUSTMENT
Carl M. Sencenich, Kansas City, Kans.
Application October 30, 1956, Serial No. 619,214
2 Claims. (Cl. 280-407)

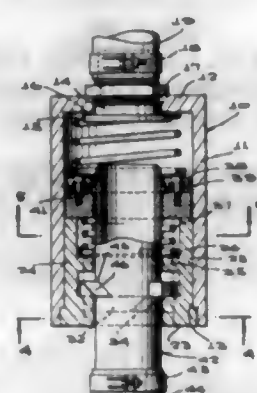


1. A fifth wheel mounting for a truck tractor having a frame, said mounting comprising a track adapted to be affixed to said tractor frame so as to extend forwardly and rearwardly, a carriage mounted on said track for movement therealong, said carriage being adapted to carry a fifth wheel assembly mounted thereon and movable therewith, a detent pin carried by said carriage for movement relative to said carriage transverse to the direction of movement of said carriage on said track, said detent pin being selectively engageable in any of a series of apertures formed therefor in said track, resilient means carried by said carriage and urging said detent pin to an operative position engaging said track, a wedge member carried by said carriage for movement in a direction transverse to the movement of said detent pin, said wedge engaging a cooperating wedge surface rigidly associated with said detent pin, and manual means operable to move said wedge whereby to retract said pin to an inoperative position, against the pressure of said resilient means.

2,819,097
HOSE COUPLING WITH FLUID PRESSURE RESPONSIVE LOCKING MEANS
George J. Lang, Fresno, Calif.
Application February 15, 1957, Serial No. 640,558
4 Claims. (Cl. 285-81)

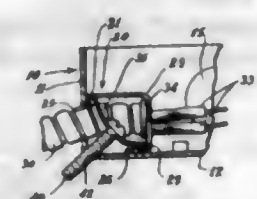
1. A hose connector comprising a hollow casing having one end closed and the other end open, means on the closed end of said casing for attachment thereto of a hose carrying a supply of fluid under pressure, a two-part sleeve positioned within said casing and having one end adjacent and spaced from the closed end of said casing and having the other end inwardly of and adjacent the open end of said casing, one part of said sleeve being detachably and fixedly connected to the open end

of said casing, a flange extending partially about said fixed one sleeve part and projecting inwardly from said fixed one sleeve part adjacent the open end of said casing, another flange extending partially about the other part of said sleeve and projecting inwardly from said sleeve other part adjacent the open end of said casing and normally positioned inwardly of and out of coplanar relationship with respect to said first-named flange, said sleeve other part being movable from the aforesaid position to a position in which said another flange is coplanar with respect to said sleeve one part flange, an annular piston positioned within said casing between said sleeve and said casing closed end and connected to said sleeve other part for movement therewith, a hollow tubular member having one end adapted to be attached to a discharge hose and having the portion adjacent the other end insertable through and withdrawable from said casing open end be-



tween the flanges on said one and other sleeve parts, said tubular member other end portion when inserted through the open end of said casing having said other end spaced from said piston with said piston sealingly engaging said tubular member other end portion and the inner wall of said casing, and a ledge extending partially about the exterior of said other end portion of said tubular member, said ledge upon insertion of said tubular member other end portion through said casing open end bearing against and shifting said sleeve other part flange to a position inwardly of and spaced from said sleeve one part flange and upon partial rotation of said tubular member causing said ledge to be wholly supported on said sleeve one part flange, said sleeve other part flange being movable to the coplanar position responsive to the pressure exerted upon said piston by the flow of fluid under pressure through said casing closed end means.

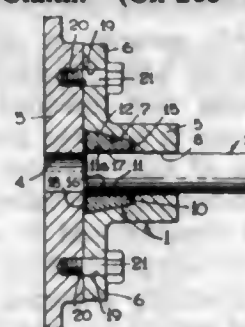
2,819,098
CLAMP FOR WIRE IN ELECTRIC OUTLET BOXES
Arthur Hudson, Ambridge, Pa., assignor to National Electric Products Corporation, Pittsburgh, Pa., a corporation of Delaware
Application October 20, 1954, Serial No. 463,425
5 Claims. (Cl. 285-129)



1. The combination with an electric outlet box that has a bottom wall and side walls which meet the bottom wall in a corner, and which has knockouts in both the side and bottom walls adjacent to said corner, of a clamping element having a top portion and having a front portion which meets the top portion along a line of juncture from which the top and front portions diverge from one another toward the vertex of an adjacent corner of the box in which the clamping element is placed, a downwardly extending clamping jaw connected with the top portion of

the clamping element along an edge remote from the line of juncture, an inwardly extending clamping jaw connected with the front portion of the clamping element along an edge remote from said line of juncture, both the top and front portions of the clamping element having openings therein in position to receive wires from armored cables that are lead into the box through knockouts in the side and bottom walls in the region of the clamping element, a tensioning portion connected with the top and front portions of the clamping element at regions adjacent to the clamping jaws, the tensioning portion of the clamping element having an opening substantially midway between its upper and lower ends for receiving a screw, and the upper and lower parts of the tensioning portion diverging from one another in a direction away from the adjacent bottom corner of the box, and a screw extending diagonally from said corner through the tensioning portion and through the corner of the box for pulling the tensioning element toward the corner of the box with resulting pressure on the top and front portions of the clamping element for flexing the clamping element along said line of juncture and producing downward and inward motion of the jaws of the top and front portions, respectively.

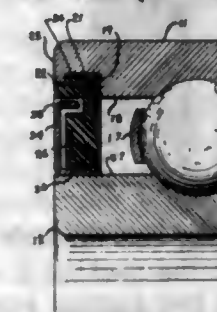
2,819,099
FLANGE UNION FITTING WITH CONTRACTIBLE LINED WEDGE
Henry I. Rittle, Pitscairn, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application June 12, 1953, Serial No. 361,168
1 Claim. (Cl. 285-159)



A pipe fitting comprising, in combination, two members having parallel engaging faces and at right angles to said faces coaxially aligned bores, respectively, one of said bores supportably accommodating a pipe for fluid pressure communication with the other of said bores, and only one of said members having a tapered bore extending reducingly inward from its said engaging face into coaxial communication with its respective bore; a longitudinally split, truncated cone-shaped, relatively hard resilient element having a pipe-accommodating bore extending axially therethrough, said truncated element being in a radially compressed state of wedging outer peripheral engagement with the wall of said tapered bore in consequence of its forced insertion into said tapered bore; a resilient sealing element comprising a sleeve portion bonded to the wall of said pipe-accommodating bore and having sealing engagement with the outer periphery of said pipe, said sealing element also comprising an annular flange portion formed integrally with one end of said sleeve portion and bonded to the larger end of said truncated element and compressed by abutting engagement with engaging face of the other of said members, said sealing element being bonded to the wall of said pipe-accommodating bore and to said larger end of said split truncated element prior to insertion of said split truncated element into said tapered bore and while the latter is held in a radially compressed state such that after such bonding and release of such radial compression the portion of said resilient sealing element overlying the split in the truncated element will be prestretched by radial expansion of said truncated element for minimizing the tendency of such overlying por-

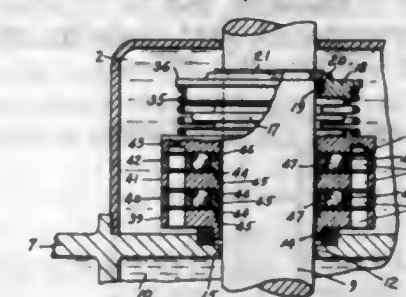
tion to flow into such split and interfere with radial compression of said truncated element upon its said forced insertion into said tapered bore; and means for causing relative translational movement of said members toward each other so as to effect said forced insertion for thereby effecting a pressure-tight connection between said pipe and said members.

2,819,100
BEARING SEALS
Carl O. Peterson, Jamestown, N. Y., assignor to Marlin-Rockwell Corporation, Jamestown, N. Y., a corporation of Delaware
Application January 10, 1955, Serial No. 480,895
3 Claims. (Cl. 286-5)



1. A seal adapted to span the space between a pair of relatively rotatable concentric members, one of said members having a marginally located annular recess radially facing the other of said members, said seal comprising a resilient ring, an annular portion of said ring conforming to and fitting the walls of said recess under radial pressure, the body of said ring extending radially into lubricant-sealing proximity with the other of said members, said body having axially opening recesses, one of which being formed in part by said other member, a metal ring fixed to said other member, flanges on said metal ring projecting into said recesses, said metal ring in its entirety having such proximity with said resilient ring as to provide a seal against displacement of lubricant from the space between said members.

2,819,101
SEAL STRUCTURE FOR SUBMERSIBLE APPARATUS
Frederick O. Luenberger, Los Angeles, Calif., assignor to U. S. Electrical Motors, Inc., Los Angeles, Calif., a corporation of California
Application June 9, 1950, Serial No. 167,107
3 Claims. (Cl. 286-11)

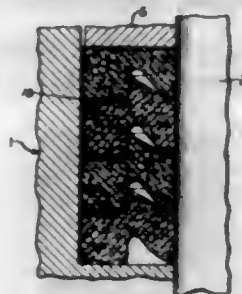


1. In a sealing apparatus cooperating with a shaft extending from a casing of a submersible structure: a non-rotary first sealing member surrounding the shaft; a second sealing member axially spaced from the first member and connected to the shaft; and a series of rotary sealing members disposed between the first and second members; all of said sealing members having cylindrical sealing surfaces respectively in contact with cylindrical surfaces on adjacent members; all of said members having portions adapted to be exposed exteriorly of said submersible structure; each of said members having means cooperable with the fluid in which the structure is submerged for producing a relative hydraulic torque between said members when the structure is submerged for caus-

ing the members of the series to rotate at different angular velocities; and rolling elements between the members.

2,819,102 SEAL FOR PACKING RINGS IN A STUFFING BOX

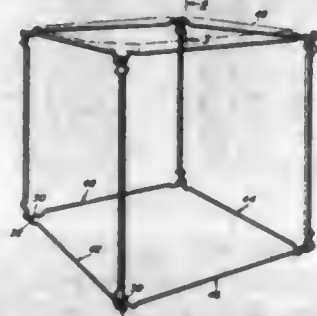
Guy E. Horvath, Manheim, Pa., assignor to Raybestos-Manhattan, Inc., Passaic, N. J., a corporation of New Jersey
Application September 10, 1952, Serial No. 308,833
1 Claim. (Cl. 286—26)



A packing for a stuffing box through which a movable member passes wherein the packing is subjected to pressure within the stuffing box exerted parallel to the direction of movement of the movable member which comprises, a pair of nested composition packing rings of a peripheral dimension less than the inner dimension of the stuffing box wherein an annular clearance space is provided between the outer periphery of the packing rings and the inner periphery of the stuffing box, each of said packing rings comprising a heel portion disposed adjacent the stuffing box wall and a finger portion disposed adjacent said movable member, a relatively soft, element separating said packing rings consisting of a relatively flat extrudible ring disposed between the heel portions of adjacent packing rings, said extrudible ring being relatively thin compared to the thickness of said heel portions, each of said finger portions being offset from a respective heel portion to form a shoulder adjacent the inner periphery of said relatively soft, extrudible ring, said extrudible ring being squeezed by said pressure whereby a portion thereof is extruded radially outwardly into said clearance space and axially in said clearance space to form a seal between the packing rings and the stuffing box wall.

2,819,103 SNAP-LOCK SUPPORT ELEMENT

John K. Wakefield, Fort Branch, and Arthur J. Geiselman, Elberfeld, Ind.
Application December 13, 1955, Serial No. 552,887
4 Claims. (Cl. 287—1)

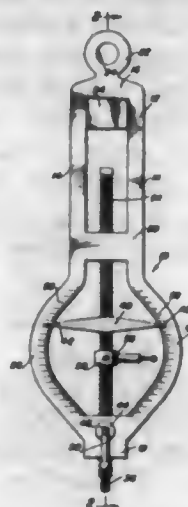


1. A snap-lock construction element for forming a plurality of structures comprising an elongated body portion terminating in intersecting side portions at substantially right angles to the body portion, the construction element being formed of a substantially resilient rod-like material, connecting means at the intersection of the body and one of said side portions, said connecting means comprising a first and a second undulation portion which respectively open outwardly and inwardly of the body and said one of said side portions for being clamping engageable with similar undulation portions on another

construction element extending transversely relative to the first construction element, a third and fourth undulation portion which respectively open outward and inward of said body portion and said one side portion, and a loop portion between and connecting said second and third undulation portions.

2,819,104 ADJUSTABLE ROD HANGER

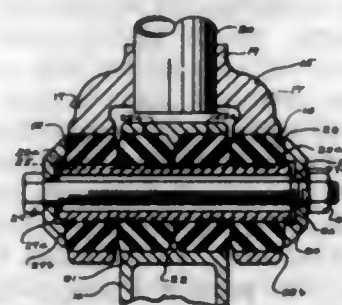
James L. Forsyth, Mineral Wells, Tex., assignor of one half to Fred Whitaker, Mineral Wells, Tex.
Application October 29, 1954, Serial No. 465,616
1 Claim. (Cl. 287—59)



An adjustable pump rod hanger comprising a frame for attachment to an actuating mechanism, an elongated threaded rod adjustably secured in said frame, means for attaching one end of said threaded rod to a pump rod, means for rotating said threaded rod, means for locking said threaded rod in adjusted position, and means indicating the position of said threaded rod, said means for rotating said threaded rod including a handle selectively secured to said threaded rod in adjusted position, said locking means including a locking screw extending into said frame and selectively engaging the periphery of said threaded rod, said means for attaching the threaded rod to a pump rod including a reduced longitudinally extended externally threaded projection on the lower end of said threaded rod, said indicating means including a pointer mounted on said threaded rod for vertical movement when the rod is rotated, and graduations on said frame for registry with said pointer thereby indicating the vertical position of the threaded rod, said locking screw including a pivotal end portion for extending laterally therefrom and forming a handle for manipulating the screw.

2,819,105 BUSHINGS FOR OSCILLATING JOINTS

Arnold F. Behnke, Los Angeles, Calif., assignor to Kay-Brunner Steel Products, Inc., a corporation of Delaware
Application August 17, 1955, Serial No. 528,874
12 Claims. (Cl. 287—85)

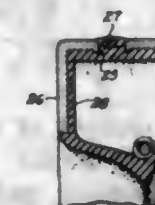


1. In a bushing for oscillating joints, a flexible rubber body composed of ring-shaped units, and a rigid sleeve on which said units are directly mounted in side-by-side rela-

tion, said sleeve having recesses in its outer peripheral surface into which parts of said units are adapted to be extended when said body is compressed axially.

2,819,106 OIL SEAL

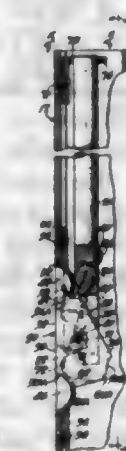
Vanderveer Voorhees, Los Altos, Calif.
Application March 22, 1952, Serial No. 277,960
9 Claims. (Cl. 288—3)



9. A rubber packing seal for moving shafts having a cylindrical metal case of L-shaped cross-section, a flexible rubber sealing element bonded to the interior of said case adapted to contact a moving shaft therewithin, and a groove in the periphery of said case connected by apertures with the interior thereof, said rubber extending continuously from said flexible sealing element across the inner surface of said case through said apertures into said groove, and slightly beyond the periphery of said metal case.

2,819,107 DOOR BOLT

Dan C. Muesel, Niles, Mich., assignor, by mesne assignments, to Kawneer Company, Niles, Mich., a corporation of Delaware
Application September 28, 1954, Serial No. 458,753
8 Claims. (Cl. 292—143)



1. A flush bolt assembly for attachment to a door, including in combination, a supporting plate having means defining a pair of recesses interconnected by a slot, said slot extending partially into each of said recesses, and a bolt operating lever pivotally mounted on said plate for movement between two operative positions and having a portion extending through said slot, said portion being configured substantially to close said slot in said supporting plate, whereby said operating lever is in flush relationship with said supporting plate including the means defining each of said recesses.

2,819,108 GOLF BALL RETRIEVER

John E. Borah, Mishawaka, Ind.
Application March 4, 1953, Serial No. 340,237
3 Claims. (Cl. 294—19)

1. In combination, a shaft, and a ball retriever mounted on said shaft, said retriever comprising a resilient unitary body of soft deformable material including a skirt portion, a ball-gripping cup portion and a transverse web between said skirt and cup portions, said skirt portion

having a substantially cylindrical recess whose normal diameter is less than that of said shaft and whose normal exterior transverse dimension is substantially equal to the exterior transverse dimension of said cup portion, said cup portion having a mouth whose diameter is less than the diameter of a ball and an interior concave surface area greater than the convex surface area of the portion



of a ball confronting said cup portion, said concave surface being substantially spherical throughout, said skirt portion being transversely stretched by said shaft to stress and transversely contract said cup portion to a smaller diameter to stiffen the same and facilitate a suction grip of a ball by said cup portion when its margin is stretched and conforms to the surface of said ball.

2,819,109 BALL RETRIEVER

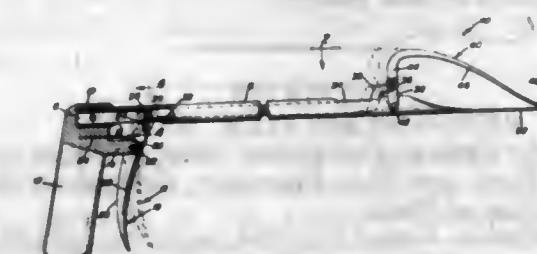
John E. Borah, Mishawaka, Ind.
Application June 4, 1953, Serial No. 359,504
1 Claim. (Cl. 294—19)



A ball retriever adapted to be mounted on the end of a shaft, comprising a thin unitary resilient and elastic body having a mounting portion at one end for the shaft, an intermediate reduced portion and a circular ball-gripping portion at the other end of a cross-sectional size substantially equal to the cross-sectional size of said other end, said ball-gripping end portion having a concavity centered at its end and provided with a restricted mouth defined by an inwardly projecting narrow marginal flexible lip, said reduced portion being of a cross-sectional dimension not substantially greater than the cross-sectional dimension of said mouth and less than the cross-sectional size of said shaft whereby distortion of one end portion of said body is not transmitted to the other end portion thereof.

2,819,110 ARTICLE HANDLING IMPLEMENT FOR MAIL CARRIERS

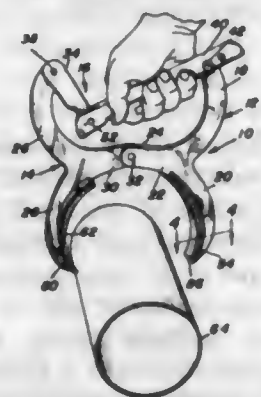
Grady C. Redmon, Mobile, Ala.
Application November 23, 1953, Serial No. 393,719
3 Claims. (Cl. 294—19)



3. A multi-purpose small article pick-up and handling implement comprising an elongate tubular shank, a pistol-

grip having a socket, one end of said shank telescoping into and being secured in said socket, a snug-fitting rod reciprocable in the bore of said shank, a lug carried by and projecting laterally from one edge portion of said pistol-grip in spaced parallelism to said shank, that portion of the shank directly above the lug being provided with a trigger accommodating slot, one end of said rod being movably cooperable with said slot and serving to substantially close an end portion of said slot in a valve-like manner, a trigger pivotally mounted between its ends on said lug and having one end portion opposed to and movable toward and from the pistol-grip and the other end portion projecting through said slot and having pin and slot connection with said rod, spring means co-operable with the pistol-grip, lug and trigger, that end of said shank remote from said pistol-grip having a broad flat faced stationary jaw, said shank inwardly of said jaw being provided with a second slot diametrically opposite to said first named slot, the end portion of the rod adjacent said second slot being laterally offset and extending outwardly through and beyond said slot, and a movable jaw embodying a flexible resilient finger having a terminal portion movable toward and from the free end portion of the first named jaw and embodying a yoke at one end having arms straddling and pivotally connected to said shank between the first named jaw and second named slot, the offset end of said rod being pivotally connected to the arms of said yoke.

2,819,111
PIPE HANDLING TOOL
Larnc P. Cozzens, Lamesa, Tex., assignor to San Angelo Die Casting & Manufacturing Co., San Angelo, Tex., a copartnership
Application April 12, 1954, Serial No. 422,486
3 Claims. (Cl. 294-26)

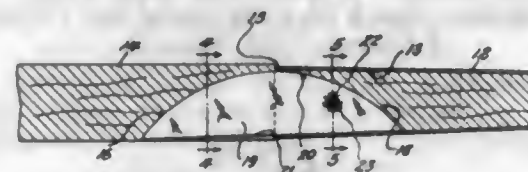


1. A pipe handling tool comprising a pair of spaced tong members, each of said tong members having an upper portion and a lower pipe engaging portion, a pivot pivotally connecting together intermediate portions of said tong members, said upper and lower portions of each tong member being on the same side of said pivot, a handle pivotally connected at its end portions to said upper portions of said tong members and extending therebetween, said handle being formed in sections, a pivot pivotally connecting said sections together intermediate the ends of said handle, said sections having abutting surfaces disposed below said last-mentioned pivot to form a rigid unit of said sections when upward pressure is applied to said handle.

2,819,112
REINFORCED TOOL HANDLE
George M. Finkes, Columbus, Ohio, assignor to The Union Fork and Hoe Company, Columbus, Ohio, a corporation of Ohio
Application August 16, 1954, Serial No. 450,034
3 Claims. (Cl. 294-57)

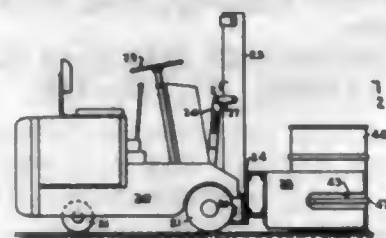
1. Reinforced tool handle construction comprising an elongated wooden tool handle of generally circular trans-

verse cross section formed with an end portion for insertion within a socketed tool head and a relatively longer hand-gripping shank portion joining said end portion and arranged to extend outwardly from such tool head, said handle being formed with a longitudinally disposed slit spaced intermediate the ends of the handle and extending a limited distance on either side of the juncture of the



tool head-receiving end portion of said handle with the shank portion thereof and shaped as a secant segment of a circle, said slit extending radially inwardly from one side of said handle and passing through the longitudinal axis of said handle; and a metallic reinforcing member shaped as a secant segment of a thin flat disk positioned in said slit and having a secant edge lying adjacent the outer periphery of said handle.

2,819,113
CLAMPS WITH COMPOSITE FLEXIBLE GRAB ARMS
Clifton H. Phillips, Demarest, N. J., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware
Application October 8, 1953, Serial No. 384,867
1 Claim. (Cl. 294-87)

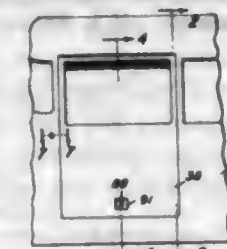


In a clamp adapted to handle flat-ended objects and convexly curved objects the combination of: a support structure, a pair of clamp brackets attached to said support structure, means for moving said brackets laterally relative to each other, a pair of thin substantially vertical grab arms extending longitudinally forwardly from said clamp brackets, each of said grab arms being rigidly attached to one of said clamp brackets, each of said grab arms comprising a pair of substantially parallel elastic metal plates having rear parts and front parts that are spaced apart, a spaced block positioned between the rear parts of said plates to hold the plates in spaced relationship, means rigidly securing the rear parts of said plates and said spaced block to the clamp bracket, a corrugated elastic metal sheet situated between said front parts and having the rugations thereof extending substantially vertically, said corrugated metal sheet being in engagement with both said plates along a plurality of lines of contact at progressively different distances forwardly from the clamp bracket corresponding to the location of said rugations whereby the lines of contact on one plate are staggered in relation to the lines of contact on the other plate and a plurality of connector members fixing each plate to the corrugated sheet along the said lines of contact.

2,819,114
VERTICALLY SLIDABLE VEHICLE DOOR
Lawrence C. Lake, Kenmore, N. Y.
Application July 17, 1956, Serial No. 598,409
3 Claims. (Cl. 296-44)

1. In a vehicle body adapted to be mounted on a chassis, sides which are curved in cross-section and which

have an outer skin, each side having a door opening, a first and a second door in said openings, a fixed track in one opening on which said first door is slidable upwardly and downwardly of the body, a second track having a section in said second opening on which said second door is slidable, said section being pivotally connected to said



body, said second track having a second section offset from said first-mentioned section so that the pivoted section is movable to align therewith in order to slide said second door to an open position so as to allow said first door and said second door to be in superposed relation to each other in a raised position and fit flush with the skin when in a closed position.

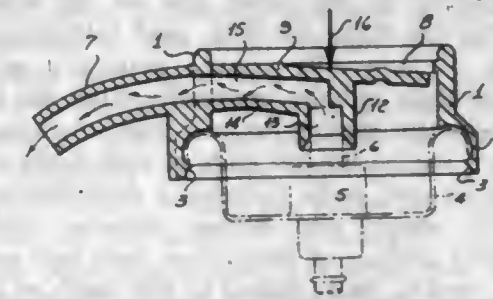
2,819,115
ADJUSTABLE SPRINKLER WITH SUPPORT MEANS
Fred M. Arnold, Los Angeles, Calif.
Application October 25, 1954, Serial No. 464,395
3 Claims. (Cl. 299-73)



1. A water sprinkler comprising a tubular body in the form of an elbow to provide two legs angularly disposed with respect to each other, a swivel collar rotatably mounted on one of said legs for connecting the body to a garden hose, a nozzle rotatably secured in the other of said legs and including an elongate orifice for emitting water from the sprinkler in a fan shaped spray, the principal axis of the orifice being disposed in a plane common to the axis of said other leg, and a support rod integral at one end thereof with the body, and a step bar integral at one end thereof to the rod proximate the other end of the rod, said step bar providing a means for conveniently forcing said other end of the rod into the ground and for maintaining the sprinkler in its set position when at least partly imbedded in the ground.

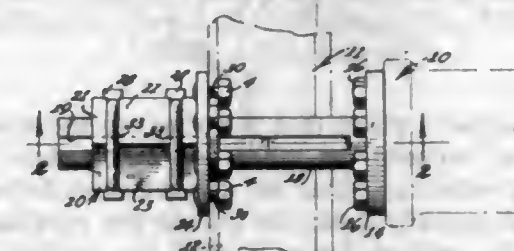
2,819,116
DISPENSING CAP FOR AEROSOLS
Robert H. Abplanalp, Bronx, N. Y., assignor of one half to John J. Baessler, Bronxville, N. Y.
Application October 31, 1956, Serial No. 619,621
4 Claims. (Cl. 299-95)

1. A dispensing cap for aerosol containers having a tubular discharge valve stem comprising: an upstanding peripheral wall across the interior of which extends a valve operating tab attached for a short distance at its periphery to said wall to form a hinge portion therewith and otherwise unattached to the peripheral wall but extending closely adjacent thereto, a hub projecting from the inner side of said tab and chambered to form a socket for the tubular valve stem of an associated container,



tab may be utilized to operate the valve stem and unseat the valve for the discharge of the contents of the container through said passage.

2,819,117
AXLE ADAPTER FOR ADJUSTABLE WHEEL
Archle Glazier, Jr., Fort Morgan, Colo., assignor of fifty percent to Rollie O. Giles, Garden Grove, Calif.
Application January 8, 1954, Serial No. 402,881
1 Claim. (Cl. 301-1)

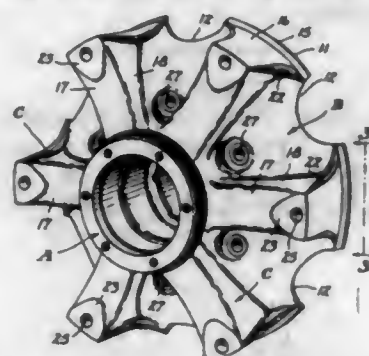


In an adjustable sliding axle adapter, a circular plate adapted to be secured to a hub of a tractor, said plate being provided with a plurality of countersunk openings, a cylindrical axle of reduced diameter extending outwardly from the center of said plate and secured thereto, there being a longitudinally extending slot in the outer portion of said axle, a sleeve adjustably mounted on said axle and comprising a substantially triangular-shaped body member surrounding a portion of said axle and a lower semi-circular casing surrounding the opposite portion of said axle, a pair of spaced parallel rectangular blocks secured to the outside of said casing at right angles thereto, the ends of said blocks extending beyond said casing, each of said blocks being provided with a pair of openings therein, said openings being arranged on opposite sides of said casing, said substantially triangular shaped body member including a pair of outer flat surfaces arranged at right angles with respect to each other and an inner curved surface for engaging said axle, a key extending from the intermediate portion of said body member for engaging said slot, said key extending parallel to the longitudinal axis of said body member a circular plate secured to one end of said body member and having bolts extending therefrom adapted to be secured to a wheel of a tractor, said body member being provided with a plurality of recesses, bolts of U-shape surrounding said body member and extending through said recesses and through the openings in said blocks, and nuts arranged in engagement with said bolts and arranged contiguous to said blocks, there being a recess in an end of said axle adjacent said first name place, said recess including an outer cylindrical portion and an inner conical portion.

2,819,118
CAST METAL DUAL TIRE WHEELS
Everett G. Fahlman and Sidney W. Jackson, Medina, Ohio, assignors to The Permold Company, Medina, Ohio, a corporation of Ohio
Application June 23, 1954, Serial No. 438,758
9 Claims. (Cl. 301-13)

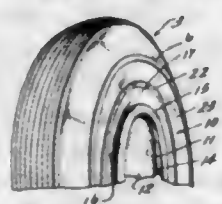
1. A light metal alloy dual tire wheel having inner and outer sides and comprising, as an integral casting,

a tubular hub and a wheel body extending radially outwardly from and circumferentially about the hub, said body including a multiplicity of spokes in the form of channels opening to the inner side of the wheel and extending radially from the hub, and intervening webs in the form of outwardly convex generally spheroidal segments extending radially outwardly from the hub and connecting adjacent spokes for resisting tangential forces on the spokes, the peripheral ends of said spoke channels being closed by end walls forming a multiplicity of circumferentially spaced rim seating surfaces conforming to a cylindrical surface of revolution, said web segments, adjacent the spokes, being joined to side walls of adjacent spoke channels from the hub to the outer end walls of the spokes along lines extending generally arcuately and



obliquely across a plane that is normal to the wheel axis and midway between the inner and outer edges of said rim seating surfaces, so that the web segments form braces extending diagonally from the hub to the peripheral end walls of the spokes for stiffening the spokes against axially directed forces, the portions of each side wall of each spoke channel on opposite sides of said web segments being substantially in coplanar alignment and both of said portions extending uninterruptedly from the hub to said end walls of the spokes to provide substantially aligned inner and outer stiffening wall portions extending from the hub to said end walls of the spokes to resist both radially directed forces on the spokes on either side of said median plane and axially directed forces on the spokes.

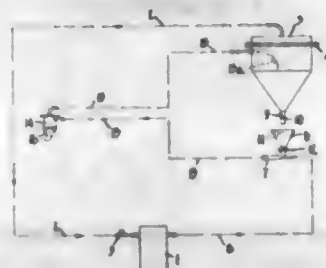
2,819,119
WHEEL COVER
Edward P. Perrin, Dayton, Ohio
Application October 14, 1955, Serial No. 540,539
11 Claims. (Cl. 301-37)



8. A wheel cover comprising, a formed disc-like member having a peripheral skirt generally conforming in diameter to the wheel to which the cover is to be applied, finger grip means provided on the outer surface of said disc-like member adjacent the periphery thereof, a relatively rigid molded rubber element of a nature conforming to the side wall of a tire, an annular element of relatively soft rubber respectively bonded to said member and to said rigid rubber element to provide a supportive resilient connection therebetween, said rigid element being tapered in cross-section from the inner to the outer radial extremity thereof, and means connected to the inner surface of said disc-like member for connecting to a wheel element on mounting said cover to a wheel assembly, said rigid rubber element naturally seating and conforming to the side wall of the tire on the wheel element on application of said disc-like member, said finger grip means being so arranged to enable dismounting of said cover from a wheel assembly without the use of tools.

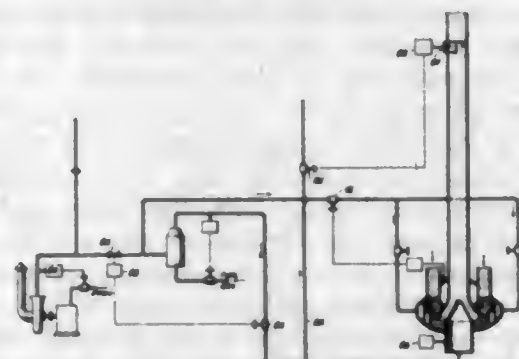
2,819,120
FLUX FEEDING SYSTEMS FOR ELECTRIC WELDING

Ernest Jeremy Hume, Carnegie, Victoria, Australia, assignor to Humes Limited, Melbourne, Australia, a company
Application December 19, 1955, Serial No. 553,938
Claims priority, application Australia December 30, 1954
5 Claims. (Cl. 302-17)



1. Apparatus for feeding flux powder from a storage hopper to the welding zone of electric arc welding apparatus, comprising a storage hopper for containing a bulk supply of the flux powder, a feed hopper of considerably smaller capacity than the storage hopper, a pump and piping connecting the pump to the two hoppers so as to provide a substantially closed air stream circuit, said piping comprising a first pipe leading from the top of said storage hopper to the pump inlet, a second pipe leading from the pump outlet to the upper part of said feed hopper, an open topped vessel disposed beneath the storage hopper to receive flux powder from the latter, an ejector device located at the bottom of said vessel and interposed in said second pipe for entraining flux powder from the bottom of the storage hopper into the air stream in the second pipe, and a third pipe leading from the top of the feed hopper into the upper part of the storage hopper for returning the air stream to the storage hopper.

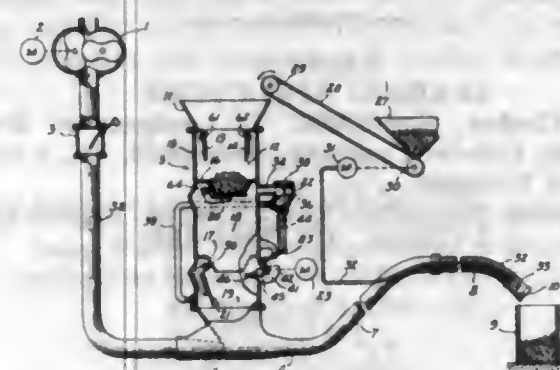
2,819,121
APPARATUS FOR AND METHOD OF OPERATING A PNEUMATIC LIFT USED TO TRANSPORT GRANULAR SOLIDS
Jean M. Bourguet, Woodbury, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application May 16, 1956, Serial No. 585,293
7 Claims. (Cl. 302-53)



1. In a hydrocarbon conversion process in which a granular solid is gravitated as a substantially compact columnar mass through reaction and regeneration zones and lifted from a location below one of the zones to a location above the other zone through an upwardly directed lift passage by means of a flowing stream of lift gas, the improved method of operation which comprises: gravitating granular material downwardly from the bottom of one of the zones to a feeding zone located at the bottom of the lift passage, so as to form a substantially compact bed of solid material about the lower end of the passage, introducing a primary lift gas through a nozzle into the feeding zone, so as to enter the lift passage without passing through any substantial thickness of the bed of solid material, introducing a secondary lift gas into the feeding zone, so as to pass through a sub-

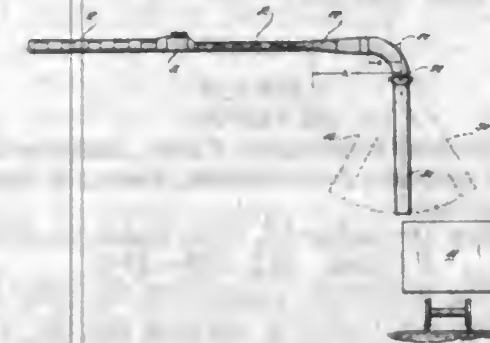
stantial thickness of the bed of solid material before entering the lift passage, continuously measuring the static pressure in the upper two-thirds of the passage, adjusting the total air rate to obtain in the lift passage a pressure fluctuation which is equal to the pressure fluctuation in the primary air nozzle, increasing the total air rate by about 6% while slowly bleeding off primary lift gas manually through a vent line to maintain the pressure fluctuation within the lift pipe between about 50% and 100% of the primary nozzle fluctuation, and automatically regulating a valve in the vent line in response to the static pressure variation in said lift passage in such a manner that static pressure variations within the primary air nozzle and lift passage are approximately equal.

2,819,122
LOW PRESSURE PNEUMATIC CONVEYOR
George Schneider, University Heights, Ohio, assignor to Dracoo Corporation, Cleveland, Ohio, a corporation of Ohio
Application December 30, 1953, Serial No. 401,128
1 Claim. (Cl. 302-55)



A low pressure pneumatic conveyor for transferring aggregate to concrete forms comprising: a low pressure rotary air compressor, an injector nozzle, a discharge conduit having a flexible portion at its downstream end, a supply conduit for carrying air from said compressor through said nozzle to said discharge conduit, a gate type air lock having a hopper, an intermediate chamber, and a lower chamber communicating with said discharge conduit, said air lock having gates located above and below said intermediate chamber, a conveyor for supplying aggregate to said hopper, motor means for driving said conveyor at a predetermined speed, means for operating said gates in sequence to cause aggregate introduced into said hopper to pass successively through said intermediate and lower chambers to said discharge conduit so as to be entrained by air from said injector nozzle, and means located near the open downstream end of said flexible portion for controlling the amount of aggregate fed to said hopper by said conveyor.

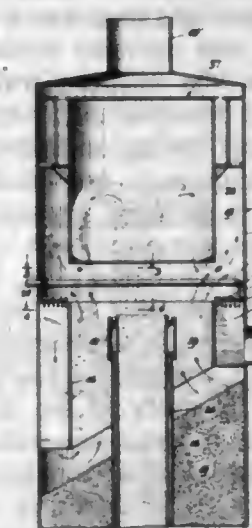
2,819,123
WOOD CHIP CONVEYING SYSTEM
William T. S. Montgomery, Jacksonville, Fla.
Application January 27, 1956, Serial No. 561,736
7 Claims. (Cl. 302-59)



1. A pneumatic conveying system comprising, a blower, a main conduit connected to said blower, means

for feeding material to be conveyed into said main conduit, said blower supplying gas to said main conduit at a velocity sufficient to convey said material, an elbow, a downwardly extending pipe connected to said elbow, and a conduit of expanding diameter having its smaller end connected to said main conduit and its larger end connected to said elbow in a manner to permit relative movement between said downwardly directed pipe and said expanding conduit, the diameter of said larger end of said expanding diameter conduit being such as to reduce the velocity of said gas below the velocity necessary to convey the material horizontally, said reduction in velocity occurring at such a position that the material being conveyed reaches a point above the downwardly extending pipe by means of its momentum and is thereafter conveyed downwardly in said downwardly extending pipe at a rate in excess of that caused by gravity.

2,819,124
METHOD AND APPARATUS FOR SEPARATING GRANULAR PARTICLES FROM LIFT GAS IN A PNEUMATIC LIFT
Eric V. Bergstrom, Short Hills, N. J., assignor to Socony Mobil Oil Company, Inc., a corporation of New York
Application March 28, 1956, Serial No. 574,487
5 Claims. (Cl. 302-59)

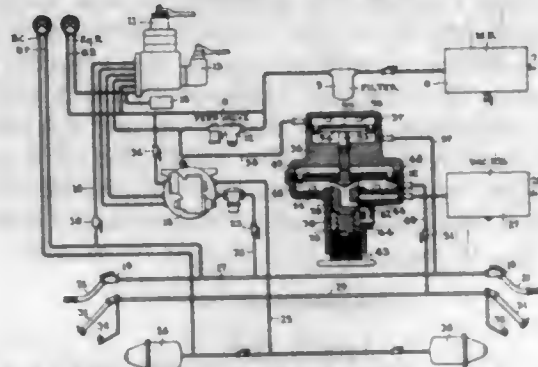


1. In a moving bed conversion process in which a granular catalyst is gravitated as a compact mass through reaction and regeneration zones and is elevated through an upwardly extending lift passage by the flow of a stream of lift gas, the improvement in the method of separating the lift gas and solid particles after discharge from the lift passage which comprises: discharging the mixed stream of gas and solids from the top of the lift passage into a separation zone of enlarged cross-section, whereby the solids lose their upward velocity and commence to fall to the lower portion of the separation zone, maintaining a bed of the solid particles on the floor of the separation zone and about the upper end of the lift passage, introducing a gas into the region between the lift passage and the wall of the separation zone at a level above the bed of solid particles, to travel upwardly toward the upper portion of the separation zone in counter-current flow with the falling solids, at an upward velocity sufficient to substantially impede the falling catalyst particles, whereby the particles strike the surface of the bed of solids in the lower portion of said separation zone at a velocity substantially lower than if they were permitted to fall freely, whereby the breakage of the particles is minimized, commingling the rising streams of gas and withdrawing the gas from the upper portion of the separation zone, withdrawing at least one compact stream of solid particles from the lower portion of said separation zone, at a rate low enough to maintain a bed surface within the lower portion of said separation zone, whereby the solid particles are separated from their lifting gas with a minimum of particle attrition and breakage.

2,819,125 COMBINED VACUUM AND PRESSURE AIR BRAKE SYSTEM AND GRADUATING RELAY FOR USE THEREIN

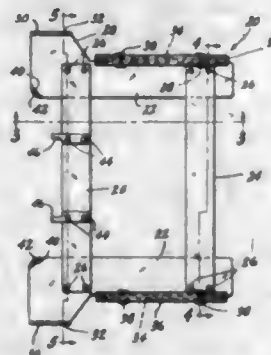
Lynn I. Pickert, Watertown, N. Y., assignor to The New York Air Brake Company, a corporation of New Jersey

Application April 22, 1953, Serial No. 350,361
3 Claims. (Cl. 303-4)



1. The combination of an automatic air brake equipment for a locomotive said equipment including a source of compressed air, a brake pipe, an engineer's brake valve and a feed valve supplied by said source and controlling pressure in the brake pipe; a vacuum brake equipment including an evacuated chamber and a vacuum train pipe; a controlling valve unit shiftable in relatively reverse directions to connect the vacuum train pipe selectively with said evacuated chamber and with atmosphere, said controlling valve unit having an intermediate position in which both said connections are closed; pressure motor means comprising a housing enclosing a plurality of working spaces, one connected with the brake pipe and another with the vacuum train pipe, and movable abutments which differ in area and form movable walls of respective working spaces, said abutments being mechanically related to said controlling valve unit to shift said same, the absolute pressure in the brake pipe and the absolute pressure in the vacuum train pipe acting concurrently on corresponding abutments to shift said controlling valve unit in the direction to connect the evacuated chamber; and mechanically related pressure motor means energized by said feed valve and serving to load said controlling valve unit in the opposite direction.

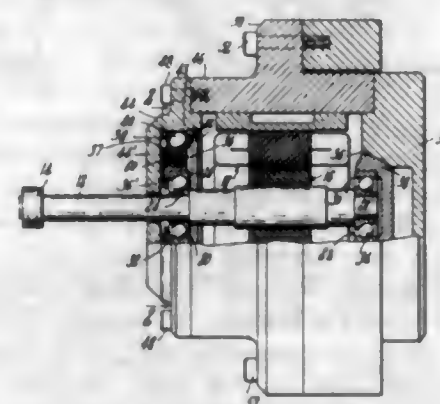
2,819,126 PACKING RETAINER FOR JOURNAL BOXES Douglas B. Ortleb, St. Louis, Mo. Application September 26, 1956, Serial No. 612,214 7 Claims. (Cl. 308-89)



1. In combination with a journal box having an access opening in its outer end wall, a spring-biased cover member normally closing said opening, an axle opening in its inner end wall, a well portion for containing packing material, and an axle extending through said axle opening and terminating in a journal suspended above said well: a device for preventing displacement of the packing material relatively to said journal in consequence of journal movements comprising: a generally rectangular frame

adapted to be bent into a substantially U-shaped configuration to facilitate its insertion into said box via said access opening disposed beneath the journal in said well portion, said frame including a pair of transversely spaced side plates that are joined by a pair of longitudinally spaced straps of spring metal material, the inherent resiliency of said straps automatically causing said plates to bear against the journal box side walls whereby to maintain the frame rigidly in position; means provided on the upper ends of the side plates to confine packing material disposed beneath said journal against upward movements thereof; a barrier assembly also insertable via said access opening to confine said packing material against outward movements thereof, said assembly including a crescent-shaped plate, a generally U-shaped relatively heavy wire element having its bight portion rigidly secured to said plate and its free leg portions each terminating in a downwardly sloping segment adapted to be engaged by the spring-biased cover member in the closed status thereof; and means on the frame cooperating with complementary means on the barrier assembly for releasably locking said assembly in operative position relatively to said frame.

2,819,127 BEARING STRUCTURE Paul A. Grobey, Springfield, Vt., assignor to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont Application November 10, 1955, Serial No. 546,136 7 Claims. (Cl. 308-183)

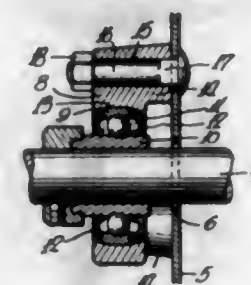


2. A bearing structure for a rotatable shaft including a first ball bearing rotatively supporting said shaft; a second non-rotative ball bearing supporting said first bearing radially while permitting limited axial movement of said first bearing, said second bearing including a cartridge member adapted to rigidly support said first bearing and having an outer peripheral ball engaging surface, and a fixed cap member adapted to provide an inner peripheral ball engaging surface concentric about said first-named surface, said surfaces serving as inner and outer raceways, respectively, for said second bearing; and resilient means disposed between said cartridge member and said fixed cap member to urge the former in a predetermined axial direction.

2,819,128 BEARING Russell E. Downs, Kensington, Conn., assignor to Fafnir Bearing Company, New Britain, Conn., a corporation of Connecticut Application December 17, 1953, Serial No. 398,804 1 Claim. (Cl. 308-194)

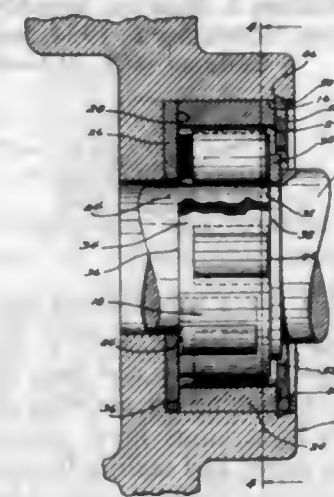
In a bearing mounting, a generally flat body having a transverse bearing receiving opening therein, a bearing comprising inner and outer bearing rings with interposed antifriction bearing members mounted in said opening, a wall having a shaft opening therein, a shaft

fitting in said inner bearing ring and passing through said shaft opening, said generally flat body having a plurality of circumferentially spaced apart feet thereon and extending axially and seated on said wall so as to space said flat body and bearing well away from said wall, the space between said wall and said bearing being free and



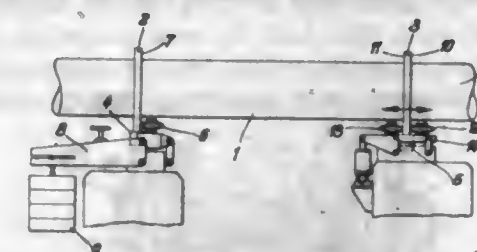
unobstructed and said feet being located so as to leave a free space beneath said shaft, where the latter passes through said opening in said wall and up to said inner ring, whereby stringy material is not likely to wind on said shaft adjacent said bearing, and foreign matter will fall out.

2,819,129 ROLLER BEARING Fred S. Slick, Rockford, Ill., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin Application September 9, 1954, Serial No. 454,881 1 Claim. (Cl. 308-207)



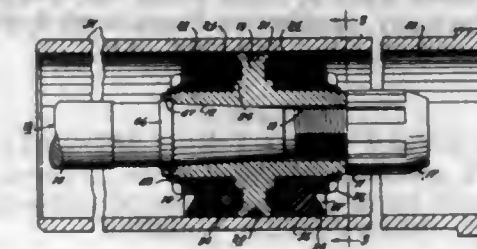
In a housing having a bearing cavity and a rotatable shaft coaxial with said cavity, said shaft being provided with an integral axially-normal thrust portion, a fixed thrust member in said cavity spaced axially from said normal thrust portion and parallel thereto, a retainer member of polyamide resin intermediate said axially-normal thrust portion and said fixed thrust member, said retainer member having end surfaces normal to the axis of said shaft and in thrust-bearing contact with said thrust portion and said fixed thrust member, said retainer member being provided with a plurality of peripherally-spaced cylindrical apertures having axes parallel to the axis of said shaft, said apertures having their openings on alternate end surfaces of said retainer and of a length less than the distance between said end surfaces, cylindrical bearing rollers in said apertures of a length less than the length of said aperture and in bearing contact with said shaft, an outer race in said cavity in abutting contact with said fixed thrust member and having an inner raceway in contact with said rollers and a ring member abutting said retainer and engaging said outer race to prevent axial displacement thereof.

2,819,130 BEARINGS FOR ROTARY CYLINDERS, DRUMS AND THE LIKE Fritz Kaminsky, Leverkusen, Germany, assignor to Feller & Ziegler G. m. b. H., Frankfurt am Main, Germany Application May 17, 1955, Serial No. 509,081 Claims priority, application Germany March 12, 1955 10 Claims. (Cl. 308-234)



1. Rotary treatment cylinder fitted with race-rings running on support rollers for radial support and operatively engaged by cooperating pressure rollers bearing laterally against said rings for the axial support of said rotary cylinder, wherein two pressure rollers are provided one at each side of a racing each mounted for rotation on a shaft or the like, the lower end of said shafts of said pressure rollers being supported on a guide-member mounted for reciprocating movement substantially parallel to the longitudinal axis of said rotary cylinder and automatically controlled driving means operative to impart reciprocating movement to said guide member, whereby said rotary cylinder is positively forced and controlled in both axial directions.

2,819,131 SLUSH PUMP PISTONS Francis M. Lankford, Houston, Tex. Application May 9, 1955, Serial No. 506,779 7 Claims. (Cl. 309-4)

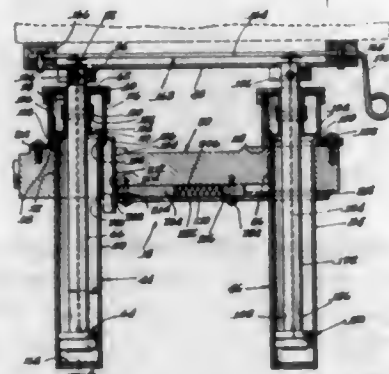


5. A pump piston including an elongated cylindrical body, a circumferential flange surrounding the central portion of the body and having an annular socket on each side, a circular base surrounding said body at the inner portion of the flange, annular cups of semi-rigid material mounted on the ends of the base and seated in the sockets of the flange, annular elastic rings surrounding the body and having base portions abutting the cups and the base of the flange, lips at the outer ends of the ring base portions, the rings having outwardly flaring portions engaging the outer portions of the cups, circumferential cages secured around the ends of the body and overhanging the lips to confine said rings, and an annular constriction ring interposed between each cup and its elastic ring and confining the inner end of the base portion of said elastic ring.

2,819,132 CHIROPRACTIC TABLE WITH ADJUSTABLE AUXILIARY TABLE SECTION George L. Rock, Jonesville, Mich. Application September 7, 1955, Serial No. 532,881 6 Claims. (Cl. 311-10)

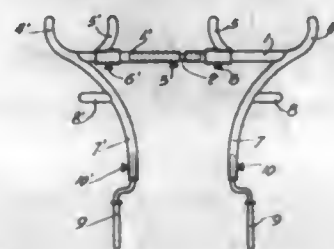
1. In an apparatus for use in chiropractic treatment, the combination comprising frame means, a hydraulic cylinder shiftable mounted on said frame means for

movement to and from upper and lower positions, means for limiting downward movement of said hydraulic cylinder, piston means adjustably disposed in said hydraulic cylinder, support means carried by said piston means for supporting a portion of the body of a patient, means movable with said hydraulic cylinder and providing a generally downwardly facing cam surface inclined at a relatively large angle with respect to the axis of said hydraulic cylinder, and a resiliently biased locking member shift-



ably disposed on said frame means and having a generally upwardly facing cam surface complementary to and engageable with said first mentioned cam surface for locking said hydraulic cylinder in said upper position until a predetermined downward pressure is applied to said support means and for releasing said hydraulic cylinder for sudden downward movement to said lower position when said predetermined pressure is applied to the support means.

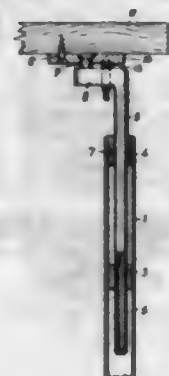
2,819,133
GANTRIES FOR ACCOUCHEMENT AND GYNAECOLOGICAL PURPOSES
Max Party, Cannes, France
Application April 6, 1956, Serial No. 576,563
Claims priority, application Tuntis April 9, 1955
5 Claims. (Cl. 311-11)



1. A gantry for accouchement and gynaecological purposes, comprising, in combination, a pair of elongated uprights, each of said uprights including each at least one handle and one leg-rest and having at one end thereof a lateral extension for joining said uprights transversely by connecting said extensions with each other; means for varying the connection between said lateral extensions for adjusting the spacing between said leg-rests and uprights; and attachment means connected to the other end of each of said uprights for setting up said gantry in substantially vertical position on a base having spaced receptacles for engagement by a portion of said attachment means, each of said attachment means having receptacle-engaging portions independently adjustable transversely to the length of the pertaining upright so that said uprights can be set up with said leg-rests at a selected spacing from each other by accordingly adjusting the spacing between said uprights and leg-rests, while said attachment means can be adjusted independently so as to be aligned with said receptacles in said base irrespective of the spacing of the uprights and leg-rests.

2,819,134
HOISTING AND LOWERING DEVICES FOR BOARDS OR PLATES

Karl Eric Klevholm, Johanneshov, Sweden
Application January 23, 1957, Serial No. 635,761
Claims priority, application Sweden February 4, 1956
4 Claims. (Cl. 311-39)



2. Means for hoisting and lowering a board or plate in relation to a support therefor, in which the support comprises two or more parallel, essentially vertical tubes having nuts fixed at the inside thereof at a distance from both ends of the tubes, a corresponding number of rods, each having its lower, screw-threaded end portion screwed into each of said nuts, a crank at the upper end of each of said rods, said ends facing the board or plate and the crank pins of said cranks rotatably mounted onto the underside of the board or plate.

2,819,135
HUMIDIFYING CLOSURE FOR A CAN
William J. Shapiro, Brooklyn, N. Y.
Application November 8, 1954, Serial No. 467,379
8 Claims. (Cl. 312-31.1)

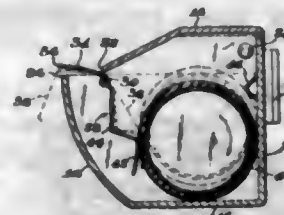


1. A closure for a tobacco can and the like having a large open top comprising a cover having a rim for engaging the open top of a can and the like to close the same, the cover having an opening of substantial size, a thin moisture impervious layer marginally secured to a portion of the cover and sealing the opening against transmission of moisture through said opening, the layer being of an easily destructible penetratable material, a humidifier member received in the opening and below the layer, mounting means carried by one of the parts including the cover and the humidifier member to retain the latter in the opening, and a reservoir above at least a portion of the impervious layer formed by a downwardly directed wall and a bottom, the downwardly directed wall and bottom being carried by at least one of the parts including the cover and the moisture impervious layer.

2,819,136
DISPENSER APPARATUS
William C. Jones, Midland, and Raymond A. Wyatt, Detroit, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application July 25, 1955, Serial No. 524,005
3 Claims. (Cl. 312-39)

1. Apparatus for dispensing and severing sections of sheet material having a considerable static electrical charge from a roll of such sheet material contained within the apparatus, comprising a box-like container dimensioned to hold therein a roll of said sheet material, said container comprising a front panel, a flat back panel, end panels, a flat bottom panel and a top cover having

a front part and a back part, said back part being hinged to at least one of said panels, said cover extending a major part of the distance between the back and front of the container, a pivoted cutter blade for severing film material, said blade being pivotally attached only to the ends of said container and having an upper section which extends the length of said container and projects over the upper edge of the front panel, said upper section having a cutting edge, a lower blade section having a side



surface which is adapted to bear against said roll in line contact therewith when said upper section is moved downwardly, and an offset blade section joining said upper section and said lower blade section, said offset section being out of the path of said sheet material as it is dispensed or torn from the roll, and stop means projecting inwardly from said container for limiting the upward movement of said roll as sheet material is withdrawn therefrom.

2,819,137
FILM DISPENSER
William C. Jones, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
Application July 25, 1955, Serial No. 524,006
3 Claims. (Cl. 312-39)

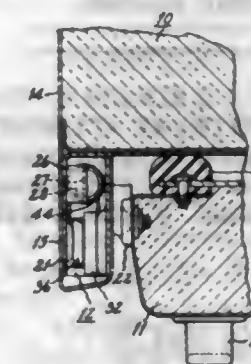


1. Apparatus for dispensing and severing sections of sheet material having a considerable static electrical charge from a roll of such sheet material contained within the apparatus, comprising a box-like container dimensioned to hold therein a roll of said sheet material, said container comprising front, back, end, and bottom panels and a top cover having a front part and a back part, said top cover being hinged adjacent to said back part to at least one of said panels, said cover extending a major part of the distance between the back and front of the container, a pivoted cutter blade for severing film material, said blade being attached to the ends of said container and having an upper section which extends across said container and projects over the upper edge of the front panel, said upper section having a cutting edge, a lower blade section adapted to bear against said roll in line contact therewith, and an offset blade section joining said upper section and said lower blade section, said offset section being out of the path of said sheet material as it is dispensed or torn from the roll.

2,819,138
DOOR LATCH
Milton G. Betz, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 21, 1956, Serial No. 592,783
10 Claims. (Cl. 312-214)

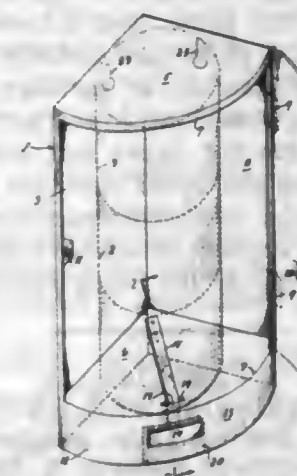
1. In combination, a cabinet member having a door member hingedly mounted thereon for closing an aperture therein, a latch for securing said door member closed, said latch comprising a casing on one of said members and a striker carried by the other of said members, said

casing having a reentry opening for said striker, said striker being movable into said casing through the opening therein, a slidable bolt within said casing adapted to be engaged by said striker, a locking lever within said casing pivotally mounted on and slidable with said bolt, said lever having a projection thereon aligned with and abutting against a stop on said casing to lock said bolt in a retracted position relative to said opening, an end of said lever remote from said pivotal mounting thereof being disposed in the path of movement of said striker into said casing, a part of said bolt also being in the path of movement of said striker into said casing, a single compression spring interposed between said lever and a



part of said casing for sliding said bolt and said lever thereon and for also biasing said projection against said stop, said striker engaging said part of said bolt upon initially entering said opening to simultaneously slide the bolt against the compressive force of said single spring into a further retracted position, and forming the sole means to disengage said lever projection from said stop without moving the projection out of alignment therewith, and said striker engaging said end of said lever as it continues to be moved into said casing for thereafter swinging the lever about said pivotal mounting and for shifting the projection thereon out of alignment with said stop whereby to render said spring effective to slide said bolt behind and into engagement with said striker for holding the same in said casing.

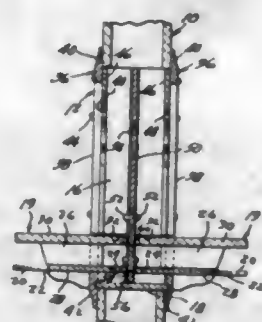
2,819,139
CONTAINER FOR TOILET PAPER ROLLS
Irving C. Stevenson, San Francisco, Calif.
Application October 18, 1954, Serial No. 462,805
1 Claim. (Cl. 312-234)



A bathroom fixture for holding a stack of rolls of toilet paper comprising a portable, upright and externally unconfined cabinet having a pair of straight and upright side walls arranged at a right angle to one another so as to fit into a rectangular corner of a bath room, top and bottom members for holding the side walls in angular relation having circularly curved front edges and a circularly bent door hinged to one of the side walls and adapted to fit upon the front edges and to form a closure for the front opening, the side walls having means for

suspending the same in a corner section of the bath room, and the dimensions of the cabinet being such as to accommodate a stack of toilet paper rolls therein, and means visible from the outside of the cabinet and operable by the weight of the roll for visually indicating the presence of a roll in the cabinet, the latter means comprising an apron suspended from the cabinet and fitting into the contour thereof and having a window therein, a marker movable with respect to the window and spring means associated with the bottom member and supporting the marker, the spring means being tensioned to present the marker opposite the window when the cabinet is empty, but being operable by the weight of a roll to move the marker into an inactive position.

2,819,140
TELEPHONE CABINET
Edwin Andrew Berg, Shreveport, La.
Application October 21, 1955, Serial No. 542,034
1 Claim. (Cl. 312-242)

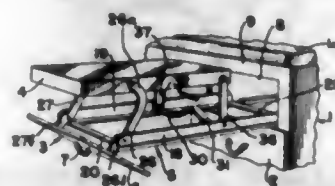


A wall cabinet for providing access to a telephone from each of different rooms separated by a wall, comprising a rectangular frame adapted for mounting in an opening of said wall and proportioned to open upon both of said rooms; a pair of upper shelves in a common horizontal plane spaced closely apart at opposite sides of a vertical plane bisecting said frame for support of a telephone instrument upon a selected one of said upper shelves; a pair of lower shelves spaced vertically from the upper shelves and disposed in a common horizontal plane at opposite sides of said vertical plane; an upper partition lying in said vertical plane and engaged at its opposite sides in the sides of the frame for vertical sliding movement, said partition including handles on its opposite faces and normally gravitating to a position in which its lower edge is disposed approximately in the first named horizontal plane; and a lower partition also lying in said vertical plane and slidably engaged in the sides of the frame, said lower partition including handles at its opposite sides, the lower partition extending in the space between the upper and lower shelves and normally supporting the upper partition in said position of the upper partition, said upper partition being vertically slidable in an upward direction from said position thereof independently of the lower partition.

2,819,141
CUTTING BOARD DRAWER CONSTRUCTION
Charles O. Myer, Warren, Ohio, assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application May 21, 1954, Serial No. 431,352
4 Claims. (Cl. 312-303)

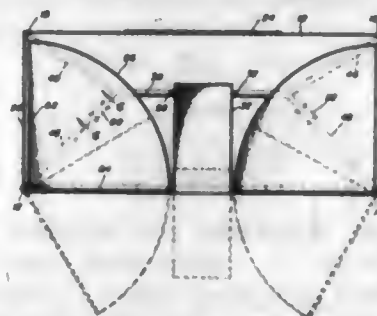
1. Kitchen cabinet cutting board construction including, a drawer, and a drawer frame member, the drawer in-

cluding a pair of spaced slide members movable longitudinally through the drawer frame member, a drawer panel attached to the slide members, a cutting board within the drawer, mounting means connecting the members and board supporting the board in a collapsed position within the drawer when the drawer is closed and in an elevated position when the drawer is open, said mounting means including a pair of support links pivotally mounted at their ends respectively to the board and to the slide members, said mounting means also including a pair of bell crank levers pivotally mounted on corre-



sponding slide members, one end of each lever being pivotally mounted on the board and the other end of each lever being secured to the panel, and a locking clamp on the board engageable with the drawer frame member for holding the board in abutment with the drawer frame member when the board is elevated.

2,819,142
BABY DRESSING TABLE
John F. Barrett, Flushing, N. Y.
Application June 24, 1954, Serial No. 438,952
1 Claim. (Cl. 312-309)



In a table having an oblong top, and front and rear corner legs, a center drawer suspended below said top for pulling out of the front of the table, and pairs of superposed horizontal drawers on opposite sides of the center drawer of a combined depth in each pair equal to the depth of the center drawer and having right angled sides forming a corner on each drawer hinged to the front legs for swinging of the horizontal drawers outwardly and inwardly of the front of the table into open and closed position and of substantially the same length as the distance between said center drawer and front legs so that in the open and closed positions of said pairs of horizontal drawers, said side walls together with said center drawer close the front of the table to the depth of said drawers, said horizontal drawers having arcuate sides connecting the right angled sides and curved in an arc concentric to the axis of swinging movement of said drawers and facing the center drawer whereby to permit swinging of said horizontal drawers relative to said center drawer, rollers for supporting the lower drawers of the pairs, and horizontal brace means connecting said legs and carrying said rollers so that said rollers prevent sagging of said pairs of drawers relative to said center drawer.

CHEMICAL

2,819,143
PLUTONIUM SEPARATION METHOD
John L. Dreher, El Cerrito, and Stanley G. Thompson, Richmond, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application January 12, 1948
Serial No. 1,896
5 Claims. (Cl. 23-14.5)

1. The improvement in a process for separating plutonium from contaminants, which comprises treating a trifluoride carrier precipitate of a rare earth metal of the cerium sub-group containing plutonium in a valence state less than +5 with an aqueous acidic solution containing ceric ion, whereby said precipitate is dissolved in the solution and the plutonium oxidized to the hexavalent state, thoroughly contacting said solution with a soluble alkali metal compound and a soluble fluoride compound whereby the rare earth ions and contaminants are substantially completely precipitated as a by-product carrier precipitate, and separating the by-product carrier precipitate thus formed from the plutonium-containing solution.

2,819,144
SEPARATION OF PLUTONIUM FROM URANIUM AND FISSION PRODUCTS BY ADSORPTION
Glenn T. Seaborg and John E. Willard, Chicago, Ill., assignors to the United States Atomic Energy Commission
No Drawing. Application May 18, 1943
Serial No. 487,428
12 Claims. (Cl. 23-14.5)

1. In the process of separating plutonium from fission products in a solution containing ions of a compound of plutonium in which the plutonium ions are in a valent state not greater than +4 and ions of compounds of fission products, the step of contacting the solution with an adsorbent selected from the group consisting of diatomaceous earth, silica gel, fuller's earth, aluminum oxide, magnesium silicates, and adsorbent carbon to selectively adsorb said plutonium ions from solution leaving ions of compounds of fission products in said solution, and then separating the adsorbent and adsorbed plutonium from the solution containing the ions of unadsorbed fission products.

10. The step in the process of recovering plutonium by adsorption which consists of desorbing the adsorbed plutonium compound with an aqueous solution of ammonium carbonate.

2,819,145
METAL VALUE RECOVERY FROM LEACHED ZONE MATERIAL
Robert F. McCullough and William J. McGinnis, Lakeland, Fla., assignors, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application October 15, 1952
Serial No. 314,946
12 Claims. (Cl. 23-14.5)

1. A process for the recovery of uranium values from leached zone material of the Florida pebble phosphate overburden which comprises acidulating the leached zone material with aqueous acid solution, admixing a liquor selected from the group consisting of water and an aqueous phosphate solution with the admixture, slurring the same, separating undissolved solids from the acidic aqueous mineral digest solution containing predominantly aluminum, phosphate and sulfate components, effecting at least a partial reduction of the uranium present in the resultant aqueous liquid to the quadrivalent state, con-

tacting the mineral digest solution with an organic solvent containing an alkyl acid ester of an alkyl monohydric alcohol and a phosphoric acid selected from the group consisting of orthophosphoric acid and pyrophosphoric acid, separating the aqueous phase from the organic phase, treating the organic phase with sufficient aqueous HF to precipitate appreciable quantities of the uranium present and segregating the uranium precipitate from the aqueous phase.

2,819,146
METHOD OF SEPARATING VALUES OF COLUMBIUM AND/OR TANTALUM FROM A CONCENTRATE ALSO CONTAINING AN ELEMENT OF GROUP IV B
John R. Ruhoff and George L. Martin, Webster Groves, and Charles O. Gerfen, Brentwood, Mo., assignors to Mallinckrodt Chemical Works, St. Louis, Mo., a corporation of Missouri
No Drawing. Application February 15, 1955
Serial No. 488,404
5 Claims. (Cl. 23-18)

1. The method of separating values of at least one element selected from the group consisting of columbium and tantalum from a concentrate solution in which at least one of these values and an element of group IV B of the periodic table are present as their fluocomplexes, comprising adding a compound selected from the group consisting of ammonium carbonate, sodium carbonate and potassium carbonate to said solution to precipitate the hydrous oxide of at least one element selected from the group consisting of columbium and tantalum from the solution containing said group IV B element.

2,819,147
PURIFICATION OF TITANIUM TETRACHLORIDE
Joseph S. Dunn, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application November 26, 1952
Serial No. 322,798
6 Claims. (Cl. 23-87)

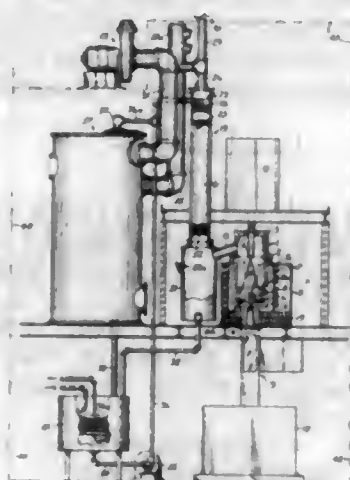
1. In a process for purifying titanium tetrachloride containing other metal compounds as impurities therein, a first step comprising precipitating impurities by means of a reactive sulfide, followed by a second step consisting essentially of contacting the sulfide-treated titanium tetrachloride with a single solid basic compound of a metal selected from the group consisting of alkali and alkaline earth metals.

2,819,148
PURIFICATION OF TITANIUM TETRACHLORIDE
Gerhard Barth-Wehrenalp, Elkins Park, Pa., assignor to Pennsalt Chemicals Corporation, a corporation of Pennsylvania
No Drawing. Application July 5, 1955
Serial No. 520,105
9 Claims. (Cl. 23-87)

1. In the separation of titanium tetrachloride and phosphorus oxychloride from titanium tetrachloride and phosphorus oxychloride complex mixtures, the method comprising reacting phosphorus pentachloride with said complex at a temperature of 85° to 140° C. to form a titanium tetrachloride-phosphorus pentachloride complex and free phosphorus oxychloride, removing said free phosphorus oxychloride, reacting ferric chloride with said titanium tetrachloride-phosphorus pentachloride complex at a temperature of 100° to 239° C. to form a ferric chloride-phosphorus pentachloride complex and free titanium tetrachloride and removing said free titanium tetrachloride.

2,819,149
CONTINUOUS PROCESS OF PRODUCING BERYLLIUM FLUORIDE BY THERMAL DECOMPOSITION OF AMMONIUM BERYLLIUM FLUORIDE AND SEPARATE RECOVERY OF THE CONSTITUENT FLUORIDES

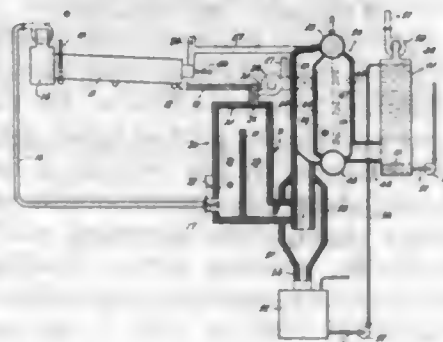
Carl W. Schwenzfeler, Jr., Woodville, Ohio
 Application December 20, 1955, Serial No. 534,211
 3 Claims. (Cl. 23—88)



1. In a continuous process of forming beryllium fluoride, the steps of continuously charging ammonium beryllium fluoride into the closed treating chamber of a decomposition furnace; heating the charge therein at a temperature to decompose the double fluoride and maintain the resulting beryllium fluoride in a molten state and the resulting ammonium fluoride in a vapor state; continuously drawing the molten beryllium fluoride from the bottom of the furnace; continuously discharging the vapors of ammonium fluoride from the upper part of the furnace treating chamber; conducting the so-discharged ammonium fluoride in a continuously downward direction from the vapor discharge opening of the furnace treating chamber into the inlet of a wet-surface condensing and absorbing chamber; withdrawing from the condensing and absorbing chamber the solution of ammonium fluoride formed therein; and continuously maintaining on an outlet of the condensing and absorbing chamber a suction regulated to keep the pressure in the treating chamber of the decomposition furnace slightly below atmospheric pressure to prevent exit of noxious fumes from the furnace and at the same time minimize the admission of air into the furnace chamber.

2,819,150
METHOD OF RECOVERING CHEMICALS FROM THE RESIDUAL LIQUOR PRODUCED IN THE PULPING OF CELLULOSIC MATERIALS

Frederic G. Ely, Paris, Charles E. Rogers, Alliance, and John B. Romer, Akron, Ohio, assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
 Application November 5, 1954, Serial No. 466,998
 7 Claims. (Cl. 23—131)

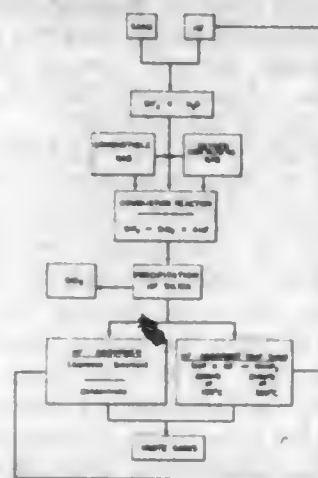


1. The method of recovering chemicals from the residual liquor produced in the pulping of cellulosic materials

by the calcium bi-sulphite pulp process comprising evaporating the water from the residual liquor in a heating zone to produce substantially dry solids under reducing conditions in the presence of carbon and at a temperature below 1560° F., introducing hot gases containing sulphur dioxide and a supplementary fuel to provide heat for said heating zone, separately withdrawing the gaseous product containing CO and the solid residue containing calcium sulphide from said heating zone; burning said gaseous product to convert the CO therein to CO₂ and to raise the temperature of the resulting combustion gases to a temperature above 2000° F., mixing the solid residue with SO₂ gases and said hot combustion gases to convert the calcium sulphide to calcium oxide and gaseous sulphur dioxide, separating the gases from the solids, mixing said solids with water to form calcium hydroxide, cooling said gases to an exit temperature below 1560° F. in a cooling zone, extracting gases from said cooling zone for delivery to said heating zone and contacting said calcium hydroxide with said cooled gases containing sulphur dioxide to produce a calcium bi-sulphite cooking acid for reuse in the pulping process.

2,819,151
PROCESS FOR BURNING SILICON FLUORIDES TO FORM SILICA

Gösta Lennart Flemmert, Nynashamn, Sweden
 Application June 17, 1954, Serial No. 437,383
 Claims priority, application Sweden March 2, 1954
 12 Claims. (Cl. 23—182)



1. A process of producing amorphous, finely-divided silica having a mean particle size within the range from about 5 to about 50 mμ which comprises reacting in the gas phase a silicon fluoride with a combustible gas and a free oxygen-containing gas in a flame zone liberating from 0.1 to 1.3×10⁻⁵ B. t. u.⁻¹ to form silica and hydrogen fluoride.

2,819,152
PROCESS FOR PRODUCING TITANIUM CARBIDE

Leif Aagaard, Plainfield, N. J., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey
 No Drawing. Application August 16, 1954
 Serial No. 450,234
 3 Claims. (Cl. 23—208)

1. Process for forming a titanium compound of carbon, the steps of: preparing a starting composition by forming a sulfate solution of titanium, hydrolyzing said sulfate solution in the presence of finely divided carbon particles to form a mixture comprising coalesced particles of a hydrated titanium compound and carbon, altering the said hydrated titanium particles of said mixture by treating the latter with an alkali metal hydroxide, such that when calcined said hydrated titanium is converted to an alkali metal titanate, and then calcining the alkali altered mixture to form a finely divided titanium compound of carbon.

2,819,153
TESTING KIT FOR IMPREGNITE IN CLOTHING
 Edward J. Schantz, Frederick, Md., assignor to the United States of America as represented by the Secretary of the Army, in trust

No Drawing. Application June 26, 1950

Serial No. 170,457

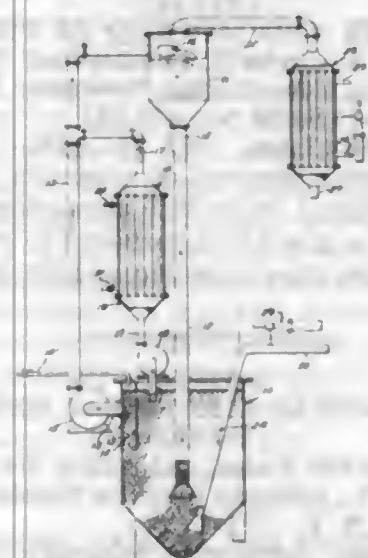
14 Claims. (Cl. 23—230)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of testing to determine the mustard gas protective sufficiency of an impregnated fabric, which includes the steps of first moistening a minute integral portion of a fabric impregnated with an organic nitrogen active chlorine containing compound by applying to said portion a drop of a solvent of said compound selected from the group consisting of chlorinated benzene and tetra chloraethane to form a wet spot on said fabric, adding to said spot a drop of an aqueous solution of a finely ground admixture consisting of about 65.6% KI, about 31.1% anhydrous Na₂S₂O₃, about 1.3% of sodium bicarbonate and about 2.6% of sodium dihexyl sulfo-succinate and contacting the thus treated portion 2 to 10 seconds thereafter with a white starched impregnated filter paper upon which, in the event of there being said sufficiency, there will appear a definitely colored spot.

2,819,154
APPARATUS FOR PRODUCING CRYSTALLINE MATERIALS

Maurice Frej Jacques, St. Hilaire, Paris, France, assignor to Foster Wheeler Corporation, New York, N. Y., a corporation of New York
 Application December 11, 1953, Serial No. 397,725
 2 Claims. (Cl. 23—273)



1. Apparatus for growing crystals from a solution containing substance to be crystallized, comprising a crystallizer vessel having solution therein containing levels of different sized crystals, a feed conduit in communication with said vessel and supplying solution thereto containing desirable sized crystal nuclei and undesirable sized crystal nuclei, said crystallizer vessel having an outlet opening therein for passing solution containing crystal nuclei from said vessel, an evaporator, an evaporator inlet conduit communicating at one end with said evaporator and at the other end with the outlet opening of said vessel, baffle means in said vessel extending in a horizontal direction from wall to wall of said vessel and in a vertical direction downwardly from the top of said vessel in spaced relationship with the outlet opening in said vessel, said baffle means extending downwardly to a point below said outlet opening and in spaced relationship with the bottom of said vessel whereby solution containing undesirable sized crystals is prevented from passing into said outlet opening, pump means disposed in said evaporator

inlet conduit for withdrawing through said outlet opening in said vessel solution containing desirable sized crystal nuclei and delivering said solution to the evaporator, a heat exchanger, a heat exchanger inlet conduit having one end connected to said heat exchanger and the other end connected to the upper portion of said vessel on the opposite side of said baffle means from said outlet opening, other pump means disposed in said heat exchanger inlet conduit for withdrawing solution containing undesirable sized crystal nuclei from said vessel and delivering said liquid to the heat exchanger, a heat exchanger outlet conduit having one end connected to said heat exchanger and the other end connected to said evaporator inlet conduit to deliver heated solution thereto, vacuum means in communication with said evaporator for producing a supersaturated solution therein, a barometric leg having one end connected to the evaporator and the other end extending into the lower portion of the crystallizer vessel for delivering solution from the evaporator to be crystallized, and ejector means in communication with the lower portion of said vessel for removing grown crystals therefrom.

2,819,155
BRIQUETTING OF SOLID COMBUSTIBLES
 Franz Eisenhut, Gelsenkirchen-Horst, Viktor Goblet, Bottrop, and Adolf Siegl, Essen (Ruhr), Germany, assignors to Gelsenkirchener Bergwerks Aktiengesellschaft, Essen, Germany

No Drawing. Application March 18, 1953

Serial No. 343,231

Claims priority, application Germany March 19, 1952
 7 Claims. (Cl. 44—19)

1. A process of briquetting solid combustibles, comprising the steps of intimately mixing a preponderant amount of at least one finely divided solid combustible having a water content of 15–25% with about 1–30% by weight of an aqueous dispersion of at least one bitumen having a Kraemer-Sarnow softening point no higher than 60° C., a water-dispersible clay in a minor proportion sufficient to disperse said bitumen in said aqueous dispersion and 0.5–4% by weight of said dispersion of at least one polycyclic hydrocarbon having a maximum of three rings so as to form a homogeneous mass of said combustible and said dispersion; and drying said thus formed homogeneous mass so as to cause the components thereof to adhere to each other, thereby forming a coherent briquette of said solid combustible.

2,819,156
LEAD SCAVENGER COMPOSITIONS
 Venard E. Yust, Alton, and John L. Bame, East Alton, Ill., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application March 10, 1953

Serial No. 341,616

15 Claims. (Cl. 44—69)

1. A fuel composition for internal combustion engines consisting essentially of a stable gasoline, a minor effective anti-detonant amount of an organo-lead anti-detonant, and a scavenger mixture for said anti-detonant consisting essentially of a halohydrocarbon scavenger and a compound selected from the group consisting of hydrocarbyl-substituted-cycloalkyl hydrides, oxides and sulfides of an element of group V-B of the periodic table having an atomic number from 33 to 83, inclusive, wherein said group V-B element is attached to an alicyclic ring through not more than one atom, said atom being a chalcogen atom, each cycloalkyl group bearing from 1 to 3 aliphatic hydrocarbyl substituents, said halohydrocarbon scavenger and said group V-B compound being present in amounts such that, where (a) is the number of mols of said halohydrocarbon scavenger present multiplied by one-half the number of halogen atoms per molecule, for each gram atom of lead in the lead anti-detonant present,

and (b) is the number of mols of said group V-B compound present multiplied by three-halves, for each gram atom of lead in the lead anti-detonant present, the total of (a) plus (b) is from about 0.4 to about 2.0, (b) is from about 0.01 to about 0.6, and the ratio of (a) to (b) is from about 3:2 to about 100:1.

2,819,157

METHOD OF TREATING SULFIDE SOLIDS UNDER SOLIDS FLUIDIZING CONDITIONS

Francois Albert Fischer, Boulder City, Nev., assignor to Dorr-Oliver Incorporated, Stamford, Conn., a corporation of Delaware

No Drawing. Application July 17, 1953

Serial No. 368,833

3 Claims. (Cl. 75-9)

1. The process for treating finely divided sulfide solids under solids fluidizing conditions and at temperatures above the fusion point of such solids, comprising the steps of maintaining a mass of such solids at fusion temperatures whereby such solids fuse into agglomerates of increased size, treating such fused solids in such bed and continuously maintaining a mass of such fused solids as a fluidized bed during such treatment by passing fluidizing gases upwardly therethrough at a velocity in excess of that velocity required to fluidize the same solids at temperatures below their fusion point.

2,819,158

METHOD OF ARC-MELTING TITANIUM

James H. Johnston, Niles, Ohio

No Drawing. Application August 7, 1953

Serial No. 373,067

6 Claims. (Cl. 75-10)

1. A method of arc-melting titanium and alloys thereof to produce an ingot having a core substantially free of atmospheric contaminants such as oxygen, comprising the steps of, generating an arc between a small quantity of titanium and a consumable electrode to form a molten pool, maintaining a shield of inert gas around the arc and pool, and feeding the electrode into the arc to maintain a substantially constant arc length as the end of the electrode is melted, said electrode consisting principally of impure titanium and containing an amount of calcium not more than 5 per cent by weight but at least sufficient to scavenge both the pool of metal and the atmosphere within the shield to remove said contaminants therefrom as compounds of calcium insoluble in molten titanium.

2,819,159

METHOD OF RECLAIMING SCRAP STEEL

Robert E. Treybal, Hartsdale, William H. Kapfer, Tuckahoe, and Lalmonis Bajars, New Rochelle, N. Y., assignors to Scrap Conservation Committee of the Steel Industry, New York, N. Y., an unincorporated association of New York

No Drawing. Application November 8, 1954

Serial No. 467,644

4 Claims. (Cl. 75-45)

1. A process for forming steel having a tin content of 0.1-0.01% of the weight of the steel, said steel being suitable for use in the formation of new steel, comprising melting scrap steel having a tin content of at least 0.5-1.4% of the weight of the steel, adding to the molten scrap steel a member of the group consisting of elemental sulfur and sulfide of iron in an amount at least 50% and up to 200% in excess of that required to volatilize the tin as tin sulfide and maintaining said scrap steel in its molten state for approximately 30 to 60 minutes.

2,819,160

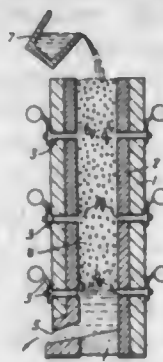
PROCESS FOR REDUCING THE METALLOID CONTENT OF IRON

Leonard Charles Bannister, South Croydon, England, William John Badenoch Chater, Croydon, England, and James Anthony Charles, Shortlands, England, assignors to The British Oxygen Company Limited, a British company

Application May 28, 1956, Serial No. 587,893

Claims priority, application Great Britain June 2, 1955

10 Claims. (Cl. 75-52)



1. A process for reducing the metalloid content of iron which comprises passing the molten iron downwardly through a tower packed with predominantly non-reducing material preheated to a temperature such that the molten iron does not freeze during its passage through the tower, in counter-current flow to a stream of a gas selected from the group consisting of pure oxygen and oxygen-containing gas mixtures, in such manner that an oxidizing zone is produced and maintained at the bottom of the tower and a reducing zone at the top of the tower.

2,819,161

SPINNERETTES AND METHOD OF PRODUCTION

John A. Cupler II, Cumberland, Md.

No Drawing. Application November 24, 1954

Serial No. 471,101

10 Claims. (Cl. 75-126)

1. A spinnerette composed of a vacuum melted austenitic alloy containing 16 to 29% chromium, 2½ to 9% molybdenum, less than 0.05% carbon, 8 to 20% of an element rendering the alloy austenitic, and the remainder substantially iron.

2,819,162

PRECIOUS METAL ELECTRICAL RESISTANCE WIRES

Eugene Cohn, White Plains, and Arthur Jerome Abrams, Harrison, N. Y., assignors to Secon Metals Corporation, White Plains, N. Y.

No Drawing. Application September 29, 1954

Serial No. 459,216

8 Claims. (Cl. 75-172)

1. An electrical resistance wire constituted of a precious metal alloy consisting of from 54 to 60 parts of platinum, 34 to 40 parts of palladium and from 5 to 8 parts of metal from the group consisting of molybdenum and a mixture of molybdenum and tungsten, which mixture contains not more than 25% of tungsten.

2,819,163

PROCESS FOR MAKING A PYROPHORIC ELEMENT

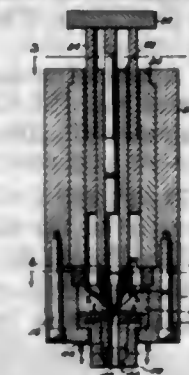
Claire C. Balke, Drexel Hill, and William S. Graff, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army

Original application June 14, 1951, Serial No. 231,596, now Patent No. 2,801,590, dated August 6, 1957. Divided and this application March 16, 1956, Serial No. 574,347

3 Claims. (Cl. 75-208)

2. In a process for manufacturing jacketed incendiaries, the steps comprising separately mixing desired ingre-

dients for a ferrous jacket and for a zirconium-rich pyrophoric core, all of said ingredients being in the highly comminuted state, adding to the resulting jacket and core mixtures an organic plasticizer, coextruding jacket and core materials through a forming and shaping extrusion



die having concentric orifices, removing said organic plasticizer by destructive distillation in vacuo, sintering the now composite extruded element at elevated temperature in a hydrogen atmosphere, and cooling the rod in vacuo to prevent absorption of gases.

2,819,164

METHOD OF MANUFACTURING METALLIC PATTERNS

Theo Tjalke Boersma, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application November 16, 1953

Serial No. 392,465

Claims priority, application Netherlands

November 29, 1952

2 Claims. (Cl. 96-35)

1. A method of producing a pattern having exposed metal surfaces adapted to be further modified comprising the steps of applying to the metal surface, a layer consisting of polyvinyl butyral resin having a degree of polymerization at which a 10% solution in ethanol has a viscosity between 200 and 1000 centipoises and a photo-sensitive bichromate compound capable, upon exposure to actinic light, of further polymerizing exposed areas of the polyvinyl butyral layer to an insoluble condition, exposing the polyvinyl butyral resin layer to actinic light to insolubilize the exposed portions thereof and render the same highly adherent to the underlying metal surface, and washing out the unexposed portions of the polyvinyl butyral resin layer thereby leaving exposed underlying portions of the metal surface.

2,819,165

ANTIFADING LAYERS FOR PHOTOGRAPHIC BLACK AND WHITE MATERIALS

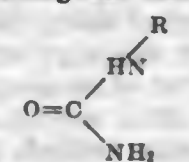
E. Scudder Mackey, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application February 20, 1953

Serial No. 338,150

9 Claims. (Cl. 96-61)

1. A photographic element comprising a support and a light-sensitive silver halide emulsion capable of being developed into a silver image having a warm image tone, said emulsion provided with a colloidal surface coating comprising a colloidal carrier having dispersed therein, an antifading amount of a water soluble, amorphous resinous addition product of formaldehyde and a urea having a median degree of polymerization ranging from about 8 to 30, said urea being selected from the class consisting of those having the following formula:



wherein R represents a member selected from the class

consisting of hydrogen, lower alkyl and lower hydroxy-alkyl, said antifading amount of resinous addition product being on the order of from 33 to 333 milligrams per gram of colloidal carrier, from 3 to 35 milligrams per square foot of overcoated surface, and from 6 to 90 milligrams per gram of silver nitrate used in the preparation of said silver halide emulsion.

2,819,166

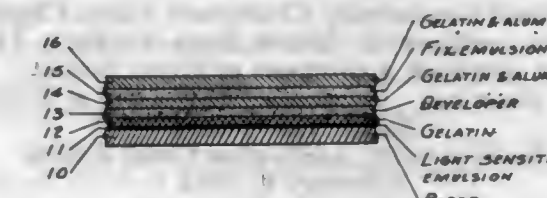
SELF-PROCESSING PHOTOSTAT PAPER

Max H. Goldschein, Washington, D. C.

Application June 23, 1954, Serial No. 438,884

2 Claims. (Cl. 96-76)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A laminated self-processing photoprint paper, comprising a paper base layer readily water absorptive and coated with a gelatin emulsion of silver halide, an outer layer of gelatin hardened with alum and substantially water impervious, a protective coating of gelatin hardened with a lesser amount of alum disposed upon the silver halide and being less water permeable than the paper base layer and more readily water permeable than the outer layer, a layer of dry water soluble developer for the silver halide carried by the paper base layer, and a layer of dry water soluble gelatin emulsion of fix for the silver halide disposed between the protective coating and the outer layer, whereby when the laminated sheet is immersed in water the water is absorbed inwardly from the paper side of the sheet only with a time delay for effecting solution of the fix layer with respect to the developer layer.

2,819,167

INFUSION PACKAGE WITH A NON-TANGLING STRING-HANDLE AND TAG

Hans O. Irmischer, Uniondale-Hempstead, N. Y., assignor to National Tea Packing Company, Inc., Long Island City, N. Y., a corporation of New York

Application September 14, 1954, Serial No. 455,979

3 Claims. (Cl. 99-77.1)



1. In an infusion package having a string-handle terminated by a tag, a non-tangling positioning construction for said string-handle and tag comprising a top closure seam flange of a flat-pillow-shaped body portion of said package, an end portion of said string-handle opposite said tag anchored to said top closure seam flange and provided with a small loop extending beyond the seam

flange edge, an elongated mid-portion of said string-handle between said string-handle anchorage and tag extending in slip knot configuration from a front side of said body portion through said small loop and over said seam flange edge and positioned as a large loop lying flat against a rear side of said body portion, a portion of said string-handle adjacent the tag being repassed through said small loop and over the flange edge completing said slip knot configuration to position the tag flat against said body portion front side whereby said string-handle and tag are temporarily retained in said flat position.

2,819,168
PROTECTION OF FOOD AGAINST PROTEIN DEGRADATION

Eric Mitchell Learmonth, Charlwood Edge, Charlwood, England, assignor to British Soya Products Limited, London, England, a company of Great Britain
No Drawing. Application September 8, 1952
Serial No. 308,517

Claims priority, application Great Britain February 8, 1952
4 Claims. (Cl. 99-91)

1. Cereal flour having admixed therewith at least one material selected from the group consisting of a flour produced from the whole of the separated non-cotyledonous parts of raw leguminous seeds and an aqueous extract of the whole of the separated non-cotyledonous parts of raw leguminous seeds.

4. In a process of manufacturing fermented dough from freshly milled cereal flour containing an enzyme of the papain class, controlling the proteolytic activity of the enzyme during the fermentation period by incorporating into the dough at least one material selected from the group consisting of a flour produced from the whole of separated non-cotyledonous parts of raw leguminous seeds, and aqueous extract of the whole of the separated non-cotyledonous parts of raw leguminous seeds.

2,819,169
PROCESS OF FLAVORING AND PRODUCT

Jan Boldingh, Dordrecht, Netherlands, and Reginald James Taylor, Heswell, Wirral, England, assignors to Lever Brothers Company, New York, N. Y., a corporation of Maine
No Drawing. Application August 6, 1953
Serial No. 372,801

38 Claims. (Cl. 99-123)

1. A composition consisting of margarine containing a minor proportion of at least one flavoring substance that imparts a butter-like flavor to the margarine, said flavoring substance including at least one lactone having a lactone ring of from four to six carbon atoms other than a lactone ring condensed to a hydrocarbon ring.

2,819,170
VITRIFIABLE FLUX AND SILVER COMPOSITIONS CONTAINING SAME

Oliver A. Short, Metuchen, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application August 6, 1954
Serial No. 448,374

9 Claims. (Cl. 106-48)

3. A silver composition comprising finely divided metallic silver and vitrifiable flux particles dispersed in a vehicle in a weight proportion of silver to flux of between 3:1 and 20:1, said flux consisting essentially of 50 to 95% bismuth trioxide and 5 to 50% of a cadmium borate composition consisting essentially of 50 to 95% CdO, 5 to 50% B₂O₃, and 0 to 15% SiO₂.

2,819,171
HYDRAULIC CEMENT COMPOSITIONS AND METHOD OF MAKING SAME

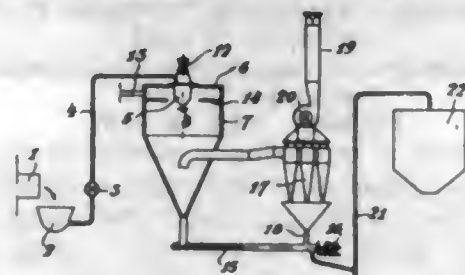
Edward W. Scripture, Jr., St. James, Barbados, British West Indies, and Stephen W. Benedict, Cleveland Heights, Ohio, assignors, by mesne assignments, to American-Marietta Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application August 19, 1954
Serial No. 451,032

13 Claims. (Cl. 106-90)

1. A hydraulic cement composition consisting essentially of a Portland type hydraulic cement, sufficient water to effect hydraulic setting of the cement and produce a workably plastic mix, and from .01 to .1% of a gluconic compound selected from the class consisting of gluconic acid, its water-soluble salts, and glucono delta lactone, from .05% to .35% of a salicylic compound selected from the class consisting of salicylic acid and its water-soluble salts, and from .05% to 4.0% of a water-soluble chloride accelerator, all by weight based on the weight of said cement.

2,819,172
METHOD FOR PRODUCING A HYDRAULIC BINDER IN POWDER FORM

Victor Trief, Brussels, Belgium; Carion Olga-Emma Trief, administratrix of said Victor Trief, deceased
Application May 27, 1954, Serial No. 432,882
Claims priority, application France June 1, 1953
6 Claims. (Cl. 106-102)



6. In a method for producing a powdered cementitious material having high latent hydraulic properties and suitable for use as cement after adding an activating catalytic substance to effect setting, grinding to cement fineness granulated slag in the presence of water adjusted to a content of 30% while grinding the mixture to a liquid paste containing the slag, continuously supplying the paste of cementitious material in undecanted condition directly to a centrifugal atomizer and thereby centrifugally spraying the cementitious material in finely divided wet form into an enclosure, passing through said enclosure in intimate contact with said material a substantially non-oxidizing gaseous mixture including CO₂ for inhibiting activation of said material, said gas being in sufficiently hot condition to instantaneously dry the discrete particles of finely divided paste, obtaining a dry non-coherent powder thereby, and collecting the powder.

2,819,173
SYNTHETIC FIBERS AND THE LIKE

Karl Dithmar, Frankfurt am Main, Germany, assignor to Deutsche Gold- und Silber-Schmelzeanstalt vormals Roessler, Frankfurt am Main, Germany
No Drawing. Application October 19, 1953
Serial No. 387,032

1. In a process for the production of shaped synthetic products of the nature of fibers, foils, films and bands from spinning masses, the steps which comprise incorporating a finely divided oxide aerogel selected from the group consisting of silica, aluminum oxide, zirconium oxide and titanium oxide aerogels obtained by a vapor phase thermal decomposition of a chloride selected from

the group consisting of silicon, aluminum, zirconium and titanium chlorides by supplying such chloride in the vapor state to a decomposition zone heated directly to an elevated temperature by the combustion of a hydrogen containing combustible gas to form an oxide aerosol which is recovered as the aerogel in such spinning masses and spinning such oxide aerogel containing spinning masses to form a shaped product.

2,819,174
STABLE AQUEOUS TITANIA MONOHYDRATE DISPERSIONS

Richard D. Vartanian, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application November 25, 1953
Serial No. 394,513

13 Claims. (Cl. 106-300)

1. A process which comprises acidifying a substantially sulfate-ion-free aqueous suspension of titania hydrate to a pH below about 5 with a monobasic inorganic acid and thereafter changing the pH of the suspension to a value between 5 and 11 with an alkalinizing agent of the group consisting of water-soluble acyclic alkyl monoamines, water-soluble acyclic alkanol monoamines, water-soluble amines in stoichiometric excess in combination with water-soluble aliphatic acids, and water-soluble amines in stoichiometric excess in combination with water-soluble polybasic inorganic acids to produce a stable colloidal suspension of charged titania monohydrate particles having a substantially uniform particle size less than about 0.1 micron.

2,819,175
NEW CADMIUM SULFIDE YELLOW PIGMENTS

Helmut Flasch, Leverkusen, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application July 13, 1955
Serial No. 521,894

Claims priority, application Germany July 15, 1954
2 Claims. (Cl. 106-301)

1. A light-fast, atmospherically stable yellow pigment essentially consisting of cadmium sulfide having about 0.2 to 1% selenium incorporated in its lattice.

2,819,176
STABILIZED COLLOIDAL TITANIA MONOHYDRATE SUSPENSIONS

Richard D. Vartanian, Bound Brook, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application February 11, 1954
Serial No. 409,780

4 Claims. (Cl. 106-308)

1. A process which comprises acidifying a substantially sulfate ion free aqueous suspension of titania monohydrate to a pH below about 5 with a monobasic inorganic acid and thereafter reversing the charge on the resulting colloidal particles by changing the pH to a value between about 5 and about 11 with an alkalinizing agent containing ammonia and a second acid of the group consisting of water-soluble aliphatic acids and water-soluble polybasic inorganic acids, the ammonia being employed in stoichiometric excess relative to the second acid and being introduced into the initial titania hydrate suspension no earlier than said second acid, to produce a stable colloidal suspension of negatively charged substantially uniform titania monohydrate particles less than about 0.1 micron in size.

728 O. G.—11

2,819,177
STABLE COLLOIDAL TITANIA MONOHYDRATE DISPERSIONS

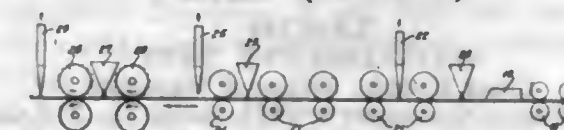
Robert C. Conn and Richard D. Vartanian, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application February 9, 1956
Serial No. 564,581

8 Claims. (Cl. 106-308)

1. A process which comprises acidifying a substantially sulfate ion-free aqueous suspension of titania monohydrate to a pH below about 5 with a monobasic inorganic acid, and thereafter reversing the charge on the resulting colloidal particles by changing the pH to a value between about 5 and about 11 with an alkalinizing agent containing an alkaline compound of the group consisting of the hydroxides, carbonates, phosphates and borates of alkali metals and a second acid selected from the group consisting of water-soluble aliphatic acids and water-soluble polybasic inorganic acids, the said alkaline compound being employed in stoichiometric excess relative to the second acid and being introduced into the initial titania hydrate suspension no earlier than the second acid, to produce a stable colloidal suspension of negatively charged substantially uniform titania monohydrate particles less than about 0.1 micron in size.

2,819,178
PROCESS OF MANUFACTURE OF MASONRY SIMULATING MATERIAL

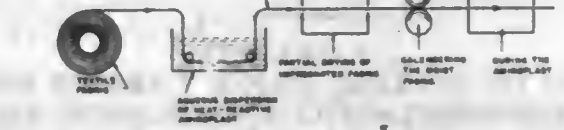
Edward F. Haracz, Clifton, N. J., assignor to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts
Application October 23, 1951, Serial No. 252,741
2 Claims. (Cl. 117-9)



1. A process for manufacturing an improved colored mortar joint masonry simulating material which comprises coating a base with a plastic material, applying coarse masonry simulating particles, pressing said coarse masonry simulating particles into the plastic material, applying fine masonry simulating particles of the same color, pressing said fine masonry simulating particles into the surface of the material, embossing mortar line patterns on the material, applying fine mortar simulating particles of a color different from the masonry simulating particles and pressing said fine mortar simulating particles into the embossed mortar line patterns.

2,819,179
TEXTILE FINISHING PROCESS

Kenneth H. Barnard, Bound Brook, and James N. Gowney, Fords, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application January 18, 1954, Serial No. 404,764
16 Claims. (Cl. 117-10)

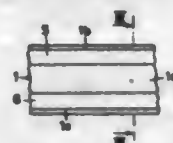


1. A process which comprises impregnating a textile fabric with an aqueous dispersion of a heat-reactive water-dispersible aminoplast of the group consisting of unsubstituted methylol melamines, and methylol and alkoxyethyl substituted diamides, formamide, urea, al-

kyl ureas, alkylol ureas, cyclic ureas and thioureas together with a mixture comprising a lower alkylated methylol melamine having alkyl radicals containing not more than 4 carbon atoms and a compound free of basic salt-forming groups and containing an alkyl radical of at least 7 carbon atoms and a single nitrogen atom having attached thereto a carbonyl radical and a reactive substituent of the group consisting of hydrogen and alkylol radicals; partially drying the impregnated fabric; calendering the moist fabric under heat and pressure, and drying and curing the treated fabric until the finish is substantially water-insoluble, to produce a mechanically-finished resin-treated fabric of improved tear strength relative to the same fabric treated individually with said alkylated methylol melamine and at least one of said aminoplasts.

4. A process which comprises impregnating a textile fabric with an aqueous dispersion of a heat-reactive water-dispersible aminoplast of the group consisting of unsubstituted methylol melamines, and methylol and alkoxymethylol substituted diamides, formamide, urea, alkyl ureas, alkylol ureas, cyclic ureas, cyclic ureas and thioureas together with a mixture comprising a methylated methylol melamine and N-methylol stearamide; partially drying the impregnated fabric to a moisture content of between about 3 and about 20%; calendering the moist fabric under heat and pressure; and drying and curing the calendered fabric until the finish is substantially water-insoluble to produce a calendered resin-treated fabric of improved tear strength relative to the same fabric treated individually with said methylated methylol melamine and at least one of said aminoplasts.

2,819,180
SELF-ADHESIVE TAPE
Claus Koenig, Erlangen, Germany
Application November 4, 1952, Serial No. 318,666
Claims priority, application Germany November 10, 1951
3 Claims. (Cl. 117-11)

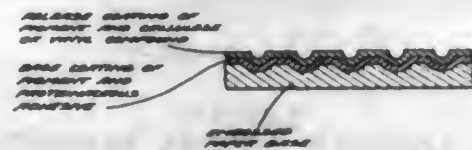


1. A roll of self-adhesive tape adapted for use in a friction roller feed tab cutting machine, comprising a rolled-up foil tape of non-adhesive plastic having a pattern of slight indentations covering the entire tape surface to prevent continuous area contact between adjacent layers of tape in the roll, two strip-shaped coatings of self-adhesive material on one side only of said tape, said coatings extending parallel to each other in the longitudinal direction of the tape and leaving a non-adhesive middle zone between each other, said middle zone having no transverse perforations, said middle, indented, non-adhesive zone serving as a friction trackway for friction roller feed means of the tab cutting machine, and said coatings being transversely spaced from the respective longitudinal edges of the tape to leave respective non-adhesive edge zones of smaller width than said middle zone to prevent sticking in said machine.

2,819,181
METHOD OF MAKING PAPER CARRIER SHEET FOR THERMOPLASTIC AND ELASTIC FILM
Joseph J. Thomas, Westbrook, Maine, assignor to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts
Application February 11, 1954, Serial No. 409,765
5 Claims. (Cl. 117-11)

1. Process for the production of a coated carrier sheet for thermoplastic and elastic film materials, said sheet

having an embossed surface, which comprises applying to a dry paper web a strongly adherent release coating of substantially uniform thickness of an aqueous mineral coating composition consisting essentially of a pigment and a hydrophilic adhesive which is a film-forming release agent of the group consisting of water-soluble cellulose



lose and vinyl compounds; and drying the coated web, said dry paper web having an embossed surface formed by compacting portions of a web of initially substantially uniform thickness more than other portions while the web contained from about 58% to about 74% by weight of water and drying.

2,819,182
PROCESS OF ALUMINIZING CATHODE RAY TUBE SCREEN
Walter Wentworth Slobbe, Seneca Falls, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
No Drawing. Application August 13, 1954
Serial No. 449,795
3 Claims. (Cl. 117-33.5)

1. The process of aluminumizing a cathode ray tube screen which includes the steps of coating the previously applied phosphor screen with a thin film of lacquer bearing a volatile dye, aluminumizing the surface of the lacquer and the dye, and removing the lacquer by baking.

2,819,183
FLUORESCENT SCREENS
Francis Peter Alles, Westfield, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application May 31, 1955
Serial No. 512,282
15 Claims. (Cl. 117-33.5)

1. A fluorescent screen comprising a sheet support having on at least one surface a flexible layer of finely divided particles of a phosphor dispersed in a chloro-sulfonated addition polymer of an olefin containing 1 to 2 olefinic bonds and not more than 5 carbon atoms.

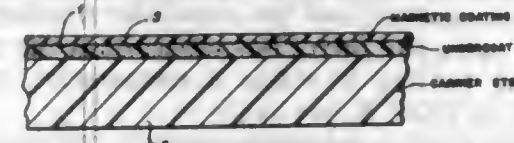
2,819,184
PRODUCTION OF CAST SURFACED COATED PAPER
Robert L. Smith, Gorham, and Frederick H. Frost, Portland, Maine, assignors to S. D. Warren Company, Boston, Mass., a corporation of Massachusetts
No Drawing. Application October 22, 1953
Serial No. 387,804
4 Claims. (Cl. 117-64)

1. Process for cast-coating paper which comprises applying to a paper base a layer of aqueous coating composition comprising finely divided mineral pigment and hydrophilic adhesive, wetting the surface of the layer of coating with a release agent comprising an alkaline aqueous solution of a normally solid resin, thereafter pressing the coated surface while still in a wet and plastic condition into adherent contact with a heated finishing surface, and drying the coating in contact with said finishing surface until it no longer adheres thereto.

2,819,185
STRESSING OF PETROLEUM WAX TO IMPROVE PHYSICAL PROPERTIES THEREOF
Charles Mack and John Louis Tiedje, Sarnia, Ontario, Canada, assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application February 8, 1955
Serial No. 486,994
4 Claims. (Cl. 117-65)

4. A process for increasing the hardness of petroleum wax on a waxed paper which comprises plastically deforming said wax by passing said paper between pressure rolls, the pressure exerted by said rolls being of insufficient duration to cause plastic flow of said wax.

2,819,186
MAGNETIC RECORDING TAPE
Ernest W. Franck, Glenbrook, Conn., assignor to Reeves Soundcraft Corp., New York, N. Y., a corporation of New York
Application January 19, 1956, Serial No. 563,403
3 Claims. (Cl. 117-76)



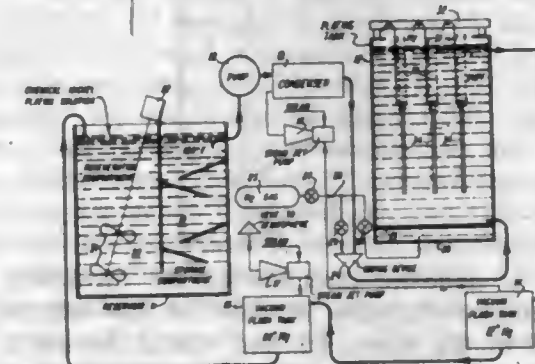
1. Magnetic recording tape for recording high frequency impulses above the audio frequency band comprising, in combination, a support consisting of a strip of non-magnetic film, and a composite coating thereon, said coating comprising two adherently bonded layers of resinous polymeric material, the outer layer being relatively hard and brittle and having finely divided magnetic material dispersed therein in proportion at least equal to 85% of the weight of the dried layer and the inner layer being non-magnetic and relatively soft and flexible, the thickness of the outer magnetic layer being not in excess of .25 mil, and the thickness of the inner non-magnetic layer being at least equal to the thickness of the outer magnetic layer.

2,819,187
CHEMICAL NICKEL PLATING PROCESSES AND BATHS THEREFOR
Gregoire Gutzelt, Highland, Ind., Paul Talmey, Barrington, Ill., and Warren G. Lee, East Chicago, Ind., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York
No Drawing. Application March 3, 1955
Serial No. 492,032
8 Claims. (Cl. 117-130)

1. The process of chemically plating with nickel a body essentially comprising an element selected from the group consisting of iron, cobalt, nickel, aluminum, copper, silver, gold, palladium and platinum, which comprises contacting said body with an aqueous bath comprising nickel ions, hypophosphite ions, a complexing agent, and an exalting additive; said agent being selected from the group consisting of ammonium compounds supplying NH_4^+ ions to said bath, the molar ratio between the NH_4^+ ions and the nickel ions in said bath being in the range 2 to 6 so as substantially completely to complex all of the nickel ions in said bath; said additive being present in said bath in an amount sufficient substantially to exalt the normal plating rate of said bath and being selected from the group consisting of simple short chain saturated aliphatic monocarboxylic acids including 3 to 5 carbon atoms and salts thereof, simple short chain saturated aliphatic dicarboxylic acids including 3 to 6 carbon atoms and salts thereof, and short chain aliphatic aminocarboxylic acids and salts thereof; wherein the absolute concentration of hypophosphite ions in said bath expressed in mole/liter is within the range 0.15 to 1.20, the ratio between nickel ions and hypophosphite ions in said bath expressed in molar concentrations is

within the range 0.25 to 1.60, and the initial pH of said bath is within the approximate range 4.0 to 11.0.

2,819,188
PROCESSES OF CHEMICAL NICKEL PLATING
Donald E. Metheny, Hammond, Ind., and Paul Talmey, Barrington, Ill., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York
Application May 18, 1954, Serial No. 430,604
11 Claims. (Cl. 117-130)



1. The process of chemically plating with nickel a solid body of catalytic material, which comprises providing a hot aqueous chemical nickel plating bath of the nickel cation-hypophosphite anion type, injecting a light gas from an external source into said hot plating bath in order to maintain a substantial dispersion of said light gas in said hot plating bath, said light gas being chemically inert with respect to said hot plating bath and having a molecular weight that is not greater than that of neon so that it has a high diffusion rate in said hot plating bath and a low surface tension with respect thereto, and contacting said body with said hot plating bath having said substantial dispersion of said light inert gas therein, whereby a bright smooth nickel plating is deposited upon the surface of said body.

2,819,189
PROCESS OF SIZING TEXTILE YARN AND PRODUCT THEREOF
Tzeng-Jieug Suen, New Canaan, and William Norman Russell, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application November 15, 1954, Serial No. 468,998
10 Claims. (Cl. 117-139.5)

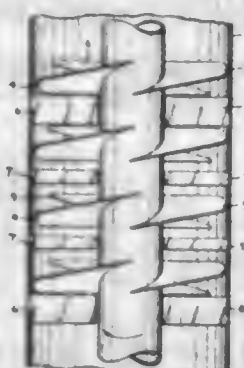


1. A process of warp sizing textile yarns which comprises applying an aqueous solution of pH between about 5 and about 9 of a copolymer having recurring nitrile and $-\text{COOX}$ groups in a ratio between 1:0.30 and 1:0.75 attached to a linear carbon chain of substantial length wherein X is of the group consisting of hydrogen, sodium, potassium and the ammonium radical, which copolymer has a viscosity between about 5 and about 200 centipoises when determined at a concentration of 5 percent by weight in water at 140 degrees Fahrenheit, in sufficient quantity to deposit on a textile yarn between about 2 and about 10 percent of copolymer, based on the weight of the untreated dry yarn, and drying the treated yarn to produce a readily-scourable dry protective coating of the copolymer on the yarn.

2,819,190
COUNTER-CURRENT DIFFUSION TOWER
Willy Käther, Braunschweig, Germany, assignor to Braunschweigische Maschinenbauanstalt, Braunschweig, Germany, and Pfeffer & Langen, Köln, Germany
Application March 18, 1953, Serial No. 343,167
Claims priority, application Germany November 18, 1952
3 Claims. (Cl. 127-7)

1. An extraction tower for comminuted vegetable mat-

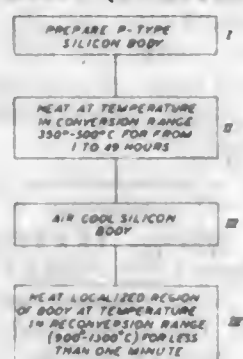
ter and particularly for sugar beet chips comprising a center shaft, an interrupted screw conveyor subdivided by said shaft into superposed sections, said sections defining vertically superposed free spaces between adjacent threads thereof, said threads serving to transport the charge of said chips upwardly, means to conduct a leach-



ing fluid in opposite direction to the upwardly moved charge, radially extending vertical flat flow retarder plates connected to the tower in said spaces having a height which is less than the smallest distance between two successive screw conveyor threads, said retarder plates being adapted to rotate.

2,819,191

METHOD OF FABRICATING A P-N JUNCTION
Calvin S. Fuller, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 27, 1954, Serial No. 432,638
3 Claims. (Cl. 148-1.5)



1. The method of producing a body of stable p-type silicon which comprises heating said body at a temperature between 350° C. and 500° C. for from one to forty-eight hours, then heating said body at a temperature between 900° C. and 1300° C. for a period in excess of 15 hours, and cooling said body.

2,819,192

MODIFICATION OF ALUMINUM SURFACES
James H. Young, Niagara Falls, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 23, 1955
Serial No. 554,918

10 Claims. (Cl. 148-6.14)

1. The method of producing an adherent oxide film on a clean, oxide-free aluminum surface comprising exposing said surface to an aqueous solution of hydrogen peroxide having a pH in the range 10.5 to 11.5.

2,819,193

SOLUTION AND PROCESS FOR TREATING METAL SURFACES

Werner Rausch, Frankfurt, Germany, assignor to Parker Rust Proof Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application June 23, 1953
Serial No. 363,660

Claims priority, application Germany June 24, 1952
10 Claims. (Cl. 148-6.16)

1. A composition of matter which consists essentially of 10-100 grams/liter of an alkali metal phosphate,

0.1-3.0 grams/liter of an alkali metal chromate and 3-30 grams/liter of oxalic acid dihydrate in aqueous solution, said composition having a pH in the range of 1-3.

2,819,194

METHOD OF AGING TITANIUM BASE ALLOYS
Schuyler A. Herres, Las Vegas, and Thomas K. Redden, Boulder City, Nev., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

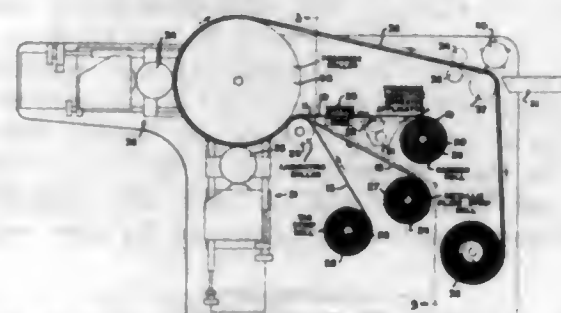
No Drawing. Original application September 29, 1949, Serial No. 118,723. Divided and this application January 15, 1954, Serial No. 404,392

3 Claims. (Cl. 148-21.90)

1. A method of conditioning a ternary and higher titanium base alloy which is responsive to the following defined treatment and which consists essentially of an alloying gas selected from the group consisting of nitrogen and oxygen with a range of .02 to .40% each, an alloying metal selected from the group consisting of and within the specified ranges of about .1 to 10% iron, 1.5 to 20% chromium, 1 to 5% molybdenum, 1.5 to 5% tungsten, and 1 to 10% manganese, and the remainder titanium which comprises, aging and precipitation hardening the alloy by heating and holding it within a temperature range of about 700° to 1200° F.

2,819,195

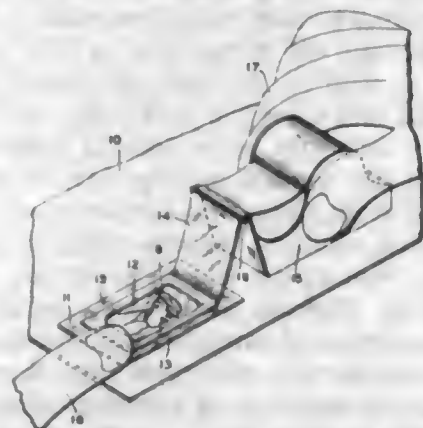
METHODS OF PRODUCING PICK-OFF PRINTED ADHESIVE METAL PLATES
Erwin W. Huber, Towson, Md.
Application July 6, 1956, Serial No. 596,258
12 Claims. (Cl. 154-79)



1. In the method of producing pick-off adhesive metal plates, those steps which consist in providing a pressure sensitive adhesive-coated flexible carrier, contacting the pressure sensitive adhesive coating thereon with a plurality of substantially parallel strips, one strip being a metallic plate strip and the next adjacent strip being a tab strip, with adjacent edges of said metallic plate strip and tab strip being in contiguous facing relationship, and pressuring said plurality of substantially parallel strips into adhesively bonded connection with said pressure sensitive adhesive coating.

2,819,196

METHOD OF TRANSFERRING A PICTURE
James Milton Munro, Philadelphia, Pa.
Application June 9, 1954, Serial No. 435,596
3 Claims. (Cl. 154-103)



1. The method of transferring a picture from a conventional sheet of printed paper, said paper having an

2,819,199

STABLE INJECTABLE FAT EMULSIONS AND PROCESS OF PRODUCING SAME

Joseph Kalish, Jamaica, N. Y., assignor to Schenley Laboratories, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application October 27, 1953
Serial No. 388,677

16 Claims. (Cl. 167-66)

1. A stable, non-toxic, bodily acceptable and assimilable, injectable fat emulsion comprising (1) between approximately 30% and approximately 55% by weight/volume of a non-toxic, non-irritating fat, (2) between approximately 5% and approximately 10% by weight/volume of an assimilable monosaccharide, and (3) both of the constituents of a pair of emulsifying agents selected from the group consisting of: (a) glyceryl monostearate and polyoxyethylene sorbitan monostearate having 20 polyoxyethylene units per molecule, (b) the condensation product of ethylene oxide and polypropylene glycol and polyglycerol oleate, (c) the condensation product of ethylene oxide and polypropylene glycol and polyoxyethylene sorbitan monostearate having 20 polyoxyethylene units per molecule, (d) polyethylene glycol 400 monostearate and polyoxyethylene sorbitan monostearate having 20 polyoxyethylene units per molecule, and (e) polyethylene glycol 400 monostearate and the condensation product of ethylene oxide and polypropylene glycol, each of the constituents of the said pair being present in an amount between approximately 1/2% and approximately 3% by weight/volume of the emulsion, and the average size of the particles of said emulsion being smaller than 2 microns and the emulsion being sterile and free from pyrogenic substances.

2,819,200

MICROBIAL OXYGENATION OF STEROIDS AT CARBON NO. 21

Eugene L. Dulaney, Rahway, and William McAleer, Elizabeth, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 4, 1953
Serial No. 396,314

12 Claims. (Cl. 195-51)

1. A process for the production of oxygenated steroids which comprises subjecting a 21-desoxy steroid selected from the group consisting of pregnenes, pregnanes, and allopregnanes to the action of an oxygenating enzyme produced by an oxygenating strain of a microorganism of a genus selected from the group consisting of *Wojnowicia* and *Hendersonia* to produce the corresponding 21-hydroxy steroid.

2,819,201

MICROBIAL OXYGENATION OF STEROIDS IN THE 21 POSITION

Eugene L. Dulaney, Saskatoon, Saskatchewan, Canada, and William J. McAleer, Roselle, N. J., assignors to Merck & Co. Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application December 27, 1955
Serial No. 555,277

11 Claims. (Cl. 195-51)

1. A process for the production of oxygenated steroids, which comprises subjecting a 21-desoxy steroid selected from the group consisting of pregnenes, pregnanes and allopregnanes under aerobic conditions to the action of an oxygenating enzyme produced by an oxygenating strain of a microorganism of the species *Wojnowicia graminis* to produce the corresponding 21-hydroxy steroid.

upper printed portion and a lower base portion, onto a different surface which includes the steps of temporarily adhering a transparent pressure sensitive tape to the marginal portions around a central opening of a masking plate, said marginal portions of the plate having little adhesion to such tape, positioning the combination of masking plate and tape on the picture to be transferred, applying pressure to the smooth non-adherent surface of the transparent tape for firmly pressing the pressure-sensitive portion of the tape onto the picture to be transferred, whereby the tape adheres to the paper much more tenaciously than to the marginal portions of the plate, applying a rapid movement to the tape to peel away the tape from both the paper and the marginal portions of the masking plate, whereby the printed picture, together with said upper printed portion of the paper is transferred from said lower base portion of the paper to the transparent tape, said rapid movement splitting the thickness of the paper between said lower base portion and said upper printed portion, and securing said picture onto a different surface by means of said marginal portions of the pressure sensitive tape.

2,819,197

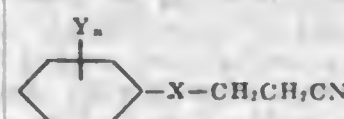
AROMATIC PROPIONITRILE NEMATOCIDAL COMPOSITIONS AND METHOD OF USING SAME

Philip H. Santmyer, Florissant, Mo., and Samuel Allen Heininger, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application December 20, 1954
Serial No. 476,602

19 Claims. (Cl. 167-30)

1. The method of killing parasitic worm life in agricultural soils which comprises contacting the organism with a compound of the structural formula



wherein X is a divalent radical of the group consisting of —O—, —NH—, —S—, and —NR—, in which R is an alkyl radical having up to four (4) carbon atoms; wherein Y is a radical of the group consisting of halogen and alkyl having up to four (4) carbon atoms and wherein n is an integer from one (1) to five (5) inclusive.

2,819,198

COLD-STABLE PESTICIDE SOLUTIONS
Lyle D. Goodhue, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application December 28, 1953
Serial No. 400,811

14 Claims. (Cl. 167-42)

1. A normally liquid hydrocarbon solution containing therein dissolved a pesticide ingredient which upon cooling of said solution will become solid and separate from said solution comprising also dissolved therein a hydrocarbon soluble wax in a sufficient proportion that upon cooling of said solution it will form a gel-like structure before an appreciable quantity of said pesticide can separate from the solution, said hydrocarbon being a petroleum solvent having a flash point of at least about 175° F., containing 5-40 weight percent by way of the pesticide base on the entire weight of the solution, and also containing 0.1-6 weight percent of said hydrocarbon soluble wax, the weight of the wax being based upon the weight of the normally liquid hydrocarbon solvent.

2,819,202

HEATER OIL PRODUCTION

William A. Junk, Jr., Chicago, Ill., and Herman S. Seelig, Valparaiso, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application September 28, 1953, Serial No. 382,662

1 Claim. (Cl. 196—24)

A process for refining a high-sulfur, sour virgin heater oil boiling between about 350° and 625° F., which process comprises (1) contacting said oil with about 50 volume percent, based on said oil, of liquid SO₂ in the presence of about 1.3 mols of sulfuryl chloride per mol of mercaptans in said oil, for about 5 minutes at a temperature of about 0° F., (2) separating an extract phase from a raffinate phase, (3) contacting said raffinate phase with about 50 volume percent of liquid SO₂, based on said raffinate phase, at a temperature of about 0° F. for about 5 minutes, (4) separating a second extract phase from a second raffinate phase, (5) contacting said second raffinate phase with about 50 volume percent of liquid SO₂, based on said second raffinate phase, at a temperature of about 0° F. for about 5 minutes, (6) separating a third raffinate phase from a third extract phase, (7) stripping substantially all of the SO₂ from the raffinate phase of step (6), (8) treating the stripped raffinate phase with aqueous caustic containing between about 10 and about 25 weight percent of NaOH, at a temperature of between about 100° and 300° F., (9) separating a neutralized oil from an aqueous phase, (10) removing aqueous haze from the oil of step (9), and (11) heat treating said oil in the liquid state from step (10) at a temperature between about 200° F. and 250° F. for a time of at least about 10 hours, said heat-treated oil characterized by a copper strip number of not more than about 1.

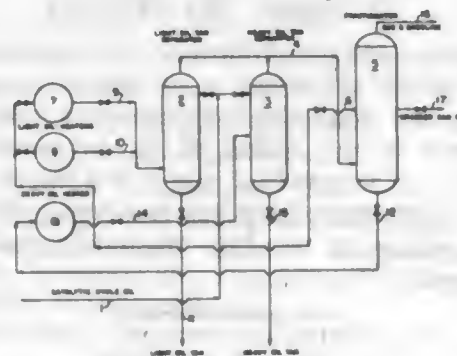
2,819,203

PROCESS FOR THE THERMAL CRACKING OF CATALYTIC CYCLE GAS OIL STOCKS

Julian B. Willis, Lansing, Ill., and Thorwell H. Paulsen, Hammond, Ind., assignors to Sinclair Refining Company, New York, N. Y., a corporation of Maine

Application April 15, 1950, Serial No. 156,142

1 Claim. (Cl. 196—50)



In thermal cracking of catalytic cycle gas oil stocks in which light and heavy gas oil fractions of the catalytic cycle charge stock are separated in a fractionator and separately cracked in light and heavy oil cracking heaters, the steps of cracking the light and heavy oil fractions in separate cracking heaters, passing the effluent from each of the heaters to separate light and heavy tar separators, preheating the catalytic cycle charge stock by direct heat exchange with the cracking heater effluent in at least one of the tar separators, withdrawing tar of lowest gravity permitting clean overhead from each of the separators, passing the overhead from the separators to a common fractionator where the light and heavy fractions are separated for charging to the cracking heaters and recovering cracked products from the common fractionator.

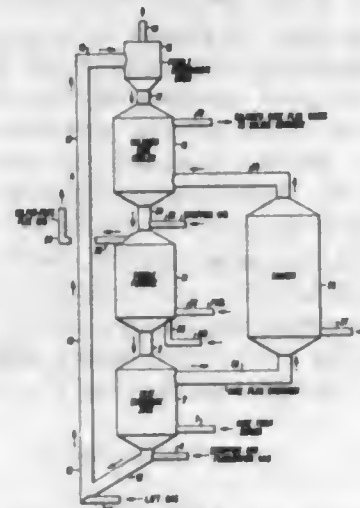
2,819,204

FLUID COKE CALCINATION UTILIZING AN EVOLVED HYDROGEN

Homer Z. Martin, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 4, 1955, Serial No. 498,968

3 Claims. (Cl. 202—31)



1. A process for devolatilizing and desulfurizing fluid coke particles and recovering valuable products therefrom which comprises the steps of heating in a heat exchange zone the coke particles to a minimum temperature of about 2200° F. by countercurrently contacting them with gravitating hot pebbles to remove substantially all the volatile products from the coke and crack them to hydrogen; separating by entrainment the hydrogen and the coke from the pebbles and sending them to a soaking zone where they are maintained at a temperature in the range of about 2400° to 2700° F. for a period of time in the range of about 10 minutes to 10 hours so as to desulfurize the coke and evolve vaporous, sulfur-containing products; removing an effluent of entrained coke, hydrogen, and sulfur-containing products from the soaking zone to a cooling zone; cooling the effluent in the cooling zone by countercurrently contacting it with cooler gravitating pebbles from the heat exchange zone; separating by entrainment the effluent from the gravitating pebbles; separating the resultant product coke from the gaseous hydrogen and sulfur-containing products; raising the temperature of the pebbles from the cooling zone in a heating zone and gravitating the thus heated pebbles to the heat exchange zone.

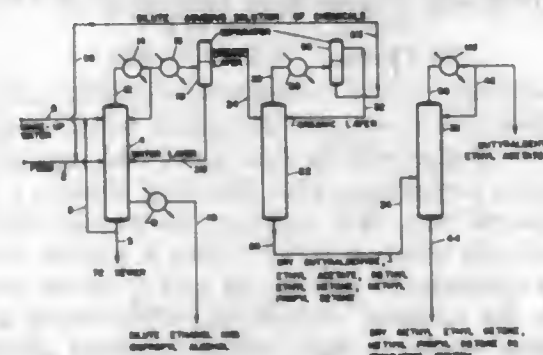
2,819,205

PURIFICATION OF METHYL ETHYL KETONE

Theodore Q. Elliot, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

Application December 1, 1954, Serial No. 472,377

6 Claims. (Cl. 202—39.5)



1. In a process for the recovery of substantially anhydrous methyl ethyl ketone present in a single-phase organic mixture containing water, butyraldehyde and ethyl acetate, the improvement which comprises removing the water from said mixture and thereafter subjecting

the resulting dried mixture, in which the total ethyl acetate and butyraldehyde concentration ranges from about 19 to not more than about 50 weight percent, to distillation at a top tower temperature of from about 75 to about 110° C. at pressures ranging from atmospheric to about 25 p. s. i. g. to obtain as an overhead all of the butyraldehyde-ethyl acetate component and not more than about 5 weight percent of the methyl ethyl ketone in said dried mixture and a bottoms of dry methyl ethyl ketone substantially free from said butyraldehyde-ethyl acetate component.

2,819,206

DISTILLATION APPARATUS WITH VORTEX CHAMBER AND STRIPPER

Harry D. Evans, Oakland, and Richard R. Hughes, San Anselmo, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application June 24, 1955, Serial No. 517,806

8 Claims. (Cl. 202—153)



1. In distillation apparatus including walls enclosing a vortex section and, at the bottom thereof, a stripping section, said vortex section having a tangential side inlet and a vapor outlet at the top, and said stripping section containing gas-liquid contacting trays and, beneath said trays, means for supplying a stripping medium and a residue outlet, the improvement comprising: a horizontal plate between said vortex and stripping sections having a central opening, a tubular riser extending upwards from said plate about said opening and defining an annular liquid-collecting basin surrounding the riser, said riser interconnecting said stripping and vortex sections for the upward transfer of gas; and a downcomer duct interconnecting said basin to the uppermost tray in the stripping section.

2,819,207

PROCESS FOR ENAMELING STEEL

George A. Shepard, Parma, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey

No Drawing. Application June 22, 1953

Serial No. 363,390

4 Claims. (Cl. 204—38)

1. The method of producing a tenaciously adhering, substantially uniform and continuous porcelain enamel coat on a ferrous metal article which comprises the steps of removing substantially all loose particles and foreign matter from the surface of said article; electrodepositing on the thus cleaned surface a substantially uniform thickness coat of spongy burned metal selected from the group consisting of nickel and cobalt and of weight in excess of about 0.4 grams per square foot, applying porcelain enamel slip directly to the resulting electroplate surface, and firing said slip and producing said enamel coat, said electrodeposition step being conducted to produce a metal coat of the finely-divided and spongy charac-

ter of the metal coat produced by immersing a clean ferrous metal body as a cathode approximately one inch from a lead anode in an aqueous solution containing about 100 grams per liter of ammonium sulfate and about 10 grams per liter of a substance selected from the group consisting of nickel sulfate and cobalt sulfate at about 200° F. for between about 5 and about 15 seconds while imposing upon the electrodes a ten-volt current.

2,819,208

CHROMIZING AND ANALOGOUS METHODS

Philippe Galmiche, Paris, France, assignor to Office National d'Etudes et de Recherches Aeronautiques O. N. E. R. A., Chatillon-sous-Bagneux, France, a society of France

No Drawing. Application January 18, 1955

Serial No. 482,675

Claims priority, application France June 27, 1950

4 Claims. (Cl. 204—38)

1. The method of protecting the surface of a base metal piece having the principal component selected from the group consisting of iron and copper comprising forming a first protective addition metal layer on the surface of said piece, said first metal being selected from the group consisting of nickel, cobalt and manganese, and subsequently exposing said piece to the action of chromium fluoride vapors at a chromizing temperature and below the melting point of said piece while preventing contact of said piece with any halide other than a fluoride in the vapor state.

2,819,209

POROUS ARTICLES OF FLUOROETHYLENE POLYMERS AND PROCESS OF MAKING THE SAME

David B. Pall, Roslyn Heights, and Sidney Krakauer, Franklin Square, N. Y.; said Krakauer assignor to said Pall

Application November 15, 1952, Serial No. 320,807

19 Claims. (Cl. 210—510)

1. A process of preparing a fluid-permeable filter of fluoroethylene polymer which comprises sintering a layer of particles of fluoroethylene polymer while confining the layer between inert non-adhering surfaces under a pressure within the range from 30–50 p. s. i. at a temperature above the softening temperature and below the melting and decomposition temperatures of the particles.

11. A fluid-permeable microporous fluoroethylene polymer filter having pores of microscopic dimensions comprising a network in sheet form of interconnected aggregates of united fluoroethylene polymer particles, the aggregates defining open spaces intercommunicating throughout the network to define pores of microscopic dimensions extending from surface to surface of the sheet and uniformly distributed from surface to surface of the sheet for flow therethrough of the filtered fluid, the aggregates thereby constituting a sheet uniform in porosity from surface to surface and having a high tensile strength and flow capacity relative to its void content and pore size.

2,819,210

CLAY BODIED GREASE COMPOSITIONS

Walter Linwood Haden, Jr., Barrington, and Cletus O. Martin, Pennsauken, N. J., assignors to Minerals & Chemicals Corporation of America, a corporation of Maryland

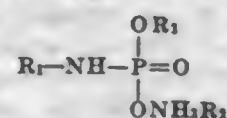
No Drawing. Application September 29, 1953

Serial No. 383,132

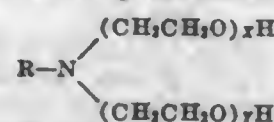
3 Claims. (Cl. 252—28)

1. A bodied lubricant consisting essentially of a petroleum hydrocarbon oil having colloiddally dispersed therein Georgia-Florida fuller's earth in an amount on a volatile-free basis of from about 3 to 15 percent based on the

total weight of the lubricant, a hydrophobic surface-active agent having the following structural formula:



wherein R_1 and R_2 are alkyl groups having at least 8 carbon atoms and R_3 is an alkyl group containing from 1 to 6 carbon atoms, and a hydrophobic surface-active agent having the following structural formula:



wherein R is an alkyl group having at least about 8 carbon atoms and X and Y are integers totalling from 2 to 50, said surface-active agents being present in a combined amount of from about 30 to 50 percent and the first mentioned surface-active agent being present in an amount of from 5 to 25 percent, both based on the volatile-free weight of said fuller's earth, the quantities of said surface-active agents being such as to effect substantial synergistic improvement in the penetration characteristics of the bodied lubricant over the penetration characteristics of a bodied lubricant similar thereto except containing only one of said surface-active agents.

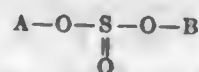
2,819,211

SULFITE ESTER SYNTHETIC LUBRICANTS

Louis A. Milkeska and Jeffrey H. Bartlett, Westfield, Charles E. Thompson, Mountinside, and Arnold J. Morway, Rahway, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application February 27, 1953
Serial No. 339,491

6 Claims. (Cl. 252—42.1)

1. A synthetic lubricating composition having an ASTM pour point below about 35° F., a flash point above about 300° F., and a kinematic viscosity within the range of 2 to 60 centistokes, which comprises an ester of the formula



wherein A and B are organic radicals derived from branched chain ether alcohols having a branched chain alkyl group of from 8 to 13 carbon atoms, and containing from 3 to 7 ethylene oxide units.

2,819,212

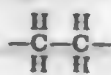
PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN POLYEPOXIDE MODIFIED OXYALKYLATION DERIVATIVES, SAID DERIVATIVES OBTAINED IN TURN BY OXYALKYLATION OF PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 19, 1953
Serial No. 393,221

24 Claims. (Cl. 252—331)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including synthetic hydrophile products; said synthetic hydrophile products being the reaction products of (A) an oxyalkylated phenol-aldehyde resin containing a plurality of active hydrogen atoms, and (B) a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups, and cogenetically associated compounds formed in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the

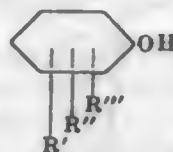
tetramers; said epoxides being selected from the class consisting of (a) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (b) compounds containing a radical in which two phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



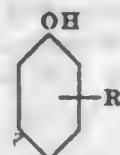
the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical —S— , the divalent radical $\text{—CH}_2\text{SCH}_2\text{—}$, and the divalent disulfide radical —S—S— ; said phenolic portion of the diepoxide being obtained from a phenol of the structure



in which R' , R'' , and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; said oxyalkylated phenol-aldehyde resins, reactant (A) being the products derived by oxyalkylation of (aa) and alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycidic and methylglycidic, and (bb) an oxyalkylation-susceptible fusible, organic solvent-soluble, water-insoluble phenol-aldehyde resin; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of trifunctional phenols; said phenol being of the formula



in which R is a hydrocarbon radical having not more than 24 carbon atoms and substituted in the 2,4,6 position; said oxyalkylated resin being characterized by the introduction into the resin molecule of a plurality of divalent radicals having the formula $(R_1O)_n$, in which R_1 is a member selected from the class consisting of ethylene radicals, propylene radicals, butylene radicals, hydroxypropylene radicals, and hydroxybutylene radicals, and n is a numeral varying from 1 to 120; with the proviso that at least 2 moles of alkylene oxide be introduced for each phenolic nucleus, and that the resin by weight represent at least 2% of the oxyalkylated derivative; the ratio of reactant (A) to reactant (B) being in the proportion of four moles of (A) to three moles of (B); with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the final proviso that the reaction product be a member of the class of solvent-soluble liquids and low-melting solids; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the reactants of reaction.

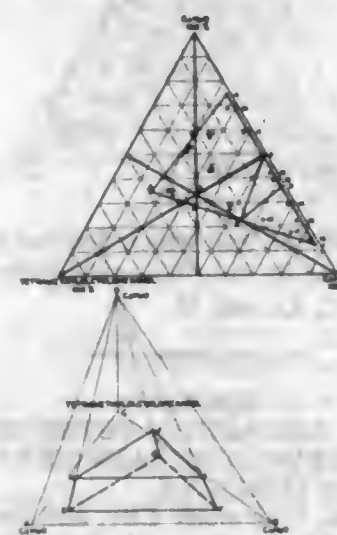
2,819,213

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN TETRAMETHYLOLCYCLOHEXANOLS

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

Application May 21, 1954, Serial No. 431,488

20 Claims. (Cl. 252—331)



1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including a cogenetic mixture of a homologous series of glycol ethers of tetramethylolcyclohexanol; said cogenetic mixture being derived exclusively from tetramethylolcyclohexanol, butylene oxide, propylene oxide and ethylene oxide in such weight proportions, so that the average composition of said cogenetic mixture stated in terms of the initial reactants, lies approximately within the truncated triangular pyramid identified as E, H, F, I, G and J in Figure 1, with the proviso that the percentage of ethylene oxide is within the limits of 2% to 39.5%, by weight, and the remaining three initial reactants recalculated to 100% basis, lie approximately within the triangle defined in Figure 2 by points 1, 4 and 6.

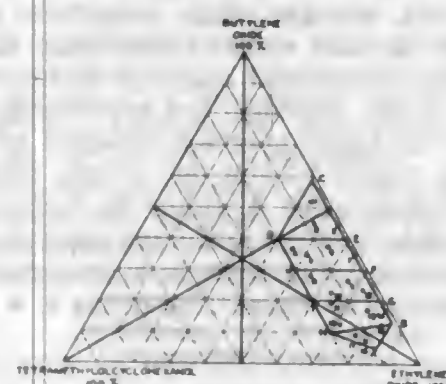
2,819,214

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED TETRAMETHYLOLCYCLOHEXANOLS

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

Application May 21, 1954, Serial No. 431,489

20 Claims. (Cl. 252—331)



1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including a cogenetic mixture of a homologous series of glycol ethers of tetramethylolcyclohexanol; said cogenetic mixture being derived exclusively from tetramethylolcyclohexanol, ethylene oxide and butylene oxide in such weight proportions so the average composition of said cogenetic mixture, stated in terms of initial reactants, lies approximately within the 5-sided

figure of the accompanying drawing in which the minimum tetramethylolcyclohexanol content is at least 1.5% and which 5-sided figure is identified by the fact that its area lies within the straight lines connecting A, B, C, D and H.

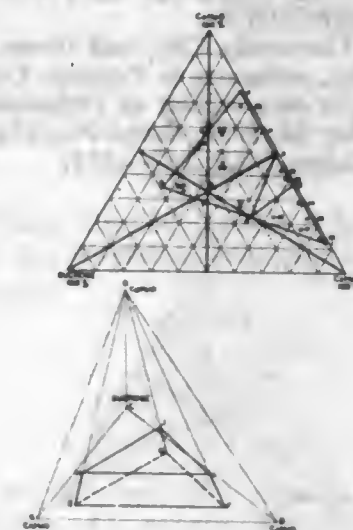
2,819,215

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED SUCROSES

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

Application May 24, 1954, Serial No. 431,782

20 Claims. (Cl. 252—331)



1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including a cogenetic mixture of a homologous series of glycol ethers of sucrose; said cogenetic mixture being derived exclusively from sucrose, butylene oxide, propylene oxide and ethylene oxide in such weight proportions, so that the average composition of said cogenetic mixture stated in terms of the initial reactants, lies approximately within the truncated triangular pyramid identified as E, H, F, I, G and J in Figure 1, with the proviso that the percentage of ethylene oxide is within the limits of 2% to 39.5%, by weight, and the remaining three initial reactants recalculated to 100% basis, lie approximately within the triangle defined in Figure 2 by points 1, 4 and 6.

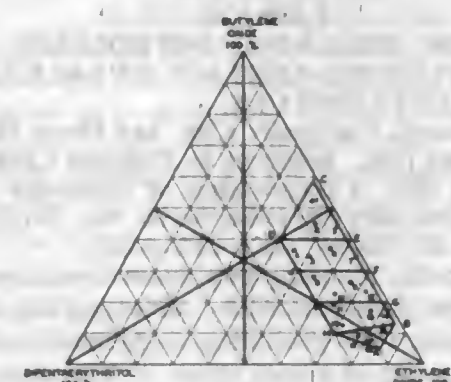
2,819,216

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED DIPENTAERYTHRITOLS

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

Application May 24, 1954, Serial No. 431,783

20 Claims. (Cl. 252—331)



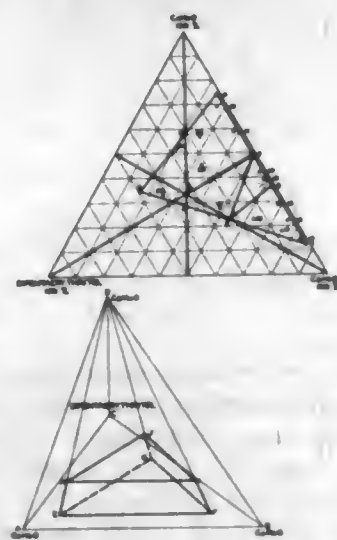
1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including a cogenetic mixture

of a homologous series of glycol ethers of dipentaerythritol; said cogeneric mixture being derived exclusively from dipentaerythritol, ethylene oxide and butylene oxide in such weight proportions so the average composition of said cogeneric mixture, stated in terms of initial reactants, lies approximately within the 5-sided figure of the accompanying drawing in which the minimum dipentaerythritol content is at least 1.5% and which 5-sided figure is identified by the fact that its area lies within the straight lines connecting A, B, C, D, and H.

2,819,217

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED DIPENTAERYTHRITOLS

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
Application May 24, 1954, Serial No. 431,784
20 Claims. (Cl. 252-331)



1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including a cogeneric mixture of a homologous series of glycol ethers of dipentaerythritol; said cogeneric mixture being derived exclusively from dipentaerythritol, butylene oxide, propylene oxide and ethylene oxide in such weight proportions, so that the average composition of said cogeneric mixture stated in terms of the initial reactants, lies approximately within the truncated triangular pyramid identified as E, H, F, I, G and J in Figure 1, with the proviso that the percentage of ethylene oxide is within the limits of 2% to 39.5%, by weight, and the remaining three initial reactants recalculated to 100% basis, lie approximately within the triangle defined in Figure 2 by points 1, 4 and 6.

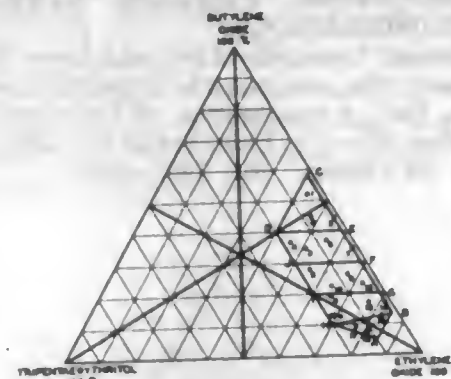
2,819,218

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED TRIPENTAERYTHRITOLS

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
Application May 24, 1954, Serial No. 431,785
20 Claims. (Cl. 252-331)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including a cogeneric mixture of a homologous series of glycol ethers of tripentaerythritol; said cogeneric mixture being derived exclusively from tripentaerythritol, ethylene oxide and butylene oxide in such weight proportions so the average composition of said cogeneric mixture, stated in terms of initial reactants, lies

approximately within the 5-sided figure of the accompanying drawing in which the minimum tripentaerythritol

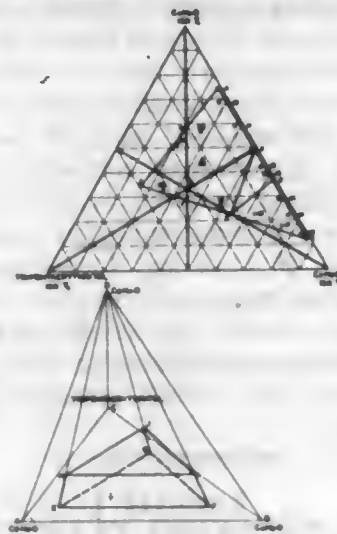


content is at least 1.5% and which 5-sided figure is identified by the fact that its area lies within the straight lines connecting A, B, C, D, and H.

2,819,219

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED TRIPENTAERYTHRITOLS

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
Application May 24, 1954, Serial No. 431,786
20 Claims. (Cl. 252-331)



1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including a cogeneric mixture of a homologous series of glycol ethers of tripentaerythritol; said cogeneric mixture being derived exclusively from tripentaerythritol, butylene oxide, propylene oxide and ethylene oxide in such weight proportions, so that the average composition of said cogeneric mixture stated in terms of the initial reactants, lies approximately within the truncated triangular pyramid identified as E, H, F, I, G and J in Figure 1, with the proviso that the percentage of ethylene oxide is within the limits of 2% to 39.5%, by weight, and the remaining three initial reactants recalculated to 100% basis, lie approximately within the triangle defined in Figure 2 by points 1, 4 and 6.

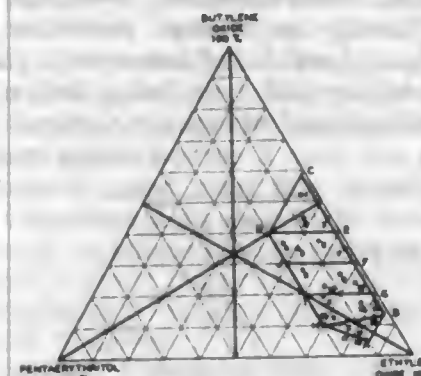
2,819,220

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED PENTAERYTHRITOLS

Melvin De Groote, University City, and Owen H. Pettigill, Kirkwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware
Application May 24, 1954, Serial No. 431,787
20 Claims. (Cl. 252-331)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emul-

sion to a demulsifying agent including a cogeneric mixture of a homologous series of glycol ethers of pentaerythritol; said cogeneric mixture being derived exclusively from pentaerythritol, ethylene oxide and butylene oxide in such weight proportions so the average com-



position of said cogeneric mixture, stated in terms of initial reactants, lies approximately within the 5-sided figure of the accompanying drawing in which the minimum pentaerythritol content is at least 1.5% and which 5-sided figure is identified by the fact that its area lies within the straight lines connecting A, B, C, D, and H.

2,819,221

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN CARBOXYBUTANE ESTERS

Alvin Howard Smith, Glendale, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 6, 1954

Serial No. 448,387

5 Claims. (Cl. 252-340)

1. The process of breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to a demulsifying agent including an esterified cogeneric mixture obtained by a process including the step of esterifying a polypropyleneglycol having an average molecular weight of at least 1600 and not over 2700 with diglycolic acid and tetracarboxy butane acid; the molal ratio of reactants being one part of tetracarboxy butane to four parts each of polypropylene glycol and diglycolic acid; said reaction being conducted at a temperature sufficiently high to evolve water and below the pyrolysis point of reactants and reaction product with the elimination through reaction of approximately two-thirds of the carboxyl radicals present and substantially all the hydroxyl radicals present.

2,819,222

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATION PRODUCTS DERIVED IN TURN FROM REACTIVE NITROGEN-CONTAINING COMPOUNDS AND POLYEPOXIDES

Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

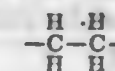
No Drawing. Application August 26, 1953

Serial No. 376,763

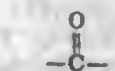
30 Claims. (Cl. 252-344)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier; said demulsifier being obtained by a two-step manufacturing method consisting of first reacting (A) a monomeric non-resinous nitrogen-containing compound containing at least one nitrogen atom selected from the class consisting of amino and amido nitrogen atoms and containing at least one active hydrogen atom, and (B) a phenolic polyepoxide free from reactive functional groups other than epoxy and hydroxyl groups, and cogenerically associated compounds formed

in the preparation of said polyepoxides; said epoxides being monomers and low molal polymers not exceeding the tetramers; said epoxides being selected from the class consisting of (a) compounds where the phenolic nuclei are directly joined without an intervening bridge radical, and (b) compounds containing a radical in which two phenolic nuclei are joined by a divalent radical selected from the class consisting of ketone residues formed by the elimination of the ketonic oxygen atom, and aldehyde residues obtained by the elimination of the aldehyde oxygen atom, the divalent radical



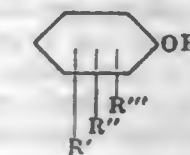
the divalent



radical, the divalent sulfone radical, and the divalent monosulfide radical $-\text{S}-$, the divalent radical



and the divalent disulfide radical $-\text{S}-\text{S}-$; said phenolic portion of the diepoxide being obtained from a phenol of the structure



in which R', R'', and R''' represent a member of the class consisting of hydrogen and hydrocarbon substituents of the aromatic nucleus, said substituent member having not over 18 carbon atoms; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting organic solvent-soluble liquids and low-melting solids; with the final proviso that the reaction product be a member of the class of oxyalkylation and acylation-susceptible solvent-soluble liquids and low-melting solids; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the resultants of reaction; followed by a second step of reacting said polyepoxide-derived product with a monoepoxide; said monoepoxide being an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycidol and methylglycidol.

2,819,223

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATION PRODUCTS OF REACTIVE NITROGEN-CONTAINING COMPOUNDS

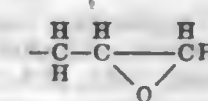
Melvin De Groote, University City, and Kwan-Ting Shen, Brentwood, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 26, 1953

Serial No. 376,764

22 Claims. (Cl. 252-344)

1. A process for breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including synthetic hydrophile products; said synthetic hydrophile products being the reaction product of (A) a monomeric organic non-resinous nitrogen-containing compound having at least one reactive hydrogen atom, and (B) nonaryl hydrophile polyepoxides characterized by the fact that the precursor polyhydric alcohol, in which an oxygen-linked hydrogen atom is replaced subsequently by the radical



in the polyepoxide, is water-soluble; said polyepoxides

being free from reactive functional groups other than epoxy and hydroxyl groups and characterized by the fact that the divalent lin age uniting the terminal oxirane rings is free from any radical having more than 4 uninterrupted carbon atoms in a single chain; with the further proviso that said reactive compounds (A) and (B) be members of the class consisting of non-thermosetting solvent-soluble liquids and low-melting solids; with the added proviso that the reaction product be a member of the class consisting of solvent-soluble liquids and low-melting solids; and said reaction between (A) and (B) being conducted below the pyrolytic point of the reactants and the resultants of reaction.

2,819,224

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

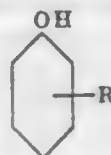
Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 25, 1954

Serial No. 418,784

10 Claims. (Cl. 252-344)

1. The process of breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including synthetic hydrophile products, said synthetic hydrophile products being the products resulting from a two-step manufacturing process consisting of first condensing (a) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of phenols of functionality greater than 2; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (b) a basic secondary amine free from any primary amino radical and having not more than 32 carbon atoms in any group attached to any amino nitrogen radical and reactive towards glyoxal; and (c) glyoxal; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by a second step of reacting said condensate with an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycidic and methylglycidic.

2,819,225

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

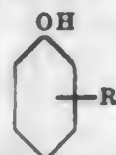
No Drawing. Application March 25, 1954

Serial No. 418,785

10 Claims. (Cl. 252-344)

1. The process of breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emul-

sion to the action of a demulsifier including synthetic hydrophile products, said synthetic hydrophile products being the products resulting from a two-step manufacturing process consisting of first condensing (a) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of phenols of functionality greater than 2; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (b) a basic secondary amine free from any primary amino radical and having not more than 32 carbon atoms in any group attached to any amino nitrogen radical and reactive towards pyruvic aldehyde; and (c) pyruvic aldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by a second step of reacting said condensate with an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycidic and methylglycidic.

2,819,226

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 25, 1954

Serial No. 418,786

10 Claims. (Cl. 252-344)

1. The process of breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including synthetic hydrophile products, said synthetic hydrophile products being the products resulting from a two-step manufacturing process consisting of first condensing (a) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of phenols of functionality greater than 2; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (b) a basic secondary amine free from any primary amino radical and having not more than 32 carbon atoms in any group attached to any amino nitrogen radical and reactive towards alpha-hydroxy-

adipaldehyde; and (c) alpha-hydroxyadipaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by a second step of reacting said condensate with an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycidic and methylglycidic.

2,819,227

PROCESS FOR BREAKING PETROLEUM EMULSIONS EMPLOYING CERTAIN OXYALKYLATED AMINE-MODIFIED THERMOPLASTIC PHENOL-ALDEHYDE RESINS

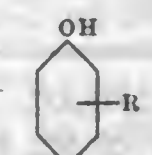
Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 25, 1954

Serial No. 418,787

10 Claims. (Cl. 252-344)

1. The process of breaking petroleum emulsions of the water-in-oil type characterized by subjecting the emulsion to the action of a demulsifier including synthetic hydrophile products, said synthetic hydrophile products being the products resulting from a two-step manufacturing process consisting of first condensing (a) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of phenols of functionality greater than 2; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (b) a basic secondary amine free from any primary amino radical and having not more than 32 carbon atoms in any group attached to any amino nitrogen radical and reactive towards alpha-gamma-dimethyl - alpha - methoxymethylglutaraldehyde; and (c) alpha - gamma - dimethyl - alpha - methoxymethylglutaraldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; and with the proviso that the resinous condensation product resulting from the process be heat-stable and oxyalkylation-susceptible; followed by a second step of reacting said condensate with an alpha-beta alkylene oxide having not more than 4 carbon atoms and selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycidic and methylglycidic.

2,819,228

EMULSIFYING COMPOSITION
M. Benjamin Dell, Morristown, N. J., assignor to The Patent and Licensing Corporation, New York, N. Y., a corporation of Massachusetts

No Drawing. Application August 26, 1953

Serial No. 376,748

5 Claims. (Cl. 252-357)

1. An improved emulsifying agent comprising a negatively charged clay and a cationic surface active agent, the cationic surface active agent being present in the range 0.001 to 0.01 part per part of clay.

**2,819,229
PREPARATION OF MICROSPHERE CHROMIA-ALUMINA CATALYST**

Harold A. Strecker and James L. Callahan, Bedford, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 23, 1953

Serial No. 400,087

2 Claims. (Cl. 252-448)

1. A process for the preparation of a microspherical chromia-alumina catalyst comprising 10 to 30 mol percent chromia, which comprises precipitating an aqueous chromia-alumina hydrogel at a pH of about 10, filtering to form a filter cake having 8 to 12% solids, which filter cake is not pumpable unless diluted with water to solid contents of not more than 6%, adding an amount of acetic acid within the range 0.3 to 2% by weight of said filter cake to said chromia-alumina hydrogel filter cake and adjusting the solids content, if necessary, to form a pumpable slurry having a solids content of about 8 to 15%, and spray-drying said pumpable slurry to produce microspheres of chromia-alumina catalyst having a diameter of at least 30 microns and larger than can be obtained without the acetic acid addition.

2,819,230

HEAT TREATING OF CHROMIA-ALUMINA CATALYSTS

Harold A. Strecker, Bedford, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application December 23, 1953

Serial No. 400,088

5 Claims. (Cl. 252-465)

1. A process for lowering the attrition rate of a chromia-alumina catalyst which comprises (1) heating microspheres of said catalyst in an inert atmosphere to a temperature of 1000 to 1600° F. for at least about 45 minutes, (2) partially cooling said microspheres to a temperature above about 500° F. before quenching, and (3) then quenching the partially cooled microspheres by immersing in water.

2,819,231

METHOD FOR PRODUCING POLYETHYLENE FOAMS

Oliver M. Hahn and Harold B. Whitfield, Jr., Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application October 13, 1953, Serial No. 385,732

3 Claims. (Cl. 260-2.5)

1. In a process for the preparation of solid polyethylene foam the steps which comprise initially admixing polyethylene with di-N-nitrosopentamethylenetetramine in sufficient quantity to prevent shock sensitivity, said quantity of polyethylene being at least 0.5 times the quantity of di-N-nitrosopentamethylenetetramine, admixing polyethylene with the resultant mixture in sufficient quantity to lower the content of di-N-nitrosopentamethylenetetramine in the resulting mixture to 0.5-5.0%, based on the total weight of polyethylene present, and extruding the resulting mixture in the form of a solid polyethylene foam at a temperature sufficiently high to produce thermal decomposition of the di-N-nitrosopentamethylenetetramine.

2,819,232

DITHIOPHOSPHATE COATING COMPOSITION AND PROCESS FOR PREPARING CELLULAR RESIN THEREFROM

James Herman Fortune, Springfield, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

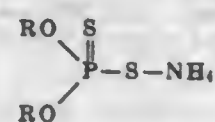
No Drawing. Application March 1, 1954

Serial No. 413,433

10 Claims. (Cl. 260-2.5)

1. The process of preparing a gas-expanded organoplastic composition which comprises the steps of: admix-

ing an organoplastic material selected from the group consisting of urea formaldehyde resins, polyacrylonitrile, polystyrene, polyvinyl chloride, copolymers of vinyl chloride and vinyl acetate, cellulose esters and cellulose ethers and a small amount of from about 0.1% to about 5% of an ammonium dithiophosphate represented by the formula:



in which R is a radical selected from the group consisting of alkyl from 1-18 carbon atoms, aryl, aralkyl, and cycloalkyl; and heating said mixture to a temperature above the decomposition point of said ammonium dithiophosphate.

2,819,233

CURING OF EPOXIDE RESINS WITH A CHELATE
Earl L. Smith and Ralph Hall, Fort Wayne, Ind., assignors to Phelps Dodge Copper Products Corporation, Fort Wayne, Ind.

No Drawing. Application June 11, 1953

Serial No. 361,086

1 Claim. (Cl. 260-18)

A method of preparing a stable amine-epoxy composition adapted to be heat-cured, comprising forming a soluble amine-metal organic salt chelate by reacting diethylene triamine with the organic salt of a metal of the class consisting of zinc, cobalt, manganese and copper which forms a coordinate valence bond holding the nitrogen of the amine groups, and mixing substantial proportions of the soluble chelate and an epoxide resin which is an epichlorohydrin di (hydroxyphenyl) dimethyl methane product and which is free from functional groups other than epoxide and hydroxyl groups and having a 1,2 epoxide equivalency of greater than 1, the acid radical of said salt being the acid radical of an acid selected from the group consisting of monofunctional organic carboxylic acids containing at least two carbon atoms and monohydric phenols.

2,819,234

COPOLYMERS OF ARYL OLEFINS AND ALPHA BETA ETHYLENICALLY UNSATURATED CARBOXYLIC ACID ESTERS OF OXIDIZED TALL OIL ESTERS

Lawrence H. Dunlap, Lancaster Township, Lancaster County, and Robert H. Reiff, Lancaster, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

No Drawing. Application August 29, 1952

Serial No. 307,174

12 Claims. (Cl. 260-22)

1. A method of producing valuable polymers comprising esterifying an oxidized polyhydric alcohol ester of tall oil having a viscosity of 450 to 1500 seconds Gardner-Holdt at 25° C. with an alpha beta ethylenically unsaturated carboxylic acid free of ester groups and copolymerizing the resulting ester with a vinyl aromatic compound containing a single vinyl group at elevated temperatures of about 60° C. to about 150° C.

2,819,235

VINYL-COMPATIBLE RESINS BASED ON 2,4-DIMETHYL-4-HYDROXYETHOXYMETHYL-1,5-PENTANEDIOL

Carl K. Fink, Pittsburgh, and Kenneth L. Brown, Library, Pa., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application September 1, 1953

Serial No. 377,968

14 Claims. (Cl. 260-22)

1. A resinous polyester of 2,4-dimethyl-4-hydroxyethoxymethyl-1,5-pentanediol with at least one dicarboxy-

lic acid and at least one monocarboxylic acid containing at least eight carbon atoms, the molar ratio of said dicarboxylic acid to said monocarboxylic acid in the resinous polyester being between 5.1 to 1 and 0.8 to 1.

2,819,236

LOW DUROMETER SILOXANE ELASTOMERS

Norbert G. Dickmann, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application December 23, 1954

Serial No. 477,408

6 Claims. (Cl. 260-29.1)

2. A heat hardenable composition of matter comprising (1) 100 parts by weight of a diorganopolysiloxane gum in which the organic radicals are selected from the group consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals, (2) from 10 to 35 parts by weight of a copolymer fluid having a viscosity of less than 1,000,000 cs. at 25° C. and being composed of from 20 to 60 mol percent dimethylsiloxane, from 30 to 60 mol percent phenylmethylsiloxane, from 5 to 15 mol percent siloxane units of the formula



in which Vi is vinyl and in which R is of the group consisting of alkyl and phenyl radicals and n has a value from 0 to 1 inclusive and from .0003 to 35 mol percent siloxane units of the formula RMe_2SiO_2 in which Me is a methyl radical and in which R is of the group consisting of alkyl and phenyl radicals in which copolymer fluid at least some of the vinylsiloxane is copolymerized with the phenylmethylsiloxane, (3) a peroxide vulcanization agent, and (4) a filler.

2,819,237

AQUEOUS DISPERSIONS OF A COPOLYMER OF AN ETHYLENICALLY UNSATURATED MONOMER CONTAINING A PRIMARY HYDROXY GROUP AND A THERMOSETTING RESIN FORMING REACTION PRODUCT

John H. Daniel, Jr., Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 22, 1953

Serial No. 381,730

20 Claims. (Cl. 260-29.4)

1. A composition of matter comprising a mixture of from about 10% to about 90% by weight of (1) an aqueous emulsion of latex copolymer of from about 10% to about 60% by weight of (a) a member selected from the group consisting of a polymerizable compound containing a $-\text{CH}=\text{CH}-$ group and a $-\text{CH}_2\text{OH}$ group and a polymerizable compound containing a $\text{CH}_2=\text{C}<$ group and $-\text{CH}_2\text{OH}$ and from about 90% to about 40% by weight of (b) a polymerizable compound containing a $\text{CH}_2=\text{C}<$ group but devoid of any hydroxy group and from about 90% to about 10% by weight of (2) an aqueous dispersion of a water dispersible, fusible, thermosetting resin forming reaction product wherein said thermosetting resin forming reaction product is the reaction product of an aldehyde and a compound selected from the group consisting of urea, ethyleneurea, dicyandiamide, phenol, resorcinol, cresol, acetone, methyl ethyl ketone, diethyl ketone, melamine, benzoguanamine, acetoguanamine, formoguanamine, ammeline, ammelide, 2,4,6-triethyl-triamino-1,3,5-triazine and 2,4,6-triphenyl-triamino-1,3,5-triazine.

2,819,238

EPOXY MODIFIED UREA-FORMALDEHYDE CONDENSATION PRODUCT AND METHOD OF MAKING SAME

Raymond G. Hart and Clarence J. Gardner, Jr., Bainbridge, N. Y., assignors to The Borden Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 21, 1954

Serial No. 431,594

2 Claims. (Cl. 260-29.4)

1. The process of making a water soluble cationic condensation product which comprises mixing (1) the partially condensed water soluble viscous cationic material, resulting from forming an aqueous solution of $\frac{1}{2}$ -1 mole of an aliphatic polyhydric alcohol, 1 mole of epichlorohydrin and an acid in amount to acidify the solution, heating the acidified solution until the resulting exothermic reaction becomes slow, then adding about 1 mole of an aliphatic polyamine and continuing the heating until a partially condensed water soluble viscous cationic material results, with (2) formaldehyde and urea in the proportion of 1.5-4 moles of formaldehyde to 1 mole of urea, the proportion of the said viscous cationic material being about 1 part by weight to 3 parts of the urea, heating the resulting mixture at a temperature between about 40° C. and the boiling point of the said mixture and at a pH of 1.5-10, continuing the heating until the resulting condensation produces a viscous solution, then discontinuing the heating and adjusting the pH to 7-8.

2,819,239

PORTLAND CEMENT-VINYLDENE CHLORIDE POLYMER COMPOSITION, METHOD OF MAKING, AND METHOD OF USING

John F. Eberhard and Arthur Park, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 6, 1955

Serial No. 551,242

7 Claims. (Cl. 260-29.6)

1. A composition for cementing which comprises a slurry of Portland cement, a latex of a vinylidene chloride copolymer selected from the group consisting of a copolymer of vinylidene chloride and acrylonitrile in the proportions of 70 to 97 percent by weight of vinylidene chloride, the balance being acrylonitrile, a copolymer of vinylidene chloride and vinyl chloride in the proportions of 95 to 5 percent of vinylidene chloride, the balance being vinyl chloride, and a copolymer of vinylidene chloride and vinyl acetate in the proportions of 95 to 5 percent of vinylidene chloride, the balance being vinyl acetate, the amount of copolymer being from 2.5 to 35.2 percent of the weight of the cement, the particles of said copolymer having a diameter of from 1800 to 5000 angstroms, a nonionic wetting agent in amount between 0.4 and 5.6 percent of the weight of the cement, and water in amount between about 25 to 41 percent of the weight of the composition.

2,819,240

REACTION PRODUCTS OF CARBOXYLATED PHENOL-ALDEHYDE RESINS AND AMINE-MODIFIED PHENOL-ALDEHYDE RESINS AND PROCESS OF MAKING SAME

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

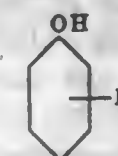
No Drawing. Application October 23, 1953

Serial No. 388,051

20 Claims. (Cl. 260-43)

1. An esterification process comprising reacting (A) a carboxylated phenol-aldehyde resin, and (B) an amine-modified phenol-aldehyde resin in a molar ratio of carboxylated resin to amine-modified resin of 1 to 4:1; said carboxylated resin (A) being a fusible, carboxyl-contain-

ing, xylene-soluble, water-insoluble, low-stage phenol-aldehyde resin; said resin being derived by reaction between a mixture of a difunctional monohydric hydrocarbon-substituted phenol and salicylic acid on the one hand, and an aldehyde having not over 8 carbon atoms and having one functional group reactive toward both components of the mixture on the other hand; the amount of salicylic acid employed in relation to the non-carboxylated phenol being sufficient to contribute at least one salicylic acid radical per resin molecule and the amount of difunctional monohydric hydrocarbon-substituted phenol being sufficient to contribute at least one difunctional monohydric hydrocarbon-substituted phenol radical per molecule; said resin being formed in the substantial absence of phenols of functionality greater than two, and said phenol being of the formula



in which R is a hydrocarbon radical having at least 4 and not more than 14 carbon atoms and substituted in one of the positions ortho and para; said amine-modified phenol-aldehyde resin (B) being the product obtained by the process of condensing (a) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of phenols of functionality greater than 2; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2, 4, 6 position; (b) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (c) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; with the further proviso that the molar ratio of reactants (c) (b) and (a) be 2, 2 and approximately 1, respectively; and with the further proviso that the resinous condensation product resulting from the process be heat-stable, oxyalkylation-susceptible and contain at least two alkanol radicals; and with the final proviso that the product of esterification be thermoplastic and organic solvent-soluble.

2,819,241

REACTION PRODUCTS OF CARBOXYLATED PHENOL-ALDEHYDE RESINS AND AMINE-MODIFIED PHENOL-ALDEHYDE RESINS AND PROCESS OF MAKING SAME

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

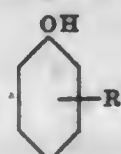
No Drawing. Application October 23, 1953

Serial No. 388,052

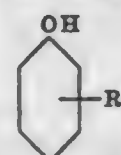
20 Claims. (Cl. 260-43)

1. An acylation process comprising reacting (A) a carboxylated phenol-aldehyde resin, and (B) an amine-modified phenol-aldehyde resin in a molar ratio of carboxylated resin to amine-modified resin of 1 to 6:1.

said carboxylated resin (A) being a fusible, carboxyl-containing, xylene-soluble, water-insoluble, low-stage phenol-aldehyde resin; said resin being derived by reaction between a mixture of a difunctional monohydric hydrocarbon-substituted phenol and salicylic acid on the one hand, and an aldehyde having not over 8 carbon atoms and having one functional group reactive toward both components of the mixture on the other hand; the amount of salicylic acid employed in relation to the non-carboxylated phenol being sufficient to contribute at least salicylic acid radical per resin molecule and the amount of difunctional monohydric hydrocarbon-substituted phenol being sufficient to contribute at least one difunctional monohydric hydrocarbon-substituted phenol radical per molecule; said resin being formed in the substantial absence of phenols of functionality greater than two, and said phenol being of the formula



in which R is a hydrocarbon radical having at least 4 and not more than 14 carbon atoms and substituted in one of the positions ortho and para; said amine-modified phenol-aldehyde resin (B) being the product obtained by the process of condensing (a) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of phenols of functionality greater than 2; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (b) a basic hydroxylated secondary monoamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (c) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; with the further proviso that the molar ratio of reactants (c) (b) and (a) be 3:3 to 4:4 to approximately 1 respectively; with the added proviso that the resinous condensation product resulting from the process be heat-stable, oxyalkylation-susceptible and contain at least two alkanol radicals; and with the final proviso that the product of acylation be thermoplastic and organic solvent-soluble.

2,819,242

REACTION PRODUCTS OF CERTAIN CARBOXYLATED PHENOL-ALDEHYDE RESINS AND CERTAIN AMINE-MODIFIED PHENOL-ALDEHYDE RESINS AND METHOD OF PREPARING SAME
Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

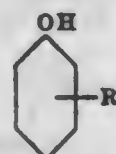
No Drawing. Application December 3, 1953

Serial No. 396,079

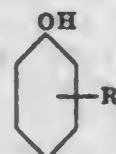
20 Claims. (Cl. 260-43)

1. An acylation process comprising reacting (A) a carboxylated phenol-aldehyde resin, and (B) an amine-modified

phenol-aldehyde resin in a molar ratio of carboxylated resin to amine-modified resin of 1 to 6:1; said carboxylated resin (A) being a fusible, carboxyl-containing, xylene-soluble, water-insoluble, low-stage phenol-aldehyde resin; said resin being derived by reaction between a mixture of a difunctional monohydric hydrocarbon-substituted phenol and salicylic acid on the one hand, and an aldehyde having not over 8 carbon atoms and having one functional group reactive toward both components of the mixture on the other hand; the amount of salicylic acid employed in relation to the non-carboxylated phenol being sufficient to contribute at least one salicylic acid radical per resin molecule and the amount of difunctional monohydric hydrocarbon-substituted phenol being sufficient to contribute at least one difunctional monohydric hydrocarbon-substituted phenol radical per molecule; said resin being formed in the substantial absence of phenols of functionality greater than two, and said phenol being of the formula



in which R is a hydrocarbon radical having at least 4 and not more than 14 carbon atoms and substituted in one of the positions ortho and para; said amine-modified phenol-aldehyde resin (B) having at least 2 alkanol hydroxyl groups and being the product obtained by the process of condensing (a) an oxyalkylation-susceptible, fusible, non-oxygenated organic solvent-soluble, water-insoluble, low-stage phenol-aldehyde resin having an average molecular weight corresponding to at least 3 and not over 6 phenolic nuclei per resin molecule; said resin being difunctional only in regard to methylol forming reactivity; said resin being derived by reaction between a difunctional monohydric phenol and an aldehyde having not over 8 carbon atoms and reactive toward said phenol; said resin being formed in the substantial absence of phenols of functionality greater than 2; said phenol being of the formula



in which R is an aliphatic hydrocarbon radical having at least 4 and not more than 24 carbon atoms and substituted in the 2,4,6 position; (b) a basic hydroxylated secondary polyamine having not more than 32 carbon atoms in any group attached to the amino nitrogen atom, and (c) formaldehyde; said condensation reaction being conducted at a temperature sufficiently high to eliminate water and below the pyrolytic point of the reactants and resultants of reaction; with the further proviso that the molar ratio of reactants (c) (b) and (a) be 2,2 and approximately 1, respectively; with the added proviso that the resinous condensation product resulting from the process be heat-stable oxyalkylation-susceptible and contain at least two alkanol radicals; and with the final proviso that the product of acylation be thermoplastic and organic solvent-soluble.

2,819,243

METHOD OF MAKING GLASS FIBER FILLED ALKYD RESINS

Theodore C. Baker, Wayne, Ohio, assignor, by mesne assignments, to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application October 4, 1951

Serial No. 249,814

7 Claims. (Cl. 260-40)

1. A method for making filled alkyd resin molding compositions which comprises the steps of adding to a

mixture of a polymerizable unsaturated alkyd resin and a finely divided mineral filler a suitable solvent to produce a thin liquid having a viscosity less than 25,000 centipoises, adding a small amount of a polymerization catalyst, incorporating glass fiber strands 1/4" to 2" in length, each composed of a multiplicity of individual untwisted glass fibers .0001" to .001" in diameter into the said liquid by a mixing operation which stratifies the bulk of the said strands without substantial intermeshing thereof and which does not substantially abrade the surfaces of the said fibers and thereafter removing the excess solvent to form a substantially dry mass which is freely permeable by air.

2,819,244

COMPOSITIONS OF MATTER COMPRISING ACETONE-FORMALDEHYDE REACTION PRODUCTS AND LIQUID POLYSULPHIDE POLYMERS

Mortimer T. Harvey, South Orange, and Peter L. Rosamilia, Newark, N. J., assignors to Harvel Research Corporation, a corporation of New Jersey

No Drawing. Application June 30, 1953

Serial No. 365,251

5 Claims. (Cl. 260-42)

1. A novel composition of matter comprising the combination of (I) a normally liquid polymer which in chemical structure has the repeating unit of



and the terminals being the SH groups, and (II) acetone-formaldehyde resinous organic reaction mass produced by reacting acetone and formaldehyde in the mole ratio of 1 of the former to 2-6 of the latter in the presence of an alkaline agent, the ratio by weight of (I) to (II) being 100 parts of (I) to 5-100 parts of (II).

2,819,245

SILOXANE-EPOXIDE RESIN REACTION PRODUCTS

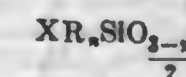
Leonard M. Shorr, Pittsburgh, Pa., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application March 7, 1955

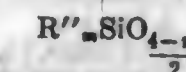
Serial No. 492,734

4 Claims. (Cl. 260-42)

1. The reaction product of (1) from 1-99 percent by weight of a siloxane consisting essentially of units of the formula



in which X is a saturated nonaromatic hydrocarbon radical attached directly to the silicon atom by C-Si linkage, and having substituted thereon from 1-2 functional groups selected from the group consisting of OH, COOH, COO alkyl, NH₂ and CONHR'NH₂ in which R' is an alkylene radical, all of said functional groups being at least 3 carbon atoms away from the silicon atom, R is selected from the group consisting of monovalent hydrocarbon radicals and halogenated monovalent hydrocarbon radicals all of which are free of aliphatic unsaturation and n has a value from 0-2 inclusive, which siloxane may contain up to 95 mol percent siloxane units of the formula



in which R'' is selected from the group consisting of monovalent hydrocarbon radicals, halogenated monovalent hydrocarbon radicals and halophenoxymethyl radicals and m has an average value from 1-3 inclusive and (2) from 1-99 percent by weight of an epoxide resin prepared by reacting a polyhydric phenol with a compound selected from the group consisting of polyfunctional chlorohydrins and polyepoxides.

2,819,246

MOLDING COMPOSITIONS OF BENZOGUANAMINE-FORMALDEHYDE REACTION PRODUCT AND BUTADIENE-ACRYLONITRILE COPOLYMER RUBBER

Richard Lindenfelser, Darien, and Martha K. Layman nee Martha K. Kilthau, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 1, 1954

Serial No. 472,506

1 Claim. (Cl. 260-45.2)

A molding composition comprising a uniform, hot blended, compatible mixture of (1) a fusible, thermosetting resinous condensation product of formaldehyde and benzoguanamine, the molar ratio of formaldehyde to benzoguanamine ranging from about 1:1 to 4:1, and (2) a rubber-like copolymer of butadiene and acrylonitrile, the amount of said rubber-like copolymer being from about 10% to about 50%, by weight, based on the weight of the total resin content thereof.

2,819,247

FLAME-RESISTANT POLYESTER RESINOUS COMPOSITIONS CONTAINING COMBINED HALOGENS AND PHOSPHORUS AND PROCESS OF PREPARATION

Lennart A. Lundberg, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 10, 1953

Serial No. 360,839

37 Claims. (Cl. 260-45.4)

1. A clear, flame-resistant, self-extinguishing resinous composition comprising the reaction product of (1) a polymerizable ethylenically unsaturated polyhydric alcohol-polycarboxylic acid-alkyl phosphate polyester obtained as the reaction product of a polyhydric alcohol and an ethylenically unsaturated polycarboxylic acid wherein said polyester contains combined halogen selected from the group consisting of chlorine, bromine and iodine and mixtures thereof in an amount to yield from about 5% to about 50% by weight of said product and an alkyl phosphate wherein the alkyl group contains from 1 to 4 carbon atoms and is present in an amount to yield from about 0.1% to about 5% by weight of said product and (2) a compound containing a polymerizable CH₂=C< group and having a boiling point of at least 60° C.

2,819,248

UNSATURATED POLYESTER ROOM TEMPERATURE SETTING ADHESIVE COMPOSITION

George S. Casebolt, Summit, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 15, 1954

Serial No. 410,420

4 Claims. (Cl. 260-45.4)

1. A room temperature setting adhesive composition consisting of a polymerizable ethylenically unsaturated linear polyhydric alcohol-polycarboxylic acid polyester, styrene, a polymerization catalyst of the group consisting of organic peroxides and organic ozonides, and between about 2 and about 20% by weight of an ingredient of the group consisting of polyvinyl acetate and polyvinyl acetal.

2,819,249

PRESERVED RUBBER

John C. Petropoulos, South Norwalk, Frank A. V. Sullivan, Glenbrook, and Arthur C. Lindaw, Norwalk, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

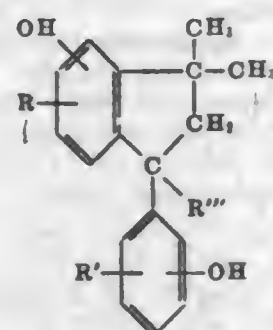
No Drawing. Application March 25, 1955

Serial No. 496,936

6 Claims. (Cl. 260-45.95)

3. A method of reducing the rate of oxidation of a vulcanized rubber composition with substantially no in-

crease in its susceptibility to discoloration in light, which comprises combining with a vulcanizable rubber composition containing a rubber selected from the group consisting of natural rubber and a synthetic butadiene type rubber from about 0.25 to about 2.5 pounds per 100 pounds of said rubber of a compound of the formula:



in which R and R' are selected from the group consisting of H and a lower alkyl group, while R'' and R''' represent lower alkyl groups, and vulcanizing said composition.

2,819,250

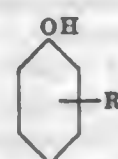
CERTAIN OXAZOLINES, CERTAIN PENTOXAZOLINES, CERTAIN BIS-OXAZOLINES, AND CERTAIN BIS-PENTOXAZOLINES, AND METHOD OF MAKING SAME

Melvin De Groote, University City, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 23, 1953
Serial No. 381,979

10 Claims. (Cl. 260—53)

1. Compounds selected from the group consisting of oxazolines and pentoxazolines formed by the reaction of an alkanolamine with the carboxyl group of a carboxylated resin; said carboxylated resin being a fusible, carboxyl-containing, xylene-soluble, water-insoluble, low-stage phenol-aldehyde resin; said resin being derived by reaction between a mixture of a difunctional monohydric hydrocarbon-substituted phenol and salicylic acid on the one hand, and an aldehyde having not over 8 carbon atoms and having one functional group reactive toward both components of the mixture on the other hand; the amount of salicylic acid employed in relation to the non-carboxylated phenol being sufficient to contribute at least one salicylic acid radical per resin molecule and the amount of difunctional monohydric hydrocarbon-substituted phenol being sufficient to contribute at least one difunctional monohydric hydrocarbon-substituted phenol radical per molecule; said resin being formed in the substantial absence of phenols of functionality greater than two, and said phenol being of the formula



in which R is a hydrocarbon radical having at least 4 and not more than 14 carbon atoms and substituted in one of the positions ortho and para with the proviso that the amine which is the source of the oxazoline and pentoxazoline radicals be selected from the group consisting of alkylolamines having a hydroxy group and a primary amino group in a 1:2 position, and alkylol amines having a hydroxy group and a primary amino group in a 1:3 position.

2,819,251

FORMALDEHYDE-PHENOL CONCENTRATES

George K. Cleek, Hopewell, and Alexander Sadle, Petersburg, Va., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application May 26, 1955

Serial No. 511,431

3 Claims. (Cl. 260—57)

1. A process for the manufacture of a stable liquid formaldehyde-phenol concentrate which comprises admixing a 30–45 weight percent aqueous formaldehyde at about room temperature with phenol having a concentration in excess of 80 weight percent in the molar proportion of 4–7 mols formaldehyde for each mol phenol, adjusting the pH of the mixture to within the range of 7.0–9.0, heating the reaction mixture to a temperature within the range of 60–100° C. until the free formaldehyde content of the reaction mixture drops to within the range of below 22 percent and above 16 percent by weight of the reaction mixture, concentrating the reaction mixture by subjecting the mixture to subatmospheric pressure of 30–75 mm. Hg pressure absolute at a temperature above 40° C. and below 70° C. until the solids content in the reaction mixture increases to within the range of 75–90% by weight of the reaction mixture and adjusting the pH of the concentrated formaldehyde-phenol to within the range of 5.0–7.5.

2,819,252

POLYMERIZATION OF ACROLEIN

Edward C. Shokal, Walnut Creek, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application October 25, 1954

Serial No. 464,617

6 Claims. (Cl. 260—67)

1. A process for polymerizing acrolein which consists of mixing a monomer composition containing acrolein with from 0.1% to 10% by weight of the total monomer of an oxide of a metal of the group consisting of copper, silver, cesium, beryllium, mercury, lead and tin at a temperature between 0° C. and 100° C.

2,819,253

METHOD OF ENHANCING THE ACETATE DYEABILITY OF VINYLIDENE CYANIDE INTERPOLYMERS

George Gateff, Lakewood, and Stephen M. Davis, Elyria, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application November 30, 1955

Serial No. 550,219

6 Claims. (Cl. 260—78.5)

1. The process for enhancing the acetate dyeability of 50 mol percent vinylidene cyanide interpolymers with olefinically unsaturated monomers which comprises hydrolyzing such interpolymers in a solvent solution selected from the group consisting of (1) dimethylformamide and water, and (2) acetone (95%), dimethylformamide (4%), and sulfuric acid (1%) using mercuric sulfate as an hydrolysis catalyst for a time and at a temperature sufficient for the mercuric sulfate to catalyze the hydrolysis of a significant proportion of the side chain groups in the vinylidene cyanide interpolymer structure.

2,819,254

NEOPRENE CEMENT CONTAINING H₂S AS CURE ACCELERATOR

William E. Tann, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application April 23, 1953

Serial No. 350,755

16 Claims. (Cl. 260—79.5)

1. A fast-curing cement containing rubbery chloroprene polymer dissolved in a solvent and hydrogen sulfide as an accelerator.

2,819,255

VULCANIZABLE RUBBER COMPOSITIONS AND PROCESS

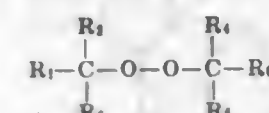
Harold Boardman, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 5, 1955

Serial No. 506,359

12 Claims. (Cl. 260—85.1)

1. A rubber composition comprising a rubber selected from the group consisting of natural rubber and synthetic, rubbery polymers of a compound selected from the group consisting of conjugated diolefins and chloroprene, and from about 0.1% to about 10% based on the weight of rubber of an unsymmetrical peroxide having the structural formula



wherein R₁ is an aryl group and R₂, R₃, R₄, R₅, and R₆ are selected from the group consisting of hydrogen and alkyl groups of less than 4 carbon atoms.

2,819,256

COMPOSITION OF RUBBER AND A DI(ARYL-ALKYL) PEROXIDE

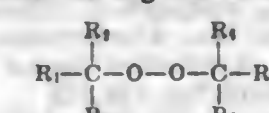
Harold Boardman, Wilmington, Del., assignor to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 9, 1954

Serial No. 435,637

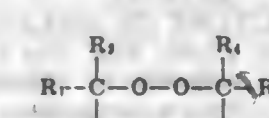
17 Claims. (Cl. 260—92.3)

1. The process which comprises vulcanizing a rubber selected from the group consisting of natural rubber and synthetic rubbery polymers of at least one compound selected from the group consisting of conjugated diolefins and chloroprene in the presence of from about 0.1% to about 10% based on the weight of rubber of a di(arylalkyl) peroxide having the structural formula:



where R₁ is an aryl group; R₂, R₃, R₄ and R₅ are selected from the class consisting of hydrogen and alkyl groups of less than 4 carbon atoms; and R₆ is an aryl group.

2. A rubber composition comprising a rubber selected from the group consisting of natural rubber and synthetic rubbery polymers of a compound selected from the group consisting of conjugated diolefins and chloroprene and from about 0.1% to about 10% based on the weight of rubber of a di(arylalkyl) peroxide having the structural formula:



where R₁ is an aryl group; R₂, R₃, R₄, and R₅ are selected from the class consisting of hydrogen and alkyl groups of less than 4 carbon atoms; and R₆ is an aryl group.

2,819,257

ETHYLENE POLYMERIZATION

Fred Kagan, Kalamazoo, Mich., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application November 20, 1953

Serial No. 393,487

16 Claims. (Cl. 260—94.9)

8. In a process for the preparation of a normally solid polymer by contacting ethylene with a free radical-producing polymerization catalyst at a suitable temperature within the range of about 20° C. to about 300° C. at

which said catalyst decomposes substantially to form free radicals and at a polymerization pressure of at least about 500 p. s. i. g. and sufficiently high to induce substantial polymerization, the step of effecting said contacting in the presence of an inert reaction medium consisting essentially of dimethylnecopentylcarbinol in a proportion of at least about 10 weight percent, based on the ethylene.

2,819,258

PROCESS FOR THE MANUFACTURE OF DIAZO-AMINO-COMPOUNDS IN DRY FORM

Max Schmid, Riehen, Eduard Moser, Basel, Albert Bolleter, Muttens, and Hans Luzi Schuchan, Bettingen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application August 20, 1954

Serial No. 451,297

Claims priority, application Switzerland August 28, 1953
10 Claims. (Cl. 260—140)

1. A process for the manufacture of diazoamino compounds in dry form from an aqueous alkaline solution which contains, in addition to a diazoamino compound, the diazo compound of which is free from sulfonic and carboxylic acid groups, substantially equimolecular proportions of the corresponding free diazo compound and of, as stabilized, the corresponding free amine, wherein the said aqueous solution is subjected to a rapid drying operation of the order of at most a few seconds.

2,819,259

NEW METALLIFEROUS AZO-DYESTUFFS

Max Schmid, Riehen, Rudolf Morry, Dornach, and Christian Zickendraht, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 26, 1954

Serial No. 412,955

Claims priority, application Switzerland February 27, 1953
13 Claims. (Cl. 260—147)

1. A metal compound selected from the group consisting of chromium and cobalt compounds of an ortho:ortho'-dihydroxymonoazo-dyestuff free from sulfonic and carboxylic acid groups, which compound contains the monoazo-dyestuff so bound in complex union to the metal that the ratio of the number of the metal atoms bound in complex union to the number of monoazo-dyestuff molecules is substantially 1:2, and which compound contains a monoazo dyestuff corresponding to the formula



wherein R₁ represents a naphthalene radical bound in 1-position to the azo group, substituted in 2-position by a hydroxyl group and in 4-position by a sulfonic acid amide group, and R₂ represents a radical selected from the group consisting of naphtholic and enolic coupling components bound to the azo linkage in a position vicinal to the hydroxyl group.

2,819,260

PROCESS FOR PREPARING OXYALKYLATED DERIVATIVES

Louis T. Monson, Puente, and Woodrow J. Dickson, Monterey Park, Calif., assignors to Petrolite Corporation, Los Angeles, Calif., a corporation of Delaware

No Drawing. Application June 4, 1953

Serial No. 359,662

6 Claims. (Cl. 260—209)

1. A two-step process for preparing substantially anhydrous, substantially undiluted oxyalkylated derivatives from an anhydrous, solid, oxyalkylation-susceptible disaccharide, which solid suffers at least partial decomposition if maintained at its beginning-of-fusion temperature for a period of at least 15 minutes in the presence of an oxyalkylation catalyst, and which solid is insoluble in

oxyalkylation-resistant, distillation-separable solvents; which process consists in: (A) first reacting said anhydrous solid with at least one anhydrous alkylene carbonate selected from the class consisting of ethylene carbonate, propylene carbonate, butylene carbonate, hydroxypropylene carbonate, and hydroxybutylene carbonate, in the presence of an anhydrous alkaline oxyalkylation catalyst; the proportion of alkylene carbonate employed being sufficient to yield a product which is at least liquefiable at the temperature required to effect its subsequent oxyalkylation using at least one alkylene oxide selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycid, and methylglycid; and (B) subsequently reacting such partially oxyalkylated derivative with at least one anhydrous alkylene oxide selected from the aforesaid class of alkylene oxides.

2,819,261

PROCESS FOR PREPARING OXYALKYLATED DERIVATIVES

Louis T. Monson, Puente, and Woodrow J. Dickson, Monterey Park, Calif., assignors to Petrolite Corporation, Los Angeles, Calif., a corporation of Delaware

No Drawing. Application June 4, 1953

Serial No. 359,661

1 Claim. (Cl. 260-209.5)

A two-step process for preparing substantially anhydrous, substantially undiluted oxyalkylated derivatives from a pectin which process consists in: (A) first reacting said solid with at least one member selected from the class consisting of ethylene carbonate, propylene carbonate, butylene carbonate, hydroxypropylene carbonate, and hydroxybutylene carbonate, in the presence of an alkaline oxyalkylation catalyst; the proportion of alkylene carbonate employed being sufficient to yield a product which is liquid at the temperature required to effect its subsequent oxyalkylation using at least one alkylene oxide selected from the class consisting of ethylene oxide, propylene oxide, butylene oxide, glycid, and methylglycid; and (B) subsequently reacting such partially oxyalkylated derivative with at least one member selected from the aforesaid class of alkylene oxides.

2,819,262

DIAZEPINE DERIVATIVE AND METHOD OF PREPARATION

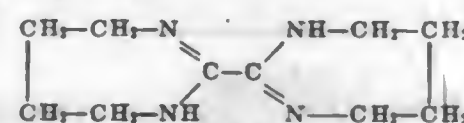
Ken Matsuda, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 15, 1957

Serial No. 652,672

2 Claims. (Cl. 260-239)

1. As a new composition of matter the compound: 2,2'-bis(4,5,6,7-tetrahydro-1,3-diazepine) represented by the general formula:



2,819,263

PROCESS FOR PRODUCTION OF CAPROLACTAM
Herbert L. Wehrmeister, Terre Haute, Ind., assignor to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland

No Drawing. Application December 7, 1956

Serial No. 626,841

8 Claims. (Cl. 260-239.3)

1. A process for the production of ϵ -caprolactam which comprises treating 1-nitrocyclohexanemethanol with sulfuric acid.

2,819,264

STEROID INTERMEDIATES

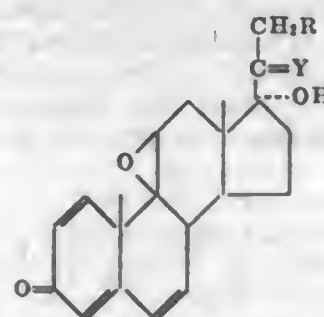
David H. Gould, Leonia, and Hershel L. Herzog, Mountain View, N. J., assignors to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey

No Drawing. Application January 26, 1956

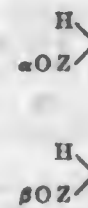
Serial No. 561,686

8 Claims. (Cl. 260-239.55)

1. Steroid compounds having the following formula:



wherein R is a member of the group consisting of H, OH and OZ, Y is a member of the group consisting of O,



and

and Z is a member of the group consisting of H and lower alkanolic acid radicals.

2,819,265

MANUFACTURE OF MELAMINE

John J. Healy, Jr., St. Louis, Mo., and Colver P. Dyer, Winchester, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 15, 1955

Serial No. 528,528

13 Claims. (Cl. 260-249.7)

1. A process for the manufacture of melamine which comprises heating urea and from about 1 to 10% by weight, based on the weight of urea, of an ammonium halide in a pressure-resistant vessel at a temperature between about 300 and 450° C. and under a pressure of at least 600 pounds per square inch (gauge), whereby melamine is produced, and recovering the thus produced melamine.

2,819,266

MANUFACTURE OF MELAMINE

John J. Healy, Jr., St. Louis, Mo., and Colver P. Dyer, Winchester, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application September 20, 1955

Serial No. 535,537

3 Claims. (Cl. 260-249.7)

1. A process for the manufacture of melamine which comprises charging urea to one of two pressure-resistant reactors connected in series and charging liquid ammonia to the other reactor, heating the urea in the reactor to which it is charged to a temperature of 250° C. to 350° C. and at a pressure of 600 to 2500 pounds per square inch in the presence of ammonia from said reactor to which ammonia was charged for a period of 1 to 2.5 hours, with the longer heating period corresponding to the lower temperatures, while maintaining the reactor to which ammonia was charged at a temperature of about 90 to 115° C., whereby melamine is produced in high yield in the reactor to which urea was charged and extraneous matter collects in the other reactor, and recovering said melamine.

2,819,267

NEW DERIVATIVES OF DICARBOXYLIC ACID HYDRAZIDES AND THEIR USE IN THE COMBATING OF FUNGI

Alfred Margot and Hans Gysin, Basel, Switzerland, assignors to J. R. Geigy A.-G., Basel, Switzerland, a Swiss firm

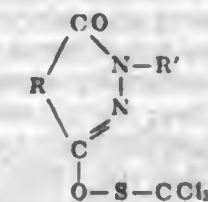
No Drawing. Application May 27, 1955

Serial No. 511,790

Claims priority, application Switzerland June 1, 1954

5 Claims. (Cl. 260-250)

1. A derivative of a dicarboxylic acid hydrazide corresponding to the formula:



wherein R represents a member selected from the group consisting of ethylene, vinylene and o-phenylene radicals, and R' represents a member selected from the group consisting of hydrogen, lower alkyl and the phenyl radicals, the entire molecule containing at most one aromatic nucleus.

2,819,268

NEW CHEMICAL COMPOUND AND ITS METHOD OF PREPARATION

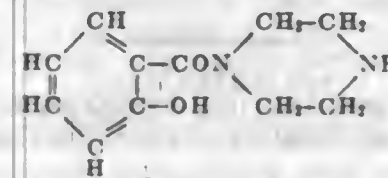
Jacques Basse and Michel Belalande, Paris, France

No Drawing. Application October 26, 1955

Serial No. 543,000

1 Claim. (Cl. 260-268)

The new chemical compound having the following formula:



2,819,269

CARBALKOXY PIPERAZINE COMPOUNDS

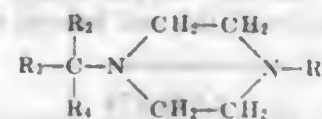
Arthur W. Weston, Waukegan, and Kenneth E. Hamlin, Jr., Lake Bluff, Ill., assignors to Abbott Laboratories, Chicago, Ill., a corporation of Illinois

No Drawing. Application July 9, 1956

Serial No. 596,389

4 Claims. (Cl. 260-268)

1. A member of the class consisting of compounds represented by the formula:



wherein R₁ is a carbalkoxy group containing up to four carbon atoms inclusive, R₂ is a member selected from the class consisting of hydrogen and an alkyl group containing up to four carbon atoms inclusive, R₃ is selected from the group consisting of phenyl and halophenyl, and R₄ is selected from the group consisting of phenyl, halophenyl, pyridyl, thienyl, and cyclohexyl.

2,819,270

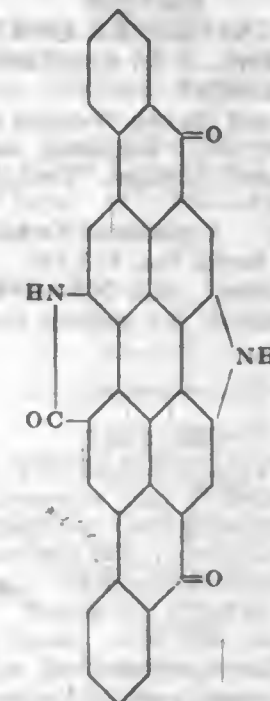
DYES OF THE DIBENZANTHRONE SERIES
Wilhelm Schmidt-Nickels, Little York, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application February 7, 1956

Serial No. 563,857

4 Claims. (Cl. 260-272)

1. A black dyestuff having the structural formula:



2,819,271

METHYL RESERPATE O-TRIACETYLSHIKIMATE
Jacob Szmuszkovicz, Portage Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application June 22, 1956

Serial No. 593,026

1 Claim. (Cl. 260-287)

Methyl reserpate O-triacetylshikimate.

2,819,272

RACEMIZATION PROCESSES

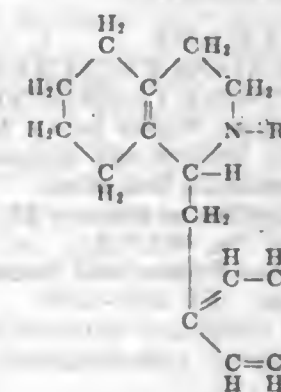
Charles William Den Hollander, Midland Park, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application January 16, 1956

Serial No. 559,135

3 Claims. (Cl. 260-289)

1. A process which comprises heating, at a temperature from about 45° C. to about 80° C., optically active material having the formula



wherein R¹ is selected from the group consisting of hydrogen and hydrocarbon radicals having not more than eight carbon atoms, and R² is selected from the group consisting of hydrogen and lower alkyl radicals, dissolved in a lower alcohol and in the presence of a catalyst comprising essentially palladium sponge deposited upon a mixture of (1) material selected from the group consisting of the hydroxides, carbonates and basic carbonates

of zinc and (2) material selected from the group consisting of the hydroxides, carbonates and basic carbonates of iron, the gram-atomic proportion of palladium:zinc:iron being from about 2 to about 9 Pd:about 1 Zn:about 1 Fe, until at least part of said optically active material has been racemized.

2,819,273

HETEROCYCLIC NITROGEN-CONTAINING COMPOUNDS HAVING A 3:4:5-TRIMETHOXYBENZOYL SUBSTITUENT

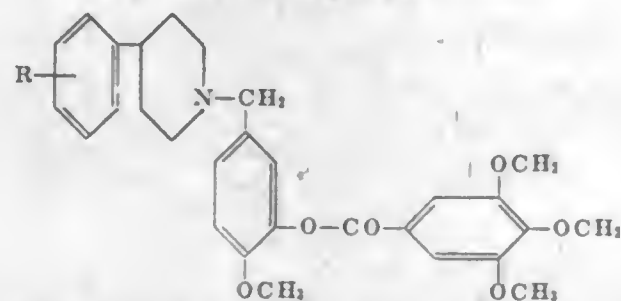
David John Drain and Haydn Windsor Richard Williams, Welwyn Garden City, England, assignors to T. J. Smith & Nephew Limited, Yorkshire, England, a British company

No Drawing. Application October 2, 1956

Serial No. 613,367

4 Claims. (Cl. 260-294.3)

1. The compounds of the general formula:



wherein R represents a monovalent substituent selected from the group consisting of hydrogen atoms, methoxy groups and methylenedioxy groups.

2,819,274

MONOHYDROXY-β-ACYLAMINOANTHRAQUINONES

Paul Grossmann, Binningen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

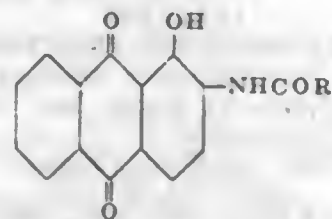
No Drawing. Application March 19, 1956

Serial No. 572,226

Claims priority, application Switzerland April 1, 1955

3 Claims. (Cl. 260-377)

3. A compound of the formula



in which R represents a member selected from the group consisting of the benzene and hexahydrobenzene radicals.

2,819,275

PROCESS FOR THE MANUFACTURE OF NEW ANTHRAQUINONE COMPOUNDS

Paul Grossmann, Binningen, Walter Jenny, Reinach, and Walter Kern, Sissach, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

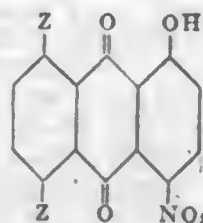
No Drawing. Application January 10, 1955

Serial No. 481,014

Claims priority, application Switzerland January 14, 1954

10 Claims. (Cl. 260-380)

1. An anthraquinone compound obtained by a process which comprises reacting an anthraquinone of the formula



in which one Z represents a hydroxy group and the other

Z a nitro group, in the presence of a tertiary monoamine whose nitrogen atom is bound to three aliphatic radicals, each of these radicals corresponding to the formula



in which m is a whole number not greater than 2 and n a whole number not greater than 5 and m is at most equal to n, with an amine of the formula



in which X is a member selected from the group consisting of hydrogen, halogen, alkyl and alkoxy, said alkyl and alkoxy each having at most 5 carbon atoms and m is a whole number not greater than 2.

6. An anthraquinone compound obtained by a process which comprises reacting at a temperature between 90-180° C. 1:8-dihydroxy-4:5-dinitro-anthraquinone in the presence of an aliphatic tertiary monoamine whose nitrogen atom is bound to three aliphatic radicals, each of them having at most 5 carbon atoms and of which radicals at least two have more than one carbon atom and are substituted by a hydroxy group, with aniline.

2,819,276

3,19-DIHYDROXY-4-ANDROSTEN-17-ONE

Joseph S. Mihna, Skokie, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application August 27, 1956

Serial No. 606,199

1 Claim. (Cl. 260-397.4)

3,19-dihydroxy-4-androsten-17-one.

2,819,277

17-ALKYL-19-HYDROXYTESTOSTERONES

Frank B. Colton, Chicago, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application August 27, 1956

Serial No. 606,200

5 Claims. (Cl. 260-397.4)

1. A 17α-alkyl-19-hydroxytestosterone wherein the 17α-group is a lower alkyl radical containing at least two carbon atoms.

2,819,278

REACTION PRODUCT OF EPOXIDIZED GLYCERIDES AND HYDROXYLATED TERTIARY MONOAMINES

Melvin De Groote and Jen-Pu Cheng, University City, Mo., assignors to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 9, 1956

Serial No. 583,884

10 Claims. (Cl. 260-404)

1. Products obtained by reacting under oxyalkylation conditions (A) an epoxidized glyceride of an acid selected from the class consisting of fatty acids and acylated fatty acids in which the epoxidized ester contains on the average approximately one oxirane ring per fatty acid radical, with (B) a hydroxylated tertiary monoamine; said reaction between (A) and (B) involving rupture of the oxirane ring and being limited to the linkage $-C-O-C-$, which linkage is being characterized by freedom from a carbonyl carbon atom; said product of reaction being hydroxylated and solvent soluble.

2,819,279

OZONIZATION OF OLEFINIC COMPOUNDS TO A CARBOXYLIC ACID AND AN ALDEHYDE

Arthur B. Brown and Joseph W. Sparks, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application July 22, 1950, Serial No. 175,418

2 Claims. (Cl. 260-413)

1. A process for preparing a carboxylic acid and an aldehyde from an olefinic hydrocarbon having the for-

mula $RCH=CHR'$, where R and R' are substituents selected from the group consisting of hydrogen and organic radicals, which comprises intimately commingling said olefinic hydrocarbon with an immiscible aqueous phase, maintaining the pH of said aqueous phase above about 9 by incorporating therein an alkaline compound of a metal selected from the group consisting of the alkali metals and the alkaline-earth metals, passing ozone through the resulting mixture at a temperature between about 35 and 150° F., and separating a carboxylic acid and an aldehyde from the resulting reaction product.

2,819,280

PLUTONIUM COMPOUNDS AND PROCESS FOR THEIR PREPARATION

Frederick J. Wolter, Cleveland, Ohio, and Harvey C. Diehl, Jr., Ames, Iowa, assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application April 20, 1949

Serial No. 88,682

25 Claims. (Cl. 260-429.1)

1. A tetravalent plutonium chelate compound of a di(salicylal)alkylenediimine wherein the divalent alkylene radical contains at least two carbon atoms and joins the two nitrogen atoms by means of two carbon atoms.

5. A process for the preparation of a tetravalent plutonium chelate compound of a di(salicylal)alkylenediimine wherein the divalent alkylene radical contains at least two carbon atoms and joins the two nitrogen atoms by means of two carbon atoms, which comprises contacting an aqueous solution containing a tetravalent plutonium salt and maintained at a pH between 2 and 7 by an acetate buffer with said di(salicylal)alkylenediimine, and separating the resultant tetravalent plutonium chelate compound.

2,819,281

ETHYLATION PROCESS

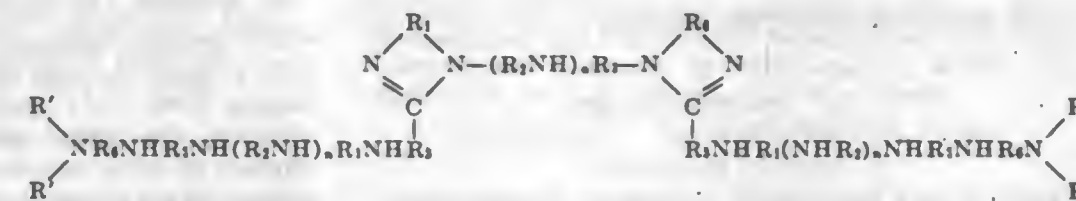
James J. Bergin, Houston, and Arthur B. Wintringham, Baytown, Tex., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application April 14, 1954

Serial No. 423,214

7 Claims. (Cl. 260-437)

1. A batch ethylation of an alkali metal lead alloy comprising charging comminuted solid alloy to an ethylation zone, feeding ethyl chloride at a rate sufficient to initiate reaction and rapidly raise the ethylation pressure within said zone to about 80 to 90 pounds per square inch, and terminating the feed of ethyl chloride when from 40 to 60 parts by weight of ethyl chloride to 100 parts by weight of alloy have been fed, initiating cooling, by heat transfer through the boundary of the zone, said cooling hereafter being referred to as boundary cooling, and refluxing and controlled venting of non-condensables upon attainment of ethylation pressures of at least 50 pounds per square inch gauge during the feed of ethyl chloride and continuing said boundary cooling, refluxing and venting of non-condensables following the completion of the ethyl chloride feed whereby



the pressure is reduced, terminating the controlled venting of non-condensables, refluxing, and boundary cooling at ethylation pressures of at least 50 pounds per square inch gauge, and initiating heating through the

boundary of the ethylation zone and full venting substantially concurrently with the termination of the boundary cooling to complete the ethylation, and thereby reducing the ethylation zone pressure to substantially atmospheric and discharging the ethylated mixture from the ethylation zones.

2,819,282

PHENYLENE LINKED SILOXANES

Harold A. Clark, Midland, Mich., assignor to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application November 29, 1956

Serial No. 624,978

1 Claim. (Cl. 260-448.2)

A compound of the formula



2,819,283

PROCESS OF PRODUCING HYDROCARBONS

Charles W. Montgomery and William I. Gilbert, Oakmont, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application October 30, 1950

Serial No. 193,036

3 Claims. (Cl. 260-449.6)

1. A process for producing normally liquid hydrocarbons which comprises reacting iron carbide with a gas consisting of steam at a pressure above about 100 pounds per square inch and an elevated temperature of about 525° to about 650° F.

2,819,284

CERTAIN SUBSTITUTED CYCLIC AMIDINES

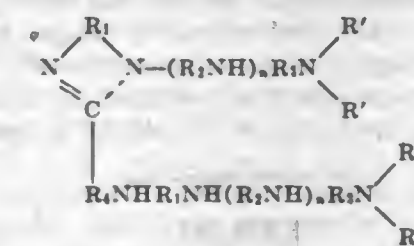
Kwan-Ting Shen, Brentwood, Mo., assignor to Petrolite Corporation, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 11, 1955

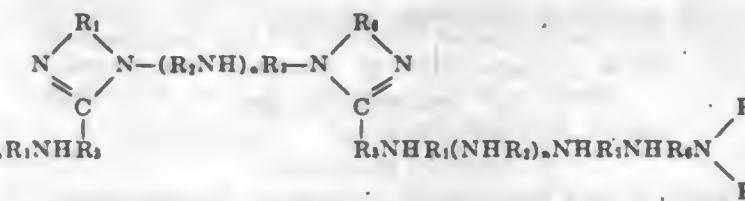
Serial No. 521,387

6 Claims. (Cl. 260-309.6)

1. Disubstituted cyclic amidines of the class of tetrahydropyrimidines and aminoimidazolines of the structure



R1, R2, and R3 are divalent saturated hydrocarbon radicals containing at least 2 and not more than 3 carbon atoms in the straight chain; R4 is the saturated carboxyl-free residue of an alpha-beta unsaturated, lower alkylene acid; R' is a member selected from the class consisting of hydrogen atoms and hydroxy alkyl radicals having not over 4 carbon atoms, and n is a small whole number including zero; and



in which R4 is a divalent saturated hydrocarbon radical, R5 is the saturated carboxyl-free residue of an alpha-beta unsaturated, lower alkylene acid, and the other symbols have their prior significance.

2,819,285

QUATERNARY AMMONIUM SALTS

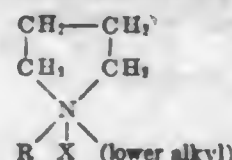
Guiliana C. Tesoro, Dobbs Ferry, N. Y., and Reginald L. Wakeman, Philadelphia, Pa., assignors to Onyx Oil and Chemical Company, Jersey City, N. J., a corporation of New Jersey

No Drawing. Application April 5, 1957

Serial No. 650,815

6 Claims. (Cl. 260—313)

1. A compound of the general formula



wherein X is an inorganic anion and R is a higher alkyl radical having 14 to 18 carbon atoms.

2,819,286

3-UREIDOPHTHALIDES

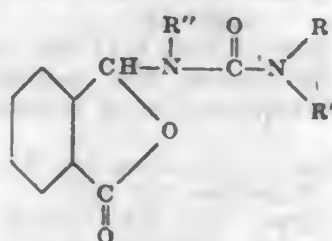
Donald D. Wheeler and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 5, 1956

Serial No. 595,855

7 Claims. (Cl. 260—343.3)

1. A phthalide having the formula



wherein R is a member of the group consisting of lower alkyl, lower hydroxyalkyl, benzyl, and phenyl; R' is a member of the group consisting of hydrogen, lower alkyl, lower hydroxyalkyl, benzyl and phenyl; and R'' is a member of the group consisting of hydrogen, methyl and ethyl; and wherein at least one of R' and R'' is hydrogen.

2,819,287

3-THIOUREAPHTHALIDES

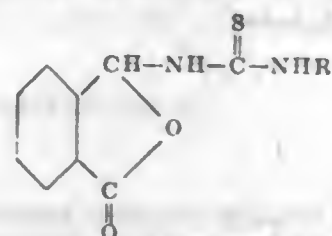
Donald D. Wheeler and David C. Young, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 5, 1956

Serial No. 595,854

4 Claims. (Cl. 260—343.3)

1. A phthalide having the formula



wherein R represents a member of the group consisting of hydrogen, lower alkyl, benzyl and phenyl.

2,819,288

POLYHYDROXY- β -ACYLAMINOANTHRA-QUINONES

Paul Grossmann, Binningen, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

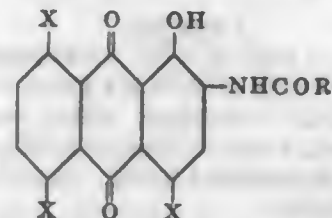
No Drawing. Application March 19, 1956

Serial No. 572,225

Claims priority, application Switzerland April 1, 1955

6 Claims. (Cl. 260—377)

1. A polyhydroxy-acylaminoanthraquinone of the formula



in which at least one X stands for a hydroxy group, the other X's representing hydrogen atoms and —COR represents the radical of a monocarboxylic acid having at least 2 and at most 12 carbon atoms, selected from the group consisting of an aliphatic carboxylic acid, a benzene carboxylic acid, and a hexahydrobenzoic acid.

2,819,289

PURIFICATION OF HYDROCARBONS BY REFINING HYDROGENATION

Robert Lüben, Oberhausen, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holtien, Germany, a corporation of Germany

No Drawing. Application October 14, 1953

Serial No. 386,120

Claims priority, application Germany October 28, 1952

7 Claims. (Cl. 260—450)

1. In the process for the purification of raw hydrocarbons having more than 17 carbon atoms such as paraffin hydrocarbons from the catalytic hydrogenation of carbon monoxide by a refining hydrogenation, the improvement which comprises contacting such a raw hydrocarbon with hydrogen in the presence of a hydrogenation catalyst containing metallic nickel and metallic copper and 15–30 parts by weight of magnesium oxide per 200 parts by weight of nickel and copper combined and recovering a stable, color-purified hydrocarbon.

2,819,290

PREPARATION OF TRIALKYL TRITHIOPHOSPHITES

Gordon D. McLeod, Lansing, and Edmond L. d'Ouville, La Grange, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application March 27, 1953, Serial No. 345,102

10 Claims. (Cl. 260—461)

1. A process of producing a trialkyl trithiophosphate, which process comprises reacting elemental phosphorus with a disulfide from the class consisting of dialkyl containing from 1–12 carbon atoms in each alkyl group, diphenyl, dinaphthyl, and dicyclohexyl, in the substantial absence of other organic compounds reactive with phosphorus, in the presence of a solvent selected from the class consisting of cycloparaffins and methyl cycloparaffins, at a temperature between about 150° C. and about 250° C. for a time sufficient to substantially complete the reaction of phosphorus and disulfide and recovering trithiophosphate.

2,819,291

HALOGENATED NITRILES

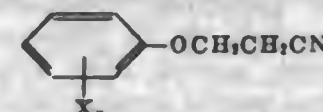
Samuel Allen Heininger, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 25, 1956

Serial No. 593,314

3 Claims. (Cl. 260—465)

1. A polyhalophenoxypropionitrile of the formula



where X is a halogen atom having a molecular weight of from 30 to 80, and n is an integer of from 2 to 3.

2,819,292

ALLYL-N-ALLYLCARBAMATE; N-ALLYLCARBAMATES

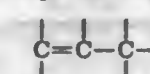
Richard P. Welcher and Donald W. Kaiser, Old Greenwich, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 5, 1954

Serial No. 402,408

7 Claims. (Cl. 260—468)

1. The method of preparing an N-substituted carbamate ester which comprises heating an iminocarbonate containing two like carbon groups having the formula



each group being adjacent to at least one oxygen atom to a temperature in the range of about 180°–500° C., and recovering N-substituted carbamate ester thereby produced from the reaction mass.

2,819,293

PROCESS FOR THE PREPARATION OF CHLORINE-CONTAINING DERIVATIVES OF BENZENE CARBOXYLIC ACIDS

Cornelis van der Stelt, Amsterdam, Netherlands, assignor to N. V. Koninklijke Pharmaceutische Fabrieken v/h Brocades-Scheeman & Pharmacia, Amsterdam, Netherlands, a limited liability company of the Netherlands

No Drawing. Application June 27, 1955

Serial No. 518,396

Claims priority, application Netherlands July 15, 1954

6 Claims. (Cl. 260—468)

1. Process for the preparation of chlorine-containing compounds which comprises introducing chlorine gas into a mixture of an alkyl ester of the group consisting of 2-hydroxy, 4-hydroxy, 2-amino, 4-amino, 2,4-dihydroxy, 2,4-diamino, 2-hydroxy-4-amino and 2-amino-4-hydroxy benzene carboxylic acids and their 3,5-dichloro derivatives in an organic medium at such a rate that the mixture does not boil and until the evolution of hydrogen chloride ceases and separating the reaction product containing from 6 to 10 chlorine atoms from the reaction mixture.

2,819,294

ALPHA-CARBO(PHENOXYALKOXY)ETHYL N-PHENYLCARBAMATES

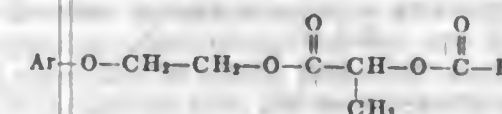
Alphonse Pechukas, Bronxville, N. Y., assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

No Drawing. Application April 19, 1955

Serial No. 502,521

7 Claims. (Cl. 260—471)

1. A compound of the formula:



wherein Ar is a phenyl radical and R is the residue of a

phenyl amine in which the amino nitrogen is linked directly to both the adjacent carboxylic carbon atom and to the phenyl nucleus.

2,819,295

ALKALINE BARK EXTRACTION AND PRODUCT

Franklin W. Herrick and Louis H. Bock, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

No Drawing. Application October 11, 1955

Serial No. 539,933

7 Claims. (Cl. 260—473.6)

1. The sodium substituted bark derivative obtained by reacting an aqueous ammonia extract of coniferous tree bark containing appreciable quantities of phlobatannins, phlobaphenes, and an aromatic polymer high in methoxyl with sodium hydroxide in aqueous solution containing from 5% to 25% by weight of sodium hydroxide per part of bark extract solid, said ammonia extract having been prepared by digesting the bark in aqueous solution containing from 0.02 to 1.5 parts of ammonia per part of dry bark at a temperature of from 17° to 170° C. for from 15 to 240 minutes and separating the extract from the bark residue, said sodium substituted bark derivative being characterized by containing combined nitrogen.

4. The process of producing a sodium substituted bark derivative which comprises reacting an aqueous ammonia extract of coniferous tree bark prepared by digesting the bark with from 0.1 to 0.4 part of ammonia per part of dry bark with from 5% to 25% of sodium hydroxide in aqueous solution per part of solid ammonia extract and forming the sodium substituted bark derivative.

2,819,296

PREPARATION OF HYDROXYALKYL ACRYLATES

Joseph J. Carnes, Stamford, and Frank M. Cowen, Norwalk, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 7, 1956

Serial No. 589,871

12 Claims. (Cl. 260—486)

1. A process for the preparation of an hydroxyalkyl acrylate which comprises: bringing into reactive combination for not more than about one hour approximately equimolecular amounts of an alkylene oxide containing from two to four carbon atoms and a monocarboxylic acid selected from the group consisting of acrylic acid and methacrylic acid in the presence of a tertiary amine catalyst at temperatures within the range of from about 100° C. to about 140° C. in the presence of a water-soluble alkali metal nitrite, and recovering the corresponding hydroxyalkyl acrylate.

2,819,297

INTERMEDIATES FOR THE PREPARATION OF ASYMMETRICAL C₄₀ CAROTENOIDS

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, Switzerland, and Paul Zeller, Neuallschwyl, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application July 16, 1956

Serial No. 597,901

Claims priority, application Switzerland July 22, 1955

4 Claims. (Cl. 260—488)

1. A compound selected from the group consisting of 15,15'-dehydro-cryptoxanthene and lower alkanoylated 15,15'-dehydro-cryptoxanthene.

1. A process for producing vitamin A amine which comprises heating in the presence of an inert solvent from one to five parts by weight of aluminum isopropoxide with one part by weight of an organic compound having the following characteristics: (1) an absorption maximum in the ultra-violet at 3250 Å. with an extinction coefficient at that wave length of about 1000, (2) when treated with hydrobromic acid gives a product having an absorption maximum in the ultra-violet at 3300 Å., (3) when treated with phosphoric acid gives a product having an absorption maximum in the ultra-violet of 3280-3300 Å., (4) has a Kieldahl nitrogen content of 9.6%. (5) when treated

with acetic anhydride gives a product, the infra-red spectrographic curve of which contains an amide band, (6) when treated with iodine is converted to vitamin A aldehyde, (7) has the vitamin A chromophoric system, (8) has a basic fragment similar to a major portion of the hexamethylene tetramine molecule, and (9) has a vitamin A activity of approximately 50% when tested biologically.

2,819,310

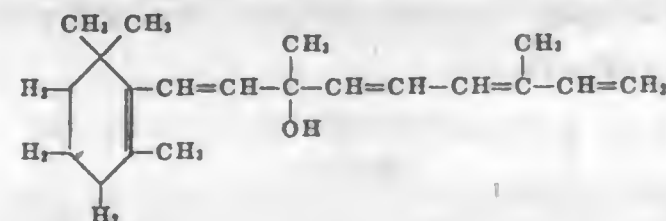
PRODUCTION OF VITAMIN A-ACTIVE MATERIAL
Howard C. Klein, Brooklyn, Charles O. Beckmann, Bayville, N. Y., and Kurt H. Schaaf, Newark, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application November 4, 1955

Serial No. 545,123

12 Claims. (Cl. 260—563)

1. A process for producing a vitamin A-active material which comprises reacting a boron trifluoride hexamethylene tetramine complex containing an average of from about 1.5 to about 2.5 molecules of boron trifluoride for each molecule of hexamethylene tetramine with an organic compound having the empirical formula $C_{20}H_{30}O$ and having the structural formula



which compound contains the beta ionone ring structure, four ethylenic bonds and one hydroxyl group, and which in the trans form has an absorption maximum in the ultra-violet at 2710 Å., molecular extinction coefficient at that wave length of 29,100 and has a refractive index at 20° C. of about 1.552, and which in the cis form has an absorption maximum in the ultra-violet at 2740 Å., a molecular extinction coefficient at that wave length of 25,900 and has a refractive index at 16° C. of about 1.535, said reaction being carried out in a polar solvent selected from the group consisting of acetone, acetonitrile, acrylonitrile, benzyl cyanide, dioxane containing a small amount of water, isopropenyl acetate and tetrahydrofuran employing an amount of the boron trifluoride hexamethylene tetramine complex sufficient to provide at least about 2 molecules of boron trifluoride for each molecule of the organic compound; and thereafter adding to the reaction mixture an amount of an alkaline material sufficient to react with all of the boron trifluoride in the reaction mixture.

2,819,311

PRODUCTION OF VITAMIN A ALDEHYDE
Howard C. Klein, Brooklyn, N. Y., and Davide R. Grassetti, Nutley, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey

No Drawing. Application November 4, 1955

Serial No. 545,122

7 Claims. (Cl. 260—598)

1. A process for producing vitamin A aldehyde which comprises treating with iodine in the presence of an inert solvent an organic compound having the following characteristics: (1) an absorption maximum in the ultra-violet at 3250 Å. with an extinction coefficient at that wave length of 1000, (2) when treated with hydrobromic acid gives a product having an absorption maximum in the ultra-violet at 3300 Å., (3) when treated with phosphoric acid gives a product having an absorption maximum in the ultra-violet of 3280–3300 Å., (4) has a Kjeldahl nitrogen content of 9.6%, (5) when treated with acetic anhydride gives a product the infra-red spectrographic

curve of which contains an amide band, (6) when treated with aluminum isopropoxide is converted to vitamin A amine, and (7) has a vitamin A activity of approximately 50% when tested biologically.

2,819,312

PROCESS FOR THE MANUFACTURE OF POLYENE ALDEHYDES

Otto Isler, Marc Montavon, and Rudolf Rüegg, Basel, and Paul Zeller, Neuallschwil, near Basel, Switzerland, assignors to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application July 13, 1956

Serial No. 597,567

Claims priority, application Switzerland July 22, 1955

4 Claims. (Cl. 260—598)

1. A process for the manufacture of polyene aldehydes, which comprises condensing in an inert solvent a compound selected from the group consisting of 2,6,6-trimethylcyclohexyliden-ethyliden-triarylphosphine, 2,6,6-trimethylcyclohexyliden-ethyliden-tri(alkyl-substituted aryl) phosphine and 2,6,6-trimethylcyclohexyliden-ethyliden-tri(alkoxy-substituted aryl) phosphine with a compound selected from the group consisting of acetals of 2-oxopropanal-(1), of 4-oxopentene-(2)-al-(1) and of 2-methyl-6-oxo-heptadiene-(2,4)-al-(1), heating the reaction mixture and hydrolyzing the acetal formed in the presence of acid.

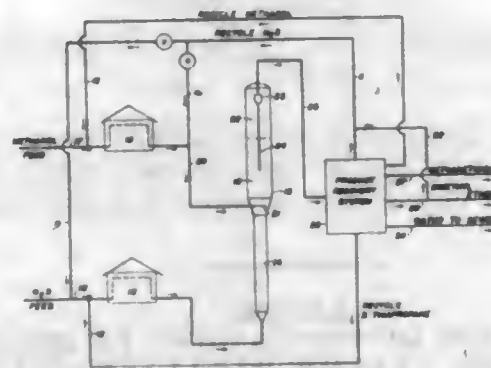
2,819,313

METHYL MERCAPTAN MANUFACTURE FROM METHANOL AND HYDROGEN SULFIDE

Harvey Hennig, Cary, Ill., assignor to Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application December 14, 1953, Serial No. 397,860

6 Claims. (Cl. 260—609)



1. A process for producing methanethiol which comprises reacting methanol and hydrogen sulfide in a primary reaction zone at a temperature of about 650° to 850° F., a pressure of about atmospheric to 150 p. s. i. employing a liquid volume hourly space velocity, based on methanol, of about 0.25–5 and a mol ratio of reactants of 1–5 mols of hydrogen sulfide to 1 mol of methanol in the presence of a catalyst consisting essentially of activated alumina and to produce a reaction effluent consisting essentially of methanethiol, 2-thiopropane, water, dimethyl ether, and unreacted hydrogen sulfide and methanol, recovering from the said reaction effluent a methanethiol fraction and a 2-thiopropane fraction, passing the 2-thiopropane fraction to a secondary reaction zone, reacting the 2-thiopropane fraction with amounts of hydrogen sulfide substantially in excess of the stoichiometric amounts required for said reaction in the absence of methanol at a temperature of about 700° to 1200° F., at a pressure of about atmospheric to 150 p. s. i. employing a liquid volume hourly space velocity, based on 2-thiopropane, of about 0.1–10, and a mol ratio of reactants of 3–10 mols of hydrogen sulfide per mol of 2-thiopropane in the presence of a catalyst consisting essentially of activated alumina to produce additional quantities of methanethiol, the catalyst employed in the secondary

reaction zone having the same composition as that employed in the primary reaction zone, and transferring said reaction effluent directly to said primary reaction zone.

2,819,314

PRODUCTION OF VITAMIN A AND RELATED COMPOUNDS

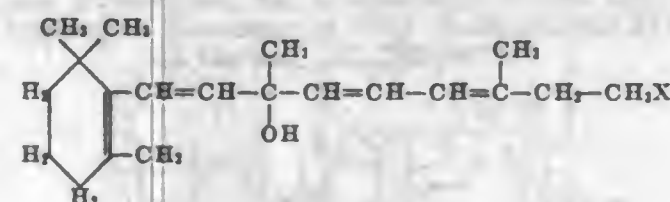
William Oroschnik, Plainfield, N. J., assignor to Ortho Pharmaceutical Corporation, a corporation of New Jersey

No Drawing. Application April 20, 1953

Serial No. 349,969

11 Claims. (Cl. 260—611)

9. A novel compound of the formula



in which X' is selected from the group consisting of —OR and —OH, and R is a lower alkyl radical.

2,819,315

5-BENZYLOXY-β,2-DINITROSTYRENES

Merrill E. Speeter, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application February 23, 1952

Serial No. 273,148

17 Claims. (Cl. 260—612)

12. In a process for the preparation of a 5-benzyloxy-β,2-dinitrostyrene, the steps of condensing a 5-benzyloxy-2-nitrobenzaldehyde with a 1-nitroalkane in the presence of an alkali-metal hydroxide, acidifying the salt thus produced with an inorganic acid, and dehydrating the mixture thus produced with acetic anhydride to yield a 5-benzyloxy-β,2-dinitrostyrene.

2,819,316

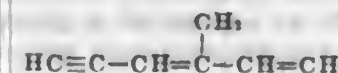
SYNTHESIS OF VITAMIN A ISOMERS

William Oroschnik, Plainfield, N. J., assignor to Ortho Pharmaceutical Corporation, a corporation of New Jersey

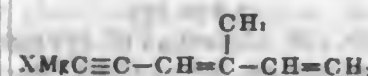
Application March 20, 1953, Serial No. 343,784

3 Claims. (Cl. 260—617)

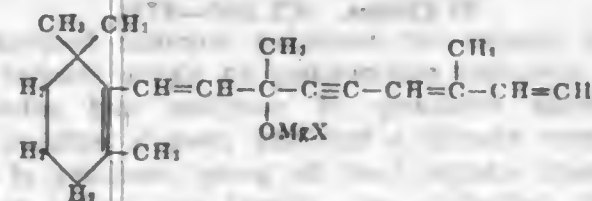
2. The method comprising treating a compound of the formula



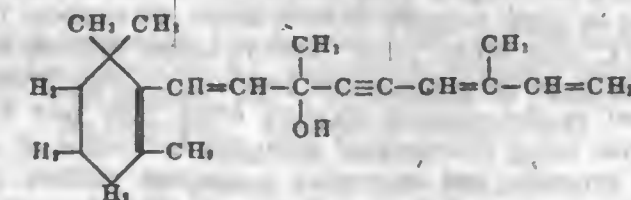
having a refractive index at 17° C. of 1.5158 and showing absorption in the ultraviolet with a maximum at 2590 Å. and a molecular coefficient of extinction at that wavelength of 21,500 with a Grignard reagent to provide a compound of the formula



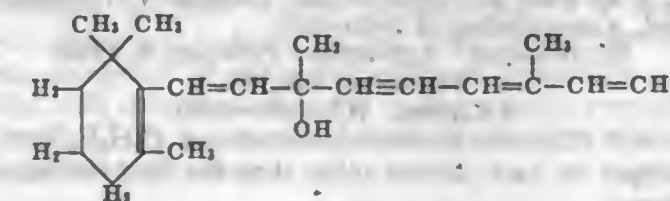
in which X is halogen, reacting this compound with β-ionone to provide a compound of the formula



in which X is halogen, and hydrolyzing this compound to provide a compound of the formula



having a refractive index at 21° C. of 1.5548, showing absorption in the ultraviolet with a maximum at 2670 Å. and a molecular coefficient of extinction at that wavelength of 23,800, and treating this compound with lithium aluminum hydride to provide a compound of the formula



with a trans configuration at the 4,5-double bonded linkage, having a refractive index at 20° C. of 1.5526, and showing absorption in the ultraviolet with a maximum at 2710 Å. and a molecular coefficient of extinction at that wavelength of 29,100.

2,819,317

POLYOLEFINIC ALCOHOLS OF INCREASED CONJUGATION FROM SOYBEAN AND MENHADEN OILS

Erle B. Ayres, Pittsburgh, Pa., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 27, 1953

Serial No. 345,235

3 Claims. (Cl. 260—632)

1. Mixtures of polyolefinic alcohols corresponding in carbon chain and in degree of unsaturation with the fatty acid radicals of soy bean oil, and prepared by the reduction of soy bean oil, the alcohols having been isomerized to at least a 38% minimum conjugation of the olefinic groups in said radicals.

2,819,318

ALCOHOLS DERIVED FROM BABASSU OIL
Eugene F. Hill, Birmingham, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 2, 1953

Serial No. 395,836

3 Claims. (Cl. 260—632)

1. As a new composition of matter, a mixture essentially of higher molecular alcohols derived from babassu oil corresponding in the number of carbon atoms, degree of unsaturation, and in substantially the same percentages to the fatty acid radicals of said oil, said mixture being characterized by having an average molecular weight greater than 160, a percent hydroxyl of at least 6.0, and an iodine number of at least 8.0.

2,819,319

PRODUCTION OF ALCOHOLS BY HYDROLYSIS OF ALKYL BROMIDES

David K. Barnes, Kinston, N. C., assignor to Pan American Petroleum Corporation, a corporation of Delaware

No Drawing. Application August 13, 1954

Serial No. 449,779

5 Claims. (Cl. 260—640)

1. In a process for the hydrolysis of an alkyl bromide selected from the group consisting of primary and secondary alkyl bromides to produce the corresponding alcohol and the corresponding hydrogen halide, the steps which comprise subjecting said alkyl bromide to direct

hydrolysis in water in the presence of an olefin at a temperature ranging from about 90° to about 300° C. and at an olefin pressure of from about 300 to about 1000 p. s. i., said olefin being gaseous under the aforesaid conditions of temperature and pressure, the only bromide present in the reaction mixture other than said alkyl bromide being that derived from the hydrolysis of said alkyl bromide, and recovering a reaction mixture containing the alcohol derived from said alkyl bromide.

2,819,320

1,1,2,2-TETRAFLUOROCYCLOHEPTADIENES
John J. Drysdale, Clifton Park Manor, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application February 9, 1956

Serial No. 564,384

6 Claims. (Cl. 260-648)

1. A 1,1,2,2-tetrafluorocycloheptadiene, $C_7H_4F_4$, having hydrogen on each carbon other than the fluorine-bearing carbons.

4. The process which comprises pyrolyzing 6,6,7,7-tetrafluorobicyclo(3.2.0)-hept-2-ene at 600-750° C. at reduced pressure and isolating the 1,1,2,2-tetrafluorocycloheptadienes obtained.

2,819,321

DICHLOROBENZENE MANUFACTURE
Blaine O. Pray, Wadsworth, Ohio, assignor to Columbia-Southern Chemical Corporation, County of Allegheny, Pa., a corporation of Delaware

No Drawing. Application May 23, 1955

Serial No. 510,521

4 Claims. (Cl. 260-650)

1. The method of isomerizing dichlorobenzene isomers other than the meta-dichlorobenzene isomer whereby to obtain meta-dichlorobenzene which comprises heating a dichlorobenzene isomer other than meta-dichlorobenzene to a temperature of at least 120° C. in the presence of aluminum chloride and anhydrous hydrogen chloride and at a superatmospheric pressure of at least 650 pounds per square inch gauge.

2,819,322

PRODUCTION OF AROMATIC COMPOUNDS
Lloyd C. Fetterly, El Cerrito, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application December 21, 1953

Serial No. 399,570

9 Claims. (Cl. 260-668)

1. A process for the preparation of a polymethylbenzene having from three to five methyl groups which comprises hydrocracking a diarylmethane in which each aryl group is a methyl substituted phenyl group having from two to four methyl group substituents at an elevated temperature and a pressure from about 100 to about 600 lbs./sq. in., gauge, in the presence of from about one to about twenty moles of hydrogen per mole of diarylmethane and a high melting inorganic compound selected from the group consisting of oxides, sulfides and composites thereof of group VI and VIII metals having atomic numbers of at least 24, as catalyst.

2,819,323

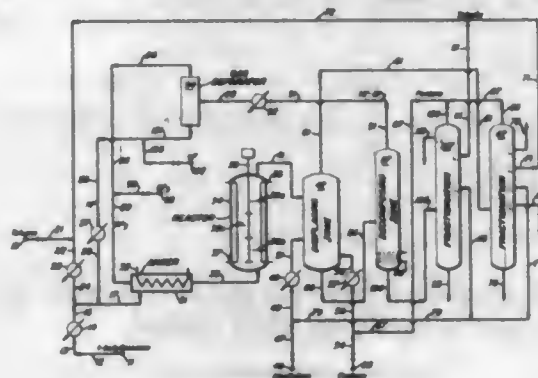
TERTIARY BUTYLTOLUENE PRODUCTION
David A. McCaulay, Chicago, Ill., and Arthur P. Lien, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

Application November 27, 1953, Serial No. 394,712

11 Claims. (Cl. 260-671)

1. An interaction process which comprises contacting, under substantially anhydrous conditions, a feed compris-

ing essentially (a) toluene and (b) a member selected from the class consisting of t-butylbenzene, di-t-butylbenzene, tri-t-butylbenzene and mixtures thereof, as essentially the only reactive components, in a mol ratio of toluene to t-butyl groups in said butylbenzene of at least about 1, with between about 3 and 50 mols of liquid HF per mol of alkylbenzene feed and at least about 1 mol of BF_3 per mol of t-butyl groups in said butylbenzene, at a temperature of not more than about +25° C. for a time sufficient for the formation of a fraction consisting essentially of meta-t-butyltoluene, contacting the acid phase with at least about 1 mol of a displacer per mol of t-butyltoluenes present in said acid phase and substan-



tially simultaneously thereafter with an amount of an inert liquid hydrocarbon sufficient to extract from said acid phase displaced t-butyltoluenes, at a temperature of not more than about +25° C. and time such that substantially no reactions take place, and separating a separate raffinate phase comprising inert hydrocarbon and t-butyltoluenes and recovering from said raffinate phase t-butyltoluenes comprising essentially the meta t-butyltoluene and 1,3,5-di-t-butyltoluene and wherein said displacer is a polyalkylbenzene containing at least 3 alkyl groups that are selected from the class consisting of normal and secondary, which contain not more than 4 carbon atoms.

2,819,324

PRODUCTION OF DI-ALKYLNAPHTHALENES BY DISPROPORTIONATION OF ALKYL-NAPHTHALENES

David A. McCaulay, Chicago, Ill., and Arthur P. Lien, Highland, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application August 3, 1954

Serial No. 447,680

10 Claims. (Cl. 260-671)

1. A process which comprises contacting, under substantially anhydrous conditions, monoethylnaphthalene with liquid HF, in an amount of at least about 3 moles per mole of ethylnaphthalene, and BF_3 , in an amount of at least about 0.3 mole per mole of monoethylnaphthalene, at a temperature between about -20° C. and +25° C. for a time sufficient to effect the formation of diethylnaphthalene and removing HF and BF_3 to recover a reaction product mixture containing diethylnaphthalene.

2,819,325

PRODUCTION OF AROMATIC HYDROCARBONS
William C. Lanning and Alfred Clark, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 25, 1953

Serial No. 357,362

37 Claims. (Cl. 260-673)

1. A process for producing aromatic hydrocarbons which comprises polymerizing an alkyne selected from the group consisting of acetylene and substituted acetylenes wherein a hydrogen atom is replaced by a substituent selected from the group consisting of alkyl, alkenyl, cycloalkyl, aryl, alkaryl and aralkyl radicals,

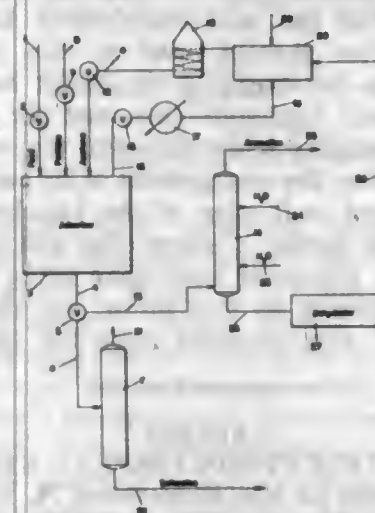
in the presence of a catalyst consisting essentially of chromium oxide on a support comprising at least one member selected from the group consisting of silica, alumina, zirconia, titania and siliceous natural clay under polymerizing conditions wherein the reaction temperature is below about 350° F., said chromium oxide containing hexavalent chromium amounting to at least 0.1 weight percent of the catalyst composite based on the water-soluble chromium present.

2,819,326

AROMATICS SEPARATION PROCESS
Ivor W. Mills, Glenolden, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application November 14, 1955, Serial No. 546,323

14 Claims. (Cl. 260-674)



1. A cyclic process for the separation of aromatic hydrocarbons from saturate hydrocarbons which comprises, during each cycle, passing a feed stock comprising aromatic and saturate hydrocarbons through an adsorber case containing a bed of adsorbent on which feed aromatics are preferentially absorbed until the capacity of the adsorbent for aromatics has been substantially exhausted, separately collecting a stream comprising feed saturates during this portion of the cycle, shutting off flow of feed to the adsorbent and passing thereto a low-boiling, water soluble desorbent which is more strongly adsorbed on the adsorbent than the feed aromatics, said desorbent being heated to a temperature such that it will vaporize substantially completely from the adsorbent at atmospheric pressure, maintaining sufficient pressure in the adsorber case to maintain the desorbent in liquid phase, continuing passage of desorbent through the adsorbent until the feed aromatics have been substantially completely desorbed therefrom while separately collecting a stream comprising feed aromatics and desorbent; then reducing the pressure in the adsorber case to a pressure at which desorbent in the case will substantially completely vaporize; collecting and condensing desorbent vapors, conducting said stream comprising feed aromatics and desorbent to a separation zone and therein contacting it with sufficient water to cause the stream to break into a hydrocarbon phase and an aqueous desorbent phase, separately collecting the hydrocarbon phase and the desorbent phase, dehydrating the desorbent, and recycling it to the process.

2,819,327

PROCESS FOR THE MANUFACTURE OF BUTADIENE

Cyril Romanovsky, Los Angeles, Calif., and Thomas Earl Jordan, Louisville, Ky., assignors to Publicker Industries Inc., Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application June 26, 1953

Serial No. 364,517

18 Claims. (Cl. 260-681)

1. A process for the direct catalytic conversion of ethyl alcohol to butadiene comprising contacting ethyl alcohol at an elevated temperature with a catalyst comprising a major weight percentage of magnesia and silica and a minor weight percentage, sufficient to confer improved catalytic conversion characteristics for catalyzing the direct conversion of ethyl alcohol to butadiene, of a normal metal phosphate material formed under nonacidic conditions composed of phosphate radicals chemically combined with calcium and nickel in the relative proportion of from 7.5 to 9.2 atoms of calcium per atom of nickel and forming butadiene.

2,819,328

PROPYLENE POLYMERIZATION WITH PF_5
Herbert C. Brown, West Lafayette, and Willard S. Higley, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application April 8, 1954

Serial No. 421,950

5 Claims. (Cl. 260-683.15)

1. The process which comprises contacting propylene with a polymerization catalyst consisting essentially of PF_5 in a proportion between about 0.002 and about 0.008 mol per mol of propylene under polymerization conditions and separating polymerization products comprising substantial proportions of tetramers and pentamers of propylene thus produced.

2,819,329

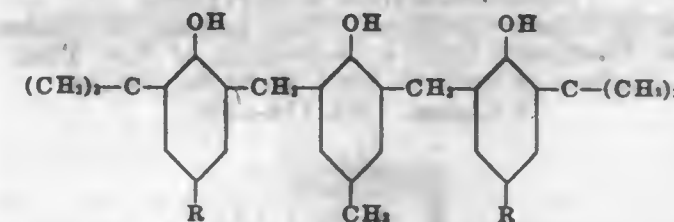
RUBBER COMPOSITION CONTAINING 2,6-BIS(2'-HYDROXY-3'-TERT BUTYL-5'-LOWER ALKYL-BENZYL)-4-METHYL PHENOLS AS STABILIZERS
Frank A. V. Sullivan, Darien, and Arnold R. Davis, Riverside, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 5, 1954

Serial No. 408,580

12 Claims. (Cl. 260-810)

1. In a process for retarding the normal oxidation of a vulcanized natural rubber, the steps which comprise adding to a vulcanizable natural rubber composition a compound represented by the formula:



wherein R is a radical selected from the group consisting of methyl, ethyl and n-propyl, vulcanizing said rubber composition at vulcanizing temperatures and recovering said vulcanized rubber, said antioxidant being present in amounts of from about 0.2 to 3.0 parts per 100 parts of rubber.

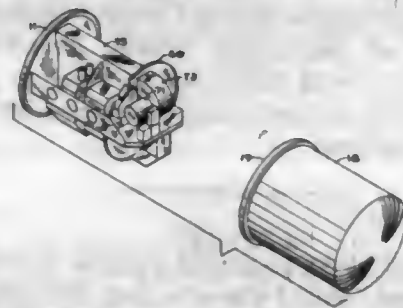
ELECTRICAL

2,819,330

HEAT TRANSFER SYSTEM

John A. White, Yonkers, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application February 17, 1955, Serial No. 488,748
2 Claims. (Cl. 174-16)



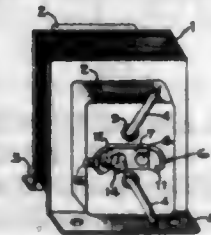
2. A heat transfer system for electronic apparatus comprising, a heat exchanger unit including two sets of ducts positioned in heat exchanging relationship but hermetically isolated from each other, an enclosure member closely surrounding but spaced from said heat exchanger unit providing a fluid passageway between the exterior walls of said heat exchanger unit and the interior walls of said enclosure member, a base plate sealed to one end of said heat exchanger unit and said enclosure member, a blower carried by said base plate and positioned in fluid conducting relationship with the inlet of one of said sets of ducts, the outlet of said one set of ducts being in fluid communication with the fluid passageway between the walls of said heat exchanger unit and said enclosure member, fluid ports in the walls of said enclosure member at the end opposite to said base plate, means for attaching heat emissive electronic apparatus to said enclosure member, said heat exchanger unit, enclosure member, electronic apparatus, base plate and blower being contained within a casing hermetically sealed from the surrounding atmosphere, and inlet and outlet ducts in said casing communicating with the other of said set of ducts.

2,819,331

TRANSFORMER MOUNTING

Elmer H. Bladh, Cincinnati, Ohio, assignor to Nutone, Inc., Cincinnati, Ohio, a corporation of New York

Application April 27, 1953, Serial No. 351,247
4 Claims. (Cl. 174-52)



1. A transformer having a housing providing a facial portion and having electrical input members located on said facial portion in spaced relationship to one another.

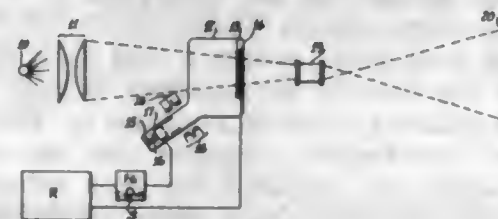
192

other, and means for mounting the said transformer upon an outlet box at a knockout hole thereof, comprising, leg members disposed generally in between the said electrical input means, the said leg members extending angularly from the plane of the said transformer facial portion in generally opposite directions and being dimensioned across their extremities for disposition through the knockout hole of an outlet box so that endwise portions of the legs may project through the hole and reside interiorly of the box while the said transformer facial portion abuts the exterior thereof, one of said leg members providing a clip for engaging the outlet box wall edge delineated by said knockout hole, and the other of the legs having a wedging screw threaded transversely therethrough in position for engagement of its end with a substantially opposed wall edge of the knockout hole, the first of said legs having a sharp edge adapted to indent the edge of the knockout hole upon being wedged into engagement therewith by said screw, and thereby mount the transformer non-rotatively upon the outlet box.

2,819,332

COLOR TELEVISION DISPLAY SYSTEM

Joseph La Via, Ridgewood, N. Y.
Application May 21, 1951, Serial No. 227,466
12 Claims. (Cl. 178-5.4)



1. In an image-forming apparatus, a receiver and a cathode ray image tube having therein a single alkali halide screen, a white light producing phosphor coating supported upon the target side of the screen and a transparent anode surface on the opposite side to which is applied a suitable positive potential whereby electrons in said alkali halide are drawn thereto, and an electron gun to produce a single scanning electron beam; a frequency generator to interrupt the beam in N different constant impingement periodicity cyclic levels, means to scan the beam from point to point elemental areas of said phosphor coating in synchrony with the scanion pattern of a televised scene, and means to modulate each periodicity level of the beam in successive order with a different respective portion of a received tri-chromatic video signal, said scanning causing to produce at each point of impingement modulated light, and to create therein one Nth of N different orders of uniformly spaced electrons, said order of spaced electrons causing one Nth of N different orders of light wave interferences of the light in passing therethrough in accordance with the instantaneous intensity and periodicity of the modulated beam, each different order of light wave interference effecting the spectral range of each of the primary colors

JANUARY 7, 1958

ELECTRICAL

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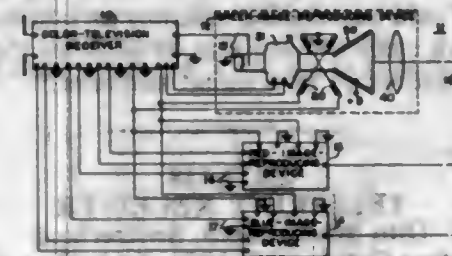
in cyclic successive order to obtain resultant multi-colored variable density elemental areas on corresponding areas of the anode surface, said elemental areas synthesizing a plurality of successive differently colored partial images representative of the hues and brightness of the scanions of said scene.

2,819,333

COLOR-TELEVISION PROJECTION SYSTEM

William F. Bailey, Valley Stream, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois

Application May 24, 1954, Serial No. 431,775
2 Claims. (Cl. 178-5.4)



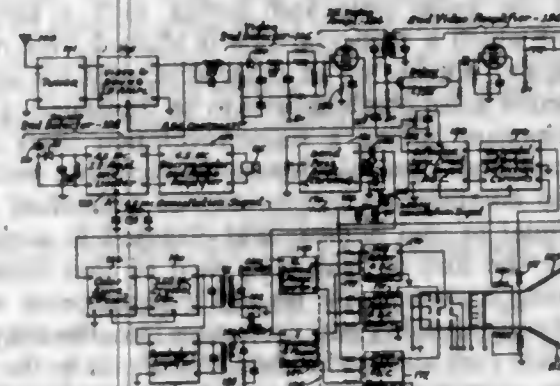
1. A color-television projection system comprising: circuit means for supplying signals representative of predetermined primary images of a composite color image to be reproduced; a display screen; and cathode-ray image-reproducing devices responsive to said signals for projecting images on said display screen in register and each including a ferromagnetic focus-winding housing, an electromagnetic focus winding clamped therein, and resilient means disposed between said winding and said housing for allowing longitudinal thermal expansion of said winding without deformation of said housing by said winding to minimize misregistration of said projected images due to temperature variations of the apparatus.

2,819,334

TELEVISION RECEIVER

William K. Squires, Snyder, N. Y., assignor to Sylvania Electric Products, Inc., a corporation of Massachusetts

Application October 27, 1954, Serial No. 464,991
9 Claims. (Cl. 178-5.4)



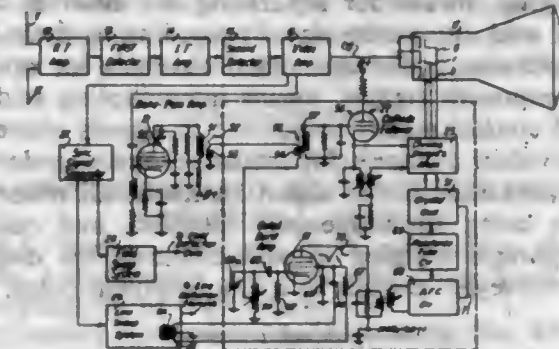
7. In a television receiver, a common video carrier and color subcarrier channel, a luminance video channel connected to said common channel for transmitting therethrough a luminance video signal having a color subcarrier component included therein, a chrominance channel connected to said common channel for selectively transmitting said color subcarrier and modulation components thereof, means for deriving a color subcarrier cancellation signal, and means for coupling said color subcarrier cancellation signal from said last named means into said luminance video channel, in the correct amplitude and phase to remove said color subcarrier component from said luminance video signal without causing substantial phase distortion of the other frequency components of said luminance video signal.

726 O. C.—13

2,819,335

COLOR TELEVISION

Albert W. Massman, Wheaton, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application June 13, 1955, Serial No. 515,068
8 Claims. (Cl. 178-5.4)

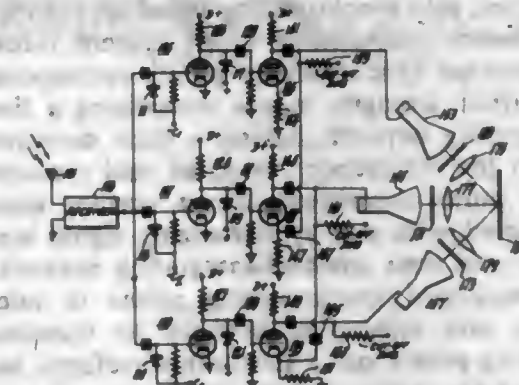


1. In a color television receiver for utilizing a color television signal which includes at least one chroma subcarrier component and which also includes bursts of a reference signal component having a predetermined frequency and phase relation with the subcarrier component, which receiver includes a band-pass circuit for selecting the chroma subcarrier component and the reference signal bursts of a received color television signal, chroma demodulator means, generator means coupled to the demodulator means for supplying at least one demodulating signal thereto, and a gate circuit for supplying the reference bursts to the generator means to synchronize said generator with the received color television signal; the combination of an output transformer included in the band-pass circuit having a secondary winding of relatively low impedance as compared with the impedance of the primary winding thereof, a first input transformer for the chroma demodulator means having a primary winding of relatively low impedance as compared with the impedance of the secondary winding thereof, a second input transformer for the gate circuit having a primary winding of relatively low impedance as compared with the impedance of the secondary winding thereof, means for coupling said primary winding of said second input transformer in series with said primary winding of said first input transformer, and means for coupling said secondary winding of said output transformer to said series-connected primary windings of said input transformers.

2,819,336

COLOR SIGNAL DISPLAY SYSTEM FOR TELERAN OR THE LIKE

Phillip J. Herbst, Moorestown, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 19, 1951, Serial No. 257,114
9 Claims. (Cl. 178-6.8)

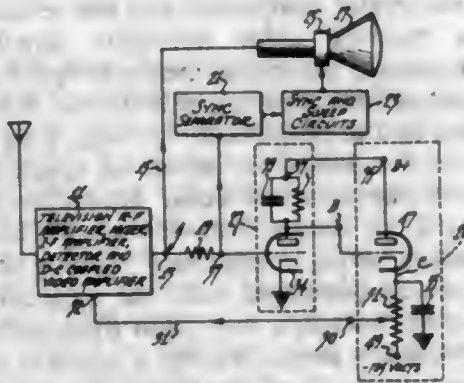


1. A system for generating a plurality of trains of signals at a first location and displaying said signals in different colors at a second location to identify them with respect to their sources of origin comprising; at said first location, a plurality of separate sources of signals, means for amplifying said signals to different respective

amplitude levels determined by said sources of origin, means for combining said differently amplified signal trains into a composite signal having corresponding levels of component signal amplitude, and means for transmitting said composite signal to said second location; at said second location, means for receiving said composite signal, means for separating the different components of said composite signal according to their respective amplitudes, individual signal channels for said separated component signals, means intercoupling said channels and control means responsive to signals conveyed in said individual channels for instantaneously rendering effective only one of said signal channels, all other signal channels being simultaneously disabled, and color display apparatus coupled to said channels for displaying signals conveyed therein in a characteristic color.

2,819,337

AUTOMATIC GAIN CONTROL CIRCUITS
Eugene O. Kelzer, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 14, 1952, Serial No. 293,700
4 Claims. (Cl. 178-7.3)

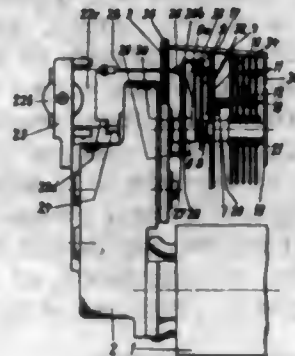


2. In a television signal receiver designated to receive a radio carrier amplitude modulated with a composite television signal having a periodically recurring synchronizing pulse component, the peak excursions of said synchronizing component representing a substantially fixed percentage of carrier modulation, said amplitude modulated carrier being subject to fortuitous interference by noise signals which produce unpredictable undesirable excursions of the received carrier, the combination of: a controllable gain signal amplifier connected to amplify received signals, said signal amplifier having an automatic gain control potential input terminal for controlling the gain of said amplifier in accordance with an automatic gain control potential when applied to said automatic gain control input terminal; means coupled with said amplifier and responsive to amplified television signals for separating said recurrent synchronizing pulse component from the composite television signal modulation of said carrier, said synchronizing signal separating means including means maintaining direct current information in the separated synchronizing pulses corresponding to received carrier strength; means comprising a time constant integrating network having a time constant value larger than the recurrence period of said recurrent synchronizing pulse component; direct current conduction means coupled with said synchronizing signal separating means and said time constant integrating network applying said separated synchronizing pulses in integrating relation to said integrating network to transduce said synchronizing pulses into a sawtooth waveform, said sawtooth waveform being defined by recurrent transitions between waveform portions of more and less steepness, the steeply sloping pulses thereof being defined by the charging of said integrating network by said separated synchronizing pulse component and the less steeply sloping portions thereof being defined by the discharge of said time constant integrating network during periods between

synchronizing pulse components; means including unilateral signal detecting means coupled with said network and responsive only to those peak polarity excursions of said sawtooth defined by specific transitions in time from the less steeply sloping portion to the more steeply sloping portions of the sawtooth waveform to develop a unilateral potential of a value corresponding to the potential value of the detected peak excursions; means including a time constant circuit connected in said signal detecting means for opposing changes in the unilateral potential delivered thereby, said time constant circuit having a time constant value at least equal to said integrating network time constant value; and means coupled with said detecting means and said amplifier automatic gain control input terminal applying said unilateral potential as an automatic gain potential in gain controlling relation to said signal amplifier with such electrical sense as to stabilize the amplitude of signal delivered by said signal amplifier.

2,819,338

TELEPRINT RECEIVER
Otto Moser, Bern, Switzerland
Application October 29, 1953, Serial No. 388,986
Claims priority, application Switzerland November 1, 1952
6 Claims. (Cl. 178-33)

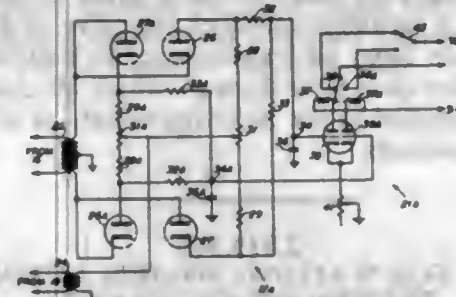


1. Teleprint receiving apparatus for translating multiplex code pulses into discriminating adjustment of print-controlling structure, comprising a pulse-responsive receiving magnet having an armature movable between two positions, a number of mutually adjacent selector structures corresponding to the number of combination elements of the pulse code and having each a group of notches of which a particular one is aligned with respective particular notches of all other structures for each of the respective pulse combinations to be translated, a start-stop mechanism having a single-revolution shaft and a cam on said shaft operable during the receiving period of each pulse combination, a plurality of individual feeler devices equal to said number and disposed in a circular row about the axis of said cam, each of said feeler devices having a stationarily pivoted control lever biased to one of two positions and projecting into the operating range of said cam to be deflected by said cam to the other position in sequential relation to the other control levers, each of said feeler devices having a feeler member pivotally joined with said control lever to move together with said control lever while being angularly displaceable relative thereto, all of said control levers and all of said feeler members being disposed and movable in two respective planes both extending perpendicular to the axis of said shaft mechanism means connecting said feeler member with one of said respective selector structures for placing said one structure into one of two positions depending upon the angular position of said feeler member relative to said control lever, a control member rotatable between two angular positions about the axis of said cam, armature-position responsive transmission means connected with said control member for setting it in accordance with the positions of said armature, said control member having radial arms adjacent to said re-

spective feeler members, each of said arms having two abutments selectively engageable with the adjacent one feeler member depending upon which position is occupied by said control member during the movement of the pertaining one control lever, whereby each of said feeler members is angularly displaced to correspondingly control the position of one of said selector structures in accordance with the armature position obtaining at the time a single pulse-combination element is effective upon said magnet.

2,819,339

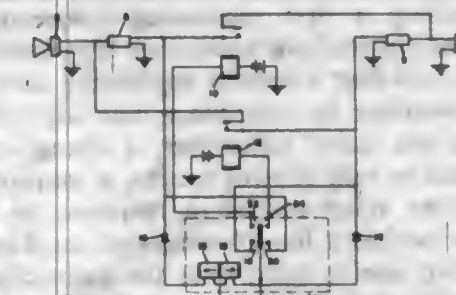
R. F. PHASE SHIFT KEYING SYSTEM FOR TELETYPE COMMUNICATION
William E. Scoville, Albuquerque, N. Mex.
Application January 12, 1956, Serial No. 558,810
3 Claims. (Cl. 178-66)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a keying system for teletypewriter communication, transmitter means generating an R. F. signal denoting mark condition, transmitter phase shifting means for shifting the phase of said signal in accordance with teletypewriter code to denote space condition, receiver signal generating means, phase detection means for producing a voltage variable in amplitude responsive to differences in phase between said transmitter generated signal and said receiver generated signal, said phase detection means comprising rectifying means to convert said R. F. signal to a D.-C. voltage, mixing means for combining said D.-C. voltage with said receiver generated signal to produce a resultant D.-C. voltage output variable in amplitude according to the phase differences between said R. F. signal and said receiver signal, said rectifying means including a second phase detection means connected in push-pull arrangement with said first mentioned phase detection means to produce a second D.-C. output 180° out of phase from said first mentioned output, and second mixing means for combining voltage from said second D.-C. output with said receiver generated signal.

2,819,340

VOICE OPERATED INTERCOMMUNICATION SYSTEM
Stanley S. Brody, Brooklyn, N. Y.
Application November 17, 1953, Serial No. 392,776
10 Claims. (Cl. 179-1)
(Granted under Title 35, U. S. Code (1952), sec. 266)

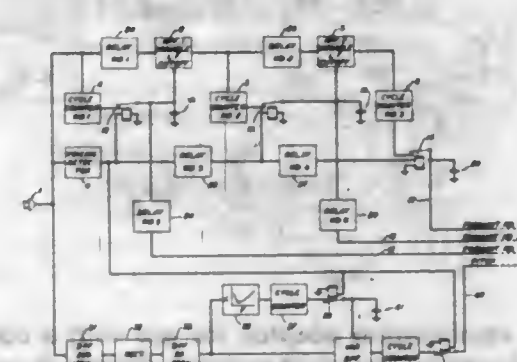


1. A voice operated intercommunication system comprising a plurality of transducers of the transmitting and receiving type, a plurality of amplifiers connected to said transducers, means connected to the output sides of said amplifiers to ground the outputs of all but one of

the amplifiers to prevent signal generation feedback and means to connect the transducers of the grounded amplifiers to the output of the ungrounded amplifier, said grounding means and said transducer-connection means being actuated by the output of the ungrounded amplifier to form a communication circuit comprising the transducer which receives the voice energy, the ungrounded amplifier and the transducers which are connected to the output of the ungrounded amplifier.

2,819,341

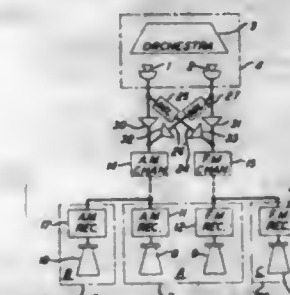
TRANSMISSION AND RECONSTRUCTION OF ARTIFICIAL SPEECH
Harold L. Barney, Madison, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 30, 1954, Serial No. 459,333
13 Claims. (Cl. 179-1)



1. Apparatus for determining at least two formant frequencies of a speech sound which comprises a high-pass filter having input terminals, output terminals and a transmission characteristic which includes an adjustable low-frequency cutoff, means for applying speech currents to said input terminals, means for withdrawing from said output terminals speech currents that are modified by the transmission characteristic of said filter, means coupled to the input terminals of said filter and responsive to the frequency of a predominant component of said applied speech currents for generating a control signal indicative of said frequency, means under control of said control signal for adjusting the low-frequency cutoff of said filter to block transmission of said predominant component through said filter, and means for determining the frequency of a predominant component of said filter-modified output currents.

2,819,342

MONAURAL-BINAURAL TRANSMISSION OF SOUND
Floyd K. Becker, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1954, Serial No. 478,857
7 Claims. (Cl. 179-1)



1. Apparatus for generating and transmitting stereo-signals representative of sounds originating in an extended sound source which comprises a plurality of microphones disposed in spaced relation to each other and to said source in a fashion selectively to receive sound energy from various parts of said source, a like plurality of

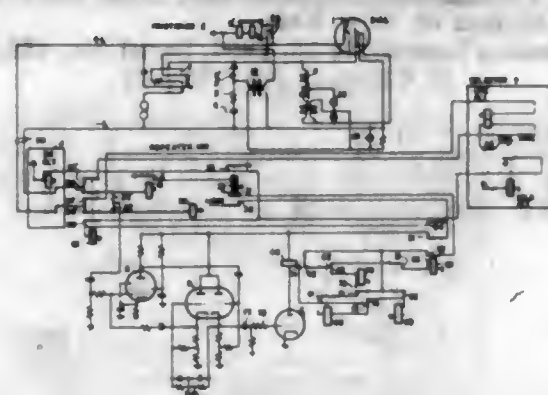
mutually independent transmission channels, a direct path for supplying output energy of each of said microphones to one of said channels, and a cross-coupling path extending from each of said microphones to the channel of each other microphone, said cross-coupling path including means for delaying the transmission of signals there-through.

2,819,343

COIN COUNTER AND DISCRIMINATOR

Alfred H. Faulkner, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application August 6, 1953, Serial No. 372,700
17 Claims. (Cl. 179-6.3)



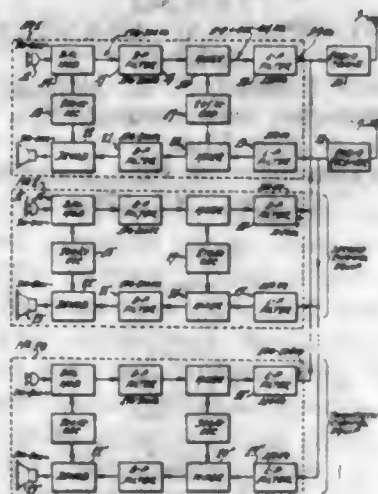
10. A combination adapted for use with a coin receiving mechanism having associated therewith means for producing a number of voltages of a particular frequency the number of which voltages correspond to the value of a coin deposited in said receiving mechanism and other means for producing voltages of many frequencies including said voltages of said particular frequency, comprising means associated with both said means and effective for counting the number of voltages produced by said first means only, and means automatically operated by said counted voltages and in accordance with the number thereof for determining the value of a coin deposited in said receiving mechanism.

2,819,344

FREQUENCY DIVISION MULTIPLEXING

Leland E. Thompson, Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application July 28, 1952, Serial No. 301,182
6 Claims. (Cl. 179-15)



3. In a multiplex system for performing translations between a plurality of message signals in a given frequency range and a composite signal made up of channel signals separated in frequency, a plurality of transmit-receive equipments, one for each channel, each channel equipment comprising: a first oscillator having a frequency higher than the highest channel signal frequency,

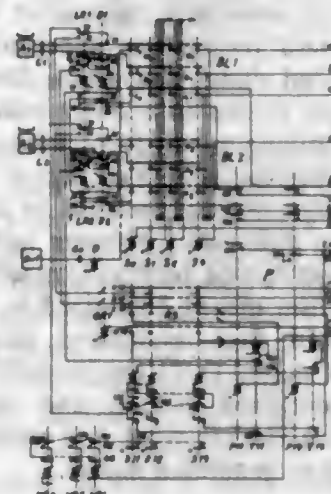
a modulator, and a transmitting band-pass filter all in combination for translating an input message signal to a predetermined band of frequencies common to all equipments, said band-pass filter including first and second filter portions separated by an isolating amplifier; a second oscillator having a frequency individual to the particular channel, and a transmitting mixer in combination therewith for converting said predetermined band of frequencies to a channel output signal having a frequency range assigned to the particular channel; a receiving mixer receptive of output energy from said second oscillator and of all channel input signals of different frequency bands, a receiving band-pass filter like said transmitting band-pass filter operative to pass the difference frequencies from said receiving mixer which are the result of the channel signal having frequencies assigned to the particular channel, and a demodulator receptive of output energy from said first oscillator and of the output of said receiving band-pass filter for generating an output message signal; a common amplifier receptive of the channel output signals from all transmit-receive equipments, and a common low-pass filter through which all channel input signals are applied to the receiving mixers of all transmit-receive equipments.

2,819,345

DEVICE FOR WAITING WITHIN AUTOMATIC TELEPHONE EXCHANGES

Nils Emil Nilsson, Stockholm, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a company of Sweden

Application December 10, 1952, Serial No. 325,073
Claims priority, application Sweden December 17, 1951
3 Claims. (Cl. 179-18)



1. In an automatic telephone system with subscribers' lines, links and selectors connecting said lines and control means for setting said selectors, a waiting device, circuit means for connecting a calling subscriber's line to said waiting device when dialling a certain number, an access switch for connecting the waiting device to said links, means automatically identifying the respective subscriber's line connected to the waiting device, said waiting device comprising a first registering device registering the number of the calling subscriber by means of said identifying means and a second registering device set by the calling subscriber in accordance with the call number of the line of the called subscriber, a change-over relay means included in said control means, a marking circuit, said change-over relay means in response to a call to said called subscriber's line closing said marking circuit, when the called line is busy, over the connection of the called line to the link holding the called line busy, testing means which upon disconnection of the calling subscriber from the waiting device establish a control connection between the waiting device and the called subscriber's line by means of said selectors, the control means and the registration in said second registering device for

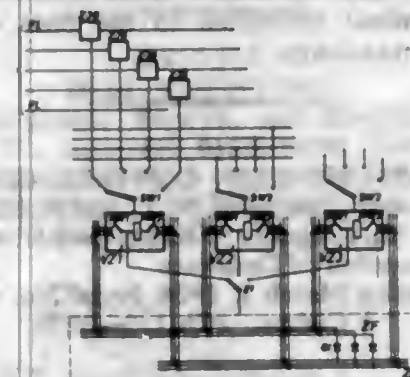
testing the condition of the called line, means connecting said testing means to the respective link through said access switch by means of said marking circuit, and actuating means establishing a connection between the line of the calling subscriber and the line of the called subscriber by means of the respective links, the selectors, the control means and the registrations in said first and said second registering devices in response to said testing means finding the line of the called subscriber in a predetermined condition.

2,819,346

TESTING CIRCUIT ARRANGEMENTS FOR SIGNALING SYSTEMS

Hans Joachim Lurk and Hartmut Skawski, Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a corporation of Germany

Application October 14, 1954, Serial No. 462,333
Claims priority, application Germany October 26, 1953
11 Claims. (Cl. 179-18)



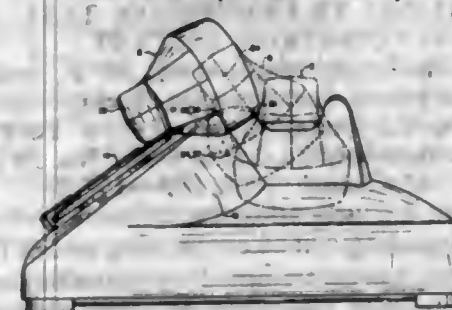
1. In a telephone system, a centrally disposed switching device, a plurality of connecting devices adapted to extend connections over said centrally disposed switching device, a circuit arrangement for controlling the connection of any one of said connecting devices with said switching device, said circuit arrangement comprising a test multiple common to a plurality of said connecting devices, quick-operating testing means including circuit means comprising two parallel test conductors, two resistors connected in series with one of said test conductors forming a voltage divider, one of said resistors being individual to each connecting device and the other resistor being common to said test multiple, and a test relay individual to each connecting device, said test relay being disposed in said second test conductor for testing said test multiple for an idle outlet prior to extending a connection over the corresponding connecting device to said centrally disposed switching device, said test relay operating upon finding an idle tested outlet in said test multiple.

2,819,347

TELEPHONE DESK SET

Oscar W. Henrikson, Chicago, Robert L. Sargisson, Berwyn, and Fredric E. Wood, McHenry, Ill., assignors to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application October 5, 1954, Serial No. 460,474
7 Claims. (Cl. 179-100)



1. A telephone desk set comprising a handset and a casing having a cradle for seating said handset, said

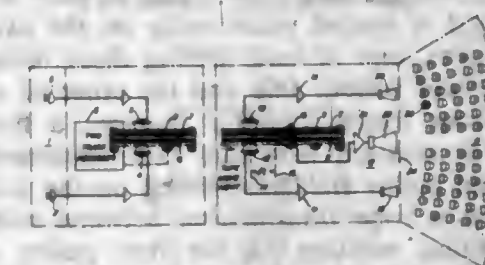
casing having a sloping front surface and side walls, said cradle formed by a pair of lines at the rear and a pair at the front, said front lines each having a ridge along the top which blends into the sloping front surface, said side walls having a sloping side surface which is substantially perpendicular to the front surface and which extends away from said front lines towards the rear, said ridge and said sloping side surfaces cooperating with said handset to restore the handset to the cradle when the handset is placed in front of the apex of said front lines and in engagement with said sloping side surfaces.

2,819,348

STEREOPHONIC REPRODUCTION OF SOUND

Bruce P. Bogert, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application September 7, 1954, Serial No. 454,296
5 Claims. (Cl. 179-100.1)



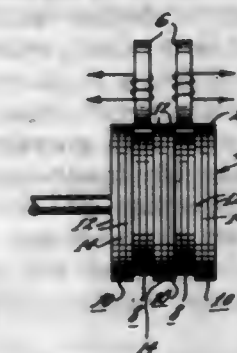
1. A stereophonic system which comprises a plurality of voice current sources spaced apart, a like plurality of sound reproducers, similarly spaced apart, a voice current channel of relatively low capacity supplying each of said reproducers with the signals of one only of said sources, an additional reproducer of relatively high capacity centrally located with respect to said plurality of reproducers, means for supplying said additional reproducer with all the frequency components of the average of the signals of all of said sources, and means for delaying all the frequency components of the sound reproduced by said additional reproducer as compared with the sounds reproduced by said plurality of reproducers by 10-50 milliseconds.

2,819,349

CAPSTAN FOR MAGNETIC RECORDERS

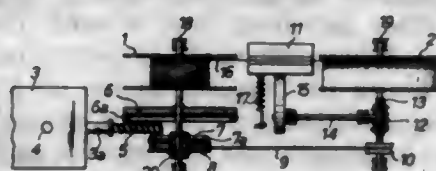
James R. Hall, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application April 29, 1954, Serial No. 426,463
The terminal fifteen years of the term of the patent to be granted has been disclaimed
5 Claims. (Cl. 179-100.2)



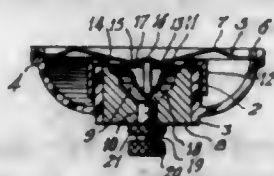
1. A cross-talk reducing capstan for use with magnetic records having a plurality of laterally spaced parallel record tracks of predetermined width, said capstan comprising a drum formed of a plurality of disc laminations, each of said laminations being of a thickness which is small compared to the width of the record tracks, and said laminations being alternately of magnetic and non-magnetic materials.

2,819,350
SOUND RECORDING AND REPRODUCING
DEVICE
 Giovanni Steinegger, Aurigeno, Switzerland
 Application February 27, 1956, Serial No. 568,088
 5 Claims. (Cl. 179-100.2)



1. A sound recording and reproducing device of the wire type, comprising two bobbins mounted to rotate each with an axle and arranged side by side in the same plane, a steel wire adapted to be wound on and off said bobbins, a magnetic head arranged between said bobbins for magnetizing said steel wire, a driving motor tiltable between two end positions for selectively rotating the bobbins in either direction, a pair of driving discs arranged in spaced relationship on the axle of one of said bobbins, one of said driving discs being rigidly mounted on said bobbin axle and the other of said driving discs being freely rotatable thereon, a first pulley connected for rotation with said last-mentioned driving disc, a second pulley rigidly mounted on the axle of the other bobbin, a rope transmission between said pulleys for transmitting rotation of the first pulley with increased speed to the second pulley and thus to the said other bobbin and driving means on the shaft of said motor extending between said pair of driving discs and adapted to contact, according to the tilting of the motor and thus of said driving means either one of the driving discs for selectively imparting rotation thereto.

2,819,351
MICROPHONE
 Isaac Heller, Maplewood, N. J., assignor to Robin Hood Co., Newark, N. J., a corporation of New Jersey
 Application July 21, 1955, Serial No. 523,538
 9 Claims. (Cl. 179-122)

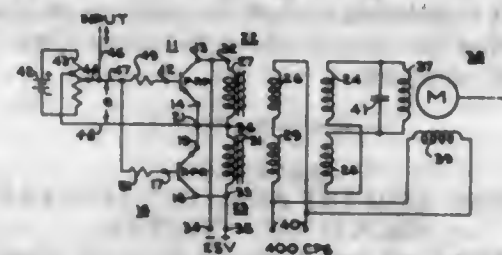


1. A microphone comprising a one piece frame open at its front and rear ends, a diaphragm secured upon the front end of the frame, a combined stationary electrode and container for granulated carbon removably fitted into the rear end of said frame and having a concave inner end portion, a non-conductive flexible auxiliary diaphragm secured on said frame in overlying relation to said concave inner end and providing a chamber, granulated carbon in said chamber, a vibratile electrode disposed in said chamber in contact with said granulated carbon and comprising a hollow generally frusto-conical body having a convex curved end extending into the concave end of said combined stationary electrode and container, and a fastening member passing through and rigidly connecting said vibratile electrode, said auxiliary diaphragm and said diaphragm.

2,819,352
TRANSISTOR MAGNETIC AMPLIFIER CIRCUIT
 Gladden B. Houck, Jr., Port Chester, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
 Application January 29, 1954, Serial No. 407,009
 12 Claims. (Cl. 179-171)

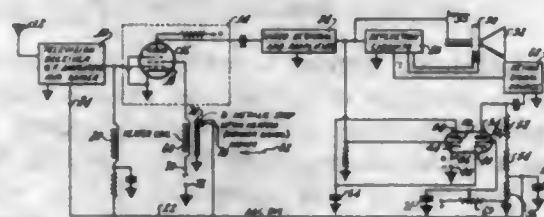
8. A transistor magnetic amplifier comprising, an n-p-n junction transistor, a p-n-p junction transistor, the

emitter electrodes of said transistors being connected together and the collector electrodes thereof directly connected to opposite terminals of a potential source with the collector electrode of the n-p-n junction transistor connected to the positive terminal thereof, a pair of saturable reactor transformers each including a control winding, said control windings being connected in series



with their common junction directly connected to the common emitter terminal of said transistors and their end terminals directly connected to said potential source, and a signal input circuit having one terminal thereof connected to said common emitter terminal and its remaining terminal connected to the base electrodes of each of said transistors.

2,819,353
AUTOMATIC GAIN CONTROL CIRCUIT
 Eugene O. Kelzer, Princeton, N. J., and Marlin G. Kroger, Oak Park, Ill., assignors to Radio Corporation of America, a corporation of Delaware
 Application March 1, 1954, Serial No. 413,206
 3 Claims. (Cl. 179-171)

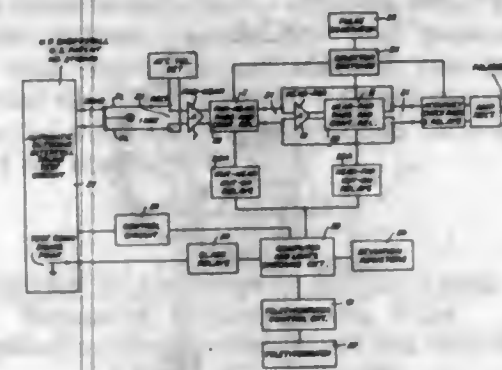


1. In a superheterodyne television system the combination of: an intermediate frequency amplifier; a power supply for said amplifier; an automatic gain control circuit connected with said amplifier such that the gain and power demands of said amplifier vary as a function of the received signal strength, said automatic gain control circuit including means for connecting an electrical circuit parameter, variations in the value of which will cause variations in the response speed of said automatic gain control circuit; a heater element connected between said power supply and said amplifier; temperature resistive electrical parameter means, the electrical value of which is a function of the temperature thereof; means thermally coupling said parameter means with said heater element means; and means electrically coupling said parameter means with said automatic gain control circuit to vary the response speed of said gain control circuit in response to thermal changes in said heater element and hence in response to received signal strength.

2,819,354
SIGNALING TRANSMISSION TEST AND CONTROL CIRCUIT
 Hugh F. Shoffstall, Maplewood, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
 Application July 16, 1956, Serial No. 597,913
 14 Claims. (Cl. 179-175.3)

1. A system for measuring transmission loss on a group of two-way signaling trunks comprising means for specifying and holding a predetermined transmission loss for each of the two opposite directions of signaling transmission on each of said trunks, means for measuring the transmission loss for each of the two opposite directions of signal-

ing transmission on each of said trunks and holding the measurements, and means responsive to the transmission losses held by said specifying and measuring means for



computing the amount and sign of the deviation of the measured loss from the specified predetermined loss for each of the two opposite directions of signaling transmission on each of said trunks.

2,819,355
DIAL MOUNTING
 Robert L. Sargisson, Berwyn, and Fredric E. Wood, McHenry, Ill., assignors to General Telephone Laboratories, Incorporated, a corporation of Delaware
 Application August 10, 1956, Serial No. 603,253
 7 Claims. (Cl. 179-178)

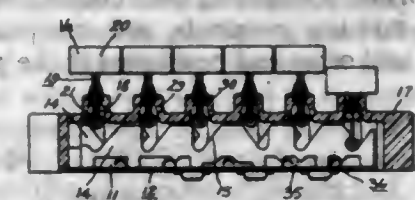


1. A telephone subset comprising a base, a casing secured to said base, a dial mounting bracket secured to said base within said casing, a dial assembly, a circular number plate encircling said dial assembly, a tapered rim on the outer periphery of said number plate, a circular dial opening in said casing encircling said dial assembly, a dial mounting plate secured to said dial assembly, studs fastened to said mounting bracket and bayonet slots in said dial mounting plate for hooking on said studs for movably securing said dial assembly to said mounting bracket, spring means secured to said mounting bracket and adapted to engage said dial mounting plate and to forcibly hold a certain portion of the tapered rim, depending upon dimensional variations in manufacture, in engagement with said casing opening, said tapered portion of said rim self-aligning said dial assembly within said casing opening responsive to the tensioning of said spring means against said dial mounting plate to approximately make the outer surfaces of the number plate and casing flush with each other.

2,819,356
MULTIPLE PUSH-BUTTON SWITCH
 Phillip Hutt, Milford, Conn., assignor to General Electric Company, a corporation of New York
 Application January 31, 1957, Serial No. 637,414
 6 Claims. (Cl. 200-5)

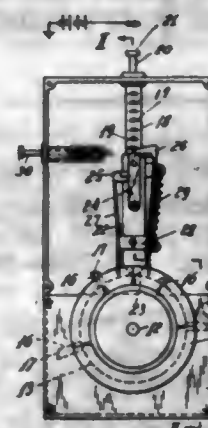
1. An electrical switch comprising an insulating base and a cover plate, the said base having an open face through which a plurality of terminals extend, there being two spaced rows of such terminals, the terminals of one row extending outwardly and away from the open face of the base, the terminals of the other row having shoulder means cooperating with the said cover plate,

and a series of openings in the cover plate for receiving the terminals of the first-mentioned row, while an edge of the cover plate is arranged under the said shoulder



means of the terminals of the other row, so that the cover plate is fastened on the base by deforming the terminals of the first row.

2,819,357
COMBINATION LOCKS
 Arthur R. Pangborn, Pittsburgh, Pa.
 Application July 25, 1956, Serial No. 599,967
 5 Claims. (Cl. 200-45)

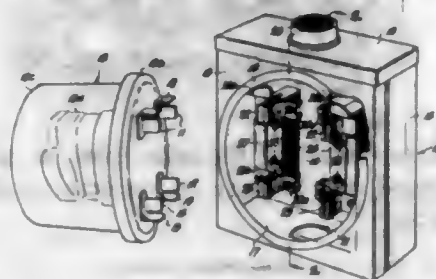


1. A combination lock out switch for electrical circuits comprising a housing having spaced generally parallel walls, cylindrical actuator means intermediate two of said spaced walls and movable therebetween, resilient means urging said actuator means toward one of said spaced walls, spaced radially projecting pins of stepwise varying lengths at random on said actuator means, dial means on the actuator means coded to said pins, first sleeve means on the housing projecting toward the actuator means, plunger means movable in said first sleeve means coaxially thereof, outer sleeve means connected to one end of the plunger means and movable telescopically on said first sleeve contact means on the opposite end of the plunger adapted to close an electrical circuit, detent means on the outer sleeve engageable in stops on the first sleeve, said outer sleeve extending to a point adjacent the actuator means and being contacted by the pins for movement on the first sleeve when the actuator means is forced against the resilient means, cam means adapted to release the detent, plunger means manually operable to move the cam means into contact with the detent whereby to release the outer sleeve means and resilient means acting on said outer sleeve urging said sleeve toward the actuator means.

2,819,358
SOCKET FOR ELECTRIC METERS
 Robert F. Waldrop, Johnson County, Kans., assignor to Milbank Manufacturing Co., Inc., Kokomo, Ind., a corporation of Indiana
 Application March 15, 1956, Serial No. 571,678
 7 Claims. (Cl. 200-51.1)

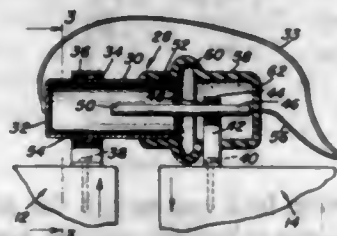
1. In a socket for detachable electric meters of the type having at least two electrically connected blade terminals and provided with at least one rigid guard member located adjacent one of said blade members, a support, at least two spring jaw terminals mounted on said support in position to receive the blade terminals of the meter,

means insulating said jaw terminals from said support, a spring biased conductor fixed at one end to one of said jaws, a contact on the other jaw, the other end of said conductor normally engaging said contact to close a circuit between said jaw terminals, and an extension on said conductor at said other end positioned in the path followed



by said guard member on said meter as said blade terminals are inserted in said jaw terminals, said extension being constructed and arranged to be engaged by said guard to break the engagement between said conductor and said contact when said meter blade terminals are inserted into said jaw terminals.

2,819,359
STRUCTURAL MOVEMENT WARNING DEVICE
John P. Johnson, Vicksburg, Miss.
Application October 24, 1955, Serial No. 542,311
1 Claim. (Cl. 200-52)

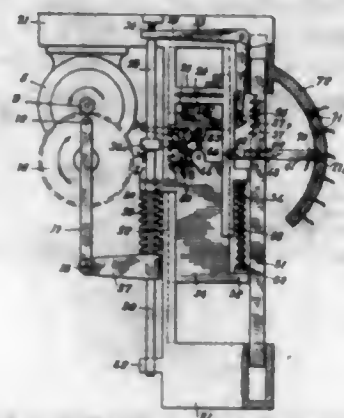


A switch for a signaling circuit to signal movement between two adjacent structural components comprising a first bracket attachable to one of the components and having a circular portion, a tubular electrically conductive contact housing extending through and fixed in said circular portion and having a closed end and an open end, an insulating gasket interposed between said circular portion and said housing, a flexible contractile insulation boot having a closed end and an open end sleeved onto the open end of said housing, a second bracket attachable to the other component and extending into and fixed to said boot to contract the same in response to movement of said components toward each other, a contact rod disposed entirely within said housing and boot and fixed in and insulated from said second bracket for engagement with any part of the interior of said housing upon deformation of said boot to close an electric circuit, and a circuit wire extending through the closed end of said boot and connected to said rod.

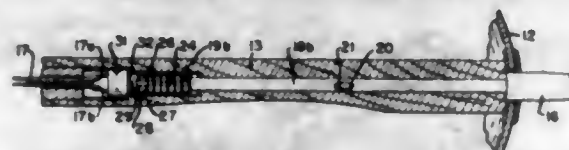
2,819,360
DEVICES FOR CONTROLLING THE POSITION OF A MOVABLE PIECE IN ACCORDANCE WITH THE VALUE OF A GIVEN FACTOR
Alphonse Martin, Saint-Ouen, France
Application July 26, 1954, Serial No. 445,849
Claims priority, application France July 31, 1953
5 Claims. (Cl. 200-56)

5. In a device of the type described, a fixed frame, an element pivotally mounted in said frame about an axis, an index member movable in said frame at least substantially radially with respect to said axis, said member indicating by its position the value of a given factor, and means cooperating with said element and said index member and operated by pivoting movement of said element

for locking said element against rotation with respect to the frame in one direction when said element reaches a position corresponding to the position of said member,

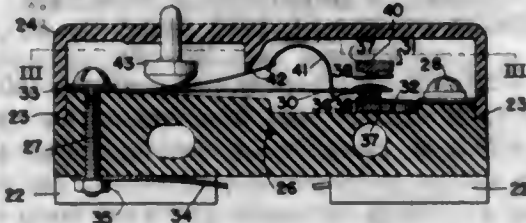


2,819,361
ELECTRICAL SCORING FENCING EQUIPMENT
James R. Grace, Denver, Colo.
Application March 21, 1955, Serial No. 495,583
1 Claim. (Cl. 200-61.42)



Fencing equipment inclusive of electrical scoring apparatus comprising a blade member having an exposed end for contacting an opponent and a tang portion at its opposite end, said tang portion providing an elongated slot opening having its major axis disposed along said tang, a handle grip on the tang portion of said blade, a pin through said handle grip and through the opening in said tang for holding said handle on said tang and for permitting limited reciprocal movement to retracted and extended positions between said blade and tang, a guard member disposed on said blade in position adjacent said tang and adapted to protect and shield the user's hand, electrical contact elements disposed within said handle grip, a spring member disposed between said blade member and handle grip tending to hold said blade and grip in extended position with the spring force exerted being greater than the inertial forces of said blade encountered during use of said fencing equipment, and means for closing the electrical circuit through said contact elements when a resisting force is exerted against the exposed end of said blade member to cause relative movement between said handle grip and blade.

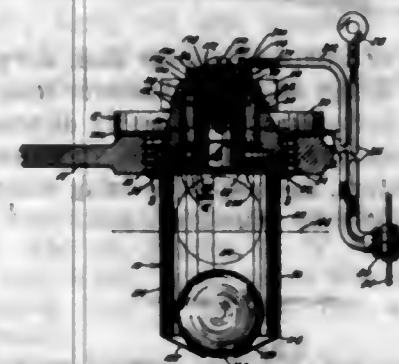
2,819,362
SWITCHES
Theodore Y. Korsgren, Columbus, Ohio, assignor, by mesne assignments, to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application December 9, 1953, Serial No. 397,096
12 Claims. (Cl. 200-67)



8. In a snap switch of the precision type, a contact element supported for movement between "off" and "on"

positions; a second contact element stationarily disposed to mechanically locate said movable contact element in the "on" position; means for establishing an electrical connection between said contact elements before said movable contact element reaches the "on" position determined by said second contact element, said means including a leaf of highly conductive spring material overlapping one of said contact elements and formed to project toward the other.

2,819,363
BRAKE FLUID LEVEL INDICATOR
Samuel M. Narzisi, Omaha, Nebr.
Application May 8, 1953, Serial No. 353,763
1 Claim. (Cl. 200-84)

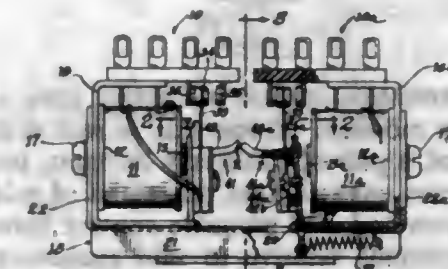


A brake fluid level indicator adapted to fit into the master cylinder of a vehicle hydraulic brake system comprising: a conductive cap member adapted to fit tightly into the cap opening of said master cylinder, said cap member having at least one aperture therethrough for the escape of air and brake fluid and having an opening therethrough at its center, a guide tube formed of electrically insulating material extending downwardly from said cap into said master cylinder substantially beneath the normal position of the surface of the fluid therein, a transverse member of insulating material disposed across the top of said guide tube and secured thereto, said transverse member having at least one aperture cooperative with said cap member aperture for permitting escape of air and brake fluid outwardly through said transverse member and said cap, an upwardly extending member of insulating material attached to said transverse member and extending upwardly into and snugly fitting said opening in said cap, two conductors having central portions imbedded in said guide tube and lower portions protruding inwardly from said guide tube, means electrically connecting the upper end portion of one of said conductors and said conductive cap, the upper portion of the other conductor extending transversely with respect to the center portion thereof and extending inwardly through said transverse member, a terminal member connected to said upper portion of said other conducting member and extending through said upwardly extending member to the upper side of said cap, and a float in said guide tube and having an electrically conductive surface for engaging the lower ends of said conductors.

2,819,364
MUTUALLY LATCHING DUPLEX RELAY
John Henry Jaldinger, Chicago, Ill.
Application February 24, 1956, Serial No. 567,595
1 Claim. (Cl. 200-98)

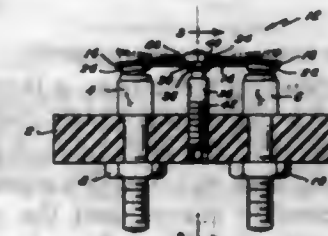
In a latching relay including a pair of selectively energized relays having cooperating latch bars on the armatures thereof for latching the last energized relay in its make position, the improvement comprising, in combination, a rigid downwardly open base channel, a pair of relays each comprising a U-shaped bracket secured to said channel with one leg thereof positioned closely adjacent the upper surface of said channel, a coil secured to

the base of said bracket, an armature pivoted at the free end of said one leg of said bracket and extending generally parallel to the base of said bracket, a coil spring mounting said armature on said bracket and normally biasing the same away from said coil, said spring generally paralleling said one leg of said bracket to the lower side thereof and being disposed within said channel to be protected thereby, contact means carried by said armature adjacent the other leg of said bracket, a terminal board mounted on said other leg of said bracket parallel to said legs, and contact means carried by said terminal board for cooperation with the contact means carried by said armature, said



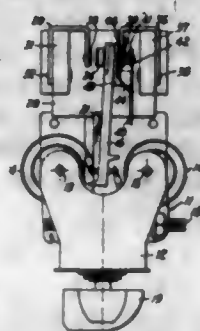
relays being mounted on said channel in opposition to one another, said coils being aligned axially, said armatures and said terminal boards being disposed closely adjacent one another, said terminal boards being coplanar, extending parallel to said base and being upwardly exposed for convenient access, and a latch bar extending at an angle of the order of 45 degrees from the pivotally mounted end of each armature towards the other armature, said bars at their ends cooperating with one another with one bar at its end engaging the side of the bar on the armature of the last energized relay to latch the armature and the armature carried contact means of the last energized relay in their make positions.

2,819,365
SNAP-ACTING THERMOSTAT AND MOUNTING THEREFOR
Henry David Epstein, Boston, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application November 26, 1954, Serial No. 471,459
3 Claims. (Cl. 200-113)



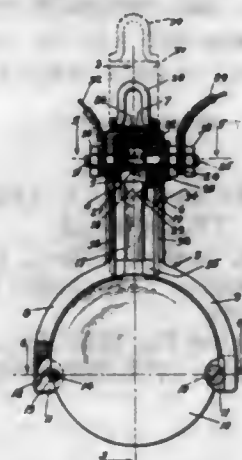
1. A snap-acting thermostat element having an initial creep motion followed by a snap-motion in response to temperature change; said element including a bowed portion and a mounting tongue; said bowed portion being formed of composite, thermally responsive material; a pair of electrical contacts carried by said bowed portion in diametrically opposed relation to each other; said tongue being carried at one end thereof by said bowed portion and extending from said end across and in a direction substantially perpendicular to a line joining said contacts; said direction, from one of the outer edges of said bowed portion, extending toward another outer edge thereof; said tongue being formed of composite, thermally responsive material; and the end of said tongue opposite from said one end being free to move relative to said bowed portion.

2,819,366
THERMOSTATIC SWITCH
 Arthur J. Kercher, Berkeley, Calif., assignor of one-half to William Wesley Hicks, San Francisco, Calif.
 Application May 11, 1956, Serial No. 584,395
 4 Claims. (Cl. 200-138)



4. In a thermostatic switch, a contact arm, a movable contact loosely mounted on one side of said arm adjacent one end thereof, a pair of stationary contacts, temperature responsive means engaging the other end of said arm for moving said arm and said movable contact between open and closed positions relative to said stationary contact, and spring means mounted on the side of said arm opposite said movable contact and serving to continuously urge said arm and movable contact to a closed position, said spring means being mounted in a region generally opposite the movable contact.

2,819,367
FIRE DETECTOR
 Maxime E. Ouellette, North Brewer, Maine
 Application October 29, 1956, Serial No. 619,067
 3 Claims. (Cl. 200-138)

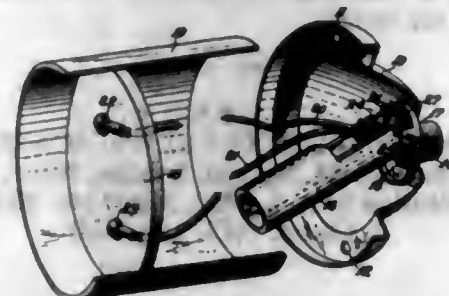


1. A fire detector comprising a supporting frame having two spaced arms extending therefrom, a thermostatic element in the form of a convex-concave disk situated between said arms, means at the ends of said arms for supporting said disk, said disk at normal temperature having one of its faces convexly curved and the opposite face concavely curved and when heated to a predetermined elevated temperature automatically reversing itself, a fixed electrical contact carried by but insulated from the frame said disk having a radially extending arm which constitutes a movable electrical contact and which is spaced from the fixed contact when the thermostatic disk is at normal temperature, but which is moved into engagement with the fixed contact when the thermostatic element is heated to said predetermined elevated temperature.

2,819,368
MOTION RESPONSIVE SWITCH
 Irving A. Trygg, West Orange, N. J.
 Application November 27, 1956, Serial No. 624,674
 6 Claims. (Cl. 200-152)

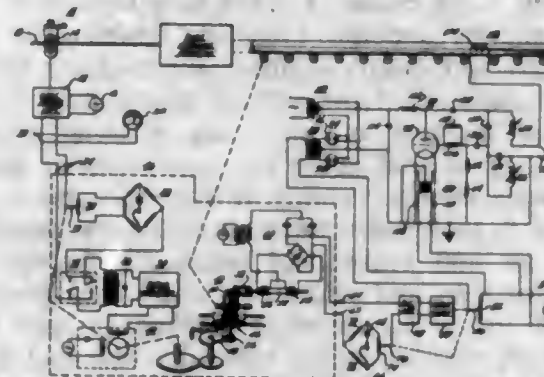
1. A motion responsive switch comprising a plate member adapted to be mounted on a support, said plate hav-

ing an aperture therein, a button slidably disposed in said aperture, a motion responsive switch mounted in an elongated housing, means to pivotally connect the forward end of said switch housing to said plate so that the housing will normally be disposed pendently therefrom, said switch being inoperative when so disposed and becoming operative when moved from that position, said button



having a portion of smaller diameter than the plate aperture and an end flange of larger diameter than the aperture so that the button may be slidably disposed in said aperture, the flange precluding excess movement of the button in the aperture, said switch housing being so pivotally mounted on the plate rearwardly and above the center line of the button.

2,819,369
DIMENSION GAGING SYSTEM
 Albert M. Dexter, Jr., Farmington, Conn., assignor, by mesne assignments, to Pratt & Whitney Company, Incorporated, West Hartford, Conn., a corporation of Delaware
 Application April 18, 1955, Serial No. 502,159
 4 Claims. (Cl. 219-8.5)

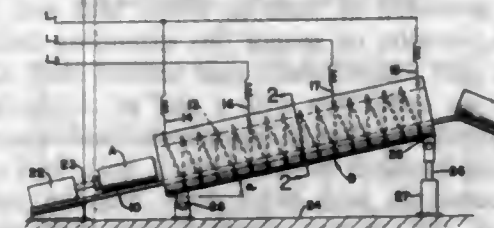


1. A system of the type described for utilization in processing a material in continuous production, comprising in combination, a first station, a second station remote from said first station, the material being processed passing continuously past said stations, the first station continuously gaging a dimensional parameter of the material, the dimensional intelligence being derived as a voltage signal, an electromechanical memory device having an input and an output, said voltage signal being applied to the memory input, electro-thermal transducer means at said second station, said memory device delivering its output as an error signal to said electro-thermal transducer means after a predetermined time delay, whereby the thermal output of the transducer is a function of said dimensional parameter.

2,819,370
POLYPHASE INDUCTION HEATING APPARATUS
 Harry B. Osborn, Jr., Cleveland, Ohio, assignor to The Ohio Crankshaft Company, Cleveland, Ohio, a corporation of Ohio
 Application January 28, 1955, Serial No. 484,665
 1 Claim. (Cl. 219-10.67)

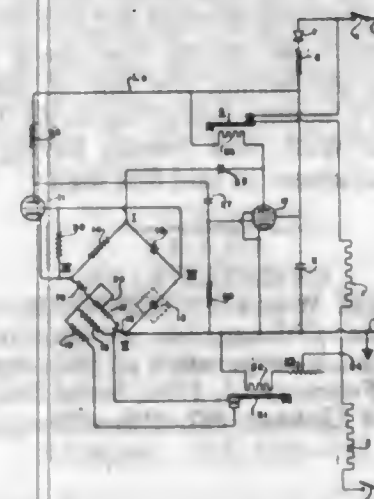
Induction heating apparatus adapted to heat a plurality of metallic work pieces, said apparatus comprising in combination a multiturn electrical winding having a work

piece passage therein, said winding being energized from a multiphase alternating current power source, such that work pieces in the passage will have a magnetic force exerted thereon in one predetermined direction, said work pieces in said passage having a coefficient of friction with supporting surfaces for the work pieces in said passage,



the axis of said passage being inclined upwardly in the direction of said magnetic force by an angle α , such that the magnetic force per unit length of work piece will equal the weight of work piece per unit length of coil times the quantity $(\sin \alpha \pm \text{the coefficient of friction} \times \cos \alpha)$.

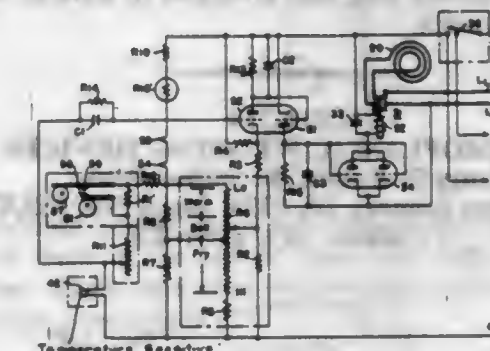
2,819,371
HEATING APPARATUS
 Donald F. Aldrich, Elmira, N. Y., and Lyle H. Wall, Good Land, Kans., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
 Application January 19, 1954, Serial No. 404,923
 15 Claims. (Cl. 219-20)



15. A control for regulating the output of a heater, comprising a temperature-responsive element for sensing the temperature of a load on said heater, means for controlling the energization of said heater, said means being connected to said element and responsive thereto to energize said heater at a first energy level when the temperature of said element is below a predetermined or control temperature and to reduce the heater energization to a second energy level when the temperature of said element exceeds said control temperature, means for cyclically shifting the control temperature alternately to one value for one period of time, and then to a second value for a second period of time, said cycling means being constructed and arranged so as to maintain the control temperature substantially constant throughout each of said periods to provide corresponding periods of energization of said heater at one or the other of said energy levels when the temperature of said element is in a range between said values, the duration of said periods of energization being independent of changes in the temperature of said element within said range and being sufficiently short that the heating of said load is sensibly the same as if said heater had been energized continuously at a constant energy level intermediate said first and second levels, and manually adjustable means for varying the ratio of the period of

time that said control temperature is at said one value to the period of time that the control temperature is at the second value.

2,819,372
RANGE SURFACE UNIT CONTROL
 Clyde A. Booker, Jr., and George W. Nagel, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
 Application January 21, 1953, Serial No. 332,234
 20 Claims. (Cl. 219-20)



1. In a heating device, a heater and control means therefor comprising an electrical circuit element having a control electrode, said element acting to cut off power to said heater when a predetermined potential is applied to its control electrode, a bridge circuit provided with a voltage supply and comprising a first bridge-arm which embodies a first resistor, a second bridge-arm which embodies a thermal resistor positioned to be in thermal contact with a load for said heater, said first and second bridge-arms being joined, and two other arms comprising the respective sections of a potentiometer which are on opposite sides of a contact movable on said potentiometer, a calibrated control-handle moving said contact, a second resistor connecting said contact to the bridge corner which is between said potentiometer and said thermal resistor, connections including the potential difference between said contact and the junction of said first and second bridge arms in the control electrode circuit of said element, means for impressing on an intermediate point on said potentiometer a potential equal to that assumed by said junction when said thermal resistor is at the boiling point of water, a bias voltage also included in said control-electrode circuit, and switching means which varies said bias voltage between a lower and a higher value only when said movable contact is positioned near said intermediate point.

2,819,373
VEHICLE HEATING SYSTEM
 Roy D. Allman, Asheville, N. C.
 Application June 27, 1956, Serial No. 594,229
 4 Claims. (Cl. 219-20)



1. In combination, a vehicle body, a source of electrical energy arranged in said body, a hollow housing supported by said body, a plug positioned in said housing and including a plurality of terminals, a fan motor arranged in said body, a heater element arranged contiguous to said fan motor, a first conductor leading from one of said terminals to said heater element, a second conductor leading from another of said terminals to said heating element, a ground wire leading from one of said terminals to said housing, a third conductor leading from said source of electrical energy to said fan motor and

said third conductor having a first manually operable switch connected thereto, a second manually operable switch connected to said third conductor and arranged in parallel to said first switch, an electromagnetic coil for actuating said second switch, a receptacle having a plurality of sockets for detachably receiving the terminals of said plug, fourth and fifth conductors leading from said sockets; a second electromagnetic coil connected to said fourth conductor, a sixth conductor leading from said second coil and having a push button switch connected in series therewith, and a switch member actuated by said last named coil and arranged in parallel to said push button switch.

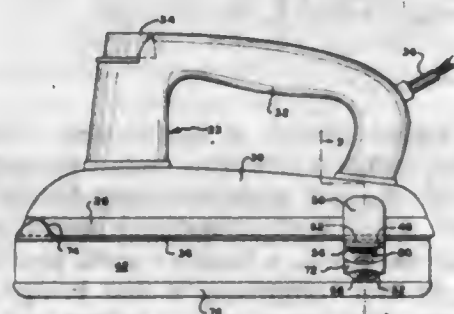
2,819,374

THERMOPLASTIC WELDING DEVICES

Henry D. Swartz, Brookline, Mass.

Application January 18, 1956, Serial No. 559,878

3 Claims. (Cl. 219-25)



1. In combination with a thermostatically controlled hole electric iron having a generally wedge-shaped heat conducting plate presenting a flat lower surface and a heat insulating handle above the plate, an attachment comprising a heat conducting bed presenting a flat upper surface, a removable clamping means securing said attachment to said iron with said lower surface and said upper surface in flush relation, and a heat conducting blade connected to said bed for applying heat and pressure from the lower edge of said blade through a protective stratum to collocated regions of thermoplastic sheeting in order to weld said regions together, said protective stratum adhering to said lower edge of said blade.

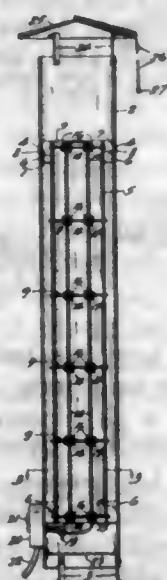
2,819,375

SPACE HEATER

Bert T. Mohn, Eau Claire, Wis., Vincent J. Long, St. Paul, Minn., and Wilfred M. Plante, Eau Claire, Wis.

Application October 27, 1954, Serial No. 465,108

1 Claim. (Cl. 219-34)



A space heater comprising a first open-ended shell, said first shell being provided with a pair of peripherally op-

posed screw holes in its upper end portion a substantial distance downwardly from its top rim and being provided at its bottom rim with legs for supporting said shell in vertical position with its bottom rim spaced upwardly from the surface upon which said legs might rest; a second open-ended shell of lesser length and diameter than said first shell, said second shell being cylindrical and being provided at both its lower end and its upper end with a plurality of spacer fins extending radially outward from said second shell, said second shell also being provided at its upper rim with a pair of circumferentially opposed, apertured flange members, said second shell being mounted within said first shell with said apertured flanges secured to said outer shell through said screw holes therein, the top rim of said second shell lying a substantial distance below the top rim of said first shell, the bottom rim of said second shell lying a substantial distance above the bottom rim of said first shell, said second shell being maintained cylindrical by a plurality of parallel wire struts extending transversely of said second shell, opposed ends of each of said struts piercing opposed walls of said second shell, said struts being spaced apart substantially uniformly from top to bottom of said second shell, each of said struts carrying a pair of insulator elements, each pair of said insulator elements being vertically aligned with other pairs of said elements, each element having a vertical channel through it; a hair-pin shaped heating element extending from the bottom to the top of said second shell through said insulator elements; the free ends of said heating element lying at the bottom end of said second shell, and means associated with the free ends of said heating element for attaching the same to a source of electrical energy, said space heater being provided with a thermostat, the top of said first shell being fitted with a bonnet spaced upwardly from the top rim of said first shell, said bonnet having a diameter greater than the diameter of said first shell.

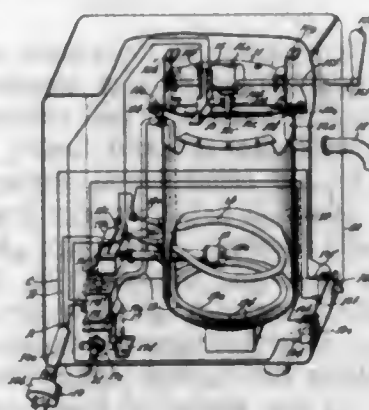
2,819,376

HOT WATER DISPENSER

Harvey R. Karlen, Chicago, Ill., assignor to Cory Corporation, a corporation of Delaware

Application February 14, 1956, Serial No. 565,371

6 Claims. (Cl. 219-38)



3. A hot water dispenser comprising: a tank having a bottom and an upper end; an outlet near said upper end; an inlet tube at said tank bottom having a plurality of inlet orifices, and means for connecting said tube to a cold water supply line; a valve for controlling flow of cold water to said inlet tube; a heating coil adjacent said tube; a thermostat adjacent said heating coil for controlling said heating coil; a displacement element; and manually operable means disposed substantially completely exteriorly of the tank for concurrently inserting said displacement element into the tank below said outlet and actuating said valve to permit flow of cold water into said tank.

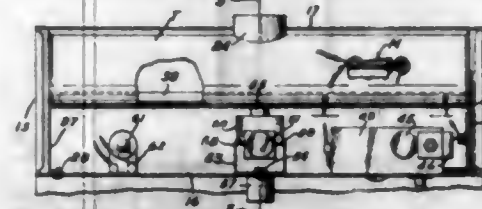
2,819,377

WATER-HEATING APPARATUS FOR USE IN MAKING HOT BEVERAGES

Charles H. Brown, San Diego, Calif., assignor to Morning Coffee, Inc., San Diego, Calif., a corporation of California

Application October 22, 1956, Serial No. 617,535

10 Claims. (Cl. 219-38)



1. A liquid-heating apparatus, including: a tank for liquid having an outlet in its bottom; an electrical liquid-heating element in the tank; a manually closable switch urged to open position; latching means operable to retain said switch in closed position when once moved thereto; electro-responsive means for actuating the latching means to cause opening of said switch; a thermo-responsive switch normally closed and associated with the tank so as to open when the liquid in the tank is heated to a predetermined temperature; a manually operable valve for the outlet; and a circuit so including a source of current, said element, said switches and said electro-responsive means, that when the manually closable switch is closed current will be supplied to said element to heat the liquid in the tank, and upon the liquid becoming heated to a predetermined temperature the thermo-responsive switch will open causing energization of the electro-responsive means and resulting in opening of the manually closable switch against the action of the latching means, thereby discontinuing current supply to said element from said source.

2,819,378

HEAT BLOWERS

Philip E. Nokes, Chester E. Rogers, Jr., and Harry E. Dow, Beverly, Mass., assignors to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey

Application March 26, 1956, Serial No. 573,992

4 Claims. (Cl. 219-39)



1. In a heat blower, in combination, a cylindrical metal casing, two wall members of heat insulating material secured to said casing in spaced relation and defining a chamber therebetween, a plurality of metal tubes of different diameters supported within said chamber in nested relation coaxially thereof, said members and tubes being arranged to establish a train of serially communicating passages, a nozzle connected to the innermost tube, means for supplying air under pressure to the outer portion of the chamber, and an electric resistance heating element of the metallic sheathed conductor type disposed in the space between the innermost tube and the next adjacent tube.

2,819,379

DOUBLE PASS WELDING OF SPIRAL PIPE

Allen Dale Wiley and Forest C. Bowman, Middletown, Ohio, assignors to Armco Steel Corporation, Middletown, Ohio, a corporation of Ohio

Application March 7, 1952, Serial No. 275,294

10 Claims. (Cl. 219-62)

1. The method of making spiral butt-welded pipe from metallic strip, which includes the steps of free-forming

said strip into a helix with an edge of the incoming strip meeting an edge of the first convolution at the top of the formed pipe, forming a first butt-weld of said edges at the top of said pipe slightly beyond a vertical axial



plane through said pipe, and forming a second weld over said first weld at the top of said pipe slightly ahead of the point where said first weld crosses said plane at a succeeding convolution.

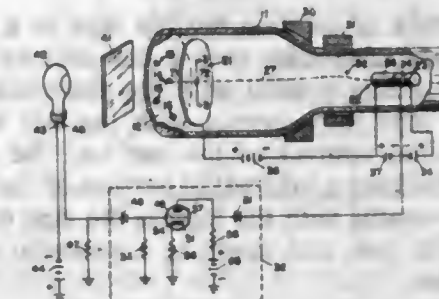
2,819,380

METHOD AND APPARATUS FOR MAKING APERTURED MASKS

Roland D. Eaton, Radburn, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application March 23, 1953, Serial No. 343,990

5 Claims. (Cl. 219-69)



1. Apparatus for forming apertures in a mask plate, comprising a phosphor screen having areas thereon of a phosphor which emits light when impinged upon by an electron beam, a source of an electron beam directed toward said phosphor screen, said mask plate being in the path of said electron beam, means for scanning said electron beam, said beam having sufficient intensity to penetrate said mask plate and impinge upon said phosphor screen, and means to intensify said beam sufficiently to melt a hole through said mask whenever said beam impinges upon one of said areas of phosphor.

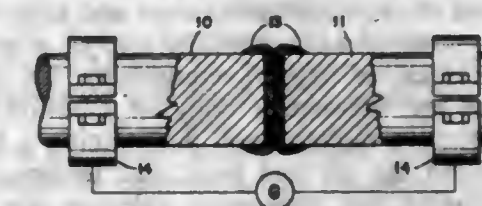
2,819,381

METHOD OF WELDING

Arthur L. Lindow, Northfield, and Ian R. Sutherland, Solon, Ohio, assignors to The Cleveland Pneumatic Tool Company, Cleveland, Ohio, a corporation of Ohio

Application April 14, 1955, Serial No. 501,398

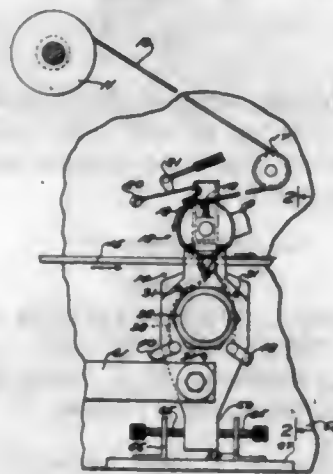
3 Claims. (Cl. 219-104)



1. A method of upset welding two pieces of metal comprising forming complementary surfaces on each of said pieces, plating said surfaces with nickel, pressing said plated surfaces together with a sufficient force to upset the nickel and produce intimate contact over the entire

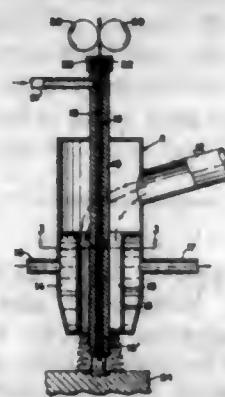
area of engagement therebetween, and thereafter passing an electrical current between said pieces while they are pressed together thereby heating said nickel and the portions of said pieces adjacent thereto until they weld together and the nickel fuses into the pieces.

2,819,382
METHODS OF AND APPARATUS FOR WELDING TAPES TOGETHER TO FORM BI-METALLIC STOCK FOR ELECTRICAL CONTACTS
Charles C. Veale, West Chicago, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application April 5, 1955, Serial No. 499,272
10 Claims. (Cl. 219-117)



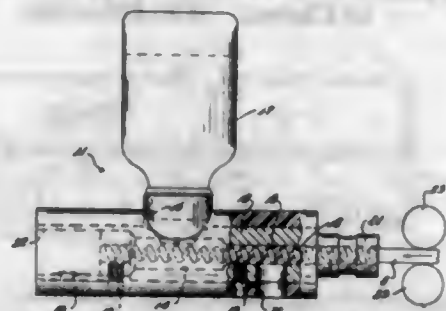
1. The method of welding flexible tape to a rigid bar, which comprises advancing such a bar past an electrode in continuous sliding contact with the electrode, advancing a flexible tape into contact with the bar at a point beyond the initial contact of the bar and the electrode, continuously backing a substantial portion of the tape with an electrode movable with the tape as the tape comes into contact with the bar, and applying a potential difference to the electrodes.

2,819,383
METHOD OF ARC WELDING TITANIUM
James H. Johnston, Cambridge, Mass.
Application September 20, 1952, Serial No. 310,588
4 Claims. (Cl. 219-118)



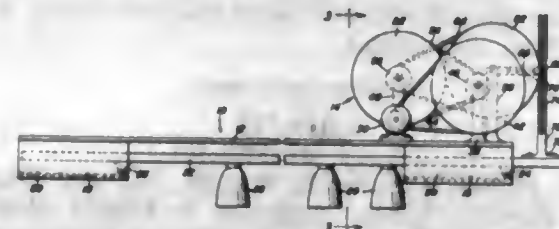
1. A method of arc-welding titanium and alloys thereof to produce a weldment substantially free of atmospheric contaminants such as oxygen, comprising the steps of, generating an arc between a body of titanium and an electrode to form a molten pool, maintaining a shield of inert gas around the arc and pool, and feeding into the arc a consumable rod containing calcium, the rate at which said rod is fed into the arc being such that the amount of calcium vaporized will be at least sufficient to scavenge both the pool of metal and the atmosphere within the shield to remove said contaminants therefrom as compounds of calcium insoluble in molten titanium.

2,819,384
LUBRICANT FEEDER FOR WELDING APPARATUS
Elliott C. Cornell, Jr., Cleveland, Ohio, assignor to The Auto Arc-Weld Manufacturing Co., Cleveland, Ohio, a corporation of Ohio
Application November 25, 1955, Serial No. 549,079
7 Claims. (Cl. 219-130)



1. In combination in a welding machine using an elongate electrode wire, a tubular welding cable through which the electrode wire extends for welding action; and a lubricating member engaging said welding cable at one end thereof, said lubricating member having a lubricating chamber therein through which the electrode wire is adapted to extend, means for automatically supplying a lubricant to said lubricating chamber, and means for removing small particles of material on and protruding from an electrode wire as it is moved through the lubricating member.

2,819,385
ILLUMINATION DEVICE
Melvin B. Smith, Pauls Valley, Okla.
Application January 20, 1955, Serial No. 483,035
5 Claims. (Cl. 240-6)



1. An illuminating device for displays comprising a supporting frame, spaced generally aligned track sections mounted adjacent said frame, a supporting member extending between and supported by said track sections for reciprocation, continuously operating drive means carried by said frame connected to said member for imparting continuous reciprocatory movement thereto, and a plurality of light sources carried by said member and directed away from said member, said member being provided with wheel assemblies adjacent opposite ends thereof, said wheel assemblies being engaged with said track sections, said track sections being provided with cushioned wheel engaging surfaces, whereby reciprocation of said member is substantially noiseless.

2,819,386
LAMP SHADES
Rodney V. Linderth, Westons Mills, N. Y.
Application August 15, 1955, Serial No. 528,350
14 Claims. (Cl. 240-108)

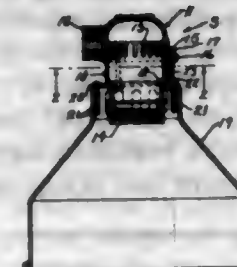
1. A lampshade comprising upper and lower ring members disposed in substantially parallel spaced relation to each other, a body member, said body member comprising a sheet of semi-rigid material, a sheet of flexible material disposed in covering relation to said first mentioned sheet, a plurality of strips of adhesive on said first mentioned sheet adjacent to, and parallel to, respective edges thereof and adhesively attached to edge portions of said sheet of flexible material, each of said ring members being mounted on said body member in juxtaposition to a respective one of said last mentioned

edge portions, and means mounted on said body member and engaged with said ring members on the opposite



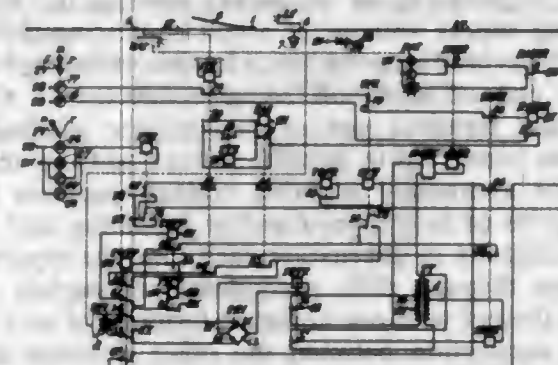
side thereof from said body member for releasably holding said ring members in said juxtaposition to said respective last mentioned edge portions.

2,819,387
ELECTRIC LAMP SOCKET AND REFLECTOR ASSEMBLY
Thaddeus Odwazny, Milwaukee, Wis., assignor to Adjustable Fixture Company, Milwaukee, Wis., a corporation of Wisconsin
Application June 21, 1956, Serial No. 592,825
1 Claim. (Cl. 240-142)



In combination an electric light lamp socket and reflector assembly of the type having a thin metallic shell for threadably receiving a light bulb comprising, a cap fitted on the shell having radially extending internally threaded ears, said shell having an annular shoulder thereon intermediate its ends, a reflector fitted on the shell having its inner periphery provided with a circular flange for snug engagement with the annular shoulder of said shell, and headed screws extending through the flange and into the ears for drawing the reflector and shell toward the cap, said screws extending longitudinally with said shell.

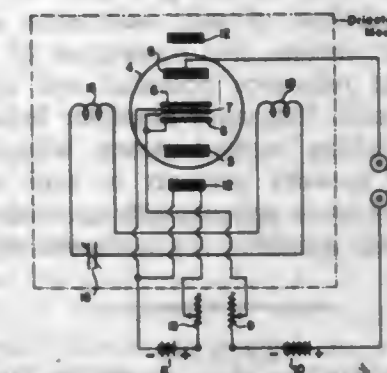
2,819,388
RAILWAY TRAFFIC CONTROLLING APPARATUS
John M. Pelikan, Brooklyn, N. Y., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application October 15, 1952, Serial No. 314,843
14 Claims. (Cl. 246-3)



10. In combination, electrical apparatus, a polar control relay having a polar contact which when the relay becomes deenergized will remain closed in a normal or a reverse position to which it was last operated in response

to energization of the relay by current of normal or reverse polarity respectively, a neutral line relay, a control circuit including said polar control relay and said neutral line relay, control means for effecting energization of said control circuit by current of normal and reverse polarities, a short-circuit branch path connected in shunting relation around the control winding of said polar control relay in said control circuit, said branch path including a contact controlled by said neutral line relay to be closed when said neutral line relay is deenergized, said branch path being effective to prevent the operation of said polar control relay by transient voltages while said control circuit is deenergized, and means controlled by said polar contact in its normal and reverse positions for selectively controlling said electrical apparatus in a first or a second given manner respectively.

2,819,389
HIGH FREQUENCY DETECTOR
Frank J. Kaehni, Cleveland, Ohio, and William Louis Kaehni, deceased, late of Cleveland, Ohio, by Frank J. Kaehni, executor, Cleveland, Ohio
Original application March 30, 1944, Serial No. 528,689, now Patent No. 2,587,481, dated February 26, 1952. Divided and this application July 27, 1951, Serial No. 238,934
4 Claims. (Cl. 250-20)

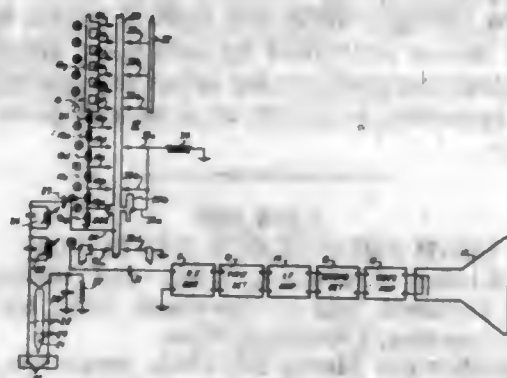


1. A high frequency detector comprising a diode vacuum tube having a central longitudinal axis and electrodes paralleling the axis, means for supplying cathode heating current and anode potential, current responsive means in the anode circuit, means for producing an adjustable unidirectional magnetic field parallel to the axis of the tube, a resonant circuit including an inductance and capacitor, the inductance being so positioned relative to the tube that the magnetic field from the inductance is superimposed upon said unidirectional field, and mounting means for positioning said tube, resonant circuit and unidirectional magnetic field in fixed position relative to each other and for moving them as a unit to orient the inductance of the resonant circuit relative to the magnetic component of a radio frequency wave whereby said component may induce directly a current in the inductance of said resonant circuit and modulate the anode circuit.

2,819,390
TELEVISION RECEIVER ANTENNA COUPLING CIRCUIT
George W. Fyler, Lombard, Ill., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application October 8, 1953, Serial No. 384,830
6 Claims. (Cl. 250-20)

2. In a television receiver which comprises a pair of input terminals adapted to be connected to an antenna having a balanced impedance and which also comprises a radio frequency amplifier having an unbalanced input impedance, an antenna coupling network interposed between the input terminals and the amplifier including in combination, a tuned inductance coil having one end connected to a point of reference potential and having its

other end coupled to the radio frequency amplifier, said inductance coil having a series of taps thereon, a transmission line transformer for converting the balanced impedance of the antenna to an unbalanced impedance, said transmission line having one end coupled to the input terminals, switching contact means coupled to the other end of said transmission line and successively connecting the same to said taps on said tuned inductance coil to adjust the resonant frequency of said inductance coil to

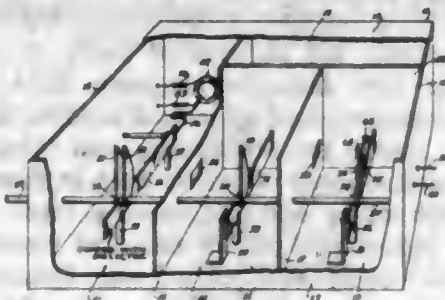


selected signal channels in a predetermined frequency band, and impedance matching means selectively connected across portions of said inductance coil by said switching contact means, said connection of said inductance coil to the reference potential and said coupling thereof to the radio frequency amplifier being independent of said switching contact means, whereby said antenna coupling network presents to said amplifier an unbalanced impedance substantially matching the input impedance of said amplifier for optimum signal-to-noise ratio.

2,819,391

SUPERHETERODYNE TUNER WITH IMAGE FREQUENCY TRAYS WHICH TRACKS WITH LOCAL OSCILLATOR AND ANTENNA RESONATORS

Sol L. Relches, Cleveland, Ohio
Application March 25, 1954, Serial No. 418,507
2 Claims. (Cl. 250-20)



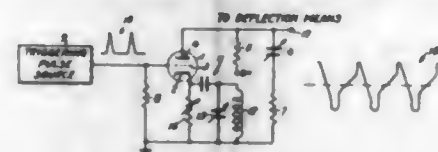
2. In an ultra high frequency tuner, a rectangular housing of conductive material, a first partition of conductive material within said housing and spaced from one side wall thereof to define a signal chamber, a second partition of conductive material spaced from said first partition to define a trap section and spaced from the other side wall of said housing to define an oscillator section, an oscillator coupled to said oscillator chamber, a mixer coupled to said signal chamber, a manually adjustable member, tuning means in each of said chambers mechanically coupled to said member and arranged to maintain the frequency of tuning of said trap section equal to twice the frequency of tuning of said oscillator chamber less the frequency of tuning of said signal chamber over a range of frequencies, said partitions being apertured to provide coupling between said chambers.

2,819,392

SWEEP WAVE GENERATOR

Harry E. Thomas, Montclair, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland

Application November 22, 1952, Serial No. 321,984
9 Claims. (Cl. 250-27)



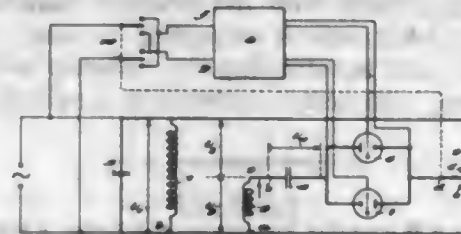
1. A sweep wave generator comprising a vacuum-type electron discharge device having an anode, a cathode, and a control grid, a reference potential, an input circuit coupled between said control grid and said reference potential, means coupling timed trigger pulses to said input circuit to time the conduction of said device, a series resistance-capacitance time constant network coupled between said anode and said reference potential to provide a substantially linear sawtooth wave at said anode, a resonant network responsive to the conduction of said device coupled between said cathode and said reference potential, the conduction of said device ringing said resonant network to produce oscillations therein which are combined with said sawtooth wave at said anode to provide a composite sweep wave having steepened extremities and a linear central portion, an adjustable means included in said resonant network to control the amplitude of the oscillation and thereby the steepness at the extremities of said composite wave, and an output means coupled to said anode across the entire resistance-capacitance time constant network to remove said composite wave.

2,819,393

MAGNETIC INDUCTION TYPE ELECTRON ACCELERATOR

Rolf Wideröe, Ennetbaden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint stock company

Application April 1, 1953, Serial No. 346,123
Claims priority, application Switzerland April 3, 1952
5 Claims. (Cl. 250-27)



1. The combination in a device for the selective generation of expansion or contraction impulses to effect expansion or contraction of the electron orbit in a magnetic induction type electron accelerator whose acceleration flux is produced by an exciter winding fed from an alternating supply voltage, of a coil embracing the acceleration flux produced by said exciter winding, a first terminal end of said coil being connected to the co-phased first terminal end of said exciter winding, two thyratrons connected in parallel in back-to-front relation, means for alternately applying voltage impulses to the control grids of said thyratrons for rendering said thyratrons conductive in alternation each time the supply voltage passes through zero, a condenser connected at one terminal thereof with one common terminal of said thyratrons, a connection between the other terminal of said condenser and the opposite terminal end of said coil, and circuit means including switching means movable to alternative positions for selectively connecting said thyratrons and condenser to said exciter winding and coil, said switching means in one position thereof connecting the

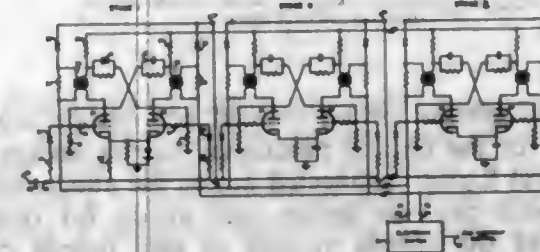
other common terminal of said thyratrons to said first terminal end of said coil thereby to connect said thyratrons and condenser only to said coil, and said switching means in the other position thereof connecting the other common terminal of said thyratrons to the other terminal end of said exciter winding thereby connecting said exciter winding and coil in series and wherein the respective voltages on said exciter winding and coil are opposed.

2,819,394

HIGH SPEED REVERSIBLE COUNTER

Bernard M. Gordon, Concord, and Marshall M. Kincaid, Everett, Mass., assignors to Laboratory For Electronics, Inc., Boston, Mass., a corporation of Delaware

Application November 10, 1953, Serial No. 391,285
6 Claims. (Cl. 250-27)



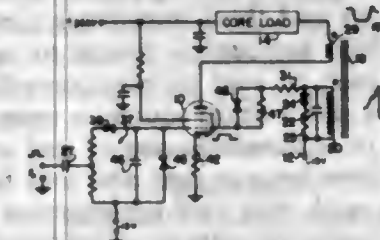
1. A reversible electronic counter comprising, a plurality of cascaded counter stages each formed of first and second electron tube triodes each having cathode, grid and plate electrodes, means for establishing a common potential level for the cathodes of said first and second electron tubes, first and second pulse transformers each having primary and secondary windings, first, second and third potential sources, means coupling said plates of said first and second electron tubes to said first potential source through said primary windings of said first and second pulse transformers respectively, means for effectively coupling the plate of said first triode to the grid of said second triode and the plate of said second triode to the grid of said first triode, means for reversibly connecting an end of each of said first and second pulse transformer secondary windings to said second and third potential sources respectively, first and second rectifiers respectively connecting the opposite ends of said first and second secondary windings to a common point and poled for passing signals of like polarity thereto, an input circuit for each of said triode grids comprising a rectifier and impedance in series, means for connecting said common point to the input circuits of the first and second grids in the next consecutive counter stage, and means for applying signals to be counted to the input circuits of the grids in the first of said cascaded counter stages.

2,819,395

DRIVING CIRCUITS FOR STATIC MAGNETIC ELEMENTS

John Paul Jones, Jr., Pottstown, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application May 24, 1954, Serial No. 431,678
5 Claims. (Cl. 250-27)



1. A pulse distribution generator for supplying a series of successive current pulses; comprising in combination; a plurality of separate normally cut-off amplifiers each for producing one of said successive current pulses in the

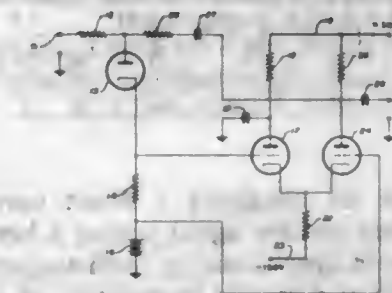
series; a coupling circuit between successive amplifiers including a transformer having two windings, means tuning a first winding to a predetermined frequency, means critically damping the tuned circuit for sustaining a single cycle of oscillation, an output circuit including the second winding for a first of the successive amplifiers associated with any coupling circuit, an input circuit coupled to said first amplifier from the tuned circuit completing a one-shot oscillator circuit responsive to input triggering potentials to that amplifier, means coupling the tuned circuit to the second amplifier associated with any coupling circuit to receive therefrom input signals in phase opposition to those received by the first amplifier, and means triggering the first amplifier in the succession into conduction.

2,819,396

ELECTRONIC TRIGGER CIRCUIT

Jerome A. G. Russell, El Cerrito, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application December 7, 1954, Serial No. 473,764
8 Claims. (Cl. 250-27)



1. In a circuit of the character described, the combination comprising a reference voltage source, a unidirectional circuit element connected to an input, an impedance connected between said reference voltage source and said unidirectional circuit element, an amplifier coupled to said impedance and responsive to conduction therethrough, and positive feedback from the output side of said amplifier through said unidirectional circuit element to the input of said amplifier.

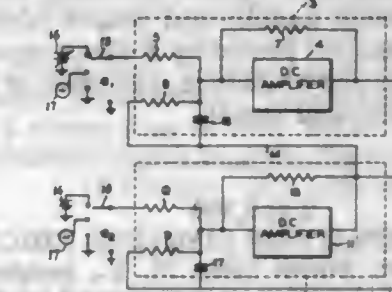
2,819,397

VOLTAGE COMPARATOR

Henry B. O. Davis, Kensington, Md.

Application June 17, 1955, Serial No. 516,341
12 Claims. (Cl. 250-27)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A device for generating a step function adapted for triggering a high speed electronic switch when two voltages, at least one of which is variable, pass through equality comprising a pair of summing operational amplifiers each having an input circuit to which said voltages are respectively applied simultaneously, a regenerative circuit connecting said amplifiers together whereby each sums the voltage applied thereto with the sum of its own output and the voltage applied to the other amplifier, said regenerative circuit causing said summation to occur whereby instantaneous saturation of the amplifiers is effected in a sense determined by which of said voltages is greater and for as long as one of said voltages exceeds

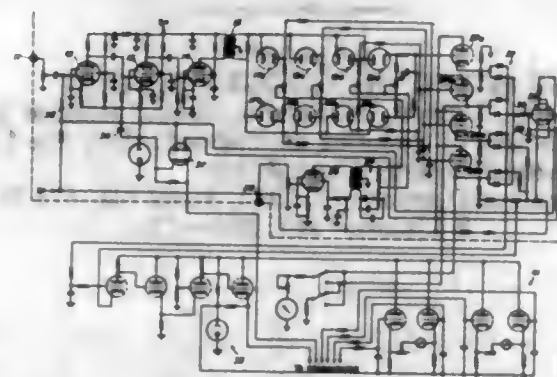
the other, said regenerative circuit causing said saturation of the amplifiers to instantaneously reverse when said other voltage passes through equality and exceeds said one voltage by a finite amount to thereby produce a step function of constant amplitude, and means for connecting the output of one of said amplifiers to a utilization circuit.

2,819,398

COMMUTATOR SYNCHRONIZER

William E. Scoville, Albuquerque, N. Mex.
Application August 3, 1955, Serial No. 526,337
8 Claims. (Cl. 250-27)

(Granted under Title 35, U. S. Code (1952), sec. 266)



8. In apparatus for obtaining a direct current pulse from an intermittent remote signal having a low signal to noise ratio for use in synchronizing local transmitter keying with the keying of a master transmitter on a common frequency, an amplifier for remote signals, radio frequency phase detector means connected across the output of the amplifier means, said detector means comprising four detectors, each detector comprising a pair of diodes connected in back to back relation across the output of said amplifier means, balanced output means across each of said detectors whereby the output is zero for the remote signal, thereby to cancel noise incident to the remote signal, two of said detectors being 180° out of phase with respect to the other two, amplifier means for reference signals of the same frequency as said remote signals, means shifting the phase of the resulting amplified reference signals by 90°, circuit means for injecting said reference signals with zero phase shift into the outputs of said two of said detectors and for injecting the reference signal of 90° phase shift into the other two of said detectors, whereby said detectors each yield direct current output signals regardless of the phase difference between the remote and reference signals, and means responsive to said detector outputs for providing a direct current signal of constant polarity and amplitude regardless of the phase relationship between said signals.

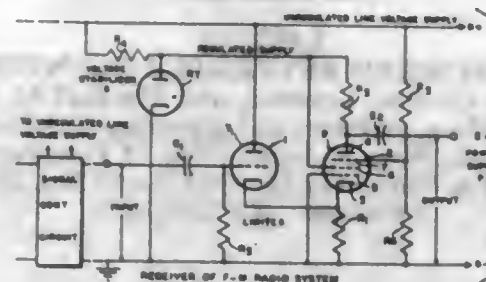
2,819,399

SIGNAL AMPLITUDE LIMITING CIRCUIT

Erwin S. Teltscher, Forest Hills, N. Y., assignor to the United States of America as represented by the Secretary of the Army
Application February 21, 1957, Serial No. 641,771
5 Claims. (Cl. 250-27)

1. In a signal transmission system including a source of signal-modulated carrier energy: at least one signal control circuit employing electron discharge devices, including a signal amplitude limiter, said limiter comprising a first electron discharge device having electrodes including a cathode, an anode and a control grid, and circuits interconnecting these electrodes; a pentode electron discharge device having a cathode, an anode, a control grid, a screen grid and a suppressor grid, and circuits interconnecting these electrodes; a common cathode resistor for said first device and said pentode, providing

coupling therebetween; a line voltage power supply for the electron discharge devices in the signal control circuits, including an unstabilized direct current voltage source for energizing the anode of said first device in said limiter and a stabilized direct current voltage source for energizing the anode and screen grid of said pentode device; an input circuit for impressing single-modulated carrier energy from the first mentioned source on the



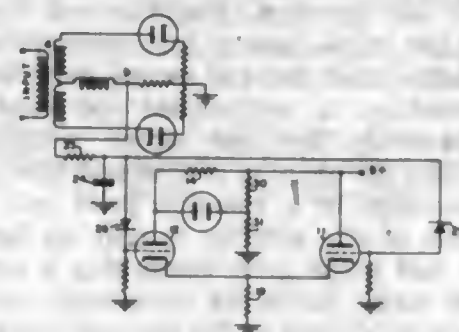
control grid-cathode circuit of said first device; an output circuit for the limited modulated carrier energy produced by said limiter, connected across the anode-cathode circuit of said pentode device; and means for reducing variations of the output voltage in said output circuit due to transient variations in the voltage of said line voltage power supply comprising means for energizing the suppressor grid of said pentode device from said unstabilized voltage source.

2,819,400

F. M. TUNING INDICATOR

Emerick Toth, Takoma Park, Md.
Application October 28, 1955, Serial No. 543,633
7 Claims. (Cl. 250-40)

(Granted under Title 35, U. S. Code (1952), sec. 266)

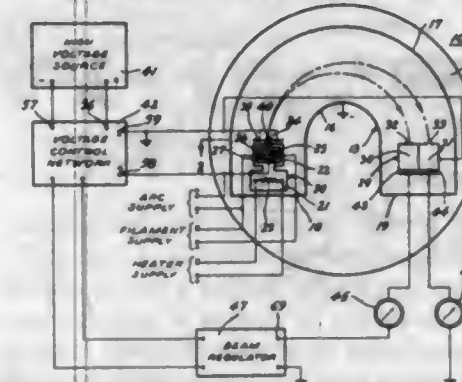


1. An on-off frequency indicating means for FM receivers having a discriminator whose output voltage is variant about a point of zero potential in accordance with the frequency deviation from a desired carrier frequency comprising: a voltage source, first current controlling means, first impedance means connected to said voltage source and in series with said first current controlling means, second current controlling means, means connecting said second current controlling means to said voltage source, a third impedance means, means commonly connecting said first and second current controlling means in series with said third impedance means, means connecting said third impedance means to said voltage source such that each of said current controlling means is connected across said voltage source, a neon lamp type means connected to said voltage source and to the junction of said first impedance means and said first current controlling means such that said lamp means is visually responsive to a change in voltage at said junction, first and second oppositely polarized unidirectional elements connecting the output of said discriminator to said first and second current controlling means, respectively, to control the current in said current controlling means in accordance with the polarity of said discriminator output.

2,819,401

APPARATUS FOR CONTROLLING THE POSITION OF AN ION BEAM IN A CALUTRON

Ernest O. Lawrence, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application September 25, 1944, Serial No. 555,613
21 Claims. (Cl. 250-41.9)

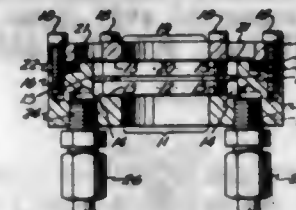


1. Apparatus for isotopically enriching an element having at least one isotope occurring in relatively small quantity with respect to the remainder of said element comprising a substantially fluid-tight tank, means for establishing a magnetic field along a given axis through said tank, means for projecting a beam of ions of said element along a variable path through said tank substantially transversely of said given axis, the cross section of said beam taken substantially 180 degrees from said projecting means having a region of irregularity in the ion density distribution therein caused by concentration of ions of said isotope, an electrode arranged in said tank in intercepting relation with respect to ions of said isotope substantially 180 degrees from said projecting means, and automatic means responsive to the current to said electrode for regulating the trajectory of said ion beam in order to maintain said intercepting relationship.

2,819,402

RADIATION SAMPLE CELL

Emmett S. Watson, Ridgefield, Donald R. Bresky, Bridgeport, and Abraham Savitzky, Norwalk, Conn., assignors to The Perkin-Elmer Corporation, Norwalk, Conn., a corporation of New York
Application November 28, 1955, Serial No. 549,242
11 Claims. (Cl. 250-43.5)



1. An absorption cell assembly comprising a main body member and a matching cover plate, each having a radiation-transparent window aligned with an aperture therein, said cover plate including a flexible annular portion, a spacer positioned between said windows, resilient sealing means positioned between said body member and cover plate outside its flexible portion, and means for drawing the periphery of said assembly into contact under uniform pressure, whereby the flexible portion of said cover plate is elastically deformed to preserve the space between said windows in accordance with the thickness of said spacer.

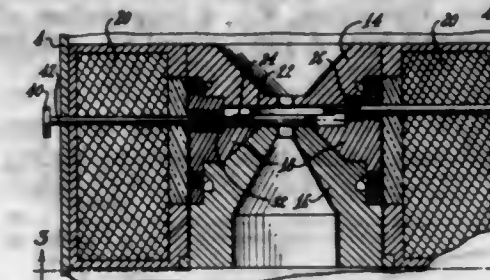
2,819,403

ELECTRON MICROSCOPY

John H. Reisman, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application July 1, 1954, Serial No. 440,677
6 Claims. (Cl. 250-49.5)

1. Electron optical apparatus having means for defining a magnetic lens field for affecting an electron beam

passing therethrough comprising at least two annuli of magnetizable material, said annuli being disposed in said lens field and aligned for the successive passage of said

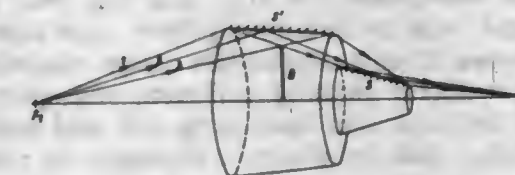


beam therethrough, and said annuli being laterally displaceable with respect to each other to compensate for asymmetries of said lens field.

2,819,404

OPTICAL IMAGE-FORMING MIRROR SYSTEMS HAVING ASPHERICAL REFLECTING SURFACES

Günther Herrning and Walter Weidner,
Hamburg, Germany
Application May 20, 1952, Serial No. 288,910
Claims priority, application Germany May 25, 1951
12 Claims. (Cl. 250-53)



1. A reflecting mirror system for producing by means of X-rays strictly aplanatic achromatic images comprising bodies arranged to form about a common axis extending between two focal points closed exclusively aspherical reflecting mirror surfaces, and a ray-blocking element for intercepting rays projected between said focal points axially centrally of the system, whereby the image of an object disposed at one focal point is formed at the other focal point by extra-axial rays impinging upon said surfaces at small angles of incidence and being substantially totally reflected thereby.

2,819,405

AUTOMATIC RECORDING DIFFRACTOMETER AND PLOTTER

Walter L. Bond, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 26, 1954, Serial No. 418,926
18 Claims. (Cl. 250-53)

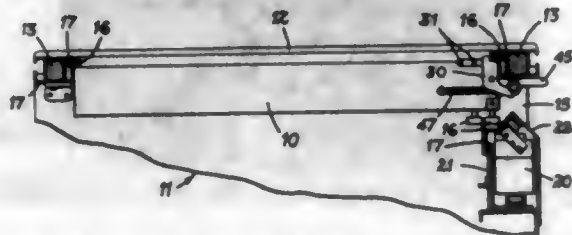


1. A diffractometer including means for continuously rotating a specimen about a predetermined axis, means for rotating a reflection detector about the said axis at a small fraction of the rotational rate of said specimen, means for initially aligning said specimen and said detector at a common "zero" angle position and means for recording the total angular rotation of said specimen and each reflection detected by said detector along a common time scale whereby the exact angular positions of the specimen and the detector for each reflection recorded can be accurately determined.

2,819,406

X-RAY APPARATUS

George F. Freckling, Jr., Park Hills, and Walter H. Haupt, Kenton Hills, Ky., assignors to The Keleket X-Ray Corporation, Covington, Ky., a corporation of Ohio
Application June 2, 1953, Serial No. 358,996
6 Claims. (Cl. 250-57)



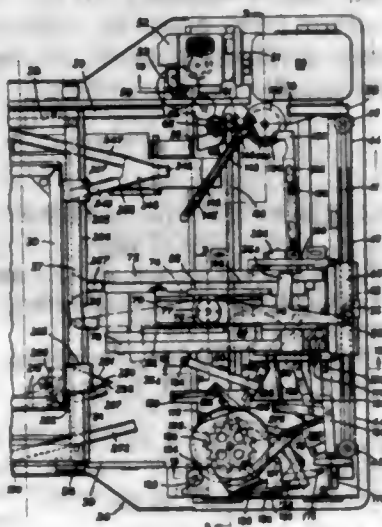
1. A lock adapted to control the movement of a carriage with respect to an X-ray table having means supporting said carriage for such movement comprising a lock body having a slot therethrough, means for mounting said lock body on said carriage with said slot open longitudinally of said table, a substantially non-stretchable tape freely receivable in said slot separate from said supporting means for said carriage, means for anchoring the opposite ends of said tape to said table, a pin in said lock body movable into one side and transverse of said slot, an eccentric cam rotatably carried by said lock body in engagement with one end of said pin and operative upon rotation thereof to urge said pin into said slot against said tape to frictionally lock said tape against the other side of said slot, handle means extending from said lock body for rotating said cam, and spring means connected between said lock body and said handle normally biasing said handle in a direction to rotate said cam to the locking position of said pin.

2,819,407

X-RAY APPARATUS

Walter H. Haupt, Kenton Hills, Ky., assignor to The Keleket X-Ray Corporation, Covington, Ky., a corporation of Ohio

Application July 9, 1954, Serial No. 442,338
16 Claims. (Cl. 250-66)

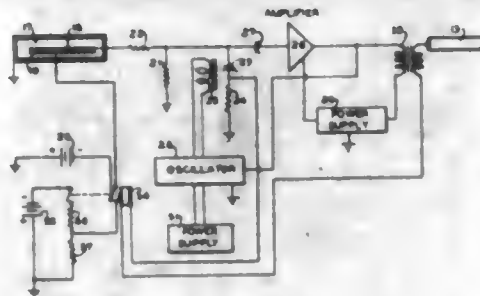


1. In an X-ray spot film tunnel of the character described, the combination of a tunnel base, a track extended longitudinally of said base, a carriage movable along said track between a retracted position and a plurality of advanced positions, means including a delivery arm for effecting said movement of said carriage, means forming a pivotal mounting on said base for one end of said arm, means connecting the other end of said arm with said carriage, drive means for pivoting said arm on said mounting to advance and retract said carriage, and means for selectively shifting said mounting longitudinally of said base to vary the extent of advancing movement of said carriage.

2,819,408

INSTRUMENT ZEROING FOR RADIOACTIVITY WELL LOGGING

Gilbert Swift, Tulsa, Okla., assignor to Well Surveys, Incorporated, Tulsa, Okla., a corporation of Delaware
Application December 4, 1952, Serial No. 324,106
10 Claims. (Cl. 250-83.6)

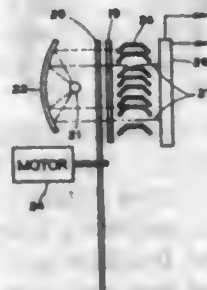


7. In a radioactivity well logging system comprising a subsurface instrument housing, a continuous current radiation detector having an output resistor disposed within said instrument, means for causing said detector to traverse the formations surrounding a borehole whereby radiations from said formations are detected by said detector, means for measuring the current in said output resistor as an indication of the radiation from said formations, means for transmitting said measurements to the surface of the earth, and means on the surface for indicating said measurements in correlation with the depth in the borehole at which detection occurred, the improvement which permits indication of absolute values of radiation, said improvement comprising signalling means at the surface of the earth, means for transmitting signals from said signalling means to the subsurface instrument, switching means in said subsurface instrument responsive to said signals, means responsive to said switching means for reducing the detector current in said output resistor to zero, and means responsive to said switching means for putting said detector in logging condition.

2,819,409

PHOTO-ELECTRIC TONE GENERATOR

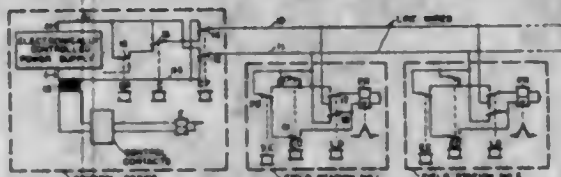
Richard E. Williams, Manchester, N. H., assignor to Wilbespan Research Labs, Inc., Arlington, Va.
Application January 23, 1951, Serial No. 207,286
8 Claims. (Cl. 250-233)



1. A photo-electric tone generator having a light source, a light-sensitive cell, and a pitch screen having an endless series of transparent slits having a start-end region and a corresponding tone screen having an optical waveform for being scanned by said slits, means mounting said pitch screen and said tone screen with said series of slits and said soundtrack in a scanning beam path in optical alignment between said source and said cell, drive means connected to said pitch screen and adapted to cycle said series of slits past said beam path at a natural vibrato rate in a waveform scanning direction, and drive means for said tone screen adapted to oscillate said waveform in said direction at said vibrato rate.

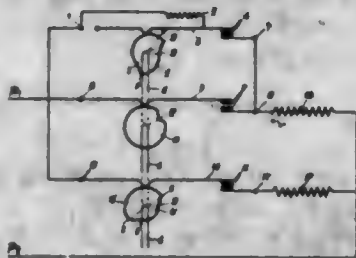
2,819,410 POWER SUPPLY FOR CENTRALIZED TRAFFIC CONTROL SYSTEM

Robert B. Haner, Jr., Scottsville, N. Y., assignor to General Railway Signal Company, Rochester, N. Y.
Application April 7, 1953, Serial No. 347,253
8 Claims. (Cl. 307-31)



7. In a centralized traffic control system for railroads, a control office and a plurality of field stations connected by a pair of line wires, a power supply for energizing said line wires comprising, a source of direct-current voltage, a voltage control electron discharge tube having a control grid and with its plate-cathode circuit connected in series with said source of direct-current voltage, a voltage responsive electron discharge tube, means for applying to the grid-cathode circuit of said voltage responsive tube a fixed negative voltage and also a portion of the positive output voltage applied by said power supply to said line wires to thereby provide a negative bias voltage for said voltage responsive tube varying in accordance with the level of said output voltage, a load resistor connecting the plate of said voltage responsive tube to the plate of said voltage control tube, a current responsive electron discharge tube, a resistor connected in series with said source of direct-current voltage and being included in the cathode circuit of said current responsive tube, circuit means for biasing the grid of said current responsive tube beyond cutoff, said cathode of said current responsive tube becoming increasingly negative in voltage with increasing current through said resistor to thereby cause said current responsive tube to become conductive when said current level reaches a predetermined value, said plate of said current responsive tube being connected to the plate of said voltage responsive tube, said control grid of said voltage control tube being connected through a grid leak resistor to said plates of said current responsive and said voltage responsive tubes, whereby said voltage applied to said line wires remains substantially constant provided the current supplied to said line wires remains below said predetermined value and said voltage applied to said line wires decreases when said current applied to said line wires tends to exceed said predetermined value.

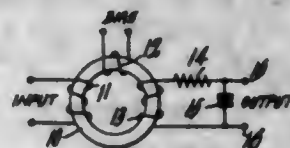
**2,819,411
ELECTRIC ENERGY REGULATORS**
Sture Viktorinus Lindblad, Stensholm, Huskvarna, Sweden, assignor to Stensholms Fabriks Aktiebolag, Huskvarna, Sweden, a limited company of Sweden
Application December 9, 1953, Serial No. 397,173
Claims priority, application Sweden December 9, 1952
14 Claims. (Cl. 307-35)



13. Apparatus for controlling current flow from a source of power to a plurality of electrical elements comprising contact means adapted to be connected in series with one of said elements across said source of power, means responsive to heat generated by current passing through said contact means for periodically actuating

said contact means, means for adjusting the time intervals between actuations of said periodically actuating means, means for selectively connecting a second element across said source of power in parallel with the series arrangement of said one element and said contact means, and unitary control means for controlling said adjusting means and said connecting means and for adjusting said adjusting means throughout its range of time interval control for each arrangement of connection of said elements provided by said connecting means.

**2,819,412
MAGNETIC PULSE LIMITING**
Martin Kaplan, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 28, 1954, Serial No. 439,560
10 Claims. (Cl. 307-88)



2. A magnetic limiting circuit for producing pulses of constant amplitude in response to applied pulses of varying amplitude comprising a magnetic core having a flat magnetization characteristic and an inherent switch time greater than the transition time of said pulses of varying amplitude, a bias winding wound on said core, means for applying a bias current to said bias winding to saturate said core in one direction, an input winding wound on said core, means for applying said pulses of varying amplitude to said input winding to saturate said core in the opposite direction, an output winding wound on said core, and an integrating circuit connected to said output winding for producing said pulses of constant amplitude.

**2,819,413
PULSE GENERATING SYSTEM**
Genung L. Clapper, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application July 25, 1955, Serial No. 524,172
11 Claims. (Cl. 307-106)



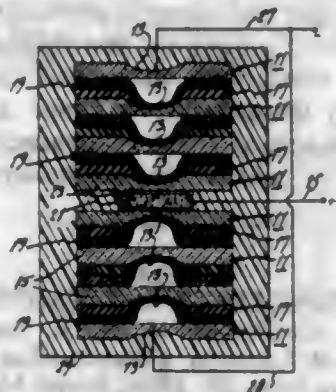
11. A timing circuit for generating a plurality of timing pulses from each of a plurality of recurring pulses, the cycle time T of said recurring pulses having a normal value, a plurality of cascade connected pulse generator means each of which produces one of said timing pulses of a time W, the first of said pulse generator means being initiated to produce a timing pulse by a recurring pulse, and means coupled to each of said pulse generator means for varying the time W of each of the timing pulses for a cycle as the time T varies from said normal value such that the last of said timing pulses for one cycle terminates substantially coincident with one edge of a recurring pulse.

**2,819,414
RADIOACTIVE BATTERY EMPLOYING STACKED SEMI-CONDUCTING DEVICES**
Ralph L. Sherwood, Mercerville, and Paul Rappaport, Princeton, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application August 2, 1954, Serial No. 447,208
16 Claims. (Cl. 310-3)

1. A primary source of electrical energy comprising, a plurality of aligned spaced junction type semi-conducting

devices, an electrically conductive plastic material between adjacent ones of said devices providing electrical contact therebetween, means for connecting said aligned

moving said supports for each pair of said cores laterally from their respective shaft, resilient means tending to

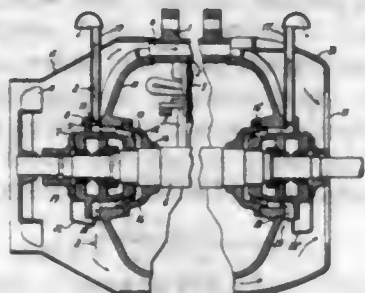


devices to an external circuit, and a radioactive source positioned to irradiate all of said semi-conducting devices to generate an electric potential which is available at said external circuit connection means.

2,819,415

MOTOR BEARING COOLING

Uzal Edwin Waterman, Peterborough, Ontario, Canada, assignor to Canadian General Electric Company, Limited, Toronto, Ontario, Canada, a Canadian company
Application June 27, 1955, Serial No. 518,262
5 Claims. (Cl. 310-57)



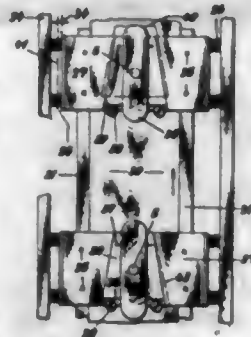
1. A dynamoelectric machine having a stator and a rotor having its shaft mounted in bearings supported by end bells mounted on the stator, a shroud mounted on the inner surface of each end bell and extending to form a seal with the shaft, said shrouds located with respect to their associated bearing so that a closed annular passage is provided between it and a substantial portion of the surface of the bearing, a housing member at one end of the machine enclosing the bearing at that end and constituting a fan chamber, a fan in the chamber and mounted on the shaft and adapted to draw air into the chamber from which the air under pressure flows in conductive relation to the machine, an opening communicating with one point of the said annular passage and a conduit leading from another point thereof to the atmosphere whereby cooling air from said fan chamber flows through the bearing at the fan end of the machine, and means whereby the air under pressure in the fan chamber causes a flow of cooling air through the annular passage at the other end of the machine.

2,819,416

MAGNETIC MECHANISM FOR REGULATING THE SPEED OF SHAFTS

Oskar Stalder, Hunibach, near Thun, Bern, Switzerland
Application December 22, 1953, Serial No. 399,772
5 Claims. (Cl. 310-93)

1. A device for regulating the speed of rotation of shafts particularly spinning and doubling spindles driven by gas under pressure comprising a plurality of wound cores each having a pair of poles, means for rotatably supporting one of said shafts between the poles of each pair of said cores, a plurality of slidable supports each having one of said cores mounted thereon, means for

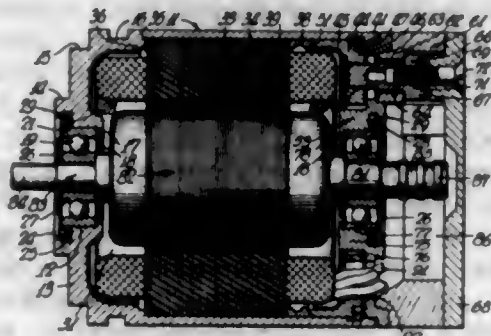


move said supports towards their respective shaft and a slide adjustably supporting said moving means for operating all of said moving means at the same time.

2,819,417

SYNCHRO CONSTRUCTION AND METHOD FOR MAKING SAME

John P. Glass, Clifton Heights, Pa.
Application November 18, 1954, Serial No. 469,786
5 Claims. (Cl. 310-258)



1. A motor of the character described comprising a substantially cup-shaped casing having an end wall with an axial bore therethrough, a stator member in said casing having a bore axially aligned with the bore in said end wall, said casing having an internal stop conformation adjacent said end wall, a ring member of resilient material in said casing of diameter substantially equal to the inner diameter of said casing, said ring member being positioned between the mouth of the casing and the adjacent end of the stator, an annular retaining member in said casing reacting against said resilient ring to urge said stator against said stop, means to prevent displacement of said retaining member from the mouth of the casing, a bearing plate, means mounting said plate to said retaining member, said bearing plate having an axial bore aligned with the bore in said end wall, a pair of bearings mounted respectively in the bores in said end wall and said bearing plate, and a rotor in the bore of said stator, said rotor having a shaft mounted in said bearings.

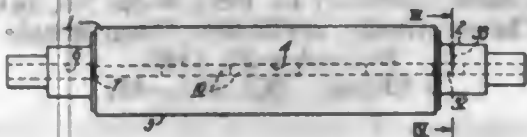
2,819,418

DYNAMOELECTRIC MACHINE HAVING ROTOR MATERIAL REPLACEMENT DEVICE

Ward B. Cart, West Milwaukee, and William L. Ringland, West Allis, Wis., assignors to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application April 16, 1956, Serial No. 578,501
7 Claims. (Cl. 310-261)

1. A dynamoelectric machine comprising a rotor having an axial inspection bore, core replacement means positioned in said inspection bore, said means including two substantially semicylindrical members of magnetic mate-

rial arranged in cylinder forming relation, means substantially limiting relative movement of said members other than movement normal to the planar surfaces of said



members, and means limiting rotation of said core replacement means within said bore at rotor standstill and velocity changes.

2,819,419

TARGET STRUCTURE FOR BARRIER GRID STORAGE TUBE

Ralph B. De Lano, Jr., and John B. Little, Poughkeepsie, and Frederick L. Stutz, Pleasant Valley, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application April 23, 1954, Serial No. 425,072
15 Claims. (Cl. 313-68)



14. In a cathode ray type storage tube, a target electrode comprising a sheet of dielectric material, a barrier electrode comprising a plurality of parallel wires in contact with one surface of said sheet, said one surface being coated with powdered insulating material to maintain a virtual spacing between said wires and surface.

2,819,420

ELECTROLUMINESCENT CELL

Lewis R. Koller, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application March 19, 1954, Serial No. 417,341
6 Claims. (Cl. 313-108)



1. The method of preparing an electroluminescent cell which comprises vapor-depositing on a conducting surface, a continuous lamina of an electroluminescent phosphor compound, treating the said lamina to obtain a polished surface thereon, repeating the steps of vapor-depositing and surface treating to accumulate a plurality of treated laminae, and contacting the last deposited lamina with an electrode.

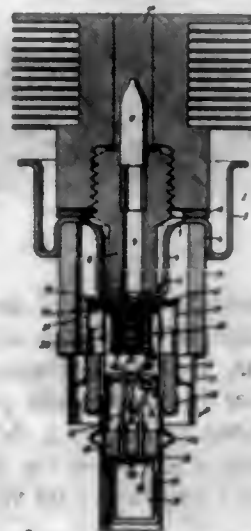
2,819,421

ELECTRODE SPACING ADJUSTMENT

Robert S. Ringland, Clarks Summit, Pa., and Robert P. Watson, Schenectady, N. Y., assignors to General Electric Company, a corporation of New York
Application January 21, 1953, Serial No. 332,406
6 Claims. (Cl. 313-146)

1. An electric discharge device comprising a cup-like conductive member including a pair of cylindrical portions of different diameters connected by a flange-like portion and a planar portion extending across the end of the smaller of said cylindrical portions, a cylindrical insulator disposed about the smaller of said cylindrical portions, a seal between one end of said insulator and said flange-like portion of said member, said flange-like portion including an annular section of reduced thickness relative to the general thickness of said conductive mem-

ber, said section of reduced thickness being disposed inwardly of said seal for rendering said planar portion positionally adjustable, a stud extending into said smaller of said cylindrical portions and secured to said planar portion, an enlarged member threadedly engaging said

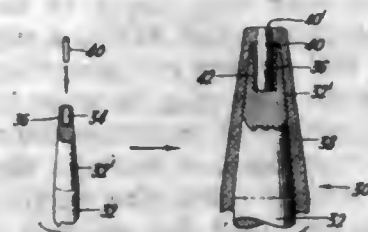


stud and bearing on said flange-like portion at said seal for adjusting the position of said planar portion and minimizing transmission of shock to said planar portion, and means for preventing relative rotational movement of said enlarged member for locking said planar portion in an adjusted position.

2,819,422

MICROWAVE TRANSMISSION CONTROL TUBES AND METHODS

Paul E. Gates, Danvers, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application October 1, 1952, Serial No. 312,604
7 Claims. (Cl. 313-198)



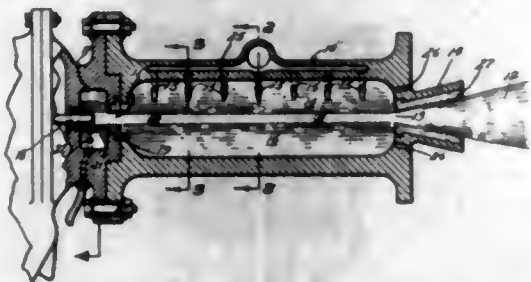
2. The method of making a keep-alive electrode assembly comprising the steps of forming a bore in a metallic rod of a glass-sealing metal, plating an insert of a semi-conducting ceramic with a material capable of being mechanically united to said metallic rod, placing said insert in said bore in an adjusted position relative to said metallic rod with an end face of said insert exposed brazing said insert to said metallic rod in said adjusted position, and beading said metallic rod with a glass sheath to insulate said metallic rod except in a confined region substantially occupied by said end face of said insert.

7. A "keep-alive" electrode including a supporting terminal rod having a terminal end and a discharge end, said terminal rod having an axial bore at its discharge end, a glow-discharge semiconducting ceramic cathode inserted in said bore and having a portion projecting therefrom including a discharge surface, an annular metal sleeve plated on said cathode and united to the surface of said bore, said sleeve extending slightly beyond the discharge end of said rod, and an insulating glass sheath covering the surfaces of the discharge end of said rod, the portion of said metal sleeve extending beyond the discharge end of the rod, and the projecting portion of said cathode except for said discharge surface.

2,819,423

PLASMA TRANSMITTER

Albert G. Clark, Wayne, Pa., assignor to General Electric Company, a corporation of New York
Application April 8, 1957, Serial No. 651,468
5 Claims. (Cl. 313—231)



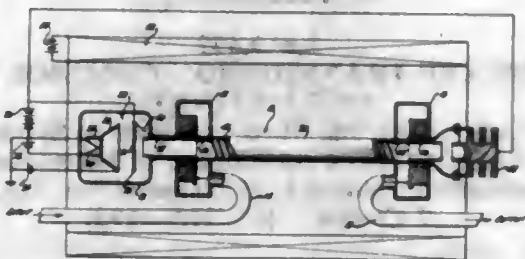
1. The improvement in electrical arc powered plasma generators comprising an elongate chamber to receive the generated plasma, means continuously introducing a fluid into the chamber to confine the plasma in a narrow path along the chamber and form a thick wall of moving fluid about the plasma, and means for ejecting this stream from the chamber and increasing its velocity.

2,819,424

ELECTRON GUN FOR TRAVELING WAVE TUBE

George R. Brewer, Palos Verdes Estates, Calif., assignor to Hughes Aircraft Company, a corporation of Delaware

Application December 2, 1954, Serial No. 472,581
1 Claim. (Cl. 315—3.5)



In a traveling-wave tube having an electron gun for producing an electron stream having a substantially uniform diameter, said electron gun comprising a cylindrical thermionic cathode, a focusing electrode having a frusto-conical internal surface of revolution disposed concentrically about said cathode and having a shape to develop a substantially linearly converging electron stream from said cathode, an apertured disc electrode disposed coaxially with said cathode and spaced axially therefrom, the distance between said cathode and said disc electrode being equal to L , means for maintaining said disc electrode at a potential to accelerate the electrons emitted at said cathode through the aperture of said disc electrode, means for maintaining said focusing electrode at a potential to cause said stream to converge to a predetermined radius, r_0 , at a plane where the rate of change of the radius of said stream with respect to the distance along said stream equals zero after the stream emerges from the anode aperture, said stream being converged substantially linearly at an angle given approximately by

$$\theta \approx \frac{r_0}{3L}$$

and means for maintaining an axial magnetic field within said stream, said field having a linear variation from said cathode to said disc electrode given by the following relationship:

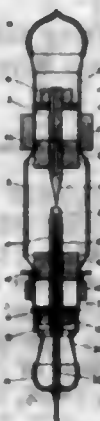
$$\frac{B_z}{B_0} \approx \frac{9}{16}$$

where B_0 is the axial magnetic flux density at said cathode, and B_z is the axial magnetic flux density at the plane intersecting said stream where said stream reaches the radius, r_0 , r_0 being substantially smaller than L .

2,819,425

GAS FILLED ELECTRIC DISCHARGE DEVICES

Trevor Laurence Dutt, London, England, assignor to The M. O. Valve Company Limited, London, England
Application December 14, 1951, Serial No. 261,628
Claims priority, application Great Britain December 21, 1950
6 Claims. (Cl. 315—35)



1. A fixedly pretuned gas filled electric discharge device for removable insertion into a waveguide of predetermined dimensions in association with an inductive element of predetermined dimensions disposed across the waveguide and which waveguide is shaped to removably receive said device and includes coupling means, said device comprising a hermetically closed tubular glass envelope filled with gas and enclosing an electrode assembly including a pair of main electrodes, means mounting said electrodes in substantial coaxial alignment for shiftable tuning movement inside the glass envelope, said envelope having an opening for tuning access to said electrodes, said electrodes being so pretuned by adjustment of their relative spacing that when the device is inserted into the waveguide the electrode assembly together with the inductive element will form a low Q resonant system which is resonant at a predetermined frequency, said envelope including cover means hermetically closing said opening and rendering the tuning means inaccessible, and coupling means engageable with the coupling means on the waveguide for detachably securing the device to the waveguide.

2,819,426

ELECTRON DISCHARGE DEVICE

Terry M. Shrader, Landisville, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application April 5, 1956, Serial No. 576,395
The terminal fifteen years of the term of the patent to be granted has been disclaimed
10 Claims. (Cl. 315—39.63)



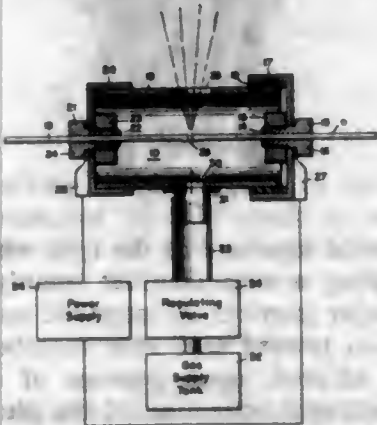
1. A magnetron comprising a plurality of discrete electron emitting cathodes, a corresponding plurality of discrete grids one for each cathode, generally circular anode means for said grids and cathodes and surrounding them in spaced relation, a shield for all said cathodes and grids, said shield having a plurality of discrete recesses in each of which is insulatingly mounted a corresponding cathode and grid with the cathode oriented therein so as normally to emit electrons in the space between the cathodes and

anode means, each of said recesses in said shield defining an electron emergence window facing the anode and the walls of each recess being oriented to shield both the cathode and grid therein from electron bombardment.

2,819,427

LIGHT SOURCE

Theodore S. Noskowitz, Wooddale, Ill., assignor to The Rauland Corporation, a corporation of Illinois
Application April 14, 1955, Serial No. 501,391
1 Claim. (Cl. 315-111)

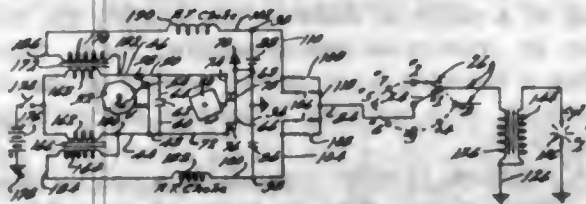


A limited-area photographic light source comprising: a pair of rod-shaped electrodes; means for supporting said electrodes on a common axis in spaced relationship with respect to each other to establish an arc discharge space therebetween; an opaque shield structure substantially encompassing said electrodes, said shield structure having a restricted-area exposure aperture disposed on an axis passing through said discharge space at right angles to said common axis and communicating with the ambient atmosphere; means for energizing said electrodes to establish an uninterrupted arc discharge through said discharge space; and means, including a gas inlet adjacent said discharge space opposite said exposure aperture and a source of inert gas maintained at a pressure only a small fraction of an atmosphere above normal atmospheric pressure and coupled to said gas inlet, for continuously flowing said inert gas through said discharge space at a low velocity without disrupting said arc discharge.

2,819,428

CONDENSER DISCHARGE HIGH FREQUENCY IGNITION SYSTEM

Omer E. Bowlus and Kenneth A. Graham, Detroit, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application July 7, 1953, Serial No. 366,426
25 Claims. (Cl. 315-213)



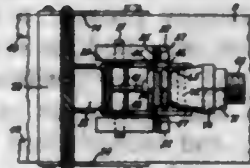
1. In an ignition system for an internal combustion engine, a pair of capacitors each having a source of charging power, a plurality of combustion ignitor means, a capacitor-energy distributor for conducting energy to the individual ignitor means in rotation, circuit means connecting one of the respective capacitors and said distributor and circuit means connecting the other of the respective capacitors and said distributor and each said circuit means including an intervening spark gap between the distributor and the corresponding capacitor, and interconnection means effective between said sources of charging power to cause the latter to charge said capaci-

tors and impress a unidirectional voltage and of identical polarity across said gaps alternatively for firing the same thereby causing a corresponding potential to be applied to the individual ignitor means in rotation in the above described manner and having the same polarity for all said ignitor means.

2,819,429

ELECTRIC PROTECTIVE EQUIPMENT

Wilfred F. Skeats, Lansdowne, Pa., assignor to General Electric Company, a corporation of New York
Application May 24, 1954, Serial No. 431,828
15 Claims. (Cl. 317-12)

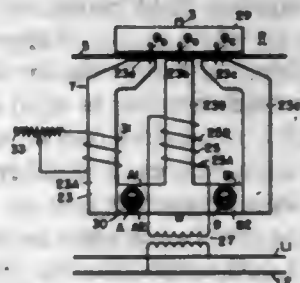


8. A temperature-compensated spark gap device comprising a first electrode, a second electrode mounted for movement with respect to the first electrode, said electrodes being located in an unsealed atmosphere, means for biasing said second electrode into a position spaced from said first electrode whereby to provide a gap between said electrodes, compensating means opposing said biasing means and operable in response to ambient temperature variations to effect movement of said second electrode into positions wherein the dielectric strength of said gap remains substantially constant in spite of said temperature variations, a current responsive coil having a generally-flattened configuration and connected in series circuit relationship with said gap, said coil having a pair of closely-spaced sides one of which is movable in response to the mutual repulsion produced between said sides by energization of said coil, and means operable in response to movement of said one side for forcing said second electrode toward said first electrode.

2,819,430

INDUCTION-TYPE ALTERNATING-CURRENT RELAYS

William K. Sonnemann, Roselle Park, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 26, 1954, Serial No. 412,788
13 Claims. (Cl. 317-156)



1. In a time delay regulating relay device, a magnetic stator structure having an air gap, an electroconductive rotor structure, means mounting the rotor structure for rotation through the air gap about an axis relative to the stator structure between first and second positions, said stator structure including winding means effective when energized for developing a first torque acting between the rotor and stator structures to urge the rotor structure toward said second position, said rotor structure having a configuration presenting a varying effective portion to the air gap such that said first torque increases in magnitude as the rotor structure rotates toward said second position in response to constant energization of said winding means, said first torque having a first curve representing the ratio of the magnitude of said first torque

to the position of said rotor structure relative to the stator structure which has a first slope, biasing means connected between the stator and rotor structures for biasing the rotor structure toward said first position with a second torque which increases as the rotor structure rotates toward said second position, said biasing means being proportioned to develop a second torque having a second curve representing the ratio of the magnitude of said second torque to the position of the rotor structure relative to the stator structure which has a second slope substantially different from said first slope to provide a point of intersection of said first and second curves within the range of rotation of said rotor structure, said first and second torques being balanced at said point of intersection to thereby provide a stationary position of said rotor structure intermediate said first and second positions, said first and second positions representing respectively minimum and maximum values of a variable alternating quantity, and independent circuit controlling means spaced about said axis responsive to the arrival of the rotor structure at each of said first and second positions.

2,819,431

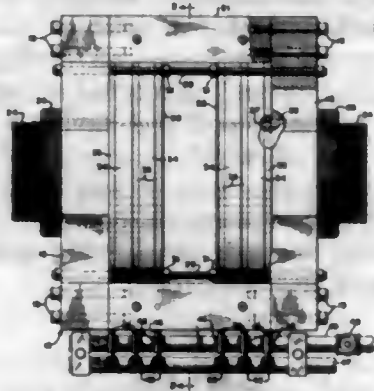
ELECTROMAGNET

Louis R. Maxwell, Chevy Chase, Md.

Application December 5, 1952, Serial No. 324,430

6 Claims. (Cl. 317-158)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus in which a magnetic field is produced comprising, in combination, a pair of spaced axially aligned coil assemblies each having an axially aligned clearance therethrough, a rectangular member of magnetic material forming a return path of predetermined reluctance for the magnetic field produced in the apparatus and arranged to fixedly support thereon said coil assemblies in said spaced aligned relationship, a pair of bores each formed in said member in axial alignment with the clearance through a respective one of said coil assemblies, a pair of core members each slidably supported for translatable motion in a respective one of said bores and extending through the axial clearance of individually respective ones of said coil assemblies to selectively define predetermined air gaps between confronting faces of said core members, said coil assemblies comprising alternately arranged electrical coils and fluid cooling coils in mutually abutting relation, said coils being energized to produce in conjunction with said rectangular member and said core members the magnetic fields, a plurality of extractable magnetic members detachably included in the return path of said rectangular member each of which magnetic members presents incremental reluctance cumulatively contributing to the formation of said predetermined reluctance, and decoupling means detachably securing said magnetic members in said return path and decouplingly adaptable to effectuate discrete extractions of said magnetic members from said return path whereby said predetermined reluctance is decrementally varied.

2,819,432

SOLENOID STRUCTURE

William A. Ray, North Hollywood, Calif., assignor to General Controls Co., Glendale, Calif., a corporation of California

Application November 3, 1952, Serial No. 318,472

4 Claims. (Cl. 317-191)



1. In a solenoid structure of the type which comprises a frame providing a stop member mainly of magnetic material; a plunger member, of magnetic material, mounted for attraction toward said stop member; and a coil arranged and adapted, upon passage of current there-through, to effect said attraction of the plunger member; said members having surfaces interengageable when the plunger member is attracted—the improvement consisting in that said interengageable surfaces of the members define, respectively, a substantially hemispherical protuberance and a socket for receiving said protuberance and conforming thereto in curvature

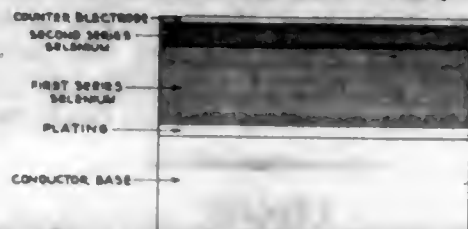
2,819,433

SELENIUM RECTIFIERS AND THE METHOD OF MAKING THE SAME

Cleveland Scudder Smith, Indiana, Pa., assignor to Syntron Company, Homer City, Pa., a corporation of Delaware

Application March 22, 1951, Serial No. 217,031

18 Claims. (Cl. 317-234)



1. The method of producing a selenium rectifier on a conducting sheet which comprises the steps of repeatedly passing the conducting sheet over the discharge of a temperature controlled vaporizer in a vacuum to deposit thereon a great number of very thin layers of vitreous selenium to produce on the conducting sheet a coating made up of a series of finite layers, heating the vitreous selenium to convert it into crystalline form, thereafter producing a blocking layer on the surface of the crystalline selenium, and applying a counter electrode on the blocking layer.

18. A selenium rectifier comprising a conducting sheet having approximately fifty or more of very thin superimposed finite layers of selenium in crystalline form, a current blocking layer on the topmost selenium layer, and a counter electrode on said current blocking layer.

2,819,434

RECTIFIER STACK

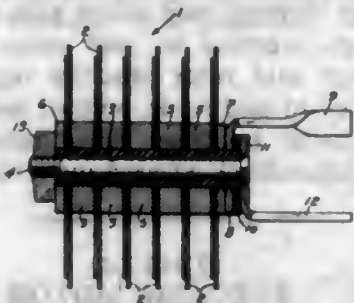
Marcel Jack Mattheyses, Ridgewood, N. J., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland

Application July 1, 1954, Serial No. 440,763

5 Claims. (Cl. 317-234)

1. A dry disc rectifier assembly comprising a stack of rectifier discs and metal washers each having a central

opening therein, a metallic rod making electrical contact with one end of said stack and extending through the central openings towards the other end of said stack characterized by two contact prongs adjacent said other end of said stack forming a connector plug for insertion



in a contact-making receptacle, one of said prongs being electrically connected to said stack at said other end thereof and the other of said prongs being connected to said rod at the end thereof adjacent said other end of the stack.

2,819,435

RECTIFIER ASSEMBLIES

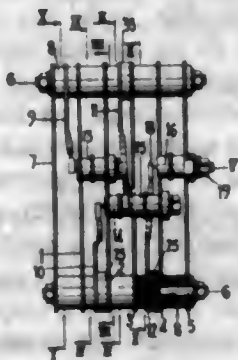
Leslie James Cambridge Connell, Harrow Weald, England, assignor to The General Electric Company Limited, London, England

Application September 4, 1956, Serial No. 607,686

Claims priority, application Great Britain

September 14, 1955

6 Claims. (Cl. 317-234)



1. A rectifier assembly of the kind comprising a plurality of rectifier elements and a plurality of spaced cooling fins upon which the rectifier elements are mounted, wherein the cooling fins are so arranged that a rectifier element mounted on one cooling fin protrudes through an opening in an adjacent cooling fin, and wherein electrical connections to the electrodes of the rectifier elements are made via the cooling fins and via terminals mounted on the assembly, these terminals being spaced from the cooling fins.

2,819,436

METHOD OF MAKING DRY CONTACT RECTIFIERS, PARTICULARLY SELENIUM RECTIFIERS

Heinrich A. Bartels, Nurnberg, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 24, 1953

Serial No. 363,941

Claims priority, application Germany June 27, 1952

4 Claims. (Cl. 317-241)

4. A rectifier comprising a base electrode, a semi-conductive layer, a counter electrode on said semi-conductive layer, said counter electrode comprising a non-conductive lacquer having distributed small metal particles therein rendering it conductive and a barrier layer of said non-conductive lacquer, said particles constituting a multi-point rectifier through the barrier layer formed by the non-conductive lacquer.

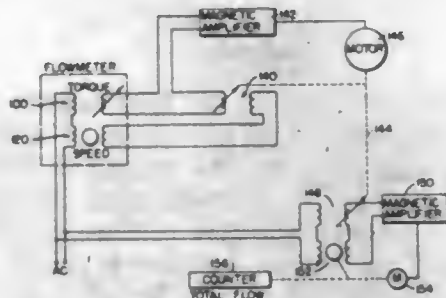
2,819,437

ELECTRICAL MEASURING CIRCUITS FOR MASS FLOWMETERS

Roby B. White, Sharon, Mass., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application November 1, 1954, Serial No. 465,783

11 Claims. (Cl. 318-28)



3. Apparatus for use with a mass flowmeter having an element which senses a torque proportional to the product of the mass flow rate of fluid passing therethrough and the angular velocity of said sensing element comprising first electrical means for producing a first signal proportional to the product of said mass flow rate and angular velocity, second electrical means for producing a second signal proportional to said angular velocity, a motor having a displaceable shaft, means responsive to each of said signals connected to said motor for producing a displacement of said displaceable shaft proportional to the quotient of said first and second signals, a second motor having a rotatable shaft, and a circuit mechanically controlled by said displacement of said displaceable shaft connected to said second motor for producing a shaft speed of rotation proportional to said shaft displacement.

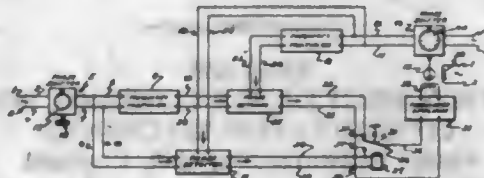
2,819,438

DATA TRANSMISSION AND CONTROL SYSTEM

Michael A. Sant Angelo, Levittown, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application June 16, 1955, Serial No. 515,937

6 Claims. (Cl. 318-28)



1. A data transmission and control system comprising a source of alternating current of given phase, first means for continuously varying the phase of said alternating current with respect to said given phase in dependence upon variations in data to be transmitted, a positionable object, second means for continuously varying the phase of said alternating current with respect to said given phase in dependence upon variations in the position of said object, said second means including electromotive means for positioning said object, third and fourth means for respectively providing first and second reversible polarity error signals that cyclically vary in magnitude at respectively different rates in dependence upon variations in the phase difference between said alternating current as varied in phase by said first means and as varied in phase by said second means, and means for connecting one of said error signals to said electromotive means in controlling relation, depending on the relative magnitudes of said error signals.

2,819,439

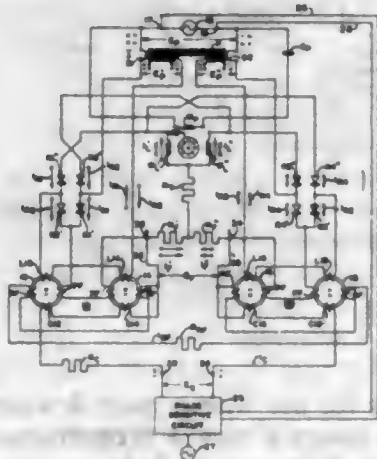
SINGLE STAGE, SELF-BALANCING MAGNETIC SERVO AMPLIFIER

William A. Geyger, Takoma Park, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application October 2, 1956, Serial No. 613,588

11 Claims. (Cl. 318—30)

(Granted under Title 35, U. S. Code (1952), sec. 266,



1. In combination, a phase-sensitive circuit energized with an A. C. error signal from the synchro-control transformer of a position servomechanism system and with a substantially constant A. C. reference signal from an A. C. power supply source to derive therefrom a D. C. output control signal having a polarity and magnitude corresponding to the difference in magnitude and phase between said error and reference signals, a push-pull self-balancing magnetic amplifier having an input control-winding circuit so connected in operative circuit relationship with the output load circuit of said amplifier that the effective control current flowing through the control windings of said amplifier is substantially zero throughout the operating range thereof, resistive means connected to receive thereacross said D. C. control signal, and circuit means connecting said resistive means in closed series circuit relation with said input control circuit whereby the D. C. control signal across said resistive means is translated to said input control circuit to thereby render said amplifier effective to drive a servo motor in accordance with the polarity and magnitude of said D. C. control signal.

2,819,440

INDUCTION REGULATOR CONTROL FOR A. C. COMMUTATOR MACHINES

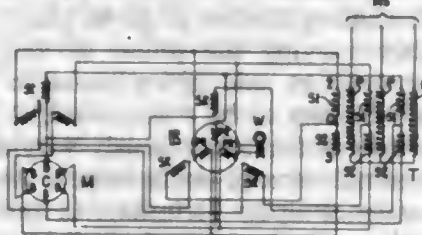
Benno Schwarz, Norwich, England

Application December 13, 1954, Serial No. 474,767

Claims priority, application Great Britain

December 17, 1953

6 Claims. (Cl. 318—244)



1. A regulating system for a stator fed shunt A. C. commutator machine having a stator circuit including a stator winding and a rotor circuit including a rotor winding and commutator brushes of the fixed type, a source of electrical energy, said stator circuit and said rotor circuit being connected in shunt across said supply and means for introducing into said stator and rotor circuits, simultaneously, a secondary voltage of fixed magnitude and variable phase position, said means including a single

induction regulator including a primary winding connected to said supply and secondary winding means, said secondary winding means of the regulator being connected, in series, with both said stator circuit and said rotor circuit, whereby the voltages supplied to said stator and rotor circuits are, respectively, the vectorial sum of the supply voltage through said stator plus the regulator secondary voltage supplied to said stator and the supply voltage through said rotor plus the regulator secondary voltage supplied to said rotor, both of said voltages changing their vectorial positions simultaneously at different positions of adjustment of said induction regulator.

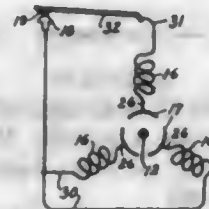
2,819,441

ELECTRIC MOTOR

Willard E. Buck, Boulder, Colo., assignor, by mesne assignments, to Kindar Corporation, a corporation of Delaware

Application October 19, 1954, Serial No. 463,106

2 Claims. (Cl. 318—325)



1. In an electric motor, a rotary armature having at least three poles and a similar number of commutator segments all revolvable with the armature, a pair of brushes connected to an outside source of electrical energy and being cooperable with said segments to transmit electric current therethrough, an independent energizing winding for each of said poles each having one end directly connected to one of said segments, fixed magnetic pole pieces cooperable with said armature poles and windings to revolve said armature, and a centrifugal switch revolvable with the armature and being interposed between the opposite ends of said windings, a majority of said windings being energized whenever the armature is rotating and said majority of the windings being energized for a major portion of the time while the switch is closed but being reduced to a minor portion of the time while the switch is open to maintain the armature speed substantially constant.

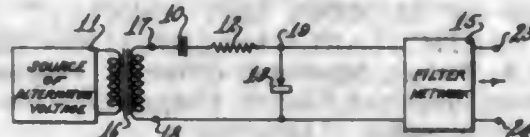
2,819,442

ELECTRICAL CIRCUIT

Hunter C. Goodrich, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 29, 1954, Serial No. 471,773

10 Claims. (Cl. 321—16)

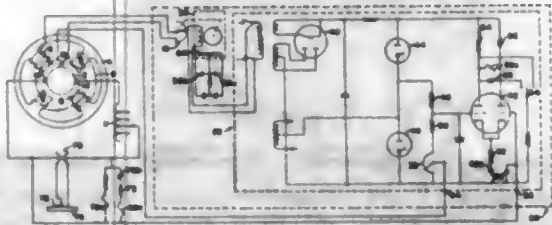


1. An electrical circuit comprising a rectifier having a voltage-current characteristic curve comprising two similarly inclined low resistance branches interconnected by a high-resistance branch, means for impressing an alternating signal voltage across said rectifier to cause said rectifier to operate said two low resistance branches of said curve, and means connected in the path of current through said rectifier for maintaining the average value of direct current through said rectifier substantially equal to zero.

2,819,443

DIRECT CURRENT ARC WELDING GENERATOR
William J. Greene, Scotch Plains, and Richard B. Steele,
New Providence, N. J., assignors to Air Reduction
Company, Incorporated, New York, N. Y., a corpora-
tion of New York

Application December 16, 1953, Serial No. 398,545
7 Claims. (Cl. 322-53)



1. A direct current welding generator comprising a field circuit including a pair of main poles adapted to operate under conditions of substantial saturation and a pair of cross poles adapted to operate non-saturated, an armature, a commutator on said armature, a pair of load brushes so positioned on the commutator that the voltage difference between said load brushes is dependent on the flux in both main and cross poles, an auxiliary brush so positioned on the commutator that the voltage difference between said auxiliary brush and one of said load brushes is dependent on the flux in said main poles, a winding on at least one pole of each pair, said windings being connected in series between said one load brush and said auxiliary brush, a variable resistance connected in series with said windings, and voltage-responsive means to adjust the value of said resistance to maintain constant the voltage between said one load brush and said auxiliary brush.

2,819,444

MAGNETIC DISCRIMINATOR

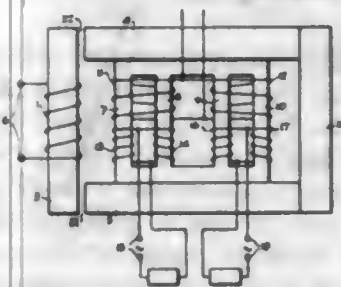
Alec Hervey Bennett Walker, London, England, assignor
to Westinghouse Brake & Signal Company Limited,
London, England

Application November 18, 1954, Serial No. 469,693

Claims priority, application Great Britain

December 18, 1953

7 Claims. (Cl. 323-92)



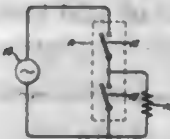
3. A magnetic discriminator comprising, in combination, a non-magnetic base plate, a slot in said base plate said slot having sides, an outer closed magnetic circuit secured to said base plate, a detector having an inner closed magnetic circuit, blocks of plastic insulating material partially covering said detector, faces on said inner closed magnetic circuit said faces being free from said plastic insulating material and abutting said outer closed magnetic circuit to prevent relative movement in one direction between said detector and said outer closed magnetic circuit, and other faces on one of said blocks said other faces abutting said sides of said slot to prevent relative movement in a direction perpendicular to said one direction between said detector and said outer closed magnetic circuit.

2,819,445

**METHOD AND APPARATUS FOR TESTING
CIRCUIT BREAKERS**

Arthur E. Were, Springfield, Pa., assignor to General
Electric Company, a corporation of New York

Application November 17, 1954, Serial No. 469,348
15 Claims. (Cl. 324-28)



3. In an arrangement for testing a circuit interrupting device having at least two series-connected simultaneously-operable breaks; means for delivering to the device a testing current approximating its full rated current but a testing voltage considerably less than its rated voltage, impedance means connected in parallel-circuit relationship with a first one of said breaks and in series with a second one of said breaks, said second break being unshunted, whereby at the first current zero which occurs after said breaks are simultaneously opened full testing voltage is available across said second break.

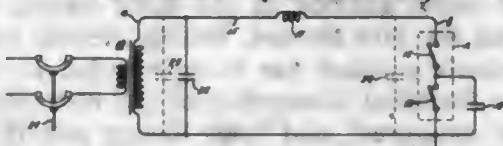
2,819,446

**CIRCUIT FOR TESTING HIGH CAPACITY POWER
CIRCUIT BREAKERS**

Wilfred F. Skeats, Lansdowne, Pa., assignor to General
Electric Company, a corporation of New York

Application December 23, 1955, Serial No. 554,984

8 Claims. (Cl. 324-28)



1. In a circuit which utilizes a source of alternating test voltage for testing a multi-break interrupting device having at least two series-connected breaks which are concurrently-openable to initiate at a current zero a recovery voltage transient across a first one of said breaks, means responsive to breakdown of said first break in the course of said recovery voltage transient for producing in said recovery voltage transient oscillations having a frequency appreciably higher than the dominant frequency of said recovery voltage transient and having an available peak value of approximately double the voltage which produced breakdown of said first break, and means for applying to said second break substantially the entire recovery voltage including the component produced by said high frequency oscillations, whereby to promote breakdown of said second break and thus provide said first break with another opportunity to interrupt at the next current zero.

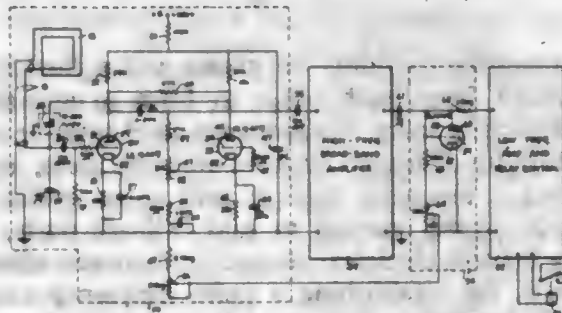
2,819,447

SYSTEM FOR DETECTING CONDUCTIVE BODIES

William C. Harmon, Chagrin Falls, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey

Application March 27, 1956, Serial No. 574,312

18 Claims. (Cl. 324-41)



1. An oscillatory system adapted to detect conductive bodies in relatively nonconductive magnetic ore compris-

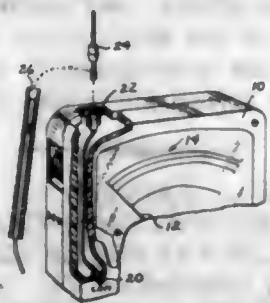
ing, a resonant electrical circuit including an exploring inductor having a window through which a flow of ore may move, means including said resonant circuit for generating electrical oscillations of frequency controlled by said circuit, and frequency-responsive oscillation-sustaining means for rendering the amplitude of said generated oscillations substantially constant with changes of the reactive impedance of said inductor caused by changing volumes of magnetic ore passing through said window.

2,819,448

PORTABLE INSTRUMENT

Vyrl A. Nepper, Bluffton, Ohio, assignor to The Triplett Electrical Instrument Co., Bluffton, Ohio, a corporation of Ohio

Application January 12, 1956, Serial No. 558,725
4 Claims. (Cl. 324-149)



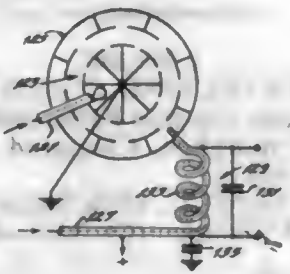
1. A portable electric measuring instrument of a size adapted for being grasped in the hand having electric receptacles on the face thereof, flexible electric test leads having terminals adapted for being inserted in said receptacles for electrical connection of the instrument to a source to be measured, said leads having metallic probe elements on their outer ends and one of said probe elements being detachable from its lead, an auxiliary electric receptacle in the upper end wall of the case of the instrument electrically connected with one of the said receptacles on the face of the instrument, and said auxiliary receptacle being adapted for supportably detachably receiving said detachable probe element whereby the instrument can be utilized with a single flexible test lead.

2,819,449

MAGNETRON

Edward W. Herold, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Continuation of abandoned application Serial No. 116,909, September 21, 1949. This application January 21, 1954, Serial No. 405,346

31 Claims. (Cl. 332-5)

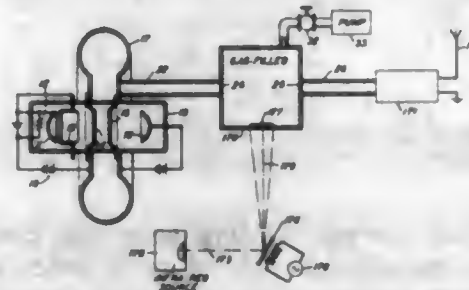


1. A magnetron including an anode and a thermionic cathode spaced from each other to form a continuous electron interaction space therebetween, said cathode comprising a plurality of spaced electron-emissive parts, means for providing a magnetic field in said space, radio frequency input means coupled to said cathode parts, and constituting the sole electrical connection between adjacent cathode parts, for establishing a radio frequency control electric field extending between adjacent cathode parts, and output means coupled to said anode.

2,819,450
MOLECULAR RESONANCE MODULATORS AND DEMODULATORS

Charles H. Townes, New York, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Original application April 26, 1947, Serial No. 744,236, now Patent No. 2,707,235, dated April 26, 1956. Divided and this application April 1, 1955, Serial No. 498,643

5 Claims. (Cl. 332-57)

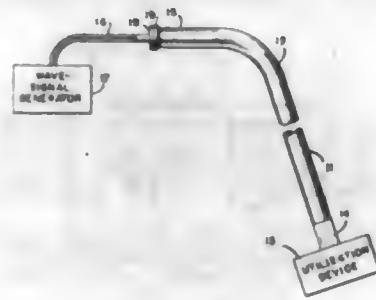


1. Apparatus for modulating the amplitude of oscillations derived from a microwave source, which comprises a gas at low pressure characterized by sharp resonance lines of selective absorption of incident microwave energy of the frequency of said source in an amount dependent on the numbers of the molecules of said gas in the various possible energy levels, means for guiding waves of said source through said gas, whereby energy of said source is absorbed by said gas, an auxiliary source of electromagnetic waves of a higher frequency, means for subjecting said gas to the field of said auxiliary source to alter the said numbers and so the amount of said absorption, and means for varying the strength of said auxiliary source field under control of a modulating signal.

2,819,451

ELECTROMAGNETIC-WAVE GENERATING SYSTEM

Geoffrey D. Sims, Wembley, England, assignor to The General Electric Company, Limited, London, England
Application July 11, 1952, Serial No. 298,411
Claims priority, application Great Britain July 12, 1951
6 Claims. (Cl. 333-21)

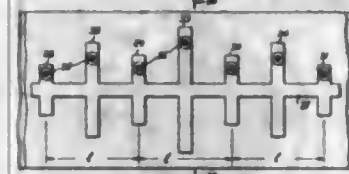


1. An electromagnetic-wave generating system comprising: a generator of an electromagnetic wave; a first wave guide of circular cross-section having a pair of metallic probes mounted along a line at one end thereof and coupled to said generator so as to launch a TM_{11} wave with the maximum electrical field intensity thereof in a predetermined plane including said line; an arcuate wave guide of circular cross-section coupled to said first wave guide and having a longitudinal axis in a plane perpendicular to said predetermined plane, the angle embraced by the arc of curvature of said arcuate guide being proportioned so that said arcuate guide generates a TE_{01} wave substantially free from other modes from a TM_{11} wave; and a TE_{01} mode wave-guide transmission system connected to the output end of the arcuate guide for translating the TE_{01} wave to a TE_{01} mode utilization device.

2,819,452

MICROWAVE FILTERS

Maurice Arditi, Clifton, N. J., and Georges A. Deschamps, New York, and Jack Elefant, Brooklyn, N. Y., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application May 8, 1952, Serial No. 286,763
1 Claim. (Cl. 333-73)

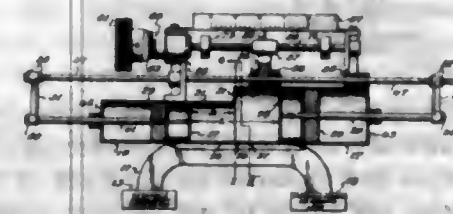


A microwave filter comprising first and second ribbon-like conductors, means disposing said conductors in dielectrically spaced substantially parallel relation a small fraction of a quarter wavelength apart to provide a waveguide, said first conductor being of a width equal to a fraction of a quarter wavelength, said second conductor being wider than said first conductor to present thereto a planar conducting surface for propagation of microwave energy in a mode approximating the TEM mode, said first conductor having laterally disposed projections extending in overlying parallel relation to the planar conducting surface of said second conductor, the width of said lateral projections being a small fraction of a quarter wavelength to present reflecting lump impedances spaced apart longitudinally of said conductors to form a resonant section therebetween, and means for adjusting the susceptance value of certain of said lateral projections, said means including a conductive screw carried by the projection for adjustment into the space between said projection and said planar conducting surface.

2,819,453

MICROWAVE FREQUENCY METER

Seymour B. Cohn, Palo Alto, Calif., assignor to Sperry Rand Corporation, a corporation of Delaware
Application March 10, 1954, Serial No. 415,281
8 Claims. (Cl. 333-83)

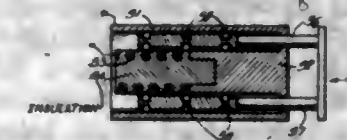


1. A microwave resonator, comprising first and second electromagnetic wave guide sections having substantially different cut-off frequencies, each of said sections having constant cross-sectional dimensions and extending along a predetermined path for microwave energy, means for electromagnetically coupling a pair of ends of said first and second wave guide sections together, first and second microwave shorting means in said first and second guide sections, respectively, the electrical distance from said first to said second shorting means through said wave guide sections and coupling means being equal to 180 degrees or an integral multiple thereof at a resonant frequency for said resonator within a predetermined band of frequencies above the cut-off frequencies of said wave guide sections, and means for changing the electrical lengths of the portions of both said first and said second wave guide sections between said coupling means and respective shorting means in opposite directions to thereby change the resonant frequency at which said electrical distance between said shorting means is equal to 180 degrees or an integral multiple thereof, the physical distance along said path from one to the other of said shorting means being the same at resonance for any frequency within said band of frequencies.

2,819,454

INDUCTOR DESIGN

Russell R. Yost, Jr., Phoenix, Ariz., and Robert C. Lockwood, Long Beach, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 31, 1955, Serial No. 512,341
3 Claims. (Cl. 336-87)

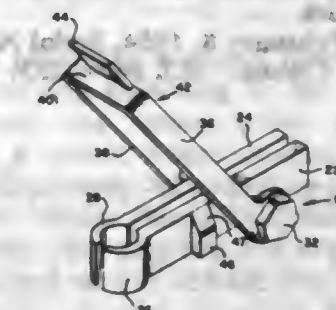


1. A variable inductor comprising a tubular electrically conductive case having an enclosed extremity and a coaxial core integral therewith, one portion of said core being electrically conductive and one portion thereof being electrically non-conductive; an electrically conductive helical coil imbedded in the non-conductive portion of the core such that the exterior surface of the coil is substantially flush with the exterior surface of the core; and means adjustably disposed between the peripheral surface of the core and the interior of the case for providing a low impedance electrical path therebetween.

2,819,455

BATTERY CABLE CONNECTOR

Thomas Quentin McCray, Tucson, Ariz.
Application October 19, 1956, Serial No. 617,062
8 Claims. (Cl. 339-225)



1. A connector assembly comprising a pair of elongated plates, each plate having clamping portions, said clamping portions being at both corresponding ends of their respective plates, a generally U-shaped yoke having its arms pivotally connected to said plates by a transverse bolt loosely mounted therethrough at a position intermediate the ends of said plates, and a camming rib extending laterally out from the outer surface of each plate, said ribs being longitudinally spaced from the pivotal connections of said yoke and adapted to be frictionally engaged by the arms of said yoke upon pivotal movement of said yoke into a position wherein the arms of said yoke are generally parallel with said plates.

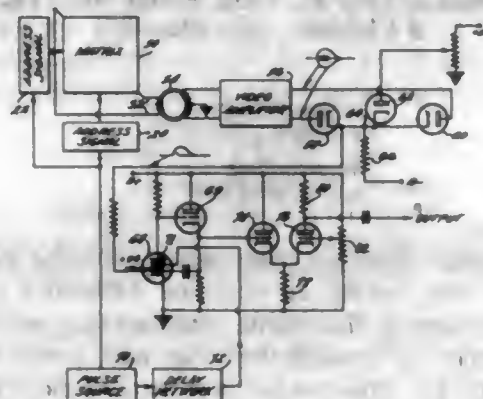
2,819,456

MEMORY SYSTEM

Raymond Stuart-Williams, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 26, 1953, Serial No. 344,735
15 Claims. (Cl. 340-174)

1. The combination with a magnetic memory matrix of the type having (1) a plurality of cores made of magnetic material, said cores being arrayed in columns and rows, (2) a plurality of row coils, each row coil being inductively coupled to all the cores in a different row, (3) a plurality of column coils, each column coil being inductively coupled to all the cores in a different column, (4) means to selectively excite a row coil and a column coil to drive from saturation in one polarity to the opposite polarity a desired core coupled to said selected row

and column coils, and (5) a reading coil inductively coupled to all the cores in said memory, of a system for increasing the discrimination between the wanted and unwanted reading signal obtained when interrogating a



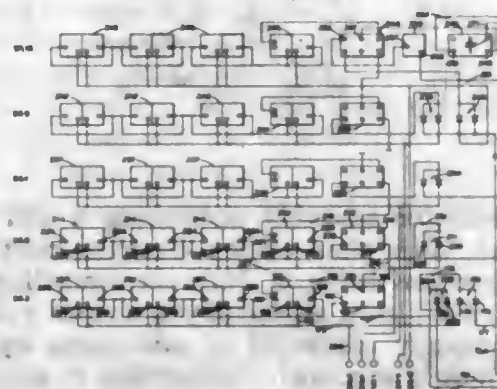
core, by exciting a row and a column coil comprising integrating means coupled to the output of said reading coil, and amplitude discriminating means coupled to receive the output from said integrating means to provide an output truly indicative of the wanted reading signal.

2,819,457

TIMING AND CLOCKING CIRCUITS

Francis E. Hamilton, Binghamton, and Ernest S. Hughes, Jr., Vestal, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application February 8, 1954, Serial No. 408,702
9 Claims. (Cl. 340-253)

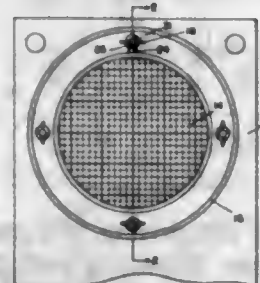


1. In a data processing machine, timing and clocking mechanism comprising in combination; a rotating magnetic drum assembly for producing a first array of time spaced pulses and a second array of time spaced pulses, said second array of time spaced pulses bearing a predetermined relation to said first array of time spaced pulses; an open ended ring having a plurality of stages and a cycle time corresponding to the time space between adjacent pulses of said first array of time spaced pulses; means for coupling said magnetic drum assembly to the first stage of said plurality of stages to initiate a cycle of said ring upon the occurrence of each pulse of said first array of pulses; means for coupling said magnetic drum assembly to each stage of said ring so that said ring is advanced one stage upon the occurrence of each pulse of said second array of pulses, means for generating a signal as said ring is advanced through the last stage of said plurality of stages; and means responsive to said signal and to each pulse of said first array of pulses for producing an error indication upon the occurrence of a pulse of said first array of pulses or upon the occurrence of said signal without the occurrence of both said signal and a pulse of said first array of pulses.

2,819,458 CATHODE RAY TUBE POSITIONING DEVICE

Mogens W. Bang, Montclair, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application August 6, 1953, Serial No. 372,642
2 Claims. (Cl. 340-368)



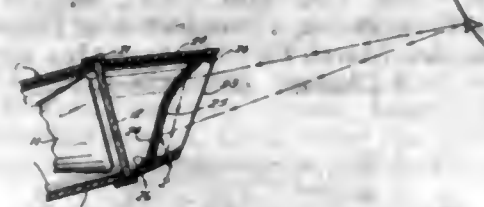
2. In an electrical instrument, a cathode ray tube mounted therein, a panel thereof having an opening therein, a calibrated screen mounted on said panel within said opening, means for rotating said cathode ray tube axially with respect to said calibrated screen, said means comprising a pair of rigidly connected bezels, one of said bezels being provided with a resilient ring which securely grips the envelope of said cathode ray tube, the other of said bezels being accessibly located on the exterior of said instrument whereby by rotating said last mentioned bezel, said cathode ray tube is rotated with respect to said calibrated screen.

2,819,459

OPEN-FACE NON-GLARE TYPE VIEWING HOOD

Roy F. Dodd, Glen Burnie, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 6, 1954, Serial No. 428,146
2 Claims. (Cl. 340-369)



1. In combination with a radar scope mounted in the cockpit of an aircraft, a viewing means comprising a hood open at both ends and mounted on the front of the scope, said hood having the shape of a truncated cone wherein the line of truncation is at an angle to the longitudinal axis of the scope, a filter located inside and spaced from each end of the cone, said filter consisting of a parabolic circular polarizer mounted at an angle to the longitudinal axis of the scope and a parabolic linear polarizer mounted adjacent the circular polarizer in the hood at an angle to the longitudinal axis of the scope, the polarizing axis of the linear polarizer being at an acute angle to the polarizing axis of the circular polarizer whereby undesired glare and reflection will be focused on the bottom of the hood and desired light emanating from the scope will be transmitted to the viewer's eyes.

2,819,460

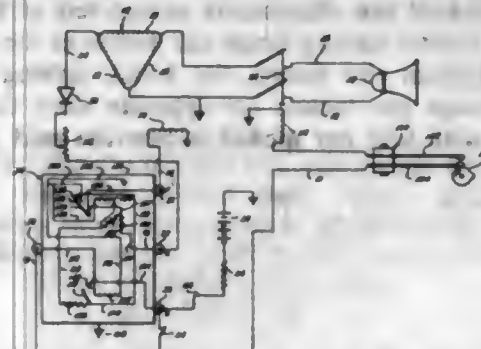
AUDIBLE SIGNAL APPARATUS

Carlton L. Jacobs, Houston, Tex.

Application December 24, 1954, Serial No. 477,445
4 Claims. (Cl. 340-384)

1. Audible signal apparatus comprising electrically operable sound producing means of the magnetically operable vibrating diaphragm type responsive to an alternating electrical current to produce an audible signal, an alternating current generator having a stator winding and a field coil, a first electrical circuit including said

means and said stator winding, a source of direct current, a second electrical circuit including said stator winding, said source and said field coil for supplying direct current



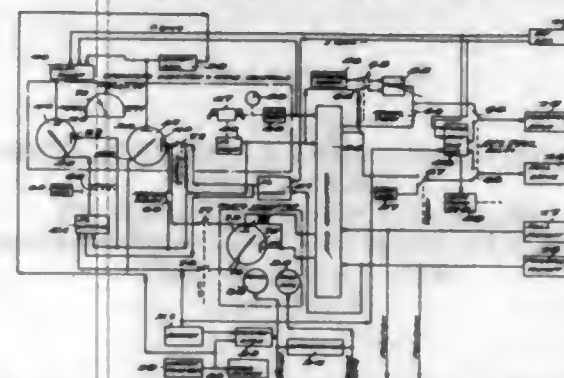
to said field coil, and means in said second circuit for continuously varying the voltage of the current supplied to said field coil to cause variations in the wave form of the current supplied to said sound producing means.

2,819,461

RADAR ACQUISITION SYSTEM

James D. Bryan, Baltimore, Md., assignor to The Glenn L. Martin Company, Middle River, Md., a corporation of Maryland

Application November 22, 1950, Serial No. 197,096
8 Claims. (Cl. 343-11)



4. A radar sighting system comprising pulse transmitting and receiving means including a scanner adapted to direct said pulses as a beam moving in space, means producing a first deflection voltage corresponding to the instantaneous elevation angle of said scanner and beam relative to a reference axis, means producing a saw-tooth deflection voltage at the pulse repetition rate of said transmitting means representing the instantaneous position of said pulses in range, a two gun cathode ray tube having beam deflecting means associated with each gun, means for applying said saw-tooth deflection voltage to the beam deflecting means of one of said guns, said gun being responsive to a return pulse for producing a pip on the face of said tube, the displacement of which from a predetermined reference axis corresponds to the instantaneous range of said target, variable control means generating an output voltage representing the elevation coordinate of a sighting line relative to said reference axis, and means for simultaneously applying said saw-tooth voltage, said first deflection voltage and said sighting line voltage to the corresponding deflecting means of said other gun whereby to produce a second pip which is displaced in range from said first mentioned pip by an amount equal to the elevation coordinate of said target relative to said sighting line.

2,819,462

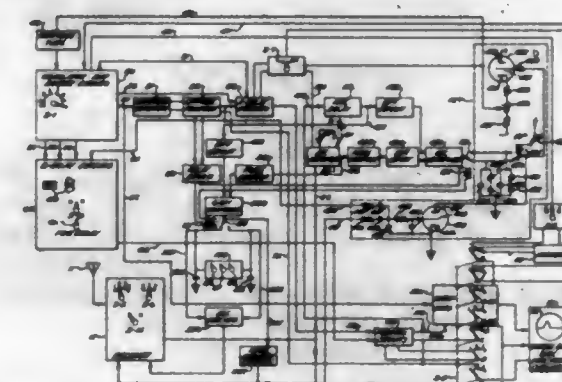
AUTOMATIC FREQUENCY CONTROL SYSTEM

Robert L. Frank, Great Neck, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application March 25, 1954, Serial No. 418,680
10 Claims. (Cl. 343-103)

1. In a radio navigation receiver responsive to recurrent A pulses transmitted from a master station and to

recurrent B pulses transmitted from a slave station, wherein the strength of the received recurrent A pulses may be different from the strength of the received recurrent B pulses, said receiver including an electrically controllable precision timing oscillator: an automatic frequency control system comprising means coupled to the output of the receiver for differentiating the received A and B pulses, synchronizer means coupled to the output of said differentiating circuit for receiving said differentiated A and B pulses, means coupled to said precision timing oscillator for producing first recurrent pulses adapted to be synchronized to said received differentiated A pulses, means coupled to the output of said precision timing oscillator for producing delayed second recurrent output pulses adapted to be synchronized to said received differentiated B pulses, means coupling said first and second recurrent pulses to said synchronizer means, said synchronizer means producing a first frequency control output voltage varying according to the relative time difference between said first pulses and said differentiated



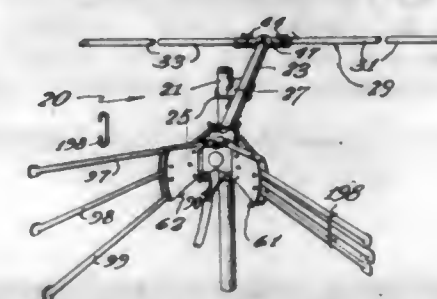
A pulses, and producing a second frequency control output voltage varying according to the relative time difference between said second pulses and said received differentiated B pulses, means coupled to the output of said synchronizer means for switching said first frequency control output voltage into a first channel during reception of said recurrent A pulses and switching said second frequency control output voltage into a second channel during reception of said recurrent B pulses, selective means coupled to said switching means and receiving said first and second frequency control output voltages therefrom, means coupled between the output of said receiver and said selective means and being responsive to the relative strengths of said received A and B pulses for energizing said selective means, said selective means selecting the frequency control output voltage produced by the stronger of said received A and B pulses, and means responsive to said selected frequency control output voltage for controlling the frequency of said electrically controllable precision timing oscillator.

2,819,463

VARIABLE ANGLE CONICAL ANTENNA

Arthur E. Vail and George A. Rothmel, Griggsville, Ill., assignors to Trio Manufacturing Co., Griggsville, Ill., a corporation of Illinois

Application October 14, 1954, Serial No. 462,157
13 Claims. (Cl. 343-808)



1. An antenna comprising a boom adapted to be supported horizontally upon a suitable standard, an insulating

ing block secured to the forward end of the boom, a pair of opposed conical dipole elements each comprising a plurality of outwardly extending rods, means retaining the rods of each conical dipole element in assembly, said retaining means of each element being pivotally secured to said block on opposite sides thereof and providing means for connecting a transmission line to said elements, and means for bracing said elements relative to said boom in any of a plurality of positions providing different forward

angles of said dipole elements, said retaining means comprising outwardly diverging segment-shaped metallic pockets having the rods secured therein, whereby all of the rods of each element are electrically connected at their inner ends, each pocket having hinge ear means at the end thereof next adjacent the boom, the block having vertically arranged hinge pin means on opposite sides thereof and connected with said ear means to provide said pivotal securement.

SPA
Leon

DESIGNS

JANUARY 7, 1958

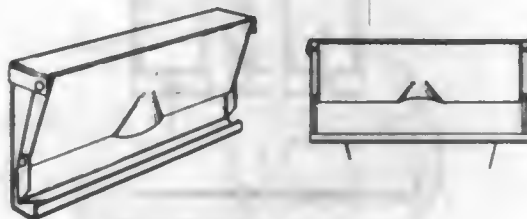
181,829

SPACE HEATER CABINET OR SIMILAR ARTICLE
 Leonard N. Albrecht, Royal Oak, Mich., assignor to
 Preway, Inc., a corporation of Wisconsin
 Application June 8, 1956, Serial No. 41,818
 Term of patent $3\frac{1}{2}$ years
 (Cl. D81-19)



181,832

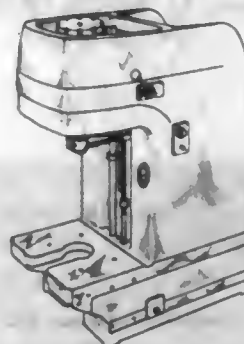
THROW-AWAY PAPER BAG HOLDER
 Russell C. Bain, Anaheim, and Robert E. Andrews,
 Los Angeles, Calif.
 Application April 6, 1956, Serial No. 40,949
 Term of patent 14 years
 (Cl. D58-26)



181,833

PRESS

Victor V. Blasutta and Edwin C. Pinsenschaum, Colum-
 bus, Ohio, assignors, by mesne assignments, to Ameri-
 can Brake Shoe Company, New York, N. Y., a corpo-
 ration of Delaware
 Application October 10, 1955, Serial No. 38,304
 Term of patent 14 years
 (Cl. D63-1)



181,830

**IDENTIFICATION LABEL FOR LUGGAGE
 OR THE LIKE**

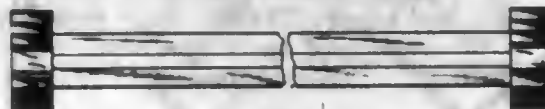
Constance H. Amburgh, Chicago, Ill.
 Application September 24, 1956, Serial No. 43,047
 Term of patent 7 years
 (Cl. D1-8)



181,834

CURTAIN ROD OR THE LIKE

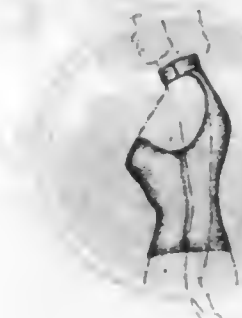
Seymour Brenner, Miami Beach, Fla., assignor to Alu-
 minum Screen Manufacturing Co., Miami, Fla., a cor-
 poration of Florida
 Application May 29, 1957, Serial No. 46,396
 Term of patent 14 years
 (Cl. D21-1)



181,831

SWEATER OR SIMILAR ARTICLE

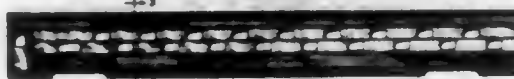
Eleanor Bacon, Los Angeles County, Calif.
 Application February 21, 1957, Serial No. 44,947
 Term of patent 14 years
 (Cl. D3-4)



181,835

RAILWAY PASSENGER CAR

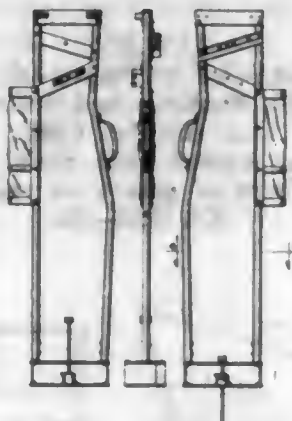
George W. Calhoun, Merwood Park, and Norman W.
 Fesmire, Willow Grove, Pa., assignors to The Budd
 Company, Philadelphia, Pa., a corporation of Penn-
 sylvania
 Application May 27, 1955, Serial No. 36,252
 Term of patent 14 years
 (Cl. D66-1)



181,836

GOLF CLUB CARRIER

Robert A. Carman, Denver, Colo.
Application April 30, 1957, Serial No. 45,953
Term of patent 14 years
(Cl. D34—5)



181,837

HIGHWAY SIGN

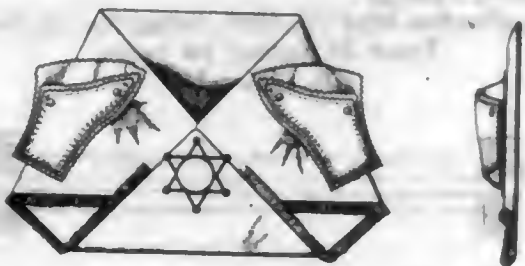
Casper Christopherson, Mukilteo, Wash.
Application May 17, 1957, Serial No. 46,210
Term of patent 7 years
(Cl. D72—1)



181,838

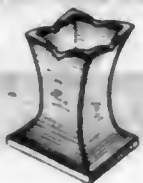
DIAPER

Harriet Y. Clough, Meadville, Pa.
Application September 14, 1956, Serial No. 42,939
Term of patent 7 years
(Cl. D3—17)



181,839

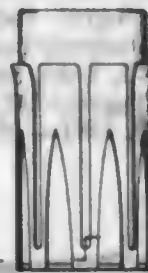
PERFUME BOTTLE STAND OR SIMILAR ARTICLE
Eric De Kolb, New York, N. Y., assignor to Coty, Inc.,
New York, N. Y., a corporation of Delaware
Application March 4, 1957, Serial No. 45,049
Term of patent 14 years
(Cl. D86—10)



181,840

ROOM DEODORIZER OR THE LIKE

Aurelio Dello Russo, Bronx, N. Y., assignor to Airkem, Inc., New York, N. Y., a corporation of New York
Application January 10, 1957, Serial No. 44,471
Term of patent 14 years
(Cl. D16—2)



181,841

WRITING INSTRUMENT

Don Doman, Janesville, Wis., assignor to The Parker Pen Company, Janesville, Wis., a corporation of Wisconsin
Application May 18, 1955, Serial No. 36,074
Term of patent 14 years
(Cl. D74—17)



181,842

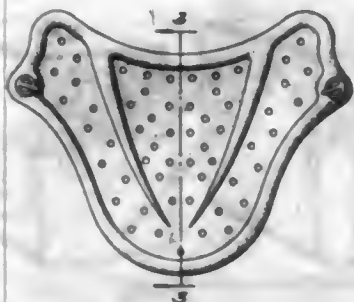
SIGN LIGHT LENS

William H. Dorman, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y., a corporation of New York
Application March 12, 1957, Serial No. 45,222
Term of patent 14 years
(Cl. D48—16)



181,843

CHAFING SHIELD

Léo Duhamel, Montreal, Quebec, Canada
Application April 12, 1956, Serial No. 41,045Term of patent 14 years
(Cl. D3—26)

181,846

MASKED HELMET

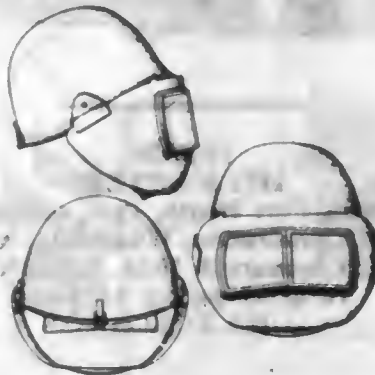
Jack F. Furrer, Wayland, and Abraham L. Lastnik,
Framingham, Mass., and Marvin A. Jarvis, Midland,
Mich., assignors to the United States of America as
represented by the Secretary of the Army

Application March 29, 1957, Serial No. 45,507

Term of patent 14 years

(Cl. D3—13)

(Granted under Title 35, U. S. Code (1952), sec. 266)



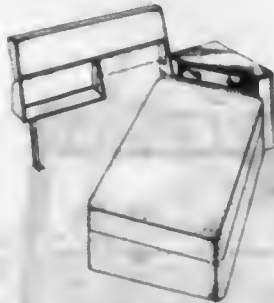
181,844

COMBINED SOFA BED AND END TABLE

Louis Elliott Frey, Los Angeles, Calif.
Application March 28, 1957, Serial No. 45,474

Term of patent 14 years

(Cl. D5—4)



181,847

PUFFED TEXTILE FABRIC

Henry E. Goforth, Winnsboro, S. C., assignor to United
States Rubber Company, New York, N. Y., a corpora-
tion of New Jersey

Application February 4, 1957, Serial No. 44,722

Term of patent 14 years

(Cl. D92—1)



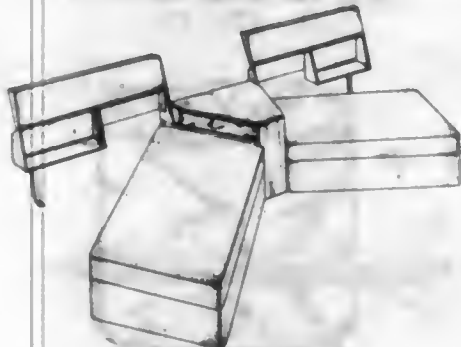
181,845

COMBINED SOFA BED AND TABLE UNIT

Louis Elliott Frey, Los Angeles, Calif.
Application March 28, 1957, Serial No. 45,475

Term of patent 14 years

(Cl. D5—4)



181,848

FIRE ALARM DEVICE

Percy Goldman, Brooklyn, N. Y.
Application April 12, 1957, Serial No. 45,725

Term of patent 3½ years

(Cl. D72—1)



181,849

SCHOOL TRAILER

Wade H. Gowl, Baltimore, Md., assignor to American Trailer Co., Inc., Washington, D. C., a corporation of Delaware

Application October 23, 1956, Serial No. 43,493

Term of patent 14 years
(Cl. D14—3)



181,850

HELICOPTER

Luell M. Graham, Fort Worth, Tex., assignor to Bell Aircraft Corporation, Wheatfield, N. Y.

Application January 4, 1956, Serial No. 39,601

Term of patent 14 years
(Cl. D71—1)



181,851

REMOVABLE GLASS HOLDER FOR VEHICLE CHAIR ARMS

Severin B. Hendrickson, Templeton, Mass., assignor to Heywood-Wakefield Company, Gardner, Mass., a corporation of Massachusetts

Application December 2, 1955, Serial No. 39,135

Term of patent 14 years
(Cl. D14—6)



181,852

VEHICLE SEAT OR SIMILAR ARTICLE

Elmer A. Herder, Dearborn Township, Mich., assignor to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania

Application October 3, 1955, Serial No. 38,205

Term of patent 14 years
(Cl. D15—8)



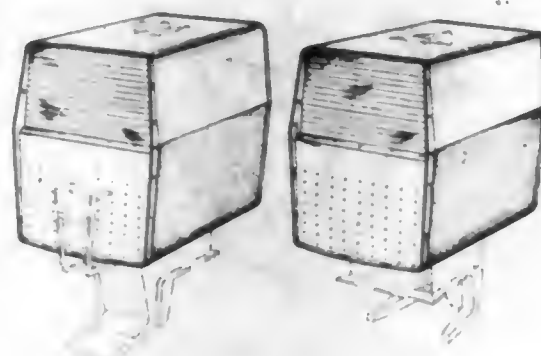
181,853

BEVERAGE DISPENSER

Clare E. Hodgman, Mamaroneck, N. Y., assignor to The Coca-Cola Company, Atlanta, Ga., a corporation of Delaware

Application April 18, 1957, Serial No. 45,785

Term of patent 14 years
(Cl. D2—3)



181,854

COMBINED CARRYING HANDLE AND VALVE ACTUATING UNIT FOR A PORTABLE FIRE EXTINGUISHER OR SIMILAR ARTICLE

Robert H. Hose, Mountainside, N. J., and George Payne, New York, N. Y., assignors to Walter Kidde & Company, Inc., Belleville, N. J., a corporation of New York

Application November 20, 1956, Serial No. 43,851

Term of patent 14 years
(Cl. D16—2)



181,855

LOUDSPEAKER CASING

Heinz Hubner, Fuerth, Germany, assignor to Max Grundig, Fuerth, Germany

Application May 15, 1956, Serial No. 41,500

Term of patent 14 years
(Cl. D26—14)



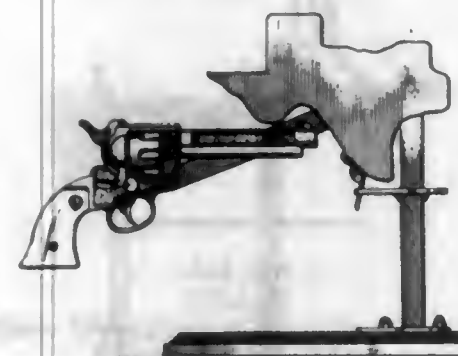
181,856

CAN PUNCH

Eric W. Johnson, Thrall, Tex.

Application April 8, 1957, Serial No. 45,641

Term of patent 14 years
(Cl. D44—29)



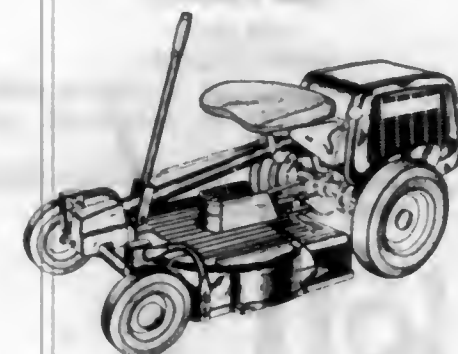
181,857

COMBINED RIDING TRACTOR AND POWER MOWER

Igor Kamlukin, Milwaukee, and Nolan Rhoades, Beloit, Wis., assignors to Simplicity Manufacturing Company, Port Washington, Wis., a corporation of Wisconsin

Application March 21, 1957, Serial No. 45,393

Term of patent 14 years
(Cl. D14—3)



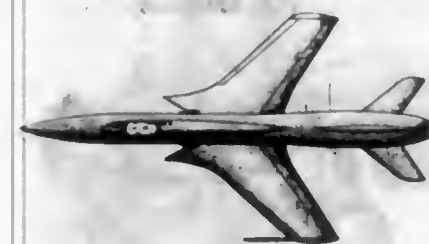
181,858

AIRPLANE

Alexander Kartveli, Huntington, N. Y., assignor to Republic Aviation Corporation, Farmingdale, N. Y., a corporation of Delaware

Application June 20, 1956, Serial No. 41,991

Term of patent 14 years
(Cl. D71—1)



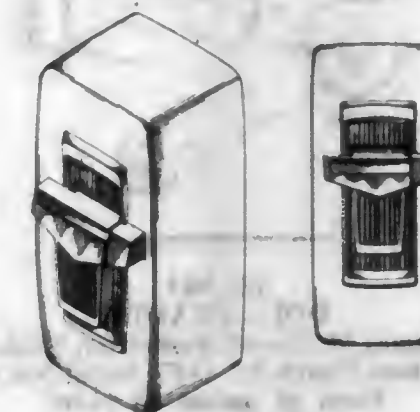
181,859

ELECTRIC CAN OPENER HOUSING

Bernard Klassen, Fremont, Melvin H. Best and Robert S. Inlow, Pasadena, James M. Powell, Anaheim, and William J. Ward, Monterey Park, Calif., assignors to Klassen Enterprises, Inc., Hayward, Calif., a corporation of California

Application September 11, 1957, Serial No. 47,698

Term of patent 14 years
(Cl. D22—2)



181,860

SALAD SERVING FORK

Herbert Edwards Krenchel, Gentofte, Denmark

Application January 23, 1956, Serial No. 39,870

Claims priority, application Denmark August 10, 1955
Term of patent 14 years
(Cl. D54—12)



181,861

WRITING INSTRUMENT OR SIMILAR ARTICLE

Thomas Lamb, New Canaan, Conn.

Application June 14, 1956, Serial No. 41,897

Term of patent 14 years
(Cl. D74—17)

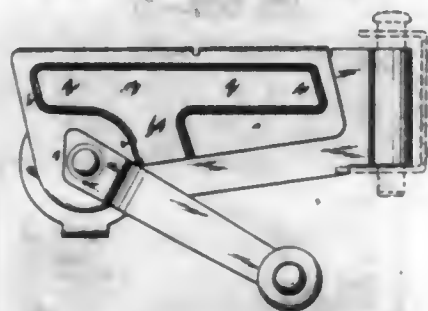


181,862

CAN OPENER

George A. Lehmann, Ferguson, Mo., assignor to The Dazey Corporation, St. Louis, Mo., a corporation of Missouri

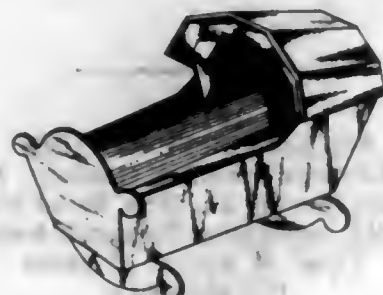
Application August 9, 1957, Serial No. 47,297
Term of patent 7 years
(Cl. D22-2)



181,863

DOLL CRADLE

James M. Lovett, Pentwater, Mich.
Application March 25, 1957, Serial No. 45,417
Term of patent 14 years
(Cl. D34-15)



181,864

DECORATIVE DISPLAY BORDER OR SIMILAR ARTICLE

Louis Marcus, Newton, Mass.
Application November 2, 1956, Serial No. 43,647
Term of patent 14 years
(Cl. D80-1)

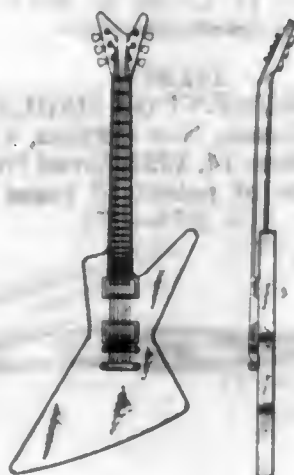


181,865

STRINGED MUSICAL INSTRUMENT

Theodore M. McCarty, Kalamazoo, Mich., assignor to Gibson, Inc., Kalamazoo, Mich., a corporation of Michigan

Application June 20, 1957, Serial No. 46,674
Term of patent 14 years
(Cl. D56-9)

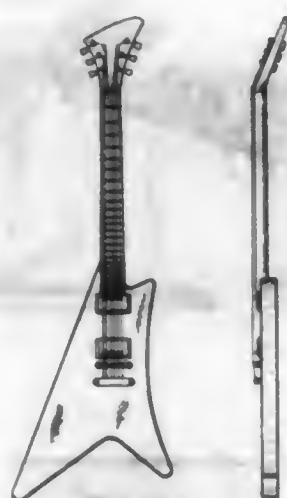


181,866

STRINGED MUSICAL INSTRUMENT

Theodore M. McCarty, Kalamazoo, Mich., assignor to Gibson, Inc., Kalamazoo, Mich., a corporation of Michigan

Application June 20, 1957, Serial No. 46,675
Term of patent 14 years
(Cl. D56-9)



181,867

STRINGED MUSICAL INSTRUMENT

Theodore M. McCarty, Kalamazoo, Mich., assignor to Gibson, Inc., Kalamazoo, Mich., a corporation of Michigan

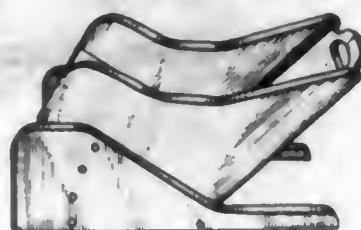
Application June 27, 1957, Serial No. 46,764
Term of patent 14 years
(Cl. D56-9)



181,868

INFANT'S SEAT

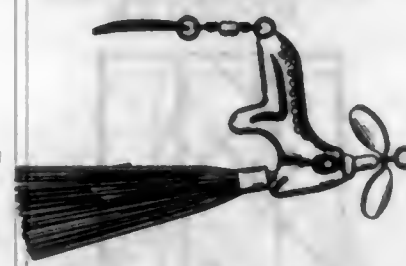
Quentin H. McDonald, Scarsdale, N. Y.
Application April 5, 1957, Serial No. 45,608
Term of patent 14 years
(Cl. D15-8)



181,869

FISH LURE

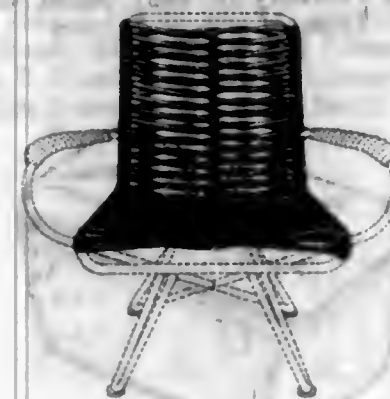
Jim C. Meador, Shreveport, La.
Application August 5, 1957, Serial No. 47,234
Term of patent 14 years
(Cl. D31-4)



181,870

CHAIR

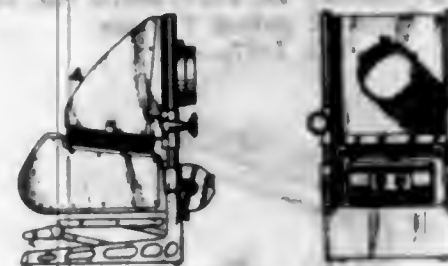
Vittorio Meneghelli, Germiston, Transvaal, Union of South Africa
Application March 28, 1956, Serial No. 40,817
Term of patent 14 years
(Cl. D15-1)



181,871

PROJECTOR

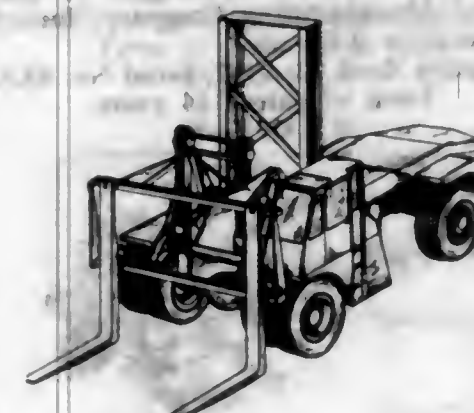
John R. Miles, Glenview, Ill., assignor to Projection Optics Co., Inc., Rochester, N. Y., a corporation of New York
Application October 4, 1956, Serial No. 43,231
Term of patent 14 years
(Cl. D61-1)



181,872

LIFT TRUCK

Kenneth H. Mindrum, Battle Creek, Mich., assignor to Clark Equipment Company, a corporation of Michigan
Application December 24, 1956, Serial No. 44,306
Term of patent 14 years
(Cl. D14-3)



726 O. G.-16

181,873

LEG FOR AN ARTICLE OF FURNITURE

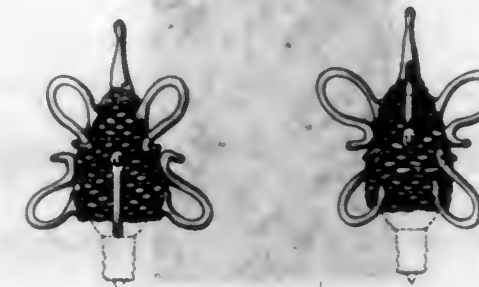
Charles P. Molla, Old Westbury, N. Y.
Application March 12, 1956, Serial No. 40,540
Term of patent 14 years
(Cl. D33-15)



181,874

DECORATIVE COVER FOR AN ELECTRIC LIGHT BULB

David A. Nibur, Los Angeles, Calif.
Application May 6, 1957, Serial No. 46,016
Term of patent 14 years
(Cl. D26-8)



181,875

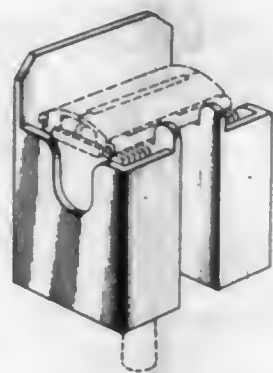
ORNAMENTAL CANDLE OR SIMILAR ARTICLE

Winnie R. Nitschke, Austin, Tex.
Application February 17, 1955, Serial No. 34,562
Term of patent 14 years
(Cl. D73-1)



181,876

COMBINED RAZOR AND BLADE HOLDER
Robert C. Nolan and Charles E. Herle, Studio City, Calif.
Application November 1, 1956, Serial No. 43,635
Term of patent $3\frac{1}{2}$ years
(Cl. D4—3)



181,877

TABLECLOTH
Ferdinand P. Otto, Philadelphia, Pa., assignor to Quaker
Lace Company, Philadelphia, Pa.
Application June 17, 1957, Serial No. 46,620
Term of patent 14 years
(Cl. D92—26)



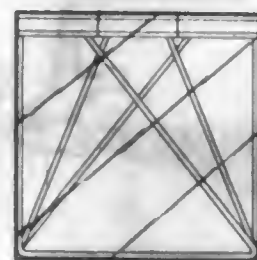
181,878

HANDBAG
Lorena Pat Reed, New York, N. Y.
Application May 13, 1957, Serial No. 46,111
Term of patent 7 years
(Cl. D87—3)



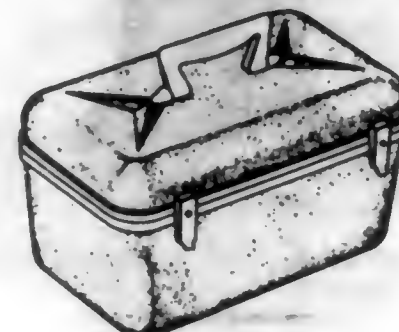
181,879

INDEX DIVIDER PACKAGE
Frederick H. Rice, Van Nuys, Calif.
Application September 8, 1954, Serial No. 32,193
Term of patent 14 years
(Cl. D58—2)



181,880

VANITY CASE
Benjamin Rosen and Albert Rosen, Seattle, Wash., assignors to Durabilt Luggage Manufacturing Company, Seattle, Wash.
Application February 18, 1957, Serial No. 44,898
Term of patent 7 years
(Cl. D86—10)



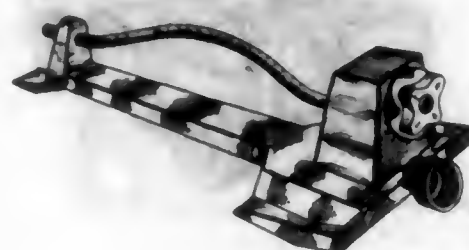
181,881

HAND LUGGAGE OR SIMILAR ARTICLE
Benjamin Rosen and Albert Rosen, Seattle, Wash., assignors to Durabilt Luggage Manufacturing Company, Seattle, Wash.
Application February 18, 1957, Serial No. 44,900
Term of patent 7 years
(Cl. D87—5)



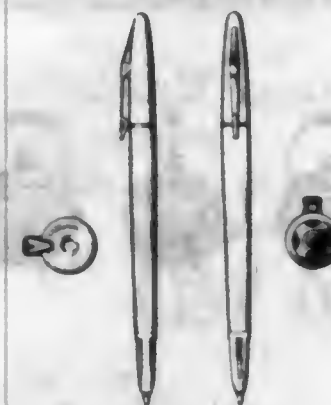
181,882

LAWN SPRINKLER
Laddie J. Sebek, Hinsdale, Ill., assignor to Central Die Casting and Manufacturing Company, Inc., Chicago, Ill., a corporation of Illinois
Application April 22, 1957, Serial No. 45,834
Term of patent 14 years
(Cl. D91—1)



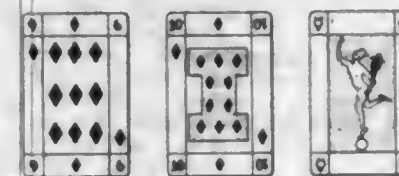
181,883

BALL POINT PEN OR SIMILAR ARTICLE
William S. Sherman, Chicago, Ill., assignor to Corry Corporation, Chicago, Ill., a corporation of Delaware
Application March 19, 1957, Serial No. 45,318
Term of patent 14 years
(Cl. D74—17)



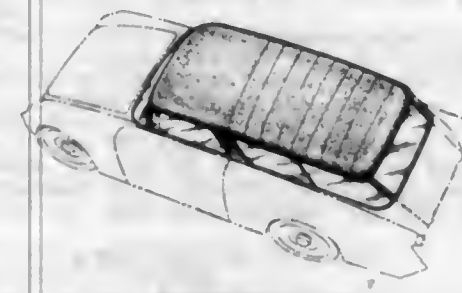
181,884

DECK OF PLAYING CARDS
Thomas B. Stauff, deceased, late of Minneapolis, Minn., by Alma B. Stauff, executrix, Minneapolis, Minn.
Application December 14, 1956, Serial No. 44,780
Term of patent 14 years
(Cl. D34—13)



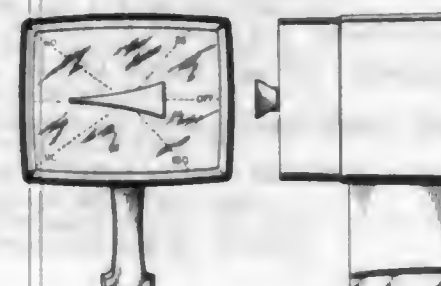
181,885

STATION WAGON
William D. Steere, Oak Park, and Carl H. Renner, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 7, 1954, Serial No. 32,578
Term of patent 7 years
(Cl. D14—3)



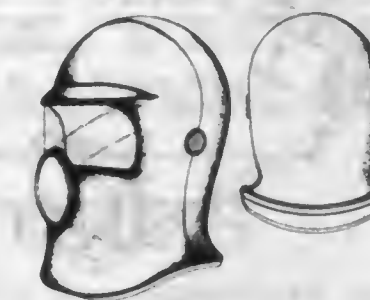
181,886

CONTROL HOUSING FOR A WASHING MACHINE OR SIMILAR ARTICLE
William R. Steiner, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 28, 1956, Serial No. 42,765
Term of patent $3\frac{1}{2}$ years
(Cl. D49—1)



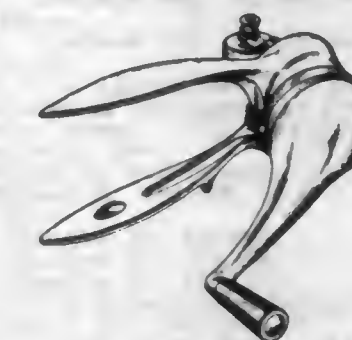
181,887

PROTECTIVE HELMET
Whitney A. Stuart, New Brunswick, N. J., and Leonard G. Huxtable, New York, N. Y., assignors to the United States of America as represented by the Secretary of the Army
Application February 21, 1957, Serial No. 44,943
Term of patent 14 years
(Cl. D3—13)



181,888

CAN OPENER
Henry J. Talge, Kansas City, Mo., assignor to John C. Hockery, trustee, Kansas City, Mo.
Application June 11, 1957, Serial No. 46,547
Term of patent 14 years
(Cl. D22—2)



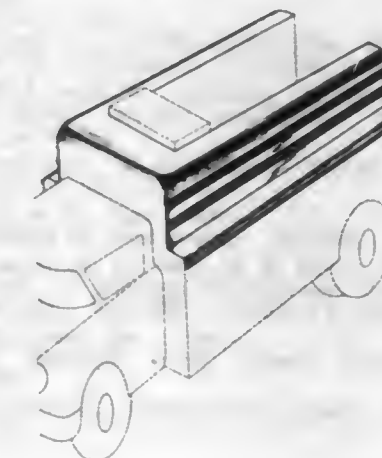
181,889

COMBINED WRIST WATCH AND COVER THEREFOR
David Taylor, New York, N. Y.
Application June 11, 1957, Serial No. 46,544
Term of patent 14 years
(Cl. D42—8)

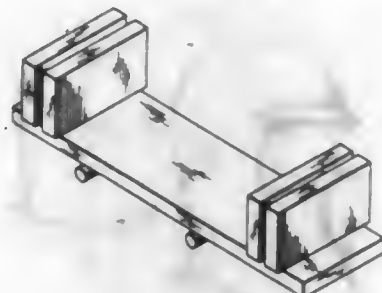


181,890

TRUCK BODY
Wallace B. Updegrave, Boyertown, Pa., assignor to Morys-ville Body Works, Inc., Boyertown, Pa.
Application June 29, 1956, Serial No. 42,094
Term of patent 14 years
(Cl. D14—3)



181,891
LETTER SCALE
Horace L. Walborn, Jackson, Mich.
Application August 13, 1957, Serial No. 47,352
Term of patent 14 years
(Cl. D52—10)



181,892
JAR FOR FOOD
Sol Young, New York, N. Y., assignor to L. Batlin & Son, Inc., New York, N. Y., a corporation of New York
Application October 15, 1956, Serial No. 43,352
Term of patent 3½ years
(Cl. D58—25)



LIST OF REISSUE PATENTEEES

TO WHOM

PATENTS WERE ISSUED ON THE 7TH DAY OF JANUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Engine Parts Mfg. Co., The: See—
Stetz, Robert J., and Rogers. Re. 24,414.
Finney Mfg. Co.: See—
Weiss, Robert S. Re. 24,413.
Rogers, Edmund: See—
Stetz, Robert J., and Rogers. Re. 24,414.

Stetz, Robert J., and E. Rogers, to The Engine Parts Mfg. Co.
Bronzing lacquer containing polyalkyl acrylate and trichlorofluoromethane. Re. 24,414, 1-7-58, Cl. 260—33.6.
Weiss, Robert S., to Finney Mfg. Co. Radio frequency antennas. Re. 24,413, 1-7-58, Cl. 343—803.

LIST OF PLANT PATENTEEES

Conard-Pyle Co., The: See—
Melland, Francis. 1,672.
Melland, Francis. 1,673.

Melland, Francis, to The Conard-Pyle Co. Rose plant. 1,672, 1-7-58, Cl. 47—61.
Melland, Francis, to The Conard-Pyle Co. Rose plant. 1,673, 1-7-58, Cl. 47—61.

LIST OF DESIGN PATENTEEES

Airkem, Inc.: See—
Dello Russo, Aurelio. 181,840.
Albrecht, Leonard N., to Preway, Inc. Space heater cabinet or similar article. 181,829, 1-7-58, Cl. D81—19.
Aluminum Screen Mfg. Co.: See—
Brenner, Seymour. 181,834.
Amburgh, Constance H. Identification label for luggage or the like. 181,830, 1-7-58, Cl. D1—8.
American Brake Shoe Co.: See—
Blasutta, Victor V., and Pinsenschaum. 181,833.
American Trailer Co., Inc.: See—
Gowl, Wade H. 181,849.
Andrews, Robert E.: See—
Bain, Russell C., and Andrews. 181,832.
Army, United States of America as represented by the Secretary of the: See—
Furrer, Jack F., Lastnik, and Jarvis. 181,846.
Stuart, Whitney A., and Huxtable. 181,887.
Bacon, Eleanor. Sweater or similar article. 181,831, 1-7-58, Cl. D3—4.
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- Price, Earl R. 2,818,710.
- Price, Earl R., and Hupp. 2,818,836.
- Sabatini, John J. 2,818,735.
- Benedict, Stephen W.: See—
Scripture, Edward W., Jr., and Benedict. 2,819,171.
- Benn, Marshall H. Emergency braking device for vehicles. 2,818,939, 1-7-58, Cl. 188-4.
- Bennett, Frank K., to Gulton Industries, Inc. Device for remote temperature measurement. 2,818,732, 1-7-58, Cl. 73-362.
- Berg, Edwin A. Telephone cabinet. 2,819,140, 1-7-58, Cl. 312-242.
- Bergin, James J., and A. B. Winttingham, to Ethyl Corp. Ethylation process. 2,819,261, 1-7-58, Cl. 260-437.
- Bergstrom, Eric V., to Socony Mobil Oil Co., Inc. Method and apparatus for separating granular particles from lift gas in a pneumatic lift. 2,819,124, 1-7-58, Cl. 302-59.
- Bergstrom, Harold A., to Continental Can Co., Inc. Fiber drum with metal bottom end having center support. 2,819,007, 1-7-58, Cl. 229-5.5.
- Berliner, Abraham. Dental instrument. 2,818,647, 1-7-58, Cl. 32-50.
- Berno, Harmond E., to Ford Motor Co. Motor vehicle brake construction. 2,818,941, 1-7-58, Cl. 188-78.
- Bernstein, Russell W. Abrasive grinding wheel. 2,818,692, 1-7-58, Cl. 51-193.5.
- Bernstein, Russell W., and A. Block. Abrasive wheel. 2,818,693, 1-7-58, Cl. 51-194.
- Bethlehem Apparatus Co., Inc.: See—
Nieman, Chauncey W., and Lawrence. 2,818,683.
- Betz, Milton G., to General Motors Corp. Door latch. 2,819,138, 1-7-58, Cl. 312-214.
- Birmingham Small Arms Co. Ltd.: See—
Perry, Claude A., and Wackrow. 2,818,669.
- Blackburn, Andrew R.: See—
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- Blackman, Thomas, to Minneapolis-Moline Co. Cotton stripper unit with collapsible hood. 2,818,700, 1-7-58, Cl. 54-33.
- Bladh, Elmer H., to Nutone, Inc. Transformer mounting. 2,819,331, 1-7-58, Cl. 174-52.
- Blasius, Herman J., and R. G. Reichle, to American Wilbert Vault Corp. Forms. 2,818,627, 1-7-58, Cl. 25-128.
- Blauvelt, Frederick D. Window construction. 2,818,920, 1-7-58, Cl. 160-92.
- Bliven, Charles V., to Ford Motor Co. Shock absorber. 2,818,942, 1-7-58, Cl. 188-88.
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- Block, Aleck. Method for forming grooves in abrasive wheels. 2,818,697, 1-7-58, Cl. 51-281.
- Boardman, Harold, to Hercules Powder Co. Vulcanizable rubber compositions and process. 2,819,255, 1-7-58, Cl. 260-85.1.
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- Bock, Louis H.: See—
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- Boerama, Theo T., to North American Phillips Co., Inc. Method of manufacturing metallic patterns. 2,819,164, 1-7-58, Cl. 96-35.
- Bogert, Bruce P., to Bell Telephone Laboratories, Inc. Stereophonic reproduction of sound. 2,819,348, 1-7-58, Cl. 179-100.1.
- Bogle, Aubrey B. Elevating conveyor. 2,818,967, 1-7-58, Cl. 198-219.
- Bogusa, Sidney A., and J. Schultz. Dispensing carton. 2,819,000, 1-7-58, Cl. 222-454.
- Bohn Aluminum & Brass Corp.: See—
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- Boisselier, Earl D., and O. Felix, to Sears, Roebuck and Co. Tone arm constructions for phonographs. 2,819,088, 1-7-58, Cl. 274-23.
- Bolding, Jan, and R. J. Taylor, to Lever Brothers Co. Process of flavoring and product. 2,819,169, 1-7-58, Cl. 99-123.
- Bolleter, Albert: See—
Schmid, Max, Moser, Bolleter, and Schucan. 2,819,258.
- Bond, Ralph W. Road rollers and the like. 2,818,664, 1-7-58, Cl. 37-150.
- Bond, Walter L., to Bell Telephone Laboratories, Inc. Automatic recording diffractometer and plotter. 2,819,405, 1-7-58, Cl. 250-53.
- Bonner, Frank E. H. Brier, and L. J. Novak, to The Commonwealth Engineering Co. of Ohio. Sequential punching apparatus. 2,818,881, 1-7-58, Cl. 137-624.
- Bonsi, Robert S.: See—
Carlson, Carl R., and Bonsi. 2,818,873.
- Booker, Clyde A., Jr., and G. W. Nagel, to Westinghouse Electric Corp. Range surface unit control. 2,819,372, 1-7-58, Cl. 219-20.
- Borah, John E. Golf ball retriever. 2,819,108, 1-7-58, Cl. 294-19.
- Borah, John E. Ball retriever. 2,819,109, 1-7-58, Cl. 294-19.
- Borden Co. The: See—
Hart, Raymond G., and Gardner. 2,819,238.
- Borg-Warner Corp.: See—
Ross, Louis. 2,818,932.
- Borger, James C.: See—
Byrnes, James H., and Borger. 2,818,908.
- Borsos, Joseph. Magnetic toy drum. 2,818,680, 1-7-58, Cl. 46-240.

- Bourguet, Jean M., to Socony Mobil Oil Co., Inc. Apparatus for method of operating a pneumatic lift used to transport granular solids. 2,819,121, 1-7-58, Cl. 302-33.
- Bouwers, Albert, to N. V. Optische Industrie "De Oude Delft." Panoramic telescope. 2,818,773, 1-7-58, Cl. 88-33.
- Bowling, Omer E., and K. A. Graham, to Chrysler Corp. Condenser discharge high frequency ignition system. 2,819,428, 1-7-58, Cl. 315-213.
- Bowman, Forest C.: See—
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- Boyce, William C., to Chance Vought Aircraft, Inc. Retractable fitting for release system. 2,819,033, 1-7-58, Cl. 244-137.
- Boyle, Lawrence J. Chock. 2,818,940, 1-7-58, Cl. 188-32.
- Brace, Edward C. Key lever and type bar assemblies of type writers and like machines. 2,818,937, 1-7-58, Cl. 197-27.
- Bradley, James P., and R. R. Dohrmann, to General Motors Corp. Refractory mold, method of making same and composition therefor. 2,818,619, 1-7-58, Cl. 22-193.
- Braley, Orville A., to Dow Corning Corp. Organopolysiloxane compositions containing both lead- and butyl-tin-2-ethyl-oxates and glass fabric laminates employing the same.
- Braunschweigische Maschinenbauanstalt: See—
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- Bresky, Donald R.: See—
Watson, Emmett S., Bresky, and Savitsky. 2,819,402.
- Brevets Aero-Mecaniques S. A.: See—
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- Brewer, George R., to Hughes Aircraft Co. Electron gun for traveling wave tube. 2,819,424, 1-7-58, Cl. 315-3.5.
- Breymeyer, Rudolph T., to Union Carbide Corp. Apparatus for transferring highly reactive molten metals. 2,819,039, 1-7-58, Cl. 260-58.
- Bresosky, Bernard J., and F. W. Moore, to General Electric Co. Waste disposal apparatus. 2,819,028, 1-7-58, Cl. 241-100.5.
- Bridges, Joseph P., to Cypress Gardens Skis Inc. Adjustable water ski binder. 2,818,587, 1-7-58, Cl. 9-21.
- Brier, Hyman: See—
Bonner, Frank E., Brier, and Novak. 2,818,881.
- British Insulated Callender's Cables Ltd.: See—
Simmonds, George H., and Stewart. 2,818,905.
- British Oxygen Co. Ltd.: See—
Bannister, Leonard C., Chater, and Charles. 2,819,160.
- British Soya Products Ltd.: See—
Learnmonth, Eric M. 2,819,168.
- Brixius, Jacob K., to Air-Maze Corp. Frame for panel filter. 2,818,937, 1-7-58, Cl. 183-60.
- Brody, Stanley S. Voice operated intercommunication system. 2,819,340, 1-7-58, Cl. 179-1.
- Broussard, Charles J., 1/4 to W. T. Castleberry. Portable shield. 2,818,927, 1-7-58, Cl. 169-1.
- Broussard, Charles J., 1/4 to W. T. Castleberry. Portable shielded booth and walls. 2,818,928, 1-7-58, Cl. 169-1.
- Brown, Arthur B., and J. W. Sparks, to Standard Oil Co. Ozonization of olefinic compounds to a carboxylic acid and an aldehyde. 2,819,279, 1-7-58, Cl. 260-413.
- Brown, Charles H., to Morning Coffee, Inc. Water-heating apparatus for use in making hot beverages. 2,819,377, 1-7-58, Cl. 219-38.
- Brown, Forrest W., and K. J. Chichester, to The Reflectone Corp. Electrically scoring target. 2,819,084, 1-7-58, Cl. 273-102.2.
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- Brown, Herbert C., and W. S. Higley, to Standard Oil Co. Propylene polymerization with Pfr. 2,819,328, 1-7-58, Cl. 260-683.15.
- Brown, Kenneth L.: See—
Fink, Carl K., and Brown. 2,819,235.
- Brunner, Rea M. Advertising signal. 2,818,668, 1-7-58, Cl. 40-132.
- Bryan, James D., to The Glenn L. Martin Co. Radar acquisition system. 2,819,461, 1-7-58, Cl. 343-11.
- Bryant Chucking Grinder Co.: See—
Groby, Paul A. 2,819,127.
- Buck, Willard E., to Kindar Corp. Electric motor. 2,819,441, 1-7-58, Cl. 318-325.
- Buensod-Stacey, Inc.: See—
Marshall, Harrison W. 2,819,023.
- Bukolt, Victor J., and A. A. Jurgella. Adjustable guide and track for sliding door. 2,818,597, 1-7-58, Cl. 16-87.
- Bungas, George. Air-conditioning apparatus. 2,819,044, 1-7-58, Cl. 257-9.
- Bunn, B. H. Co.: See—
Bunn, Benjamin H. 2,818,796.
- Bunn, Benjamin H., to B. H. Bunn Co. Compactor for a tying machine. 2,818,796, 1-7-58, Cl. 100-27.
- Burke, Kenneth O., to Owens-Illinois Glass Co. Pallet truck. 2,818,989, 1-7-58, Cl. 214-621.
- Burkholder, Claude A., to General Box Distributors. Drier for composite paper and veneer sheet material. 2,818,660, 1-7-58, Cl. 34-233.
- Burness, Robert E. Deodoriser. 2,818,615, 1-7-58, Cl. 21-111.
- Burnett, Daniel A. Safety seat assembly for vehicles. 2,818,909, 1-7-58, Cl. 165-9.
- Burnison, George C. Ventilating attachment for hats. 2,818,574, 1-7-58, Cl. 2-181.2.
- Burrongs Corp.: See—
Dusenbury, Theodore P. 2,819,067.
- Jones, John P., Jr. 2,819,395.
- Bushway, George H., to Shu-Conditioner Inc. Box toe blank conditioning machine. 2,818,832, 1-7-58, Cl. 118-426.
- Butt, Alan G.: See—
Pearse, Richard H., Jr., and Butt. 2,819,045.
- Byrnes, James H., and J. C. Borger, to Westoak Machine Corp. Machine for applying pressure-sensitive sheet to flat objects. 2,818,908, 1-7-58, Cl. 164-41.
- Callahan, James L.: See—
Strecker, Harold A., and Callahan. 2,819,229.
- Cambridge Rubber Co.: See—
Dunbar, Ernest W. 2,818,603.
- Campbell, Ellen H. Head support with pivoted backrest. 2,818,985, 1-7-58, Cl. 5-327.
- Canadian Arsenal Ltd.: See—
Picard, Victorin, and Cote. 2,818,964.
- Canadian General Electric Co., Ltd.: See—
Waterman, Usal E. 2,819,415.
- Canfield, William E., and R. W. Smith, to E. L. Hardin Associates, Inc. Curb and gutter laying machine. 2,818,790, 1-7-58, Cl. 94-46.
- Cantrell, Edward C. Bath tub grip and syringe staff. 2,818,578, 1-7-58, Cl. 4-185.
- Capital Products Corp.: See—
Temple, Hiram E. 2,818,986.
- Carlsen, Einar F. Tool for hub caps. 2,818,635, 1-7-58, Cl. 29-245.
- Carlson, Carl R., and R. S. Bonsi, to W. T. and John Barnes Co. Jar washer. 2,818,873, 1-7-58, Cl. 134-70.
- Carlson, George R., A. D. Kafadar, and S. Raynor, to the United States of America as represented by the Secretary of the Army. Electromagnetic recoil system for a gun. 2,818,783, 1-7-58, Cl. 89-142.
- Carlson, Harold A.: See—
Moseley, James T. W., Carlson, and Herron. 2,818,879.
- Carnes, Joseph J., and F. M. Cowen, to American Cyanamid Co. Preparation of hydroxyalkyl acrylates. 2,819,296, 1-7-58, Cl. 260-486.
- Carrieco, Charles F. Adjustable garment hanger. 2,819,003, 1-7-58, Cl. 223-88.
- Carrier Conveyor Corp.: See—
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- Carrier, Robert M., Jr. 2,819,047.
- Carrier, Robert M., Jr., to Carrier Conveyor Corp. Spiral and like conveyors. 2,818,968, 1-7-58, Cl. 198-220.
- Carrier, Robert M., Jr., to Carrier Conveyor Corp. Conveyor for mixing and de-aerating. 2,819,047, 1-7-58, Cl. 259-72.
- Cart, Ward B., and W. L. Ringland, to Allis-Chalmers Mfg. Co. Dynamoelectric machine having rotor material replacement device. 2,819,418, 1-7-58, Cl. 310-261.
- Carter, Isaac. Coin control shoe polishing stand. 2,818,589, 1-7-58, Cl. 15-31.
- Case, J. L. Co.: See—
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- Casebolt, George S., to American Cyanamid Co. Unsaturated polyester room temperature setting adhesive composition. 2,819,248, 1-7-58, Cl. 260-45.4.
- Castleberry, W. T.: See—
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- Broussard, Charles J. 2,818,928.
- Castro, Bernard. Sofa-bed bedding protector. 2,818,584, 1-7-58, Cl. 5-13.
- Caswell, Edgar F., to Kelsey-Hayes Co. Work chuck. 2,818,617, 1-7-58, Cl. 22-58.5.
- Cedarholm, Roland E.: See—
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- Cereghetti, Giovanni: See—
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- Cerone, Pasquale L. Pick-up device for record players. 2,819,087, 1-7-58, Cl. 274-23.
- Chance Vought Aircraft, Inc.: See—
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- Charles, Inc.: See—
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- Charles, James A.: See—
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- Chater, William J. B.: See—
Bannister, Leonard C., Chater, and Charles. 2,819,160.
- Cheng, Jen-Pu: See—
De Groot, Melvin, and Cheng. 2,819,278.
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- Brown, Forrest W., and Chichester. 2,819,085.
- Christenson, Howard W., to General Motors Corp. Radial piston pump. 2,818,816, 1-7-58, Cl. 103-174.
- Christensen, Horace H., to General Electric Co. Combined manual and automatic servo apparatus. 2,819,030, 1-7-58, Cl. 244-76.
- Christensen, Horace H., to General Electric Co. Hydraulic positioning apparatus. 2,819,031, 1-7-58, Cl. 244-78.
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- Schmid, Max, Moser, Bolleter, and Schucan. 2,819,258.
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- City National Bank and Trust Co. of Chicago: See—
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- Clapper, Genung L., to International Business Machines Corp. Pulse generating system. 2,819,413, 1-7-58, Cl. 307-106.
- Clark, Albert G., to General Electric Co. Plasma transmitter. 2,819,423, 1-7-58, Cl. 313-231.
- Clark, Alfred: See—
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- Clark, Harold A., to Dow Corning Corp. Phenylene linked siloxanes. 2,819,282, 1-7-58, Cl. 260-448.2.

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 Dayer, Donald L., and C. E. Winstead, Jr., to the United States of America as represented by the Secretary of the Navy. Torpedo locator and retriever. 2,818,586, 1-7-58, Cl. 6-9.
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 De Baigne, Frank, to LaSalle Tool, Inc. Apparatus for handling and shuttling parts. 2,818,963, 1-7-58, Cl. 198-19.
 Deeley-Jones, Arnold E., to General Motors Corp. Exhaust means. 2,818,932, 1-7-58, Cl. 180-64.
 De Gaston, Raoul H. Magnetic tool guide. 2,818,655, 1-7-58, Cl. 93-189.
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 De Groote, Melvin, to Petrolite Corp. Process for breaking petroleum emulsions employing certain oxyalkylated amine-modified thermoplastic phenol-aldehyde resins. 2,819,225, 1-7-58, Cl. 252-344.
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- Iser, Otto, M., Montavon, R. Ruegg, and P. Zeller, to Hoffmann-La Roche Inc. Process for the manufacture of carotenoids. 2,819,298, 1-7-58, Cl. 260-488.
- Iser, Otto, M., Montavon, R. Ruegg, and P. Zeller, to Hoffmann-La Roche Inc. Process for the manufacture of polyene aldehydes. 2,819,312, 1-7-58, Cl. 260-598.
- Isom, Warren R., to Radio Corp. of America. Internal drag roller. 2,819,069, 1-7-58, Cl. 271-2.3.
- Isreeli, Jack: See—
- Huxley, Thomas C., III, and Isreeli. 2,818,853.
- Jackson, Sidney W.: See—
- Fahlman, Everett G., and Jackson. 2,819,118.
- Jacobs, Carlton L. Audible signal apparatus. 2,819,460, 1-7-58, Cl. 340-384.
- Jacoby, George W., Jr. Adhesive tape for surgical dressings. 2,818,865, 1-7-58, Cl. 128-334.
- Jaldinger, John H. Mutually latchline duplex relay. 2,819,364, 1-7-58, Cl. 200-98.
- James, William G.: See—
- Lindsay, Onos M., and James. 2,819,039.
- James, William G., T. M. Frisby, and J. A. Hamman, to Eastman Oil Well Survey Co. Deflecting tool. 2,819,040, 1-7-58, Cl. 255-1.6.
- Jandris, Albert C. and J. A. Vibration absorbing apparatus. 2,819,046, 1-7-58, Cl. 259-72.
- Jandris, Joseph A.: See—
- Jandris, Albert C. and J. A. 2,819,046.
- Jasse, Joseph R., to Societe Nouvelle des Etablissements Brandt. Directing apparatus. 2,818,782, 1-7-58, Cl. 89-41.
- Jeffrey Mfg. Co., The: See—
- Wright, Fred J. 2,818,706.
- Jennings, Melvin A. and W. Grinding apparatus. 2,818,689, 1-7-58, Cl. 51-103.
- Jennings, Wesley: See—
- Jennings, Melvin A. and W. 2,818,689.
- Jenny, Walter: See—
- Grossmann, Paul, Jenny, and Kern. 2,819,275.
- Jochheim, Hans R. A. Posture measuring device. 2,818,648, 1-7-58, Cl. 33-8.
- Johnsen, Henrik S.: See—
- Becker, Philip D., and Johnsen. 2,818,901.
- Johnson, Albert H.: See—
- McCafferty, Frank L., and Johnson. 2,818,982.
- Johnson, Gordon, Equipment Co.: See—
- Zebarth, Ralph S. 2,818,600.
- Johnson, John P. Structural movement warning device. 2,819,359, 1-7-58, Cl. 200-52.
- Johnson, Julian W. Method for mobilizing the sacro-iliac. 2,818,854, 1-7-58, Cl. 128-69.
- Johnson, Reynold B., to International Business Machines Corp. Stepping relay accumulator. 2,819,016, 1-7-58, Cl. 235-61.
- Johnston, James H. Method of arc-melting titanium. 2,819,158, 1-7-58, Cl. 75-10.
- Johnston, James H. Method of arc welding titanium. 2,819,383, 1-7-58, Cl. 219-118.
- Jones, Clayton. Attachment clip for wall siding members. 2,818,948, 1-7-58, Cl. 189-88.
- Jones, Earl P., to Gate City Sash and Door Co. Awning window structure. 2,819,065, 1-7-58, Cl. 268-23.
- Jones, James T. Dispenser incorporating air-exhaust means for use with semi-fluid materials. 2,818,998, 1-7-58, Cl. 222-179.
- Jones, John P., Jr., to Burroughs Corp. Driving circuits for static magnetic elements. 2,819,395, 1-7-58, Cl. 250-27.
- Jones, William C., to The Dow Chemical Co. Film dispenser. 2,819,137, 1-7-58, Cl. 312-39.
- Jones, William C., and R. A. Wyatt, to The Dow Chemical Co. Dispenser apparatus. 2,819,136, 1-7-58, Cl. 312-39.
- Jonker, Frederick. Spinning tops. 2,818,676, 1-7-58, Cl. 46-70.
- Jordan, Thomas E.: See—
- Romanovsky, Cyril, and Jordan. 2,819,327.
- Jorgensen, Oscar H. Steplessly variable ratio power transmission gear. 2,818,751, 1-7-58, Cl. 74-690.
- Joseph, David. Building block laying device. 2,818,725, 1-7-58, Cl. 72-129.
- Joynes, John N. Sewer clean-out cutter. 2,818,591, 1-7-58, Cl. 15-104.3.
- Judd, Chester K., Jr., to The Fletcher-Terry Co. Paint scraper. 2,818,642, 1-7-58, Cl. 30-169.
- Junk, William A., Jr., and H. S. Seelig, to Standard Oil Co. Heater oil production. 2,819,202, 1-7-58, Cl. 196-24.
- Jurgella, Albert A.: See—
- Bukolt, Victor J., and Jurgella. 2,818,597.
- Jüttner, Bernhard: See—
- Grosskinsky, Otto, and Jüttner. 2,819,300.
- Kaehni, Frank J.: See—
- Kaehni, Frank J. and W. L. 2,819,389.
- Kaehni, Frank J., and W. L. Kaehni, deceased (by F. J. Kaehni, executor). High frequency detector. 2,819,389, 1-7-58, Cl. 250-20.
- Kaehni, William L.: See—
- Kaehni, Frank J. and W. L. 2,819,389.
- Kaemmerlen, Cyril J., Jr.: See—
- Manning, Earl, Jr., and Kaemmerlen. 2,819,049.
- Kafadar, Ahmed D.: See—
- Carlson, George R., Kafadar, and Raynor. 2,818,783.
- Kagan, Fred, to Standard Oil Co. Ethylene polymerization. 2,819,257, 1-7-58, Cl. 260-94.9.
- Kahn, Henry. Zipper repair tool. 2,818,755, 1-7-58, Cl. 81-5.1.
- Kaiser, Donald W.: See—
- Welcher, Richard P., and Kaiser. 2,819,292.
- Kalamazoo Vegetable Parchment Co.: See—
- Glinther, Virgil L. 2,818,996.
- Kallish, Joseph, to Schenley Laboratories, Inc. Stable injectable fat emulsions and process of producing same. 2,819,199, 1-7-58, Cl. 167-66.
- Kaminsky, Fritz, to Fellner & Ziegler G. m. b. H. Bearings for rotary cylinders, drums and the like. 2,819,130, 1-7-58, Cl. 308-234.
- Kanuch, Stephen J. Compass. 2,818,650, 1-7-58, Cl. 33-27.
- Kapfer, William H.: See—
- Treybal, Robert E., Kapfer, and Bajars. 2,819,159.
- Kaplan, Martin, to Radio Corp. of America. Magnetic pulse limiting. 2,819,412, 1-7-58, Cl. 307-88.
- Kapp, Roland: See—
- Griffith, Richard, di Salvo, Kapp, and Rosenberg. 2,819,303.
- Schaaf, Kurt H., Klein, and Kapp. 2,819,308.
- Karcher, Harry C., to General Motors Corp. Turbine engine starting system. 2,818,704, 1-7-58, Cl. 60-39.14.
- Karlen, Harvey R., to Cory Corp. Hot water dispenser. 2,819,376, 1-7-58, Cl. 219-38.
- Käther, Willy, to Braunschweigische Maschinenbauanstalt, and Pfeifer & Langen. Counter-current diffusion tower. 2,819,190, 1-7-58, Cl. 127-7.
- Katz, Louis, to Elkay Mfg. Co. Means for joining sink to drainboard. 2,818,579, 1-7-58, Cl. 4-187.
- Kawneer Co., The: See—
- Muessel, Dan C. 2,819,107.
- Kay-Brunner Steel Products, Inc.: See—
- Behnke, Arnold F. 2,819,105.
- Keech, Horace, and D. H. Lehr, to C. Howard Hunt Pen Co. Pencil sharpener. 2,818,834, 1-7-58, Cl. 120-96.
- Kelzer, Eugene O., to Radio Corp. of America. Automatic gain control circuits. 2,819,337, 1-7-58, Cl. 178-7.3.
- Kelzer, Eugene O., and M. G. Kroger, to Radio Corp. of America. Automatic gain control circuit. 2,819,353, 1-7-58, Cl. 179-171.
- Keleket X-Ray Corp., The: See—
- Freckling, George F., Jr., and Haupt. 2,819,406.
- Haupt, Walter H. 2,819,407.
- Kelley, Oliver K., to General Motors Corp. Hydraulic torque converter fluid supply and cooling system. 2,818,708, 1-7-58, Cl. 60-54.
- Kelsey-Hayes Co.: See—
- Caswell, Edgar F. 2,818,617.
- Kemmettmüller, Roland, to Waagner-Biro Aktiengesellschaft. Combined centrifugal separator and heat exchanger. 2,818,935, 1-7-58, Cl. 183-32.
- Kempler, Frederick, to Levy Auto Parts Co. Ltd. Ammunition. 2,818,811, 1-7-58, Cl. 102-45.
- Kennedy, John M., III. Tamper attachment for truck wheel. 2,818,791, 1-7-58, Cl. 94-49.
- Kercher, Arthur J., 1/4 to W. W. Hicks. Thermostatic switch. 2,819,366, 1-7-58, Cl. 200-138.
- Kern, Walter: See—
- Grossmann, Paul, Jenny, and Kern. 2,819,275.
- Kester, George W., to Food Machinery and Chemical Corp. Vibration indicator. 2,818,830, 1-7-58, Cl. 116-114.
- Keuffel & Esser Co.: See—
- Baker, Allister L. 2,818,652.
- Khym, Joseph X., and L. P. Zill. Separation and analysis of polyhydroxy substances. 2,818,851, 1-7-58, Cl. 127-55.
- Kilthau, Martha K.: See—
- Lindensfelder, Richard, and Layman. 2,819,246.
- Kimberly-Clark Corp.: See—
- Beaulieu, Delton C. 2,819,079.
- Kincaid, Marshall M.: See—
- Gordon, Bernard M., and Kincaid. 2,819,394.

- Kindar Corp.: See—
Buck, Willard E. 2,819,441.
- Kirby, Wilfred, and F. K. Daniels, to Vickers-Armstrongs Ltd. Machines for forming fold lines in boards or sheets. 2,818,789, 1-7-58, Cl. 93—58.1.
- Kirk, James A. Machine for making paper flower pots. 2,818,788, 1-7-58, Cl. 93—36.2.
- Klein, Howard C.: See—
Schaaf, Kurt H., Klein, and Kapp. 2,819,308.
- Klein, Howard C., to Nopco Chemical Co. Production of vitamin A amine. 2,819,309, 1-7-58, Cl. 260—56.3.
- Klein, Howard C., C. O. Beckmann, and K. H. Schaaf, to Nopco Chemical Co. Production of vitamin A-active material. 2,819,310, 1-7-58, Cl. 260—56.3.
- Klein, Howard C., and D. R. Grasseti, to Nopco Chemical Co. Production of vitamin A aldehyde. 2,819,311, 1-7-58, Cl. 260—56.8.
- Klein, Robert H. Package case. 2,818,909, 1-7-58, Cl. 260—41.2.
- Kierholm, Karl E. Hoisting and lowering devices for boards or plates. 2,819,134, 1-7-58, Cl. 311—39.
- Klingler, Karl A. Window washer. 2,818,593, 1-7-58, Cl. 15—12.7.
- Klockner-Humboldt-Deutz Aktiengesellschaft: See—
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- Knee, William, to The National Cash Register Co. Hand stamps. 2,818,802, 1-7-58, Cl. 101—11.1.
- Koch Engineering Co., Inc.: See—
Huggins, Clifford A., and Thrift. 2,819,050.
- Koencke, Donald P., L. A. Mikeska, and A. H. Gleason, to Esso Research and Engineering Co. Synthetic drying oil. 2,819,302, 1-7-58, Cl. 260—51.9.
- Koenig, Claus. Self-adhesive tape. 2,819,180, 1-7-58, Cl. 117—11.
- Koepfer, Casper J., to the United States of America as represented by the Secretary of the Army. Non-tip off launcher. 2,818,779, 1-7-58, Cl. 99—1.7.
- Kohl, Gerald C. Cervical caps and applicators therefor. 2,818,856, 1-7-58, Cl. 128—12.7.
- Koller, Lewis R., to General Electric Co. Electroluminescent cell. 2,819,420, 1-7-58, Cl. 313—10.8.
- Kolthoff, Aage T., and H. L. Taylor. Trouser drafting slide rule. 2,818,649, 1-7-58, Cl. 33—11.
- Korsgren, Theodore Y., to Robertshaw-Fulton Controls Co. Switches. 2,819,362, 1-7-58, Cl. 200—8.7.
- Krakauer, Sidney: See—
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- Krause, Otto J., to Phillips Petroleum Co. Safety cutoff filler nozzle. 2,818,889, 1-7-58, Cl. 141—20.8.
- Kreutzer, Conradin O., to Fish Products Co. Electrically shocking animals in contact with a predetermined region. 2,818,672, 1-7-58, Cl. 43—17.1.
- Kroemer, John H.: See—
Diets, Charles H., and Kroemer. 2,819,071.
- Kroger, Marlin G.: See—
Keiser, Eugene O., and Kroger. 2,819,353.
- Krupp, Robert F., and R. C. Oliver, to Gerber Products Co. Jar handling machine. 2,818,987, 1-7-58, Cl. 214—30.9.
- Kubik, John: See—
Kubik, Stanley S., and J. 2,818,577.
- Kubik, Stanley S., and J. 2,819,004.
- Kubik, John T., and S. S. Manually operated serrated lid remover for screw threaded containers. 2,818,754, 1-7-58, Cl. 81—3.44.
- Kubik, Stanley S.: See—
Kubik, John T., and S. S. 2,818,754.
- Kubik, Stanley S., and J. Foot support for shower baths. 2,818,577, 1-7-58, Cl. 4—14.6.
- Kubik, Stanley S., and J. Outside spare tire mounting for station wagons and trucks. 2,819,004, 1-7-58, Cl. 224—42.21.
- Kucera, Joseph B., to Food Machinery and Chemical Corp. Three wheeled vehicle having a high arched front frame. 2,818,929, 1-7-58, Cl. 180—25.
- Kucera, Joseph B. Three-wheeled vehicle having a high arched front frame. 2,818,930, 1-7-58, Cl. 180—25.
- Kugler, Heinz W., to the United States of America as represented by the Secretary of the Army. Spring-pressed surgical instrument. 2,818,852, 1-7-58, Cl. 128—2.
- Kulbersh, Nathan: See—
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- Kwasniewski, George A., to Minneapolis-Honeywell Regulator Co. Power controllers. 2,818,750, 1-7-58, Cl. 74—02.5.
- Laboratory For Electronics, Inc.: See—
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- Ladd, Eric: See—
Roberts, John F. 2,819,005.
- Laib, Heinrich: See—
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- Lake, Lawrence C. Vertically slidable vehicle door. 2,819,114, 1-7-58, Cl. 296—44.
- Lake, Robert E.: See—
Gledhof, Peter E., and Lake. 2,818,720.
- Lamb-Grays Harbor Co., Inc.: See—
Gustafson, George W. 2,818,795.
- Lampe, Robert C., to Electrolux Corp. Vacuum cleaner dolly. 2,819,091, 1-7-58, Cl. 280—8.
- Landerer, Lucio: See—
Polack, Juan R. 2,818,715.
- Lang, Ernest U., to International Business Machines Corp. Punching mechanism. 2,818,924, 1-7-58, Cl. 104—124.
- Lang, George J. Hose connector. 2,819,097, 1-7-58, Cl. 283—81.
- Langley, Cyril W.: See—
Ralph, Arthur H., and Langley. 2,818,626.
- Lankford, Francis M. Slush pump pistons. 2,819,131, 1-7-58, Cl. 309—4.
- Lanning, William C., and A. Clark, to Phillips Petroleum Co. Production of aromatic hydrocarbons. 2,819,325, 1-7-58, Cl. 260—67.8.
- Lapka, Frank, Jr. Threshold. 2,818,614, 1-7-58, Cl. 20—64.
- Larson, Mathew R.: See—
Holcroft, Walter H., and Larson. 2,819,035.
- La Salle Tool, Inc.: See—
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- Lastnik, Abraham L.: See—
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- Latimer, Maurice C. Illuminated signs. 2,818,667, 1-7-58, Cl. 40—130.
- Lauck, Albert G., to Owens-Illinois Glass Co. Glassware forming apparatus. 2,818,684, 1-7-58, Cl. 49—69.
- La Via, Joseph. Color television display system. 2,819,332, 1-7-58, Cl. 178—5.4.
- Lawrence Brothers, Inc.: See—
Lawrence, Edwin F., III. 2,818,608.
- Lawrence, Edwin F., III, to Lawrence Brothers, Inc. Sliding door frame structure. 2,818,608, 1-7-58, Cl. 20—11.
- Lawrence, Ernest O., to the United States Atomic Energy Commission. Apparatus for controlling the position of an ion beam in a calutron. 2,819,401, 1-7-58, Cl. 250—41.9.
- Lawrence, James B.: See—
Nleman, Chauncey W., and Lawrence. 2,818,683.
- Lawrence Paper Co., The: See—
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- Lawson, Axel A., and C. W. Ross, to Melpar, Inc. Tamper proof actuator. 2,818,748, 1-7-58, Cl. 74—54.8.
- Layman, Martha K.: See—
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- Lear, Inc.: See—
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- Learmonth, Eric M., to British Soya Products Ltd. Protection of food against protein degradation. 2,819,168, 1-7-58, Cl. 99—91.
- Le Boeuf, Edgar W., to The Dow Chemical Co. Process for crimping fibers. 2,818,630, 1-7-58, Cl. 28—72.
- Ledet, Louis L. Rotary jet propelled engine. 2,818,705, 1-7-58, Cl. 60—39.36.
- Lee, Warren G.: See—
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- Leggett, Guy O., to Merit Products, Inc. Abrasive wheel. 2,818,691, 1-7-58, Cl. 51—193.5.
- Leggett, Guy O. Reverse taper boring tool. 2,818,733, 1-7-58, Cl. 77—58.
- Lehr, Donald H.: See—
Keech, Horace, and Lehr. 2,818,834.
- Lemelson, Jerome M. Crying doll. 2,818,678, 1-7-58, Cl. 46—11.8.
- Lents, Thomas H., and H. Whitteoff, to General Mills, Inc. Use of naphthenic amines in phosphate flotation. 2,818,976, 1-7-58, Cl. 200—166.
- Le Van, Ambrose E., and W. D. Huaton, to American Machine and Metals, Inc. Instruments. 2,818,876, 1-7-58, Cl. 127—52.
- Lever Brothers Co.: See—
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- Levin, Morris J. Cylinder lock. 2,818,723, 1-7-58, Cl. 70—38.3.
- Levorson, Alvin K. Silk screen stencil and holder. 2,818,803, 1-7-58, Cl. 101—127.1.
- Levy Auto Parts Co. Ltd.: See—
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- Leyendecker, John B. Road construction. 2,819,026, 1-7-58, Cl. 238—10.
- Lien, Arthur P.: See—
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- McCauley, David A., and Lien. 2,819,324.
- Lincoln, Clovis W., J. J. Verbrugge, and P. B. Zeigler, to General Motors Corporation. Priority valve. 2,818,711, 1-7-58, Cl. 80—97.
- Lindaw, Arthur C.: See—
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- Lindblad, Sture V., to Stensholms Fabriks Aktiebolag. Electric energy regulators. 2,819,411, 1-7-58, Cl. 307—35.
- Lindenfelser, Richard, and M. K. Layman (see Kilthau), to American Cyanamid Co. Molding compositions of benzoguanamine-formaldehyde reaction product and butadiene-acrylonitrile copolymer rubber. 2,819,246, 1-7-58, Cl. 260—45.2.
- Linderoth, Rodney V. Lamp shades. 2,819,386, 1-7-58, Cl. 240—10.8.
- Lindow, Arthur L., and I. R. Sutherland, to The Cleveland Pneumatic Tool Co. Method of welding. 2,819,381, 1-7-58, Cl. 219—104.
- Lindsay, Onos M., and W. G. James, to Eastman Oil Well Survey Co. Detecting tools. 2,819,039, 1-7-58, Cl. 255—1.6.
- Little, John B.: See—
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- Livermore, H. F., Corp.: See—
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- Lockheed Aircraft Corp.: See—
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- Lockwood, Charles R. Axle tube grinder. 2,818,695, 1-7-58, Cl. 51—241.
- Lockwood, Robert C.: See—
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- Loehle, Max J., to General Electric Co. Drive mechanism for automatic washing machines and the like. 2,818,736, 1-7-58, Cl. 74—81.
- Loeser, Christopher E., to Esso Research and Engineering Co. Apparatus for supporting and manipulating flexible conduit connections. 2,818,891, 1-7-58, Cl. 141—36.8.
- Lohr, Robert G. Combination screen and storm window. 2,818,918, 1-7-58, Cl. 160—23.

- Long, Vincent J.: See—
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- Loosching, Bernard H., to The Schluter Co. Wire tray for draining parts of milking machines. 2,818,980, 1-7-58, Cl. 211—12.6.
- Lott, William A., to Olin Mathieson Chemical Corp. Amino-alkylamides of butoxybenzoic acid. 2,819,303, 1-7-58, Cl. 260—55.9.
- Love, William O. Side reining horse bit. 2,818,698, 1-7-58, Cl. 54—71.
- Luben, Robert, to Ruhrchemie Aktiengesellschaft. Purification of hydrocarbons by refining hydrogenation. 2,819,289, 1-7-58, Cl. 260—45.0.
- Luenberger, Frederick O., to U. S. Electrical Motors, Inc. Seal structure for submersible apparatus. 2,819,101, 1-7-58, Cl. 286—11.
- Lukens, David L., to McLaney Mfg. Corp. Coin controlled lock. 2,818,956, 1-7-58, Cl. 194—7.8.
- Lundberg, Lennart A., to American Cyanamid Co. Flame-resistant polyester resinous compositions containing combined halogens and phosphorus and process of preparation. 2,819,247, 1-7-58, Cl. 260—45.4.
- Lark, Hans J., and H. Skawski, to Siemens & Halske Aktiengesellschaft. Testing circuit arrangements for signaling systems. 2,819,346, 1-7-58, Cl. 179—18.
- Lynch, John W., and F. H. Zeitz. Weeding device. 2,818,792, 1-7-58, Cl. 97—144.1.
- Lytle, Donald B.: See—
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- M-O Valve Co., The: See—
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- Machine Tool Works Oerlikon, Administration Co.: See—
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- Mack, Charles, and J. L. Tiedje, to Esso Research and Engineering Co. Stressing of petroleum wax to improve physical properties thereof. 2,819,185, 1-7-58, Cl. 117—85.
- MacKenzie, Fred T.: See—
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- Mackey, E. Scudder, to General Aniline & Film Corp. Anti-fading layers for photographic black and white materials. 2,819,163, 1-7-58, Cl. 96—61.
- Magill, Donald G., and H. R. Vitense, to American Can Co. Composite container construction. 2,819,006, 1-7-58, Cl. 229—5.5.
- Magnex, Inc.: See—
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- Maillard, Bernard, to Brevets Aero-Mecaniques S. A. Improvements in automatic guns having a detachable barrel. 2,818,785, 1-7-58, Cl. 89—193.
- Malsen, Venantius. Garage installation. 2,818,607, 1-7-58, Cl. 20—1.13.
- Mallinckrodt Chemical Works: See—
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- Mallory, Marion. Internal combustion engine. 2,818,931, 1-7-58, Cl. 180—54.
- Manning, Earl, Jr., and C. J. Kaemmerlen, Jr., to Shell Development Co. Bubble cap towers. 2,819,049, 1-7-58, Cl. 261—114.
- Man-Sew Corp.: See—
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- Mansfield Sanitary Pottery, Inc.: See—
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- Marek, James F. Safety device for refrigerators. 2,818,825, 1-7-58, Cl. 100—63.5.
- Margot, Alfred, and H. Gysin, to J. R. Geigy, A.-G. New derivatives of dicarboxylic acid hydrazides and their use in the combatting of fungi. 2,819,267, 1-7-58, Cl. 260—250.
- Marlin-Rockwell Corp.: See—
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- Marshall, Harrison W., to Buensod-Stacey, Inc. Air conditioning apparatus. 2,819,023, 1-7-58, Cl. 236—13.
- Martin, Alphons. Devices for controlling the position of a movable piece in accordance with the value of a given factor. 2,819,360, 1-7-58, Cl. 200—56.
- Martin, Cleatus O.: See—
Hayden, Walter L., Jr., and Martin. 2,819,210.
- Martin, George L.: See—
Ruhoff, John R., Martin, and Gerfen. 2,819,146.
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58:	2,818,605		61: P.P.1,672		2,818,764		2,819,189		158—	36.5: 2,819,013	52: 2,819,218	
58:	2,818,606		P.P.1,673		14: 2,818,766	88—	14: 2,818,766		46.5: 2,819,014		56: 2,819,219	
11:	2,818,607	49—	7: 2,818,683		16: 2,818,767		16: 2,818,767		115: 2,819,015		61.42: 2,819,220	
52:	2,818,608		24: 2,818,684		24: 2,818,768		2,818,769	110—	44.46: 2,818,833		67: 2,819,221	
55:	2,818,610	51—	5: 2,818,685		2,818,770		2,818,771	120—	96: 2,818,834		84: 2,819,222	
2,818,611			56: 2,818,686		26: 2,818,771		2,818,772	121—	41: 2,818,835		98: 2,819,223	
2,818,612			95: 2,818,687		27: 2,818,772		33: 2,818,773	122—	240: 2,818,836		113: 2,819,224	
64:	2,818,613		108: 2,818,688		33: 2,818,773		56: 2,818,775	123—	356: 2,818,837	164—	23: 2,819,225	
64:	2,818,614		187: 2,818,689		56: 2,818,775		57: 2,818,776		14: 2,818,839		87: 2,819,226	
111:	2,818,615		193.5: 2,818,691		57: 2,818,777		2,818,778		32: 2,818,840		124: 2,819,227	
57.2:	2,818,616		194: 2,818,692		57: 2,818,778		2,818,780		41.35: 2,818,841	166—	181: 2,819,228	
58.5:	2,818,617		195: 2,818,693		2,818,779		2,818,781		41.38: 2,818,842		212: 2,819,229	
173:	2,818,618		241: 2,818,694		87: 2,818,779		40: 2,818,782		90: 2,818,843		30: 2,819,230	
198:	2,818,619		241: 2,818,695		40: 2,818,780		41: 2,818,781		2,818,844	167—	42: 2,819,231	
194:	2,818,620		267: 2,818,696		41: 2,818,781		42: 2,818,782		2,818,845		66: 2,819,232	
2,819,145			281: 2,818,697		42: 2,818,782		43: 2,818,783		103: 2,818,847		2,819,233	
2,819,146			33: 2,818,698		43: 2,818,783		44: 2,818,784		139: 2,818,848	174—	16: 2,819,234	
2,819,147			33: 2,818,700		44: 2,818,784		45: 2,818,785	124—	22: 2,818,849		52: 2,819,235	
2,819,148			35.6: 2,818,703		45: 2,818,785		46: 2,818,786	125—	15: 2,818,850		65: 2,819,236	
88:	2,819,149		39.14: 2,818,704		46: 2,818,786	90—	60: 2,818,787	127—	7: 2,819,190		2,819,333	
131:	2,819,150		39.36: 2,818,705		62: 2,818,787		62: 2,818,787		55: 2,818,851		2,819,334	
182:	2,819,151		53: 2,818,706		63: 2,818,788		63: 2,818,788	128—	2: 2,818,852		2,819,335	
208:	2,819,152		54: 2,818,707		58.1: 2,818,789		58.1: 2,818,789		30: 2,818,853		2,819,336	
230:	2,819,153		54: 2,818,708		46: 2,818,790		46: 2,818,790		69: 2,818,854		2,819,337	
273:	2,819,154		54: 2,818,709		49: 2,818,791		49: 2,818,791		79: 2,818,855		2,819,338	
13:	2,818,621		54: 2,818,708		35: 2,819,164	96—	35: 2,819,164		127: 2,818,856		2,819,339	
30.5:	2,818,622		54.6: 2,818,710		61: 2,819,165		61: 2,819,165		141: 2,818,857	179—	1: 2,819,340	
75:	2,818,623		97: 2,818,711		76: 2,819,166		76: 2,819,166		142: 2,818,858		2,819,341	
137:	2,818,624		97: 2,818,712		76: 2,819,166		76: 2,819,166		146: 2,818,859		2,819,342	
205.11:	2,818,625		97: 2,818,713		97—144.1: 2,818,792		97—144.1: 2,818,792		191: 2,818,860		2,819,343	
221:	2,818,626	64—	29: 2,818,712		98—	94: 2,818,793	98—	94: 2,818,793		305: 2,818,861		2,819,344
128:	2,818,627	66—	125: 2,818,713		99—	77.1: 2,819,167	99—	77.1: 2,819,167		227: 2,818,862		2,819,345
129:	2,818,628	67—	3: 2,818,714			91: 2,819,168		91: 2,819,168		251: 2,818,863		2,819,346
131:	2,818,629		7.1: 2,818,715			123: 2,819,169		123: 2,819,169		272: 2,818,864		2,819,347
72:	2,818,630		2,818,716			341: 2,818,794		341: 2,818,794		334: 2,818,865		2,819,348
30.5:	2,818,622		2,818,717			4: 2,818,795	100—	4: 2,818,795		2,818,866		2,819,349
129:	2,818,627		22: 2,818,718			27: 2,818,796		27: 2,818,796		2,818,867		2,819,350
129:	2,818,628		19: 2,818,719			257: 2,818,796		257: 2,818,796		2,818,868		2,819,351
131:	2,818,629		207: 2,818,720			37: 2,818,799		37: 2,818,799		2,818,869		2,819,352
30.5:	2,818,622		262: 2,818,721			93: 2,818,800		93: 2,818,800		2,818,870		2,819,353
128:	2,818,628		146: 2,818,722			93: 2,818,800		93: 2,818,800		2,818,871		2,819,354
131:	2,818,629		383: 2,818,723			99: 2,818,801		99: 2,818,801		2,818,872		2,819,355
72:	2,818,630		452: 2,818,724			111: 2,818,802		111: 2,818,802		2,818,873		2,819,356
30.5:	2,818,622		129: 2,818,725			127.1: 2,818,803		127.1: 2,818,803		2,818,874		2,819,357
129:	2,818,628		4: 2,818,726			247: 2,818,804		247: 2,818,804		2,818,875		2,819,358
131:	2,818,629		78: 2,818,727			348: 2,818,805		348: 2,818,805		2,818,876		2,819,359
30.5:	2,818,622		155: 2,818,728			378: 2,818,806		378: 2,818,806		2,818,877		2,819,360
129:	2,818,628		167: 2,818,729			13: 2,818,807	102—	13: 2,818,807		2,818,878		2,819,361
131:	2,818,629		180: 2,818,730			20: 2,818,808		20: 2,818,808		2,818,879		2,819,362
30.5:	2,818,622		301: 2,818,731			22: 2,818,809		22: 2,818,809		2,818,880		2,819,363
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220- 24.3: 2,818,991	43.5: 2,819,402	45.2: 2,819,246	559: 2,819,305	273- 85: 2,819,082	311- 10: 2,819,132
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46: 2,818,993	53: 2,819,404	2,819,248	2,819,307	102.2: 2,819,084	39: 2,819,134
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63: 2,818,995	57: 2,819,406	53: 2,819,250	2,819,309	106.5: 2,819,086	39: 2,819,136
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143: 2,818,997	83.6: 2,819,408	67: 2,819,252	598: 2,819,311	2,819,088	214: 2,819,138
179: 2,818,998	233: 2,819,409	78.5: 2,819,253	2,819,312	46: 2,819,089	234: 2,819,139
323: 2,818,999	29: 2,819,084	79.5: 2,819,254	609: 2,819,313	279- 2: 2,819,090	242: 2,819,140
454: 2,819,000	170: 2,819,085	85.1: 2,819,255	611: 2,819,314	280- 8: 2,819,091	303: 2,819,141
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224- 42.21: 2,819,004	331: 2,819,212	147: 2,819,259	2,819,318	150: 2,819,095	146: 2,819,421
228- 48: 2,819,005	2,819,213	209: 2,819,260	640: 2,819,319	407: 2,819,096	198: 2,819,422
229- 5.5: 2,819,006	2,819,214	209.5: 2,819,261	648: 2,819,320	81: 2,819,097	231: 2,819,423
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23: 2,819,008	2,819,216	239.3: 2,819,263	668: 2,819,322	159: 2,819,099	35: 2,819,425
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62: 2,819,010	2,819,218	249.7: 2,819,265	2,819,324	11: 2,819,101	111: 2,819,427
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119: 2,819,012	2,819,220	250: 2,819,267	674: 2,819,326	287- 1: 2,819,103	317- 12: 2,819,429
170: 2,819,013	340: 2,819,221	268: 2,819,268	681: 2,819,327	59: 2,819,104	156: 2,819,430
233- 15: 2,819,014	344: 2,819,222	272: 2,819,269	683.15: 2,819,328	85: 2,819,105	158: 2,819,431
2,819,015	2,819,223	272: 2,819,270	810: 2,819,329	3: 2,819,106	191: 2,819,432
235- 61: 2,819,016	2,819,224	287: 2,819,271	261- 24: 2,819,048	202- 143: 2,819,107	234: 2,819,433
2,819,017	2,819,225	289: 2,819,272	114: 2,819,049	294- 19: 2,819,108	2,819,434
2,819,018	2,819,226	294.3: 2,819,273	2,819,050	2,819,109	2,819,435
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236- 13: 2,819,023	465: 2,819,230	377: 2,819,287	266- 4: 2,819,055	87: 2,819,113	30: 2,819,439
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108: 2,819,386	52: 2,819,042	413: 2,819,278	267- 1: 2,819,060	13: 2,819,118	323- 92: 2,819,444
142: 2,819,387	61: 2,819,043	429.1: 2,819,280	2,819,061	37: 2,819,119	324- 28: 2,819,445
241- 89: 2,819,027	257- 9: 2,819,044	437: 2,819,281	8: 2,819,062	53: 2,819,121	41: 2,819,447
100.5: 2,819,028	241: 2,819,045	448.2: 2,819,282	63: 2,819,063	55: 2,819,122	149: 2,819,448
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78: 2,819,031	2,819,232	461: 2,819,290	126: 2,819,066	308- 4: 2,819,125	333- 21: 2,819,451
119: 2,819,032	18: 2,819,233	465: 2,819,291	58: 2,819,067	307- 31: 2,819,410	73: 2,819,452
137: 2,819,033	22: 2,819,234	468: 2,819,292	73: 2,819,068	35: 2,819,411	83: 2,819,453
246- 3: 2,819,388	2,819,235	471: 2,819,294	271- 2.3: 2,819,069	88: 2,819,412	336- 87: 2,819,454
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2,819,399					

CLASSIFICATION OF DESIGNS

D 1- 8: Des. 181,830	D14- 3: Des. 181,857	D22- 2: Des. 181,859	D44- 29: Des. 181,856	D61- 1: Des. 181,871	D74- 17: Des. 181,883
D 2- 3: Des. 181,833	Des. 181,872	Des. 181,862	D48- 16: Des. 181,842	D63- 1: Des. 181,833	D80- 1: Des. 181,864
D 3- 4: Des. 181,831	Des. 181,885	Des. 181,888	D49- 1: Des. 181,886	D66- 1: Des. 181,835	D81- 19: Des. 181,829
13: Des. 181,846	Des. 181,890	D26- 8: Des. 181,874	D52- 10: Des. 181,891	D71- 1: Des. 181,850	D86- 10: Des. 181,839
Des. 181,887	6: Des. 181,851	14: Des. 181,855	D54- 12: Des. 181,860	Des. 181,858	Des. 181,880
17: Des. 181,838	D15- 1: Des. 181,870	D31- 4: Des. 181,869	D56- 9: Des. 181,865	D72- 1: Des. 181,837	D87- 3: Des. 181,878
26: Des. 181,843	8: Des. 181,852	D33- 14: Des. 181,873	Des. 181,866	Des. 181,848	5: Des. 181,881
D 4- 3: Des. 181,876	Des. 181,868	D34- 5: Des. 181,836	Des. 181,867	D73- 1: Des. 181,875	D91- 1: Des. 181,882
D 5- 4: Des. 181,844	D16- 2: Des. 181,840	13: Des. 181,884	D58- 2: Des. 181,879	D74- 17: Des. 181,841	D92- 1: Des. 181,847
Des. 181,845	Des. 181,854	15: Des. 181,863	25: Des. 181,892	Des. 181,861	26: Des. 181,877
D14- 3: Des. 181,849	D21- 1: Des. 181,834	D42- 8: Des. 181,889	26: Des. 181,832		

TRADEMARKS NOTICES

International Convention for the Protection of Industrial Property

Adherence of Turkey to the London 1934 revision

The Secretary of State has been notified by the Embassy of Switzerland of the adherence, effective June 27, 1957, of Turkey to the International Convention for the Protection of Industrial Property as last revised at London on June 2, 1934.

ROBERT C. WATSON,
Commissioner of Patents.

Nov. 26, 1957.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 228,662 (DIAMOND QUALITY CORDS AND DESIGN), Diamond Brading Mills, Rubber-covered insulated wire; TM 430,407 (DIAMOND WIRE AND DESIGN), Diamond Wire and Cable Co., Insulated electrical wire; TM 613,831 (DIAMOND DESIGN), same, Electrical plugs, cord sets, etc.; TM 616,479 (DIAMOND DTX), same, Insulated wire and cable, filed Dec. 4, 1957, D. C., S. D. N. Y., Doc. 127/258, *Diamond Wire & Cable Co. v. Diamond-American Products Co., et al.*

TM 325,115. (See TM 644,329.)

TM 430,407. (See TM 228,662.)

TM 500,079 (TINY TOTS AND DESIGN), Ingvar Tokstad doing business as A/S Normanna Packers Union Ltd., Canned fish, filed Dec. 2, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1330/57-TC, *Mallard & Schmiedell et al. v. W. F. Beesmyer, Jr. et al.*

TM 613,831. (See TM 228,662.)

TM 616,479. (See TM 228,662.)

TM 622,895 (TAMPER-PROOF), The Hopp Press, Inc., Metal mounting strips for supporting and displaying price cards and price tags, filed Nov. 25, 1957, D. C., E. D. Mich. (Detroit), Doc. 17479, *The Hopp Press, Inc. v. Shaw & Slavsky, Inc.*

TM 623,601 (FIOCCO), Bart Schwartz International Textiles, Ltd., Textile fabrics in the piece of cotton, rayon, synthetic fibers, and mixtures thereof, filed Nov. 6, 1957, D. C., S. D. N. Y., Doc. 128/273, *Bart Schwartz International Textiles, Ltd. v. Lane Bryant, Inc.*

TM 644,329 (HYDROTHERM—THE MIDGET "HOOK" BOILER), Hook & Ackerman, Inc., Heating Boilers; TM 325,115 (HOOK AND DESIGN), Hook Manufacturing Co., Gas-fired boilers, filed Dec. 4, 1957, D. C., S. D. N. Y., Doc. 127/260, *Hook & Ackerman, Inc. v. Hook Mfg. Co., Inc. et al.*

TM 649,886 (THE LIFE AND LEGEND OF WYATT EARP), Wyatt Earp Enterprises, Inc., Title of a television program—namey, western type stories, filed Nov. 26, 1957, D. C., S. D. N. Y., Doc. 127/165, *Wyatt Earp Enterprises, Inc. v. Sackman, Inc. et al.*

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]..... 10,934
Date of oldest new application..... Apr. 17, 1957
Date of oldest amended application..... May 1, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50	4-17-57	5-13-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B	6-10-57	8-20-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks (Goods) Class A	5-16-57	5-1-57
Renewals (All Classes)	10-28-57	11-26-57
Sec. 12 (c) Publications (All Classes)	10-17-57	11-22-57

Applications Filed During the Month of November 1957—1672

Registrations Issued..... 310—No. 656,643 to No. 656,952
Renewals Issued..... 61

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

TM 726 O. G.—1

TM 1

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

George S. Tarbox, Yonkers, N. Y., Reg. No. 637,441, Canc. No. 6991.

La Maison Products, Inc., Brooklyn, N. Y., Reg. No. 380,345, Canc. No. 7010.

Los Angeles Sales Co., Long Beach, Calif., Reg. No. 380,205, Canc. No. 7000.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5. As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

SN 6,064. Stamford Rubber Supply Company, Stamford, Conn. Filed Apr. 9, 1956.

NEOPHAX

For Vulcanized Vegetable Oils, Vulcanized Fish Oils, and Vulcanized Animal Oils.
First use on or before Dec. 22, 1936.

SN 14,553. Flex-O-Glass, Inc., d. b. a. Warp Brothers, Chicago, Ill. Filed Aug. 24, 1956.

FLEX-O-PANE

For Transparent, Translucent, and Colored, Plain and Embossed, Semi-Rigid Sheet Material Composed of One or More of the Plastics With or Without Reinforcing.
First use in July 1956.

SN 14,554. Flex-O-Glass, Inc., d. b. a. Warp Brothers, Chicago, Ill. Filed Aug. 24, 1956.

WARP-WRAP

For Transparent, Film-Like, Sheet Material Composed of One or More of the Plastics.
First use July 1956.

SN 14,555. Flex-O-Glass, Inc., d. b. a. Warp Brothers, Chicago, Ill. Filed Aug. 24, 1956.

FLEX-O-PLASTIC

For Clear and Translucent, Plain and Reinforced, Flexible Sheet Material Composed of One or More of the Plastics.
First use in July 1956.

SN 19,459. Johnson's Company Ltd., Thetford Mines, Quebec, Canada. Filed Nov. 19, 1956. Sec. 2(f).

JOHNSON'S

For Asbestos in Any Form.
First use about 1875; in commerce about 1875.

SN 20,462. Holgate Brothers Company, Kane, Pa. Filed Dec. 5, 1956. Sec. 2(f).

HOLGATE

For Wood, Wood Flour, Wood Chip, and Plastic Shapes in the Form of Turnings, Shapings, and Moldings for Use in the Manufacture of Handles, Blocks for Brushes, and Various Other Articles.
First use Oct. 1, 1930.

SN 21,784. The Dayton Rubber Company, Dayton, Ohio. Filed Dec. 28, 1956.

DAYCOLLAN

For Urethane Elastomer in Sheets, Rods, Blocks, and Tubes.
First use Dec. 7, 1956.

SN 24,401. Minerals & Chemicals Corporation of America, Menlo Park, N. J. Filed Jan. 29, 1957.

KAOSORB

For Processed Clay for General Use in the Industrial Arts.
First use Dec. 17, 1956.

SN 24,402. Minerals & Chemicals Corporation of America, Menlo Park, N. J. Filed Jan. 29, 1957.

KAOHEM

For Processed Clay for General Use in the Industrial Arts.
First use Dec. 17, 1956.

SN 24,847. The Holiday Charcoal Company, North Stonington, Conn. Filed Feb. 21, 1957.

Holiday

For Charcoal, Hickory Chips, Wood Chips.
First use Oct. 1, 1956.

SN 26,089. Gulf States Paper Corporation, Tuscaloosa, Ala. Filed Mar. 13, 1957.

HARDWOOD



E-Z PULP

Applicant disclaims the terms "Hardwood" and "Pulp" apart from the mark as shown.

For Paper Pulp.
First use Mar. 28, 1956.

SN 26,090. Gulf States Paper Corporation, Tuscaloosa, Ala. Filed Mar. 13, 1957.

SOFTWOOD



E-Z PULP

Applicant disclaims the terms "Softwood" and "Pulp" apart from the mark as shown.

For Paper Pulp.
First use Mar. 28, 1956.

SN 26,370. Arthur G. Meier, d. b. a. Inland Products Company, Roanoke, Va. Filed Mar. 18, 1957.

CHARGLO

Owner of Reg. No. 608,157.
For Fire Starting Unit Consisting of Granular Charcoal, Fibrous Material, and a Combustible Binder Compressed Into a Form-Retaining Pad or Other Desirable Shape.
First use Nov. 1, 1955.

SN 26,717. Minerals & Chemicals Corporation of America, Menlo Park, N. J. Filed Mar. 22, 1957.



For Clays and Other Minerals for General Use in the Industrial Arts.
First use September 1954.

SN 26,934. The Farm Bureau Cooperative Association, Inc., Columbus, Ohio. Filed Mar. 26, 1957.

Deep Velvet

For Lawn Seed.
First use Feb. 19, 1957.

SN 27,056. The O. M. Scott & Sons Company, Marysville, Ohio. Filed Mar. 27, 1957.

ABC

For Bulbs, Tubers, and Lawn, Grass and Flower Seed.
First use Jan. 21, 1957.

SN 27,900. The Scholl Mfg. Co., Inc., Chicago, Ill. Filed Apr. 10, 1957.

LUSTREL

For Sheeting Made of Plastic Material.
First use Apr. 5, 1957.

SN 28,008. Armour and Company, d. b. a. Winslow Bros. & Smith Co., Chicago, Ill. Filed Apr. 12, 1957.

KIDDIE KHROME

For Leather.
First use July 1, 1938.

SN 28,189. Portco Corporation, Portland, Oreg. Filed Apr. 16, 1957.

PORTCO

For Packaged Wood Flour.
First use Nov. 15, 1955.

SN 28,490. Chicago Molded Products Corporation, Chicago, Ill. Filed Apr. 19, 1957.

REGISTRITE

For Rigid Plastic Sheets for Further Processing in the Industrial Arts.
First use June 15, 1956.

SN 29,551. Pfister Associated Growers, Inc., Aurora, Ill. Filed May 7, 1957.



Owner of Reg. No. 359,165.
For Seed Corn.
First use Feb. 10, 1956.

SN 30,289. Will-Fire Charcoal Co., Inc., Andalusia, Ala. Filed May 17, 1957.



For Charcoal and Hickory Chips.
First use Dec. 12, 1956.

SN 30,661. International Minerals & Chemical Corporation, Chicago, Ill. Filed May 24, 1957.

YANKEE

For Feldspar.
First use Oct. 28, 1955.

SN 30,773. Hewett P. Mulford & Company, Lebanon, Ohio. Filed May 27, 1957.

BUSHEL O'BLOOM

For Chrysanthemum Plants for Planting.
First use Feb. 15, 1956.

SN 30,775. Hewett P. Mulford & Company, Lebanon, Ohio. Filed May 27, 1957.

MING TOY

For Pilea Plants.
First use Mar. 1, 1957.

SN 30,932. Ozark Fisheries, Incorporated, Stoutland, Mo. Filed May 28, 1957.

GLITTER TWINS

For Ornamental and Salt Fish Packed in Water-Containing Plastic Bags.
First use the first part of December 1956.

SN 31,006. Hamnermill Paper Company, Erie, Pa. Filed May 29, 1957.

MACROCEL

For Paper Pulp.
First use Feb. 7, 1957.

SN 31,013. Imperial Chemical Industries Limited, London, England. Filed May 29, 1957.

MELINEX

Owner of British Reg. Nos. 722,505, 722,507, and 722,508, all dated Oct. 8, 1953.

For Mouldable Plastics in the Form of Films, Wrapping and Packaging Material in the Form of Film Plastics and Plastics in the form of Film for Industrial Use.

SN 32,861. S. S. Steiner, Inc., New York, N. Y. Filed June 28, 1957.



Owner of Reg. No. 101,336.
For Hope.

First use June 18, 1957; September 1889 as to the mark in another form.

SN 36,711. Gerald E. Hawkersmith, d. b. a. Crimsondale Nursery, Winchester, Tenn. Filed Sept. 5, 1957.



For Dogwood Trees.
First use July 3, 1957.

SN 36,929. The Secor Landscape Co., Toledo, Ohio. Filed Sept. 9, 1957.

FRISKY

For Deciduous and Evergreen Living Plants and Bulbs.
First use Aug. 13, 1957.

SN 37,013. H. Lee Hoffman, d. b. a. Ivy Hill Forest, Cockeysville, Md. Filed Sept. 11, 1957.

MEMORY GARDEN

For Trees, Shrubs, Plants, and Garden Seeds.
First use Aug. 22, 1957.

RECEPTACLES

SN 19,783. Inland Container Corporation, Indianapolis, Ind. Filed Nov. 23, 1956.



The word "Boxes" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 426,614, 532,483, and 543,980.
For Paperboard Boxes Suitable for Domestic and Export Shipments.
First use Apr. 30, 1949.

SN 24,315. Bekins Van & Storage Co., Los Angeles, Calif. Filed Feb. 13, 1957. Sec. 2(f).

BEKINS

For Packing Containers for Transportation and Storage of Household Goods and Personal Effects.
First use at least as early as 1951.

SN 28,442. Dale E. Fonner, Elkhart, Ind. Filed Apr. 18, 1957.



RED-EE TO USE FLORAL VASES

The word "Jardinier" and the term "Red-ee To Use Floral Vases" are disclaimed apart from the mark as shown as a whole.

For Jardiniers for Flower Shop and Greenhouse Use.
First use Feb. 27, 1957.

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 10,976. Solomon Beller, Brooklyn, N. Y. Filed June 26, 1956.

SHOE TRAVELLER

The word "Shoe" is disclaimed apart from the mark as shown.

For Shoe Bags for Transporting and Storing Shoes.
First use June 9, 1956.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 39,246. The Martindale Electric Co., Lakewood, Ohio. Filed Oct. 21, 1957. Sec. 2(f).

MARTINDALE

For Commstones Being Artificial Abrasives for Resurfacing Commutators of Electric Motors and Generators, and Commutator Cleaning Stones.
First use in 1930.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 695,488. Port Huron Chemicals, Port Huron, Mich., to Port Huron Chemicals, Inc., Port Huron, Mich. Filed Sept. 28, 1955.

P.H.

For Mixture of Organic and Inorganic Compounds Used as an Accelerator and Plasticizer in Mixing Cement, Mortar, Concrete and the Like.
First use Aug. 16, 1955.

SN 2,399. Acorn Adhesives Co., Inc., Los Angeles, Calif. Filed Feb. 10, 1956.

Thinnbed

For Additive for a Grouting Cement.
First use Dec. 7, 1955.

SN 9,665. A/S Protan, Drammen, Norway. Filed June 5, 1956.



Owner of Norwegian Reg. No. 48,063, dated June 1, 1956. For Alginates—Namely, Chemical Compounds for Technical, Medical, Pharmaceutical Use, and for Use in the Food Industry, and for Use as a Reducing Agent and as a Water Softener and as an Auxiliary Compound for Deep-Freezing.
First use about 1941; in commerce on or before Jan. 1, 1946.

SN 15,643. Suburban Propane Gas Corporation, Whippany, N. J. Filed Sept. 13, 1956.

Suburban

Owner of Reg. Nos. 596,156, 612,862, and 616,403. For Liquefied Petroleum Gas and Anhydrous Ammonia for Commercial, Farm, Home, and Marine Use.
First use 1945.

SN 16,020. Blackman Uhler Company, Spartanburg, S. C. Filed Sept. 20, 1956.

MULSOR

For Emulsifying Agent for Carrying Dye-stuffs, for Lubricating Textiles and for Anti-Static Treatments.
First use July 15, 1955.

SN 18,452. Nopco Chemical Company, Harrison, N. J. Filed Oct. 30, 1956.

NOPCO

Owner of Reg. Nos. 121,927, 539,973, and 556,194. For Sulfated Fatty Oils, Sulfated Fatty Acids, Fatty Amides, Fatty Amines, Esters of Fatty Acids, Sulfated Waxes, Sulfated Amides, Sulfonated Alkylated Aromatics, Antistatic Compositions for Textiles, Cationic Fabric Treating Compositions, Chemical Defoamers, Mercerizing and Carbonizing Assistants, Plasticizers for Warp Sizing, Coning Oils, Kier Boil Assistants, Wax Emulsifiers, Pigment Dispersing Aids, Rayon Crepe Soaking Oils, Silk Soaking Oils, Textile Scouring Compositions, Textile Sizing Compositions, Yarn and Fiber Lubricants, Scrooping Compounds, Viscose Spin Bath Additives, Flameproofing Compounds, Compositions for Rendering Textiles Water Repellent, Wool and Worsted Lubricants, Dye and Finish Assistants and Penetrants, Fat-Liquoring Oils, Alum Stable Leather Oils, Synthetic Neat's-Foot Oil, Leather Finishing Oils, Paper and Pulp Defoamers, Cationic Tissue Softening Compounds, Emulsified Synthetic Resins, Polyvalent Metal Soap Dispersions, Foam Killers and Sheet Foaming Aids, Free Rosin Sizing Agents, Pitch Control Compositions for Use in the Pulp and Paper Industry, Paper Sizes, Cutting Oil Emulsifiers, Mold Lubricants, Rust Inhibitors, Wire Drawing Compounds, Synthetic Drying Oils, Latex Extenders, Linseed Oil and Ester Gum Extenders, Waterproofing Compositions, Agricultural Oil Spray Emulsifiers, Plasticizers for Rubber, Cellulose Derivatives and Synthetic Resins, Other Wetting, Emulsifying, and Dispersing Agents and Foamed Plastics and Chemical Components for Producing Polyurethane Foamed Plastics for General Use in the Industrial Arts.
First use Sept. 1, 1917.

SN 20,983. The American Casting Services Co., Indianapolis, Ind. Filed Dec. 13, 1956.

AMSEAL

For Thermosetting Polyester Resin Used in the Impregnation of Porous Castings.
First use Dec. 9, 1954.

SN 21,387. National Aluminate Corporation, Chicago, Ill. Filed Dec. 20, 1956.

RC

For Antilubricant Used for Conditioning Rails To Improve Adherence and Reduce Wheel Slipping.
First use Oct. 17, 1950.

SN 23,288. Chemagro Corporation, New York, N. Y. Filed Jan. 28, 1957.

DEF

For Defoliants.
First use Jan. 17, 1957.

SN 25,284. United States Borax & Chemical Corporation, Los Angeles, Calif. Filed Feb. 28, 1957.

**ZENOTON**

For Chemical Compounds for Imparting Crease Resistance, Dimensional Stability, and Hydrophobic Characteristics to Textiles.
First use Apr. 3, 1957.

SN 30,611. Standard Oil Company of California, San Francisco, Calif. Filed May 23, 1957.

CHEVRON

For Insecticides, Herbicides, Fungicides, Sanitizers, Wood Preservatives, Disinfectants, Germicides, Poultry House Spray, Livestock and Poultry Spray, Deodorants, Corrosion Inhibitors, Dip and Disinfectant, Plasticizing Oils, Chemicals Used To Prevent the Freezing of Moisture in Storage Tanks and the Fuel Systems of Heating Units and Internal Combustion Engines, Refined Oils Used as Compass Fluids, Petroleum Base Oils Used as Solvents or Diluents for Wood Preservative and Mosquito and Other Pest-Control Formulations, Preparations for Application to Wood To Prevent Chipping During Processing; and Egg Protective Coating Preparation.
First use in July 1947.

The drawing is lined to indicate the color red. Owner of Reg. No. 530,335.
For Muriate of Potash.
First use in the year 1934.

SN 25,818. Atlantic Chemicals, Inc., Orlando, Fla. Filed Mar. 11, 1957.

PENTA-GUARD

For Wood Preservatives.
First use Jan. 5, 1957.

SN 26,744. General Aniline & Film Corporation, New York, N. Y. Filed Feb. 25, 1957.

BIONOL

Owner of Reg. No. 513,954.
For Disinfectant Chemical Compositions.
First use on or about Apr. 11, 1946.

SN 26,855. Nip-Co Manufacturing, Inc., New Rochelle, N. Y. Filed Mar. 25, 1957.



For Chemical Rodenticide (Poisoned Grain).
First use Feb. 24, 1956.

SN 28,492. Circle Research Laboratories, Inc., Glen Ridge, N. J. Filed Apr. 19, 1957.

CESS-AIDE

For Composition for the Treatment of Cesspool Waste.
First use Apr. 10, 1957.

SN 28,631. F. H. Peavey & Company, d. b. a. Peavey Feed Mills, Minneapolis, Minn. Filed Apr. 22, 1957.



Owner of Reg. No. 513,151.
For Household Germicide Used as a Sanitizer, Deodorant, and Livestock Disinfectant.
First use Mar. 22, 1957.

SN 30,705. AAA-Rogers Supply & Manufacturing Co., Chicago, Ill. Filed May 27, 1957.

TRI-SEAL

For Preservative Composition for Stopping Concrete Dusting, Efflorescence, Water and Oil Penetration; for Preventing Wood Shrinkage and Expansion; and for Preserving and Beautifying Wood, Terrazzo, Cork, and Marble.
First use Nov. 15, 1954.

SN 30,899. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed May 28, 1957.

DANSAL

For Chemical Compounds Having Both Bacteriostatic and Fungicidal Properties for General Industrial Use Including Use in Cosmetics.
First use Feb. 2, 1957.

SN 31,373. Allied Chemical & Dye Corporation, New York, N. Y. Filed June 5, 1957.

POLY-LEASE

For Polyethylene Mold Release Agent in Aerosol Containers.
First use February 1957.

SN 32,001. Penn-Union Electric Corporation, Erie, Pa. Filed June 14, 1957.

CUAL-AID

For Contact Compounds for Aluminum Conductors.
First use May 13, 1957.

SN 32,091. Kelco Company, San Diego, Calif. Filed June 17, 1957.

MAREX

Owner of Reg. No. 376,641.
For Ammonium Alginate.
First use Mar. 1, 1954.

CLASS 7

CORDAGE

SN 24,515. Liftex Slings, Inc., Wheeling, Ill. Filed Feb. 15, 1957.

LIFTEX

For Webbing Slings.
First use Sept. 28, 1955.

SN 25,949. Ames Harris Neville Co., San Francisco, Calif. Filed Mar. 12, 1957.



For Cotton, Flax, Jute, Fleece, Sisal, Rope and Twine, and Cord.
First use on or about Sept. 10, 1956.

CLASS 8

SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS

SN 21,271. L. Orlik Ltd., London, England. Filed Dec. 18, 1956.



Owner of British Reg. No. 601,870, dated Oct. 25, 1938.
For Tobacco Pipes.

SN 22,971. Shore Manufacturing Corporation, Roslyn Heights, N. Y. Filed Jan. 22, 1957.

IDEALINE

For Lighters for Cigarettes and Cigars.
First use Mar. 1, 1956.

SN 26,085. Fumaro, Inc., New York, N. Y. Filed Mar. 13, 1957.



For Cigar and Cigarette Lighters.
First use July 26, 1956.

SN 29,144. Elgin American, Inc., Elgin, Ill. Filed Apr. 30, 1957.

ELGIN AMERICAN

Owner of Reg. Nos. 103,053, 287,740, and 422,410.
For Combination Cigarette Case and Lighter, Pocket Lighter, and Table Lighter.
First use Aug. 1, 1947.

SN 31,498. Maurice C. MacMonagle, d. b. a. Mac Products Company, Akron, Ohio. Filed June 6, 1957.

CIGARETTE HELPER

For Machine for Manually Rolling Cigarettes.
First use Apr. 25, 1957.

CLASS 10

FERTILIZERS

SN 33,951. Anton A. Coreth, d. b. a. Anton Von Coreth Co., Larchmont, N. Y. Filed July 18, 1957.

PATH TO NATURE

For Sphagnum Peat, a Soil Conditioner Moss.
First use Mar. 30, 1955.

SN 34,476. United States Borax & Chemical Corporation, Los Angeles, Calif. Filed July 26, 1957.

SOLUBOR

For Fertilizer.
First use July 11, 1957.

CLASS 11

INKS AND INKING MATERIALS

SN 37,939. Burroughs Corporation, Detroit, Mich. Filed Sept. 27, 1957.

BELLAIRE

For Carbon Paper and Ink Ribbons.
First use in or about March 1952.
Subj. to Intf. with Reg. No. 653,787.

SN 37,940. Burroughs Corporation, Detroit, Mich. Filed Sept. 27, 1957.

ENCORE

For Carbon Paper.
First use on or about Sept. 30, 1954.
Subj. to Intf. with Reg. No. 653,628.

CLASS 12

CONSTRUCTION MATERIALS

SN 5,832. Globe Roofing Products Co., Inc., Whiting, Ind. Filed Apr. 5, 1956.

KOLORGRAIN

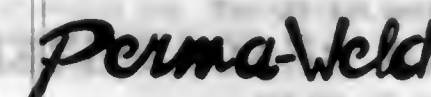
Owner of Reg. Nos. 336,079, 621,607, and others.
For Insulating Siding.
First use Mar. 7, 1956.

SN 5,833. Globe Roofing Products Co., Inc., Whiting, Ind. Filed Apr. 5, 1956.

KOLOR-GRAIN

Owner of Reg. Nos. 336,079, 623,705, and others.
For Asbestos Cement Siding Shingles.
First use Mar. 26, 1956.

SN 30,344. The Logan-Long Company, Chicago, Ill. Filed May 20, 1957.



For Flexible Roofing Shingles of Felt Impregnated With Asphaltum.
First use Apr. 4, 1957.

SN 30,403. Childers Manufacturing Company, Houston, Tex. Filed May 21, 1957. Sec. 2(f).

CHILDERS

Owner of Reg. Nos. 555,165 and 556,454.
For Aluminum Products—Namely, Aluminum Roofing and Siding, Aluminum Weatherproof Jacketing, Aluminum Awnings, and Carpets.
First use January 1947 on aluminum roofing and siding.

SN 30,587. Independent Iron Works, Inc., Oakland, Calif. Filed May 23, 1957.

ARTFAB

For Prefabricated Rest Rooms.
First use Apr. 26, 1957.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

SN 5,665. Rodney Perdew, d. b. a. Mel-Rod Manufacturing Company, North Hollywood, Calif. Filed Apr. 2, 1956.



For Fire Extinguisher Brackets.
First use Aug. 26, 1952.

TM 726 O. G.—2

SN 10,980. Braun & Kemmler, Reutlingen-Betsingen, Germany. Filed June 26, 1956.



The drawing is lined for silver, blue, and red. Applicant however, makes no claim to color as an integral portion of the mark.

For Steel-Enamel Ware—Namely, Cooking Pots and Frying and Baking Pans.
First use May 1940; in commerce June 20, 1951.

SN 38,120. Archie Anders, d. b. a. I. E. Manufacturing, Chicago, Ill. Filed Oct. 1, 1957.



For Antenna Installation and Repair Kits; Antenna Wall, Roof and Ridge Mounts, Antenna Rigging Hardware, Antenna Installation Accessories, Stand-Offs.
First use Jan. 2, 1949.

CLASS 15

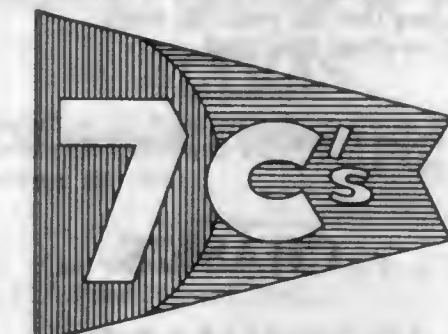
OILS AND GREASES

SN 29,281. Gay Service Co., Inc., La Follette, Tenn. Filed May 2, 1957.



For Motor Oil, Gasoline, Kerosene, Diesel Fuel, Tractor Fuel, and Greases.
First use Mar. 15, 1957.

SN 32,265. The Standard Oil Company, Cleveland, Ohio. Filed June 19, 1957.



The drawing is lined for red and blue, but no claim is made for color.

For Outboard Motor Oil for 2-Cycle Engines.
First use May 1, 1957.

SN 32,286. Armour and Company, Chicago, Ill. Filed June 20, 1957.

ARMOR-KUT

For Oil Especially Formulated for Metal Grinding.
First use Mar. 8, 1956.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

SN 13,299. Limbacher Paint & Color Works, Inc., Mount Vernon, N. Y. Filed Aug. 2, 1956.

GARDEX-99

For Modified Silicone Copolymers for Automotive Finishes.
First use October 1955.

SN 35,750. Devco & Reynolds Company, Inc., Louisville, Ky. Filed Aug. 19, 1957.



For Industrial Finishes.
First use as early as Mar. 15, 1937.

SN 36,054. Chase Products Co., Broadview, Ill. Filed Aug. 23, 1957. Sec. 2(f) as to "Chase's."



Owner of Reg. Nos. 540,465 and 559,761.
For Flat, Glossy and Metallic Enamel Paints, and Transparent Surface Coating, All Packed in Aerosol Bombs and Applied by Spraying Directly from the Bomb.
First use in or about May 1946.

SN 36,056. Chase Products Co., Broadview, Ill. Filed Aug. 23, 1957. Sec. 2(f).

CHASE'S

Owner of Reg. Nos. 540,465 and 559,761.
For Flat, Glossy and Metallic Enamel Paints, and Transparent Surface Coating, All Packed in Aerosol Bombs and Applied by Spraying Directly from the Bomb.
First use in or about May 1946.

CLASS 17

TOBACCO PRODUCTS

SN 16,046. Martins Limited, London, England. Filed Sept. 20, 1956.



Owner of U. S. Reg. Nos. 435,747 and 438,723.
For Cigarettes.
First use June 8, 1956; in commerce June 8, 1956; prior to Oct. 21, 1947, as to "Martins."

SN 22,623. MacIn-Zimmer-McGill Tobacco Co., Inc., Petersburg, Va. Filed Jan. 15, 1957.

LORD BEACONSFIELD

Owner of Reg. No. 231,839.
For Plug, Twist, Cut-Plug Smoking Tobacco, and Leaf Tobacco.
First use March 1883.

SN 30,093. Lane, Limited, New York, N. Y. Filed May 15, 1957.

BLACK-KNIGHT

For Smoking Tobacco.
First use February 1950.

SN 30,320. H. Fendrich, Inc., Evansville, Ind. Filed May 20, 1957.



Owner of Reg. No. 556,572.
For Cigars.
First use in 1913.

SN 32,176. George N. Gallagher, Jr., d. b. a. Gallagher & Gallagher, Houston, Tex. Filed June 18, 1957.

TEXUN

For Cigars.
First use Feb. 1, 1945.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

SN 19,189. Dr. Willmar Schwabe GMBH, Karlsruhe-Durlach, Germany. Filed Nov. 13, 1956.

CRATAEGUTT

Owner of German Reg. No. 532,202, dated Apr. 27, 1941.
For Cardiac and Circulatory Remedy.
First use 1943; in commerce 1950.

SN 20,871. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed Dec. 11, 1956.

DOLNIL

For Topical Analgesic Ointment.
First use Dec. 5, 1956.

SN 23,715. Key Products Company, Detroit, Mich. Filed Feb. 4, 1957.



For Dietary Food Supplement Containing Vitamins and Minerals.
First use Mar. 15, 1956.

SN 29,097. Recherches et Propagande Scientifiques, Société & Responsabilité Limitée, Paris, France. Filed Apr. 29, 1957.

BISMUSULFA

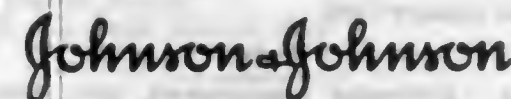
Owner of French Reg. No. 409,541, dated Feb. 1, 1951 (Seine); Natl. Inst. No. 487,745.
For Pharmaceutical Products.

SN 29,385. Ralston Purina Company, St. Louis, Mo. Filed May 3, 1957.

MIX-R-MYCIN

Owner of Reg. No. 606,295.
For Antibiotic Composition for Mixing With Feeds.
First use Mar. 22, 1957.

SN 29,853. Johnson & Johnson, New Brunswick, N. J. Filed Jan. 23, 1957. Sec. 2(f).



Owner of Reg. Nos. 568,161, 635,831, and 599,058.
For Preparation for the Relief of Headaches, Discomfort of Colds, and Minor Aches and Pains.
First use Dec. 17, 1956.

SN 30,534. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed May 22, 1957.

CHOLEPHYL

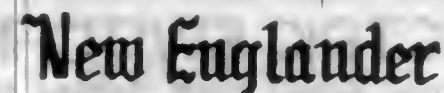
For Diuretic, Bronchodilator, and Coronary Dilator.
First use Apr. 29, 1957.

SN 30,749. Deseret Pharmaceutical Company, Inc., Salt Lake City, Utah. Filed May 27, 1957.

DESATRATE

For Pentaerythritol Tetranitrate Capsules Used for the Relief of Symptoms Due to Angina Pectoris, Angina Decubitis, Status Anginosus, Intermittent Claudication and Coronary Artery Insufficiency.
First use Feb. 15, 1957.

SN 30,811. New England By-Products Corporation, Boston, Mass. Filed May 27, 1957.



For Vitamin Supplement for Ruminants.
First use May 13, 1957.

SN 31,629. Bristol Laboratories Inc., Syracuse, N. Y. Filed June 10, 1957.

AZOTREX

For Anti-Biotic Urinary Pharmaceutical Preparation.
First use Feb. 15, 1957.

SN 31,791. Wm. P. Poythress & Company, Incorporated, Richmond, Va. Filed June 11, 1957.

SOLFO-SERPINE

For Pharmaceutical Tablet or Capsule Used as a Sedative or Hypotensive.
First use Apr. 17, 1957.

SN 31,817. Carter Products, Inc., New York, N. Y. Filed June 12, 1957.

MILTROGEN

For Pharmaceutical Preparation for the Treatment of Symptoms of Menopause.
First use Apr. 29, 1957.

SN 31,819. Carter Products, Inc., New York, N. Y. Filed June 12, 1957.

MILPREM

For Pharmaceutical Preparation for the Treatment of Symptoms of Menopause.
First use May 9, 1957.

SN 31,930. I. Hornstein & Co., New York, N. Y. Filed June 13, 1957.

NO-DOC

For Ointment for the Relief of Skin Irritations.
First use May 29, 1957.

SN 31,993. Marlene's, Inc., Chicago, Ill. Filed June 14, 1957.

MYNEX

For Pharmaceutical Preparations for the Reduction of Superfluous Flesh.
First use Jan. 15, 1949.

SN 31,995. Merck & Co., Inc., Rahway, N. J. Filed June 14, 1957.

CODELPRONE

Owner of Reg. Nos. 627,262, 632,544, and 641,316.
For Medicinal Preparation for Use in the Treatment of Rheumatic and Arthritic Conditions and Related Diseases and in Allergic Conditions.
First use June 5, 1957.

SN 32,081. Haver-Lockhart Laboratories, Inc., d. b. a. Haver-Glover Laboratories, Kansas City, Mo. Filed June 17, 1957.

ELTRAS

For Preparation for Supplying Electrolytes, Trace Elements, and Arsenic for Livestock and Poultry.
First use Sept. 24, 1956.

SN 32,154. The Wander Company, d. b. a. Smith-Dorsey, Chicago, Ill. Filed June 17, 1957.

TRIAMINICIN

Owner of Reg. No. 589,662.
For Product Used as an Antihistamine and Analgesic.
First use May 29, 1957.

SN 32,156. The Wander Company, d. b. a. Smith-Dorsey, Chicago, Ill. Filed June 17, 1957.

TRIAMINICOL

Owner of Reg. No. 589,862.
For Product Used as an Antihistamine and Antitussive.
First use May 29, 1957.

SN 32,220. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed June 18, 1957.

HINCOZID

For Chemotherapeutic Agent for the Treatment of Tuberculosis.
First use May 15, 1957.

SN 32,225. Abbott Laboratories, North Chicago, Ill. Filed June 19, 1957.

LACRIL

For Solution Intended for Use as an Ophthalmic Lubricant.
First use Jan. 13, 1950.

SN 33,045. Bernhoft Laboratories, Inc., d. b. a. Bernhoft Laboratories, Bremerton, Wash. Filed July 2, 1957.

CO-FERUS

For Medicinal Preparation for the Treatment of Hypochromic Anemia Containing Cobalt Gluconate, Ferrous Sulfate and B-Complex Vitamins.
First use June 7, 1954.

SN 33,587. The Upjohn Company, Kalamazoo, Mich. Filed July 11, 1957.

PENCORT

For Medicinal Antibiotic and Hormone Preparation.
First use Nov. 20, 1956.

SN 33,901. Oradent Chemical Co., Inc., Clifton Forge, Va. Filed July 17, 1957.

KINCAINE

For Local Anaesthetics.
First use June 10, 1957.

SN 33,939. Armour and Company, Chicago, Ill. Filed July 18, 1957.

ACTHAR-U. H. P.

For Adrenocorticotrophic Hormone Preparations.
First use June 24, 1957.

SN 34,113. Blax, Inc., New York, N. Y. Filed July 22, 1957.

ENEX

For Dietary Supplement.
First use July 1, 1953.

SN 34,139. Irwin, Neisler and Co., Decatur, Ill. Filed July 22, 1957.

TANCODEIN

For Analgesic Tablet Containing Codeine Tannate.
First use June 25, 1957.

SN 34,170. Charles Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 22, 1957.

TWINMYCIN

For Antibiotic Preparation.
First use May 18, 1956.

CLASS 20

LINOLEUM AND OILED CLOTH

SN 29,050. Fibreboard Paper Products Corporation, San Francisco, Calif. Filed Apr. 29, 1957.

SYMPHONY

For Linoleum Floor Coverings.
First use Dec. 11, 1956.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

SN 19,461. Keller Research Corporation, Detroit, Mich. Filed Nov. 19, 1956. Sec. 2(f).

HIEGER

For Ignition Parts, Including Dual Point Conversion Kits for Distributors and Distributor Rubbing Block Lubricators.
First use Apr. 9, 1954.

SN 21,338. University Loudspeakers, Inc., White Plains, N. Y. Filed Dec. 19, 1956.

POWRPAGE

For Portable Megaphones and Horn Systems Powered by Battery.
First use January 1956.

SN 21,344. University Loudspeakers, Inc., White Plains, N. Y. Filed Dec. 19, 1956.

University

Owner of Reg. No. 429,377.
For Loudspeaker Housings and Cabinets.
First use Feb. 19, 1938.

SN 21,345. University Loudspeakers, Inc., White Plains, N. Y. Filed Dec. 19, 1956.

University

Owner of Reg. No. 429,377.
For Loudspeaker Reproducer Units and Systems and Their Components or Accessory Parts, Including Trumpet, Horn, and Cone-Type Speakers, Driver Units Therefor, Transformers, Adaptor Fittings and Connectors, Dividing Networks, Balance Controls, Speaker Enclosures and Enclosure Kits.
First use Feb. 19, 1938.

SN 22,432. General Railway Signal Company, Rochester, N. Y. Filed Jan. 11, 1957.

ELECTRIC SWITCHMAN

For Electrical Railway Switch Machines for Actuating Track Switch Points.
First use Dec. 20, 1956.

SN 25,758. Kibbey W. Couse, Newark, N. J. Filed Mar. 8, 1957.



No claim is made to the words "Dynamotor-Welder" apart from the mark as shown. Owner of Reg. No. 541,593.
For Electrical Machine Comprising a D. C. Generator and an A. C. Motor Generator Having a Common Shaft.
First use Aug. 31, 1956.

SN 28,232. The B. G. Corporation, Ridgefield, N. J. Filed Apr. 16, 1957.



Owner of Reg. Nos. 131,713 and 331,049.
For Ignition Systems for All Types of Combustion Engines.
First use in October 1948.

SN 28,401. Chicago Standard Transformer Corporation, Chicago, Ill. Filed Apr. 19, 1957.

C S T C

For Fixed and Variable Transformers—Namely, Miniature Transformers; Reactors—Namely, Audio and Power Reactors for Radio; Power Packs of the Dry Metallic Vacuum or Gaseous Tube Type; Transmitters—Namely, Radio Frequency Low Power Transmitters for Amateur and Industrial Uses; Amplifiers, Amplifier Kits; Voltage Adjusting and Regulating Equipment—Namely, Manually Operated Auto Transformers and Voltage Adjusters and Electronic Control Equipment—Namely, Auto Transformers for Use With Manually Operated Switches for Adjustment of Amperage Coupled With Voltage Regulators and Indicators, Electric Reactors, Electric Balasts, and Electric Filters.
First use on or about June 22, 1953.

SN 30,527. Arthur G. Russell Company, Inc., Forestville, Conn. Filed May 22, 1957.

VIBROBLOCK

For Electrically Operated Vibrators for Use With Hoppers, Feed Rails and the Like.
First use Feb. 18, 1957.

SN 30,632. AMP Incorporated, Harrisburg, Pa. Filed May 24, 1957.

AMPLIVAR

For Electrical Connectors.
First use Mar. 24, 1954.

SN 30,737. Clayton Mark & Company, Evanston, Ill. Filed May 27, 1957.

HOTKOTE

For Electrical Raceways.
First use Feb. 25, 1957.

SN 30,808. The Morgan Crucible Company Limited, London, England. Filed May 27, 1957.

MEGISTOR

Owner of British Reg. No. 705,333, dated Feb. 29, 1952.
For Electrical Resistances.

SN 30,866. Weltronic Company, Detroit, Mich. Filed May 27, 1957.

DIGITRONIC

For Resistance Welder Controls.
First use Jan. 31, 1957.

SN 31,194. Chicago Condenser Corporation, Chicago, Ill. Filed June 3, 1957.

MET-A-CAPS

For Electric Capacitors.
First use Feb. 15, 1957.

SN 31,263. Ray-O-Vac Company, Madison, Wis. Filed June 3, 1957.

STATESMAN

For Flashlights and Flashlight Cases.
First use Apr. 10, 1957.

SN 39,248. The Martindale Electric Co., Lakewood, Ohio. Filed Oct. 21, 1957.

MARTINDALE

For Demagnetizers; Electric Etchers, and Portable Electric Blowers.
First use in 1926.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 21,924. Michigan Tool Company, Detroit, Mich. Filed Dec. 31, 1956.

GEAR-O-MATION

For Automatic Gear Production Machines, Including Washers, Loaders, Unloaders, Conveyors, Feeders, and Related Equipment.
First use September 1955.

SN 25,433. The C. S. Johnson Company, Champaign, Ill. Filed Mar. 4, 1957. Sec. 2(f).

LO-BIN

For Apparatus for Batching Constituents for Concrete.
First use on or about Jan. 3, 1952.

SN 28,618. The Martindale Electric Co., Lakewood, Ohio. Filed Apr. 22, 1957.

MARTINDALE

For Commutator Repair and Maintenance Tools; Electric Motor Driven Flexible Shaft Machines for Grinding, Polishing and the Like; Rotary Burs and Files; Metal Working Saws; Mica Undercutting Saws; Mica Undercutters; Commutator Grinding and Turning Tools; Slot Cleaning Outfits; Wedge Bevelers; Fuse Clip Cleaners; Bearing Tool Sets; Spring Winders; Wheel and Gear Pullers; Industrial Vacuum Cleaners.
First use in 1925 on mica undercutters.

SN 34,614. E. D. Jones and Sons Company, Pittsfield, Mass. Filed July 30, 1957.

FLEXAR

For Apparatus for Defibering Materials Such as Chips, Rags and the Like and for Refining Material Such as Paper-Making Pulp.
First use Oct. 22, 1953.

SN 34,695. Great Eastern Equipment Corporation, Hoboken, N. J. Filed July 31, 1957.

HALLMARK

For Sewing Machines.
First use October 1954.

SN 35,592. Kelite Corporation, Los Angeles, Calif. Filed Aug. 15, 1957.

KELITE

Owner of Reg. No. 398,597.
For Steam Cleaning Machines for Cleaning Automobiles, Heavy Machinery, and Building Fronts.
First use Jan. 20, 1949.

SN 35,690. Seneca Falls Machine Company, Seneca Falls, N. Y. Filed Aug. 16, 1957.

Lo swing

For Lathes.
First use in 1936.

SN 35,733. E. W. Bliss Company, Pittsburgh, Pa. Filed Aug. 19, 1957.

M

For Rolls, Straighteners, Lathes, and Other Massive Machinery, Tools and Parts Thereof.
First use on or about Sept. 1, 1934.

SN 35,822. Strauss, Golman & Goldman, Inc., Dallas, Tex. Filed Aug. 19, 1957.

"LAZY SUZY"

For Vertical Revolving Paper and Ribbon Dispenser.
First use Mar. 1, 1957.

SN 35,847. J. I. Case Company, Racine, Wis. Filed Aug. 20, 1957.

CASE

Owner of Reg. Nos. 72,871, 73,947, and 282,906.
For Tractors, Trailers, Balers, Forage Harvesters, Seeders, Fertilizer-Distributors, Blowers, Windrowers, Crop Elevators, Hay Loaders, Shredders, Earth Moving Equipment, Power Units, Trucks, Threshers, Planters, Mowers, Manure Spreaders, Combination-Harvester Threshers, Rakes, Ground Working-Tools, Hammer Mills, and Roller Packers.
First use in 1880 on tractors, power units, and threshers.

SN 35,904. Cavalier Corporation, Chattanooga, Tenn. Filed Aug. 21, 1957.

CAVALIER

Owner of Reg. Nos. 185,105, 367,934, and others.
For Vending Machines.
First use in November 1950.

SN 36,049. Sheldon M. Booth, d. b. a. Diamond Tool Company, South Haven, Mich. Filed Aug. 23, 1957.

COOLIE-GRINDERLAP

For Grinding Machines and Accessories.
First use May 17, 1957.

SN 36,120. Welling Ware, Inc., New York, N. Y. Filed Aug. 23, 1957.

MOUNTAIN MIST

For Stainless Steel Flat Tableware.
First use April 1957.

SN 36,121. Welling Ware, Inc., New York, N. Y. Filed Aug. 23, 1957.

DOGWOOD

For Stainless Steel Flat Tableware.
First use January 1957.

SN 36,123. Welling Ware, Inc., New York, N. Y. Filed Aug. 23, 1957.

JUNO

For Stainless Steel Flat Tableware.
First use in April 1957.

SN 36,125. Welling Ware, Inc., New York, N. Y. Filed Aug. 23, 1957.

APPLE BLOSSOM

For Stainless Steel Flat Tableware.
First use in March 1957.

SN 36,126. Welling Ware, Inc., New York, N. Y. Filed Aug. 23, 1957.

ARTURO

For Stainless Steel Flat Tableware.
First use in January 1957.

SN 36,127. Welling Ware, Inc., New York, N. Y. Filed Aug. 23, 1957.

DIRECTOIRE

For Stainless Steel Flat Tableware.
First use in February 1957.

CLASS 24**LAUNDRY APPLIANCES AND MACHINES**

SN 18,558. The Edro Corporation, New Britain, Conn. Filed Nov. 1, 1956.

DYNA WASH

For Washing and Extracting Machines.
First use on or about Nov. 29, 1954.

CLASS 26**MEASURING AND SCIENTIFIC APPLIANCES**

SN 13,568. Charles Beseler Company, East Orange, N. J. Filed Aug. 8, 1956. Sec. 2(f).

Beseler

For Group A: Optical Projectors—Namely, Transparency Projectors, Projectors for Opaque Copy, and Overhead Projectors; Projection Screens; Condensing Lenses of Glass or Plastic Material; and Objective Lenses. Group B: Cameras for Still and Motion Pictures; Photographic Enlargers; and Photographic Equipment—Namely, Developing Apparatus, Print Dryers, Printers and Print and Film Washers; and Photographic Accessories—Namely, Actinic Coated Sensitized Films, and Actinic Coated Sensitized Papers.
First use March 1950 on Group A.

SN 25,746. Addo Machine Company, Inc., New York, N. Y. Filed Mar. 8, 1957.



For Office Machines—Namely, Adding Machines, Calculating Machines, Accounting Machines, and Parts Thereof.
First use Mar. 1, 1957.

SN 32,011. H. K. Porter Company, Inc., Pittsburgh, Pa. Filed June 14, 1957.

HKP

For Measuring Tapes.
First use December 1955.

SN 39,247. The Martindale Electric Co., Lakewood, Ohio. Filed Oct. 21, 1957. Sec. 2(f).

MARTINDALE

For Growlers (Armature Testing Devices), Coil Testers, Instruments for Electric Testing, Protective Masks and Refills, Eye Shields, and Face Shields.
First use 1929 on growlers.

CLASS 27**HOROLOGICAL INSTRUMENTS**

SN 21,122. Bradley Time Corporation, New York, N. Y. Filed Dec. 17, 1956.

GUILD-HALL

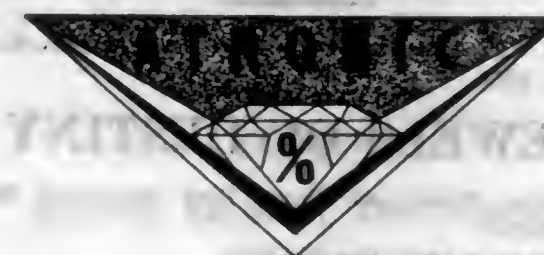
For Clocks.
First use Oct. 10, 1956.

SN 21,123. Bradley Time Corporation, New York, N. Y. Filed Dec. 17, 1956.

OLD TYMER

For Clocks.
First use Mar. 19, 1956.

SN 22,722. Hermann H. Vontobel, Atlanta, Ga. Filed Jan. 16, 1957.



Priority claimed under Sec. 44(d) on Swiss Reg. No. 161,925, dated July 17, 1956.
For Watches and Clocks.

SN 23,353. Societe Anonyme Mido, Bienne, Switzerland. Filed Jan. 28, 1957.

MULTISPORT

For Watches, Watch Casings, and Parts of Watches.
First use March 1942; in commerce March 1942.

SN 29,614. Corona S. A., Tramelan, Bern, Switzerland. Filed May 8, 1957.

CORONA

For Timepieces of All Kinds and Parts Thereof.
First use 1936; in commerce Apr. 18, 1956.

SN 31,015. Louvic Watch, Inc., New York, N. Y. Filed May 29, 1957.

BERNHUF

Owner of Reg. No. 543,104.
For Watches.
First use June 15, 1948.

SN 33,105. L. Wechter Company, Inc., Chicago, Ill. Filed July 2, 1957.

Cadillac

For Watches.
First use Apr. 2, 1957.

SN 33,398. M. Z. Berger & Co., New York, N. Y. Filed July 9, 1957.

LORD NELSON

Owner of Reg. No. 646,802.
For Watches.
First use Apr. 4, 1956.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 18,654. Wm. V. Schmidt Co., Inc., New York, N. Y. Filed Nov. 2, 1956.

FABULITE

For Synthetic Stones Resembling Diamonds and Zircons for Use as and in Jewelry.
First use on or about Aug. 21, 1956.

SN 19,867. Feature Ring Co., Inc., New York, N. Y. Filed Nov. 21, 1956.

JEWELS OF DESTINY

For Finger Rings and Finger Ring Mountings Made of Precious Metal.
First use on or about Oct. 18, 1956.

SN 28,448. Home Decorators, Inc., Newark, N. Y. Filed Apr. 18, 1957.

PRESTIGE

Owner of Reg. No. 416,948.
For Silver Plate Flatware.
First use Sept. 24, 1954; on or about Feb. 4, 1944 as shown in Reg. No. 416,948.

SN 28,970. Spedel Corporation, Providence, R. I. Filed Apr. 26, 1957.

WINDSWEPT

For Watch Bracelets (Not Including Watches).
First use Apr. 12, 1957.

SN 28,971. Spedel Corporation, Providence, R. I. Filed Apr. 26, 1957.

SAFARI

For Watch Bracelets (Not Including Watches).
First use Apr. 12, 1957.

SN 28,972. Spedel Corporation, Providence, R. I. Filed Apr. 26, 1957.

PEARL MAGIC

For Watch Bracelets (Not Including Watches).
First use Apr. 12, 1957.

SN 28,973. Spedel Corporation, Providence, R. I. Filed Apr. 26, 1957.

KLONDIKE

For Watch Bracelets (Not Including Watches).
First use Apr. 12, 1957.

SN 28,974. Spedel Corporation, Providence, R. I. Filed Apr. 26, 1957.

GOLDEN PETALS

For Watch Bracelets (Not Including Watches).
First use Apr. 12, 1957.

SN 29,304. Rodi & Wieneberger Aktiengesellschaft, Pforzheim, Germany. Filed May 2, 1957.

UNIVERSAFLEX

Owner of German Reg. No. 692,123, dated June 26, 1956.
For Genuine and Imitation Jewelry, Particularly Wrist Watch Bracelets Made of Metal.

SN 30,044. Spedel Corporation, Providence, R. I. Filed May 14, 1957.

FORT KNOX

For Watch Bracelets (Not Including Watches).
First use Apr. 29, 1957.

SN 30,046. Spedel Corporation, Providence, R. I. Filed May 14, 1957.

MARACA

For Watch Bracelets (Not Including Watches).
First use Apr. 29, 1957.

SN 30,290. Woodstock-Hoefer Watch & Jewelry Company, Kansas City, Mo. Filed May 17, 1957.

Admiration

For Jewelry—Namely, Diamonds (Mounted and Unmounted), Rings and Ring Mountings, Bracelets, Necklaces, Earrings, Brooches, Tiaras, Hair Ornaments, and Cultured Pearls.
First use January 1931 on diamonds and ring mountings.

SN 30,642. Dina Jewelry Corporation, New York, N. Y. Filed May 24, 1957.

DINA

For Jewelry.
First use Apr. 12, 1957.

SN 30,953. Spedel Corporation, Providence, R. I. Filed May 28, 1957.

HIGH RIDGE

For Watch Bracelets (Not Including Watches).
First use May 16, 1957.

SN 32,724. Anson Incorporated, Providence, R. I. Filed June 27, 1957.

SCHOOL AGE

For Boys' and Young Men's Jewelry—Namely, Brief Clips, Money Clips, Key Chains, Tie Chains, Studs, Buckles, Identification Bracelets, Cufflinks, Tie Slides, Collar Pins, and Finger Rings, All of the Foregoing Being Made of Precious Metal, in Whole or in Part or Plated With Precious Metal in Whole or in Part.
First use Mar. 15, 1957.

SN 32,943. Forstner, Inc., Irvington, N. J. Filed July 1, 1957. Sec. 2(f).

TRUSTYLE

Owner of Reg. No. 413,759.
For Watch Bands and Watch Straps.
First use on or about Jan. 27, 1944.

SN 33,515. Yearbook House, Kansas City, Mo. Filed July 10, 1957.

U h

For Finger Rings.
First use June 1, 1957.

SN 34,775. Coro, Inc., New York, N. Y. Filed Aug. 1, 1957.

Stocking Stuffer

For Necklaces, Bracelets, Earrings, Jewelry Clips, Brooches, Locketts, Finger Rings, Charm Bracelets, Charms, Pearls for Personal Wear, and the Following Goods Made in Whole or in Part of Precious Metals or Plated With the Same: Beads, Pins, and Jewelry Initials.
First use July 25, 1957.

SN 34,857. Heller-Sperry, Inc., New York, N. Y. Filed Aug. 2, 1957.

CULTIQUE

For Simulated and Cultured Pearls.
First use May 9, 1957.

SN 34,935. Empire Crafts Corporation, Newark, N. Y. Filed Aug. 5, 1957.

NOBILITY

Owner of Reg. Nos. 348,432 and 441,447.
For Silver Plated Flatware.
First use Nov. 10, 1954.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

SN 13,877. Shur-Line Manufacturing Co., Inc., Depew, N. Y. Filed Aug. 13, 1956.

SHUR-LINE

For Paint Edging Tool and Sash Painter and Replacement Paint Applicator Pads Therefor.
First use on or about Feb. 15, 1954.

SN 15,271. Firma Carl Fruedenberg Kommanditgesellschaft auf Aktien, Weinheim am der Bergstrasse, Germany. Filed Sept. 7, 1956.

VILED A

Owner of German Reg. No. 621,356, dated June 4, 1952.
For Cleaning Cloth, Particularly Window Cleaning and Dish Cloth Made of Natural or Synthetic Porous Leather or Chamol; Window Cleaning Cloth Made From Fabrics of Unspun and Unwoven Binder-Impregnated Fibers.

SN 29,249. The Wooster Brush Company, Wooster, Ohio. Filed May 1, 1957.

JET

For Paint Roller Frame Structures, Which Are Paint Rollers Without Their Paint-Applying Covers.
First use Apr. 15, 1957.

SN 29,730. S. H. Kress and Company, New York, N. Y. Filed May 9, 1957.

TINY-TOTS

Owner of Reg. No. 350,608.
For Tooth Brushes.
First use May 21, 1937.

SN 32,221. Whiting-Adams Company, Inc., Boston, Mass. Filed June 18, 1957.

GOLDEN TOUCH

For Wall Brushes and Brushes for Applying Paint and Varnish.
First use May 17, 1956.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

SN 24,241. Colonial Silver Company, Inc., Orlando, Fla. Filed Feb. 12, 1957.



For Porcelain Chinaware.
First use May 10, 1956.

SN 31,089. Dansk Designs Inc., Great Neck, N. Y. Filed May 31, 1957.

"FLAMESTONE"

For Stoneware—Namely, Casseroles With Covers and Stands, Coffee and Tea Pots, Sugar Bowls, Creamers, Coffee Cups and Saucers, Coffee Mugs and Pitchers.
First use July 1, 1956.

SN 35,341. Flintridge China Company, Pasadena, Calif. Filed Aug. 12, 1957.

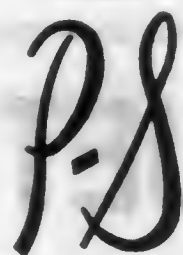
BON-LITE

For Table China.
First use July 29, 1957.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 13,309. Palmer-Shile Company, Detroit, Mich. Filed Aug. 2, 1956.



For Materials Handling Equipment—Namely, Stands and Steel Storage Racks.
First use June 15, 1956.

SN 20,878. Randolph Industrial Equipment Co., Franklin Park, Ill. Filed Dec. 7, 1956.

RAN/rack

For Interlocking Steel Storage Racks.
First use May 14, 1955.

SN 30,537. Worley & Co., Pico, Calif. Filed May 22, 1957.

CHANGEMAKER

For Money Desk for Service Stations.
First use Jan. 1, 1946.

SN 36,285. Drexel Furniture Company, Drexel, N. C. Filed Aug. 27, 1957.

BRETON

For Bedroom, Dining Room and Living Room Furniture—Namely, Dressers, Mirrors, Poudres, Chests, Beds, Night Stands, Benches, Buffets, Decks, Tables, Chinas, Serving Carts, Servers, and Chairs.
First use June 26, 1957.

SN 36,286. Drexel Furniture Company, Drexel, N. C. Filed Aug. 27, 1957.

BALTIC

For Bedroom Furniture—Namely, Dressers, Mirrors, Chests, Beds, and Night Stands.
First use in July 1957.

SN 36,288. Drexel Furniture Company, Drexel, N. C. Filed Aug. 27, 1957.

LAURENTE

For Bedroom Furniture—Namely, Dressers, Mirrors, Chests, Beds, and Night Stands.

SN 36,289. Drexel Furniture Company, Drexel, N. C. Filed Aug. 27, 1957.

EUROPA

For Bedroom and Dining Room Furniture—Namely, Dressers, Mirrors, Poudres, Chests, Beds, Benches, Night Stands, Buffets, Decks, Tables, Chinas, Servers, and Chairs.
First use July 1957.

SN 36,835. Arabesque, Incorporated, Chicago, Ill. Filed Sept. 9, 1957.

ARABESQUE

For Decorative Wall Mirrors.
First use in September 1955.

SN 36,905. Mayfair Cabinet Corporation, Fort Worth, Tex. Filed Sept. 9, 1957.

Mayfair

For Kitchen Cabinets and Parts Thereof.
First use Dec. 6, 1956.

CLASS 33

GLASSWARE

SN 2,256. Skloexport, Podnik Zahranicniho Obchodu pro Dovozy a Vyroby Skla, Praha, Czechoslovakia. Filed Feb. 7, 1956.

"HARRTIL"

Priority/claimed under Sec. 44(d) on Czechoslovakian application filed Oct. 31, 1955; Reg. No. 152,444 dated Nov. 24, 1955.

For Glassware and Crystalware—Namely, Glass Tableware, Kitchenware, and Eating and Beverage Sets; Vases; Cups; Carafes; Stemware; Tumblers; Trays; Dishes; Jars; Containers; Bowls; Perfume Bottles; Glass Sets for Dressing Tables; Glass Pedestals; Glass Shades; Glass Screens; Protective Glass Covers; Crystals; Beads; Glass Ornaments.

SN 17,643. Jenaer Glaswerk Schott & Gen., Mainz, Germany. Filed Oct. 17, 1956.

Jenaer Suprax Glas

The word "Glas" is disclaimed apart from the mark as shown. Owner of U. S. Reg. Nos. 17,377, 17,378, and 17,379. For Glass Tubes, Glass Rods, and Glass Plates.
First use 1933; in commerce Apr. 30, 1938.

SN 26,553. Javit-Badash, Inc., Hollis, N. Y. Filed Mar. 20, 1957.



The descriptive words "Hand Cut" and "Crystal" are disclaimed.
For Glassware Consisting of Cocktail Sets, Stemware, Tumblers, Pitchers, Beer Mugs and Steins.
First use Aug. 1, 1948.

SN 30,305. Ceraglass Company, Inc., Hackensack, N. J. Filed May 20, 1957.



For Glassware—Namely, Drinking Tumblers, Whiskey Glasses, Wine Glasses, Beverage Glasses, Decanters, Flasks, Vases, Pitchers, Ampoules, and Stemware.
First use September 1951.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

SN 17,000. Cleaver-Brooks Company, Milwaukee, Wis. Filed Oct. 5, 1956. Sec. 2(f) as to "Cleaver" and "Brooks."

Cleaver Brooks

Owner of Reg. Nos. 575,242, 588,997, and 590,038.
For Steam and Hot Water Boilers, Water Heaters, Tank Car Heaters, Combination Tank Car Heating and Pumping Apparatus, Evaporators, Stillers for Producing Pure Water from Impure Water, Oil Burning Heaters for Bituminous and Like Materials, and Conversion Oil and Gas Burners, and Parts Thereof.
First use September 1952.

SN 23,855. Sears, Roebuck and Co., Chicago, Ill. Filed Feb. 5, 1957.

THERMO CHANNEL

For Flue for Gas and Electric Water Heaters.
First use on or about Jan. 4, 1955.

SN 26,359. Johnson Gas Appliance Company, Cedar Rapids, Iowa. Filed Mar. 18, 1957.

RADIANT PIG BLANKET

For Heating Apparatus for Use in Pig Farrowing Pens, Crates, Stalls, and Houses, Said Apparatus Being a Relatively Thin Rectangular Hollow Metal Housing Containing a Fluid Which is Gas Heated.
First use Jan. 31, 1957.

SN 26,360. Johnson Gas Appliance Company, Cedar Rapids, Iowa. Filed Mar. 18, 1957.

PIG BLANKET

For Heating Apparatus for Use in Pig Farrowing Pens, Crates, Stalls and Houses, Said Apparatus Being a Relatively Thin Rectangular Hollow Metal Housing Containing a Fluid Which is Gas Heated.
First use Jan. 31, 1957.

SN 29,903. Paul A. Herrmidier, d. b. a. Herrmidier Company, Neffville, Pa. Filed May 13, 1957.

Herrmidier

For Industrial and Domestic Humidifying Equipment.
First use Jan. 24, 1957.

SN 30,617. York-Shipley, Inc., York, Pa. Filed May 23, 1957. Sec. 2(f).

YORK 45 POWER

Owner of Reg. Nos. 520,615 and 616,553.
For Oil and Gas Fired Steam Generators, Including Burners, Boilers and Viscosity Compensators, All for Commercial Use.
First use June 1953.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

SN 20,096. Contina Bureau- und Rechenmaschinenfabrik, Aktiengesellschaft, Vaduz, Liechtenstein. Filed Nov. 29, 1956.

GLORIPHON

Owner of Liechtenstein Reg. No. 613, dated June 14, 1956.
For Gramophone Records of the Grooved Type for Speech Reproduction, Intended for Language Teaching; Gramophone Records of the Grooved Type of This Kind With Musical and Noise Accompaniments; Envelopes for Series of Such Records, Cases for Individual Records and Series of Records of That Kind.

SN 31,753. Dot Records, Incorporated, Hollywood, Calif. Filed June 11, 1957.



The drawing is lined for the colors, red, blue, yellow, and black and claim is made to such colors. Owner of Reg. No. 555,622.

For Grooved Phonograph Records.
First use on or about Oct. 1, 1956; Apr. 1, 1950, as to "Dot."

CLASS 38

PRINTS AND PUBLICATIONS

SN 21,493. Allis-Chalmers Manufacturing Company, Milwaukee, Wis. Filed Dec. 24, 1956.

MOTOR NEWS AND VIEWS

For Periodical Publications Distributed as an Internal House Organ.
First use Nov. 26, 1956.

SN 23,693. Fell Products Company, Santa Monica, Calif. Filed Feb. 4, 1957.

PIN STRIPES

For Decorative Striping in the Form of Decalcomanias for Use on Vehicles.
First use Nov. 3, 1956.

SN 23,820. Norcross, Inc., New York, N. Y. Filed Feb. 5, 1957.

N

NORCROSS

Applicant disclaims the surname "Norcross" apart from the mark shown. Owner of Reg. No. 520,531.
For Greeting Cards and Printed Greeting Folders.
First use on or about May 31, 1956.

SN 28,355. The Kiplinger Washington Agency, Inc., Washington, D. C. Filed Apr. 17, 1957. Sec. 2(f).

Kiplinger Florida Letter

Owner of Reg. Nos. 506,031, 603,651, and others.
For Newsletter, Published Bi-Weekly.
First use Oct. 15, 1956.

SN 28,801. Rineglas, Inc., Cary, Ill. Filed Apr. 24, 1957.

RINEGLAS

For Decalcomania Transfers.
First use Mar. 21, 1957.

SN 28,824. Allegheny Ludlum Steel Corporation, Pittsburgh, Pa. Filed Apr. 25, 1957.

STEEL HORIZONS

Owner of Reg. No. 369,074.
For Sound-Finished Motion Pictures.
First use in November 1949.

SN 29,820. The Psychological Corporation, New York, N. Y. Filed May 10, 1957.

Ψ

The mark consists of the Greek letter "Psi." Owner of Reg. No. 625,027.

For Personnel Test Booklets.
First use on or about Apr. 18, 1950.

SN 30,191. James B. Price, d. b. a. Jim Dandy Film Service, Newberry, S. C. Filed May 16, 1957.

Jim Dandy

For Photographic Prints.
First use on or about Dec. 1, 1953.

SN 31,007. Chas. H. Hansen Music Corp., New York, N. Y. Filed May 29, 1957.

COMBO-ETTES

For Music Sheets.
First use Mar. 28, 1957.

CLASS 39

CLOTHING

SN 691,016. Derby Sportswear, Inc., New York, N. Y. Filed July 11, 1955.

derby

For Women's, Misses', and Children's Outerwear—Namely, Skirts, Blouses, Shorts, Slacks, Pedal Pushers, Jackets, Jumpers, Dresses, Shirts, Vests, Suits, Sweaters, and Socks.
First use June 10, 1935.

SN 9,379. Merit Clothing Company, Mayfield, Ky. Filed May 31, 1956.

STARLITE

For Men's Suits, Other Than Men's Formal Wear and Fabric Employed in the Tailoring Thereof.
First use Sept. 1, 1949.

SN 13,131. American Cyanamid Company, New York, N. Y. Filed Oct. 30, 1957.

Cresloft

For Clothing—Namely, Sweaters, Dresses, Suits, Shirts, Coats, and Snow Suits.
First use June 29, 1956.

SN 20,276. Industrial Gloves Company, Danville, Ill. Filed Dec. 3, 1956. Sec. 2(f).

SUPERGARD

Owner of Reg. No. 569,834.
For Finger Cots for Industrial Purposes Made of Flexible Wear Resistant Material, Foot Protectors for Ankle and Instep Protection, and Heat and Flame Resistant Head Protectors.
First use July 17, 1944, on finger cots.

SN 21,755. Stadium Manufacturing Company, Inc., Baltimore, Md. Filed Dec. 27, 1956.

SLEEP WALKER

For Sleeping Garments and Pajamas for Men, Women, and Children.
First use Dec. 10, 1956.

SN 23,100. Steeloff Manufacturing Company, Inc., Lexington, N. C. Filed Jan. 23, 1957.



For Men's and Boys' Dungarees, Work Pants, Overalls, Work Jackets, and Shirts.
First use Dec. 11, 1956.

SN 27,608. Jytte, Inc., Boston, Mass. Filed Apr. 5, 1957.

Jytte

For Ladies' and Girls' Dresses, Suits, Coats, Ensembles, and Hats.
First use Mar. 28, 1956.

SN 28,522. George A. Johnson Company, Seattle, Wash. Filed Apr. 19, 1957. Sec. 2(f).



No registration rights are claimed for the words "Seattle, Wash."
For Waterproof Clothing—Namely, Coats, Suits, Aprons, Sleeves, Leggings, Hats, Ponchos, Coveralls, Capes, Gloves, Petticoats for Men; and Teamsters' Fabric Aprons.
First use Dec. 1, 1905.

SN 28,634. J. Press, Inc., New Haven, Conn. Filed Apr. 22, 1957.

Shaggy Dog

For Sweaters and Mufflers of Wool or Cashmere.
First use July 2, 1956.

SN 28,762. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Apr. 24, 1957.

VANITY CAREER-MAN

Owner of Reg. Nos. 202,146 and 438,997.
For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Apr. 16, 1957.

SN 28,765. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed Apr. 24, 1957.

PUNDAH

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use Apr. 16, 1957.

SN 30,769. L. Greif & Bro., Inc., Baltimore, Md. Filed May 27, 1957.

Bradley Byrnes

For Suits, Top Coats, Overcoats, Slacks, Sport Coats, and Jackets for Men, Boys, and Youths.
First use Mar. 15, 1957.

SN 31,567. International Latex Corporation, Dover, Del. Filed June 7, 1957.

SWIM PRETTY

For Bathing Caps.
First use May 15, 1957.

CLASS 41

CANES, PARASOLS, AND UMBRELLAS

SN 24,178. Lynn Umbrella Mfg. Co., Boston, Mass. Filed Feb. 11, 1957.

LIBERTY BELLE

For Umbrellas.
First use during January 1932.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS,
AND SUBSTITUTES THEREFOR

SN 25,843. Decorative Fabrics Company, Inc., Pawtucket, R. I. Filed Mar. 11, 1957.

DECOR

For Cotton, Linen, Nylon, Rayon, Silk, and Woolen Goods and Mixtures Thereof, in the Piece.
First use Feb. 25, 1936.

SN 27,853. Einiger Mills, Inc., New York, N. Y. Filed Apr. 10, 1957.

PERSIENNE

For Piece Goods Characterized by a High Pile Having Curled Fibers, and of Uniform Color.
First use Jan. 25, 1957.

SN 30,061. David B. Carmel & Co., Inc., New York, N. Y. Filed May 15, 1957.



For Interlining Fabrics.
First use Mar. 1, 1956.

SN 30,156. D. B. Fuller & Co., Inc., New York, N. Y. Filed May 16, 1957.

BACCI

For Textile Fabrics in the Piece of Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Sept. 28, 1956.

SN 30,157. D. B. Fuller & Co., Inc., New York, N. Y. Filed May 16, 1957.

MOBILE

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Nov. 1, 1956.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL
APPLIANCES

SN 30,279. The Sun Rubber Company, Barberton, Ohio. Filed May 17, 1957.



For Teething Rings.
First use Feb. 10, 1956.

SN 32,137. T. J. Smith & Nephew Limited, Hull, Yorkshire, England. Filed June 17, 1957.

SLEEK

For Plastic Adhesive Strapping.
First use Mar. 14, 1947; in commerce May 15, 1957.

SN 32,203. National Welding Equipment Company, San Francisco, Calif. Filed June 18, 1957.



Owner of Reg. No. 586,181.
For Equipment and Apparatus Used in the Handling and Administering of Medicinal Gases—Namely, Humidifiers for Oxygen and Other Gases, Cylinder Gas Regulators, Inspiratory Valves, Breathing Hoods, Inspiratory Units (Comprising a Self-Contained Assembly Including the Gas Tank, Regulator, Gauge, Conduits, and Breathing Hoods); Alcohol Blowpipes and Torches for Dental Plate Work; and Orthodontic Blowpipes; Cylinder Manifolds, and Parts Thereof.
First use Nov. 12, 1953.

SN 32,208. Picker X-Ray Corporation, Walte Manufacturing Division, Inc., Cleveland, Ohio. Filed June 18, 1957.

amplifilmer

For X-Ray Examination Tables.
First use May 28, 1957.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

SN 2,152. McAfee Candy Co., Inc., Macon, Ga. Filed Feb. 6, 1956.

COCOANUT HAY STAX

The word "Cocoanut" is disclaimed apart from the mark as shown.
For Candy Bars.
First use Oct. 1, 1938.

SN 3,534. Gerald B. Hauge, d. b. a. Popcorn Products Co., Salem, Oreg. Filed Feb. 28, 1956.

SN 20,153. Jacob Warren Bowman, d. b. a. J. Warren Bowman, St. Petersburg, Fla. Filed Nov. 30, 1956.



The representation of the goods is disclaimed.
For Popped Popcorn.
First use Feb. 1, 1954.

SN 19,417. Canada Packers Limited, Toronto, Ontario, Canada. Filed Nov. 19, 1956.



Owner of Canadian Reg. Nos. 103,931, 132/30299, and 27/6416, dated July 27, 1956, Feb. 2, 1922, and Mar. 19, 1898.

For Fresh, Cooked, Frozen, and Canned Meats; Fresh, Frozen, Canned, or Otherwise Preserved Fruits and Vegetables; Edible Vegetable Oils; Mince Meat; Lard; Margarine; Food Spreads Made From Edible Oils and/or Fats; Cheese, Ice Cream; Frozen Confections—Namely, Frozen Ice Cream Mix and Sherbet; and Salted Peanuts.

SN 19,607. Noda Shoyu Co., Ltd., Chiba-Ken, Japan. Filed Nov. 21, 1956.



Kikkoman

The word "Kikko" means "hexagon" and the word "Man" means "ten thousand" when translated into English.
For All-Purpose Sauce and Seasoning—Namely, Soy in Liquid Form and Worcestershire Sauce.
First use 1885; in commerce in or before the year 1906.

SN 19,881. Richard B. Frenkel, d. b. a. Metropolitan Commercial and Industrial Co., Flushing, N. Y. Filed Nov. 26, 1956.

LUCULLUS

For Crayfish Soup Paste From Which a Soup Is Prepared by Combining the Product With Water.
First use Nov. 20, 1956.



The drawing is lined for red.
For Puffed Snacks Formed of Corn Meal and Other Materials.
First use Nov. 19, 1956.

SN 20,344. Wiz-Rd Foods, Inc., Oklahoma City, Okla. Filed Dec. 3, 1956.

WIZ-RO

For Drinking Straw Containing a Flavoring Agent Insert To Be Used With Food Beverages.
First use Aug. 14, 1956.

SN 21,129. Copenor-Conservas de Peixe Limitada, Matosinhos, Portugal. Filed Dec. 17, 1956.



Priority is claimed under Sec. 44(d) on Portuguese application filed July 11, 1956; Reg. No. 87,168, dated Aug. 24, 1956.
For Canned Fish.

SN 21,130. Copenor-Conservas de Peixe Limitada, Matosinhos, Portugal. Filed Dec. 17, 1956.

COPENOR

Priority claimed under Sec. 44(d) on Portuguese application filed June 29, 1956; Reg. No. 87,039, dated Aug. 24, 1956.
For Canned Fish.

SN 22,376. Palmetto Canning Company, Palmetto, Fla. Filed Jan. 10, 1957.



"Palmalito" means "little palm tree" when translated into English.
For Jellies, Marmalades, Preserves, Chutneys, Salad Dressings, Meat Sauces, Crystallized Fruits, Candies, Canned Soups, Vegetables.
First use about Jan. 1, 1927.

SN 22,748. Flavor Corporation of America, Chicago, Ill. Filed Jan. 17, 1957.

FRESHIN

For Preservative Flavor Additive for Animal Feeds.
First use Dec. 27, 1956.

SN 25,128. Societe a Responsabilite Limitee Moutardes Louit, Bordeaux, Gironde, France. Filed Feb. 26, 1957.

LOUIT

For Bottled, Jarred, and Tinned Goods—Namely, Mustard, Anchovies, Olives, Gherkins, Capers, Onions, Spices, Pickles, Piccalillis, Tomato Sauce, Wine Sauce, English Sauce, and Mayonnaise.
First use June 1825; in commerce March 1905.

SN 25,204. Tri Foods Co., Springfield, Mo. Filed Feb. 27, 1957.

CONCORDIA

For Livestock and Poultry Feeds.
First use Aug. 15, 1947.

SN 25,279. Standard Brands Incorporated, New York, N. Y. Filed Feb. 28, 1957.

LETTUCE-LEAF

Owner of Reg. No. 293,245.
For Salad Dressing.
First use Dec. 11, 1956.

SN 25,560. Pacmarine Products Co., Inc., New York, N. Y. Filed Mar. 5, 1957.

AMERICAN CLIPPER

For Flour.
First use Feb. 28, 1957.

SN 25,597. Commodore Foods, Inc., Lowell, Mass. Filed Mar. 6, 1957.

COMMODORE

For Frozen Prepared Food Products—Namely, Fish Sticks, Sea Scallops, and Onion Rings.
First use on or about Oct. 25, 1954.

SN 26,243. Burgie Foods Company, Memphis, Tenn. Filed Mar. 15, 1957.

GOLD DOLLAR

For Vinegar, Mustard, Table Syrup, Condiment Sauce for Use With Meat and Other Food Products and Pickled Peppers.
First use on or about Jan. 1, 1932, on vinegar.

SN 29,325. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed May 2, 1957.



For Whipping and Emulsifying Agents, Softeners, and Artificial Flavoring for Use in the Preparation of Foods.
First use March 1946 on whipping and emulsifying agents.

SN 30,398. California Farm Products, Watsonville, Calif. Filed May 21, 1957.

BERRY TIME

No claim is made to the word "Berry" apart from the mark as shown.
For Fresh and Frozen Fruits and Vegetables.
First use Apr. 9, 1957.

SN 30,666. Lanco Products Corporation, New York, N. Y. Filed May 24, 1957.

CP JET-STREEM

For Fudge Sauces for Variegated Ice Cream and Toppings.
First use May 20, 1957.

SN 31,201. Day & Young, Inc., Santa Clara, Calif. Filed June 3, 1957.

STREAMLINE

Owner of Reg. No. 326,212.
For Fresh Deciduous Fruits and Fresh Berries.
First use May 4, 1934.

SN 31,615. Walla Walla Canning Company, Walla Walla, Wash. Filed June 7, 1957.

WHOPPER

Owner of Reg. No. 349,085.
For Canned Vegetables.
First use Mar. 9, 1937.

SN 32,371. Capitol Fish Company, Atlanta, Ga. Filed June 21, 1957.

Ship T' Shore

For Frozen Fish—Namely, Mullet, Porgies, Butter Fish, Croaker, White Fish, Trout, Sea Bass, Shrimps, Mackerel, Flounder, Black Bass, Scallops, King Fish, and Lobster Tails.
First use May 21, 1957.

SN 32,384. Filigree Quality Foods, Inc., Lyndhurst, N. J. Filed June 21, 1957.

FILIGREE

For Canned Fruits; Cranberry Sauce; Canned Vegetables; Coffee; Tea; Canned Tuna Fish; Canned Shrimp; Jam; Preserves; Jelly; Honey; and Gherkins.
First use in or about 1925 on canned vegetables.

SN 32,502. Kotarides Baking Co., Inc., d. b. a. Mary Jane Bakers, Norfolk, Va. Filed June 24, 1957.

VOGUE

For High Protein Dietary Bread.
First use June 10, 1957.

SN 32,800. Anderson, Clayton & Co., d. b. a. Anderson, Clayton & Co. Foods Division, Dallas, Tex. Filed June 28, 1957.

HOLLANDALE

For Oleomargarine.
First use in June 1940.

SN 32,853. Rockingham Poultry Marketing Co-Operative, Inc., Broadway, Va. Filed June 28, 1957.

MOUNTAIN MAID

For Fresh Frozen Eviscerated Turkeys.
First use in October 1955.

SN 33,854. A. D. Atterbury, d. b. a. Barth & Company, San Francisco, Calif. Filed June 25, 1957.

CALIFORNIA DON

For Canned Fruits.
First use Jan. 14, 1957.

SN 33,865. Cream Wip Foods, Inc., Philadelphia, Pa. Filed July 17, 1957.

SALADREAM

For Blend of Mayonnaise and Whipping Cream.
First use August 1955.

SN 34,029. Bay State Milling Company, Winona, Minn. Filed June 24, 1957.

Stardust

For Wheat Flour.
First use May 18, 1957.

CLASS 47

WINES

SN 700,924. Priv. Fabrica Maraschino "Excelsior" Girolamo Luxardo S. p. A., Torreglia, Province of Padova, Italy. Filed Apr. 29, 1957.

LUXARDO

Owner of U. S. Reg. Nos. 636,931 and 329,769.
For Wine Specialty.
First use Oct. 6, 1955; in commerce Oct. 6, 1955.

SN 21,077. Paul Masson, Inc., d. b. a. Paul Masson and Paul Masson Vineyards, San Francisco, Calif. Filed Dec. 14, 1956.



Owner of Reg. Nos. 348,215, 619,597, and others.
For Champagne and Sparkling Wines.
First use 1947.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 18,928. Richard H. F. Yee, Honolulu, Territory of Hawaii. Filed Nov. 7, 1956.

VISI-GRAPH

For Chart for Multiple Comparisons and Other Graphical Representations.
First use Feb. 1, 1956.

SN 32,550. G. D. Stowe, d. b. a. G. D. Stowe Company, San Diego, Calif. Filed June 24, 1957.

SKY LETTERS

The word "Letters" is disclaimed apart from the mark as a whole.
For Advertising Media—Namely, Letters and Numerals for Collectively Displaying Outdoor Advertising.
First use May 22, 1956.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 673,267. Diva-Laboratorium Aktiengesellschaft, Zurich, Switzerland, to Produits De Beaute Juvena G. m. b. H., Zurich, Switzerland. Filed Sept. 18, 1954.



For Cosmetics—Namely, Face Cream, Hand Cream, Cleansing Cream, Astringent Cream, Complexion Tonic.
First use 1947; in commerce Oct. 1, 1953.

SN 687,823. Societe Anonyme Laboratoires du Dr N. G. Payot, Paris, France. Filed May 18, 1955.

REGE-O-SERUM

The shaded letters are N G P. The words "Moulding Mask" are disclaimed apart from the mark as shown.
For Cosmetics and Toilet Preparations—Namely, a Cream, Paste, or Liquid Moulding Mask for Beautifying the Face.
First use December 1948; in commerce Dec. 10, 1951.

SN 10,662. Chesebrough-Pond's Inc., New York, N. Y. Filed June 21, 1956.

ANGEL BALM

Owner of Reg. Nos. 309,287, 598,595, and others.
For Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial and Body Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions, and Colognes.
First use Apr. 2, 1956.

SN 27,361. Whitehall, Pharmacal Company, New York, N. Y.
Filed Apr. 1, 1957.

SUDDEN BEAUTY

For Facial Pack.
First use Mar. 20, 1957.

SN 28,794. Parfums Moneau, Inc., New York, N. Y. Filed
Apr. 24, 1957.

*Rare
Moments*

For Perfume, Toilet Water Eau de Cologne, Face and Body
Powders, and Sachet Powder.
First use Aug. 1, 1956.

SN 28,946. Mattie L. Jones, d. b. a. Mrs. M. L. Jones, Tampa,
Fla. Filed Apr. 26, 1957.

JONES MAGIC

For Hair Preparation for Removing Loose Dandruff and for
Imparting Softness, Fluffiness, and Coloring to the Hair.
First use Feb. 20, 1957.

SN 30,645. Maurice Fabricant, d. b. a. Le Charme, New
York, N. Y. Filed May 24, 1957.

BEE CHARME

For Cosmetic Creams.
First use Apr. 12, 1957.

SN 30,715. Avon Products, Inc., New York, N. Y. Filed
May 27, 1957.

VIGORATE

For After Shave Lotion.
First use May 22, 1957.

SN 30,816. Nutrilite Products, Inc., Buena Park, Calif. Filed
May 27, 1957.

NUTRILITE

For Cosmetics—Namely, Cleansing Cream, and Hand and
Body Lotion, and All Purpose Moisture Cream.
First use on or about June 8, 1956.

CLASS 52**DETERGENTS AND SOAPS**

SN 688,807. E. F. Drew & Co., Inc., New York, N. Y. Filed
June 3, 1955.



Owner of Reg. Nos. 598,983, 624,183, and 626,012.
For Dishwashing Compositions.
First use January 1952.

SN 85. G. H. Packwood Manufacturing Company, St. Louis,
Mo. Filed Jan. 3, 1956.



The words "Research," "Progress," "Integrity," "Value,"
and "Service" are disclaimed apart from the mark as shown.
Owner of Reg. Nos. 253,176 and 389,614.

For General Cleaning Materials—Namely, Skin Cleansers,
Washing Compounds, Liquid Degreasers for Removing Dirt
and Grease From Metallic Surfaces and the Like, and Floor
Cleaning Compounds, Particularly Designed To Remove
Grease.

First use June 1, 1955.

SN 14,803. Helene Curtis Industries, Inc., Chicago, Ill. Filed
Aug. 29, 1956.

Sunsheen

For Shampoo.
First use on or about Aug. 2, 1956.

SN 22,934. Levlem Products Co., San Francisco, Calif. Filed
Jan. 22, 1957.

MELVEL

For All-Purpose Cleaner—Namely, for Use on Walls, Wood-
work, Porcelain, Tile, Marble, Chrome, Brass, Plastic Uphol-
stery, Venetian Blinds, Automobiles, Whitewall Tires, Desk
Tops, Files, and Linoleum.
First use Dec. 17, 1956.

SERVICE MARKS**CLASS 100****MISCELLANEOUS**

SN 686,393. Salespower, Inc., Chicago, Ill. Filed Apr. 27,
1955.

SALESPower

For Integrated Advertising, Merchandising, and Sales Pro-
motional Services in the Field of Mass Consumer Products
Including Market Research, Distribution, and the Supplying
of Trained Sales Personnel.
First use Oct. 15, 1954.

SN 32,239. Dutch Pantry Inc., Selinsgrove, Pa. Filed June
19, 1957.



For Restaurant Services.
First use Jan. 29, 1956; Aug. 1, 1945, as to the words
"Dutch Pantry."

CLASS 101**ADVERTISING AND BUSINESS**

SN 690,198. Joseph H. Schulte, d. b. a. Blue Flame Kitchens,
Los Angeles, Calif. Filed June 24, 1955.



The word "Kitchens" is disclaimed apart from the mark
as shown.

For Brokerage Services Rendered to Manufacturers of
Kitchen Equipment, Appliances, and Building Materials,
Whereby Applicant Sells, on a Commission Basis, a Diversity
of Items Manufactured by Various Concerns.
First use March 1955.

SN 690,648. Joseph H. Schulte, d. b. a. Blue Flame Kitchens,
Los Angeles, Calif. Filed July 1, 1955.



The word "Kitchens" and the representation of a kitchen
are disclaimed apart from the mark as shown.

For Brokerage Services Rendered to Manufacturers of
Kitchen Equipment, Appliances, and Building Materials,
Whereby Applicant Sells, on a Commission Basis, a Diversity
of Items Manufactured by Various Concerns.
First use March 1955.

SN 695,650. Joseph H. Schulte, d. b. a. Blue Flame Kitchens,
Los Angeles, Calif. Filed Sept. 30, 1955.



For Brokerage Services Rendered to Manufacturers of
Kitchen Equipment, Appliances, and Building Materials,
Whereby Applicant Sells, on a Commission Basis, a Diversity
of Items Manufactured by Various Concerns.
First use Aug. 25, 1955.

SN 18,568. Independent Grocers' Alliance Distributing Co.,
Chicago, Ill. Filed Nov. 1, 1956.

IGA

Owner of Reg. No. 230,953 and others.
For Advertising Services—Namely, Promoting the Sale of
Goods of Others by Means of Distributing Newspaper Mats,
Posters, Displays, and the Like.
First use spring of 1929.

SN 32,968. Robert B. Miller, d. b. a. Employers Overload
Service, Minneapolis, Minn. Filed July 1, 1957.

EMPLOYERS OVERLOAD

Owner of Reg. No. 554,136.
For Employment Services—Namely, the Furnishing of Part
Time Office Employment to Clients on a Contract Basis.
First use Mar. 28, 1948.

CLASS 102

INSURANCE AND FINANCIAL

SN 3,048. E. A. Strout Realty Agency, Inc., New York, N. Y. Filed Feb. 20, 1956.



For Real Estate Brokerage.
First use May 3, 1954.

SN 8,011. National Casualty Company, Detroit, Mich. Filed May 9, 1956.

N A S P

For Underwriting Automobile Insurance—Namely, Bodily Injury, Property Damage, Medical Payments, Collision, Comprehensive, Fire and Theft, and Road Service.
First use Apr. 20, 1956.

CLASS 103

CONSTRUCTION AND REPAIR

SN 9,542. Hospitals, Inc., Dallas, Tex. Filed June 4, 1956.



The drawing is lined for yellow, however, no claim is made for color.

For Integrated Services Incident to the Establishment of Community Hospitals—Namely, Planning and Arranging for the Financing, Design, Construction, and Equipping of Said Hospitals, and the Selection and Training of Personnel Therefor.

First use Feb. 24, 1956.

SN 19,199. Sunbeam Corporation, Chicago, Ill. Filed Nov. 13, 1956.

SUNBEAM

Owner of Reg. Nos. 145,335, 637,637, and others.
For Service and Repair of Household Appliances, Portable Tools, Lawn Maintenance Equipment, and Furnaces Belonging to Customers.
First use March 1921.

SN 28,092. American Building Maintenance Co. of California, San Francisco, Calif. Filed Apr. 15, 1957.

A B M

Owner of Reg. No. 612,343.
For Building Janitorial and Maintenance Services.
First use about the year 1913.

SN 28,786. Hydro Fusion Company, Kansas City, Mo. Filed Apr. 24, 1957.



For Restoring the Moisture to the Earth Surrounding the Foundations of Real Properties, Thus Preventing Settling and Movement of the Foundation Caused by Drouth Conditions.
First use Feb. 2, 1957.

SN 32,115. The Ralph M. Parsons Company, Los Angeles, Calif. Filed June 17, 1957. Sec. 2(f).



For Services in the Fields of Design, Engineering, Procurement, Construction, Consulting, Research, Development, and Operation of Plants and Projects in the Following Industries: Petroleum and Gas, Chemical, Irrigation and Water Development, Atomic Energy, Electronics, Nuclear Power Plants, and Steam and Hydroelectric Power Plants; Making Studies in the Above Industries, Such Studies Involving Marketing, Appraising, Economics, Engineering, and Science.
First use in June 1944.

CLASS 105

TRANSPORTATION AND STORAGE

SN 13,999. The Pittston Company, New York, N. Y. Filed Aug. 15, 1956.



The drawing is lined for red and green. Owner of Reg. Nos. 340,495 and 107,633.

For Storage, Truck, and Marine Transportation of General Commodities, Newsprints, Chemicals, and Petroleum Products of Others.

First use Mar. 26, 1956.

SN 25,024. Northwest Airlines, Inc., St. Paul, Minn. Filed Feb. 25, 1957.

Top Flight

For Air Transportation of Passengers, Cargo, and Mail.
First use June 1, 1946.

SN 27,215. Manufacturing Jewelers and Silversmiths of America Inc., Providence, R. I. Filed Mar. 29, 1957.

JSS

For Specialized Shipping Services Rendered to Manufacturing Jewelers and Silversmiths in Which Both Plane and Trucking Facilities Are Utilized.
First use Jan. 9, 1956.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 22,568. Pasadena Junior Chamber of Commerce, Pasadena, Calif. Filed Jan. 14, 1957.

JR. ROSE BOWL GAME

For Identifying Entertainment Services by Way of an Annual Football Game Between Two Junior Colleges, the Game Being Rendered Through the Medium of Radio Broadcasts.
First use Nov. 24, 1946.

SN 22,569. Pasadena Junior Chamber of Commerce, Pasadena, Calif. Filed Jan. 14, 1957.

JUNIOR ROSE BOWL GAME

For Identifying Entertainment Services by Way of an Annual Football Game Between Two Junior Colleges, the Game Being Rendered Through the Medium of Radio Broadcasts.
First use Nov. 24, 1946.

SN 31,552. Foremanship Foundation, Dayton, Ohio. Filed June 7, 1957.



For Education and Improvement of the Morale of Supervisory Employees and Encouragement, Advancement, and Promotion of Their Work and Dignity by Collecting, Collating, and Disseminating Information Useful to Them in Their Business Activities.
First use Jan. 2, 1950.

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

- 656,643. KOOL KORK. Cambridge Rubber Company. SN 10,981. Pub. 10-22-57. Filed 6-26-56.
656,644. PUNCH 'N GRO. Northrup, King & Co. SN 28,180. Pub. 10-22-57. Filed 4-15-57.

CLASS 2

RECEPTACLES

- 656,645. PERMELITE. Melamine Plastics Corporation. SN 690,479. Pub. 6-12-56. Filed 6-29-55.
656,646. DISC JOCKEY. Conrad Corporation. SN 22,302. Pub. 10-22-57. Filed 1-9-57.
656,647. SHIMMERGLO. Donrico, Inc. SN 22,801. Pub. 10-22-57. Filed 1-18-57.
656,648. GROTAIRER. Bird & Son, Inc. SN 27,174. Pub. 10-22-57. Filed 3-29-57.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

- 656,649. VIYELLA. William Hollins & Company Limited. SN 28,671. Pub. 10-22-57. Filed 4-22-57.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

- 656,650. CHEVRON. Standard Oil Company of California. SN 30,610. Pub. 10-22-57. Filed 5-23-57.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

- 656,651. NEOLENE. Continental Oil Company. SN 697,144. Pub. 10-22-57. Filed 10-26-55.
656,652. SUNBEAM. Sunbeam Corporation. SN 700,278. Pub. 10-22-57. Filed 12-19-55.
656,653. KO. The Pioneer Manufacturing Company. SN 10,799. Pub. 10-22-57. Filed 6-22-56.
656,654. JONNEE-KLEEN. Samuel C. Tallman. SN 14,781. Pub. 10-22-57. Filed 8-28-56.
656,655. ARMOREX. The Englander Company, Inc. SN 14,953. Pub. 10-22-57. Filed 8-31-56.
656,656. WOODMASTER. Illinois Farm Supply Company. SN 15,039. Pub. 10-22-57. Filed 9-4-56.
656,657. CALUSA. Calusa Chemical Co. SN 15,348. Pub. 10-22-57. Filed 9-10-56.
656,658. METROLAN. Metro Dyestuff Corporation. SN 15,708. Pub. 10-22-57. Filed 9-14-56.

TM 30

- 656,659. IRONMASTER. Sunbeam Corporation. SN 16,077. Pub. 10-22-57. Filed 9-20-56.

- 656,660. AQUAGENE AND DESIGN. Aquagene, Inc. SN 16,166. Pub. 10-22-57. Filed 9-24-56.

- 656,661. SPRINK. Marguerite D. Blake, d. b. a. Dorothee Products Co. SN 16,662. Pub. 10-22-57. Filed 10-1-56.

- 656,662. FIRE-PAK. James M. Dudley, d. b. a. Fire-Pak Manufacturing Co. SN 17,793. Pub. 10-22-57. Filed 10-19-56.

- 656,663. 'BAFFLE'. Tully J. English, d. b. a. Whitehaven Products Co. SN 20,098. Pub. 10-22-57. Filed 11-29-56.

- 656,664. LUMAR RYT-TINT. Lumar Corporation. SN 22,022. Pub. 10-22-57. Filed 1-2-57.

- 656,665. JAYLENE. Enjay Company, Inc. SN 22,360. Pub. 6-18-57. Filed 1-10-57.

- 656,666. NOPCO KFC. Nopco Chemical Company. SN 22,946. Pub. 10-22-57. Filed 1-22-57.

- 656,667. ACME QUALITY ETC. AND DESIGN. Acme Quality Paints, Inc. SN 23,439. Pub. 10-22-57. Filed 1-30-57.

- 656,668. NOPCOLUBE. Nopco Chemical Company. SN 24,064. Pub. 10-22-57. Filed 2-8-57.

- 656,669. DESERT. Hill Brothers Chemical Co. SN 26,268. Pub. 10-22-57. Filed 3-15-57.

- 656,670. DYO. Albert Meyers, d. b. a. Dyo Chemical Company. SN 26,844. Pub. 10-22-57. Filed 3-25-57.

- 656,671. PROTOX. Process Chemicals Company. SN 27,119. Pub. 10-22-57. Filed 3-28-57.

- 656,672. ROOTICATE. Faesy & Besthoff, Inc. SN 27,197. Pub. 10-22-57. Filed 3-29-57.

- 656,673. ALG-E-NOX. The Mountain Copper Company Limited. SN 27,874. Pub. 10-22-57. Filed 4-10-57.

- 656,674. PHOSTEX. Food Machinery and Chemical Corporation. SN 28,341. Pub. 10-22-57. Filed 4-17-57.

- 656,675. LIKE MAGIC. Better Brushes, Inc. SN 29,589. Pub. 10-22-57. Filed 5-8-57.

- 656,676. LYTINOL. Jorge D. Mills, d. b. a. Chemigraphic Studios. SN 29,928. Pub. 10-22-57. Filed 5-13-57.

- 656,677. MIL-ETCH. Wyandotte Chemicals Corporation. SN 30,213. Pub. 10-22-57. Filed 5-16-57.

CLASS 9

EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES

- 656,678. MUSTANG ETC. AND DESIGN. A. M. Cohen, d. b. a. Alco Fireworks and Specialty Co. SN 16,306. Pub. 10-22-57. Filed 9-24-56.

- 656,679. DYNA-MAGIC. The Multy-Choke Company. SN 27,512. Pub. 10-22-57. Filed 4-4-57.

CLASS 10

FERTILIZERS

- 656,680. ABC. The O. M. Scott and Sons Company. SN 27,054. Pub. 10-22-57. Filed 3-27-57.

- 656,681. GARBA-RID. Circle Research Laboratories, Inc. SN 27,087. Pub. 10-22-57. Filed 3-28-57.

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CLASS 11

INKS AND INKING MATERIALS

- 656,682. JETDRY. Milo Harding Company. SN 16,721. Pub. 10-22-57. Filed 10-1-56.
656,683. HI-FI. O. S. Eaton Corp. SN 27,944. Pub. 10-22-57. Filed 4-11-57.

CLASS 12

CONSTRUCTION MATERIALS

- 656,684. KOLORGRAN. Globe Roofing Products Co., Inc. SN 607,688. Pub. 11-16-54. Filed 6-4-54.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

- 656,685. DU PONT AND DESIGN. E. I. du Pont de Nemours and Company. SN 7,492. Pub. 10-22-57. Filed 5-2-56.

- 656,686. ZIP-LOK. Cookson Sheet Metal Developments Limited. SN 16,327. Pub. 10-22-57. Filed 9-25-56.

- 656,687. P AND DESIGN. Paper Calmenson & Co. SN 19,175. Pub. 10-22-57. Filed 11-13-56.

- 656,688. WEBLOCK. General Logistics. SN 24,156. Pub. 10-22-57. Filed 2-11-57.

- 656,689. INJECTA-FLO. Dynarex Corporation. SN 24,840. Pub. 10-22-57. Filed 2-21-57.

- 656,690. LACRINOID. Lacrinoid Products Limited. SN 29,079. Pub. 10-22-57. Filed 4-29-57.

CLASS 14

METALS AND METAL CASTINGS AND FORGINGS

- 656,691. DALMINE. Dalmine S. p. A. SN 8,895. Pub. 10-22-57. Filed 4-30-56.

CLASS 15

OILS AND GREASES

- 656,692. K KIEKHAEFER AND DESIGN. Kiekhaefer Corporation. SN 11,487. Pub. 10-22-57. Filed 7-3-56.

- 656,693. K KIEKHAEFER. Kiekhaefer Corporation. SN 12,035. Pub. 10-22-57. Filed 7-12-56.

- 656,694. NOPCOROL. Nopco Chemical Company. SN 24,067. Pub. 10-22-57. Filed 2-8-57.

- 656,695. SLIP-STIK. Air Master Corporation. SN 25,066. Pub. 10-22-57. Filed 2-26-57.

- 656,696. MARATHON SUPER-M ETC. AND DESIGN. The Ohio Oil Company. SN 26,720. Pub. 10-22-57. Filed 3-22-57.

- 656,697. SUN-MOTOR. Sun Oil Company. SN 27,544. Pub. 10-22-57. Filed 4-4-57.

- 656,698. BELL'S ATOM-IX. Bell Laboratory, Incorporated. SN 29,134. Pub. 10-22-57. Filed 4-30-57.

- 656,699. PEP AND DESIGN. Petroleum Heat and Power Co., Inc. SN 29,234. Pub. 10-22-57. Filed 5-1-57.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

- 656,700. STERIL-TONE. Charles Bowman & Company. SN 22,414. Pub. 10-22-57. Filed 1-11-57.

- 656,701. EP-O-CLAD. James B. Sipe and Company, Incorporated. SN 29,903. Pub. 10-22-57. Filed 5-13-57.

- 656,702. AQUACADE. Standard-Toch Chemicals, Inc. SN 30,851. Pub. 10-22-57. Filed 5-27-57.

- 656,703. PARAGUM. Para-Chem, Incorporated. SN 30,937. Pub. 10-22-57. Filed 5-28-57.

- 656,704. PARACHEM AND DESIGN. Para-Chem, Incorporated. SN 30,938. Pub. 10-22-57. Filed 5-28-57.

- 656,705. PARANOL. Para-Chem, Incorporated. SN 30,939. Pub. 10-22-57. Filed 5-28-57.

- 656,706. PARACHEM. Para-Chem, Incorporated. SN 30,940. Pub. 10-22-57. Filed 5-28-57.

- 656,707. PLASTA LAST AND DESIGN. Plasta-Last Company, Inc. SN 31,144. Pub. 10-22-57. Filed 5-31-57.

- 656,708. PRIME-PHOS. United Wallpaper, Inc., d. b. a. Benjamin Franklin Paint and Varnish Co. SN 31,167. Pub. 10-22-57. Filed 5-31-57.

- 656,709. SEABLUE. Paddock of Texas, Inc. SN 31,252. Pub. 10-22-57. Filed 6-3-57.

CLASS 17

TOBACCO PRODUCTS

- 656,710. DESIGN OF STYLIZED BIRD'S HEAD. Reemtsma Cigarettenfabriken G. m. b. H. SN 24,084. Pub. 10-22-57. Filed 2-8-57.

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

- 656,711. HI-GEAR. Central Soya Company, Inc. SN 2,223. Pub. 10-22-57. Filed 2-7-56.

- 656,712. CARTERS LITTLE LIVING PILLS. Carter Products, Inc. SN 8,746. Pub. 10-22-57. Filed 5-22-56.

- 656,713. CENAPSYL. Societe a Responsabilite Limitee Dite: Societe de Recherches et d'Applications Scientifiques (Soras). SN 11,703. Pub. 10-22-57. Filed 7-6-56.

- 656,714. CALPAS. American Transpacific Corp., d. b. a. American Chemical & Drug Co. SN 12,572. Pub. 10-22-57. Filed 7-23-56.

- 656,715. AMMENS. Charles Ammen Company. SN 14,717. Pub. 10-22-57. Filed 8-28-56.

- 656,716. NEBU-MIXIN. Benson-Nuen Laboratories, Inc. SN 16,093. Pub. 10-22-57. Filed 9-21-56.

- 656,717. HOOFLOW. Syracuse Pharmacal Co., Inc. SN 16,843. Pub. 10-22-57. Filed 10-2-56.

- 656,718. HYTROPHEN. Chicago Pharmacal Company. SN 17,263. Pub. 10-22-57. Filed 10-11-56.

- 656,719. METHORATE. The Upjohn Company. SN 18,882. Pub. 10-22-57. Filed 11-6-56.

- 656,720. INSPIRIN. Lifetime Living, Inc. SN 20,282. Pub. 10-22-57. Filed 12-3-56.

- 656,721. PROTOMYCIN. The Upjohn Company. SN 20,331. Pub. 10-22-57. Filed 12-3-56.

- 656,722. ALBAMIDE. The Upjohn Company. SN 20,333. Pub. 10-22-57. Filed 12-3-56.

- 656,723. VIROCYCLINE. The Upjohn Company. SN 20,671. Pub. 10-22-57. Filed 12-7-56.

- 656,724. SOLU-DELTA-CORTEF. The Upjohn Company. SN 21,597. Pub. 10-22-57. Filed 12-24-56.

- 656,725. TRIM 'N SLIM. Success Chemical Company, Inc. SN 22,855. Pub. 10-22-57. Filed 1-18-57.
 656,726. PERIDIN-C. Beutlich, Inc. SN 23,210. Pub. 10-22-57. Filed 1-25-57.
 656,727. PERYLONE. Ames Company, Inc. SN 23,598. Pub. 10-22-57. Filed 2-1-57.
 656,728. REDI-ASEPTI. Graham-Field Surgical Co. Inc. SN 24,437. Pub. 10-22-57. Filed 2-14-57.
 656,729. BENZO-GEL. Waldo I. Parks, d. b. a. Parks Laboratories. SN 24,896. Pub. 10-22-57. Filed 2-25-57.
 656,730. RALMIDE. B L B Pharmacal Company, Inc. SN 23,387. Pub. 10-22-57. Filed 3-4-57.
 656,731. PHENOIST. B L B Pharmacal Company, Inc. SN 25,389. Pub. 10-22-57. Filed 3-4-57.
 656,732. CORO-NZYME. Glides, Incorporated. SN 26,810. Pub. 10-22-57. Filed 3-25-57.
 656,733. ACROPAC. American Cyanamid Company. SN 27,073. Pub. 10-22-57. Filed 3-28-57.
 656,734. SUBDAMINE. American Cyanamid Company. SN 27,074. Pub. 10-22-57. Filed 3-28-57.
 656,735. ARMACHINE. Armour and Company. SN 28,011. Pub. 10-22-57. Filed 4-12-57.
 656,736. SWEB. Armour and Company. SN 28,012. Pub. 10-22-57. Filed 4-12-57.
 656,737. AMSPRAY. Cramer Chemical Co. SN 28,113. Pub. 10-22-57. Filed 4-15-57.
 656,738. PALADIDE. Jensen-Salsbery Laboratories, Inc. SN 28,153. Pub. 10-22-57. Filed 4-15-57.

CLASS 19 VEHICLES

- 656,739. DRAGSTER. Monark Silver King, Inc. SN 17,187. Pub. 10-22-57. Filed 10-9-56.
 656,740. PENBO. Penobscot Boat Works, Inc. SN 30,602. Pub. 10-22-57. Filed 5-23-57.
 656,741. KRUISER. Thomas Mfg. Inc. SN 30,861. Pub. 10-22-57. Filed 5-27-57.
 656,742. SPEEDSHIELD. Cadillac Marine and Boat Company. SN 30,991. Pub. 10-22-57. Filed 5-29-57.
 656,743. SPEEDOSTAT. Perfect Circle Corporation. SN 36,103. Pub. 10-22-57. Filed 8-23-57.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

- 656,744. STENOPROMPTER. Clyde Drasher, d. b. a. Stenoprompter Company. SN 690,869. Pub. 10-22-57. Filed 7-7-55.
 656,745. STANDOUT. Channel Master Corporation. SN 699,200. Pub. 10-22-57. Filed 12-1-55.
 656,746. FONE-A-CHEF. Automation Products Corporation. SN 4,274. Pub. 10-22-57. Filed 3-12-56.
 656,747. DALMINE. Dalmine S. p. A. SN 8,894. Pub. 10-22-57. Filed 4-30-56.
 656,748. GEMCO. Gemco Electric Company. SN 11,568. Pub. 10-22-57. Filed 7-5-56.
 656,749. LINE OUT. Jerrold Electronics Corporation. SN 13,677. Pub. 10-22-57. Filed 8-9-56.
 656,750. CATALINA. White Stores, Inc. SN 16,387. Pub. 10-22-57. Filed 9-25-56.
 656,751. S S SIEMENS. Siemens-Schuckertwerke Aktiengesellschaft. SN 16,497. Pub. 10-22-57. Filed 9-26-56.
 656,752. ELECTRONIC YARDMASTER. Reeves Instrument Corporation. SN 17,306. Pub. 10-22-57. Filed 10-11-56.
 656,753. HOME SWEET HOME AND DESIGN. David D. Levine. SN 18,172. Pub. 10-22-57. Filed 10-25-56.

- 656,754. MELODY MASTER. J. M. Trittenbach, d. b. a. Melody Master Manufacturing Co. SN 20,133. Pub. 10-22-57. Filed 11-29-56.
 656,755. AUDIOMATION. Leonard S. Subber, d. b. a. Electrosonic Specialties. SN 20,664. Pub. 10-22-57. Filed 12-7-56.
 656,756. VACU-FLO. H-P Products, Inc. SN 21,002. Pub. 10-22-57. Filed 12-13-56.
 656,757. POWER MASTER. Outboard Marine Corporation. SN 25,351. Pub. 10-22-57. Filed 3-1-57.
 656,758. REGAL. United States Electric Mfg. Corp. SN 26,213. Pub. 10-22-57. Filed 3-14-57.
 656,759. STYROFLEX. Natvar Corporation. SN 30,517. Pub. 10-22-57. Filed 5-22-57.
 656,760. COMETTE. Webster Electric Company. SN 30,535. Pub. 10-22-57. Filed 5-22-57.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

- 656,761. HUBLEY FLINTLOCK. The Hubley Manufacturing Co. SN 688,151. Pub. 10-22-57. Filed 5-24-55.
 656,762. ATOMIC STRIKE AND DESIGN. Tarantino Bros. & Co. SN 14,918. Pub. 10-22-57. Filed 8-30-56.
 656,763. NYMPHE. Eddie Pope, d. b. a. Eddie Pope & Co. SN 14,981. Pub. 10-22-57. Filed 8-31-56.
 656,764. HOOK BOOK. Maybrun Manufacturing Company. SN 15,135. Pub. 10-22-57. Filed 9-5-56.
 656,765. "STRIKE IT RICH" TELEVISION BAND AND DESIGN. Specialty Enterprises, Inc. and Walt Framer (joint applicants). SN 18,597. Pub. 10-22-57. Filed 11-1-56.
 656,766. SONAR. James Heddon's Sons. SN 26,352. Pub. 10-22-57. Filed 3-18-57.
 656,767. INSULON. Slegmund Werner, Inc. SN 26,416. Pub. 10-22-57. Filed 3-18-57.
 656,768. SLUMBERJACK AND DESIGN. Slegmund Werner, Inc. SN 26,417. Pub. 10-22-57. Filed 3-18-57.
 656,769. NONPAREIL. Gared Corporation. SN 27,684. Pub. 10-22-57. Filed 4-8-57.
 656,770. NYLOSTRAND. Mason Tackle. SN 28,170. Pub. 10-22-57. Filed 4-15-57.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

- 656,771. THE BAGPAKER. International Paper Company. SN 696,654. Pub. 3-20-56. Filed 10-18-55.
 656,772. SCRIBBER. Mayer Industrial Corp. SN 6,443. Pub. 10-22-57. Filed 4-16-56.
 656,773. DUPONT IN OVAL DESIGN. E. I. du Pont de Nemours and Company. SN 7,493. Pub. 10-22-57. Filed 5-2-56.
 656,774. KWIKSET AND DESIGN. Kwikset Locks, Inc. SN 9,645. Pub. 10-22-57. Filed 6-5-56.
 656,775. STAGEMASTER AND DESIGN. Timm Scenic Studios, Inc. SN 17,516. Pub. 10-22-57. Filed 10-15-56.
 656,776. TEL-E-LECT. Tel-E-Lect Products, Inc. SN 19,201. Pub. 10-22-57. Filed 11-13-56.
 656,777. SYNCHRO-PRINT. Forda (Finsbury) Limited. SN 22,806. Pub. 10-22-57. Filed 1-18-57.
 656,778. KINGSTON. Imperial Knife Associated Companies, Inc. SN 23,796. Pub. 10-22-57. Filed 2-5-57.
 656,779. TOMADO. Tomado N. V. Fabriek van Metaalwaren. SN 25,203. Pub. 10-22-57. Filed 2-27-57.
 656,780. ECARNO MILLS. Severance Tool Industries, Inc. SN 25,273. Pub. 10-22-57. Filed 2-28-57.

- 656,781. PROTEC-O-MATIC. International Harvester Company. SN 27,438. Pub. 10-22-57. Filed 4-3-57.
 656,782. SUMNER. Sumner Iron Works, Inc. SN 28,201. Pub. 10-22-57. Filed 4-15-57.
 656,783. UNIMATIC. Borg-Warner Corporation. SN 28,428. Pub. 10-22-57. Filed 4-18-57.
 656,784. REBEL AND DESIGN. Wright Power Saw and Tool Corporation. SN 29,511. Pub. 10-22-57. Filed 5-6-57.
 656,785. PAL. Peters & Russell, Inc. SN 29,937. Pub. 10-22-57. Filed 5-13-57.
 656,786. CROMATRIX. Coventry Gauge & Tool Company Limited. SN 30,307. Pub. 10-22-57. Filed 5-20-57.
 656,787. ADMIRAL. Wallace Silversmiths, Inc. SN 31,058. Pub. 10-22-57. Filed 5-29-57.
 656,788. AETNA-STANDARD. The Aetna-Standard Engineering Company. SN 31,062. Pub. 10-22-57. Filed 5-31-57.
 656,789. MARTIN. The Balas Collet Manufacturing Co. SN 31,073. Pub. 10-22-57. Filed 5-31-57.
 656,790. ROTOKROME. Cleveland Hone & Manufacturing Co. SN 31,083. Pub. 10-22-57. Filed 5-31-57.
 656,791. WINDSOR LINE. Greenfield Tap and Die Corporation. SN 31,112. Pub. 10-22-57. Filed 5-31-57.
 656,792. VARI-TYPER. Vari-Typer Corporation. SN 31,362. Pub. 10-22-57. Filed 6-4-57.
 656,793. MIL-WAUKEE-MIL. Kearney & Trecker Corporation. SN 31,400. Pub. 10-22-57. Filed 6-5-57.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

- 656,794. SPEED-PAK. Toledo Scale Company. SN 18,660. Pub. 10-22-57. Filed 11-2-56.
 656,795. DYNACELL. General Electric Company. SN 20,262. Pub. 10-22-57. Filed 12-3-56.
 656,796. STABILA AND DESIGN. Messwerkzeug-K. G. Gustav Ullrich. SN 20,471. Pub. 10-22-57. Filed 12-5-56.
 656,797. COMPUDYNE. CDC Control Services, Inc. SN 21,297. Pub. 10-22-57. Filed 12-19-56.
 656,798. DIAL-TEMP. Admiral Corporation. SN 26,667. Pub. 10-22-57. Filed 3-22-57.
 656,799. SCIENCE TRAVEL-LAB AND DESIGN. George H. Olewin, d. b. a. Instrument & Apparatus Co. SN 26,964. Pub. 10-22-57. Filed 3-26-57.

CLASS 27

HOROLOGICAL INSTRUMENTS

- 656,800. SPACE EXPLORER AND DESIGN. Bradley Time Corporation. SN 655,823. Pub. 10-22-57. Filed 11-4-53.
 656,801. DESIGN OF MISCELLANEOUS FIGURE. Hamilton Watch Company. SN 15,464. Pub. 10-22-57. Filed 9-11-56.
 656,802. CUB. The E. Ingraham Company. SN 16,122. Pub. 10-22-57. Filed 9-21-56.
 656,803. MOONDIAL. Gabriel Barnett. SN 18,990. Pub. 10-22-57. Filed 11-9-56.
 656,804. GABRIEL. The Lux Clock Manufacturing Company, Inc. SN 25,999. Pub. 10-22-57. Filed 3-12-57.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

- 656,805. BANCROFT. Onelda Ltd. SN 19,051. Pub. 10-22-57. Filed 11-9-56.

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- 656,806. HENLEY. Onelda Ltd. SN 19,054. Pub. 10-22-57. Filed 11-9-56.
 656,807. GOLDEN-GLO. Feature Ring Co., Inc. SN 23,906. Pub. 10-22-57. Filed 2-6-57.
 656,808. STAR OF ANTWERP. Baguette Diamond Corporation. SN 24,234. Pub. 10-22-57. Filed 2-12-57.
 656,809. WALLCO. Wallace Silversmiths, Inc. SN 24,298. Pub. 10-22-57. Filed 2-12-57.
 656,810. SECRET CARESS. J. Fiddelman & Son, Inc. SN 25,605. Pub. 10-22-57. Filed 3-8-57.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

- 656,811. O CEDAR AND DESIGN. American-Marietta Company, O-Cedar Division. SN 26,430. Pub. 10-22-57. Filed 3-19-57.
 656,812. O-CEDAR. American-Marietta Company, O-Cedar Division. SN 26,434. Pub. 10-22-57. Filed 3-19-57.
 656,813. WIPE-KINS. David Lehrman, d. b. a. The Ironess Company. SN 27,109. Pub. 10-22-57. Filed 3-28-57.
 656,814. SOFTEX. General Mills, Inc. SN 28,044. Pub. 10-22-57. Filed 4-12-57.
 656,815. WONDER WEDGE. Curtiss-Wright Corporation. SN 28,769. Pub. 10-22-57. Filed 4-24-57.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

- 656,816. CARDINAL. Cardinal China Co. SN 12,409. Pub. 10-22-57. Filed 7-19-56.

CLASS 31

FILTERS AND REFRIGERATORS

- 656,817. SEABLUE. Paddock of Texas, Inc. SN 31,250. Pub. 10-22-57. Filed 6-3-57.

CLASS 32

FURNITURE AND UPHOLSTERY

- 656,818. "SIT ON A BREEZE." Kool Koosbion Manufacturing Company. SN 4,331. Pub. 10-22-57. Filed 3-12-56.
 656,819. PRESENT TENSE. Jack Jones. SN 21,060. Pub. 10-22-57. Filed 12-14-56.
 656,820. HOLDMOR. Ty-Master Manufacturing Co., Inc. SN 31,963. Pub. 10-22-57. Filed 6-13-57.
 656,821. CORONATION. Barney Manufacturing Corp. SN 33,032. Pub. 10-22-57. Filed 6-13-57.

CLASS 33

GLASSWARE

- 656,822. HERASIL. Amerasil Company, Inc. SN 21,852. Pub. 10-22-57. Filed 12-31-56.
 656,823. OPTOSIL. Amerasil Company, Inc. SN 21,853. Pub. 10-22-57. Filed 12-31-56.
 656,824. ROTOSIL. Amerasil Company, Inc. SN 21,854. Pub. 10-22-57. Filed 12-31-56.

656,825. ULTRASIL. Amersil Company, Inc. SN 21,856. Pub. 10-22-57. Filed 12-31-56.

656,826. HOMOSIL. Amersil Company, Inc. SN 21,857. Pub. 10-22-57. Filed 12-31-56.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

656,827. OXY COILS AND DESIGN. Oxy-Catalyst, Inc. SN 697,238. Pub. 10-22-57. Filed 10-27-55.

656,828. NEMO JET COOKER AND DESIGN. Nemo Industries, Inc. SN 25,449. Pub. 10-22-57. Filed 3-4-57.

656,829. TEMPMASTER. Tempmaster Corporation. SN 26,210. Pub. 10-22-57. Filed 3-14-57.

656,830. DOLE CEL ETC. AND DESIGN. Dole Refrigerating Company. SN 26,535. Pub. 10-22-57. Filed 3-20-57.

656,831. SUNNYBASE. Crane Co. SN 26,776. Pub. 10-22-57. Filed 3-25-57.

656,832. MULTI-VENT TROFFER. The Pyle-National Company. SN 28,798. Pub. 10-22-57. Filed 4-24-57.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

656,833. VULCA-MATIC. Better Monkey Grip Company. SN 26,914. Pub. 10-22-57. Filed 3-26-57.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

656,834. DESIGN OF RAVEN. Morgan Development Laboratories, Inc. SN 9,281. Pub. 10-22-57. Filed 5-29-56.

656,835. RED RAVEN AND DESIGN. Morgan Development Laboratories, Inc. SN 9,282. Pub. 10-22-57. Filed 5-29-56.

656,836. PREP AND DESIGN. Prep Records, Inc. SN 28,377. Pub. 10-22-57. Filed 4-17-57.

656,837. SUPERIOR. Ansonia Records, Incorporated. SN 28,423. Pub. 10-22-57. Filed 4-18-57.

656,838. ALLEGRO. Ideal Instrument Co., Inc. SN 29,157. Pub. 10-22-57. Filed 4-30-57.

CLASS 37

PAPER AND STATIONERY

656,839. CELLU-WOVEN. Sitru Inc. SN 16,073. Pub. 10-22-57. Filed 9-20-56.

656,840. SIMPSON. Simpson Timber Company. SN 16,756. Pub. 10-22-57. Filed 10-1-56.

656,841. SILVER BEAR AND DESIGN. Silver Bear, Inc. SN 17,315. Pub. 10-22-57. Filed 10-11-56.

656,842. CREEKO CREATIONS AND DESIGN. Robert W. Schneider. SN 23,174. Pub. 10-22-57. Filed 1-24-57.

656,843. COTTONCRAFT. Fox River Paper Corporation. SN 23,620. Pub. 10-22-57. Filed 2-1-57.

CLASS 38

PRINTS AND PUBLICATIONS

656,844. S AND DESIGN. Sifrei Israel, Inc. SN 18,466. Pub. 10-22-57. Filed 10-30-56.

656,845. MOTOR THRIFT. Automotive Periodicals, Inc. SN 27,415. Pub. 10-22-57. Filed 4-3-57.

656,846. RUSTIC RHYTHM. Rustic Rhythm, Inc. SN 27,892. Pub. 10-22-57. Filed 4-10-57.

656,847. FLASH. Safety Education Films, Inc. SN 27,893. Pub. 10-22-57. Filed 4-10-57.

656,848. "IMPROS." Joseph B. Clark, d. b. a. Joe Clark, H. B. S. S. SN 28,110. Pub. 10-22-57. Filed 4-15-57.

CLASS 39

CLOTHING

656,849. SPIRAL-X. Even-Pul Foundations, Inc. SN 699,483. Pub. 10-22-57. Filed 12-6-55.

656,850. JACKIE NIMBLE. Clock-Wise Fashions. SN 18,141. Pub. 10-22-57. Filed 10-25-56.

656,851. KOURTIER AND DESIGN. Korry of California, Inc. SN 18,642. Pub. 10-22-57. Filed 11-2-56.

656,852. ROSELLE. City Specialty Stores, Inc. SN 21,246. Pub. 10-22-57. Filed 12-18-56.

656,853. ACTIV-A-TORS. Dial Shoe Company, Inc. SN 23,037. Pub. 10-22-57. Filed 1-23-57.

656,854. RAYNLITE. Cambridge Rubber Company. SN 23,536. Pub. 10-22-57. Filed 1-31-57.

656,855. SILFINA. S. Augstein & Co. Inc. SN 27,658. Pub. 10-22-57. Filed 4-8-57.

656,856. WHITE GUARD. Farah Manufacturing Company, Inc. SN 27,783. Pub. 10-22-57. Filed 4-9-57.

656,857. CHERIE GIRL AND DESIGN. Cherie Girl Togs, Inc. SN 27,931. Pub. 10-22-57. Filed 4-11-57.

656,858. SHETLANDERRY. Bhea Manufacturing Company. SN 27,980. Pub. 10-22-57. Filed 4-11-57.

656,859. LOCKETTE. Sapphire Corporation. SN 27,986. Pub. 10-22-57. Filed 4-11-57.

656,860. CONFIDENTIAL. The Formfit Company. SN 28,248. Pub. 10-22-57. Filed 4-16-57.

656,861. BARCLAY-FREITAG. Barclay Home Products, Inc. SN 28,319. Pub. 10-22-57. Filed 4-17-57.

656,862. DREAM AGE. Dream Age, Inc. SN 28,339. Pub. 10-22-57. Filed 4-17-57.

656,863. SHEATH ACTIONETTE. Duquesne Manufacturing Co. SN 28,690. Pub. 10-22-57. Filed 4-23-57.

656,864. PETITE BELLE. F. W. Woolworth Co. SN 28,913. Pub. 10-22-57. Filed 4-25-57.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

656,865. CONSO. Consolidated Trimming Corporation. SN 16,529. Pub. 10-22-57. Filed 9-27-56.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

656,866. ACRI-SUEDE A. Dyersburg Cotton Products, Inc. SN 16,190. Pub. 10-22-57. Filed 9-24-56.

656,867. MOUTANA. Argonaut Mills. SN 23,771. Pub. 10-15-57. Filed 2-5-57.

656,868. SUNGARD AND DESIGN. Rayco Mfg. Co. SN 26,490. Pub. 10-22-57. Filed 3-19-57.

656,869. BANDOLERO. David Crystal, Inc. SN 26,687. Pub. 10-22-57. Filed 3-22-57.

656,870. CONDADO. David Crystal, Inc. SN 27,091. Pub. 10-22-57. Filed 3-28-57.

656,871. BRIGADE. Pepperell Manufacturing Company. SN 27,881. Pub. 10-22-57. Filed 4-10-57.

656,872. LATIGO. Pepperell Manufacturing Company. SN 27,882. Pub. 10-22-57. Filed 4-10-57.

656,873. BRAVADO. Pepperell Manufacturing Company. SN 27,883. Pub. 10-22-57. Filed 4-10-57.

656,874. CHROMTWEED. Callaway Mills Company. SN 27,929. Pub. 10-22-57. Filed 4-11-57.

656,875. NEVA-CARE. Marcus Brothers Textile Corp. SN 28,453. Pub. 10-22-57. Filed 4-18-57.

656,876. MB AND DESIGN. Marcus Brothers Textile Corp. SN 28,454. Pub. 10-22-57. Filed 4-18-57.

CLASS 43

THREAD AND YARN

656,877. BERNAT ETC. AND DESIGN. Emile Bernat & Sons Company. SN 16,170. Pub. 10-22-57. Filed 9-24-56.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

656,878. SURGIKART. Max G. Poeltzig, d. b. a. Kurmax Dental Products. SN 16,261. Pub. 10-22-57. Filed 9-24-56.

CLASS 45

SOFT DRINKS AND CARBONATED WATERS

656,879. COFFEE BREAK. Marshall Duffield, Inc. to Marshall Duffield and Byron Wilson. SN 14,544. Pub. 10-22-57. Filed 8-24-56.

656,880. DIAFOODS. Louis Milani Foods, Inc. SN 22,699. Pub. 10-15-57. Filed 1-16-57.

656,881. Mc McCORMICK AND DESIGN. McCormick & Company, Incorporated. SN 25,874. Pub. 10-15-57. Filed 3-11-57.

656,882. RC. Nehl Corporation. SN 29,295. Pub. 10-22-57. Filed 5-2-57.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

656,883. BEAYER. Victor Fruit Growers, Inc. SN 700,349. Pub. 10-22-57. Filed 12-20-55.

656,884. EFFEFEFF. "Nordsee" Deutsche Hochseefischerei Aktiengesellschaft. SN 4,217. Pub. 10-22-57. Filed 3-9-56.

656,885. OLD SALTY RYE AND DESIGN. Bay State Milling Co. SN 4,276. Pub. 10-22-57. Filed 3-12-56.

656,886. GOLDEN PHEASANT. The S. A. Gerrard Company. SN 10,771. Pub. 10-22-57. Filed 6-22-56.

656,887. VITA-LUNCH. Vita-Lauch, Inc. SN 13,326. Pub. 9-24-57. Filed 8-2-56.

656,888. EDWARDS. Foodtown Purchasing Company, d. b. a. The Wm. Edwards Co. SN 14,141. Pub. 10-22-57. Filed 8-17-56.

656,889. FRIEND'S. Friend Brothers, Inc. SN 14,640. Pub. 10-22-57. Filed 8-27-56.

656,890. DESIGN OF SPANISH GIRL. The Ohio Provision Company. SN 15,289. Pub. 10-22-57. Filed 9-7-56.

656,891. DESIGN OF SPANISH DANCING GIRL. The Ohio Provision Company. SN 15,290. Pub. 10-22-57. Filed 9-7-56.

656,892. TREESWEET. Treesweet Products Co. SN 16,285. Pub. 10-22-57. Filed 9-24-56.

656,893. DESIGN OF COFFEE POT AND PINE TREES. William L. McLennan, d. b. a. North Woods Coffee Company. SN 17,829. Pub. 10-22-57. Filed 10-19-56.

656,894. SEABROOK FARMS AND DESIGN. Seabrook Farms Co. SN 19,626. Pub. 10-22-57. Filed 11-20-56.

656,895. HI-D-MAC. Henry Heide, Incorporated. SN 19,780. Pub. 10-22-57. Filed 11-23-56.

656,896. KING'S CROWN JEWELS AND DESIGN. King Candy Company. SN 20,427. Pub. 10-22-57. Filed 11-30-56.

656,897. LUCAS BLUE & GOLD. Sebastiano Filippi Co. SN 21,533. Pub. 10-22-57. Filed 12-24-56.

656,898. SACCHLAMATE. Forest Laboratories, Inc. SN 21,801. Pub. 10-22-57. Filed 12-28-56.

656,899. AMERICAN MAID. The Red Wing Company, Inc. SN 21,947. Pub. 10-22-57. Filed 12-31-56.

656,900. DATE CRUNCHIES. R. C. Nicoll, d. b. a. Valerie Jean Date Shop. SN 22,564. Pub. 10-22-57. Filed 1-14-57.

656,901. HOUN' DAWG AND DESIGN. Lipscomb Grain & Seed Co., d. b. a. Houn' Dawg Laboratories. SN 23,155. Pub. 10-22-57. Filed 1-24-57.

656,902. GOOD NEWS. Ben Myerson Candy Company. SN 25,019. Pub. 10-22-57. Filed 2-25-57.

656,903. TRULEE. Puccinelli Packing Company. SN 25,355. Pub. 10-22-57. Filed 3-1-57.

656,904. REGISTER AND DESIGN. Raymond A. Costa, d. b. a. Ray Costa Distributing Co., to Alvin A. Costa, d. b. a. Verde Farms. SN 29,877. Pub. 10-22-57. Filed 5-13-57.

656,905. TYRE'S PRIDE. Palm Terrace Fruit Company. SN 29,934. Pub. 10-22-57. Filed 5-13-57.

CLASS 47

WINES

656,906. INVERLITE. Schenley Industries, Inc., d. b. a. Weston Winery. SN 28,731. Pub. 10-22-57. Filed 4-23-57.

656,907. THUNDERBIRD. E. & J. Gallo Winery. SN 29,056. Pub. 10-22-57. Filed 4-29-57.

CLASS 48

MALT BEVERAGES AND LIQUORS

656,908. BOHEMIAN CLUB. Bohemian Brewing Company. SN 671,484. CONCURRENT USE. Pub. 10-8-57. Filed 8-11-54.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

656,909. "IT'S A GIRL!" Hayden's, Inc. SN 696,801. Pub. 10-22-57. Filed 10-20-55.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

656,910. SPLENDEX. Imperial Chemical Industries Limited. SN 26,823. Pub. 10-22-57. Filed 3-25-57.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

656,911. LESTER'S KURLOX. McLester McKee, d. b. a. W & M Products Co. SN 14,750. Pub. 10-22-57. Filed 8-28-56.

656,912. DOUCELINE. Lancome S. A. SN 18,170. Pub. 10-22-57. Filed 10-25-56.

656,913. C'EST GREY. Societe Monsavon-L'Oreal. SN 20,567. Pub. 10-22-57. Filed 12-6-56.

656,914. HIDDEN SUPPORT BY ESKA. Turner Hall Corporation. SN 24,384. Pub. 10-22-57. Filed 2-13-57.

656,915. POND'S. Chesebrough-Pond's Inc. SN 24,566. Pub. 10-22-57. Filed 2-18-57.

656,916. Q-NEEK. William L. Vomack and Esther Sherman Vomack, d. b. a. G. M. Products. SN 24,667. Pub. 10-22-57. Filed 2-19-57.

CLASS 52

DETERGENTS AND SOAPS

656,917. PAX AND REPRESENTATION OF A ROOSTER. G. H. Packwood Manufacturing Co. SN 651,126. Pub. 6-14-55. Filed 7-30-53.

656,918. SUNNY. B. A. Ralton Co. SN 677,605. Pub. 4-17-56. Filed 12-1-54.

656,919. ALVO. Manuel C. Pacheco, d. b. a. Alvo Products Co. SN 22,832. Pub. 10-22-57. Filed 1-18-57.

656,920. KORK WHITE. Korkay, Inc. SN 24,360. Pub. 10-22-57. Filed 2-13-57.

656,921. KORK-BUSTER. Korkay, Inc. SN 24,362. Pub. 10-22-57. Filed 2-13-57.

656,922. PARAWAX AND DESIGN. The Parawax Company. SN 26,225. Pub. 10-22-57. Filed 3-4-57.

656,923. LAVISH. Chesebrough-Pond's Inc. SN 28,759. Pub. 10-22-57. Filed 4-24-57.

656,924. SHINING LIFE. Carter Products, Inc. SN 29,031. Pub. 10-22-57. Filed 4-29-57.

656,925. FOMAC. Dermik Pharmaceutical Co., Inc. SN 29,041. Pub. 10-22-57. Filed 4-29-57.

656,926. ENBOND. Enthone, Incorporated. SN 29,278. Pub. 10-22-57. Filed 5-2-57.

656,927. ACTI-LAN. Tesco Chemicals, Inc. SN 29,671. Pub. 10-22-57. Filed 5-8-57.

Service Marks

CLASS 100

MISCELLANEOUS

656,928. DESIGN OF 3 TRIANGLES. Walter V. Clarke, d. b. a. Walter V. Clarke Associates, Inc., and Walter V. Clarke Associates. SN 679,139. Pub. 10-22-57. Filed 12-30-54.

656,929. PAN-O-RAMIC. Janesville Paper Box Co. SN 11,927. Pub. 10-22-57. Filed 7-11-56.

656,930. TRIPTIK. The American Automobile Association (Incorporated). SN 21,976. Pub. 10-22-57. Filed 1-2-57.

656,931. BAROID AND DESIGN. National Lead Company. SN 24,711. Pub. 10-22-57. Filed 2-19-57.

656,932. THE NATION'S INNKEEPER. Holiday Inns of America, Inc. SN 27,600. Pub. 10-22-57. Filed 4-5-57.

656,933. DESIGN OF MAN. Holiday Inns of America, Inc. SN 27,603. Pub. 10-22-57. Filed 4-5-57.

CLASS 101

ADVERTISING AND BUSINESS

656,934. CCA AND DESIGN. The Consumers Cooperative Association. SN 690,229. Pub. 10-22-57. Filed 6-27-55.

656,935. THE PRODUCERS' COUNCIL ETC. AND DESIGN. The Producers' Council, Inc., d. b. a. Producers' Council, Inc. SN 22,957. Pub. 10-22-57. Filed 1-22-57.

CLASS 105

TRANSPORTATION AND STORAGE

656,936. YELLOW CAB ETC. AND DESIGN. Yellow Cab Company. SN 2,212. Pub. 10-22-57. Filed 2-8-56.

656,937. REPRESENTATION OF PENNANT AND LETTERS ACE. A. P. Ward & Son, Inc. SN 16,982. Pub. 10-22-57. Filed 10-4-56.

CLASS 107

EDUCATION AND ENTERTAINMENT

656,938. COUNTRY JUNCTION. WLAC-TV, Inc. SN 25,291. Pub. 10-22-57. Filed 2-28-57.

Certification Mark

CLASS A

GOODS

656,939. SCR ETC. AND DESIGN. Structural Clay Products Research Foundation. SN 21,220. Pub. 10-22-57. Filed 12-17-56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

656,940. L. Teweles Seed Co., Milwaukee, Wis. SN 5,881. Filed P. R. 4-5-56. Am. S. R. 4-22-57.

MULTI-STRAIN

For Alfalfa Seed.
First use Mar. 19, 1956.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

656,941. Mitchell-Bissell Co., Trenton, N. J. SN 35,594. Filed 8-15-57.

BLUE SATIN FINISH

For Porcelain Guides for Textile Machinery.
First use Mar. 12, 1936.

CLASS 24

LAUNDRY APPLIANCES AND MACHINES

656,942. S. H. Kress and Company, New York, N. Y. SN 11,012. Filed P. R. 6-26-56. Am. S. R. 10-30-57.



For Clothes Pins, Ironing Board Covers, and Ironing Board Pads.
First use May 3, 1956; January 1934 in another style and typography.

CLASS 27

HOROLOGICAL INSTRUMENTS

656,943. Robanne Corporation, Washington, D. C. SN 28,285. Filed P. R. 4-16-57. Am. S. R. 10-28-57.

KIMBERLY

For Watches.
First use in November 1954.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

656,944. Madow's, Inc., New York, N. Y. SN 9,277. Filed P. R. 5-29-56. Am. S. R. 10-29-57.

"INTEREST BEARING DIAMONDS"

For Diamonds, Diamond Rings, and Diamond Jewelry.
First use Feb. 1, 1956.

656,945. Madow's, Inc., New York, N. Y. SN 9,278. Filed P. R. 5-29-56. Am. S. R. 10-29-57.

"DIVIDEND DIAMONDS"

For Diamonds, Diamond Rings, and Diamond Jewelry.
First use Feb. 1, 1956.

656,946. Stephen N. Green, d. b. a. The Gem Exchange, Bayfield, Colo. SN 22,364. Filed 1-10-57.

LAPIS LINGUA

The word "Lapis" means "stone" when translated into English; the word "Lingua" means "a tongue," or "tongue-like" (language or speech) when translated into English.
For Semi-Precious Stones and Jewelry.
First use on or about Sept. 1, 1945.

CLASS 32

FURNITURE AND UPHOLSTERY

656,947. Sterling Doll Co., Inc., New York, N. Y. SN 631. Filed P. R. 1-12-56. Am. S. R. 7-29-57.

Hill FM McGraw
THE GIANT TV DOG



For Convertible Upholstered Dog Used as a Stool, Seat or Pillow.
First use Nov. 1, 1955.

CLASS 39

CLOTHING

656,948. Cluett, Peabody & Co., Inc., Troy, N. Y. SN 700,579. Filed P. R. 12-27-55. Am. S. R. 10-17-57.

ETON 6

For Collars.
First use 1901.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

656,949. The Papercraft Corporation, Pittsburgh, Pa. SN 16,062. Filed P. R. 9-20-56. Am. S. R. 9-24-57.

Redi-Made

For Ready-Made Bows for Ribbons in Tying Gift Packages.
First use Aug. 24, 1956.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

656,950. Filler Products, Inc., Atlanta, Ga. SN 14,551. Filed P. R. 8-24-56. Am. S. R. 8-19-57.

BAKON-KRISP

For Fried Bacon Rinds.
First use Aug. 1, 1955.

TRADEMARK REGISTRATIONS RENEWED

- | | |
|---|---|
| 15,002. SHAWMUT. Cl. 35. 12-6-1887. | 354,287. CHEVRON. Cl. 52. 2-8-38. |
| 119,590. SOLFRUNT. Cl. 26. 11-27-17. | 354,306. CCS AND DESIGN. Cl. 50. 2-8-38. |
| 121,042. ORTHO. Cl. 6. 4-2-18. | 354,361. PETAMINE. Cl. 46. 2-8-38. |
| 121,056. MOR-GLO AND DESIGN. Cl. 51. 4-2-18. | 354,438. BUDDIES. Cl. 39. 2-15-38. |
| 121,318. DESIGN OF BOY. Cl. 6. 4-23-18. | 354,477. DENICOTEA. Cl. 8. 2-15-38. |
| 121,319. DESIGN OF BOY. Cl. 15. 4-23-18. | 354,597. ADVENTURE. Cl. 51. 2-15-38. |
| 334,729. BOCO. Cl. 23. 5-12-36. | 354,660. DESIGN OF THREE BLUE BANDS. Cl. 48. 2-15-38. |
| 347,470. VAPOSKOP. Cl. 26. 6-29-37. | 354,879. CAVALIER QUALITY. Cl. 40. 3-1-38. |
| 348,221. STYLISTS TO THE STARS. Cl. 51. 7-20-37. | 354,946. RUBBERLITE. Cl. 21. 3-1-38. |
| 348,392. BUNGALOW. Cl. 46. 7-27-37. | 355,025. ELENDA. Cl. 47. 3-8-38. |
| 348,570. ADAIR AND DESIGN. Cl. 47. 8-3-37. | 355,027. EVI EVAN AND DESIGN. Cl. 47. 3-8-38. |
| 349,531. BLACK STAR. Cl. 46. 8-31-37. | 355,073. ARCH POISE. Cl. 39. 3-8-38. |
| 350,122. CV. Cl. 21. 9-14-37. | 355,280. TWEED. Cl. 49. 3-8-38. |
| 350,806. HOLLANDER DYED FURS AND DESIGN. Cl. 1. 10-5-37. | 355,319. SUPER-X AND DESIGN. Cl. 52. 3-15-38. |
| 351,136. CRYSTEX. Cl. 21. 10-19-37. | 355,327. HOLO-KROME. Cl. 23. 3-15-38. |
| 351,393. LEANERMAISE. Cl. 46. 10-26-37. | 355,409. STIXSIL. Cl. 5. 3-15-38. |
| 351,448. WONDER WALLS. Cl. 12. 11-2-37. | 355,410. STIXSOL. Cl. 5. 3-15-38. |
| 351,668. SUNFOE. Cl. 51. 11-2-37. | 355,561. LOUISIANA MAMMY. Cl. 46. 3-22-38. |
| 351,689. OPPORTUNITY. Cl. 42. 11-2-37. | 355,578. DIET DIGEST. Cl. 46. 3-22-38. |
| 351,942. COLT AND DESIGN. Cl. 39. 11-16-37. | 355,702. MULTI-VAC. Cl. 23. 3-29-38. |
| 352,004. RHYTHM STEP AND DESIGN. Cl. 39. 11-16-37. | 355,825. NUTONE CHIME DOOR SIGNAL AND DESIGN. Cl. 21. 4-5-38. |
| 352,166. GUIDE DIRECT SIGNAL. Cl. 21. 11-28-37. | 355,878. GLISSEN. Cl. 52. 4-5-38. |
| 352,334. O-NAMELO. Cl. 16. 11-30-37. | 355,887. BREAKFAST COCKTAIL. Cl. 46. 4-5-38. |
| 352,364. FEDERAL ETC. AND DESIGN. Cl. 23. 11-30-37. | 355,953. ISOPHRIN. Cl. 18. 4-5-38. |
| 352,563. BERKTWIST. Cl. 39. 12-7-37. | 355,960. ROLAGRIP AND DESIGN. Cl. 13. 4-5-38. |
| 352,712. EHLENDAL. Cl. 46. 12-7-37. | 355,969. PHOTOSENSIN. Cl. 10. 4-5-38. |
| 352,713. EHLENPATS. Cl. 46. 12-7-37. | 356,059. FUSTAT. Cl. 21. 4-12-38. |
| 352,775. RE-NU-BILT BELYEA MOTORS AND DESIGN. Cl. 21. 12-14-37. | 356,096. REINDOE. Cl. 39. 4-12-38. |
| 353,141. PHOTOCRIME. Cl. 38. 12-28-37. | 356,109. DESIGN OF CHEVRON. Cl. 52. 4-12-38. |
| 353,728. MYSTRONG AND DESIGN. Cl. 25. 1-18-38. | 356,118. ROSS-MEEHAN AND DESIGN. Cl. 14. 4-12-38. |
| | 356,247. CREAM OF RICE. Cl. 46. 4-19-38. |

TRADEMARK REGISTRATIONS CANCELED

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| Section 7(d) | 561,529. MIRATILE. Cl. 12. 7-15-52. |
| 416,173. REEVES MOUNTAIN CLOTH. Cl. 42. 8-28-45. | 587,215. VARIDEX. Cl. 26. 3-23-54. |
| 419,564. REEVES MOUNTAIN CLOTH. Cl. 39. 2-19-46. | 629,729. SUPERIOR. Cl. 7. 6-26-56. |

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

656,951. Frank W. Lisee, d. b. a. Lisee Mfg. Co., Wymore, Nebr. SN 29,459. Filed P. R. 5-6-57. Am. S. R. 11-8-57.

FLO-RITE

For Poultry Fountains Used To Supply Drinking Water to Chickens.
First use Aug. 6, 1955.

Service Mark

CLASS 102

INSURANCE AND FINANCIAL

656,952. The Savings Deposit Bank Company, Medina, Ohio. SN 698,648. Filed P. R. 11-21-55. Am. S. R. 7-31-57.

Check-and-Save

For Operation of Combination Checking and Deposit Accounts, the Money in the Accounts Sometimes Being Loaned by the Bank.
First use Oct. 4, 1955.

Section 8

- 81,827. THE SCRANTON DRILL. Cl. 23. 5-9-11.
261,361. MAGNIGRAPH. Cl. 38. 9-17-29.
283,942. BEN FRANKLIN. Cl. 27. 6-9-31.
283,945. GEN-TIC. Cl. 27. 6-9-31.
288,318. WESTOX. Cl. 21. 10-27-31.
539,505. ROLL-A-HOOP. Cl. 22. 3-20-51.
550,098. CALCUMEATER AND DESIGN. Cl. 26. 11-13-51.

The following registrations issued Nov. 20, 1951:

- 550,919. LITER-WHITE. Cl. 16.
550,920. CUSTOMCRAFT. Cl. 39.
550,925. NIKKOMOSS AND CROSS DESIGN. Cl. 1.
550,928. EGYPTIAN ROBALMER AND DESIGN. Cl. 44.
550,935. CALENDAR COAT. Cl. 39.
550,940. ROYAL RACER. Cl. 22.
550,942. GRILLOMETER. Cl. 26.
550,945. FLECHA AND DESIGN. Cl. 1.
550,947. "FLOR DE CAFE" COFFEE BLOSSOM. Cl. 51.
550,953. WHEN IT'S A GOLDEN "B" IT'S A HONEY AND DESIGN. Cl. 26.
550,954. WIFUG. Cl. 26.
550,956. FLAVOR CHIEF AND DESIGN. Cl. 46.
550,957. SAWYER, REGAN CO. Cl. 42.
550,959. THERM-O-VUE. Cl. 19.
550,965. TOURNAROCKER. Cl. 19.
550,967. NEW ERA. Cl. 12.
550,969. M AND BOY FIGURE DESIGN. Cl. 19.
550,970. AQUALAND RAMSEY AND DESIGN. Cl. 19.
550,971. INCREASING POWER WIP ETC. AND DESIGN. Cl. 35.
550,973. TEEN COLONY. Cl. 39.
550,974. LIP CONTROL. Cl. 51.
550,976. KEL-FLO. Cl. 6.
550,979. TRU-FLITE. Cl. 22.
550,980. PETER PLEXI AND DESIGN. Cl. 42.
550,985. TEE GEEZ. Cl. 39.
550,986. VALLEY FEED FUEL CO. INC., AND DESIGN. Cl. 1.
550,989. PLUME CHIFFON. Cl. 42.
550,993. GOODALL FLANNEL. Cl. 42.
550,996. PHEN OVOID. Cl. 18.
550,999. BURNETS AND DESIGN. Cl. 1.
551,001. DAHLSTROM. Cl. 12.
551,007. GOLO. Cl. 51.
551,012. DINO. Cl. 39.

- 551,019. TABL-TAILOR. Cl. 42.
551,026. MOBY DICK. Cl. 22.
551,027. U. S. ROYAL NYLON LIFE. Cl. 35.
551,033. SNO-KRAFT. Cl. 12.
551,035. FURRIE CUDDLES. Cl. 22.
551,040. EREKTA. Cl. 13.
551,041. FLYING DISC. Cl. 22.
551,056. FLINT. Cl. 18.
551,060. SAHAREEN. Cl. 39.
551,063. VEMCO VARICLINE. Cl. 26.
551,065. RICHMON. Cl. 35.
551,066. AVANT. Cl. 39.
551,067. L. R. O. Cl. 61.
551,073. SUN LASSIE AND DESIGN. Cl. 26.
551,074. 250 BOX CAR. Cl. 12.
551,075. CREPE ULTRA. Cl. 42.
551,077. TUFFOLITE. Cl. 42.
551,081. NOO. Cl. 52.
551,085. HANDI-RUB. Cl. 24.
551,088. STEAK LOVERS PAL. Cl. 13.
551,092. J. SCHAEFFER AND DESIGN. Cl. 51.
551,095. CANAS-TAB. Cl. 22.
551,096. BORNEO. Cl. 22.
551,097. FLEX. Cl. 13.
551,098. JERADENT. Cl. 51.
551,100. PLASTI-QUILT. Cl. 19.
551,108. FEEDAIDER. Cl. 44.
551,112. FATIGONE AND DESIGN. Cl. 18.
551,119. AFO AND DESIGN. Cl. 51.
551,122. SCULCO. Cl. 13.
551,131. ROLLEX. Cl. 13.
551,137. AUTO-PHOTO AND DESIGN. Cl. 26.
551,141. MOZ-ALL. Cl. 23.
551,148. FILTER-AIRE. Cl. 21.
551,149. THE VAN LINE AND DESIGN. Cl. 21.
551,152. TRUCUT BANGSHAPER. Cl. 26.
551,155. SHAMPOO-WAVE. Cl. 52.
551,156. FRIGID MIXER AND DESIGN. Cl. 31.
551,157. EMBER LIGHT. Cl. 6.
551,159. LOK-GYDES. Cl. 21.
551,168. REDI-SET. Cl. 103.

Section 18

- 397,031. BENDIXIZED. Cl. 6. 8-11-42.
560,668. TRI-ROLL. Cl. 26. 6-24-52.
583,729. LASCO. Cl. 29. 12-15-53.
625,688. GREEN MAGIC. Cl. 10. 4-24-56.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

- 361,469. HOUSE & HOME MAGAZINE AND DESIGN. Cl. 38. 10-18-38. Eugene Nelson Beard. Time, Incorporated, New York, N. Y. Amended: The last paragraph of the statement is deleted, and the drawing is amended to appear:
- 420,501. CHARM-KURL SUPREME. Cl. 50. 4-16-46. Fraser Hair Fashions. The Gillette Company, Boston, Mass. Amended: In the statement, column 1, line 10, "lotion, curlers, a neutralizer" is deleted; lines 12 and 13, "and cotton applicators," is deleted; and the drawing is amended to appear:

House & Home

- 379,639. REDBANKS ORCHARDS ETC. AND DESIGN. Cl. 46. 7-16-40. Fruit Growers Service Co. Morris Fruit Company, Fresno, Calif. Amended: The second paragraph of the statement is deleted, and the drawing is amended to appear:

SUNSHINE

CHARM-KURL

- 578,218. TWIRL. Cl. 51. 8-4-58. Winco Associates, Inc. The Gillette Company, Boston, Mass. Amended: The drawing is amended to appear:

TWIRL

- 645,564. FOAMLITE. Cl. 1. 5-21-57. Cambridge Rubber Company, Cambridge, Mass. Corrected: In column 2, line 2, "shaped" should be *shapes*.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

348,959. APPELLA AND DESIGN. Cl. 46. The Issard Company. 8-17-37. New Cert. Sec. 7(c), to Vacu-dry Company, Oakland, Calif., 1-7-58. 584,601. RHAPSODIE. Cl. 51. Holiday, Inc. 1-12-54. New Cert. Sec. 7(c), to C. Leonard Pfeiffer, Greenwich, Conn., 1-7-58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

412,724. Mar. 20, 1945. Lennox Manufacturing Company, St. Louis, Mo. Pub. by registrant.

DeLisodDebs

For Handbags.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

349,505. Aug. 31, 1937. Bloomingdale Bros., Inc., New York, N. Y. Pub. by Federated Department Stores, Inc., New York, N. Y.

MOTH DRUM

For Moth Preparation.

CLASS 12

CONSTRUCTION MATERIALS

353,566. Jan. 11, 1938. The Paraffine Companies, Inc., San Francisco, Calif. Pub. by Fibreboard Paper Products Corporation, San Francisco, Calif.

COOLITE

For Prepared Aluminum Powders and Pastes, and a Liquid Vehicle Adapted To Be Mixed Therewith To Provide a Material for Use as a Paint, Protective Coating, and Heat Reflecting Medium.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

354,484. Feb. 15, 1938. Stanley G. Flagg & Co., Inc., Philadelphia, Pa. Pub. by registrant.

FLAGG

For Metal Pipe Fittings.

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CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

416,287. Sept. 4, 1945. The Hermaseal Company, Elkhart, Ind. Pub. by The Hermaseal Company, Inc., Elkhart, Ind.

HERMASEAL

For Electrical Terminals, Terminal Posts, Terminal Plates, and Terminal Plate Assemblies.

CLASS 39

CLOTHING

349,824. Sept. 7, 1937. Levy Bros. & Adler Rochester, Incorporated, Rochester, N. Y. Pub. by Eagle Clothes, Inc., Brooklyn, N. Y.



For Men's and Boys' Outer Clothing—Namely, Suits, Top-coats, and Overcoats.

350,889. Oct. 12, 1937. Levy Bros. & Adler Rochester, Incorporated, Rochester, N. Y. Pub. by Eagle Clothes, Inc., Brooklyn, N. Y.



For Men's and Boys' Outer Clothing—Namely, Suits, Top-coats, and Overcoats.

JANUARY 7, 1958

U. S. PATENT OFFICE

TM 41

CLASS 46

FOODS AND INGREDIENTS OF FOODS

117,733. July 31, 1917. Armstrong Packing Company, Dallas, Tex. Pub. by Swift & Company, Chicago, Ill.

253,362. Feb. 26, 1929. Winston and Newell Company, Minneapolis, Minn. Pub. by Super Value Stores, Inc., Hopkins, Minn.

18-K

For Salt and Glaze or Laundry Starch.



EMERALD

For Salad Oil.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

351,527. Nov. 2, 1937. Bloomingdale Bros., Inc., New York, N. Y. Pub. by Federated Department Stores, Inc., New York, N. Y.

JOHN PEEL

For Whiskey.

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INDEX OF REGISTRANTS

JANUARY 7, 1958

(Registered ; Renewed ; Canceled ; Amended, Disclaimed, Corrected, etc. ; New Certificates ; 12c Publications.)

- Acme Quality Paints, Inc., Detroit, Mich. 656,667, pub. 10-22-57. Cl. 6.
Admiral Corp., Chicago, Ill. 656,798, pub. 10-22-57. Cl. 26.
Aeroquip Corp.: See—
General Logistics.
Aetna-Standard Engineering Co., The, Pittsburgh, Pa. 656,788, pub. 10-22-57. Cl. 23.
Afo Co., The, Gloversville, N. Y. 551,119, ren. 1-7-58. Cl. 51.
Air Master Corp., Philadelphia, Pa. 656,695, pub. 10-22-57. Cl. 15.
Aktiebolaget Vinkelcentrifug, Stockholm, Sweden. 550,954, can. Cl. 26.
Alco Fireworks and Specialty Co.: See—
Cohen, A. M.
Alvo Products Co.: See—
Pacheco, Manuel C.
American Automobile Association (Inc.), The, Washington, D. C. 656,930, pub. 10-22-57. Cl. 100.
American Chemical & Drug Co.: See—
American Transpacific Corp.
American Cyanamid Co., New York, N. Y. 656,733-4, pub. 10-22-57. Cl. 18.
American Machine and Metals, Inc.: See—
United States Gauge Co., The.
American-Marietta Co., O-Cedar Division, Chicago, Ill. 656,811-12, pub. 10-22-57. Cl. 29.
American Transpacific Corp., d. b. a. American Chemical & Drug Co., San Francisco, Calif. 656,714, pub. 10-22-57. Cl. 18.
Amersil Co., Inc., Hillside, N. J. 656,822-6, pub. 10-22-57. Cl. 33.
Ames Co., Inc., Elkhart, Ind. 656,727, pub. 10-22-57. Cl. 18.
Ammen, Charles, Co., Alexandria, La. 656,715, pub. 10-22-57. Cl. 18.
Aquagene, Inc., Sherman Oaks, Calif. 656,660, pub. 10-22-57. Cl. 6.
Argonaut Mills, Milwaukee, Wis. 656,867, pub. 10-15-57. Cl. 42.
Armour and Co., Chicago, Ill. 656,735-6, pub. 10-22-57. Cl. 18.
Armstrong Packing Co., Dallas, Tex., by Swift & Co., Chicago, Ill. 117,733, 12(c) pub. 1-7-58. Cl. 46.
Ansonia Records, Inc., New York, N. Y. 656,837, pub. 10-22-57. Cl. 36.
Artistic Foundations, Inc., New York, N. Y. 551,066, can. Cl. 39.
Augustin, S., & Co. Inc., College Point, N. Y. 656,855, pub. 10-22-57. Cl. 39.
Automation Products Corp., Detroit, Mich. 656,746, pub. 10-22-57. Cl. 21.
Automotive Periodicals, Inc., Washington, D. C. 656,845, pub. 10-22-57. Cl. 38.
Auto-Photo Co., Los Angeles, Calif. 551,137, can. Cl. 26.
B L B Pharmacal Co., Inc., Salem, Va. 656,730-1, pub. 10-22-57. Cl. 18.
Baby Feeder Co., The, Columbia, S. C. 551,108, can. Cl. 44.
Baguette Diamond Corp., New York, N. Y. 656,808, pub. 10-22-57. Cl. 28.
Baltch & Castaldi, Inc., New York, N. Y. 551,060, can. Cl. 39.
Ballas Collet Mfg. Co., The, Cleveland, Ohio. 656,789, pub. 10-22-57. Cl. 23.
Baltimore Porcelain Steel Corp., Baltimore, Md. 561,529, can. Cl. 12.
Barclay Home Products, Inc., New York, N. Y. 656,861, pub. 10-22-57. Cl. 39.
Barnett, Gabriel, Los Angeles, Calif. 656,803, pub. 10-22-57. Cl. 27.
Barnev Mfg. Corp., Chicago, Ill. 656,821, pub. 10-22-57. Cl. 32.
Bay State Milling Co., Winona, Minn. 656,885, pub. 10-22-57. Cl. 46.
Beard, Eugene Nelson Time, Inc., New York, N. Y. 861,469, Am. 7(d). Cl. 38.
Beauty Sales: See—
Smith, Edgar L.
Bell Laboratory, Inc., Orlando, Fla. 656,698, pub. 10-22-57. Cl. 15.
Belyea Co., Inc., New York, N. Y., to Belyea Co., Inc., Jersey City, N. J. 352,775, ren. 12-14-57. Cl. 21.
Bendix, Jacob, New York, N. Y. 397,031, can. Cl. 6.
Benson-Nuen Laboratories, Inc., New York, N. Y. 656,716, pub. 10-22-57. Cl. 18.
Berkshire Knitting Mills, Reading, Pa. 352,563, ren. 12-7-57. Cl. 39.
Bernat, Emile & Sons Co., Jamaica Plain, Mass. 656,877, pub. 10-22-57. Cl. 43.
Better Brushes, Inc., Palmer, Mass. 656,675, pub. 10-22-57. Cl. 6.
Better Monkey Grip Co., Dallas, Tex. 656,833, pub. 10-22-57. Cl. 35.
Beutlich, Inc., Chicago, Ill. 656,726, pub. 10-22-57. Cl. 18.
Bird & Son, Inc., East Walpole, Mass. 656,648, pub. 10-22-57. Cl. 2.
Blacaglia Brothers Corp., to Margo Wine Co., Philadelphia, Pa. 348,570, ren. 8-3-57. Cl. 47.
Blake, Marguerite D., d. b. a. Dorothee Products Co., Needham Heights, Mass. 656,661, pub. 10-22-57. Cl. 6.
Bloch & Guggenheimer, Inc., Long Island City, N. Y. 355,578, ren. 3-22-58. Cl. 46.
Bloomingdale Bros., Inc., by Federated Department Stores, Inc., New York, N. Y. 349,505, 12(c) pub. 1-7-58. Cl. 6.
Bloomingdale Bros., Inc., by Federated Department Stores, Inc., New York, N. Y. 351,527, 12(c) pub. 1-7-58. Cl. 49.
Bohemian Brewing Co., Joliet, Ill. 656,908, pub. 10-8-57. Cl. 48.
Borg-Warner Corp., Chicago, Ill. 656,783, pub. 10-22-57. Cl. 23.
Boss Mfg. Co., The, Kewanee, Ill. 551,012, can. Cl. 39.
Bowman, Charles, & Co., New York, N. Y. 656,700, pub. 10-22-57. Cl. 16.
Bradley Time Corp., New York, N. Y. 656,800, pub. 10-22-57. Cl. 27.
Broemmel, George M., d. b. a. Broemmel Laboratories, to Broemmel's Pharmaceuticals, San Francisco, Calif. 355,953, ren. 4-5-58. Cl. 18.
Broemmel Laboratories: See—
Broemmel, George M.
Broemmel's Pharmaceuticals: See—
Broemmel, George M.
CDC Control Services, Inc., Hatboro, Pa. 656,797, pub. 10-22-57. Cl. 26.
Cadillac Marine and Boat Co., Cadillac, Mich. 656,742, pub. 10-22-57. Cl. 19.
Calar Chemical Co., Pasadena, Calif. 551,157, can. Cl. 6.
California Spray-Chemical Corp.: See—
California Spray Chemical Co.
California Spray Chemical Co., Watsonville, Calif., to California Spray-Chemical Corp., Wilmington, Del. 121,042, ren. 4-2-58. Cl. 6.
Callaway Mills Co., Lagrange, Ga. 656,874, pub. 10-22-57. Cl. 42.
Callor Co., Inc., d. b. a. Calnor Products, Boston, Mass. 551,081, can. Cl. 52.
Calnor Products: See—
Callor Co., Inc.
Calusa Chemical Co., Los Angeles, Calif. 656,657, pub. 10-22-57. Cl. 6.
Cambridge Rubber Co., Cambridge, Mass. 645,564, cor. Cl. 1.
Cambridge Rubber Co., Cambridge, Mass. 656,643, pub. 10-22-57. Cl. 1.
Cambridge Rubber Co., Cambridge, Mass. 656,854, pub. 10-22-57. Cl. 39.
Campana Corp., Batavia, Ill., to The Realistic Co., Cincinnati, Ohio. 355,878, ren. 4-5-58. Cl. 52.
Canas-Tab Co., The: See—
Stoll, Ernest C.
Cardinal China Co., Carteret, N. J. 656,816, pub. 10-22-57. Cl. 30.
Carson Pirie Scott & Co., Chicago, Ill. 550,973, can. Cl. 39.
Carter Products, Inc., New York, N. Y. 656,712, pub. 10-22-57. Cl. 18.
Carter Products, Inc., New York, N. Y. 656,924, pub. 10-22-57. Cl. 52.
Central Soya Co., Inc., Fort Wayne, Ind. 656,711, pub. 10-22-57. Cl. 18.
Channel Master Corp., Ellenville, N. Y. 656,745, pub. 10-22-57. Cl. 21.
Chemigraphic Studios: See—
Mills, Jorge D.
Cherie Girl Togs, Inc., Ozone Park, N. Y. 656,857, pub. 10-22-57. Cl. 39.
Chesebrough-Pond's Inc., New York, N. Y. 656,915, pub. 10-22-57. Cl. 51.
Chesebrough-Pond's Inc., New York, N. Y. 656,923, pub. 10-22-57. Cl. 52.
Chicago Pharmacal Co., Chicago, Ill. 656,718, pub. 10-22-57. Cl. 18.
Circle Research Laboratories, Inc., Glen Ridge, N. J. 656,681, pub. 10-22-57. Cl. 10.
Citrus City Growers Assn., to John S. Taylor Co., Largo, Fla. 349,531, ren. 8-31-57. Cl. 46.
City Specialty Stores, Inc., New York, N. Y. 656,852, pub. 10-22-57. Cl. 39.
Clark, Joe, H. B. S. S.: See—
Clark, Joseph B.
Clark, Joseph B., d. b. a. Joe Clark, H. B. S. S., Detroit, Mich. 656,848, pub. 10-22-57. Cl. 38.
Clarke, Walter V., d. b. a. Walter V. Clarke Associates, Inc., and Walter V. Clarke Associates, East Providence, R. I. 656,928, pub. 10-22-57. Cl. 100.
Clarke, Walter V., Associates: See—
Clarke, Walter V.
Clarke, Walter V., Associates, Inc.: See—
Clarke, Walter V.
Cleveland Hone & Mfg. Co., Cleveland, Ohio. 656,790, pub. 10-22-57. Cl. 23.
Clock-Wise Fashions, Dallas, Tex. 656,850, pub. 10-22-57. Cl. 39.
Cluett, Peabody & Co., Inc., Troy, N. Y. 656,948, Cl. 39.
Cohen, A. M., d. b. a. Alco Fireworks and Specialty Co., Houston, Tex. 656,678, pub. 10-22-57. Cl. 9.
Colt-Cromwell Co., Inc., Boston, Mass., and New York, N. Y. 351,942, ren. 11-16-57. Cl. 39.
Conrad Corp., Los Angeles, Calif. 656,646, pub. 10-22-57. Cl. 2.

TM i

Consolidated Cosmetics, Chicago, Ill. 550,974, can. Cl. 51.
 Consolidated Sewing Machine Corp.: See—
 Consolidated Sewing Machine and Supply Co., Inc.
 Consolidated Sewing Machine Corp., New York, N. Y. 334,729, ren. 5-12-56. Cl. 23.
 Consolidated Trimming Corp., New York, N. Y. 656,865, pub. 10-22-57. Cl. 40.
 Consumers Cooperative Association, The, Kansas City, Mo. 656,934, pub. 10-22-57. Cl. 101.
 Continental Oil Co., Ponca City, Okla. 656,651, pub. 10-22-57. Cl. 6.
 Cookson Sheet Metal Developments Ltd., London, England. 656,686, pub. 10-22-57. Cl. 13.
 Costa, Alvin A.: See—
 Costa, Raymond A.
 Costa, Raymond A. d. b. a. Ray Costa Distributing Co., to Alvin A. Costa, d. b. a. Verde Farms, Blythe, Calif. 656,904, pub. 10-22-57. Cl. 46.
 Courtley, Ltd., New York, N. Y., to Richard Hudnut. 551,067, can. Cl. 51.
 Coventry Gauge & Tool Co. Ltd., Coventry, England. 656,786, pub. 10-22-57. Cl. 23.
 Cowles Magazines, Inc.: See—
 Register & Tribune Co., The.
 Cramer Chemical Co., Gardner, Kans. 656,737, pub. 10-22-57. Cl. 18.
 Craft, Belle, North Hollywood, Calif. 551,007, can. Cl. 51.
 Crane Co., Chicago, Ill. 656,831, pub. 10-22-57. Cl. 34.
 Cream of Rice Co., New York, N. Y., to Grocery Store Products Co., West Chester, Pa. 356,247, ren. 4-19-58. Cl. 46.
 Crown Cork & Seal Co., Inc., Baltimore, Md. 354,306, ren. 2-8-58. Cl. 60.
 Crump, B. T., Co., Inc., Richmond, Va. 551,100, can. Cl. 19.
 Crystal, David, Inc., New York, N. Y. 656,869-70, pub. 10-22-57. Cl. 42.
 Curtiss-Wright Corp., Quehanna, Pa. 656,815, pub. 10-22-57. Cl. 29.
 Dahlstrom Metallic Door Co., Jamestown, N. Y. 551,001, can. Cl. 12.
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 Pratt Mfg. Co., Coldwater, Mich. 550,940, can. Cl. 22.
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PATENTS NOTICES

Examination

Pursuant to the provisions of Rule 341(c), an examination for persons seeking registration before the United States Patent Office as patent attorneys or agents will be held on Monday, April 28, 1958.

This examination will be given under the supervision of the Civil Service Commission, and may be taken in any of the cities of the country in which the Civil Service Commission regularly conducts examinations. Applications to take the examination must be directed to the Commissioner of Patents and filed in the Patent Office not later than March 25, 1958.

Application blanks may be obtained from the Clerk of the Patent Office Committee on Enrollment, Room 3718, Department of Commerce Building, Washington 25, D. C.

Dec. 17, 1957.

ARTHUR W. CROCKER,
Chairman, Committee on Enrollment.

Adjudicated Patents

(C. A. N. Y.) Freedman Patent No. 2,149,048 (32-2), for artificial dental structure. Claims 3 and 4 Held valid and infringed. *Freedman v. Overseas Scientific Corp.*, 248 F.2d 274; 112 USPQ 468.

(D. C. Pa.) Cunningham Patent No. 2,324,137 (53-6), for food container. Held invalid. *Cunningham v. Bookbinder's Sea Food House, Inc.*, 155 F. Supp. 172 — USPQ —.

Patents Available for Licensing or Sale

2,766,702. Rotary Fluid Motor or Pump. Arthur R. MacVittie and Russell L. MacVittie. Correspondence to Arthur R. MacVittie, P. O. Box 150, Glen Ferris, W. Va.

General Electric Company is prepared to grant non-exclusive licenses under the following patents upon reasonable terms to domestic manufacturers.

Applications for licenses under the following 34 patents may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

- 2,712,746. Washing Machine Detergent Dispenser.
- 2,767,291. Heating Apparatus.
- 2,784,582. Electrical Control System for Automatic Washer.
- 2,787,423. Stopper Assembly.
- 2,795,015. Adjustable Door Brace Construction.
- 2,796,679. Automatic Clothes Dryer Control.

- 2,797,560. Air Conditioning Apparatus Having Condensate Disposal.
- 2,800,008. Venting Arrangement for Clothes Dryers and Combination Washer-Dryers.
- 2,801,524. Heat Pump Including Hot Gas Defrosting Means.
- 2,801,525. Two-Temperature Refrigerator With Single Evaporator.
- 2,801,526. Refrigerator Cabinet Structure Having a Variable Thermal Conductivity Insulating Wall.
- 2,801,870. Magnetic Latch.
- 2,801,872. Safety Strike.
- 2,802,927. Surface Heating Unit.
- 2,803,510. Cabinet, Including Retractable Caster Device.
- 2,803,513. Rotatable Shelf Structure for Refrigerators.
- 2,803,715. Time Switch Apparatus.
- 2,805,558. Refrigerating Apparatus Including Rotating Heat Exchangers.
- 2,805,826. Waste Disposal Apparatus.
- 2,806,119. Oven Heating System.
- 2,806,120. Electric Oven Control System.
- 2,807,841. Cabinet Closure and Sealing Arrangement.
- 2,807,889. Control System for Clothes Dryers.
- 2,807,890. Laundry Machine Having Improved Temperature Sensing Means.
- 2,807,893. Clothes Dryer With Clothes Odorizing Means.
- 2,807,940. Refrigeration System.
- 2,807,942. Combination Case Heater and Alarm Circuit for Refrigerators.
- 2,807,952. Adjustable Vibration Sensing Means for Laundry Machines.
- 2,808,310. Refrigerator Cabinet Construction.
- 2,808,488. Air Conditioning Unit and Control.
- 2,812,128. Rotary Compressor Valve.
- 2,812,413. Electric Heating System.
- 2,812,414. Pressure Cooking Apparatus.
- 2,812,965. Magnetic Latch.

Patent Removed From Register

2,580,928. Flow Indicator. This patent, which was listed in the February 10, 1953, OFFICIAL GAZETTE as being available for licensing or sale by the owner, Alex Kehm, has been licensed under contract and is, therefore, withdrawn from the list of available patents.

New Applications Received During November 1957

Patents	6,063
Designs	425
Plant Patents	4
Reissues	19
Total	6,511

Issue

Patents	759—No. 2,819,464 to No. 2,820,222, incl.
Designs	25—No. 181,893 to No. 181,917, incl.
Plant Patents	1—No. 1,674
Reissues	3—No. 24,415 to No. 24,417, incl.
Total	788

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of pending applications (excluding Designs)	212,792
Total number of pending Design applications	6,640
Total number of applications awaiting action (excluding Designs)	95,704
Total number of Design applications awaiting action	3,114
Date of oldest new application	Aug. 27, 1956
Date of oldest amended application	July 5, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 64, 69, 70.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE	3, 15, 19, 25, 30, 32, 49, 55, 67.
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DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	2-28-57	12-5-56
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	2-19-57	10-29-56
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	4-17-57	2-6-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	3-18-57	11-29-56
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors, Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	2-25-57	11-27-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	3-20-57	3-8-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics, Photographic Apparatus	3-4-57	12-3-56
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles	4-8-57	1-16-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-5-57	11-16-56
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	3-15-57	1-28-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-22-57	2-26-57
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15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-13-57	12-3-56
16. (II) Rose, R. H., (acting), Telephony; Recorders (part)	8-27-56	8-1-56
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18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	3-1-57	1-2-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating	3-4-57	12-26-56
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	1-28-57	11-6-56
21. (III) MADER, R. C., Textiles	12-18-56	10-1-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	3-4-57	12-4-56
23. (VI) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	12-31-56	7-16-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	4-12-57	1-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	6-6-57	1-25-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms	5-1-57	2-6-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-21-57	2-28-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	3-25-57	11-3-56
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	1-23-57	11-23-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	2-6-57	7-12-56

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DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION

(Roman numerals in parentheses indicate Examining Group)

Oldest Application

New Amended

31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils.	12-14-56	11-2-56
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers.	4-1-57	2-13-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering; Roads and Pavements.	3-5-57	12-5-56
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements.	2-25-57	10-1-56
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding.	4-25-57	4-17-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales.	12-28-56	11-30-56
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits.	2-5-57	2-7-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols.	5-7-57	5-16-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows).	4-9-57	3-14-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages.	6-3-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television.	10-16-56	7-13-56
42. (II) REYNOLDS, E. R., Electric Signalling; Telegraphy (part).	12-3-56	11-16-56
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles.	5-27-57	5-24-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes.	11-28-56	9-28-56
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part).	4-1-57	11-20-56
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part).	3-11-57	12-13-56
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles.	5-29-57	4-1-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers.	3-4-57	9-19-56
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring.	3-14-57	12-10-56
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber.	5-6-57	5-3-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices.	3-7-57	2-19-57
52. (V) NEFF, P. R., Supports and Racks.	4-1-57	10-31-56
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators.	4-23-57	4-8-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications.	1-9-57	3-4-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators.	10-8-56	8-14-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry.	5-20-57	3-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending.	4-3-57	3-6-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part).	2-11-57	8-8-56
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating.	2-25-57	11-14-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products.	3-7-57	12-5-56
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths.	3-5-57	9-24-56
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination.	7-1-57	7-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds.	2-20-57	12-3-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions.	3-4-57	11-15-56
66. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures.	2-6-57	7-23-56
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification.	12-27-56	7-5-56
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators.	2-26-57	11-13-56
70. (II) BREWRINK, J. L., Security Laws Administration.		
(I) BAILEY, J. S., Laminated Fabrics.	1-3-57	9-6-56
(II) LADY, J. E., Oscillators; Amplifiers.	3-5-57	11-8-56
CLASS. DIVS. (III) WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres.	2-18-57	9-4-56
(IV) BERLOWITZ, W., Harrows and Diggers; Plows.	3-20-57	12-26-56
(V) ANGEL, C. D., Refrigeration; Roofs.	3-4-57	3-4-57
M. E. DIV. A (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part).	4-1-57	1-10-57
(A) MONCURE, J. A., Industrial Arts.	5-2-57	6-10-57
DESIGNS (III) (B) GRAY, M. A., Household, Personal and Fine Arts.	5-1-57	5-1-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents.

Numbers 2,223,338 to 2,227,417, inclusive

Plant Patents.

Numbers 434 to 436, inclusive

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,233,487, A. Mayer, Manufacture of compositions of lead oxide (Pbo) and finely divided metallic lead, filed Dec. 6, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1350/57-TC, *National Lead Co. v. Western Lead Products Co.*

2,267,968. (See 2,515,817.)

2,329,100, N. W. Chappell, Spectacles and like eyewear; 2,554,386, J. J. Rohrbach, Spectacles frames; 2,748,655, same; Decs. 170,386, same, Combination metal and plastic spectacle front, filed Dec. 10, 1957, D. C., S. D. N. Y., Doc. 127/317, *Titmus Optical Co., Inc. v. Shuron Optical Co., Inc.*

2,376,633. (See 2,515,817.)

2,400,104, Compton and Autry, Dispensing machine; TM 353,542 (NIFTY), Birmingham Paper Co., School tablets, pads, blank books, etc.; TM 574,598 (NIFTY AND DESIGN), same, Glue and library and school paste used for pasting paper; TM 576,957, same, School tablets, paper pads, etc.; TM 581,498, same, Catalogs, drawings and printed charts; TM 586,475, same, Boxes made of cardboard and/or paper as follows: jewelry boxes, etc., filed Apr. 18, 1957, D. C., N. D. Tex. (Dallas), Doc. 7096, *Birmingham Paper Co. v. Allan A. Burleson et al.* Defendants enjoined from using expression "NIF-T-VEN" in connection with sale of paper products, etc.; by stipulation; counterclaim dismissed; patent held valid and not infringed Nov. 14, 1957.

2,434,826, R. W. Wubben, Auto top ski carrier, filed Dec. 6, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1355/57-TC, *Robert W. Wubben v. Burbank Sporting Goods et al.* Same, Doc. 1356/57-TC, *Robert W. Wubben v. Tex's Sporting Goods.*

2,515,817, K. C. Augenstein, Expansion bracelet; 2,267,968, same, Link bracelets; 2,376,633, Szeglin and Kreisler, Expandable wrist watch bands, bracelets or the like, filed Dec. 6, 1957, D. C., S. D. Tex. (Laredo), Doc. 772, *Speidel Corp. v. K & P, Inc.*

2,554,386. (See 2,329,100.)

240

2,573,203, W. C. Kinney, Pipe coupling; 2,751,927, same, Valved coupling arrangement, filed Aug. 16, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20331-T, *Portable Aluminum Irrigation Co., Inc. et al. v. Good Farmer Irrigation Co. et al.* Consent decree; complaints dismissed with prejudice by plaintiffs; counterclaims dismissed with prejudice by defendants; claims 4, 5, 9, 10, and 13 of Pat. No. 2,573,203 held valid (notice Dec. 3, 1957).

2,650,344. (See 2,746,012.)

2,671,515, J. E. Hall, Well bore cleaning scratcher; 2,731,816, same, Process for conditioning wells for cementing, amended complaint filed Oct. 30, 1957, D. C. Kans. (Kansas City), Doc. KC-475, *Jesse E. Hall, Sr. v. Robinson Oil Field Specialties Co. et al.*

2,685,672. (See 2,746,012.)

2,731,816. (See 2,671,515.)

2,746,012, B. G. Price, Inductive electromagnetic inspection; 2,685,672, Price and Wood, Apparatus for magnetic detection of flaws in ferromagnetic pipe; 2,650,344, D. Lloyd, Magnetic testing apparatus, filed Dec. 3, 1957, D. C., W. D. Tex. (Pecos), Doc. 2868, *Tuboscope Co. v. Trip Check, Inc.*

2,748,655. (See 2,329,100.)

2,751,927. (See 2,573,203.)

2,768,042, Persinger and Persinger, Attachment for barbecue equipment, filed June 10, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 709/57-T, *Merle L. Persinger et al. v. Stor-All Corp.* Consent judgment; patent held infringed; defendant enjoined (notice Dec. 6, 1957).

2,804,905, C. F. Engel, Sheet metal flanger of the roller type, filed Dec. 3, 1957, D. C., E. D. Mo. (St. Louis), Doc. 576386(2), *Engel Sheet Metal Equipment, Inc. v. Jos. T. Ryerson & Son, Inc. et al.*

Decs. 170,386. (See 2,329,100.)

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REISSUES

JANUARY 14, 1958

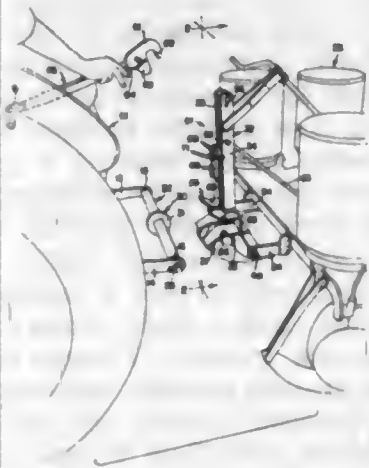
Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,415

HITCH DEVICE OF THE CONNECTION FACILITATING TYPE

William P. Oehler, Charles H. Youngberg, and Leslie W. Johnson, Moline, Ill., assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Original No. 2,793,880, dated May 28, 1957, Serial No. 445,838, July 26, 1954, which is a continuation of abandoned application Serial No. 278,698, March 26, 1952. Application for reissue September 9, 1957, Serial No. 683,193

15 Claims. (Cl. 280—477)

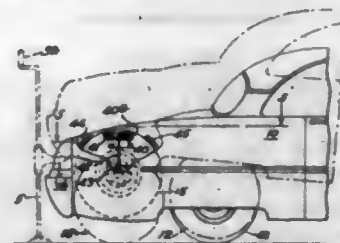


2. In a hitch construction for connecting an agricultural implement to a tractor to be propelled thereby, and wherein said tractor is provided with an upper compression link and a pair of lower laterally spaced apart tension links, the combination of a crossbar adapted to be rotatably and swingably connected at its ends with the rear ends of said lower links, a substantially circumferentially continuous guide member carried by said crossbar intermediate its ends and having radially projecting portions, an attaching member adapted to be carried at the front end of said implement and including a forwardly facing socket portion adapted to embrace and receive said crossbar and forwardly flaring sections adapted to engage the sides of said guide member whereby when the tractor is backed toward the implement in a position lateral of longitudinal alignment therewith said flaring sections engage the sides of said guide member and shift the tension links and the crossbar so as to bring the latter into a position to enter said socket member, means for connecting said attaching member in draft-transmitting relation with said crossbar, a vertical extension carried by said socket member, and latch means adapted to be connected to the rear end of said upper link and releasably engageable with the upper portion of said vertical extension.

24,416

REAR FENDER COMPARTMENT FOR SPARE TIRE

Brooks Walker, Piedmont, Calif.
Original No. 2,773,719, dated December 11, 1956, Serial No. 314,265, October 11, 1952. Application for reissue December 11, 1956, Serial No. 627,716
8 Claims. (Cl. 296—37.2)

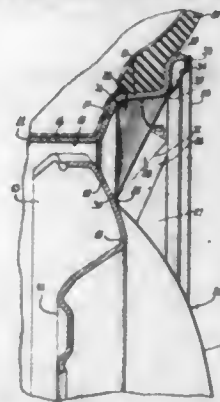


8. A vehicle having rear wheels, a spare wheel, a body having an exterior shell provided with doors, a portion of said body covering one of said rear wheels and forming a spare wheel compartment with a bottom opening in back of said one rear wheel, a wheel-raising mechanism adapted to hold said spare wheel in said compartment vertically and substantially in line with said one rear wheel and to raise and lower said spare wheel through said bottom opening, and control means for said mechanism accessible only from inside the confines of said exterior shell.

24,417

WHEEL COVER

George Albert Lyon, Detroit, Mich.
Original No. 2,737,421, dated March 6, 1956, Serial No. 304,097, August 13, 1952. Application for reissue September 28, 1956, Serial No. 612,907
18 Claims. (Cl. 301—37)



1. In a wheel structure having a multi-flange tire rim and wheel body with air circulation, openings between the wheel body and the tire rim, a cover for the outer side of the wheel including a body member having a continuous marginal flange structure and an intermediate portion, said intermediate portion having a series of air circulation openings therethrough with retaining finger flanges at said openings, said finger flanges having generally radially outwardly directed edges retainingly engaging with a flange of the tire rim under tension in the finger flanges resulting from flexure thereof incident to the placing of the same in the retaining engagement with the tire rim flange.

PLANT PATENTS

GRANTED JANUARY 14, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,674

NECTARINE TREE

Verna A. Compton, Ivanhoe, Calif.

Application January 7, 1957, Serial No. 632,952

1 Claim. (Cl. 47-62)

A new and distinct variety of nectarine tree, substantially as shown and described, characterized by marked

similarity in the external appearance of its fruit to that of the Le Grand nectarine of Plant Patent No. 549, from which it is distinguished by firmer flesh, excellent cooking qualities, and being freestone when fully ripe; and further being characterized by the similarity in color of its flesh to that of the Elberta peach, from which it is distinguished by its glabrate, brilliantly colored skin.

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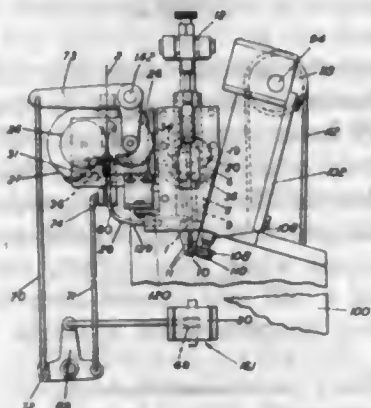
GRANTED JANUARY 14, 1958

GENERAL AND MECHANICAL

2,819,464

SHOE LASTING MACHINE

Jacob S. Kamborian, West Newton, Mass.
Application May 12, 1954, Serial No. 429,158
3 Claims. (Cl. 1—2)

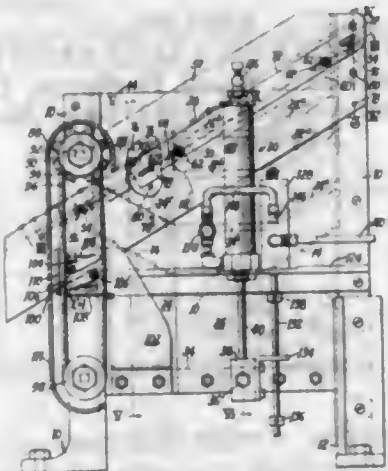


1. In a lasting machine, staple forming means, means for effecting operation of the staple forming means, a pair of feed rolls for advancing staple wire to the staple forming means, means operable in timed relation to the staple forming means to advance the feed rolls through a predetermined angle of rotation, said means including a ratchet wheel, a movable carrier supporting a plurality of pawls in operative relation to the ratchet wheel, with the pawls at different distances from the base of the teeth on the ratchet, said carrier being oscillatable alternatively to advance a pawl carried by it in the direction to rotate the ratchet wheel a given amount and then to retract it, and means for varying the angular oscillation of the carrier so that different ones of the pawls will be moved into operative position depending upon the amplitude of the angular oscillation, including a reciprocal connecting rod, and means operable to change the stroke of the connecting rod.

2,819,465

ARTICLE HANDLING MECHANISMS

Donald B. McIlvin, Danvers, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application September 16, 1955, Serial No. 534,833
12 Claims. (Cl. 1—6)



1. In an apparatus for delivering headed fasteners and other elongated articles, a supply hopper, a downwardly extending raceway spaced above and to one side of the hopper and having fastener orienting means located near

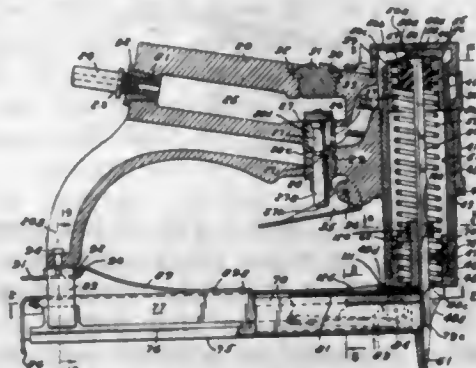
its lower end, an elevating mechanism for transferring fasteners from the hopper to the raceway comprising a plurality of lift slides mounted for reciprocating motion to deliver fasteners progressively from the hopper bottom to the raceway, all of said slides having fastener retaining surfaces coextensive lengthwise with portions of the raceway remote from said fastener orienting means and at least one of said slides having a fastener rejecting surface coextensive lengthwise with said orienting means whereby fasteners will be delivered to said raceway only at portions thereof remote from said fastener orienting means.

2,819,466

MAGAZINE UNIT AND FEED STRUCTURE FOR AIR STAPLING GUN

Lee R. Campbell, Royal Oak, and Frank E. Ebert and Alton L. Schoening, Detroit, and Leroy C. Relterman, Warren, Mich.; Virginia C. Ebert, administratrix of the estate of said Ebert, deceased, assignors, by direct and mesne assignments, to Kenwood Industrial Development Company, Inc., Dearborn, Mich., a corporation of Michigan
Original application August 24, 1951, Serial No. 246,491, now Patent No. 2,713,165, dated July 19, 1955. Divided and this application November 29, 1954, Serial No. 471,798

15 Claims. (Cl. 1—49)



1. In a stapling machine, a staple magazine and feed structure comprising an elongated track section having a bottom wall and a pair of laterally spaced side walls, each of said walls being provided along its bottom edge with an inwardly open longitudinal groove, a staple-carrying track secured to said bottom wall along the longitudinal central portion thereof, and a track cover of inverted U-shaped cross-section having a lateral flange extending from the bottom of each side wall thereof for slidable engagement within the open longitudinal grooves of the side walls of said track section, thereby to hold the top wall of said cover in predetermined spaced relationship to the top of said staple-carrying track as said cover is slid to and from opened to closed positions.

2,819,467

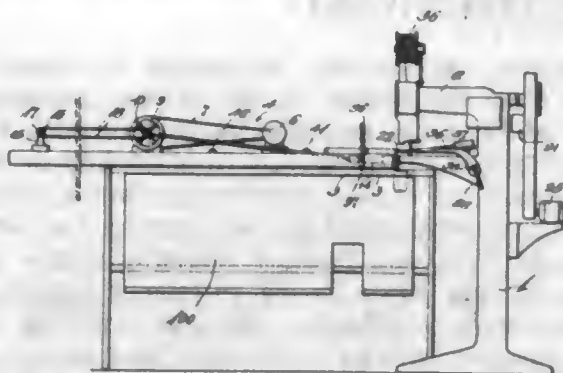
AUTOMATIC MECHANISM FOR CLOSING AND CUTTING PAPER SEAMLESS CIRCULAR TUBULAR KNITTED PRODUCTS

Ronald H. Marks, Dallas, Tex.

Application October 20, 1955, Serial No. 541,736
11 Claims. (Cl. 1—125)

1. A machine for cutting paper seamless circular tubular knitted material into lengths, comprising a frame,

means mounted on said frame for guiding the material in the form of a tube to be cut in lengths in a lineal path, a slide mounted on said frame and movable longitudinally thereof, gripping means carried by said slide for gripping and pulling the end of the material as a tube to be cut into lengths, means for reciprocating said slide in a lineal path, means for severing the material as a tube at the



time the aforesaid means reaches the limit of its lineal travel in one direction, means for disengaging said gripping means at the time said slide reaches the aforesaid limit of travel and prior to the return movement of said slide in the reciprocatory cycle thereof, and means for pushing the material as a tube to be severed into the path of said gripping means for cyclic engagement thereby.

2,819,468

DETACHABLE SUNSHIELD FOR EYE GLASSES

Diederik Van Dincklage, Olivos, Argentina
Application March 30, 1956, Serial No. 575,245
4 Claims. (Cl. 2-13)



1. The combination, with a pair of eye glasses having spaced lens frames, of a sun shade comprising a visor; a support strip of spring material connected at one end to one of the lens frames, said strip having its other end free and being tensioned to normally engage the other lens frame at said free end; and a channel member on the visor receiving said strip, said channel member being open at both ends for sliding of the same onto and off of the free end of the strip, said channel member and strip having mating, non-circular cross sectional shapes, to hold the same against relative rotation, the visor projecting forwardly from the lens frames in a substantially horizontal plane in the interengaged relationship of the strip and channel member, said channel member opening downwardly and the visor overlying and being secured at its underside to the top surface of the channel member for sliding of the channel member onto and off of the support strip without interference between the visor, channel member and said other lens frame.

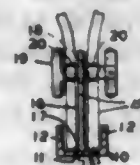
2,819,469

CUFF GUARD

John M. Lyles, Kansas City, Mo., assignor of one-third to Phillip P. Scaglia, Kansas City, Mo., and one-third to Harold G. Parrott, Mission, Kans.
Application May 6, 1955, Serial No. 506,550
7 Claims. (Cl. 2-60)

1. A guard adapted to protect shirt sleeve cuff ends from wear; the guard comprising: an elongated stiff member, said elongated stiff member having a sufficient length and

width to be adapted to shield the cuff ends against wear, a thin stiff flat member, said thin stiff flat member being thinner than the width of said elongated stiff member, said thin stiff flat member having one edge thereof secured parallel with and to the elongated stiff member at substantially the mid-length portion of the elongated stiff member along the longitudinal center of the elongated stiff member, said thin stiff flat member being projected outward from the elongated stiff member and adapted to be

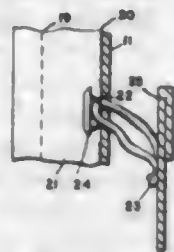


inserted between the opposite ends of a cuff, said thin stiff flat member having a hole located in the outer portion of said thin stiff flat member so spaced and arranged to be adapted to register with the cuff button link holes of a cuff when the elongated stiff member is aligned adjacent the opposite cuff ends, and said elongated stiff member having a sufficient projected width substantially the equivalent of the thickness of a cuff and located each side of said thin stiff flat member adapted to be a shield to a respective cuff end.

2,819,470

GARMENT FASTENER

Leona H. Mace, Syracuse, N. Y.
Application October 4, 1954, Serial No. 459,905
2 Claims. (Cl. 2-70)

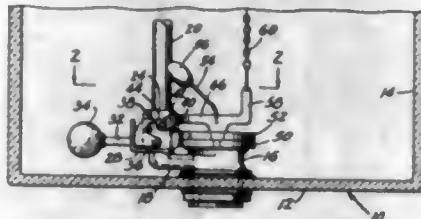


2. The combination comprising a first garment including a front panel and a rear panel connected at their opposed edge portions in a seam, said seam including a first or inner row of stitching, a second or outer row of stitching spaced from and parallel to the first row, said second row of stitching being interrupted to form an opening permitting access to the space between the two rows of stitching, a second garment for connection to the first garment; a fastening device including a member adapted to be inserted through the opening formed in the seam of the first garment and means connecting the member to the second garment.

2,819,471

TOILET FLUSH VALVE CONTROL

Benjamin T. Ezzell, Harlingen, Tex.
Application August 12, 1955, Serial No. 527,924
2 Claims. (Cl. 4-53)



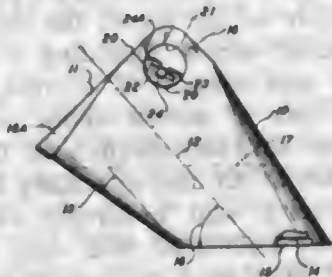
1. In combination, a toilet flush tank valve seat, a vertical overflow pipe rising alongside of said seat, a clamp surrounding the overflow pipe, a bracket fixed on and positioned at one side of said clamp, a float arm overlying said bracket and horizontally pivoted at one end on said clamp, a float mounted on the opposite end of said float

arm, said float arm being arranged to rest upon said bracket in a horizontal position of the float arm, an upstanding pawl on and intermediate the ends of said float arm, a valve arm having a yoke on one end thereof having legs embracing the overflow pipe and pivoted to opposite sides of said clamp on a level spaced above said float arm pivot, one of the yoke legs being vertically aligned with said float arm, said one yoke leg having an upwardly opening notch, a flush valve on the other end of the valve arm engageable with said valve seat in a horizontal position of the valve arm, said float arm being arranged to occupy an uptilted position while water is in the tank, and said valve arm being arranged to be uptilted from its horizontal position to engage the notch in said one yoke leg with the pawl on the float arm whereby the valve arm is maintained in an uptilted position and the valve is unseated from the valve seat while water drains through the valve seat until the water level in the tank subsides below the float arm and permits the float arm to subside toward its horizontal position and disengages the pawl from the notch of the valve arm yoke leg.

2,819,472

DISPOSABLE URINAL

Lawrence J. Sullivan, San Gabriel, Calif., assignor to
Nicholas Edward Griffin, Pasadena, Calif.
Application March 7, 1955, Serial No. 492,560
7 Claims. (Cl. 4-110)

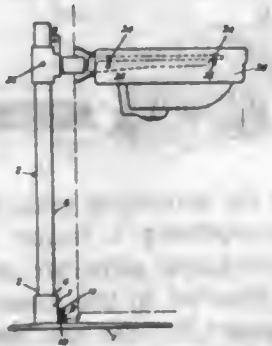


1. A disposable urinal which comprises a container having an inverted frusto-conical wall of impermeable relatively flexible sheet material and an impermeable bottom disposed obliquely to the longitudinal axis of the frusto-conical wall with the front portion of said wall projecting forward of the bottom when the latter is level, and with the rear portion of said wall projecting over the bottom when the latter is level.

2,819,473

SUPPORT FOR LAVATORIES AND THE LIKE

Albert A. Baker and Harry L. Rhoades, Erie, Pa., assignors to Zurn Industries, Inc., Erie, Pa., a corporation of Pennsylvania
Application May 11, 1953, Serial No. 354,063
5 Claims. (Cl. 4-170)



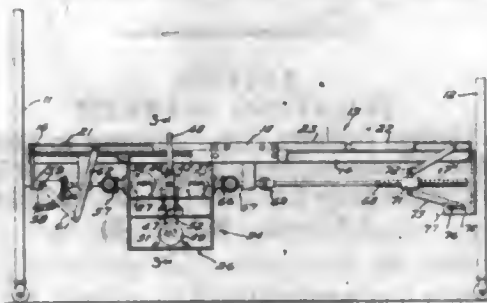
1. A lavatory support comprising spaced vertical legs, a support head attached to each of said legs, means to attach an arm to each said head, said means comprising a horizontally disposed member having a hollow therein

circular in cross section attached to each said head, lavatory supporting arms, said lavatory supporting arms each having a portion integrally connected thereto polygonal in cross section, said polygonal portion being telescopically received in said hollow member, said lavatory supporting arms adapted to engage an outwardly extending flange of a lavatory, and a set screw threadably engaging said hollow member and extending into the hollow thereof and engaging a flat side of said polygonal member whereby the corners of said polygonal member are urged into engagement with the inside of said hollow member.

2,819,474

HOSPITAL BED

Emery D. Olsen, Oakland, Calif.
Application June 15, 1953, Serial No. 361,745
4 Claims. (Cl. 5-68)



4. Adjusting means for an adjustable bed having a bed frame including a foot portion pivotally connected to a pair of pivotally mounted rails pivotally connected to the bed frame toward the head thereof and drive means including an electric motor, comprising: a shaft adapted to be connected to said drive means and arranged to extend longitudinally of said bed in rotatable relation to the frame thereof, an elongated screw extending to the foot of said bed frame from said shaft end, a universal joint joining said shaft and screw, an internally threaded cylinder engaging said screw for movement therealong with screw rotation, and link means engaging said cylinder and the end of said pivotable bed foot portion whereby the pivotal position of said foot portion is controllably adjustable, said link means including a first link pivotally connected to said cylinder and to the end of said foot portion and a second link pivotally connected to said cylinder and mounted to the bed frame for limited sliding engagement with the foot of said bed and longitudinally of said bed whereby rotation of said shaft in one direction raises the foot portion and shaft rotation in the opposite direction pivots said foot portion at said pivot point with the rails to raise the pivotal connection therebetween and disposes said foot portion and pivot rails at an angle to each other.

2,819,475

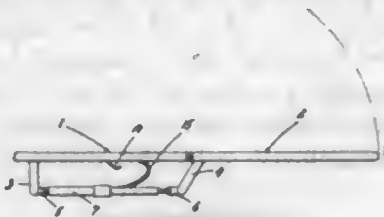
HOSPITAL BEDS OR THE LIKE

Tore Ericsson, Djursholm, Sweden, assignor to Aktiebolaget Sangfabriken, Stockholm, Sweden, a corporation of Sweden

Application July 7, 1954, Serial No. 441,863
Claims priority, application Sweden April 7, 1954
5 Claims. (Cl. 5-78)

1. In combination a hospital bed frame, a back rest pivoted on said frame tiltable to various positions of inclination, a cylinder, a first piston movable in said cylinder, a piston rod attached to said first piston, a spring in the cylinder at the end thereof opposite the piston rod, a second piston in said cylinder between said spring and said first piston, locking means comprising a shut-off valve device disposed in said cylinder between the two pistons, and an operating member for said valve

device having an operating handle, and transverse stays on the bed frame and the back rest extending below the plane of the frame and the back rest, said piston rod and cylinder being hingedly secured between the stays on the back rest and the bed frame, and said spring being com-

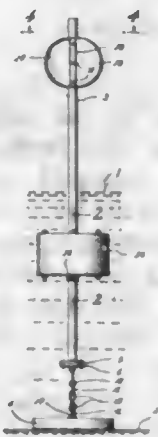


pressed when the frames and the back rest are aligned, whereby the spring tends to move the back rest toward its vertical position of inclination and against the action of which spring the back rest can be moved towards its horizontal position by the patient in the bed.

2,819,476

FLOATING MARKER

Robert J. Dodge, Bellaire, Tex., assignor to Buoys, Incorporated, Houston, Tex., a corporation of Texas
Application June 13, 1955, Serial No. 515,021
1 Claim. (Cl. 9-8)

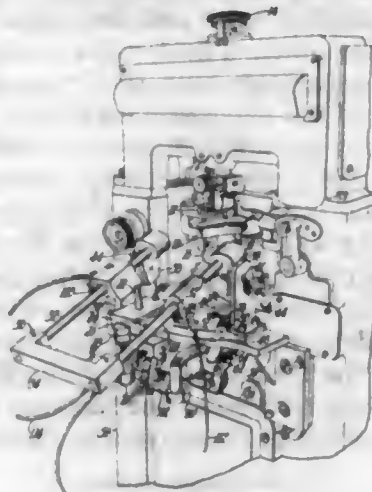


A floating marker comprising an elongated mast-like member, an anchor adapted to rest upon the bottom of a body of water, mooring means pivotally and flexibly connecting one end of the mast-like member to the anchor in closely spaced relation thereto, the mooring means being relatively short as compared to the length of the mast-like member whereby the mast-like member is movable pivotally, in the vertical plane, about its connected end, a float removably connected to an intermediate portion of the mast-like member and adjustably positioned with respect thereto, the position of the float with respect to the mast-like member being such that, when the marker is in use, the float is fully submerged and the arrangement being such that the float, acting upon the mast-like member in conjunction with the mooring means, is capable of supporting the mast-like member in substantially vertical position, and a sign attached to an end portion of the mast-like member opposite its connected end which is adapted to extend upwardly above the surface of the water, the mast-like member having a flanged end, a cover plate being removably connected to the flanged end of the mast-like member, and an eye bolt being removably connected to the cover plate and insulated electrically with respect thereto, the mooring means consisting of a chain-like structure having a plurality of links, two of the links thereof being pivotally connected to each other to form a swivel and two other links thereof each comprising a shackle, one of the shackles being connected to the eye of the eye bolt and the other shackle being connected to the anchor.

2,819,477

LAST POSITIONING MEANS

Vernon H. Meyer, Beverly, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application April 26, 1956, Serial No. 580,950
9 Claims. (Cl. 12-12.4)



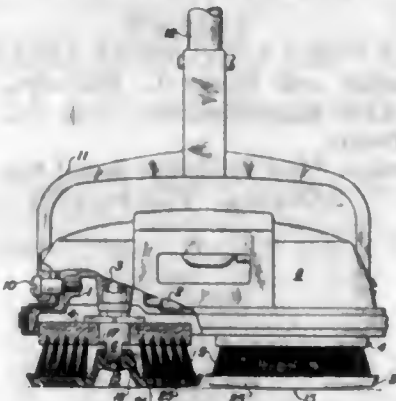
7. In a toe lasting machine, toe wipers having an operating plane and a focal point therein, a support for a geometrically graded last, a last pin on said support, means holding the last in fixed orientation on said pin, means for guiding said support from a loading zone to an operating zone in which the middle point of the curved edge at the bottom of the toe of the last is at said focal point, said guiding means including a pair of parallel bars by which said support is carried, mechanism for adjusting said bars in unison about an axis extending widthwise of the last, and mechanism for adjusting said bars in unison about an axis extending heightwise of the last and intersecting said widthwise axis at said focal point, and means associated with said bars for locking the last against lengthwise movement when said middle point of the toe of the last is positioned at the focal point.

2,819,478

CONVERTIBLE CARPET SCRUBBING OR FLOOR POLISHING MACHINE

Otis B. Sutton, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application January 5, 1954, Serial No. 402,307
9 Claims. (Cl. 15-4)



1. A machine for scrubbing granular cleaning material into a carpet comprising a frame structure, a vertical driven shaft on the frame structure, and a carpet engaging disc drivingly connected to the lower end of the shaft so as to form a support for the machine on the carpet, the lower face of said disc sloping upwardly from its central portion toward its outer peripheral edge so as to aid in propelling the machine over the carpet, a plurality of downwardly facing carpet engaging ribs formed on the underside of said disc, said ribs being smoothly rounded in cross-section so as to enter into the carpet pile and

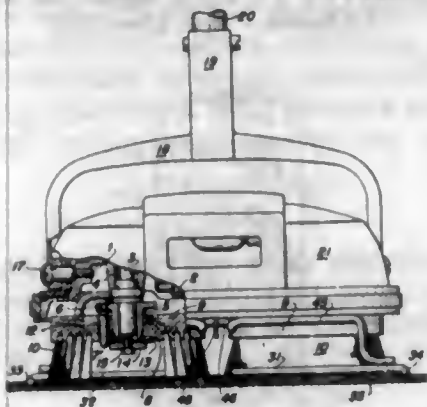
work granular cleaning material thereinto as said disc is rotated, the under side of said disc between said ribs being disposed above the carpet for confining a supply of granular cleaning material on the carpet between said ribs.

2,819,479

SCRUBBING MACHINE WITH SHIELD AND SUPPORT ATTACHMENT THEREFOR

Otis B. Sutton, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application February 9, 1954, Serial No. 409,123
6 Claims. (Cl. 15-49)



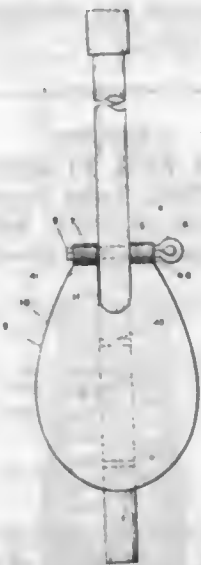
1. A carpet scrubbing machine comprising a body portion, a pair of rotary brushes mounted on the body portion, means on the body portion for rotating the brushes, a support and guard frame attached to the body portion, said frame including a rectangular portion surrounding said brushes and positioned below said body portion to engage the carpet being cleaned and formed to support the machine with the brushes engaging the surface of the carpet and including front and rear portions positioned to ride on the surface of the carpet and side portions depending below said front and rear portions, said front, rear and side portions serving to confine cleaning material within the area beneath said brushes.

2,819,480

TRAP SPOON

Karl J. Kollmann, Erie, Pa.

Application September 16, 1954, Serial No. 456,592
2 Claims. (Cl. 15-104.3)



1. A trap spoon for directing a plumber's snake into a lateral branch pipe comprising an elongated handle, a plurality of transverse longitudinally spaced holes in said handle, an oval shaped plate, a slot in one edge of said plate receiving said handle therein, aligned eyes formed in said plate at each side of said slot, the axes of which are generally parallel to one surface of said plate, and removable pintle means extending through said eyes and a

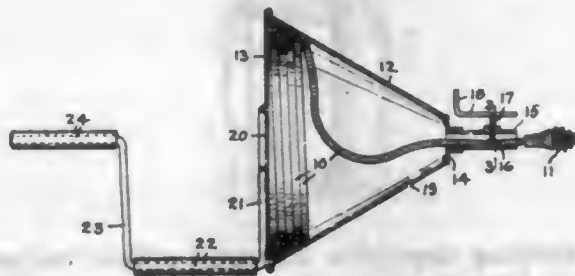
selected one of said holes whereby said plate is adapted to swing from a position generally parallel to said handle to a position generally perpendicular thereto, one end of said handle being adapted to rest on the bottom of a trap and the distal end of said plate being adapted to rest on the lower edge of a lateral branch pipe opening to deflect a plumber's snake thereinto.

2,819,481

DEVICES FOR CLEANING PIPES

John J. Lockert, Seattle, Wash.

Application September 21, 1955, Serial No. 535,676
2 Claims. (Cl. 15-104.3)



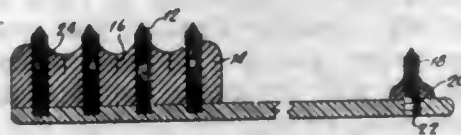
1. In a device for cleaning pipes, a flexible resilient cable; a substantially cone shaped housing having a substantially flat larger end and a tubular smaller end, said housing receiving said cable with the cable coiled in the larger end portion of said housing and extending outwardly through the smaller end portion of the same; cable clamping means carried by the smaller end portion of said housing in clamping relation to the cable; a crank member extending approximately perpendicularly from the larger end of said housing substantially in line with the periphery of the larger end of said housing and forming a handhold by which the housing and cable may be rotated; an arm rigid with the end of said crank member adjacent said housing and lying against and fixedly attached to the larger end wall of said housing and extending toward the center of said housing; another arm rigid with the outer end of said crank member and extending from the crank member back substantially to the projected axis of said housing and a pressure and guide handle of substantial length rigid with the inner end of said other arm and extending at right angles from said other arm in a direction away from said housing and positioned axially of said housing.

2,819,482

TOOTH CLEANING AND GUM MASSAGING INSTRUMENT

Howard T. Applegate, Larchmont, N. Y., assignor of one-half to Eugene F. Traub, New York, N. Y.

Application August 5, 1954, Serial No. 448,031
1 Claim. (Cl. 15-110)



A gum massaging and tooth cleaning implement comprising in combination a substantially rigid handle and a head at one end comprising a plurality of groups of bristles longitudinally spaced along said handle and a solid erasing body of resilient material in which said bristle groups are embedded to a point to leave only the ends exposed for a short distance, the resilient material between the bristle groups assuming under pressure the surface contour of the exposed and approximal surfaces of the teeth and the exposed ends of the bristle groups

entering the interproximal spaces, said erasing body being longitudinally curved and transversely slit between the bristle groups.

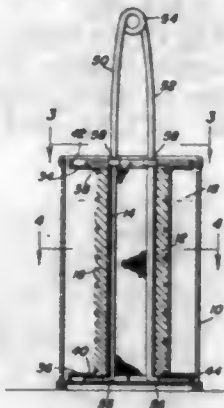
2,819,483

PAINT ROLLER CLEANER

Charles R. Macaulay, Stamford, Conn.

Application April 28, 1955, Serial No. 504,449

7 Claims. (Cl. 15-121.2)



5. A cleaning apparatus for paint rollers comprising a container for receiving a cleaning solvent, a cylindrical roller cleaner having its longitudinal axis disposed vertically in said container and adapted to embrace and scrape the exterior of a paint roller when the latter is reciprocated therein, said cleaner comprising a grid disposed into a cylindrical sleeve with its vertical edges overlapping circumferentially, means for adjustably securing the overlapping edges whereby to vary the diameter of the sleeve for adapting it to slidably receive different sizes of paint rollers.

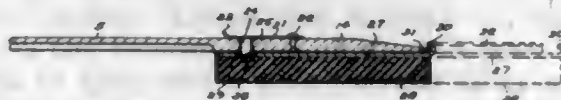
2,819,484

CLEANING TOOL

Leslie D. Fouse, Lake Worth, Fla.

Application August 1, 1955, Serial No. 525,658

1 Claim. (Cl. 15-244)



A cleaning tool of the character described for simultaneously cleaning the opposite flat faces of glass panels employed as closures in jalousie windows, comprising a pair of flat rigid arms that are pivotally connected together at one end and with means being provided to bias the arms in a direction away from each other, each of the arms being provided with integral and generally rectangular head plates having opposed flat faces, the said plates at their intermediate portion having a thickness corresponding to the thickness of the arms and with the outer surface of each head plate being tapered laterally to form relatively thin marginal edges, the head plates at their forward end being arcuately formed and with the plates being tapered forwardly to form a relatively thin marginal edge, cleaning elements that comprise each a flat sponge rubber pad that is fixedly connected to a backing plate and with the sponge rubber pads and their backing plates being co-extensive in shape and size to the flat surfaces of the head plate, flanges formed upon the backing plate that slidably engage the opposite edges of the head plate and whereby the cleaning elements are detachably supported against accidental shifting movement, each of the backing plates being provided with a forward arcuate flange that is shaped to conform to and to overlie the forward edges of the backing plates when the cleaning elements are in fully engaged position and with the last named flanges limiting the sliding movement of the cleaning elements to a point where they fully underlie the head plates, latch means carried by the forward extremities of the arms and at a point overlying the head

plates, each of the latch means embodying a spring tongue, a pin carried by the tongues and that projects downwardly through an opening formed in the head plates, the said pins having a lower beveled end that is disposed in the path of sliding movement of the backing plates and an aperture formed in each of the backing plates for the reception of the beveled end of the pins.

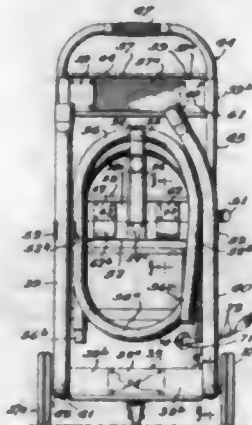
2,819,485

MOVABLE VACUUM CLEANER STRUCTURE

Charles H. Sparklin, Chicago, Ill., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware

Application July 27, 1954, Serial No. 446,114

7 Claims. (Cl. 15-323)



1. A vacuum cleaner structure capable of being moved over a surface by force exerted on an air conduit attached to the cleaner, comprising: a tank type vacuum cleaner including means for attaching an air intake conduit thereto; a lightweight framework extending thereabove including a handle structure; a plurality of wheels spaced around the structure supporting the structure for said movement in a substantially upright position over said surface, the bottom of the cleaner being located adjacent to said surface; a cross-member at the rear of said structure forming a part of said framework; an upright member attached to said cross-member; means on the top of said upright member for supporting the upper portions of a coiled flexible air conduit hose; means adjacent to the opposite ends of said cross-member for retaining said coils against lateral expansion when in contact therewith; and means adjacent to the opposite ends of said cross-member for retaining a pair of sections of a rigid air conduit tube.

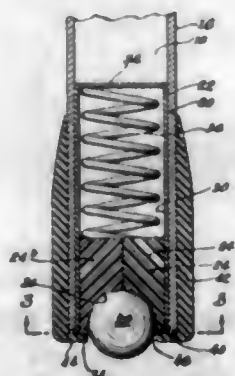
2,819,486

CASTER FOR FURNITURE

Edison Dick, Lake Forest, Ill.

Application October 25, 1955, Serial No. 542,687

2 Claims. (Cl. 16-24)



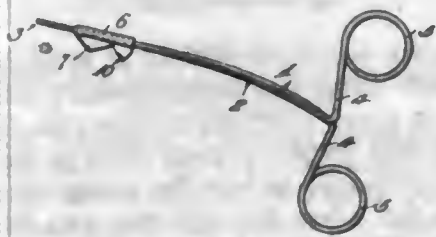
1. In a caster, the combination comprising a housing having a cylindrical side wall and an end wall extending across one end thereof, a split cylindrical block slidably mounted in said housing and having a spherically curved cavity in one end thereof, a spherical ball slidably

rotatable in said cavity, said block being made of anti-friction material, said cavity being substantially less than fully spherical in extent but substantially greater than hemispherical in extent to retain said ball in said cavity with said ball projecting out of one end of said block to a substantial extent, said block being split longitudinally into two complementary identical parts to provide for insertion of said ball into said cavity, said housing retaining said parts of said block together with said ball therebetween, a spring compressed between said end wall of said housing and said block on the end thereof opposite from said ball for biasing said ball outwardly of said housing, and flange means turned inwardly on said housing from said side wall at the end thereof opposite from said end wall for retaining said block in said housing, said ball normally projecting from said housing beyond said flange means but being movable into said housing against the resilient resistance of said spring.

2,819,487

SHRIMP SHELLER AND DEVEINER

Henry Joseph, New Orleans, La., assignor, by mesne assignments, to Henry Joseph, New Orleans, La.
Application November 19, 1956, Serial No. 622,846
6 Claims. (Cl. 17-7)

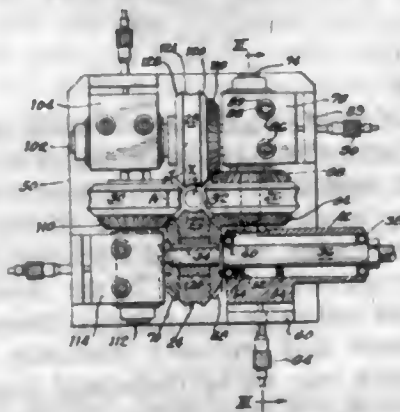


4. A shrimp cleaner comprising: a resilient wire member having a reverse bend to form a pair of normally parallel arms, the ends of the arms being outwardly extending and terminating in spaced finger pieces; and an outwardly directed cutting blade carried by one of the said arms adjacent its juncture with the other of said arms.

2,819,488

SHIRring APPARATUS

Lawrence Gimbel, Broadview, Ill., assignor, by mesne assignments, to Union Carbide Corporation, a corporation of New York
Application July 7, 1954, Serial No. 441,801
16 Claims. (Cl. 17-42)



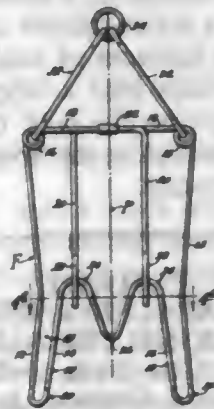
1. In a tube shirring apparatus having a mandrel along which a tube in an inflated state is fed, a plurality of shirring rolls rotating at approximately the same peripheral speed and positioned to provide a passage through which the mandrel extends and the tube passes, said passage being of a size smaller than the diameter of the tube to permit the rolls to indent and feed the tube over said mandrel, said rolls being arranged with the respective center axis thereof equidistantly spaced from the center of the passage, each of said rolls having in its periphery an annular continuous concave groove

progressively displaced with respect to its center axis, said rolls being positioned with the high point of one roll adjacent the low point of adjacent rolls.

2,819,489

ANIMAL SHACKLE

George Ray Shadley, Ottumwa, Iowa
Application March 1, 1954, Serial No. 413,227
11 Claims. (Cl. 17-44.1)

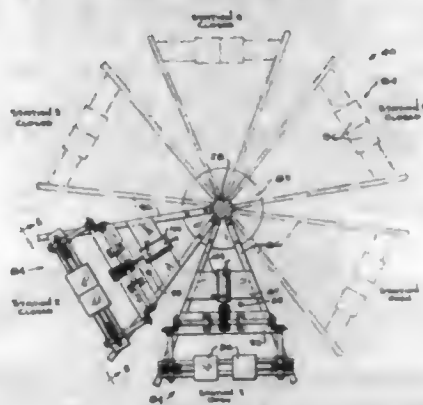


1. A shackle for an animal comprising a frame formed from a single continuous length of resilient wire comprising a pair of uprightly disposed, leg-holding hairpin shaped elements symmetrically disposed about a central vertical plane and each having outer and inner hairpin portions, each outer hairpin portion extending to a point above the uppermost extent of said inner hairpin portion and being connected to a top member extending laterally in the direction toward the other leg-holding hairpin and extending to a point beyond said vertical plane, and continuing into a depending hand-engaging portion, said pair of hand-engaging portions adapted to be grasped simultaneously and squeezed toward each other, thereby causing the outer hairpin portions to be moved apart relative to each other and relative to their associated inner hairpin portions.

2,819,490

APPARATUS FOR MAKING ONE PIECE HOLLOW ARTICLES OF THERMO PLASTIC MATERIAL

Mark L. Froot, New York, N. Y., assignor to Doralaine Corporation, Newark, N. J., a corporation of New Jersey
Application March 19, 1952, Serial No. 277,469
36 Claims. (Cl. 18-20)



25. In combination, a hollow mandril, means to extrude a plastic tube thereon, a pair of complementary hollow mold parts, means to bring the mold parts together to surround the mandril, means to blow air through the mandril to expand the tube on the mandril against the inner surfaces of said hollow mold parts, means to move the mold parts with the mandril thereon and with the tube expanded from one position to another, and means to separate the mold parts in said other position.

2,819,491
METHOD OF PREPARING MOLDED DEHYDRATING AGENTS

Adrian M. Gammill, Glen Burnie, and Ellsworth G. Acker, Baltimore, Md., assignors to W. R. Grace & Co., New York, N. Y., a corporation of Connecticut
No Drawing. Application March 31, 1955

Serial No. 498,432

9 Claims. (Cl. 18—47.5)

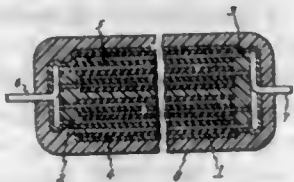
1. A method of forming a dehydrating briquette which comprises wetting a mass of partially water-saturated silica gel particles with a solution of a moisture permeable film-former dissolved in a water-soluble solvent in an amount sufficient to coat the surfaces of said gel particles, forming said coated particles into a briquette, slowly drying said briquette to remove the bulk of the solvent therefrom, and finally resaturating the briquette with water and activating the gel briquette.

2,819,492
ELECTRICAL CAPACITOR AND METHOD OF MAKING THE SAME

Alfred S. Cuminin, Glen Falls, John R. Hotzler, Fort Edward, and Richard Graham, Jr., Hagsman, N. Y., assignors to General Electric Company, a corporation of New York

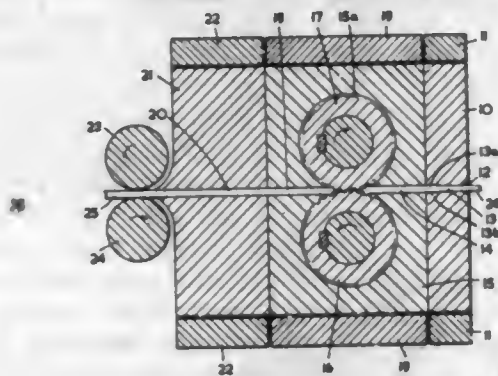
Application October 20, 1955, Serial No. 541,662

15 Claims. (Cl. 18—47.5)



11. In the method of making an electrical capacitor sealed in an outer resin casing, the step of heat aging the encased capacitor by subjecting it to a temperature of 50° C.—180° C. for a period of between 2000 and 30 hours.

2,819,493
PROCESS FOR EXTRUDING FILMS
Philip Richard Hawtin and Harry Edward Bellairs Young, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
Application March 26, 1954, Serial No. 419,066
Claims priority, application Great Britain April 8, 1953
3 Claims. (Cl. 18—55)

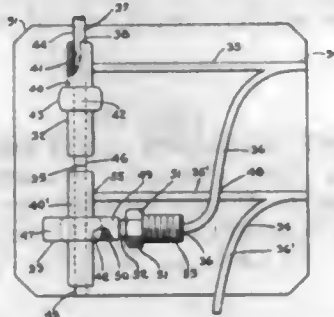


1. In a process for making film by extruding a thermoplastic composition in a temporarily heat-fluidized condition through an aperture having the form of a straight slit, as a continuous operation, the following combination of steps: feeding said composition in solid coherent form along a straight path in the direction of extrusion; gradually converting said composition, by the application of heat while it is moving in said direction, into a stream; dividing said stream, in the plane longitudinally bisecting said slit, into two identical shallower streams; impelling each such shallower stream along an arcuate path at a constant rate which is uniform across the width of the

stream, said arcuate paths being perpendicular to and on opposite sides of said plane; bringing said shallower streams together in said plane to form an outlet stream flowing in said direction to said slit, while maintaining the moving body of thermoplastic composition throughout its course to the aperture at a width equal to the length of said slit; allowing said outlet stream to issue from said slit; causing the stream so issuing to set to a film; and drawing away said film.

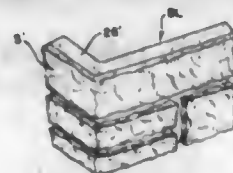
2,819,494
METHOD OF PRODUCING CASTINGS UTILIZING OVERLAPPING GATES

Louis H. Morin, Bronx, N. Y.
Application May 10, 1955, Serial No. 507,326
9 Claims. (Cl. 18—55)



1. The herein described method of producing two-part products which comprises simultaneously moulding each of the parts in a pair of relatively movable dies, the parts being spaced with respect to each other in the dies, gating the first part primarily in one die, gating the second part primarily in the other die with the gate of the second part crossing the gate of the first part, shifting both parts to move the second part out of the dies and the first part to another position between the dies, and forming a subsequent part like said second part in assembled relationship to the shifted first part.

2,819,495
METHOD OF MAKING BUILDING BLOCKS
Isidor Krausz, Denver, Colo.
Application October 3, 1951, Serial No. 249,466
1 Claim. (Cl. 18—60)



A method of forming an L-shaped building block having on its outer sides a simulation of a plurality of masonry elements held together by mortar, which comprises forming a molding block having a pair of legs disposed in perpendicular relation, each said leg being provided with a surface corresponding to that of the masonry elements to be simulated and extending ridges corresponding to the grooves between said masonry elements; placing said mold block with one leg in horizontal position; placing mortar of a color corresponding to the masonry elements to be simulated on said horizontal leg and up to the level of said ridges; placing additional mortar on said mortar first applied and on said ridges of said horizontal leg, said additional mortar having a color corresponding to that of the groove mortar normally showing in the grooves between such masonry elements; placing a cover over said mortar on said horizontal legs; placing said mold block with said one leg elevated and the other leg horizontal; placing mortar of a color corresponding to the masonry elements to be simulated on said other leg and up to the level of said ridges; placing additional mortar on

said mortar last applied and on said ridges of said other leg, said additional mortar having a color corresponding to that of the groove mortar normally showing in the grooves between such masonry elements; removing said cover; placing a zig-zag plate, having a configuration corresponding to the ends and the surfaces of said mortar opposite said legs, against said mortar; supporting said mortar by said plate; removing said molding block; and curing said mortar while supported by said zig-zag plate.

2,819,496

PROCESS FOR OILING FABRICS PRIOR TO REDUCTION TO FIBRE

Hugh J. Fairfield, Winnipeg, Manitoba, Canada
Original application December 28, 1950, Serial No. 203,182, now Patent No. 2,646,774, dated July 28, 1953. Divided and this application May 27, 1953, Serial No. 357,771

1 Claim. (Cl. 19-66)

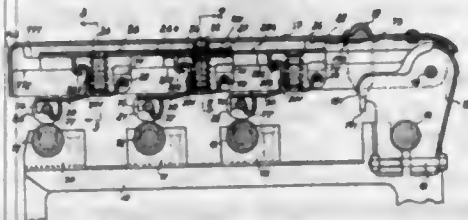
A process for oiling woven or knitted fabrics prior to their reduction to fibre which consists of tumbling the fabrics in a closed container and introducing a supply of atomized steam and oil, the amount of oil being from between one and ten percent by weight of the fabric being treated, treating said fabric for a period of between twenty and ninety minutes, and picking the fabrics into fibres.

2,819,497

ADJUSTING MEANS FOR TEXTILE DRAWING MECHANISMS

Erwin Dausch, Esslingen, Germany, assignor to S. K. F. Kugellagerfabriken, G. m. b. H., Schweinfurt, Germany
Application November 16, 1954, Serial No. 469,223
Claims priority, application Germany April 7, 1954

14 Claims. (Cl. 19-135)



1. In a drawing mechanism, in combination, support means; a top rolls carrying arm carried by said support means for movement to and from an operating position where said arm extends over the drawing plane; a pair of top roll carriers spaced along said arm, one of said carriers having an extension extending over and engaging the other of said carriers; mounting and guiding means rigid with said arm and engaging said carriers for guiding the same for shifting movement along said arm; and means carried by said arm and engaging said extension for releasably preventing relative movement between said extension and said other carrier whereby after the position of said carriers along said arm is adjusted said last-mentioned means releasably fixes said carriers in their adjusted position.

2,819,498

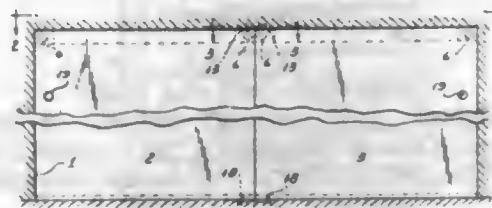
FLUSH SLIDING DOORS AND HARDWARE THEREFOR

Darwin B. Grossman, New Rochelle, N. Y.
Application December 10, 1954, Serial No. 474,327

7 Claims. (Cl. 20-19)

1. A sliding door installation comprising: an upper switch plate pivoted intermediate its ends for horizontal oscillation at the lintel of the doorway, a corresponding lower switch plate pivoted intermediate its ends at the floor on an axis of oscillation vertically aligned with the axis of oscillation of the upper switch plate, studs at the opposite ends of each switch plate, doors in the door

opening, each of said doors being provided in its bottom with a longitudinal groove into which the studs of the lower switch plate project, wheeled hangers at both upper ends of each of the doors, the hangers of the two doors adjacent the contiguous edges of the doors when said doors are closed being provided with slots to receive the studs of the upper switch plate when the doors are in flush position, said doors being movable with both switch plates from parallel flush relation to parallel offset rela-



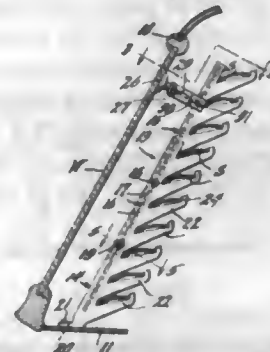
tion and vice versa, and a track system mounted at the under side of the lintel of the doorway and comprising track sections which diverge in opposite directions from the center of the doorway, said track sections being spaced from the switch plate so that when the doors are in offset positions the hanger at the free edge of the rear door will line up with one of the track sections, the hangers at the distant ends of the doors being at all times supported on one of the track sections.

2,819,499

BLIND UNIT

Oscar Abramson and Stephen Abramson, Baltimore, Md.
Application December 22, 1953, Serial No. 399,666

2 Claims. (Cl. 20-63)



1. A blind unit for windows and the like comprising, a plurality of slats, a pair of spaced slat supporting members, each including a plurality of overlapping portions having openings therein, a plurality of arms having slat retaining means thereon extending from said portions, said openings being so arranged that respective openings and arms on each of an overlapping portion simultaneously coincide, and means at the upper and lower end of each of said supporting means for retaining said supporting means in position adjacent a window.

2,819,500

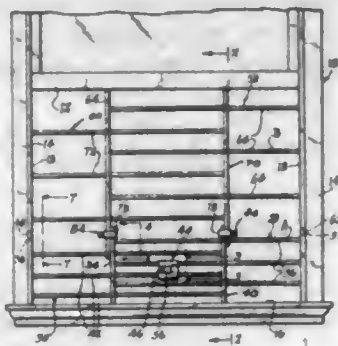
WINDOW GUARD

Charles Saber, Brooklyn, N. Y.
Application August 31, 1956, Serial No. 607,459

8 Claims. (Cl. 20-71)

1. A window guard for mounting in a double-hung window having a sash, side jambs formed with confronting sash grooves, and a sill, comprising upper and lower guard sections adapted for seating in the sash grooves in engagement with the jambs and sill, respectively, and means for fixedly connecting the sections to constitute the same as a rigidly constituted guard assembly, each section comprising a pair of telescopically related frames adjustable inwardly and outwardly of one another to adjust the respective sections to the width of the window opening, each frame comprising vertical outer and inner standards, the outer standard of each frame being adapted

for engagement in a sash groove, and horizontal rails fixedly connected between the outer and inner standards of each frame, the inner standards of the frames of the upper section having lower end portions overlapping the upper end portions of the corresponding inner standards



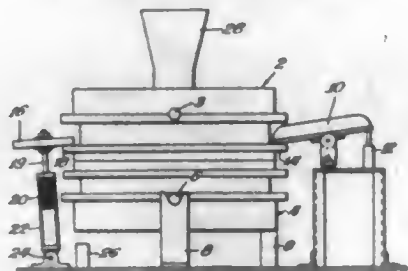
of the frames of the lower section, said means clampably engaging about the overlapping end portions of said inner standards so as to constitute the inner standards of one section as longitudinal extensions of the inner standards of the other section.

2,819,501

WHEEL MOLD

Edmund Q. Sylvester, Lake Forest, Ill., assignor to Griffin Wheel Company, Chicago, Ill., a corporation of Delaware

Application October 13, 1950, Serial No. 189,961
9 Claims. (Cl. 22-91)



1. Casting apparatus comprising a mold including cope and drag sections, a riser opening through the cope section means pivotally supporting the drag section, means at one side of the pivotal axis of said drag section and engageable with the cope section for clamping the latter against the drag section and for urging the drag section to a level position, and spring means at the opposite side of said axis and engaged with the cope section for clamping it against the drag section, said spring means being operative upon release of the first-mentioned clamping means to pivot the sections to a tilted position, whereat the riser opening is above the position thereof prior to release of the first mentioned clamping means.

2,819,502

PROCESS FOR MAKING WELDING RODS

Jackson S. Snyder, Elizabeth, and Matthew F. Slowinski, Lake Hiawatha, N. J., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application October 5, 1955

Serial No. 538,759

3 Claims. (Cl. 22-200)

1. A process for the production of welding rods capable of depositing metal which solidifies as nodular cast iron, which process comprises providing a molten bath of cast iron which upon inoculation and casting would result in gray cast iron, adding cerium and sodium to said molten cast iron and, after inoculation, casting said cast iron in the form of welding rods.

2,819,503

METHOD OF PRODUCING RIMMED AND CAPPED STEEL

Vincent C. Boucek, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

No Drawing. Application May 3, 1954

Serial No. 427,346

5 Claims. (Cl. 22-215)

5. The method of making rimmed steel which consists in teeming a heat of molten rimming steel into ingot molds, allowing the steel to stand in the molds for undisturbed rimming to produce the desired thickness of case, then, while the steel is still effervescing at the top of the mold, progressively arresting the rimming action by progressively adding to the central core of the steel mass remaining molten, a deoxidizer in an amount of from 1 to 8 ounces per ton of ingot weight, thereby substantially arresting the rimming action of said core yet preventing excessive localized deoxidation in the core by causing the top of the core to remain open with continued rise to the metal, and thereby eliminating the sharp demarcation between case and core then placing a metal cap on top of the mold and, in conducting said teeming, filling the molds to a level such that said continued rise of the top of the core brings the teemed metal into contact with said cap.

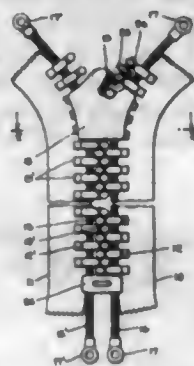
2,819,504

REINFORCED SEPARABLE FASTENERS

Louis H. Morin, Bronx, N. Y.

Application May 24, 1952, Serial No. 289,770

10 Claims. (Cl. 24-205.11)



1. A separable fastener comprising stringers, each stringer comprising a tape and a reinforcing strand disposed at one edge of the tape, scoops coupled with the tape and strand at longitudinally spaced intervals, an end stop mounted on said strands of a pair of stringers in coupling said stringers together, said reinforcing strands projecting beyond said stop and the opposed end of the stringers, and the ends of said strands having coupling members fixed thereto.

2,819,505

SAFETY SHIELD FOR SLIDE FASTENERS

Ada C. Marcellus, New York, N. Y.

Application November 5, 1953, Serial No. 390,286

1 Claim. (Cl. 24-205.15)



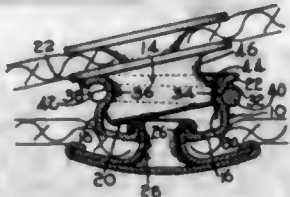
In a slide fastener construction, the combination comprising a generally flat slider adapted to connect rows of cooperating fastener elements, an actuating handle pivotally connected to the top of the slider, a guard disposed below the slider, said guard being of a dimension to contain said slider, said guard comprising a circular plate having a concave surface disposed adjacent the slider and a convex surface disposed adjacent the garment or the like, and means for detachably connecting said guard to the bottom of the slider, said means including a

stud secured to the center of the upper surface of the plate, said stud having a cylindrical body with an externally screw-threaded central extension of reduced diameter providing a shoulder between the body and extension for seating said slider a predetermined distance from the plate, said slider having an internally screw-threaded socket opening in its under surface for receiving the threaded extension.

2,819,506

FASTENING DEVICE

Winthrop F. Ashworth, Wenham, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application September 24, 1953, Serial No. 382,103
1 Claim. (Cl. 24-218)

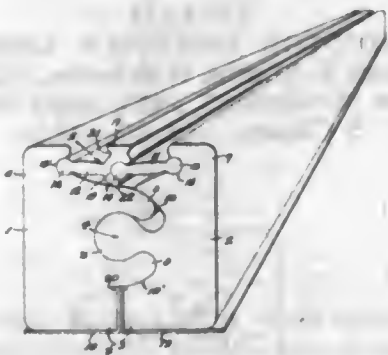


A three-side lock snap fastener socket for receiving a shouldered stud, comprising a cup-shaped socket body having a base, an upstanding peripheral wall on the base forming a stud-receiving cavity, an outwardly turned flange on said wall spaced from the base, said wall having a rigid stud-locking shoulder adjacent to the flange and projecting into the cavity on one side of the socket and a pair of vertical slots in the wall and extending entirely through the flange at the opposite side of the socket from the locking shoulder thereby forming a vertically extending single tongue between the slots and opposite the stud-locking shoulder, said tongue having an inwardly extending stud engaging shoulder and being movable out of and into the stud-receiving cavity and a spring member disposed about the exterior of the socket wall and having a portion bearing against the exterior of the tongue to bias said tongue inwardly a predetermined amount and to prevent said tongue from becoming set during engagement with and disengagement from a stud.

2,819,507

SHEET HOLDING CLAMP

William Petersen, Los Angeles, Calif.
Application June 25, 1956, Serial No. 593,514
4 Claims. (Cl. 24-250)



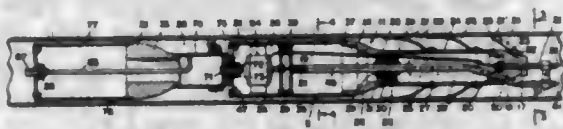
1. A clamp of the type described, comprising: two complementary clamp sections each having a jaw at one end and at its other end a lever arm provided with a socket; a pair of arcuate hinge lips embodied in one of said sections; a hinge tongue and a pair of opposed arcuate bearing shoulders embodied in the other section, said tongue having a segmental cylindrical bearing wall and said shoulders and lips being coaxial and fitted to said tongue on the longitudinal axis of said tongue, said clamp section

being rotatable about said axis; and a toggle mechanism comprising two adjoining links, one of said links having a knuckle at one end and a socket at the other end the adjoining link having at each end a knuckle, one of which is received in said socket of said one link, whereby said links are joined, the remaining knuckles mating within said lever arm sockets, said toggle mechanism forcing said lever arms apart as downward pressure is brought to bear on said toggle mechanism, whereby said jaws are forced together for clamping pieces of sheet metal together.

2,819,508

PIPE LINING DEVICE

Charles F. Martin, Houston, Tex., assignor to Pipe Linings, Inc., a corporation of Delaware
Application March 1, 1954, Serial No. 413,129
2 Claims. (Cl. 25-38)

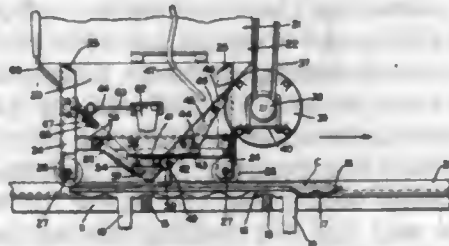


1. In pipe lining apparatus, a device adapted to be drawn through a pipe to be lined against a charge of mortar, comprising an elongated tubular body including a cylindrical main section and a guide tube section forwardly thereof, said guide tube section having a diameter substantially less than said main section, circumferentially spaced guide springs on said guide tube section for engaging the pipe to be lined whereby to center said body in said pipe, said main section having a plurality of circumferentially spaced air relief openings through the wall of the section, an open air relief tube in said body having one end communicating with said air relief openings, said air relief tube extending forwardly of said body a substantially distance, a motor in said body, and a flexible wire extending loosely in said relief tube operatively connected to the motor to be rotatively driven thereby.

2,819,509

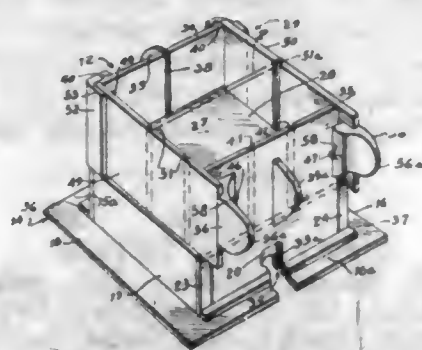
ARTIFICIAL STONE MOLDING MACHINE

George A. Dilgard, Ashland, Ohio
Application January 28, 1955, Serial No. 484,713
6 Claims. (Cl. 25-42)



1. A machine for molding cement slabs, comprising a base, mold support means on the base, rails upon the base, a hopper movable upon the rails, means for forming a cement mixture in the hopper, there being a discharge outlet in the hopper, a shut-off valve for the discharge outlet, a rearwardly inclined deflector plate located below and forwardly of the discharge outlet, a combined deflector and strike-off plate pivotally mounted below and rearwardly of the discharge outlet, and means for simultaneously opening the shut-off valve and swinging said pivoted plate to forwardly inclined deflecting position and for simultaneously closing the shut-off valve and swinging said pivoted plate rearwardly to vertical strike-off position.

2,819,510
TOY BUILDING CONSTRUCTION AND FORMS
 Willy Vom Norden, Sherman Oaks, Calif.
 Application February 10, 1955, Serial No. 487,405
 3 Claims. (Cl. 25—121)



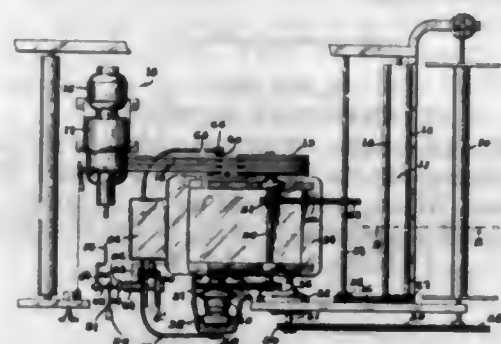
1. In a device of the character described, in combination, a base unit having a rectangular base plate, said base plate having relatively narrow side and end boundary plates and a relatively large opening there between, side walls fixed to the side boundary plates, corner strips fixed to said side walls, end walls fixed to said corner strips and side walls, a top wall fixed to the top edges of the side and end walls to form a mold cavity, tie strips fixed to said end boundary plates and corner strips to form a space between said tie strips and end walls, end gates adapted to be mounted in said space between the tie strips and end walls and extending substantially above said top wall, spaced pins projecting from one of said end gates, ribs provided on the other end gate, side gates resting upon the top wall of said base unit and having means for engaging the pins and ribs of said end gates.

2,819,511
MOULDING CORES
 Leslie James Sims, Cardiff, Wales, assignor to Ecrofner & Partners Limited, Cardiff, Wales, a British company
 Application November 9, 1953, Serial No. 390,990
 Claims priority, application Great Britain November 26, 1952
 4 Claims. (Cl. 25—128)



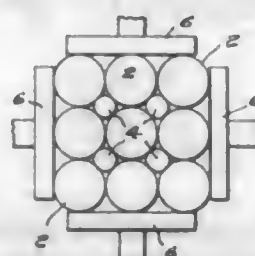
1. A collapsible moulding core of the class described above, comprising, in combination: a plurality of longitudinally extending closure members adapted to provide a laterally closed space; a plurality of aligned longitudinally spaced bearing members disposed within said space and fixed to one of said closure members; an actuating rod supported in said bearing members so that rotation of said rod produces axial movement thereof; actuating means connecting the others of said closure members to said rod for causing inward and outward movement of said closure members in response to axial movement of the rod in one direction or the other; core coupling means comprising cooperating coupling members secured to opposite end portions of at least one of said closure members whereby two aligned moulding cores can be joined end to end by engagement of the cooperably coupling members at adjacent ends of the two cores, the coupling means being such as to prevent relative longitudinal movement of the aligned cores; and separable torque transmitting means having cooperable portions disposed at opposite ends of said rod, the cooperable portions at adjacent ends of the rods of two coupled cores being adapted to engage, the torque transmitting means being so arranged as to prevent disengagement of the cores except when said rods are in a predetermined rotational position relative to the cores.

2,819,512
AUTOMATIC CONSTANT TENSION CONTROL WITH HIGH-SPEED PICK-UP
 Jack G. Reeder, Columbus, Ind., assignor to The Reliance Electric and Engineering Company, Cleveland, Ohio, a corporation of Ohio
 Application May 11, 1955, Serial No. 507,614
 17 Claims. (Cl. 28—36)



1. In a device of the class described, a delivery means and a rotor, said delivery means being driven at a velocity constantly proportional to the lineal velocity of a reach of material running between said delivery means and said rotor, and means for controlling tension in said reach of material, said last mentioned means comprising means for driving said rotor at variable speeds including a power source, a speed varying transmission including a driving shaft, a driven shaft, means providing a driving connection between said shafts, and an element shiftable oppositely to vary oppositely the transmission ratio between said shafts, means connecting said transmission driven shaft to drive said rotor, means connecting said power source to drive said transmission driving shaft, said last named means including an electrically-energized clutch whose torque transmitting capacity is variable in accordance with variations in the rate of current flow through the clutch, a differential mechanism including two input shafts and an output shaft which rotates only upon departure from a predetermined ratio between the speeds of said differential mechanism input shafts, means driving one of said input shafts at a speed proportional to the speed of said transmission driving shaft, and means driving the other of said input shafts at a speed proportional to the speed of said delivery means, means operatively connecting said differential mechanism output shaft to shift said shiftable element, and means for adjusting the torque transmitting capacity of said clutch including means for varying the rate of current flow through said clutch to thereby adjust the tension on the reach of material running between said delivery means and said rotor.

2,819,513
SEMI-CONDUCTOR ASSEMBLY AND METHOD
 Stuart T. Martin, Winchester, Mass.
 Application November 3, 1953, Serial No. 390,067
 5 Claims. (Cl. 29—25.3)



1. A method for mounting semi-conductors on bases, including interposing separating pins between the individual members of a cluster of base pins to provide a configuration of four-fold symmetry of said base pins fastening a sheet of semi-conductor material to the ends of said base pins, and dividing said sheet into separate pieces each secured to a respective base pin.

2,819,514
METHOD OF FITTING CLOSING CHANNELS IN STATOR SLOTS OF ELECTRICAL MACHINES
 Jean Polard, Saint-Germain-en-Laye, and René Herbrecht, Paris, France, assignors to Societe Anonyme dite: Compagnie Electro-Mecanique, Paris, France
 Application July 10, 1953, Serial No. 367,278
 Claims priority, application France November 13, 1952
 2 Claims. (Cl. 29—155.58)



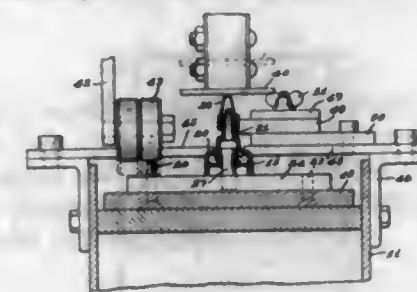
1. A method for inserting coils in the slots of the stator of an electrical machine by means of a dummy rotor having corresponding slots formed around its periphery, said slots being at least as small at their outer edges as the outer edges of the stator slots, consisting in placing a driver-rod in the bottom of each slot of the dummy rotor, in placing on each driver-rod in each said slot a channel member with its open side facing towards the outer edge of said slot, said channel member being of such rigid and resilient material as to enable it to spring outwardly against the slots walls, in lodging the coils in said channel member, in placing the said dummy rotor inside the stator bore with the slots of said rotor in radial alignment with the slots of said stator and in transferring the channel members and the windings from the slots of the dummy rotor in the slots of the stator by means of a radial push on the driver-rods.

2,819,515
METHOD OF MAKING A BLADE
 Milton S. Roush, Painesville, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
 Application June 26, 1951, Serial No. 233,545
 4 Claims. (Cl. 29—156.8)



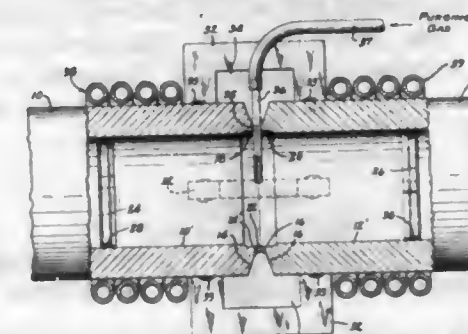
1. The method of making a fluid directing member having an anchoring root portion and a vane extending therefrom which comprises compacting powdered metal into vane shape including an arcuately shaped foil portion and an outwardly tapered base portion, separately compacting powdered metal into root shape with an inwardly tapered elongated aperture extending therethrough inserting said foil portion through the aperture in said root portion, seating the base portion of the vane in said tapered aperture in tightly fitting engagement, and joining said portions into an integral member by infiltration with a metal having a melting point below the melting point of the metal of said portions.

2,819,516
APPARATUS FOR ASSEMBLING CAN SPOUT PARTS
 Roger C. Myers, Pittman, N. J., assignor to Owens-Illinois Glass Company, a corporation of Ohio
 Application April 5, 1955, Serial No. 499,340
 9 Claims. (Cl. 29—240)



1. Apparatus for assembling and tightening screw-threaded caps on articles, said apparatus-comprising a horizontally traveling conveyor on which the articles are supported with the caps loose on the articles, a tapping device positioned over the path of the articles on the conveyor, said tapping device including a tapping element mounted for up-and-down movement, and automatic means for moving said element downwardly as each said article with the cap thereon passes beneath said element and thereby tapping the cap into holding engagement with the said article.

2,819,517
METHOD OF WELDING PIPE ENDS TOGETHER
 Robert T. Pursell, Watertown, Mass., assignor to Stone & Webster Engineering Corporation, Boston, Mass., a corporation of Massachusetts
 Application July 30, 1953, Serial No. 371,320
 6 Claims. (Cl. 29—483)

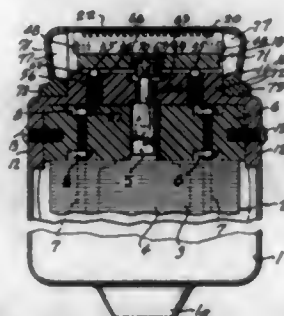


2. The method of welding two pipes end to end, comprising the steps of sealing a combustible impermeate baffle in each pipe at a point spaced from the end thereof; holding said pipes in abutting relationship; introducing an inert gas through an opening into the chamber defined by the baffles and intervening pipe parts; welding said pipes one to the other; and, then heating said welded pipe ends to burn the combustible baffles.

2,819,518
ELECTRIC HAIR CUTTER AND DRY SHAVER
 Alphonse Lussier, Waterbury, Conn.
 Application November 16, 1955, Serial No. 547,090
 9 Claims. (Cl. 30—43)

1. An electric shaver comprising a cutter head including a stationary outer cutter having two perforated operating sections separated by a longitudinally extending open channel, one section comprising a perforated surface to engage the surface of the skin for close shaving and the other section in the form of a longitudinal rib of inverted U shape in cross section with laterally spaced sides inclined outwardly away from the other section and a flat outer connecting wall between them inclined downwardly and outwardly with its inner longitudinal edge somewhat higher than the first perforated section, said outer con-

necting wall and the upper portions of the adjacent side walls provided with longitudinally spaced transverse slots for entrance of long hairs and separated by cutter blades between them, a reciprocable inner cutter in the outer cutter comprising a set of cutter blades engaging and co-operating with the inner surface of the first perforated section and a section of elongated inverted U-shape engag-



ing the connecting and side walls of the second perforated section provided with longitudinally spaced transverse cutter blades extending across the top wall and down into the upper portions of the side walls to cooperate with those in the outer cutter, and means for connecting the inner cutter with an operating motor for longitudinal reciprocation of the inner cutter.

2,819,519

LEVER-OPERATED OPENING AND CLOSING MEANS FOR SAFETY RAZOR

Helaine P. Isroff and George Ostrov, Canton, Ohio; said Ostrov assignor to James K. Luntz, Canton, Ohio
Original application August 12, 1953, Serial No. 373,714, now Patent No. 2,762,121, dated September 11, 1956. Divided and this application June 18, 1956, Serial No. 597,058

5 Claims. (Cl. 30-60.5)

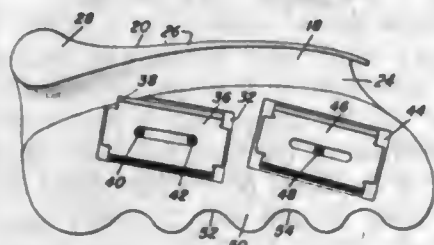


1. In a safety razor having a tubular handle post, a blade supporting platform on one end of the handle, a cap movably mounted on said platform and a spindle axially movable in said post and operatively connected to said cap, a lever operatively connected to said spindle and pivoted in said post for swinging laterally outward to open the cap, and a latch for locking said lever in retracted position.

2,819,520

NON-METALLIC CABLE SLITTER

Edward G. Eyles, Fitchburg, Mass.
Application May 11, 1956, Serial No. 584,245
2 Claims. (Cl. 30-91)



1. A cable slitter comprising a body, said body having a channel therein adjacent one end thereof with said

channel extending the full length of said body and extending substantially the full width thereof, said channel being arcuate in shape and forming a deformable flap at said one end of said body, the other end of said body being corrugated and forming finger-grips, said body being formed of a non-metallic material, a blade disposed in said body and having a cutting edge thereof extending into said channel.

2,819,521

FINGER SHEARS FOR SELF HAIRCUT

Henry W. Parker, Flushing, N. Y.
Application November 1, 1956, Serial No. 619,731
3 Claims. (Cl. 30-135)



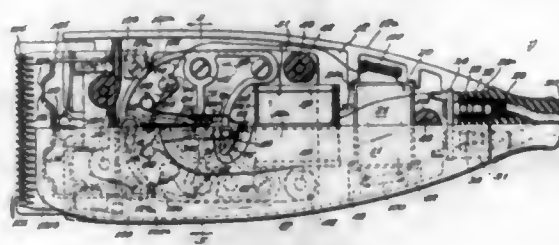
2. Finger shears for self haircut comprising pivotally connected hair clamp jaws, finger rings connected to support said pivoted jaws on adjoining fingers of the hand and companion hair cutting blades pivotally connected on the same center as the jaws and operable by fingers of the same hand, one of said blades overlying and fixedly connected with one of said jaws, the other blade overlying but movable independently of the other jaw and operating means connected with said last mentioned blade positioned for actuation by the thumb of the supporting hand.

2,819,522

IMPROVED SHEARING HEAD FOR HAIR CLIPPER

Ivar Jepson, Oak Park, and Frank E. Cerveny, Berwyn, Ill., assignors to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
Original application February 7, 1950, Serial No. 142,752. Divided and this application February 25, 1954, Serial No. 412,541

7 Claims. (Cl. 30-216)



1. In a hair clipper of the type comprising a pair of relatively movable shearing elements associated with a casing defining a handle for manipulating said clipper, motor means disposed in said casing, means for connecting said motor to one of said relatively movable shearing elements for producing relative movement therebetween in response to operation of said motor, means for biasing said shearing elements into shearing engagement and retaining the same in such engagement comprising a U-shaped spring member having the arms thereof supported within said casing and the bight thereof engaging one of said shearing elements, and a deformation on said bight in a plane different from that of said arms engageable with said cutter for removably holding said cutter and comb in shearing relationship.

2,819,523

SCISSORS

Bernhard Stoeveken, Pfullingen, Wurttemberg, Germany
Application February 8, 1956, Serial No. 566,064
Claims priority, application Germany February 8, 1955
1 Claim. (Cl. 30-260)



In a pair of scissors, in combination, a pair of elongated body members connected to each other for pivotal movement relative to each other about a pivot axis, each of said body members having a substantially convex elongated face a plane tangent to which at any portion thereof forms a predetermined angle with a plane normal to said pivot axis, each of said body members being so constructed and arranged that at its respective elongated face the thickness of each body member in a direction parallel to said pivot axis is at least as great as its maximum thickness in said direction, said faces moving toward, past and away from each other during pivotal movement of said body members relative to each other about said pivot axis; a pair of elongated resilient normally substantially flat cutting blades; and mounting means for mounting said cutting blades on said elongated faces of said body members, respectively, in such a manner that said cutting blades are maintained under tension in face-to-face relationship with the respective elongated faces and cooperate with each other during pivotal movement of said body members relative to each other, so that the cutting angle of the pair of scissors is equal to said predetermined angle, said mounting means including fastening means for fastening the opposite ends of each of said cutting blades to the respective body member in regions of the end portions of the face thereof, said fastening means being so constructed and arranged that each of said cutting blades is movable relative to the face of the respective body member in longitudinal direction between a fastened position wherein each end of said blade is fastened to said respective body member and an unfastened position wherein said cutting blade is capable of being removed from the face of said respective body member, each of said cutting blades being capable of assuming a semi-fastened position intermediate its fastened and unfastened positions wherein one end of the cutting blade is fastened to the respective body member and the other end is unfastened therefrom, thereby permitting each cutting blade, while the same is in its semi-fastened position, to assume a substantially flat configuration so that the unfastened end of the cutting blade is spaced from the face of the respective body member.

2,819,524

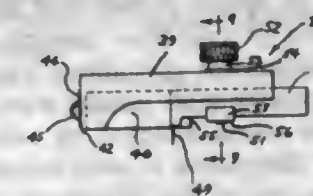
CUTTING DEVICE

Morton P. Matthew, Takoma Park, Md.
Original application April 27, 1954, Serial No. 425,811, now Patent No. 2,803,303, dated August 20, 1957. Divided and this application April 5, 1956, Serial No. 576,441

4 Claims. (Cl. 30-310)

1. A rotary cutting tool comprising an elongated block, a cutting blade mounted at one end of said block, a longitudinal groove on the undersurface of said block, a bar slidable longitudinally within said groove, a pointed pivot

fixedly carried by said bar, said block having an elongated slot passing downwardly from the upper surface of said block and extending substantially parallel to said groove,

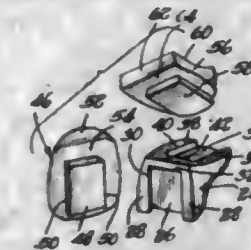


a thumb screw passing downwardly through said slot, and a transverse lug screw-threaded onto the lower end of said thumb screw and adapted to bear on the lower edge of said bar whereby to lock the position of said pivot relative to said cutting blade.

2,819,525

ARTIFICIAL TOOTH

Harry Spiro and Alvin Piermont Spiro, Chicago, Ill.
Application July 19, 1955, Serial No. 522,949
17 Claims. (Cl. 32-9)

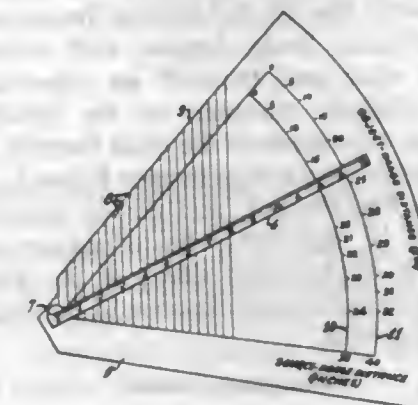


1. An artificial tooth comprising a backing and a facing made of tooth simulating material, said facing having a tenon extending laterally across a major portion of the width of said facing, said tenon extending substantially to the biting portion of the facing, and said backing having a pair of projections thereon providing a tenon groove opening downwardly at the bottom of said backing and complementary to said tenon, said projections extending substantially to said biting portion for absorbing biting or chewing thrust.

2,819,526

CALCULATOR

George Harold Brown, Jr., Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 1, 1956, Serial No. 568,937
1 Claim. (Cl. 33-1)



A calculator for automatically determining the actual dimension of an object from the corresponding dimension of an X-ray image of said object produced by the operation of a system of roentgenography, the dimension of said object being equal to the corresponding dimension of said image times a numerical correction factor, said calculator comprising, a backing member triangular in shape and having at least one straight side, a straightedge having graduations running from zero to increasingly higher numbers along its length pivotally linked to said member

near the vertex of said member and at the zero point of said graduations, a plurality of guide lines drawn in parallel on said backing member each at an angle with respect to said side the sine of which equals said numerical correction factor, the first of said lines passing through said pivot and the remainder of said lines intersecting said straightedge at various spaced points along the length thereof, said member being adapted by said lines to be positioned along the dimension of said image under consideration so that one end of the dimension of said image is adjacent said first line and the other end of the dimension of said image is adjacent a second one of said lines, a plurality of scales in the form of arcs each with a center of curvature located at said pivot drawn on said member so that said arcs intersect said straightedge at different points along the length of said straightedge, each of said scales representing different distances between the source of X-rays and said image and being calibrated in values corresponding to various possible distances between said object and said image when the respective distances between said source and said image are used, said straightedge being arranged to be set by means of said pivot to intersect said scale representing the distance between said source and said image used in said system at a value corresponding to the distance between said object and said image used when said image was made, whereby the actual dimension of said object corresponding to the dimension of said image under consideration can be determined by following said second guide line to the point of intersection with said straightedge and observing the graduations on said straightedge adjacent said point of intersection.

2,819,527

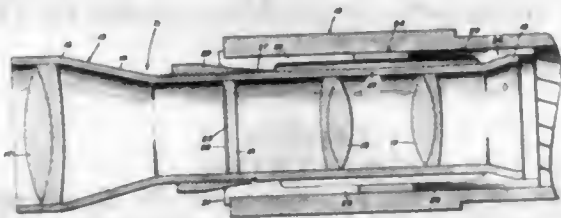
GUN BORESIGHT

Nelson E. Spurling, Valparaiso, Fla.

Application March 7, 1955, Serial No. 492,813

5 Claims. (Cl. 33-46)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A boresight for guns comprising; a telescope having a tubular housing and a lens system with a reticle collimated on the optical principal axis coincident with the longitudinal center line of the tubular housing, the housing of said telescope being formed with circumferential bell flanges at each end thereof, an expandable sleeve coaxially and slidably mounted on the tubular housing of said telescope intermediate the ends thereof, said sleeve having inwardly sloping wedge flanges formed on the inner surface at each end thereof, and means mounted on the tubular housing of said telescope to engage one of said wedge flanges to expand said sleeve to the inner surface of a gun bore and to fix said telescope in boresighting position within said sleeve.

2,819,528

GUN SIGHTS

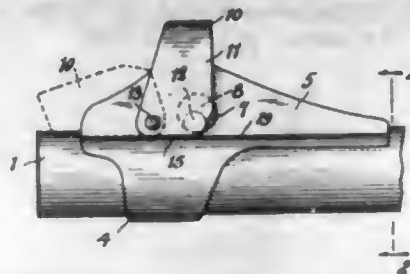
Jonas Folke Dahlberg, Seattle, Wash.

Application December 7, 1955, Serial No. 551,561

7 Claims. (Cl. 33-59)

1. In a gun sight arrangement, a gun barrel provided in its top surface with a recess, a rib extending across said recess and disposed longitudinally of the barrel, a mounting member including a sleeve encircling the barrel above the recess, said mounting member having a transverse threaded opening extending through it, set screws

threaded in said opening and adjustable therein toward or away from one another and toward or away from the rib to thereby obtain rotative adjustment of the



mounting member on the barrel, a sight carried by the mounting member, a hood pivotally mounted on the mounting member and adapted to be raised to extend over the top of the sight, or to be swung downwardly to a position to extend forwardly and below the sight.

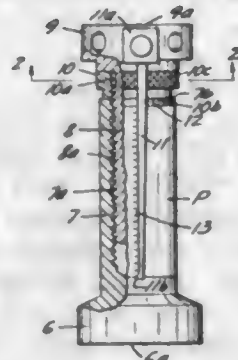
2,819,529

ADJUSTABLE HEIGHT GAUGE AND JACK

Gustaf C. F. Beck, Minneapolis, Minn.

Application April 6, 1954, Serial No. 421,293

5 Claims. (Cl. 33-164)



1. A combination adjustable gauge and lifting jack comprising, a vertical pedestal having a horizontal base and an upstanding sleeve portion open at its upper end and internally threaded throughout a substantial portion of its length, a stem for longitudinal adjustment in said pedestal having an external thread for engagement with the thread of said sleeve and provided with means adjacent its upper end for application of torque thereto, a short lock nut internally threaded upon said stem and having a horizontal jamming surface for engagement with the upper end of said sleeve, said stem having an annular collar at the upper end thereof defining in conjunction with the immediately lower portion of said stem, a horizontal, annular thrust bearing flange and said stem terminating in a substantially horizontal thrust bearing end and a head rotatively mounted upon said collar and having an under bearing surface in contact with the terminal thrust bearing surface of said stem and having also a depending, annular bearing surface in contact with said annular flange about said collar and means for retaining said head against longitudinal displacement from said collar.

2,819,530

DISTANCE MEASURING INSTRUMENTS

George D. Webber, Lakewood, Ohio, assignor to Webber

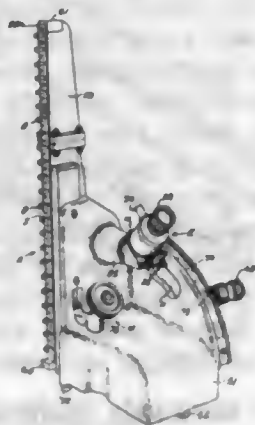
Gage Co., Cleveland, Ohio, a copartnership

Application December 6, 1956, Serial No. 626,695

15 Claims. (Cl. 33-169)

1. In a gage, a measuring member having a fiducial reference surface, a frame member adapted to rest against a base surface and having a guideway for the measuring member extending perpendicular to said reference surface, adjusting means mounted on one of the said members, a push rod movably guided on the other member but normally in fixed position thereon so that predeter-

mined movement of the adjusting means can move the measuring member to approximate desired positions through a measuring unit distance, a handle connected to the adjusting means and operable by a single generally unidirectional movement of a human hand to move the measuring member, via the push rod, through said unit distance, a manually adjustable means on said other



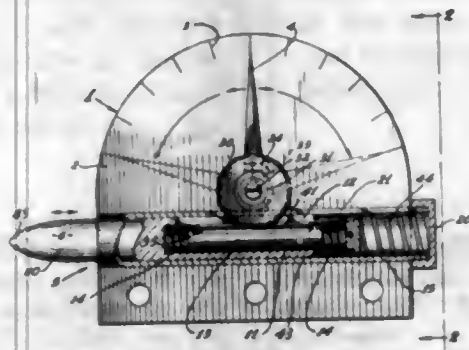
member connected for action on the push rod in a manner to effect precisional adjustments of the measuring member, a graduated scale on the measuring member, and a measuring microscope in scanning relationship to said scale and with index means related thereto in the field of vision of the microscope so as, optically, to enable an operator to adjust the reference surface positions relative to the base surface in minute increments representing fractions of said measuring unit distance.

2,819,531

DIAL INDICATOR

Raymond L. Hixson, Manhattan Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application May 25, 1953, Serial No. 356,929
3 Claims. (Cl. 33—172)



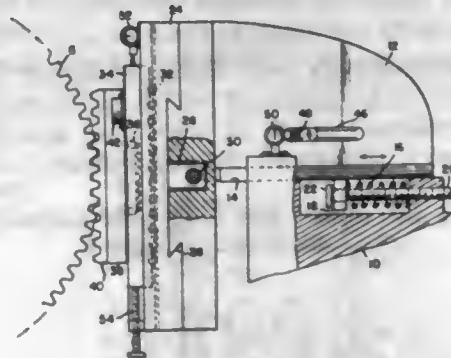
1. A dial indicator for measuring deflections of a structure comprising: a dial face having calibrations thereon; a pointer mounted on said dial and correlated with respect to said calibrations to provide deflection readings when moved from an initial position; a sleeve member secured to said dial face; elongated probe means mounted in said sleeve member for longitudinal movement therein in response to deflections of said structure when said probe means is in contact with said structure; cushioning means mounted in said probe means for longitudinal movement therein and which includes a floating mass mounted between a pair of compression springs which are restrained by portions of said probe means; and linkage means connecting said mass and pointer effective to transmit movements of said mass to said pointer to provide said deflection readings.

2,819,532

GEAR CHECKER

Walter S. Praeg, Detroit, Mich., assignor to National Broach & Machine Company, Detroit, Mich., a corporation of Michigan

Application August 15, 1955, Serial No. 528,212
8 Claims. (Cl. 33—179.5)

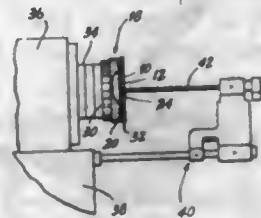


1. Gauging apparatus for large gears comprising a frame, a rotary gear support on said frame for mounting a large gear to be gauged in fixed position during the gauging operation, a carriage movable on said frame radially of said gear support, a slide movable on said carriage in a direction parallel to the axis of the gear, manually operated traverse means for traversing said slide on said carriage, a sub-slide movable on said slide during traverse thereof in a direction perpendicular to the gear axis and perpendicular to the direction of movement of said carriage, a swivel plate freely movable on said sub-slide during traverse of said slide about an axis parallel to the direction of movement of said carriage, a rack-like gauging member carried by said swivel plate, and indicating means for indicating the instantaneous angular position of said swivel plate.

2,819,533

OPTICAL AXIS ALIGNMENT DEVICE

Edward D. Markle, Jefferson City, Mo.
Application June 22, 1953, Serial No. 363,297
7 Claims. (Cl. 33—180)



1. An optical axis alignment device for attachment to a camera for axially aligning the lens thereof with a subject pointer comprising, in combination, a disc member having a face portion, an indentation in said face portion centrally thereof, and means separate from said member for removably mounting said disc member in front of the regular lens of a camera.

2,819,534

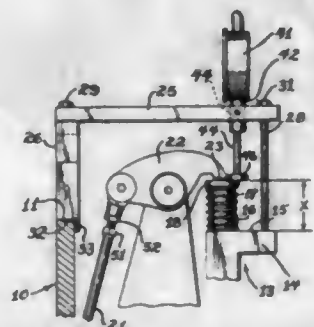
TOOL FOR ADJUSTING VALVE MECHANISMS

Mitchell P. Kitzman, Chicago, Ill.

Application June 13, 1956, Serial No. 591,221
1 Claim. (Cl. 33—181)

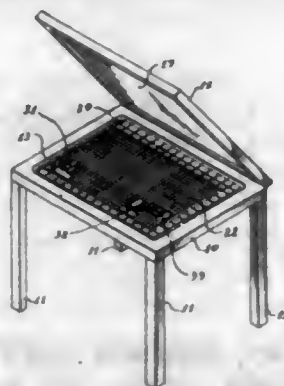
In a gauging tool which includes an indicator having an operating member to bear on an adjustable part for indicating the position thereof and for use wherein some predetermined dimension is to be established between a reference surface of said part and first and second fixed reference surfaces which are disposed on opposite sides of

said adjustable part surface and which are perpendicular to the direction of adjustment of the part, and wherein at least one of said first and second surfaces meets a third, fixed reference surface which is parallel to the direction of adjustment and wherein the indicator has a fixed location during use of the tool, the improvement which comprises a framework for supporting said indicator adapted to be held in operative position with respect to said fixed reference surfaces for locating the tool in directions parallel to the direction of adjustment of the part and per-



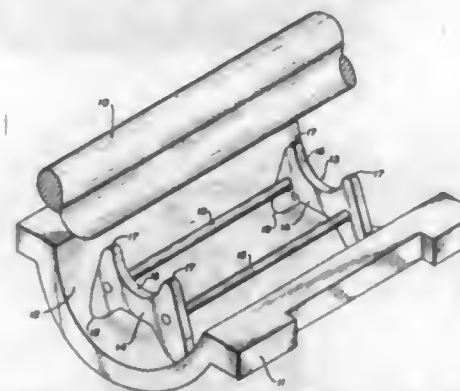
pendicularly thereto pending adjustment, said framework comprising a plate including means for holding the indicator, a first leg secured to said plate having a distal end for abutment with one of the first and second surfaces and a pair of spaced legs secured to said plate at the opposite end from said first leg, the distal ends of said pair of legs abutting the other of the first and second surfaces and providing with said first leg a tripod support, at least one of said pair of legs having a projection from its distal end including a face for abutment with the third surface to locate the tool in a direction perpendicularly to the direction of adjustment.

2,819,535
**APPARATUS FOR REGISTERING TRANS-
PARENCIES IN PRINTING FRAME**
Thomas A. Dexter, Pearl River, N. Y.
Application February 17, 1954, Serial No. 410,878
7 Claims. (Cl. 33—184.5)



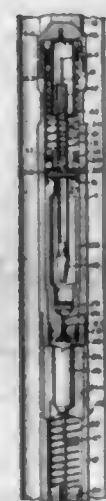
1. Photo exposure apparatus comprising a vacuum printing frame having a supporting panel for a sensitized sheet and an overlying negative, positioning abutments free of the sheet and negative and extending over portions of the panel, detachable fastening means connecting the positioning abutments to the panel, there being two abutments at spaced locations in position to contact with a corresponding edge of both the sheet and negative and another positioning abutment in position to contact with corresponding adjacent sides of the sheet and negative when the sheet and negative are in position for exposure in the printing frame, the abutments being of a height substantially equal to the combined height of the sheet and negative, and a thin plate extending from the top of at least one of the abutments and across a part of the negative and free of said negative.

2,819,536
RAILWAY CAR AXLE BEARING BLOCK CENTERING AND ALINING DEVICE OR GAGE
Peter C. Thomas, Denver, and John C. Horst, Adams County, Colo., assignors to The Thomas Equipment Co., Denver, Colo., a corporation of Colorado
Application February 16, 1955, Serial No. 488,645
2 Claims. (Cl. 33—185)



1. A gauge for accurately positioning a railroad axle bearing shell with respect to a cylindrical shaft of a boring tool comprising a body having concave surface of a configuration to accurately engage the cylindrical shaft at axially spaced locations on the shaft at points adjacent the axial ends of the bearing for accurate positioning with respect to the center line of the shaft, and a convex surface concentric with said concave surface, said convex concentric surface of a shape to accurately engage the bearing surface of a bearing shell at least adjacent both its axially spaced ends for accurate positioning with respect to the bearing shell and with respect to the axis of the shaft whereby the boring tool on the shaft may accurately machine a bearing surface on the bearing shell.

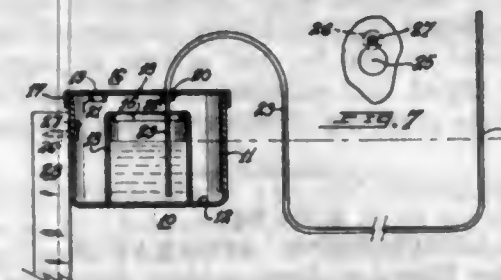
2,819,537
DRIFT INDICATOR
Edgar G. Peebles, Arcadia, Calif., assignor of one-fifth to Oscar O. Collins, Los Angeles, Calif.
Application April 30, 1954, Serial No. 426,697
3 Claims. (Cl. 33—205.5)



1. For use in a well string, a drift recording apparatus for measuring the inclination of said well string with which it is aligned and including a housing, an oil-filled chamber within the upper portion of said housing, pressure compensating means for said oil-filled chamber comprising a piston slidable in said housing forming the lower end of said oil-filled chamber, an orifice in said housing below said piston to expose the lower surface of said piston to the ambient well pressure, means exerting an upward force on said piston to produce a pressure in said oil-filled chamber greater than the ambient well pressure, a piston-like member slidably mounted in said oil-filled chamber, orifice means in said piston-like member connecting the area above said piston with the area below

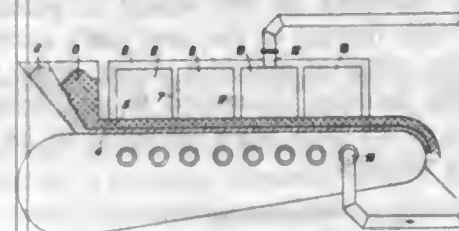
said piston whereby upward movement of said piston relative to said housing is retarded by the oil being forced to flow through said orifice, pendulous means within said housing and supported by said piston means, a recording element attached to the upper end of said pendulous means, a record blank mounted in said housing above said recording element, a first rod-like member slidably mounted in said housing and adapted to contact the lower end of said piston-like means, a second rod-like member slidably mounted in said housing and adapted to project outwardly from the lower end thereof, a compression spring between the lower end of the first-mentioned rod-like member and the upper end of the second-mentioned rod-like member, whereby when said instrument is dropped within a well string the projecting end of the second rod-like member is adapted to seat upon a suitable seat provided in the well string adjacent the lower end thereof and be forced upwardly thereby relative to said housing to compress the spring and urge the first rod-like member upwardly to move the piston-like means upwardly relative to said housing to bring said recording element into engagement with said record blank.

2,819,538
HYDROSTATIC LEVEL
Charles E. Schmidt, Ocean Springs, Miss.
Application December 23, 1953, Serial No. 400,047
2 Claims. (Cl. 33—209)



2. In a hydrostatic level, a long tube of flexible transparent material containing a liquid, a container for storing said tube when not in use, and a closed reservoir smaller than said tube container centrally positioned within the container and partially filled with liquid and connected with said tube so that the liquids communicate, said reservoir having a circular aperture above the surface of the liquid with diameter slightly less than that of the said flexible tube so that the free end of said tube can be inserted in a friction fit to form a liquid-tight closure when the level is not in use.

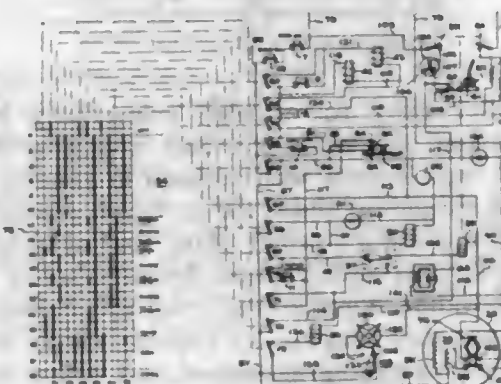
2,819,539
PROCESS FOR TREATING MATERIALS
Hans Rausch and Kurt Meyer, Frankfurt am Main, Germany, assignors to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, Germany
Application May 23, 1955, Serial No. 510,414
12 Claims. (Cl. 34—9)



1. A process for the hot gas treatment of solid material containing little or no combustible substances, comprising forming a gas permeable layer of the material to be treated at rest upon a movable conveyor in a forced draft apparatus, superimposing a layer of granular heat exchange material which does not react with the treat-

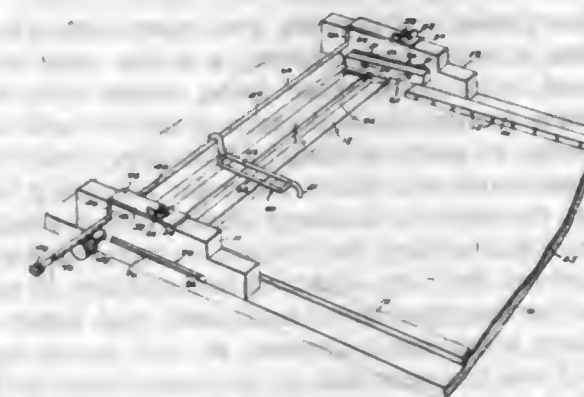
ing gas upon the material to be treated, drawing hot gas through the layers of material to preheat at least the heat exchange material while moving the layers through the initial part of the forced draft apparatus, and then drawing relatively cool treating gas first through the heat exchange material to be heated thereby and then through the layer of material to be treated while moving the layers through the following part of the apparatus.

2,819,540
CONTROL SYSTEM FOR CLOTHES DRYERS AND COMBINATION WASHER-DRYERS
John W. Toma and John E. Ryan, Louisville, Ky., assignors to General Electric Company, a corporation of New York
Application May 14, 1956, Serial No. 584,658
9 Claims. (Cl. 34—45)



1. Clothes drying apparatus comprising clothes tumbling means, a pair of electrical heating units, and a control system comprising a thermostat responsive to the temperature within said apparatus and having a normal position and a tripped position, said thermostat opening to said tripped position at a predetermined high temperature and resetting to said normal position at a predetermined lower temperature, a sequence control mechanism including a timer and a plurality of switches operated by said timer, and means including said thermostat and said sequence control mechanism for energizing both of said heating elements simultaneously, said elements being arranged to provide heat to said thermostat until said thermostat trips a first time in response to the heat from said elements, said means energizing only one of said elements thereafter upon resetting of said thermostat, said one energized element being arranged to provide heat to said thermostat until it trips a second time, said means de-energizing said one element too and terminating the drying operation when said thermostat trips the second time in response to the heat from said one element alone.

2,819,541
WRITING GUIDE FOR BLIND PERSONS
Louis B. Brown, Duquesne, Pa.
Application July 27, 1956, Serial No. 600,464
3 Claims. (Cl. 35—38)



1. A writing guide comprising a board, a pair of parallel guide bars extending transversely across said board,

means loosely mounting said bars on said board, a looped pencil guide, a rod fixed to said pencil guide and extending transversely of said board, and means carried by said board mounting said rod for transverse movement relative to said board.

2,819,542

CUTTER HEAD FOR SUCTION DREDGES

Edward L. Stewart, Royal Francis Brewton, and Henry Quackenbush, Mobile, Ala.

Application July 29, 1955, Serial No. 525,164

3 Claims. (Cl. 37—67)



1. A cutter head for dredges comprising a hollow cylinder having one end open and having at the other end an end wall formed with concentric annular rows of perforations extending about the marginal portion of said end wall to provide a strainer plate, said cylinder having a side wall formed with a circumferential series of vertical ribs extending longitudinally of the cylinder from said one end wall thereof to provide cutter blades; a rotatable shaft extending axially of and within the cylinder and having a rigid connection to the strainer plate; a non-rotating suction line having an inlet end within the cylinder in engagement with the strainer plate, said line projecting out of the other end of the cylinder in laterally spaced relation to the shaft; and a stationary cover plate having a fixed connection to the suction line and covering the open end of the cylinder, said cover plate having a center opening and the shaft projecting exteriorly of the cylinder through said opening.

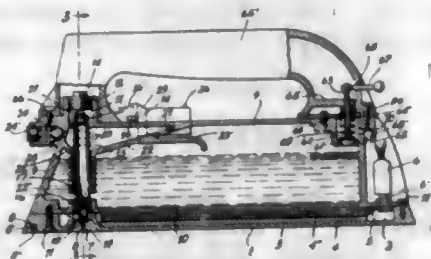
2,819,543

STEAM AND DAMPENING IRON

Albert C. Hoecker, St. Louis, Mo., assignor, by mesne assignments, to General Electric Company, New York, N. Y., a corporation of New York

Continuation of abandoned application Serial No. 603,695, July 7, 1945. This application April 27, 1953, Serial No. 351,435

6 Claims. (Cl. 38—77)



1. A dampening and pressing iron comprising a pressing surface, a steam boiler having a steam space and a water space, said steam space being above said water space, means for heating said pressing surface and water in said boiler to produce steam, conducting means having separate water and steam inlets for admitting water and steam thereinto, a discharge outlet in said conducting means for atomizing the mixture of steam and water therein and for directing said atomized mixture of steam and water to the material to be ironed, said water and steam inlets being both disposed in said steam space above said water space and so positioned therein that water will enter said water inlet while steam enters through said steam inlet, said water inlet being positioned laterally of a central axis of said iron and said steam inlet

being spaced a distance from said water inlet, so that when said iron is tilted downwardly about said axis and in the direction of said water inlet atomized steam and water will be discharged through said discharge outlet.

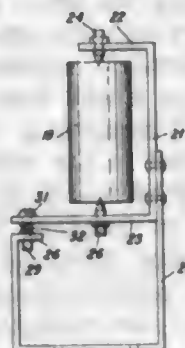
2,819,544

ADVERTISING DISPLAY DEVICE

Hatsuji Yoshioka, Ikuno-ku, Osaka, Japan

Application August 15, 1956, Serial No. 604,243

1 Claim. (Cl. 40—32)



In a device of the character described, the combination of a continuous web, a plurality of spaced non-flanged rollers vertically arranged to support said web in a vertical position whereby the surface of said web when moved will travel horizontally, means for tipping one of said vertically arranged rollers, said means comprising a U-shaped support having an upstanding leg, a bracket secured to said leg and serving to support said roller to be tipped, and adjusting means connecting said bracket and the other leg of said U-shaped support.

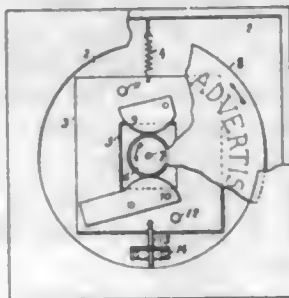
2,819,545

ADVERTISING APPARATUS

Arthur Gueydan, Buenos-Aires, Argentina

Application January 22, 1953, Serial No. 332,636

3 Claims. (Cl. 40—51)



1. In an advertising apparatus operated by the jolts of a moving vehicle, the combination of: a casing provided with a window, an oscillating weight formed with an aperture suspended within the casing, a horizontal axle fixed to the casing, a rotatable roller mounted upon said axle and projecting with some play through the weight's aperture, a number of plates presenting a curved, convex rim, pivotally mounted on the weight at points situated eccentrically with respect to the said rim's curvature, engaging with the roller at opposite points of its periphery, and a rotatable member connected to and driven by the roller bearing on its face advertisements to be exhibited in the casing's window.

2,819,546

DISPLAY CABINET

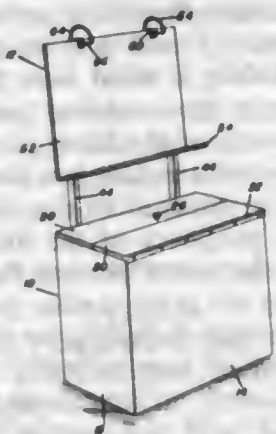
Jacob J. Repholz, Ingleside, Ill.

Application October 26, 1953, Serial No. 388,207

1 Claim. (Cl. 40—102)

In a display device, a rack for suspending display cards over a storage receptacle comprising a pair of uprights attachable to said receptacle to extend above the

same in laterally spaced relation, a horizontal brace member extending between and connecting the upper ends of said uprights, vertical clips of inverted U-shape fixed to and straddling said brace member, substantially semi-circular wire members straddling said clips in vertical position and having inturned horizontal portions



on opposite sides of the clips for insertion through apertured display cards to suspend said cards at opposite sides of the brace member, upwardly opening rectangular pockets on opposite sides of the clips, and enlarged rectangular terminals on said inturned portions non-rotatably fitted in said pockets and slidable upwardly out of said pockets.

2,819,547

SUBTERRANEAN TELESCOPING SIGNS

Jacob D. Clements, Jr., West Palm Beach, Fla.
Application January 18, 1954, Serial No. 404,507
2 Claims. (Cl. 40-125)

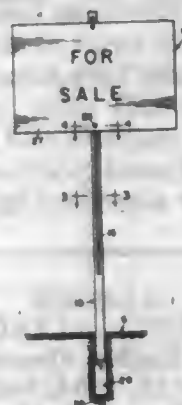


1. In a telescoping subterranean sign comprising a canister and a cover for said canister, said sign having a stored position within said canister and an elevated position in which it extends upwardly above said canister, inner and outer telescoping resilient standards positioned within said canister in said stored position, internal and external tapered surfaces on said outer and inner standards respectively, said surfaces frictionally engaging each other in said elevated position, an internally tapered surface in said canister frictionally engaging an external tapered surface on said outer telescoping standard to clamp said outer telescoping standard in said elevated position, and a plug in said inner telescoping standard for supporting a display member.

2,819,548

SIGN STRUCTURE

Talmage D. Campbell, Ocala, Fla.
Application September 14, 1955, Serial No. 534,291
2 Claims. (Cl. 40-145)

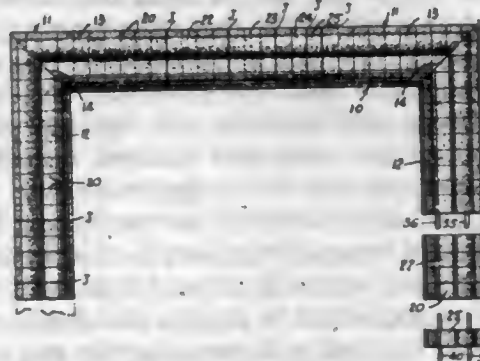


1. A sign comprising a tubular post of relatively thin metal, means at one end of the post for facilitating its penetration into the earth, the post having a slot in the wall thereof extending a substantial length of the post, a pair of flanges in line with the edges of the slot, a sign panel disposed against the post across the slot, and self tapping sheet metal screws extending through the panel into the slot between said flanges and having the threads thereof cut into the flanges.

2,819,549

ADJUSTABLE PICTURE FRAME

Jefferson Tester, New York, N. Y.
Application July 16, 1956, Serial No. 598,163
1 Claim. (Cl. 40-155)



An adjustable rectangular picture frame comprising, in combination, a rigid L-shaped section at each corner of said frame, a plurality of removable and interchangeable sections disposed between aligned legs of each pair of said corner sections, the exposed end surfaces of each of said sections presenting the open end of embedded metallic tubes, metallic pins adapted to be received by said tubes of adjacent sections to position a plurality of said sections in a predetermined arrangement, front exposed surfaces of each of said sections being provided with ornamental surface configurations, and means on the back surfaces of said frames comprising adjustable securing means for maintaining said sections in assembled relationship, said removable sections comprising a plurality of longitudinal sections of different lengths, said surface configuration comprising a plurality of equally spaced transversely extending grooved score lines, the spacing between said score lines substantially corresponding to an equal division of the length of each of said longitudinal sections, the edges of said exposed end surfaces of said sections being chamfered and when placed in engagement with the next adjacent section being adapted to present a groove corresponding in size and configuration to said score lines, said tubes being of circular cross-section and said pins being of circular cross-section of substantially equal diameter to the diameter of said tubes and adapted to be slidably received therewithin, said tubes being rigidly secured to

said section and all of said tubes being in axial alignment with each other, whereby each of said removable sections is interchangeable with each other so as to provide size adjustment for said frame, said adjustable securing means comprising a pair of longitudinally disposed and slotted bars, each one of said bars being removably secured at one end to an opposed leg of a pair of said corner sections, the other end of each of said bars being disposed in overlapping engagement with each other, and adjustable fastening means adapted to maintain said other ends in a selective longitudinally adjusted position to maintain all of said sections in proper assembled relationship.

2,819,550
GUN SAFETY ATTACHMENT
Arion E. Fischer, Omaha, Nebr.
Application June 11, 1954, Serial No. 436,154
1 Claim. (Cl. 42-70)



In combination, a gun including a barrel having a rear end, a receiver on the rear end of the barrel, a magazine housing on and depending from the receiver, a trigger assembly pivoted on the receiver below the receiver and rearwardly of the magazine housing, said assembly comprising a forwardly projecting sear having a forward end and a trigger depending from the sear, said magazine housing having a rear end in the region of the forward end of the sear, said sear having an underside and said rear end of the magazine housing having a shoulder beneath the forward end of the sear, a latch for extending along and secured to a side of the magazine housing, said latch having a resilient rear end portion terminating in a finger normally projecting laterally inwardly into a latching position between said shoulder and the underside of the forward end of the sear, and manual means mounted on the gun and movable into engagement with said finger for moving said finger laterally outwardly and free of the sear, said manual means comprising a cable mounted along the side of the gun remote from said latch, said cable having a rear end positioned to engage said finger and a forward end, said forward end traversing the gun toward the same side of the gun as the latch, and flexible button means on the last-mentioned side of the gun operable into engagement with the forward end of the cable to push the cable rearwardly relative to the gun to move said finger free of the sear.

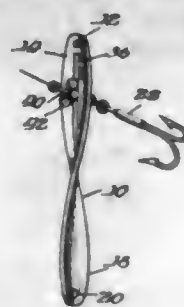
2,819,551
SAFETY FOR BOLT ACTION FIREARMS
Albert T. Baleri, Hayden, Colo.
Application May 4, 1956, Serial No. 582,872
1 Claim. (Cl. 42-70)



In a bolt action firearm including a receiver, a reciprocable bolt assembly having a reciprocable firing pin element; a safety assembly comprising a locking pin element journaled on said bolt assembly transversely of the firing pin element in intersecting relationship therewith, means on said locking pin element extending laterally from the bolt assembly for rotating the same, said firing pin element including a transverse notch portion in the outer periphery thereof through which the locking pin element extends, said locking pin element including a

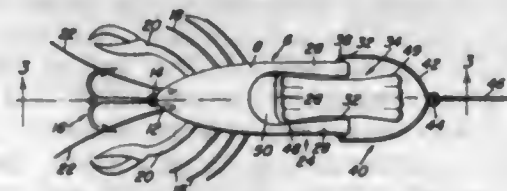
transverse notch portion through the outer periphery thereof in intersecting relationship with the notch portion of the firing pin element permitting reciprocable movement of the firing pin element therethrough, the notch portion in the firing pin element extending into an upper surface portion thereof in transverse relationship to the longitudinal axis of said firing pin element, the notch portion of the locking pin element extending into a lower surface portion thereof in transverse relation to the longitudinal axis of said locking pin element, said bolt assembly including a blind bore portion extending longitudinally therein in overlying parallel relationship to the longitudinal axis of the firing pin element in intersecting relationship to the locking pin element, and a resilient detent assembly disposed in the blind bore portion engaging the outer periphery of the locking pin element in alignment with the notch portion therein for tending to retain the locking pin in its various positions of adjustment, said bolt assembly including an internally threaded bore portion extending longitudinally therein in intersecting relationship with an intermediate portion of the locking pin element, said locking pin element including an annular groove about the intermediate portion thereof, and a lock screw element removably received in said internally threaded bore portion and including a terminal pin portion received in the annular groove of said locking pin element permitting rotation of said locking pin element and preventing transverse displacement thereof.

2,819,552
FISHING LURE
Frank J. Russell, Jr., Marquette, Mich.
Application November 7, 1952, Serial No. 319,315
1 Claim. (Cl. 43-42.2)



A fish lure comprising an elongated body portion twisted substantially along its longitudinal axis, said body portion having an elongated opening disposed in substantial alignment with the longitudinal axis of said body portion on one side of the lateral center line of said body portion, and means for rotatably securing said body portion to a line at a selected point along said elongated opening.

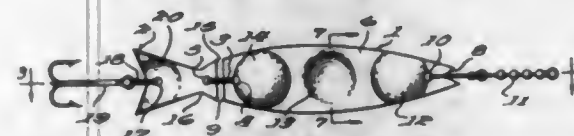
2,819,553
FISHING LURE
George D. Fultz, Compton, Calif.
Application January 18, 1955, Serial No. 482,486
2 Claims. (Cl. 43-42.12)



1. A fishing lure comprising an elongated body constructed to represent a crayfish, the leading end of said body being bifurcated and thus defining a fork embodying a pair of spaced parallel coplanar furcations having free outer ends and an intervening portion between the inner body-attached-ends of said furcations, said furcations having outer free end portions provided with oppo-

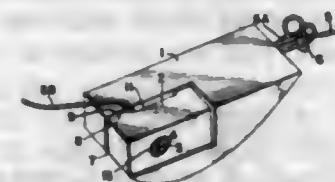
sitely disposed axially aligned transverse bores, said body having dorsal and ventral surfaces, said crotch portion having an inclined surface sloping downwardly and forwardly from the dorsal surface to the ventral surface, a tubular axle spanning the space between the free outer ends of said furcations and having open end portions fitting into their respective bores and providing sockets, a substantially U-shaped bail having a bight portion and arms, the free ends of said arms straddling the free outer ends of said furcations and being provided with laterally directed terminal ends constituting journals, said journals being telescopically and hingedly fitted into said sockets, and a bladed spinner having a central hub portion mounted for rotation on said axle between said furcations, the tip ends of the blades of said spinner operating in a path adjacent to but clear of the lower end portion of said inclined surface.

2,819,554
FISHING LURE
Edgar L. Neale, Van Nuys, Calif.
Application April 2, 1956, Serial No. 575,531
5 Claims. (Cl. 43-42.18)



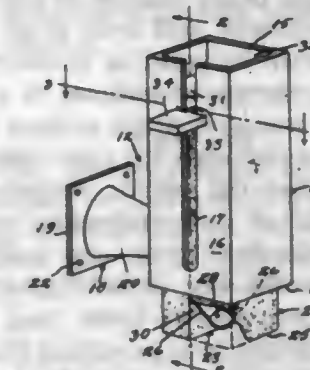
1. A fishing lure comprising a front portion and a tail portion loosely connected to one end of said front portion; said front portion at its other end having means for attachment to a fishing line; said portions being formed from rigid, flat sheet material and as viewed in side elevation having an outline resembling a fish; said front portion having a series of concavo-convex deformations formed therein and spaced along the longitudinal center line thereof with the convex sides of successive deformations projecting from opposite sides of said front portion and said tail portion having a similar deformation disposed with the convex side thereof at the side of said tail portion opposite the side of said body portion from which the rearmost of said deformations projects, and a hook loosely coupled to the rear end of said tail portion in the longitudinal center line of said lure.

2,819,555
FISH LINE SINKER
James Gordon Jackson, Port Alberni, British Columbia, Canada
Application June 13, 1956, Serial No. 591,138
3 Claims. (Cl. 43-44.95)



2. A slip sinker unit for troll fishing comprising essentially of a body, an eye mounted in the front end of said body, through which a fishing line is threaded and is able to slide when desired, a tension device consisting of a block set into a recess in the side of the upper rear section of said body, means comprising a screw and spring to retain said tension block in place, there being a slot in the lower rear section of said body extending to said recess to provide a path for said fishing line to enter between said tension device and said body, said tension device gripping the said line and holding the sinker at a predetermined location on the said fishing line until a fish pulls said line from said tension device thus permitting the sinker to slide on said line by means of said eye.

2,819,556
HOLDER, FEEDER AND DISPENSER FOR SOLUBLE PRODUCTS
Carlos Pompa, Rio de Janeiro, Brazil, assignor to Pablo D. Ladouce, Asuncion, Paraguay
Application January 30, 1956, Serial No. 562,343
2 Claims. (Cl. 45-28)



1. A holding, feeding and dispensing device comprising a hollow housing, a bar of soap slidably disposed in said housing, said soap bar being capable of absorbing moisture and of being softened thereby, said housing having an open discharge end through which an end of the soap bar extends, and retaining means attached to the housing and disposed adjacent said discharge end thereof against which a part of the soap bar bears for supporting said bar end in an exposed position beyond the discharge end of the housing and for limiting movement of the bar outwardly through said discharge end, said exposed outer end of the bar being adapted to be progressively dissolved and dispensed by wiping engagement of a moistened surface thereagainst and being softened by the moisture to a sufficient extent so that said retaining means will be embedded to a limited extent in said bar end, said discharge end constituting the lower end of the housing whereby the bar is gravity fed therethrough toward said retaining means and outwardly from said discharge end, said housing having a slot and including a toothed edge opening into said slot and defining a rack extending longitudinally of the housing and having downwardly facing teeth, a carrier loosely supported in said housing on the other upper end of said bar, and a pawl pivotally carried by said carrier, said pawl extending upwardly at an incline from the carrier and having a free end engaging the rack to prevent upward displacement of the bar and carrier in said housing.

2,819,557
NON-LOCKING, TAPERED WALL, HOLLOW ARTICLE OF MANUFACTURE
David Wheeler Clark, Fairfield, Conn., assignor to Clark Metal Products, Inc., Fairfield, Conn., a corporation of Connecticut
Application January 24, 1956, Serial No. 561,052
1 Claim. (Cl. 45-137)



A non-locking hollow article of manufacture, comprising a tubular downwardly tapered wall open at its large diameter upper end, the inner and outer sides of said wall being of corresponding taper and the wall thickness being such relative to the taper that the inside diameter of the upper end is greater than the outside diameter

of the lower end, and stop projection means upon the inner side of said wall comprising a plurality of projection members integral with said wall and equally spaced circumferentially thereof, each of said members consisting of a shaved and curled strip cut from the tapered inner side of said wall by a downward vertical cut of downwardly increasing depth relative to said tapered inner side of said wall, whereby said strip is of gradually decreasing thickness from its point of connection with said wall to its free end, the upper surfaces of said projection members lying in a common plane normal to the axis of said wall at a point between its ends where the inside diameter is greater than the outside diameter of its lower end, and the lengths of said projection members being such that their projection from said wall is inwardly beyond a circumferential line of corresponding diameter to the outside diameter of its lower end, whereby the lower end of a similar article is prevented through engagement with said projection members from entering said open upper end beyond said projection members.

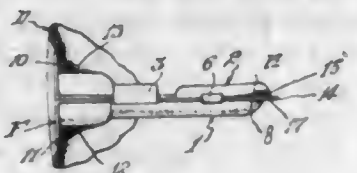
2,819,558

SELF LOCKING REED SOUNDING UNIT

Sam Freimaner, Hillside, N. J.

Application August 19, 1955, Serial No. 529,563

5 Claims. (Cl. 46-117)



1. For use in a doll structure having hollow head and neck portions made of flexible material such as soft rubber, a reed unit having at least three parts, two of said parts having interlocking means for holding them together, said two parts being formed so as to provide an air cavity between them, one of said parts having a sharp pointed end for the purpose described extending beyond the cavity end, while the other of said parts terminates in a small end bent to engage the pointed end of said first mentioned part, and a reed member longitudinally and operatively extending from a point inwardly a short distance from the said sharp point and between said two parts forming said cavity, both of said two parts having cooperative collar formations at their ends opposite to said sharp pointed end and each part having at least one outwardly projecting finger adjacent said collar formations for engaging the inner surface of the doll material after the unit has been forced into position through the doll material.

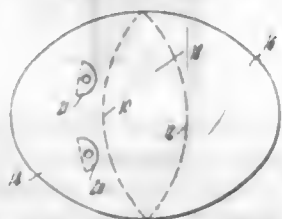
2,819,559

HAND OPERATED SNAPPING TOY

Carl R. Daley, South Natick, Mass., assignor to Farrington Manufacturing Company, Needham Heights, Mass., a corporation of Massachusetts

Application March 15, 1957, Serial No. 646,268

4 Claims. (Cl. 46-123)



1. A hand-manipulatable novelty item comprising a flexible sheet material having an elongated outline and bearing two opposed transverse curved scorings defining therebetween a central transversely elongated resilient panel, said panel being of a size to fit between the thumb

and finger of one hand of the operator end portions of said sheet material being foldable into overlapping relation about said respective scorings to flex said central panel into concavely arcuate configuration and said end panel edges being yieldingly movable towards each other upon transverse pressure being applied by the thumb and finger of the operator's hand to the ends of said central panel to flex said central panel progressively into more arcuate configuration, and movable away from each other upon release of the pressure to said resilient central panel, such motion simulating the jaw action of an animal face.

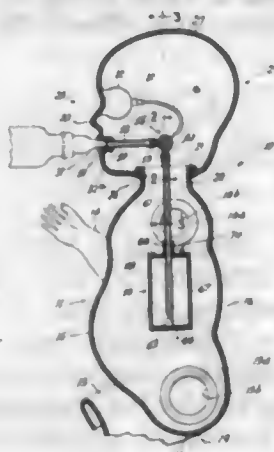
2,819,560

WEeping DOLL

David Cohn, New York, N. Y., assignor to Model Plastic Corp., White Plains, N. Y., a corporation of New York

Application December 23, 1955, Serial No. 555,020

5 Claims. (Cl. 46-135)



5. A doll comprising a head made of soft plastic material and having a face with eye sockets therein of integral construction with the face, each of the eye sockets having a front eye opening for exposing to view an eye within the socket, and each of the openings having edges simulating upper and lower eye lids of the eye, each socket inward from said opening increasing in cross-section to provide a cavity of the general shape of an eye, eyes located in the sockets and in predetermined assembled relation to the doll head, each of the eyes being an individual unit independent of the other eye, and each of the eyes being of a size that can be inserted into the eye sockets through said front eye openings upon expanding said openings and of a size that is gripped by the inside surfaces of the socket with a resilient pressure of the soft plastic material, a water reservoir within the doll, conduits between the water reservoir and the eye sockets to carry water into the sockets at locations back from the openings that expose the eyes, and passage means within each socket through which water received within the sockets from said conduits may pass forwardly from said locations and through the eye openings to simulate tears welling up within the eyes.

2,819,561

APPLICATION OF VITREOUS SEALANT TO GLASS SEALING EDGES

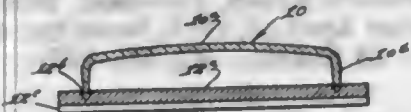
Kenneth M. Henry and Harvard B. Vincent, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio

Application September 25, 1956, Serial No. 611,916

7 Claims. (Cl. 49-81)

4. The method of preparing the annular open sealing edge portion of a prefabricated hollow glass face plate comprising the steps of thermally adhering an annular band of molten low-melting glass sealing composition to the sealing surface and adjacent areas of said sealing edge

portion by dipping and immediately shaping the molten band of sealing composition by forcefully contacting said



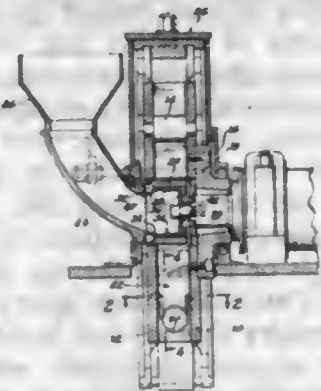
sealing composition and the heated surface of a metal plate of complementary configuration to said sealing edge portion.

2,819,562

CENTRIFUGAL BLASTING WHEEL AND BLADES FOR USE IN SAME

Kenneth H. Barnes, South Bend, Ind., assignor to Wheelabrator Corporation, Mishawaka, Ind., a corporation of Nebraska

Application May 7, 1956, Serial No. 583,135
14 Claims. (Cl. 51-9)



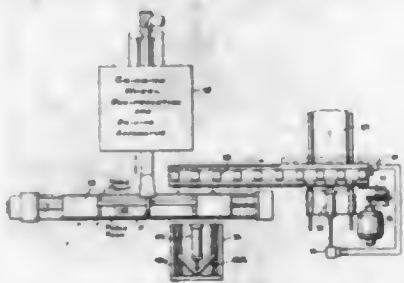
1. In a centrifugal blasting wheel formed of a pair of spaced side wall forming disc members interconnected for rotational movement together and having pairs of facing slots extending radially inwardly from the periphery of the members and blades extending crosswise between the members and received in fitting relation within the slots, the improvement which comprises ribs extending downwardly from the lateral edges of the blades and which are received in the slots when in the assembled relation, crosswise aligned grooves in the bottom side of the ribs intermediate the ends thereof, crosswise aligned grooves in the portion of the wheel disc members forming the bottom wall of the slots and positioned to be contiguous with the grooves in the ribs when the blade is in proper position for use to provide a continuous laterally extending opening therebetween, a pair of head members having a cross-section corresponding to the cross-section of the opening formed by the contiguous grooves for receiving the heads in fitting relation therein, and means constantly urging displacement of the head members laterally into the openings for locking the blades against relative endwise movement in the wheel disc members.

2,819,563

BILLET GRINDER

Wallace K. Lowe, Syracuse, N. Y., assignor to Crucible Steel Company of America, Pittsburgh, Pa., a corporation of New Jersey

Application December 7, 1953, Serial No. 396,439
16 Claims. (Cl. 51-45)



1. Apparatus for grinding the surface of billets comprising means for reciprocating a billet in a first direction

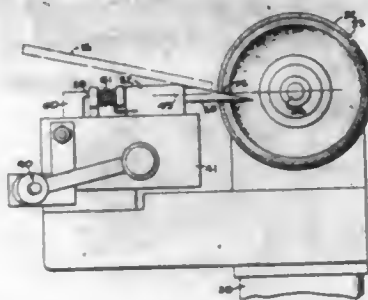
starting from a first position, a grinding wheel, means for reciprocating said grinding wheel in a second direction transverse to said first direction and starting from a second position and automatic control means operable by said reciprocating means for first causing each of said reciprocating means to execute a cycle of reciprocation and for then stopping both said reciprocating means in said positions thereof.

2,819,564

MACHINE FOR SHARPENING ROTARY CUTTERS

Wynsel J. Johnson, New Milford, Ill., assignor to Greenlee Bros. & Co., Rockford, Ill., a corporation of Illinois

Application July 11, 1955, Serial No. 521,136
11 Claims. (Cl. 51-123)



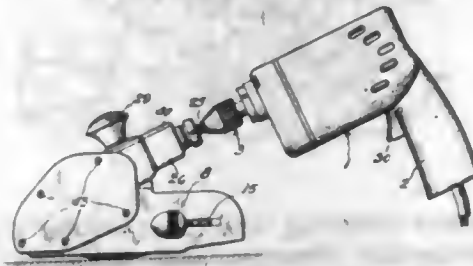
3. A grinding machine for sharpening the clearance face on an elongated blade extending elliptically around a rotary body and having a flat cutting face with a rake angle which varies progressively along the cutting edge of the blade, said machine having, in combination, a grinding wheel having a flat abrasive surface concentric with the wheel axis, a support rotatably mounting said body for intersection of one point along the blade edge with said abrasive surface to form a clearance face at a desired angle relative to a radius of the body through such point, means supporting said wheel and said support for relative movement along the axis of said body to present the full length of said blade edge to said abrasive surface, a member mounted adjacent said wheel to turn about an axis extending through the point of engagement between said wheel and the sharpened edge of said blade, and a flat surface on said member underlying said blade in face to face abutment therewith and lying in a plane including said point.

2,819,565

PORTABLE ELECTRIC BELT SANDING MACHINE

Rudolph G. Werth, Baraboo, Wis., assignor to Bernard S. Oren, Chicago, Ill.

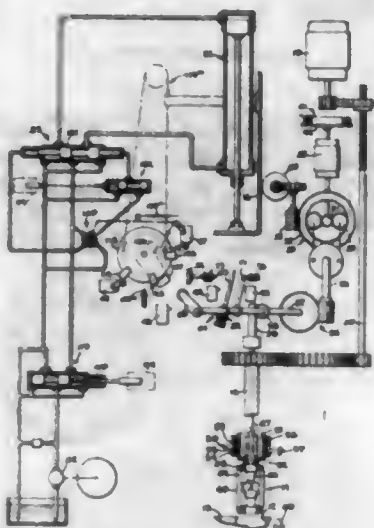
Continuation of application Serial No. 319,104, November 6, 1952, which is a continuation of application Serial No. 73,428, January 28, 1949. This application December 6, 1955, Serial No. 551,474
3 Claims. (Cl. 51-170)



1. A portable power tool comprising a mounting carriage, a tool element mounted thereon, a housing pivotably mounted on said carriage, a handle mounted on said housing, mechanical power-transmitting means rotatably mounted longitudinally in said housing, mechanical power-transmitting means arranged on said carriage for driving said tool element, and means including a shaft coaxial with the pivotal axis of said housing drivingly interconnecting said two power transmitting means.

2,819,566

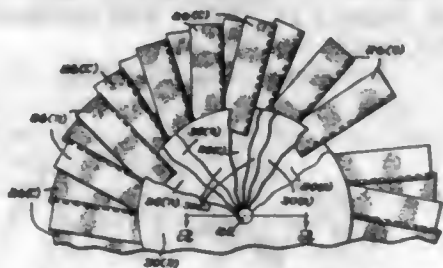
HONE EXPANSION CONTROL MECHANISM
 Albert M. Johnson, Rockford, Ill., assignor to Barnes
 Drill Co., Rockford, Ill., a corporation of Illinois
 Application January 3, 1956, Serial No. 557,116
 9 Claims. (Cl. 51-184.3)



4. In a honing machine, the combination of, a hone adapted to enlarge a work bore by rotation and reciprocation therein, expanding mechanism therefor including a shaft rotatable back and forth to respectively expand and contract said hone within a work bore, a reversible power actuator selectively operable to turn said element and cause expansion of said hone at rapid and slow rates or rapid contraction of the hone, means controlling said actuator to initiate said rapid expansion, an arm having a slip friction coupling with said shaft and normally movable in unison with said element, a device engageable by said arm during expansion of the hone to control said actuator and change the expansion of the hone from said rapid to said slow rate, and a stop disposed for engagement with said arm at a point beyond the point of engagement whereby to block said arm and cause slipping of said coupling during the continued slow expansion of said hone.

2,819,567

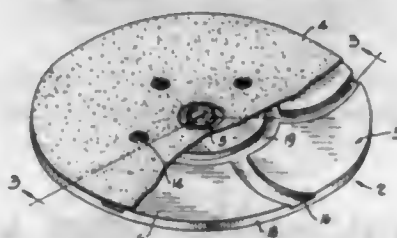
ROTARY ABRADING TOOL
 Elisha Winthrop Hall, Scituate, Mass., assignor to F. L. &
 J. C. Codman Company, Rockland, Mass., a corporation
 of Massachusetts
 Application August 9, 1956, Serial No. 603,091
 6 Claims. (Cl. 51-193.5)



4. A rotary abrading wheel comprising a plurality of axially juxtaposed elements, each including a board of agglomerated fibers in the form of a disc, and upstanding strips of flexible sheet material having a coating of abrasive granules adherent thereon, said strips being of a width substantially greater than the thickness of the disc and having the central portions of their inner ends disposed crosswise of the disc and secured thereto at intervals therearound and with free, upstanding portions projecting outward from the disc and laterally therefrom to either side thereof in planes angular to the central plane of the disc.

2,819,568

GRINDING WHEEL
 John N. Kasick, Cleveland, Ohio
 Application April 18, 1957, Serial No. 653,659
 10 Claims. (Cl. 51-197)

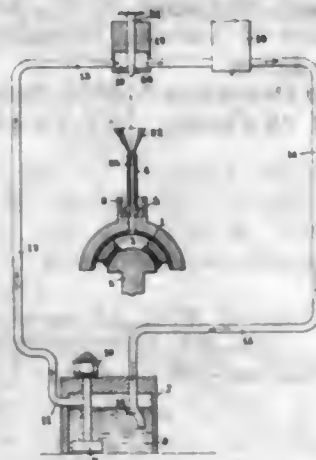


1. In a rotary grinding or sanding apparatus, a backing plate having a flexible disc portion with a flat forward face and a peripheral edge and a rearwardly extending shank portion concentric therewith, driving means secured to said shank portion of said plate and adapted to provide rotative motion for said plate, and a detachable grinding or sanding disc removably secured to the face of said plate in concentric alignment therewith, said disc having a plurality of equiangularly spaced apertures extending therethrough, said apertures being disposed so that their centers lie on a circle which is concentric with the center of said disc, said face of said plate having a plurality of substantially radially extending open channels or grooves therein, each said channel having side walls extending from near the center of said face to the periphery thereof and having its exit in the peripheral edge of said plate, said side walls of each channel being parallel and curving arcuately away from the direction of rotation of the plate, a circular 360° open-faced channel or groove interconnecting the inner ends of said radial channels and being concentric with the center of said plate and disc and being spaced from the center of said plate the same distance that said apertures are spaced from the center of said disc, said apertures being in communication with said arcuate channel and said disc otherwise closing the open side of said channels, said covered radial channels functioning as a shrouded impeller, when said plate and disc are rotated, to pump hot air from adjacent said apertures and the surface being worked and out the exits of said radial channels and thereby cause cooler air to flow across the surface being worked toward said apertures whereby to cool said surface.

2,819,569

AUTOMATIC ABRASIVE LIQUID DISTRIBUTING DEVICE FOR OPTICAL LENS POLISHING MACHINES

Pierre Angenieux, Paris, France, assignor to "Etablissements Pierre Angenieux" (Societe a Responsabilite Limitee), Paris, France, a corporation
 Application February 24, 1955, Serial No. 490,350
 Claims priority, application France July 28, 1954
 3 Claims. (Cl. 51-263)



1. Lens polishing machine comprising a concave upper spherical member acting as a polishing device and a con-

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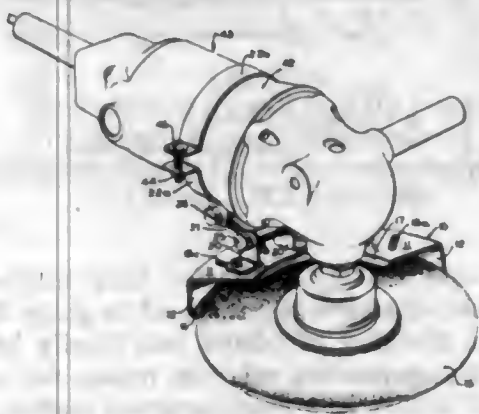
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vex spherical member consisting of the optical surfaces, said concave spherical member bearing on said convex spherical member and being held by a stud occupying thereabove a fixed vertical position, the geometrical axis of said stud passing through the common centre of said spherical members, said concave spherical member being adapted to rotate freely about said geometrical axis, said stud comprising an axial duct having an extension passing through the top of said upper spherical member so as to open inbetween said concave and convex spherical members, a funnel disposed at the upper end of said duct, and means for feeding said funnel with the abrasive liquid to be distributed over the contact surface of said spherical members.

2,819,570

SAFETY DEVICE FOR GRINDING MACHINES
Berne Tocci-Guilbert and Hosmer L. Blum, San Francisco, Calif., assignors to Berne Tocci-Guilbert, San Francisco, and Henry Gifford Hardy, Oakland, Calif., jointly as trustees

Application January 10, 1957, Serial No. 633,454
2 Claims. (Cl. 51-268)



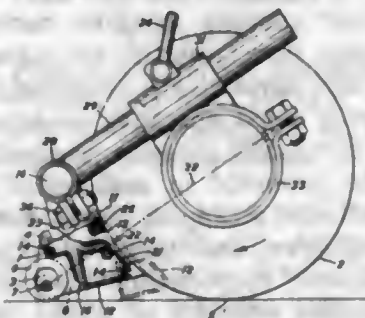
1. A guard for protection from rotating solid abrasive discs and the like comprising in combination a split ring band means for attaching the guard to the power driven tool used for rotating said abrasive, a guard in the form of a ring segment having an outer peripheral wall with an inwardly turned terminal lip and an inner peripheral downwardly turned lip, slot means in said ring segment, an assembly connecting said band means and said ring segment in association with said slot means for adjustably positioning said ring segment both laterally and vertically with respect to the abrasive disc, and means for securing the connecting assembly in the adjusted position for the guard.

2,819,571

DUST EXTRACTION SYSTEMS FOR GRINDING WHEELS

Frederick Francis Llewellyn, Camborne, England, assignor to Holman Brothers Limited, Camborne, England, a company of Great Britain

Application August 28, 1956, Serial No. 606,692
Claims priority, application Great Britain August 29, 1955
8 Claims. (Cl. 51-273)



1. A dust extraction head for a grinding wheel, which comprises ducting for the collection by suction of dust particles generated at the working portion of the wheel,

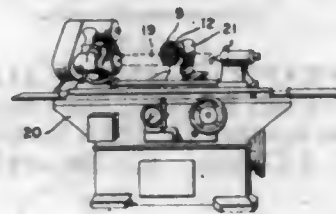
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and a dust guard arranged to make contact with the work to intercept dust particles thrown tangentially from the working portion of the wheel, the dust guard comprising a roller arranged to make rolling contact with the work and yielding mounting means by which the roller is mounted on the head, the mounting means enabling the roller to yield in conformity with irregularities in the surface of the work while remaining in rolling contact with the work.

2,819,572

LAPPING METHOD AND APPARATUS
Thomas G. Lewis, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application August 28, 1956, Serial No. 606,637
6 Claims. (Cl. 51-289)



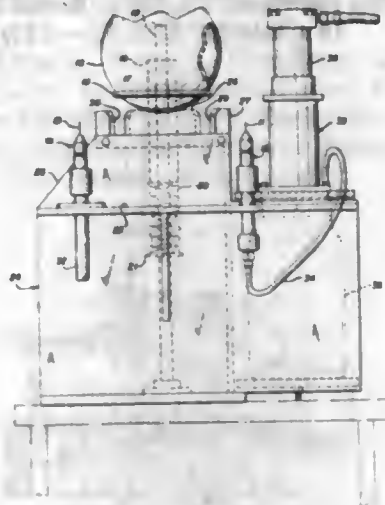
1. A method for the lapping of an article fabricated from a metal alloy or metal comprising forcing a diamond dust abrasive against said article in the presence of a liquid with a balsa wood lap, said lap having a hardness greater than that evidenced by a diameter of indentation measuring in excess of about $\frac{9}{32}$ " for a $\frac{5}{8}$ " diameter tool steel ball pressed against said balsa wood with a loading of 60 kgs. in an end grain direction, the work-contacting face of said balsa wood lap being coated with extracted lignum vitae wood resin, while maintaining a relative speed of translation between the surfaces of said lap and said article above about 5,000'/min. and a loading pressure sufficient to cause removal of metal from the surface of said article by lapping action.

2,819,573

METHOD AND APPARATUS FOR INFLATING HOLLOW BALLS OR THE LIKE OF ELASTIC MATERIAL

Lloyd R. Whittington, Ashland, Ohio, assignor to The National Latex Products Co., Inc., Ashland, Ohio, a corporation of Ohio

Application September 9, 1954, Serial No. 454,978
8 Claims. (Cl. 53-7)



6. A method of inflating a hollow inflatable article of flexible elastic material, comprising the steps of pre-determinately locating the article relatively with respect to a cement-injection needle connected to a source of fluid cement, momentarily injecting the cement-injection needle through an outwardly freely exposed portion of the wall

of the so located article to deposit a globule of cement on the inner surface of the article at the inner end of an aperture made by the cement-injection needle, pre-determinately relocating the article relatively with respect to an air-injection needle connected to a continuous source of pressurized air to have the air-injecting needle in substantially close proximity with respect to said aperture made by said cement-injecting needle, injecting said air-injecting needle through the exposed wall portion of the article while the air is flowing from the needle, and after inflation of the article to predetermined pressure removing the air-injecting needle from the article, said cement globule being adapted to seal the apertures opened by said needles against loss of inflation air from the article, and the continuous flow of air in the air-injecting needle during injection thereof through the exposed wall portion of the article being effective to prevent the cement globule from clogging the usual outlet opening of the needle.

2,819,574

PACKAGE WRAPPING AND SEALING MACHINE

William J. Maust, Danville, Pa.

Application January 28, 1955, Serial No. 484,643

4 Claims. (Cl. 53—137)



2. A wrapping and sealing machine comprising a base, a holder for a thermo-plastic sheet at one end of said base, a package support above said base, a U-shaped heating means, means swingably supporting said heating means for movement toward or away from said support, a cutter carried by said supporting means, a swingable label pickup member, a label receptacle below said pickup member, means connected with said supporting means and said pickup member for effecting movement of the latter from a lower pickup position in said label receptacle to an upper delivery position confronting the lower side of the cellophane sheet, and a second heating means carried by said supporting means adapted in the lowered position of the latter to confront the raised label and to press the cellophane sheet against the label.

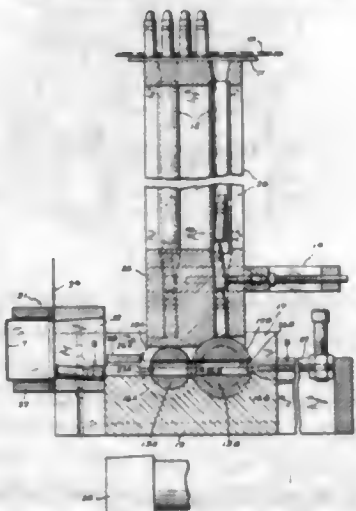
2,819,575

ARTICLE ARRANGING MECHANISM

Albert W. G. Ervine, Bridgeport, Conn., assignor to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware

Application February 20, 1956, Serial No. 566,653

16 Claims. (Cl. 53—143)



12. Apparatus for arranging workpieces in a plurality of superposed rows in head-and-tail sequence, comprising a roll provided with diametric workpiece receiving pock-

ets, means for holding said roll in a first workpiece receiving position, means for rotating said roll to a workpiece delivering position and for holding said roll in said position, means for further rotating said rolls in the same direction to a second workpiece receiving position and for holding said rolls in said position, means for reversely rotating said rolls to said workpiece delivering position and holding said rolls in said position, and means for restoring said rolls to the first workpiece receiving position and holding said rolls in said position.

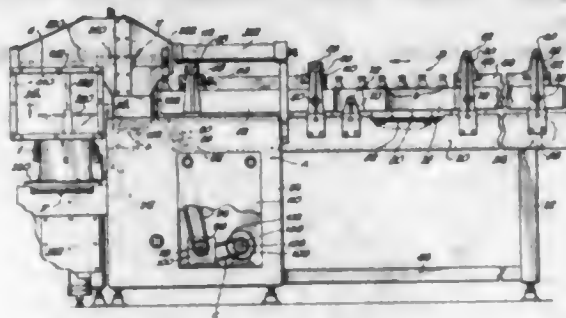
2,819,576

CASE LOADER

Alvin F. Hendricks and Robert F. Willey, Anderson, Ind., assignors to Lynch Corporation, Anderson, Ind., a corporation of Indiana

Application September 22, 1954, Serial No. 457,686

16 Claims. (Cl. 53—166)



12. In a case loader, a transfer head having bottle-gripping means operative when closed to grasp the upper portions of a plurality of bottles and fixedly hold them in downwardly suspending relation, means for arranging a plurality of bottles in a predetermined loading pattern, pneumatically operated means for delivering said loading pattern to said transfer head, pneumatically operated means for opening and closing said bottle-gripping means, pneumatically operated means for moving said transfer head between a bottle-gripping station and a bottle-releasing station, pneumatically operated means for elevating a case upwardly about said loading pattern at said bottle-releasing station while said loading pattern is suspended relative to said case elevating means, and control means for regulating the actuation of each of said pneumatically operated means in a sequential operating cycle, whereby a full loading pattern may be suspended by said bottle-gripping means in fixed position to receive a case therearound and then released while disposed substantially fully within the case to complete a loading of the case with a minimum of bottle fall.

2,819,577

SPINDLE ARRESTER FOR CAPPING MACHINES

George H. Dimond, East Aurora, N. Y., assignor to Consolidated Packaging Machinery Corporation, Buffalo, N. Y., a corporation of New York

Application June 7, 1956, Serial No. 589,928

5 Claims. (Cl. 53—317)

5. A container capping machine comprising a continuously rotating turret, means for advancing a series of containers and successively presenting them to said turret in properly timed operative association therewith; a plurality of constantly rotating vertically reciprocable capping spindles mounted in said turret each provided at its lower end with a capping chuck having a plurality of cap-engaging jaws, and means associated with said turret for constantly rotating and for cyclically reciprocating said spindles whereby to rotate said chucks and move them to and away from their cap-applying position; means effective when no cap is engaged by said chucks for arresting downward movement of said spindles

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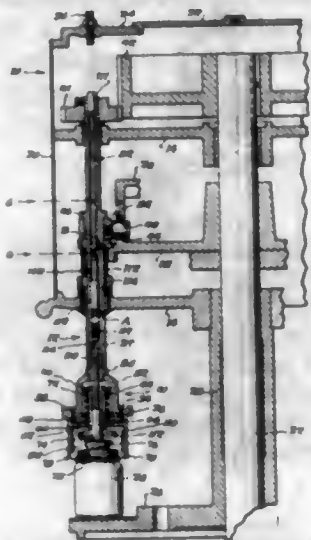
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cating means to function; and means responsive to a change of position of the jaws of said chucks for actuating said arresting means.

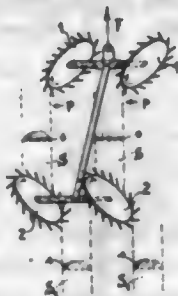
2,819,578

ROTARY RAKE AND TEDDER

Heinrich Wuster, Imst, Austria

Application March 11, 1955, Serial No. 493,765

3 Claims. (Cl. 56-366)



1. An implement comprising a beam, a plurality of crop engaging toothed wheels, a series of means on said beam individually mounting the wheels freely for rotation by crop or ground engagement and shiftably generally vertically for accommodation to planular irregularities in ground surface, said series of means being adapted for individual positioning on said beam to dispose said wheels in echelon with their planes oblique to the normal line of travel of the implement to move cut crops in a first lateral direction into a windrow, said series of means being further adapted for individually selective alternative positioning on said beam to dispose one or more of said wheels with its plane transverse to the general plane of the echelon and staggered with respect to the windrow forming wheel or wheels so that its range of action lies at least in part on the windrow to move windrowed cut crops in a second lateral direction generally opposite to that of the first lateral direction.

2,819,579

APPARATUS FOR CATCHING BROKEN ENDS ON TEXTILE MACHINES

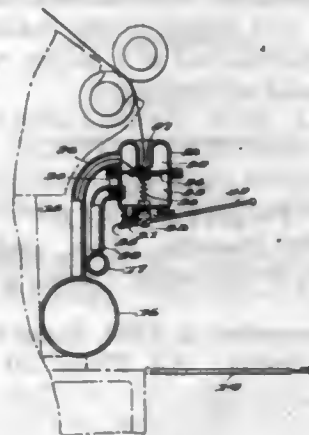
William W. Avera, Winston-Salem, N. C., assignor to The Bahnsen Company, Winston-Salem, N. C., a corporation of North Carolina

Application February 11, 1955, Serial No. 487,526

8 Claims. (Cl. 57-34.5)

1. The combination with a textile machine frame which includes pairs of drawing rolls through which fibrous lengths are drawn and rotary devices associated with the lengths for twisting the same, of a device for catching the ends of any of said fibrous lengths as may

become broken, said end catching device comprising an air pressure controlled valve means individual to each fibrous length being twisted, each said valve means comprising a first negative pressure air chamber and a second positive pressure air chamber and a flexible diaphragm defining a common wall between and separating said chambers, an inlet to said first chamber disposed adjacent the corresponding fibrous length between the rolls and rotary twisting device for sucking in the end of the fibrous length feeding from the rolls in the event of a break therein, said diaphragm also serving to control flow of suction air between said inlet and first chamber, spring means tending to bias said diaphragm to a position wherein communication is established between said inlet and first chamber, a source of negative pres-



sure air including tube means connected with said first chamber for carrying off the broken end sucked into said first chamber, a source of positive pressure air connected with said second chamber, said second chamber including a leak port for venting air therefrom, the air pressure in said second chamber being sufficient when said leak port is closed to move said diaphragm against the force exerted by said spring means to a position wherein it closes off communication between said inlet and first chamber, and a member adapted to ride in contact with each fibrous length being twisted for detecting a break therein, said detecting member controlling said leak port and being operative to open said leak port in the event of a break in the length and vent air from said second chamber thus lowering the pressure in said second chamber and permitting said spring means to move said diaphragm to the position wherein communication is established between said inlet and first chamber.

2,819,580

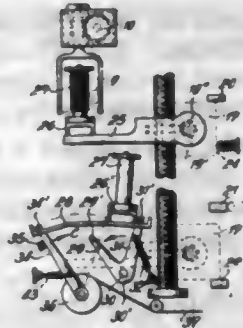
METHOD AND APPARATUS FOR CHANGING BOBBINS

Rudolf H. Teupel, Bremen, Germany, assignor to Spinnbau G. m. b. H., Bremen-Farge, Germany

Application February 4, 1955, Serial No. 486,169

Claims priority, application Germany February 8, 1954

24 Claims. (Cl. 57-52)



2. In combination in a textile machine having a bobbin rail carrier arranged exchangeably to receive and support a bobbin rail, means operatively connected with said bobbin rail carrier for selectively moving a bobbin rail

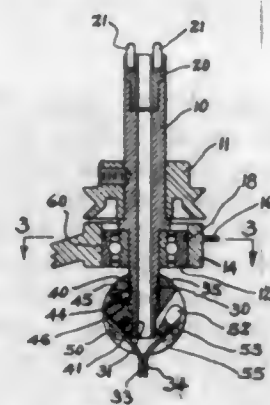
supported thereby upwardly and downwardly for forming cops on the bobbins of said bobbin rail, means arranged respectively to limit the upward and downward movement of said bobbin rail carrier for defining the normal cop forming reciprocating movement of said bobbin rail carrier, said downward movement limiting means being adapted to be made ineffective to allow further downward movement of said bobbin rail carrier below its normally lowest point during the cop forming operation, a receiving rail arranged below said normally lowest point and arranged to receive and hold in reserve a bobbin rail with empty bobbins, and means operable automatically in response to the downward movement of said bobbin rail carrier below said normally lowest point during said cop forming operation for automatically unloading a bobbin rail filled with cops from said bobbin rail carrier upon said receiving rail and subsequently loading said bobbin rail carrier with a bobbin rail with empty bobbins received and supported by said receiving rail.

2,819,581

TWISTER HEAD

Ross B. Newton, Whitinsville, Mass., assignor to Whitin Machine Works, Whitinsville, Mass., a corporation of Massachusetts

Application November 4, 1954, Serial No. 466,800
2 Claims. (Cl. 57-77.4)



1. In a twister head, a vertically-disposed rotated tubular member, a bearing for said member, a pair of gripping members one of which is relatively fixed and the other relatively movable with respect to the tubular member, a head in which said gripping members are mounted, said head having an outer and substantially spherical surface, and all parts of said gripping members except the substantially axially disposed extreme lower end portions thereof being disposed within said spherical surface and shielded from air resistance.

2,819,582

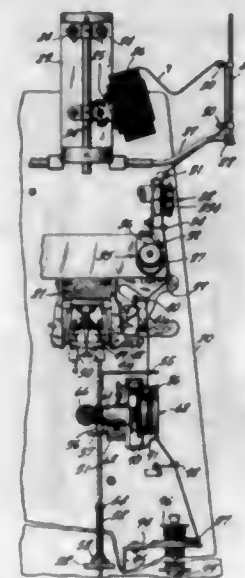
YARN FEEDING MEANS

Earl G. Hill, Pulaski, Va., assignor to Textile Appliance Corporation, New York, N. Y., a corporation of New York

Application March 22, 1955, Serial No. 495,923
12 Claims. (Cl. 57-90)

1. In a textile frame having a support for a package of a strand, strand feeding means for drawing the strand from the package, which comprises a continuously rotating shaft, a clutch element mounted on the shaft for rotation therewith, a second clutch element loose on the shaft, the elements having faces adapted to be engaged with a non-slipping contact and one of the elements being made of a ferro-magnetic material and the other carrying a permanent magnet urging the elements together with their faces in contact, an annular brake surface on the loose element, a feed roll connected concentrically to the loose element, a separator mounted adjacent the feed roll, and means for moving the ele-

ments apart including a brake shoe movable against the brake surface to move the loose element away from the



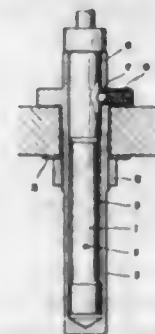
element fast on the shaft and to brake the rotation of the loose element and a member for moving the brake shoe toward and away from the brake surface.

2,819,583

OSCILLATING SLEEVE FOR SPINNING SPINDLES

Hans Gassner, Schweinfurt, Germany, assignor to Kugelfischer Georg Schafer & Co., Schweinfurt, Germany

Application May 20, 1954, Serial No. 431,178
7 Claims. (Cl. 57-134)



1. A spindle sleeve assembly comprising a spindle sleeve formed from seamless drawn tube stock, bearings located within said sleeve, a housing about said sleeve, a ball contained in said housing, resilient means urging said ball into engagement with said sleeve, and means defined by said sleeve functioning with said ball tending to dampen vibrations of said sleeve occurring during operation.

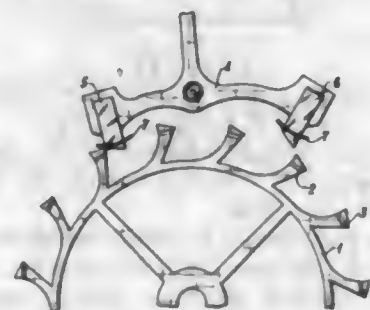
2,819,584

LEVER ESCAPEMENT

Fritz Marti and Georges Braunschweig,

La Chaux-de-Fonds, Switzerland

Application August 19, 1954, Serial No. 450,868
Claims priority, application Switzerland August 22, 1953
3 Claims. (Cl. 58-121)



1. In a time-piece movement having a lever escapement, in combination an escape wheel and coactively associated therewith a pallet having two jewels mounted

thereon to co-operate with the teeth of said escape wheel, a groove provided in at least one side of each tooth of said wheel and extending from the back side to the front side thereof, and a collar-shaped member mounted on the free end of each pallet jewel, whereby to create by capillarity two distinct and conjugate oil circuits around the tooth of the wheel and around the jewel.

2,819,585

EXTENSIBLE BRACELET FOR WRIST-WATCHES OR FOR ORNAMENTAL PURPOSES HAVING U-SHAPED LINK CONNECTING SPRINGS

Fritz Blader, Pforzheim, Germany, assignor to Rodt & Wienerberger Akt.-Ges., Pforzheim, Germany, a firm

Application October 11, 1956, Serial No. 615,374
Claims priority, application Germany October 22, 1955
5 Claims. (Cl. 59-79)



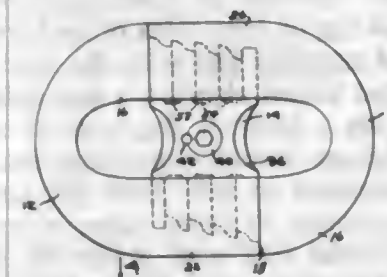
1. An extensible link band for wrist-watches or ornamental purposes, comprising, a plurality of rectangular sheet-metal links aligned in band-like fashion and having an outer surface adapted as carriers of ornamental decorations, said rectangular links having oppositely disposed transversely extending side portions inwardly curved in a direction toward each other so that between said two inwardly curved side portions an inwardly open hollow compartment is formed, said inwardly curved side portions being provided with oppositely disposed transversely extending slots; a plurality of curved bail-like leaf springs having a transverse dimension substantially equal to that of said link having their free ends angularly bent-off in a direction toward each other loosely secured to the back of said plurality of sheet-metal links with that the two bent-off free ends of every leaf spring engaging behind two adjacent inwardly curved side portions of two adjacent sheet metal links and urging said links into abutting relation; and a plurality of flat connecting members located above the bent-off free ends of said springs and provided at opposite ends with transversely extending projecting portions engaging and loosely secured by said transversely extending projecting portions in said transversely extending slots of said sheet metal links, so that pull exerted on the bracelet results in moving the angularly bent-off free ends of every leaf spring farther apart from each other until this movement is stopped by said transversely extending projecting portions at the opposite ends of said connecting members.

2,819,586

JOINER LINK WITH TWO PART BRACING MEANS HAVING STOP MEANS THEREON

Henry St. Pierre, Worcester, Mass.

Application June 22, 1951, Serial No. 233,019
1 Claim. (Cl. 59-85)



A joiner link comprising a pair of generally U-shaped parts each having two legs one of which is reduced and solid and the other of which is enlarged and hollow, the

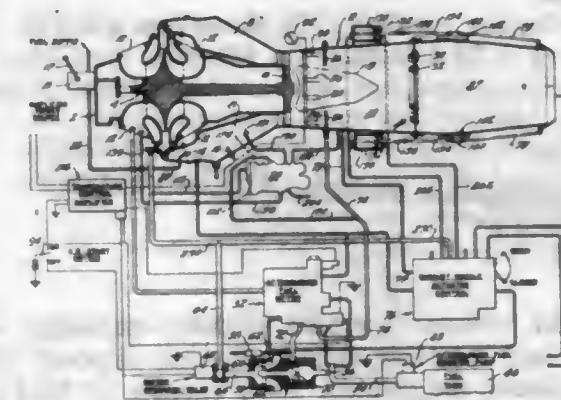
respective solid and hollow leg portions interfitting to form the link, gradually decreasing steps on the solid portions forming shoulders in spaced planes transversely of the link, gradually increasing complementary steps forming complementary shoulders in the hollows of the enlarged portions, said steps and shoulders all facing in the same direction toward a side aspect of the link whereby the parts thereof are assembled only by a relative lateral motion thereof, raised teeth on the solid portion and the hollow portion, said teeth facing each other and being separate and independent of the steps and shoulders, a stud having indentations at opposite sides thereof receiving the respective teeth, and means to prevent separation of the stud, the teeth and indentations being shorter than the respective widths of the legs and stud, and terminating short of the side edges thereof.

2,819,587

VALVE ARRANGEMENT FOR AFTERBURNER IGNITER CONTROL

Richard J. Coar, Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application November 18, 1950, Serial No. 196,426
9 Claims. (Cl. 60-35.6)



8. In combination, an engine, said engine having a main combustion chamber, means for supplying air to said combustion chamber, means for supplying fuel to said combustion chamber, means for igniting the fuel-air mixture in the combustion chamber formed by said first and second named means, an afterburner, means for supplying gas to said afterburner, said gas containing oxygen, means for supplying fuel to said afterburner, and means for igniting the fuel-gas mixture in the afterburner formed by said fourth and fifth named means, said combustion chamber having a nozzle therein, said last named means having piston means including two pistons for displacing additional fuel into said combustion chamber through said nozzle thereby enriching the fuel-air ratio in the engine, one piston being large and the other piston being small, and second piston means responsive to the fuel supplied to said afterburner for controlling said large piston of the first piston means, said large piston moving said small piston to displace the additional fuel through said nozzle.

2,819,588

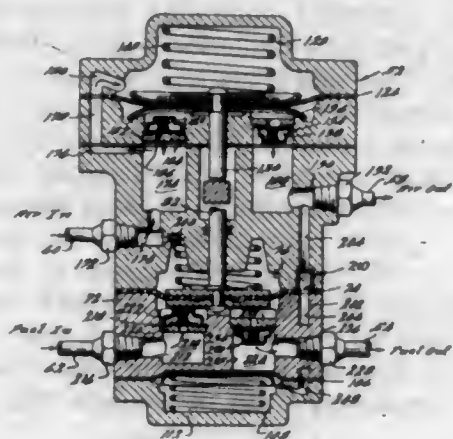
LIQUID FUEL AND AIR PUMPING UNIT

Jorma O. Sarto, Walled Lake, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application July 2, 1954, Serial No. 440,975
16 Claims. (Cl. 60-39.2)

10. A compound fluid pumping unit comprising two fluid pumping chambers, each of said pumping chambers being defined in part by separate movable walls, a fluid supply passage means and a fluid delivery passage means communicating with each of said pumping chambers, and

auxiliary passage means for conducting fluid pressure from one of the passage means communicating with one



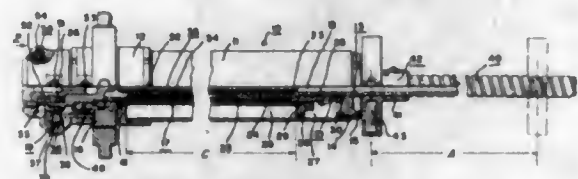
pumping chamber to one side of the movable wall partly defining the other pumping chamber.

2,819,589

FLUID PRESSURE ACTUATOR AND SYNCHRONIZING MEANS THEREFOR

Howard M. Geyer, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 1, 1954, Serial No. 420,320
15 Claims. (Cl. 60-97)



1. A fluid pressure operated actuator including, a reciprocable and rotatable cylinder having disposed therein a fixed piston, the cylinder being capable of fluid pressure actuation in either direction relative to the piston, and a movable element operatively connected to said cylinder and constrained to reciprocate upon reciprocation of said cylinder, the operative connection between said movable element and said cylinder being such that the stroke of said element is appreciably greater than the stroke of the cylinder relative to the piston.

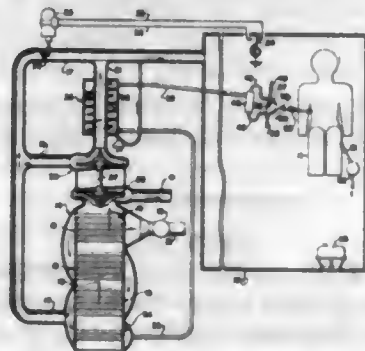
2,819,590

VENTILATED SUIT REFRIGERATION UNIT

Frederick H. Green, Palos Verdes Estates, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application August 21, 1953, Serial No. 375,743

28 Claims. (Cl. 62-6)



6. A refrigeration system for supplying cooled air to a first enclosure and to a second substantially airtight enclosure disposed within said first enclosure, said system comprising a heat exchanger for cooling a supply of hot compressed air, an expansion turbine connected to said heat exchanger for further cooling and reducing

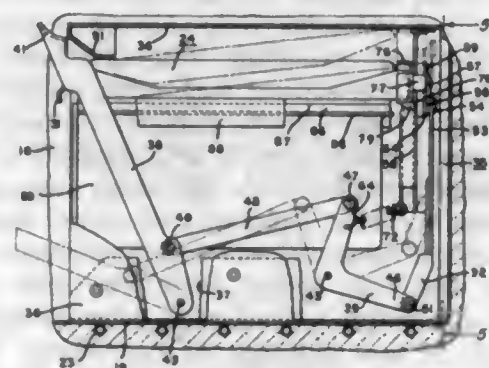
the pressure of a portion of the cooled air, means connected to said heat exchanger and to said expansion turbine for combining predetermined portions of the cooled air from said heat exchanger and of the further cooled air from said expansion turbine and for supplying said predetermined portions to said first enclosure, a vortex tube connected to said heat exchanger for receiving the remainder of the cooled air therefrom and for supplying a first fraction of air at a temperature below that of said cooled air and a second fraction of air at a temperature above that of said cooled air, duct means for connecting said vortex tube to said second enclosure, valve means in said duct means for controlling the portions of said air fractions supplied to said second enclosure, and temperature responsive means for controlling said valve means in response to the temperature of the air flowing into said second enclosure.

2,819,591

ICE BLOCK HARVESTING APPARATUS

Edgar C. Robbins, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 18, 1956, Serial No. 592,046
15 Claims. (Cl. 62-106)



1. In combination, a refrigerator cabinet having a chamber therein, a refrigerating system associated with said cabinet including an evaporator for cooling said chamber to a temperature below 32° F., a box-like member forming a compartment having a freezing device receiving opening, opposed spaced apart stationary parallel supports in said box-like member adjacent the opening therein, a socket element within said compartment and having one side thereof pivotally mounted upon said box-like element for movement relative thereto and to said supports, a stop on said box-like member at the other side of said socket element and normally engaged thereby, a unitary freezing device disposed in said chamber, said device comprising an elongated tray and rigid walls loosely anchored therein for movement relative thereto and locked against removal therefrom, said walls dividing the interior of said tray into compartments in which water is to be frozen into separated ice blocks, said tray and said walls of said freezing device together with ice blocks therein being removable from said chamber, rotatable into an inverted position and insertable into said box-like member through its freezing device receiving opening with the top of long sides of said tray supported on said opposed supports and with the inner end of the tray fitting in said socket element, a manually actuatable mechanism having a lever at the front of said box-like member and linkage means connecting said other side of the socket element to said lever for applying force to said socket element to swing same about its pivotal mounting away from said stop, means on said box-like member adapted to be engaged by the bottom of the forward end of said tray upon swinging said socket element, the swinging of said socket element by said mechanism twisting said tray and shifting said rigid walls therein relative thereto for breaking bonds between said de-

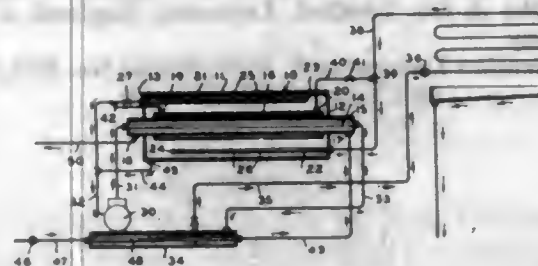
vice and ice blocks in said compartments thereof, and said mechanism including means for suddenly releasing the swinging force applied to said socket element whereby said torqued tray bangs said other side thereof back against said stop to toss the separated ice blocks out of said freezing device.

2,819,592

ACCUMULATOR HEAT EXCHANGER

Sterling F. Smith, Washington, D. C.

Application March 4, 1952, Serial No. 274,719
5 Claims. (Cl. 62-117.55)



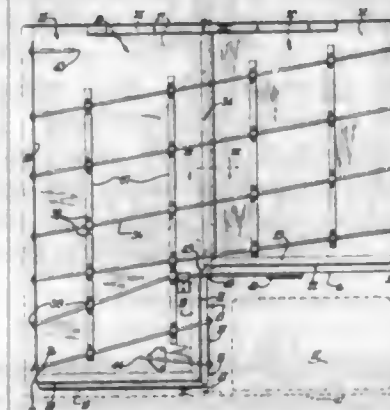
1. For use with a refrigeration system having a compressor, condenser, and evaporator, an accumulator heat exchanger comprising a central conduit for the passage of compressed refrigerant, said central conduit being provided for passing refrigerant from the compressor to the condenser, said condenser being fluid cooled, a first shell about said central conduit for the passage of said cooling fluid leaving the condenser, inlet and outlet connections in said first shell for said cooling fluid, insulating means about said first shell, a housing around said central conduit, said first shell, and said insulating means, said housing having inlet and outlet ports communicating with each other within said housing, said inlet port being provided for connection to the discharge of the evaporator for receiving refrigerant therefrom, said housing having a storage space for liquid refrigerant, said outlet port being provided for connection to the compressor and being spaced from said storage space to prevent flow of liquid therethrough, the insulating means limiting exchange of heat between the refrigerant and fluid in the conduit and first shell, respectively, and the refrigerant returning from the evaporator.

2,819,593

FREEZER LINER AND METHOD OF MAKING SAME

Harold Smith, Cedar Rapids, Iowa, assignor to Amana Refrigeration, Inc., Amana, Iowa, a corporation of Iowa

Application September 9, 1953, Serial No. 379,155
3 Claims. (Cl. 62-126)



2. A liner assembly for chest type freezer cabinets comprising a two depth liner compartment having an upwardly flanged one piece stepped bottom pan and a pair of abutting U shaped wall portions secured to said flange to provide a deep compartment portion and a shallow compartment portion, means for securing evap-

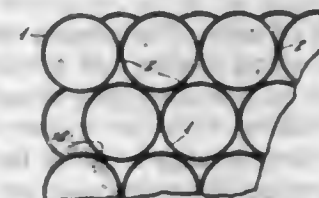
orator tubing in continuous coils about said wall portions and second means for securing at least one of said coils to the bottom pan under the shallow compartment portion as it passes around the deep portion.

2,819,594

METHOD OF HANDLING METALLIC CONTAINERS

Douglas Lorie, Palm Beach, Fla.

Application January 26, 1955, Serial No. 484,099
2 Claims. (Cl. 62-170)



1. A method of preparing a plurality of empty containers for handling and storing comprising arranging said containers in abutting relationship, spraying said containers with a fine aqueous mist, freezing a moisture line between adjacent containers and at said point of abutting relationship, and maintaining said containers below freezing.

2,819,595

EARRING WITH A CUSHION ATTACHMENT

Harry R. Northup, Mishawaka, Ind., assignor, by decree of distribution, to Faye H. Northup

Application July 6, 1954, Serial No. 441,421
4 Claims. (Cl. 63-14)



1. An earring construction comprising, in combination, a generally U-shaped frame having spaced apart inner and outer legs adapted to be positioned at opposite sides of the lobe of an ear, abutment means for said ear lobe on each of said legs, and an ear guard for attachment to the abutment means of one of said legs, said guard comprising a unitary body of resilient material, having front and rear faces, and adapted for mounting the rear face on the ear lobe engaging means of the inner leg of the frame with the front face positioned for engaging the inner face of the ear lobe, said body being formed with only a single undercut hollow cavity therein to provide relatively thin side and front walls, the front wall having a flat surface, and the central portion thereof being formed with an aperture in communication with the cavity, said front and rear faces being normally held spaced from each other when the guard is not in use to provide an air cushion for the ear when the earring is in operative position thereon.

2,819,596

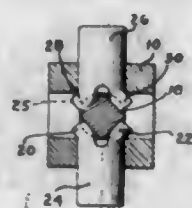
PINNING CONSTRUCTION FOR UNIVERSAL JOINT

George B. Stillwagon, Jr., Dayton, Ohio, assignor of one-half to Kenneth G. Fraser, Dayton, Ohio

Application May 5, 1955, Serial No. 506,126
4 Claims. (Cl. 64-17)

1. A pinning construction for a universal joint comprising a block provided with first and second normally

disposed borings intersecting in the center thereof, a pin extending through said first boring and terminating at its opposite ends in cylindrical arms protruding from said block, said pin having a reduced mid-section of rectangular cross section extending diametrically within said sec-



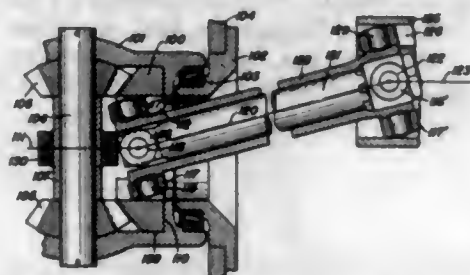
ond boring, a pair of arms, there being one arm seated in each end of said second boring and protruding from said block, swaged lips on the inner end of each said arm engaging and interlocking with the rectangular mid-section of said pin, said block having a cavity therein into which the swaged lips project whereby said pin and said arms are non-rotatably retained in said block.

2,819,597

UNIVERSAL JOINT DRIVE

Ernest Wildhaber, Brighton, N. Y.
Original application July 2, 1949, Serial No. 102,788,
now Patent No. 2,709,902, dated June 7, 1955. Di-
vided and this application April 8, 1955, Serial No.
500,156

24 Claims. (Cl. 64-21)

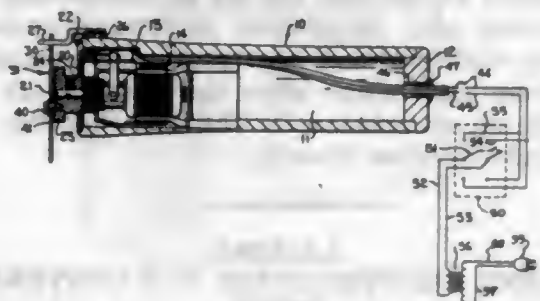


1. A universal joint drive comprising a rotary drive element and a rotary driven element, a pair of coaxial shafts, a pair of projections adjacent one end of each shaft, said projections being at corresponding ends of the two shafts, a pair of parts mounted on each pair of said projections to rotate about an axis perpendicular to and intersecting the axis of said shafts, the axes of said two pairs of parts intersecting the shaft axis at the same point, one of said elements being provided with grooves extending along axial planes in which said parts engage, said grooves being equi-spaced about the axis of said element, and one of said shafts being pivotally connected at the end opposite the projections to the other of said elements.

2,819,598

HOSIERY MENDING DEVICE

Henry G. Mayer, Athens, Ga.
Application June 20, 1955, Serial No. 516,589
13 Claims. (Cl. 66-1)



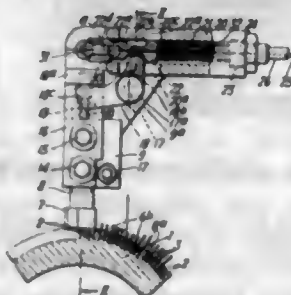
1. Apparatus for restoring pulled threads in knitted fabric comprising, in combination, a shaft adapted to be rotated about its longitudinal axis, a hub fixed on said shaft and rotatable therewith, a flat relatively thin elongated blade pivotally mounted on the outer end of said

hub in eccentric relation to the axis thereof, one end of said blade being substantially pointed and the other end thereof having a longitudinally extending slot therein, means supporting said shaft for rotation therein, and a guide element carried by said means and extending through said slot whereby rotation of said hub transmits reciprocatory movement to the pointed end of said blade about a substantially elliptical path.

2,819,599

CAM-ACTUATING MEANS FOR KNITTING MACHINES

Henry Sidney Burdett, Knighton, England, assignor to
G. Stibbe & Co. Limited, Leicester, England, a British
company
Application December 5, 1955, Serial No. 551,151
12 Claims. (Cl. 66-50)

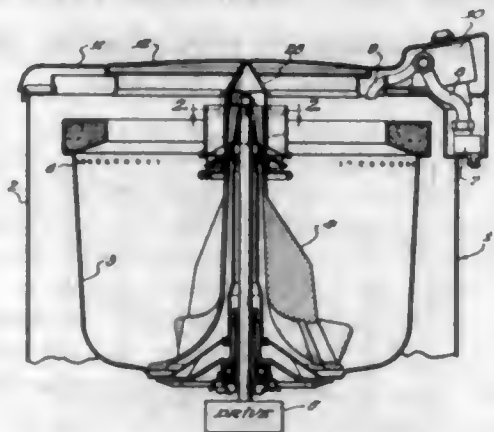


1. In a knitting machine, in combination, a bed, knitting instruments for operation in said bed, said instruments being provided with butts, an element for operating upon said butts for the purpose of actuating the instruments, a biased carrier for the said element, a slidable component having at least one stepped formation, means including a flexible cable functioning to move the stepped component to different positions longitudinally, a control unit determining said positions, and, interposed between the stepped component and the element carrier, a movable member the movements of which are effected by said stepped component and are transmitted to the element suchwise as to dispose the latter in selected pre-set positions relative to the butts.

2,819,600

WASHING MACHINE HAVING SOAP DISPENSER

Robert C. Aberle, Lombard, Ill., assignor to General
Electric Company, a corporation of New York
Application September 6, 1956, Serial No. 608,249
11 Claims. (Cl. 68-17)



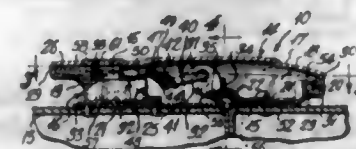
1. In combination, a washing machine having a housing, a tub therein, a detergent-receiving container mounted within said housing in communication with said tub, said container having a charging opening facing an opening in said housing through which detergent may be placed in said container, a door for said housing opening, valve means for controlling passage of detergent from said container into said tub, and a valve actuator extending into

said housing opening for displacement by said door upon closing said door, said displacement operating said valve to open position, whereby the detergent content of said container may pass into said tub.

2,819,601

DRAWBOLT AND LOCK ASSEMBLY

Wallace E. Atkinson, Petersburg, Va., assignor to Long
Manufacturing Company, Inc., Petersburg, Va., a cor-
poration of Virginia
Application April 4, 1955, Serial No. 498,940
3 Claims. (Cl. 70-73)



1. A drawbolt assembly for use with hardside luggage of the type having hinged sections comprising a keeper plate adapted to be affixed to one of said sections adjacent the free edge thereof and having a marginal tongue projecting therefrom and formed in the shape of a spherical segment adapted to extend beyond the free edge of said section and a terminally flanged keeper projecting perpendicularly from the other end thereof, a drawbolt mounting plate adapted to be affixed to another section of said luggage adjacent the free edge thereof including an integral upstanding marginal flange wall parallel to the plane of separation of the sections and having an aperture therein corresponding to the cross section of said intermediate portion of said marginal tongue adapted to receive said tongue in intimately interfitted relation therein, a housed elongated drawbolt having a keeper-accommodating aperture adjacent one end thereof, link means connected respectively to said drawbolt and said mounting plate by a displaceable pivot and a stationary pivot permitting displacement of said drawbolt longitudinally and perpendicularly relative to said mounting plate and keeper plate to seat said keeper in said keeper-accommodating aperture with a bounding portion of said drawbolt underlapping the flange of said keeper to hold the same against relative withdrawal along the axis of said keeper, said underlapping aperture bounding portion being disposed when said drawbolt is in intimate contact with said mounting plate and keeper plate to maintain said marginal keeper tongue seated in said flange wall aperture with the upper surface of said tongue in intimate contact with the bounding surfaces of said aperture, and spring means formed of a recurved flat spring compressed between a wall of the drawbolt and said link means with one leg of said spring underlying the wall of the drawbolt and the other bearing against the edge of said link means remote from said stationary pivot to resiliently bias said drawbolt toward intimate contacting relation with said mounting plate and keeper when said drawbolt approximates contacting relation with the same and for resiliently restraining said drawbolt against tilting movement relative to said link means when said drawbolt is fully extended away from said mounting plate.

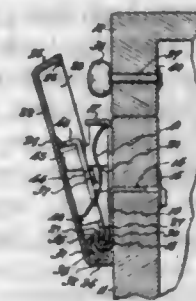
2,819,602

LOCKABLE LATCHING DEVICE

Abraham Levine, Mendham, N. J.
Application September 29, 1955, Serial No. 537,475
4 Claims. (Cl. 70-74)

1. A latching device for a receptacle of the type having a body and a separable cover, said latching device comprising an outwardly open hollow base frame including a top end wall and a bottom end wall, said base frame being adapted to be affixed to the front wall of the recep-

tacle below its cover, a keeper member adapted to be affixed to the front wall of the receptacle cover to project externally therefrom, a latching member including a rearwardly open body shell of greater length than the base frame, whereby the rearwardly open upper end portion of said body shell can lap the receptacle cover and its keeper member, the upper end of said body shell having an internal keeper member engageable catch-lip disposed substantially in the plane of its open rear face, a hollow housing box affixed to and within the lower end portion of said body shell, said housing box being of less length than the base frame so as to be longitudinally movable relative thereto, means to connect the lower end of the latching member to the lower end of the base frame for both longitudinal shifting movement and pivotal swing-

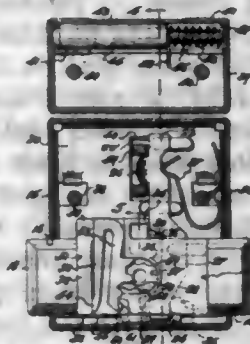


ing movement relative to said base frame, said connecting means comprising a hinging tongue extending from the bottom end wall of the base frame, and said housing box having a bottom end wall provided with a slot through which said hinging tongue projects, and a longitudinally extending reversely curved spring having a rearwardly directed upper end to engage the upper end of the base frame and a forwardly directed lower end to engage the latching member at a point spaced longitudinally downward and laterally outward from the point of engagement of said spring with the base frame, whereby said spring is operative to yieldably down thrust the latching member relative to the base frame when the former is in swung to engage the keeper member, and is further operative to out swing said latching member to disengaged relation to the keeper member when said latching member is manually upwardly shifted relative to said base frame.

2,819,603

FASTENER MEANS FOR RECEPTACLES AND OTHER USES

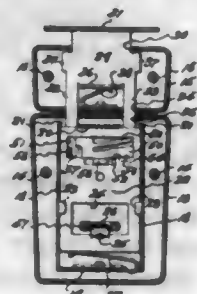
Abraham Levine, Mendham, N. J., assignor of one-half to
Baltimore Luggage Company, Baltimore, Md., a corpo-
ration of Maryland and one-half to Presto Lock Com-
pany, Garfield, N. J., a limited partnership
Application December 7, 1955, Serial No. 551,563
5 Claims. (Cl. 70-74)



4. A device for releasably fastening together separable parts of a receptacle or the like comprising a latching structure adapted to be mounted on one of said separable parts and a pivoted hasp member adapted to be mounted

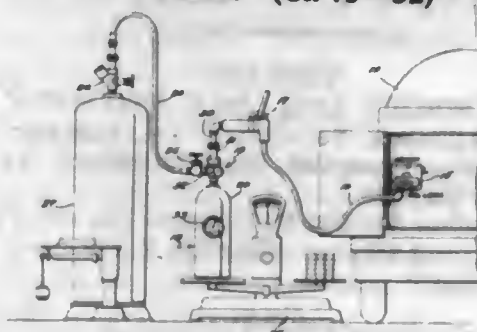
on the other of said separable parts for releasable engagement with the latching structure, said latching structure comprising a hollow housing, a latch member vertically disposed within the housing interior, said latch member having an upper leg and a lower leg, said upper leg having a hasp member engaging latch tongue, a fulcrum lug fixed within the housing interior, the latch member having a fulcrum notch intermediate its upper and lower legs to engage said fulcrum lug, whereby at times to support said latch member for pivotal movement about said fulcrum lug, spring means to yieldably urge the latch member to latching position, a manipulatable transversely disposed latch member releasing element slidably supported by the housing for extension there-through and selectively movable in one or an opposite direction, said releasing element having respective means to simultaneously engage both the upper and lower legs of the latch member, whereby to bodily shift the latch member for withdrawal of its latch tongue from holding engagement with the hasp member, when said releasing element is manually moved in one direction, and said releasing element having another means to engage the lower leg of the latch member, whereby to rotate the latch member about said fulcrum lug for withdrawal of its latch tongue from holding engagement with the hasp member, when said releasing element is manually moved in the opposite direction.

2,819,604
PIVOTED HASP TYPE LATCHING DEVICE
Abraham Levine, Mendham, N. J.
Application October 5, 1956, Serial No. 614,308
6 Claims. (Cl. 70-74)



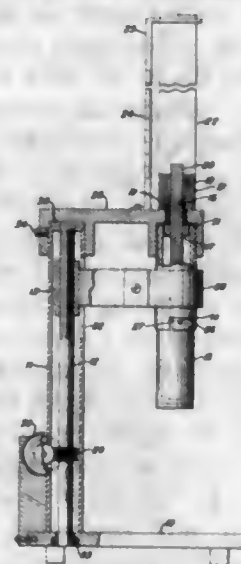
1. A latching device of the pivoted hasp type comprising a keeper member adapted to be mounted on one of separable parts of a receptacle and a hasp member cooperative therewith and adapted to be mounted on the other of said receptacle parts, said keeper member comprising a keeper member shell, a longitudinal frame plate fixed within said shell between upper and lower ends thereof, a vertically movable latch plate slidably supported by said frame plate and provided with a male latch piece, spring means to yieldably urge said latch plate upwardly to its latching position, said hasp member comprising a hasp member shell, a hasp element pivotally supported thereby to extend downwardly and externally over the keeper member shell, said hasp element having a female latch piece to enter the keeper member shell so as to be releasably engaged by the male latch piece of the latch plate, a vertically movable push plate slidably supported by the hasp member shell and provided at its upper end with a finger piece projecting externally from the top end of the latter, and said push plate having means at its lower end adapted to project through opposed ends of said hasp member shell and said keeper member shell into engagement with the latch plate of the latter, whereby manually induced downward movement of said push plate is adapted to thrust said latch plate downwardly with hasp element releasing effect.

2,819,605
SPECIFIC GRAVITY TESTER
Harvey E. Howard, Miami, Fla.
Application April 19, 1955, Serial No. 502,293
1 Claim. (Cl. 73-32)



In a system for determining in the field the specific gravity of liquefied gas being delivered from a delivery tank to a storage tank, the combination of a weighing device; a container of predetermined volume and having high strength to withstand high pressures on said weighing device, valve means mounted on said container having a back pressure intake valve adapted for connection to said tank truck, said valve means having a safety valve to protect the container, said valve means having a bleeder valve for releasing gas upon filling said container and for determining when the container has been filled with liquid and all gas exhausted, said valve means having an outlet shut-off valve adapted for connection to said storage tank; and thermometer means mounted on said container and having a temperature-responsive portion within said container and a temperature indicator outside said container.

2,819,606
SMOKE POINT APPARATUS
Russell A. Hunt, Jr., Griffith, and Frederick W. Rakowsky, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application December 19, 1955, Serial No. 553,922
7 Claims. (Cl. 73-36)



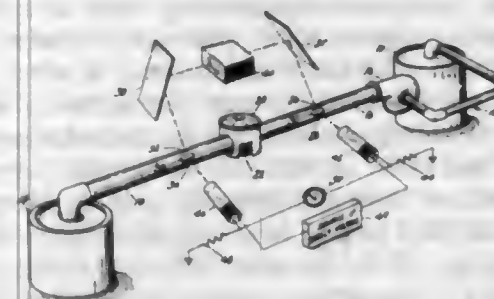
1. A lamp for determining the smoke point of fuels which comprises in combination a housing, a movable support member supported by said housing, a chimney support fixed to said housing, a transparent chimney held by said chimney support, an air screen below said chimney and on said housing, wick guide means arranged below said chimney in said housing, a fuel holder of generally cylindrical shape and having an open top, a wick holder fixed across said open top, said wick holder having a tubular projection in slidable engagement with the interior of said wick guide, a pin on the exterior wall of said fuel holder engageable with a slot in said support member whereby said wick may be adjustably projected through said wick guide, and a millimeter scale for measuring the flame height in said chimney.

2,819,607
SMOKE POINT LAMP AND CHIMNEY
Russell A. Hunt, Jr., Griffith, and Frederick W. Rakowsky, Hammond, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application September 27, 1956, Serial No. 612,384
6 Claims. (Cl. 73-36)



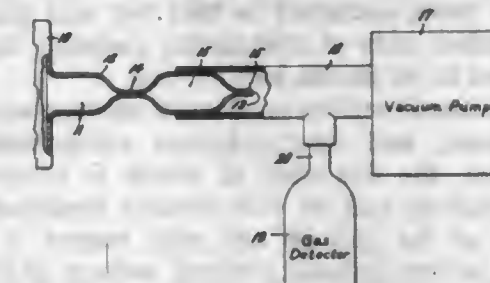
1. In an improved chimney for use on a smoke point lamp which lamp includes a chimney means, a wick guide means and a scale for determining flame height above said wick guide means, the improvement which comprises a tubular chimney having a major portion of its internal surface non-reflecting and a minor portion transparent to permit viewing the flame without producing multiple images and without excluding external light.

2,819,608
FILTER TESTING
Ian H. McLaren, Dearborn, and William C. Wiley, Detroit, Mich., assignors to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware
Application November 27, 1953, Serial No. 394,800
5 Claims. (Cl. 73-38)



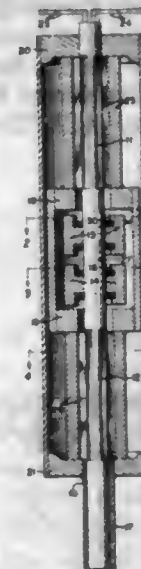
1. Apparatus for determining the performance characteristics of a filter, including, a fluid circuit, means for receiving a filter in the circuit, means for providing in the circuit a flow of fluid containing a contaminant capable of deflecting light beams, means for directing a first beam of light through the fluid before the movement of the fluid through a filter disposed in the filter receiving means to deflect a particular amount of the light depending upon the density of the contaminant in the fluid, means for directing a second beam of light through the fluid after the movement of the fluid through the filter to deflect a particular amount of the light depending upon the density of the contaminant in the fluid, and means for detecting the amount of light deflected in the first and second beams to provide indications of the density of the contaminant before and after the fluid is passed through the filter.

2,819,609
CLOSURE LEAK DETECTION
Herman A. Liebhaufsky, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application April 19, 1954, Serial No. 424,083
1 Claim. (Cl. 73-40.7)



An evacuated chamber having an exit end associated therewith, a leak detection closure associated with said exit end, said closure comprising a first seal for said exit end to close said chamber, a second seal spaced from said first seal to define a second chamber therebetween, and a probe gas confined under pressure in said second chamber, the pressure of said probe gas being substantially greater than the pressure in said first chamber.

2,819,610
VISCOSIMETER PROBE
Frederick F. White, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application May 31, 1955, Serial No. 512,140
7 Claims. (Cl. 73-59)



1. A viscosimeter probe comprising two end plates held apart in a fixed relationship and:

- (1) A probe rod system comprising
 - (a) a probe rod, and
 - (b) surrounding a portion of the probe rod, a contact cylinder, a surface of which contacts the liquid being measured, having a closed end rigidly secured to the bottom of the probe rod, with the other end of the cylinder being anchored to the nearer end plate, and
 - (c) drive and pick-up coils mounted on the probe rod substantially at a point of maximum amplitude torsional oscillation,

said probe rod system being anchored to two end plates at said two node points, one such node point being that end of the contact cylinder that is not secured to the probe rod and the other such node point being near the upper end of the probe rod;

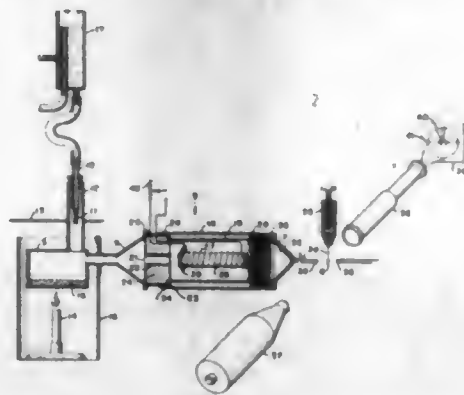
- (2) A reactive spring system having substantially the same torsional rigidity and natural frequency of tor-

sional vibration as the probe rod system, said reactive spring system comprising

- (a) two torsional spring elements positioned one above the other and surrounding the probe rod system, the bottom end of the lower spring element and the upper end of the upper spring element being anchored to said two end plates and the other ends of said spring elements being anchored to an inertia section, and
- (b) An inertia section positioned between said spring elements, said inertia section comprising (i) a magnet, the flux field of which is coupled with the pick-up coil so that relative torsional movement of the pick-up coil with respect to the inertia section induces a signal voltage in the pick-up coil, and (ii) ferro-magnetic coupling elements in a magnetic circuit with the drive coil and positioned adjacent to and in the plane of movement of the drive coil but in a different radial plane so that the passage of an electric drive pulse thru the drive coil causes relative torsional displacement of the reactive spring system with respect to the probe rod system;
- (3) Means for connecting the drive coil with a source of pulsating electric current; and
- (4) Means for connecting the pick-up coil with a signal indicator.

2,819,611

APPARATUS FOR TESTING LUBRICANTS
Arthur Donald Shellard, Wrexham, Wales, England, and Alan Lindsay Temby, Eaglemont, Melbourne, Australia, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
Application April 19, 1956, Serial No. 579,374
Claims priority, application Great Britain April 26, 1955
3 Claims. (Cl. 73-64)



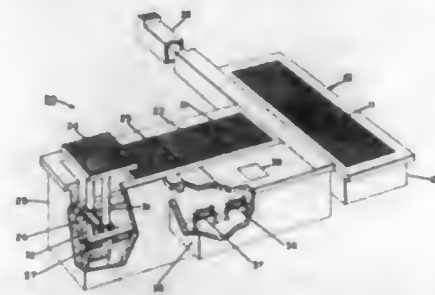
1. An apparatus for use in determining the evaporation characteristic of a hydrocarbon oil at an elevated temperature, comprising heating and flow control means for producing a stream of hot inert gas of a predetermined temperature and rate of flow, suspension means for positioning an oil droplet within said gas stream and optical means for determining the size of the suspended oil droplet at time intervals.

2,819,612

AIRCRAFT SCALE INSTALLATION HAVING ADJUSTABLE PLATFORM SEGMENTS
Charles E. Borgstrom, Dallas, Tex., and William Van Triest, Cincinnati, Ohio, assignors to Chance Vought Aircraft, Incorporated, Dallas, Tex., a corporation of Delaware
Application September 16, 1955, Serial No. 534,645
7 Claims. (Cl. 73-65)

1. A scale installation comprising, a first scale for weighing the main gear of an aircraft undercarriage, and a segmented second scale having a plurality of segments for weighing the auxiliary gear of the aircraft undercarriage,

each of said segments having a lift means on said second scale, at least one of said lift means comprising means for actuating its respective segment between a position sub-

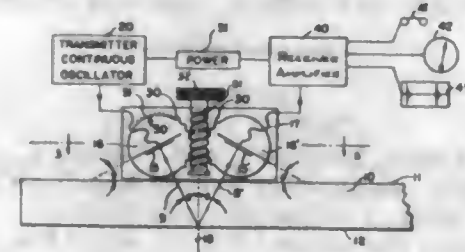


stantially below said first scale and a position substantially above said first scale for varying the attitude of the aircraft during weighing operations for determination of the shift of the aircraft center of gravity.

2,819,613

ULTRASONIC THICKNESS MEASURING DEVICE
Richard Y. Neley, Brookfield, Conn., assignor to Sperry Products, Inc., Danbury, Conn., a corporation of New York

Application June 16, 1955, Serial No. 515,927
3 Claims. (Cl. 73-67.7)



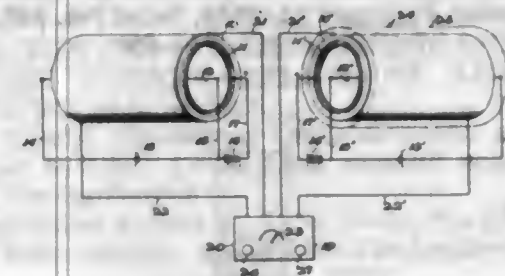
1. A device for determining thickness of an object having opposed surfaces, comprising a transmitting electroacoustic transducer cooperating with one surface of said object for transmitting ultrasonic vibrations into the object through said surface, a source of electrical oscillations of ultrasonic frequency connected to said transducer, a receiving electroacoustic transducer cooperating with said first surface for receiving the vibrations after reflection from the opposite surface of the object, means connected to said receiving transducer for indicating the energy of the received vibrations, and means for rotating the transmitting transducer to vary the angle of incidence of the transmitted vibrations and for simultaneously rotating the receiving transducer equally and oppositely to receive the reflected vibrations, the angle at which maximum energy is received by the receiving transducer being a function of the thickness of the object.

2,819,614

HYGROMETER
Ello Slon, Baltimore, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application January 27, 1954, Serial No. 406,390
9 Claims. (Cl. 73-335)

1. In a device of the type specified, a cylindrical electrical semi-conductor comprised of material having the characteristics of a change in resistance responsive to a change in temperature, a cylindrical metallic sleeve telescoped within said semi-conductor and electrically insulated therefrom, a combined electrical heating and polariz-

ing element located axially of said sleeve, means for impressing potentials of opposite polarity on said sleeve and

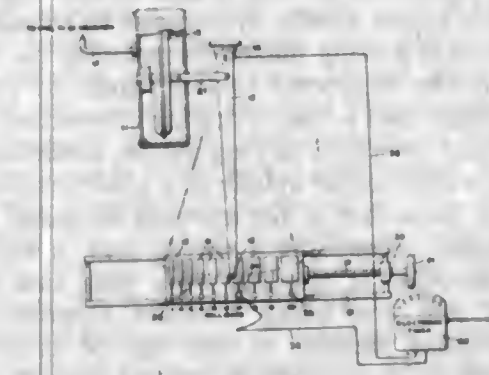


element, means for energizing the said element, and an electrical measuring or indicating instrument having an associated circuit incorporating said semi-conductor.

2,819,615

APPARATUS FOR MEASURING RATE OF CHANGE OF PRESSURE

Rutger B. Colt, Baltimore, Md., assignor to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware
Application April 1, 1954, Serial No. 420,315
5 Claims. (Cl. 73-389)



1. In apparatus of the type specified, a pressure responsive device, one or more electrical conducting elements each having a predetermined contact width calibrated in terms of pressure units, a switch member operatively connected to said device to be driven thereby continuously during changes in pressure to which the device may be subjected, a contact carried by said switch member and adapted to traverse a selected element or elements, and an electric timer having an input make-and-break circuit including said switch member and said selected element or elements, said timer circuit being completed during the period of time said contact is traversing any one of said elements.

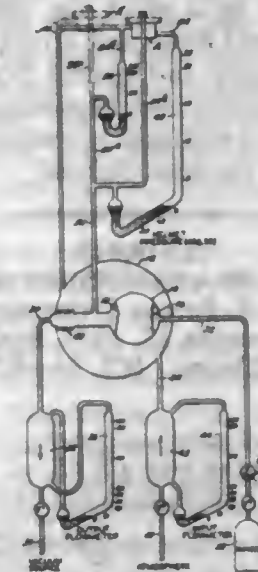
2,819,616

MULTI-RANGE MANOMETER SYSTEM HAVING AN AUTOMATIC SHUT-OFF VALVE

Oliver E. Hinkle, Bryan, Ohio, assignor to The Aero Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application December 6, 1954, Serial No. 473,261
1 Claim. (Cl. 73-401)

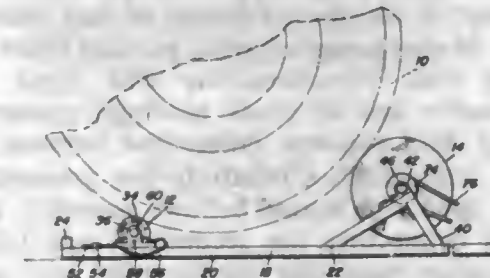
A multi-range manometer indicator system including a low range manometer and a higher range manometer connected in parallel, each having a high and a low pressure end, a first common pressure connection to both said high pressure ends, a second common pressure connection to both said low pressure ends, and a single automatic shut-off valve interposed in said second common pressure connection between said manometers having pressure responsive means separate from said manometers, said pressure responsive means actuating said shut-

off valve element and being connected with said first common pressure connection to respond only to the pressure therein, said pressure responsive valve element being set



2,819,617

POWER TAKE-OFF FOR VEHICLE WHEELS
Robert L. Milks, Sr., Charlotte, N. C.
Application September 2, 1955, Serial No. 532,335
2 Claims. (Cl. 74-14)

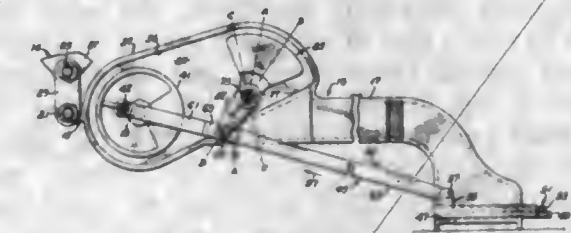


1. A power take-off attachment for a vehicle wheel comprising a base, a first roller carried by said base, means including apertures in said roller and base and a pin operatively connected with said first roller for locking said first roller against rotation while the vehicle wheel is moving over said roller, a second roller spaced from said first roller and with said first roller forming a cradle on which to support the vehicle wheel, a shaft on which second roller is mounted, said second roller having a reduced portion intermediate the ends thereof, and endless flexible element secured to said reduced portion and windable thereon whereby said second roller functions as a winding drum.

2,819,618

COUNTERBALANCING APPARATUS FOR RECIPROCATING SLIDE

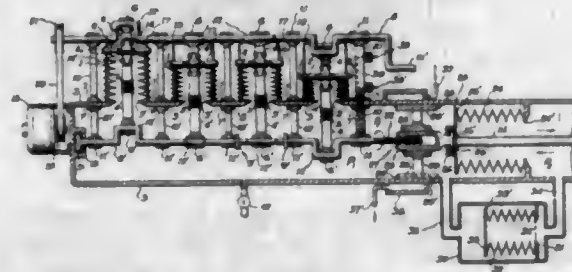
Frank Slusher, Carpinteria, Calif.
Application May 4, 1953, Serial No. 352,729
2 Claims. (Cl. 74-44)



1. In a counterbalancing apparatus for converting rotary to reciprocatory movement, the combination of: an

elongated supporting frame; a rotatable drive member mounted at one end of said frame; a reciprocatory driven member mounted at the opposite end of said frame; an elongated connector comprising a pair of arms pivotally coupled end-to-end by a pivot pin, said connector being attached between said drive and driven members; a pivot attached in said frame and spaced from said connector; and an oscillatory counterweight mounted below its center of gravity on said pivot and pivotally attached to said connector between the ends thereof.

2,819,619
SEALED TRANSMISSION SYSTEM
Melville F. Peters, Livingston, N. J.
Application December 15, 1954, Serial No. 475,475
6 Claims. (Cl. 74-67)



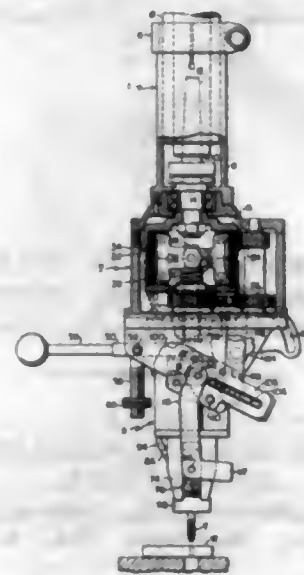
1. In a mechanical system including a motion-translating component for imparting rectilinear movement to a valve assembly controlling the flow of high pressure fluids into a chamber surrounding said valve assembly, the combination with said valve chamber of a second chamber surrounding said motion-translating component, a first bellows separating said two chambers, a second bellows assembly comprising a group of bellows units forming part of the closure means of said second chamber, a pair of crank-shafts having parallel crank bearings, connecting rods interconnecting said crank shafts at each successive pair of crank bearings, means for controlling the fluid pressure differential between said two chambers, to maintain a relatively low pressure differential acting upon said second bellows assembly, means for operatively connecting the second of said crank-shafts to said motion-translating components, and means for rotating the first of said crank-shafts, to initiate the valve control cycle.

2,819,620
COUPLING SUITABLE FOR USE WITH WINDSHIELD WIPERS
John B. Dyer, Syracuse, and Walter D. Harrison, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 15, 1952, Serial No. 320,774
11 Claims. (Cl. 74-96)



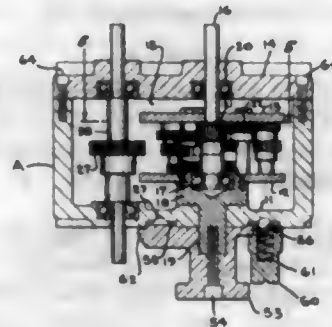
1. A mechanical movement including, a coupling comprising oscillatable driving and driven members, one of said members having a pair of angularly spaced projections extending outwardly therefrom, the other of said members having a pair of angularly spaced receptive slots of unequal angular extent therein, and means operatively connected to said driving member for imparting oscillation of fixed amplitude thereto, whereby the amplitude of oscillation imparted to said driven member may be varied relative to the fixed amplitude of oscillation imparted to said driving member dependent upon which of the projections in said one member engages a slot in said other member.

2,819,621
VARIABLE PITCH LEAD SCREW MECHANISM
George A. Wood, Jr., South Lincoln, and Douglas P. Rohrer, Lexington, Mass., assignors to Arthur D. Little, Inc., Cambridge, Mass., a corporation of Massachusetts
Application February 14, 1956, Serial No. 565,346
9 Claims. (Cl. 74-99)



1. In a machine tool of the class described having a frame, male and female threaded members, one of which is rotatably supported by said frame so that the other of said members moves axially in response to rotation of the first, a reversible driving means for rotating the rotatable member, a holder supported by said frame for rotary and axial movement, and a rotary driving connection between said holder and reversible driving means, mechanism operative to move said holder axially at a predetermined linear rate different from that of the movable threaded member, said mechanism comprising a rocker arm, a driving link pivotally connected at opposite ends with said arm and said holder, said arm being pivotally supported by the movable threaded member at one side of its connection with said link so as to undergo pivotal movement in response to axial movement of the movable threaded member, and compensating means carried by said frame and acting on said arm at one side of its pivotal connection with said movable threaded member so as to induce a rate of axial movement of said holder which movement is dependent on the motion induced by said arm on said driving link.

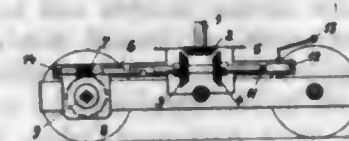
2,819,622
SPEED REDUCTION DEVICE
Andrew Haxton, Lynbrook, N. Y.
Application July 2, 1956, Serial No. 595,434
6 Claims. (Cl. 74-353)



1. In a speed change gear device, the combination with an input shaft, of an output shaft, a single spur gear fast to the output shaft for driving it, a single train of spur gears driven by the input shaft having gears of varied sizes to vary speeds and including spaced driving gears in the plane of the output shaft gear and idler gears between the said spaced driving gears for spacing the same, and

means for successively bringing gears in said plane into mesh with the output shaft gear and out of mesh with the output shaft gear selectively.

2,819,623
DEVICE FOR THE CONTROL OF THE MOVEMENT OF THE UNDERCARRIAGE OF AUTOMATIC WELDING MACHINES
Martin Mosný, Bratislava, Czechoslovakia, assignor of one-half to CKD Ceska Lipa, narodni podnik, Ceska Lipa, Czechoslovakia
Application August 31, 1955, Serial No. 531,789
Claims priority, application Czechoslovakia September 4, 1954
2 Claims. (Cl. 74-355)

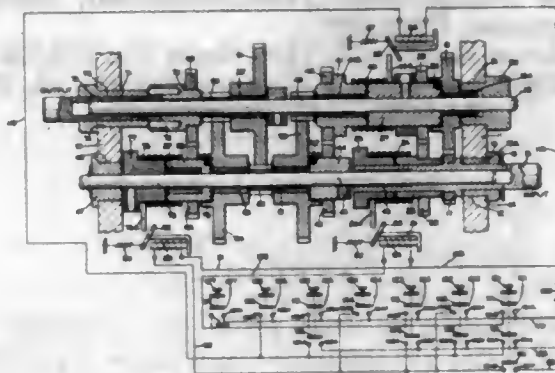


1. A reversing transmission for the carriage of a movable automatic welder having a pair of driven wheels on a common driven axle; comprising a two-part transmission shaft arranged with its axis at right angles to the axis of said driven axle, one part of said transmission shaft having first and second bevel gears fixed thereon at spaced apart locations and facing toward each other, a drive shaft extending at right angles to said transmission shaft and having a third bevel gear fixed thereon and disposed between said first and second bevel gears for alternative and selective meshing engagement with the latter in response to axial displacement of said one part of the transmission shaft, worm gear means on the other part of said transmission shaft and on the driven shaft for rotating the latter in response to rotation of said other part, the adjacent ends of said one part and said other part of the transmission shaft having complementary circumferential cutouts of substantial axial length to define a claw coupling therebetween causing rotation of said other part with said one part while permitting axial displacement of the latter independent of said other part, said adjacent ends of the parts of said transmission shaft having axial recesses opening toward each other, helical spring means in said recesses urging said one part axially away from said other part, first thrust bearing means acting against the end of said other part remote from said one part to prevent axial displacement of said other part by said spring means, second thrust bearing means acting against the end of said one part remote from said other part, and control means acting upon said one part of the transmission shaft through said second thrust bearing means to axially displace said one part in opposition to said spring means.

2,819,624
VARIABLE SPEED TRANSMISSION
Arling Dix Brown, Jr., East Cleveland, and Leo F. Valenti, Garfield Heights, Ohio, assignors, by mesne assignments, to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application July 1, 1953, Serial No. 365,368
14 Claims. (Cl. 74-368)

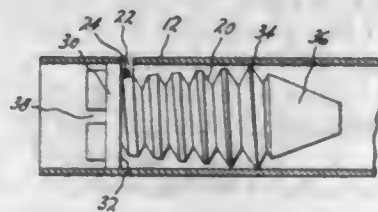
1. A variable speed drive comprising a rotary drive shaft, a rotary first intermediate shaft, a first gear mounted on said drive shaft, a second gear mounted on said first intermediate shaft to rotate therewith and meshing with said first gear, a first operator-controlled clutch acting between said drive shaft and said first gear to selectively establish a direct drive from the drive shaft to the first gear or to disengage the drive shaft from direct driving relationship with the first gear, first reduction gearing means

mounted on said drive shaft and said first intermediate shaft and driven from said drive shaft, a first overrunning clutch acting between said first reduction gearing means and said first intermediate shaft to drive said first intermediate shaft through said first reduction gearing means from the drive shaft when said first operator-controlled clutch disconnects the direct drive between the drive shaft and said first gear and enabling said first intermediate shaft to overrun said first reduction gearing means when driven from the drive shaft through said first and second gears when said first operator-controlled clutch establishes the direct drive from the drive shaft to the first gear, a rotary second intermediate shaft interfitting rotatably with said drive shaft, a third gear mounted on said first intermediate shaft, a fourth gear mounted on said second intermediate shaft to rotate therewith and meshing with said third gear, a second operator-controlled clutch acting between said first intermediate shaft and said third gear to selectively establish a direct drive from said first intermediate shaft to said third gear or to disengage said first intermediate shaft from direct driving relationship with said third gear, second reduction gearing means mounted on said first and second intermediate shafts and driven from said first intermediate shaft, a second overrunning clutch acting between said second reduction gearing means and said second intermediate shaft to drive said second intermediate shaft through said second reduction gearing means from said first intermediate shaft when said second



operator-controlled clutch disconnects the direct drive between said first intermediate shaft and said third gear and enabling said second intermediate shaft to overrun said second reduction gearing means when driven from said first intermediate shaft through said third and fourth gears when said second operator-controlled clutch establishes the direct drive from said first intermediate shaft to the third gear, a rotary output shaft interfitting rotatably with said first intermediate shaft, a fifth gear mounted on said second intermediate shaft, a sixth gear mounted on said output shaft to rotate therewith and meshing with said fifth gear, a third operator-controlled clutch acting between said second intermediate shaft and said fifth gear to selectively establish a direct drive from the second intermediate shaft to the fifth gear or to disengage the second intermediate shaft from direct driving relationship with the fifth gear, third reduction gearing means mounted on said first and second intermediate shafts and driven from said second intermediate shaft, and a third overrunning clutch acting between said third reduction gearing means and said fifth gear to drive said output shaft through said third reduction gearing means and said fifth and sixth gears from said second intermediate shaft when said third operator-controlled clutch disconnects the direct drive between the second intermediate shaft and the fifth gear and enabling said fifth gear and said output shaft to overrun said third reduction gearing means when said third operator-controlled clutch establishes the direct drive from the second intermediate shaft to the fifth gear.

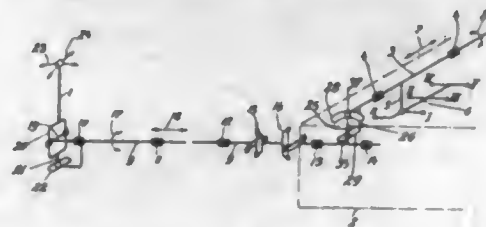
2,819,625
SCREW FOR TUNING SLUG
 Harrington Moore, East Acton, Mass.
 Application July 24, 1956, Serial No. 599,852
 4 Claims. (Cl. 74-424.8)



1. In a tuning slug comprising a fiber tube having a transverse slot in the side thereof and a spring wire yieldingly supported with a portion in said slot extending into the bore of the tube; a screw having a head and a threaded shank, said head and a convolution of the thread spaced from the head having an outside diameter approximately equal to the interior diameter of said tube, said thread having a convolution adjacent to said head with a crest diameter less than the difference between the diameters of said head and of said spring wire.

2,819,626
MOTION-TRANSMITTING MECHANISM FOR A SPEED CHANGE TRANSMISSION OF A MOTOR VEHICLE

Eugen Stump, Stuttgart-Unterturkheim, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
 Application January 10, 1956, Serial No. 558,320
 Claims priority, application Germany January 15, 1955
 3 Claims. (Cl. 74-473)

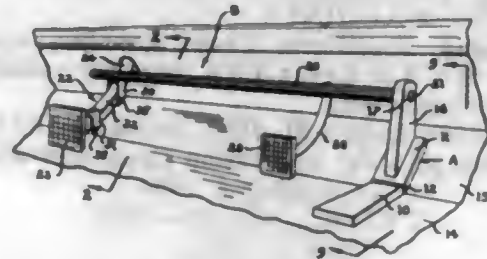


1. Motion-transmitting mechanism for connecting a gear shift lever to a remote speed change transmission of a motor vehicle, comprising a pair of shafts extending transversely to each other, one of said shafts being connected to said gear shift lever for rotation and lengthwise displacement, the other shaft being mounted rotatably and slidably in said transmission and adapted to select gears therein by lengthwise displacement and to shift said selected gears by rotary displacement, an arm member fixed to one of said shafts, a bracket member fixed to the other one of said shafts for engagement by said arm member, one of said members being adapted to be turned by axial displacement of and to be axially displaced by a turn of the other one of said members, said bracket member being formed with a pair of guideways substantially located in planes extending parallel to and being spaced from each other and the axis of said arm, one of said guideways extending parallel to and the other one of said guideways extending transversely to said axis, said arm member engaging each of said guideways.

2,819,627
DUAL BRAKE CONTROLS
 Clifford E. Larson, Detroit, Mich., assignor to Saul Rose, Detroit, Mich.
 Application July 11, 1955, Serial No. 521,133
 1 Claim. (Cl. 74-562.5)

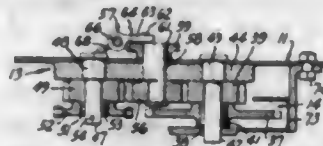
A loosely mounted dual pedal control device for an automobile comprising two separate units, the first unit including two heavy plates connected by a hinge, one

adapted to rest on the horizontal floor of an automobile and the other adapted to rest on the inclined floor board, with the hinge at the intersection of the two floor parts of the automobile, the second plate having a vertical plane bracket formed with a transverse horizontal hole, the second unit including an elongated shaft having a right end adapted to be received and thus ful-



crumed in the hole of the bracket and having a brake pedal thereon, and a left end formed with means for detachably clamping it to a conventional pedal stem, whereby the brake pedal at the right end of said shaft may be pressed down by a passenger, when the right end of the shaft is in the bracket hole and the bracket rests in place on the automobile floor, and when the left end of the shaft is clamped to the pedal stem, for moving the pedal stem.

2,819,628
DOOR CONTROL DEVICE
 Russell Wardlaw, Mill Valley, Calif., assignor to Coolson Company, San Francisco, Calif., a partnership
 Application August 16, 1954, Serial No. 450,125
 5 Claims. (Cl. 74-625)



1. In a device for raising and lowering a rolling door of the type wherein the door includes a curtain adapted to be rolled about a main horizontal shaft, the device comprising a bracket, a gear train consisting of three gears lying in a single plane and mounted on said bracket, hand operated means associated with the first of said gears for rotating the first of said gears, motor operated means associated with the second of said gears for rotating the second of said gears, means for moving the third of said gears in said plane and into engagement with either of said first or second gears, and reduction gearing adapted to connect said third gear to said main shaft, said reduction gearing being in continuous engagement with said third gear.

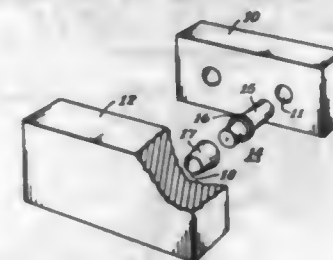
2,819,629
METHOD OF MAKING SHANKS FOR AUGER BITS AND THE LIKE
 Clarence J. Robinson, Wilmington, Ohio, assignor to The Irwin Auger Bit Company, Wilmington, Ohio, a corporation of Ohio
 Application February 5, 1954, Serial No. 408,552
 2 Claims. (Cl. 76-108)



1. The steps in the manufacture of an elongated metallic tool part having a head portion and an elongated shank provided with a free end portion and a third portion next adjacent the free end portion and extending from one end of the head portion, which include forging the entire shank; machining the forged shank at only said third portion until a machined peripheral part thereof results;

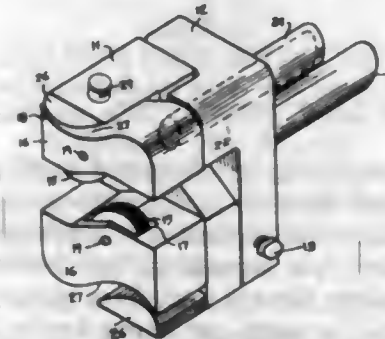
firmly gripping said third portion at substantially equally spaced-apart like-sized areas about the periphery of said machined peripheral part thereof, said areas being equally spaced from one end of said third portion, rotating said elongated tool part; determining whether or not the longitudinal axes of the forged head portion and machined peripheral part are coincident as evidenced by the position of the longitudinal axis of the gripped and rotated machined peripheral part with respect to the longitudinal axis of the rotated forged head portion; releasing said elongated tool part; and repeating, if necessary, the machining, gripping, rotating and determining steps as above, until said axes are coincident.

2,819,630
GUIDE AND MARKER FOR DRILLING DOWEL PIN HOLES
 Charles C. Whittaker, Pittsboro, Pa.
 Application November 23, 1954, Serial No. 470,778
 5 Claims. (Cl. 77-55)



1. In a guide and marker for use in drilling in a second member a dowel pin hole to match a dowel pin hole in a first member comprising a flanged pin which fits the dowel pin hole in the first member, the flange on the pin being at a distance from the opposite ends of the pin, the flange being large enough to seat on the surface of the first member to support the outer end of the pin a predetermined distance above the surface of the first member, a tubular member for removably mounting on the flanged pin, the tubular member having an inside diameter substantially the diameter of the dowel pin hole in the first member, and a circular cutting edge provided on the outer end of the tubular member whereby when the tubular member is pressed into engagement with the second member it cuts into and adheres to it when the pin is withdrawn.

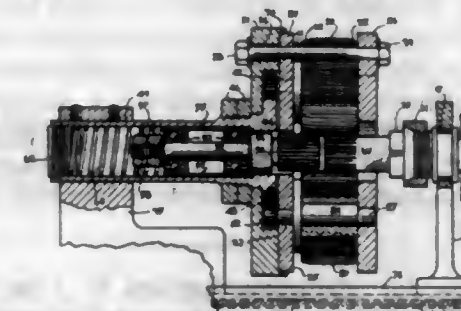
2,819,631
THREAD ROLLING DEVICE
 Elmer T. Scott and Joseph G. Willard, Worcester, Mass., assignors to Reed Rolled Thread Die Company, Holden, Mass., a corporation of Massachusetts
 Application September 27, 1954, Serial No. 458,394
 9 Claims. (Cl. 80-6)



6. A thread rolling device comprising a fixed and a movable plate arranged for a relative rotary movement, a shank projecting outwardly from the fixed plate which is arranged in axial alignment with a work piece and adapted to be mounted on a work rotating machine tool having a reciprocable member, the movable plate being mounted for rotation by said member through a limited

angle about the axis of the shank, thread rolling die rolls axially parallel with the work, separate rocking carrier arms supporting the die rolls for free rotation, a pivot for each arm mounted on one of said plates which is axially parallel with, equidistant from and eccentric to the work axis and so arranged that the arm may swing the die roll toward and from the work, a cam member associated with each arm, a cam member carried by the other of said plates, one cam member having an elongated cam surface of predetermined shape, the other cam member being a follower which is slidably movable along said cam surface as the plates are rotated relatively and serves to rock the associated carrier arm and force the die into the work, the shape of said cam surface being predetermined to provide a definite controlled rate of penetration of the die roll into the work when the plates are rotated relatively, and resilient means which holds the adjacent cam members in contact and yieldingly resists the relative rocking movement of the plates.

2,819,632
DEVICE FOR ROLLING TEETH
 George W. Lyman, Holden, Mass., assignor to Reed Rolled Thread Die Company, Holden, Mass., a corporation of Massachusetts
 Application June 27, 1955, Serial No. 517,992
 3 Claims. (Cl. 80-16)

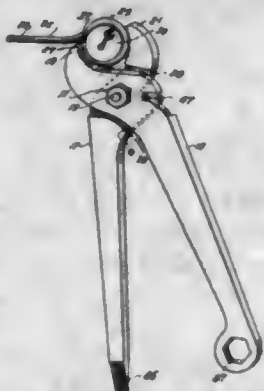


2. Apparatus for rolling teeth on a round work piece comprising a set of freely rotatable die rolls having parallel work rolling teeth thereon, means for mounting the rolls for engagement with a work piece rotatably supported in die rolling contact therewith, means for positively rotating only the work, means for causing the work and die rolls to move relatively axially of the work so that the rolls may be rotated by the work and teeth may be rolled progressively on the work in small increments of full depth penetration, a freely rotatable matching element having teeth capable of meshing with the die roll teeth, and yielding means for urging the element into a matching relationship with the die rolls, the relative axial movement of the work and die rolls serving to move the element out of its matching relationship with the rolls as the latter progressively engage and roll the work and the newly formed teeth on the work assume the matching function.

2,819,633
EYE-SCREW BENDING PLIERS
 John F. Boehnke, Fort Worth, Tex.
 Application August 8, 1955, Serial No. 527,065
 1 Claim. (Cl. 81-15)

A tool for manipulating the eye of an eye-screw of the type adapted for carrying a television lead-in cable insulator, the eye of said eye-screw being substantially circular when closed, comprising: a pair of crossed pivotally connected handles terminating forwardly of the pivot in opposed serrated jaws each having the contour of an arcuate segment of radius substantially the same as the radius of the outer periphery of said eye when it is closed, a generally wedge-shaped projection extending inwardly at the end of one of said jaws beyond the serrations to engage

the end portion of the eye, with the distance from the pivot point to the end of said projection not exceeding the distance from the pivot point to the end of the last serra-



tion on the other jaw, and means on the handle side of said pivot for limiting the closing travel of said jaws so that excessive handle pressure cannot adversely deform the eye or insulator.

2,819,634 ROPE END BINDING AND FERRULE CRIMPING TOOL

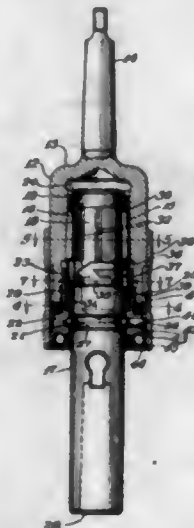
Elmer W. Hansen, Enid, Okla.
Application June 5, 1956, Serial No. 589,565
5 Claims. (Cl. 81-15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. A device for clamping ferrules to rope or other cables which is capable of hand squeezing operation or percussion clamping, comprising means for holding varying sizes of cable for clamping ferrules thereon, ferrule deforming means, superimposed handles for applying pressure to said ferrule deforming means, and impact surfaces for receiving percussion impact for clamping said ferrules on said cables.

2,819,635 POWER OPERATED, PREDETERMINED TORQUE RELEASE TOOL

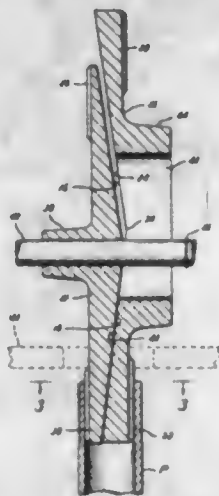
Bernard R. Better and John W. Lehde, Jr., Chicago, Ill., assignors to Scully-Jones and Company, Chicago, Ill., a corporation of Illinois
Application May 9, 1955, Serial No. 506,708
7 Claims. (Cl. 81-52.4)



5. In a safe torque driver, the combination of a driving member, a driven member mounted in the driving mem-

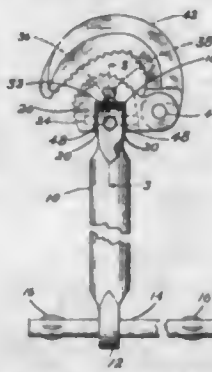
ber and having longitudinal ridges and depressed portions between the ridges, rollers between the members coacting therewith, a cage for said rollers having slots in one end in alignment with the rollers, balls in said slots, said driven member having a circumferential groove for said balls adapted to control the balls and lock the cage in predetermined position.

2,819,636 INSIDE PIPE WRENCHES Joseph F. Woerner, Houston, Tex. Application March 10, 1955, Serial No. 493,400 4 Claims. (Cl. 81-72)



1. An inside pipe wrench comprising two body members shaped to be assembled in longitudinally movable sliding relation for insertion in a pipe, each of said members having surface portions which are inclined in opposite directions longitudinally of the member and positioned for sliding engagement with corresponding surface portions of the other member to impart relative lateral movement to the members to expand the body into gripping engagement with the interior of the pipe upon relative longitudinal movement of the members in assembled relation.

2,819,637 BASIN WRENCH Henry St. Pierre, Worcester, Mass. Application August 22, 1955, Serial No. 529,764 1 Claim. (Cl. 81-98)



A wrench comprising an elongated shank, a transverse handle at one end thereof, the opposite end of the shank having an arcuate end surface substantially in the form of a semicylinder, said arcuate surface having a series of spaced indentations therein and those sides of the shank contiguous to the arcuate end being flat, a jaw structure comprising a first jaw member having spaced ears on one end thereof to provide a slot, said first jaw member also having an arcuate serrated outer face, and an opposite inner face, a second jaw member pivoted on the first jaw member by means of a lug disposed within said slot, an arcuate serrated face on the second jaw member co-operatively associated with the first-named serrated face, said inner face of the first jaw member having a notch

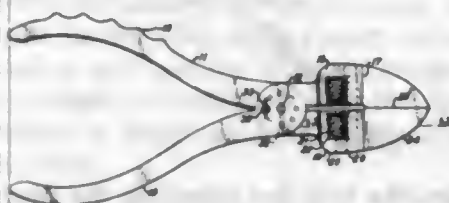
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formed by a pair of spaced walls and a substantially flat bottom surface, said first jaw member having a bore extending parallel to said flat bottom surface, said bore communicating with said slot and intersecting said pair of spaced walls of said notch, a pin disposed in said bore, said pin extending across the notch and along the axis of the radius of curvature of the arcuate end surface of the shank and passing through a hole in the shank, hubs on the walls facing and locating the flat sides of the shank, a spring-pressed ball located in the first-named jaw member and intersecting the flat bottom surface of the notch for reception in a selected indentation according to the adjusted angular relation of the jaw structure relative to the shank, said jaw structure being freely swingable on the pin.

2,819,638
ADJUSTABLE PLIER TYPE TOOL
 Rundlette K. Palmer, Fredericksburg, Va.
 Application May 19, 1955, Serial No. 509,442
 1 Claim. (Cl. 81—316)

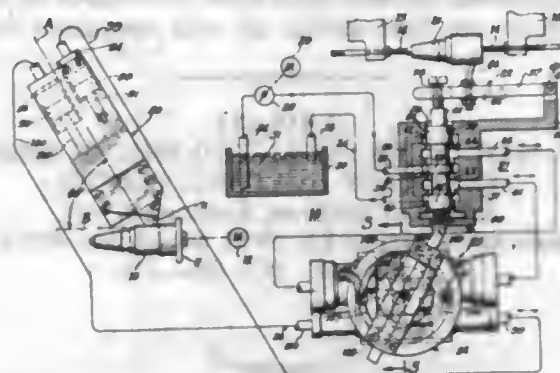


An adjustable plier type tool comprising crossed levers pivotally secured together intermediate their ends, jaw mounting and adjusting means on one end and a handle member on the other end of each lever, a finger engaging portion on one handle member, said means comprising an open slideway extending transversely of the pivotal axis of each lever, opposed ribs and grooves in said slideway, an elongated rectangular recess in each lever open on opposite sides and communicating with said slideway, a jaw adjusting worm rotatably mounted in said recess and projecting into said slideway, a jaw removably and slidably disposed in each slideway, ribs and grooves on said jaw cooperating with the ribs and grooves of said slideway, teeth on the inner edge of said jaw engaging threads on said worm whereby upon rotation of said worm said jaw will be moved longitudinally of said slideway, a locking screw threadedly engaging and extending through one lever adjacent the pivot point and a plurality of angularly spaced recesses in the other lever for selective engagement by the end of said screw to selectively lock said levers in adjusted angular relationship, the adjustment of said jaws by said worms providing a variable spacing between said jaws while maintaining the same in a fixed angular relationship.

2,819,639
APPARATUS FOR PRECISION CONTOURING
 Raymond B. Grover, Fairbury, Ill.
 Application September 17, 1952, Serial No. 310,053
 9 Claims. (Cl. 82—14)

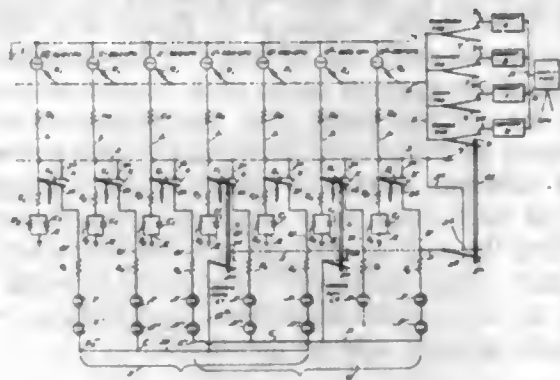
1. In a metal working machine, apparatus for automatic precision positioning of a metal cutting tool relative to a workpiece to perform a machining operation in conformance with the contour of a pattern or model, a tool slide including a tool, means for supporting said tool slide on a portion of said machine movable relative to said workpiece, said tool being mounted for limited movement relative to said tool slide in a direction toward and away from said workpiece, a tool slide fluid motor for controlling the position of said tool relative to said tool slide, means for predetermining the path of movement of said tool comprising a pattern, a tracer finger movable over said pattern as said tool traverses the workpiece, a power control unit comprising two independent fluid

motors, a first hydraulic circuit comprising one fluid motor of said power unit and a source of fluid under pressure, a balanced pressure type pilot valve in said first hydraulic circuit for controlling the operation of said one fluid motor, said pilot valve comprising a valve body and a valve member with said valve member connected to said tracer finger, a second hydraulic circuit connecting said tool slide fluid motor and the other fluid motor of said power control unit in a closed hydraulic circuit whereby operation of said other fluid motor causes



a corresponding operation of said tool slide fluid motor, said first and second hydraulic circuits being separate and wholly independent, means for mechanically interconnecting said two independent fluid motors so that operation of said one causes simultaneous operation of said other, a cam follower movable in response to operation of said two fluid motors, an angularly adjustable size and shoulder controlling unit mounted on said power control unit comprising a reciprocal member connected to said valve body and a slide engageable with said cam follower to cause said valve body to move in a predetermined manner in response to operation of said two fluid motors.

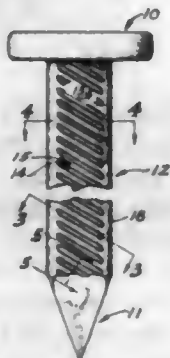
2,819,640
ELECTRICAL MUSICAL INSTRUMENT
 Walter J. Anderson, Elgin, Ill., assignor, by mesne assignments, to Chicago Musical Instrument Company, Chicago, Ill., a corporation of Illinois
 Application October 17, 1955, Serial No. 540,844
 2 Claims. (Cl. 84—1.26)



1. In a musical instrument having resiliently mounted depressible playing-keys, a set of sources producing audio signals at harmonically related frequencies; a signal conductor connected in common to said sources; an output system connected to said signal conductor and including timbre control means and an electroacoustic translating device coupled thereto; certain at least of said playing-keys each having a first electric switch and a second electric switch for simultaneous operation thereof by the key from an open-circuited condition when the key is raised to a close-circuited condition when the key is depressed, all others of said keys each having associated therewith only a single electric switch for operation thereof from an open circuit condition when the key is raised to a closed circuit condition when the key is depressed; circuits connecting the first switches of said pairs of switches of said certain keys and the single switches of said all

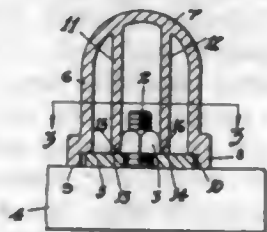
others of said keys to preassigned ones of said sources for impressing on said conductor the outputs of any desired ones of said sources; means actuatable as desired for rendering the second switches of said pairs of switches of said certain keys respectively electrically active and inactive; and selectively actuatable means adapted when any one of said certain keys is depressed, and the second switch of the pair of switches common thereto is electrically active, to impress on said signal conductor the outputs of preassigned ones of said sources concurrently with impressing on said conductor the output of a source common to the first switch of said depressed key.

2,819,641
WIRE NAIL WITH INDENTED SHANK SIDES TO INCREASE HOLDING POWER
 John C. Corckran, Baltimore, Md.
 Application March 22, 1955, Serial No. 495,868
 5 Claims. (Cl. 85-21)



1. A wire nail including a straight shank, in cross section generally rectangular with convexly curved corners providing straight similar convex longitudinal edges throughout the shank length; the length of each side of the rectangular shank having indented thereacross a series of parallel blunt-bottomed grooves; each groove having outwardly divergent walls and its bottom extending flat in a direction lengthwise of the groove; the walls of each groove being oblique to, and terminating endwise in longitudinal edges bounding, the shank side wherein the groove is indented; the grooves of each series being closely spaced to form a corresponding series of substantially flat top cross lands across each shank side with each land continuous with the surfaces of longitudinal edges, the depth of the grooves being such relative to the curvature of the convex edges that the respective series of intersections of the groove bottoms with the convex edge between adjacent sides are separated by a longitudinal portion of such edge as a continuous longitudinal land for guiding the nail in driving; and the top width of the cross lands being narrower than the top width of the grooves to form wood fiber-receiving openings over the major part of each side of the shank.

2,819,642
PLASTIC CAP HAVING PARALLEL PARTITIONS TO ENGAGE THE SIDES OF A NUT
 Ugo J. Refrigeri, Leominster, Mass.
 Application January 18, 1955, Serial No. 482,515
 2 Claims. (Cl. 85-53)



1. As a new article of manufacture, a covering cap for the exposed retaining nut and bolt of a closet bowl or the

like, said cap being a one-piece molded plastic hollow body, closed at the top and open at the base, and providing interiorly two thin-walled integral substantially parallel vertical partitions having their opposed inner surfaces spaced by approximately the distance between any two opposite flat faces of said nut, for gripping said nut frictionally on said two faces when said cap is in covering position, the space between said partitions permitting said so-positioned cap, by sidewise shifting in parallelism with said partitions to increase its friction gripping action on said nut.

2,819,643
CRIMPING TOOL
 Richard V. Walker, Glen Ellyn, Ill.
 Application March 9, 1955, Serial No. 493,093
 4 Claims. (Cl. 86-22)



1. A plier-like tool for crimping the casing of a detonator around a time fuse comprising, a pair of pivotally connected handles, jaws extending sidewardly from the handles beyond the pivotal axis of the handles, the first of said jaws comprising an apertured guide and detonation deflection member for the reception of the detonator casing and having also a crimping element spaced from the guide member to provide a groove, the second of said jaws being positioned to be swung into the groove and having a crimping edge cooperable with the crimping element of the first jaw to engage the casing of a detonator inserted through the opening in the guide member so as to deform the casing mechanically to engage a time fuse element inserted in the casing as the jaws are brought toward one another, and a hollow detonation shield secured to said guide and detonation deflection member in encircling relation to said opening therein and extending outwardly with respect to the pivotal axis of the handles in a direction opposite to that of the handles.

2,819,644
SHELL RE-LOADING APPARATUS
 Lyle S. Corcoran, Hollywood, Calif.
 Application March 29, 1954, Serial No. 419,374
 16 Claims. (Cl. 86-23)



1. In a shell sizing and reloading apparatus, in combination: a press including a base, a column rising from the base, a support carried by the upper end of the column and overhanging the base, a carriage slidable on the column between the base and the support, and means for actuating the carriage toward and from the support; a combined shell holder and lower die holder mounted

on the carriage and having a die holding socket formed with a locking recess and an undercut shell holding slot therebeneath; a wad guiding die comprising a tubular body having its lower end receivable in said socket while enclosing a shell mounted in said slot, and having a lower lug engageable in said locking recess upon rotation of the die in the socket, whereby to lock the die to said shell holder, said die having, above said lower lug, an upper lug projecting radially outwardly from its said tubular body; an upper die holder of tubular form mounted in said support in coaxial relation to said shell holder and adapted to receive said die and its upper lug when said carriage is elevated, said upper die holder having internal keeper means adapted to engage said upper die lug and, upon rotation of said die to a position for release of its lower lug from said shell holder, to interlock with said lug so as to transfer the die from said shell holder to the upper die holder, whereby a shell subsequently sealed in said shell holder may be sized by upward movement thereof into the die as carried by said upper die holder; said die being adapted to enter the lower die holder socket of the shell holder in a subsequent downward movement of the carriage and to be transferred back to the shell holder upon being reversely rotated; and a wad seating plunger carried by said support in a position for reception into the shell in subsequent operation in which said die surrounds the shell and guides the wad.

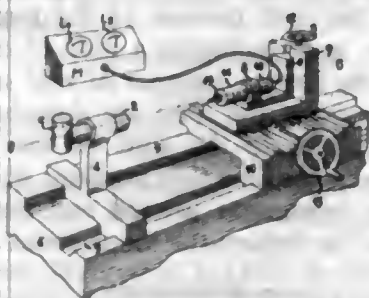
2,819,645

APPARATUS FOR DETERMINING THE DISTANCE OF A MOBILE OBJECT FROM A REFERENCE STRAIGHT LINE

Miron Koulikovitch, Geneva, Switzerland, assignor to Societe Genevoise d'Instruments de Physique, Geneva, Switzerland, a corporation of Switzerland

Application May 7, 1954, Serial No. 428,283

Claims priority, application Switzerland May 23, 1953
6 Claims. (Cl. 88—14)



1. Apparatus for determining the distance of a mobile object from a reference straight line comprising means to project a beam of parallel rays of light along said straight line, a photo-electric cell carried by said mobile object, said means adapted to project said beam onto said cell, two intercepting members adjacent the target of said cell, means to cause said members to oscillate across said target at a constant frequency and dephased relative to each other, each of said members oscillating substantially in a plane perpendicular to the beam and each of said members oscillating in mutually perpendicular directions, said cell receiving an optical signal upon each interception of said beam and generating a current variation at each said signal.

2,819,646

SOUND ADAPTER MEANS FOR USE IN CONNECTION WITH MOTION PICTURE VIEWERS

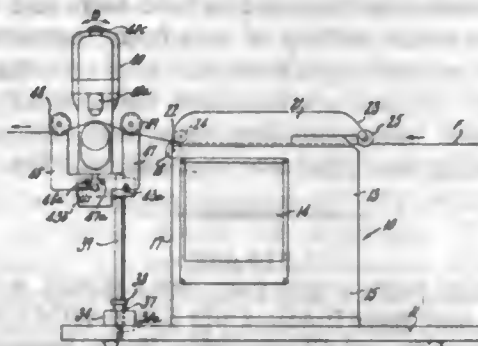
Samuel Hyman, New York, N. Y., assignor to The Camera Mart, Inc., New York, N. Y.

Application May 10, 1955, Serial No. 507,264

4 Claims. (Cl. 88—16.2)

1. An adapter system for a sound reproducing unit to be used with a predetermined motion picture film strip

viewer; comprising support means including a base portion and a standard extending substantially perpendicularly from said base portion for carrying said sound reproducing unit, means including at least one dowel pin projecting from said base portion for fixing the location of said support means with respect to said viewer, and adjustment means for operatively interconnecting said support means and said sound reproducing unit for regulating the position of the latter relative to said viewer, to thereby align the path of said film strip through the viewer with the path of said film strip through said unit, said



adjustment means comprising a compound clamp structure having a first clamping portion and a second clamping portion, means operatively connected to said first clamping portion for adjustably fixing said clamp structure to said standard and at a predetermined distance from said base portion so as to prevent movement of said clamp structure longitudinally of said standard while permitting rotary movement of said clamp structure about said standard, and means operatively connected to said second clamping portion for adjustably fixing said sound reproducing unit to said clamp structure so as to prevent rectilinear movement of said unit along an axis oriented transversely to said standard while permitting rotary movement of said unit about said axis.

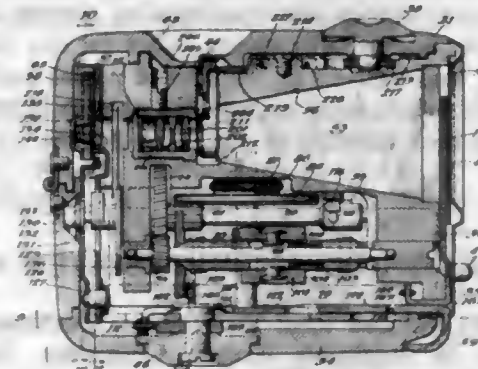
2,819,647

MOTION PICTURE CAMERA

Joseph J. Golick and Robert L. Moore, Chicago, Ill., assignors to Revere Camera Company, Chicago, Ill., a corporation of Delaware

Application December 2, 1949, Serial No. 130,752

8 Claims. (Cl. 88—17)



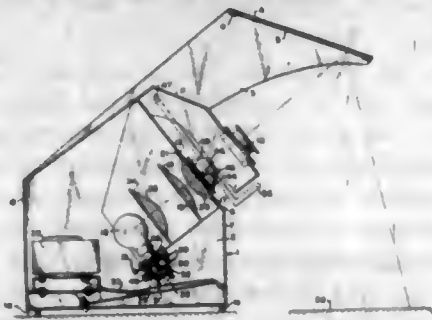
1. A motion picture camera comprising means for rotatably mounting a take-up spool and supply spool, means for rotating the take-up spool so that the winding up of the film thereon will cause rotation of said supply spool in the same direction, a film gate disposed substantially parallel to the plane connecting the centers of said spool mounting means and being offset to that side of said plane which permits said film to move with a substantially tangential motion with respect to the rotation of said supply spool, means disposed between said spool mounting means and intersected by said plane for providing a path for a light beam which intersects said plane, said light beam path providing means comprising a solid body member portion having a front surface disposed on the opposite side of said plane from said film gate

and having a passageway extending all the way through said body member from the front surface thereof to said film gate, a lens unit disposed in said passageway rearwardly of said plane and spaced inwardly from said front surface whereby the front part of said passageway forms a guard and a sunshield for said lens, a disk rotatably disposed between said lens unit and said front surface, said disk having a plurality of openings therein adapted to register with the axis of said lens unit to regulate the aperture thereof, said body member portion being provided with a slot intersecting said passageway, and said disk being rotatably mounted in said slot, and a bracket secured to the side surface of said body member portion, said bracket comprising a plate portion overlying said side surface, and an end portion bent substantially at right angles thereto and extending into said slot, said disk being rotatably mounted on said end portion.

2,819,648

APPARATUS FOR VIEWING, READING AND PROJECTING MICROFILMS AND LIKE DOCUMENTS

Robert Ernest Cherouvrier, Paris, France
Application December 14, 1955, Serial No. 553,134
6 Claims. (Cl. 88—24)

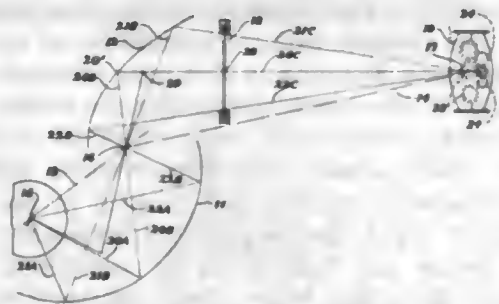


1. In an appliance for viewing, reading and reproducing microfilms and other documents comprising a casing having an inclined upper surface for receiving the microfilm, means for holding the microfilm, an optical system including an objective, a multiple lens condenser and a light source and a mirror rigidly connected to said casing, a rigid supporting cowl forming an optical frame fixed to said upper surface, the transverse limb of said cowl extending upwardly and supporting the objective while its side limbs extend in vertical planes, brace plates interconnecting said side limbs, ports in said brace plates, lenses covering said ports, lens-holding prongs over said ports in true optical alignment, slots in the side limbs of the cowl, lugs carried by said brace plates and engaged through said slots, and adjustable means carrying the light source and secured to said side limbs.

2,819,649

REFLECTING CONDENSER SYSTEM FOR PROJECTORS

John H. McLeod and Paul W. Stevens, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application February 1, 1956, Serial No. 562,694
6 Claims. (Cl. 88—24)



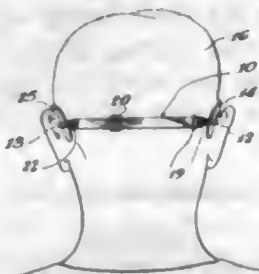
1. An illuminating system comprising a light source and two generally ellipsoidal off-axis concave mirrors which face each other obliquely, in which the light source

is located substantially at one ellipsoidal focus of the first mirror whereby a first image thereof is formed at the second ellipsoidal focus, in which one ellipsoidal focus of the second mirror is located at said first image whereby a relayed image is formed at the other ellipsoidal focus of the second mirror, in which the angle between the axes of the respective ellipsoids is between 10° and 80°, in which the mirrors are located at least for the most part in the obtuse angles formed by the axes, in which the light source and first mirror are both on the same side of the axis of the second mirror, and in which the relayed image is located on the axis of the second mirror in the direction more remote from the source whereby the magnifications at the two sides of the optical beam tend to be equalized, the overall magnification being at least two.

2,819,650

SPECTACLE HOLDER

Suren M. Seron, Joliet, Ill.
Application March 22, 1952, Serial No. 277,948
2 Claims. (Cl. 88—51)

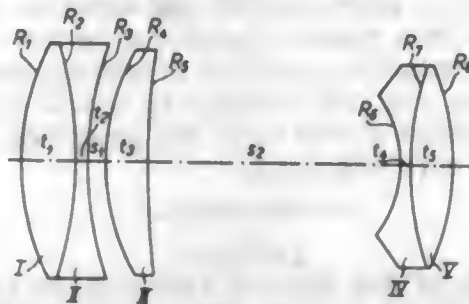


1. A spectacle holder of the character described for retaining spectacles having a pair of temples on the head of a wearer, comprising: a narrow elongated band of elastic material having means for adjusting its effective length to encircle a portion of the rear of the wearer's head; a first member of a snap fastener secured to each end of said band; a pair of spectacle temple gripping members adapted to grip the rear portion of the temple adjacent the wearer's ears, each including a loop of elastic rubber material having the second member of said snap fasteners secured to the ends of the loop for detachably securing the gripping members to the ends of the band; and a ring disposed about the two side portions of each of said loops for sliding movement toward and away from the closed end thereof to tighten the loops about said temples.

2,819,651

TELEPHOTO OBJECTIVE

Carl Baur, Baldham, and Christian Otzen, Munich, Germany, assignors to Firma Agfa Camera-Werk Aktiengesellschaft, Munich, Germany
Application December 20, 1955, Serial No. 554,342
Claims priority, application Germany February 23, 1955
11 Claims. (Cl. 88—57)



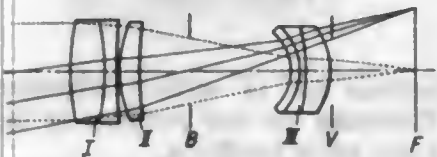
1. A teleobjective comprising a positive front member; a negative rear member axially spaced from said positive front member; and a positive middle member arranged between said positive front member and said negative rear member closely adjacent said positive front member, the focal length of said middle member being

greater than 0.5 times and less than 0.7 times the focal length of the objective as a whole, the air space between said positive middle member and said negative rear member being a distance smaller than 34% and greater than 27.5% of the focal length of the objective as a whole, the focal length of said positive front member being greater than eight times the focal length of the objective as a whole.

2,819,652

TELEPHOTO OBJECTIVE

Carl Baur, Munich-Baldham, and Christian Otzen, Munich, Germany, assignors to Firma Agfa Camera-Werk Aktiengesellschaft, Munich, Germany
Application March 6, 1956, Serial No. 569,925
Claims priority, application Germany March 12, 1955
18 Claims. (Cl. 88—57)

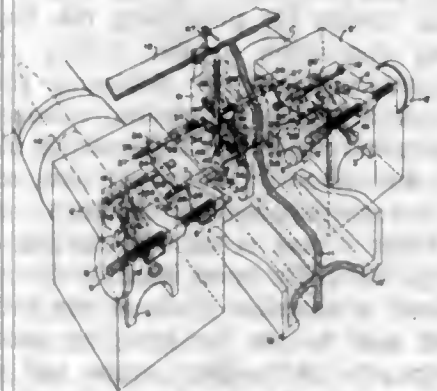


1. A teleobjective comprising a positive front member having a diameter at least 1.17 times the maximum diameter of the aperture of the objective; a negative rear member axially spaced from said positive front member, said negative rear member being a cemented meniscus triplet having all the concave surfaces thereof concave to the front and having all cemented interfaces thereof collective, the absolute sum of the radii of the refractive surfaces of said meniscus triplet being a value between 0.5 times and 1.5 times the focal length of the objective as a whole; and a positive middle member located between said positive front member and said negative rear member, the focal length of said positive front member being greater than 2.5 times and less than 5.0 times the focal length of the objective as a whole, and the focal length of said positive middle member being greater than 0.6 times and less than 0.9 times the focal length of the objective as a whole.

2,819,653

FIRE CONTROL MEANS FOR A RECOILING TWIN-GUN

Karl Bertil Bråthe, Karlskoga, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a corporation of Sweden
Application December 3, 1952, Serial No. 323,821
Claims priority, application Sweden February 11, 1952
11 Claims. (Cl. 89—27)



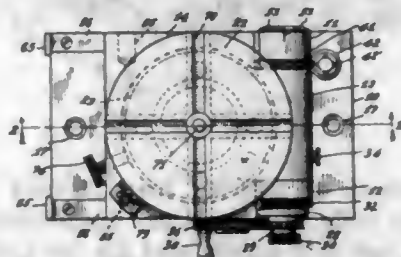
1. In a twin-gun each barrel of which is individually recoiling and equipped with a breech ring movable between a forward and a rear position, a breech block movable transversely to the axis of the respective barrel between an open position and a closed position, a firing means, a control means coacting with the breech ring of each barrel and controlling the firing of said barrels, each of said control means being operatively coupled with the breech block of the respective breech ring, and also with the other breech block, each of the said control

means including retaining means controlled to block an operation of the firing means of the respective barrel upon either breech ring being in a position other than the said forward position and either breech block being open and to release the firing means for operation thereof upon both breech rings being in the forward position and both breech blocks being closed, each of said retaining means comprising a movable member retaining the retaining means in one position and releasing the same in another position, a movable control lever actuating said member to move the same from said one position into said other position, and means actuating said lever for the purpose aforesaid under the control of the movement of the respective breech ring and breech block, and an independent actuating mechanism operatively coupled with the retaining means of both the control means for individually releasing the said retaining means by actuation of the independent actuating mechanism thereby permitting firing of the respective barrel by actuation of the firing means thereof, the actuating mechanism being operable for releasing the firing means of a barrel when the breech ring of the said barrel is in the forward position and the breech block thereof is closed.

2,819,654

MACHINE FIXTURE

Delbert D. Coy, Muncie, Ind.
Application August 6, 1952, Serial No. 302,941
8 Claims. (Cl. 90—59)

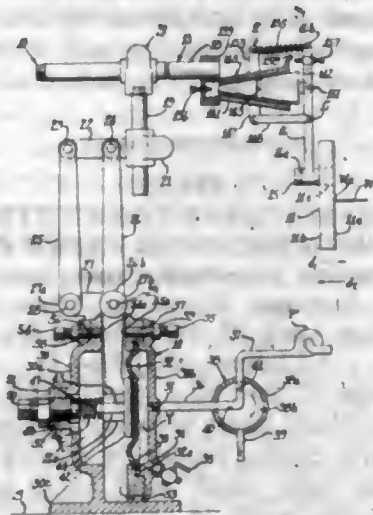


1. A fixture of the type described, comprising a base, a sub-base above and pivoted to the base on a first axis at one side of the sub-base, a work-supporting head rotatably mounted in said sub-base on a second axis which is offset a fixed distance from the first axis and which lies in a plane normal to the first axis, a worm gear rigid with said head, a worm meshing with said gear, and means for supporting said worm from said sub-base with its axis substantially concentric with said first axis.

2,819,655

GUIDE PALM OSCILLATING DEVICE

Edward D. Beachler, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application December 9, 1954, Serial No. 474,214
2 Claims. (Cl. 92—45)



1. In a paper machine, in combination, a tensioned travelling wire, a hand presenting a palm to an edge of said wire and movable in response to lateral movement

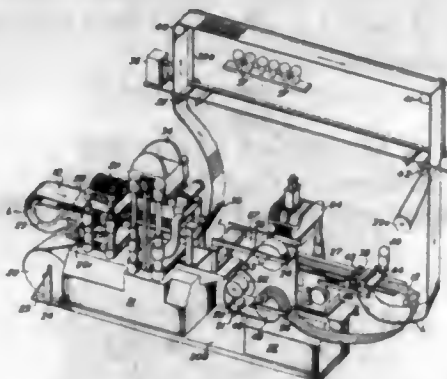
of said wire, and arm resiliently connected to said hand, actuating means controlling lateral movement of said wire in response to relative movement between said arm and said hand, diaphragm means in control of lateral movement of said arm, fluid pressure means in control of said diaphragm means, and valve means in control of fluid pressure actuating said fluid pressure means alternately opening and closing thereby alternately moving said arm in a first lateral direction and then the opposite direction.

2,819,656

METHOD AND APPARATUS FOR MAKING MOUNTS FOR DIAPOSITIVES

Harry A. Patterson, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application October 12, 1953, Serial No. 385,509
12 Claims. (Cl. 93—1)



1. The method of making transparency mounts continuously from rolls of strip paper comprising moving the paper from a roll to a punch and die for forming a transverse row of cut outs to form frames for a transparency, said frames having edges, intermittently moving the strip paper for printing in registration with the edges of the cut-out areas, moving the strip paper away from its horizontal path for drying, returning the strip paper to its horizontal path, reversing the strip paper from top to bottom so that the printed side may lie downwardly, again moving the strip paper by the edges of the cut outs but in the opposite direction, moving a strip of heat pressure adhesive coated material of less width than the width of the original strip material, applying bands of solvent to the heat pressure adhesive to cause narrow longitudinal bands of the pressure adhesive-coated material to adhere to the first-mentioned strip paper, said adhering bands lying outside the cut-out frames of the strip paper, cutting through the adhesive coated strip and into but not through the paper strip and removing the waste cut out, and finally longitudinally slitting and transversely chopping the combined strips into individual transparency mounts.

2,819,657

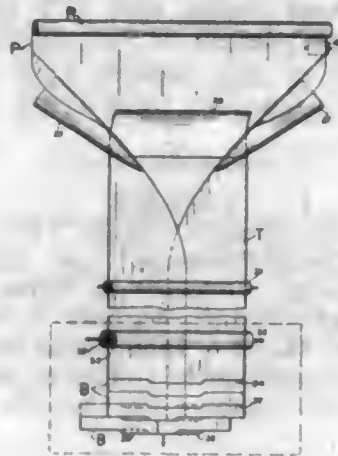
PROCESS AND MACHINE FOR CUTTING, OFFSETTING AND PRESSING PAPER BANDS

John Hammerstrom, Trumbull, Conn., assignor to Ellen J. Peterson, Worcester, Mass.

Application April 22, 1955, Serial No. 503,303
3 Claims. (Cl. 93—1)

1. The process of making a paper band which consists in forming a flattened paper tube having superposed upper and lower layers, cutting successive narrow tubular paper band from said tube, each band being of substantially uniform transverse width in all parts but having certain superposed portions in the two layers out of transverse alignment with certain other and adjacent superposed portions and the transversely-corresponding portions in the two layers being initially in exact vertical alignment, shift-

ing and offsetting one layer lengthwise of the band relative to the other layer to bring said transversely-corre-



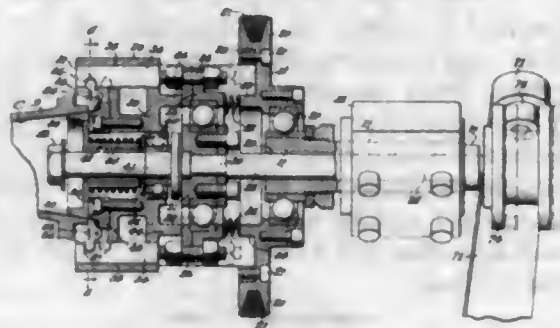
sponding portions out of vertical alignment with each other, and flattening the end portions of the band while in its shifted and offset condition.

2,819,658

APPARATUS FOR CURLING EDGES ON PAPER DRINKING CUPS

Harry A. Scott and Charles A. Uncapher, Van Wert, Ohio, assignors to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application June 23, 1953, Serial No. 363,528
18 Claims. (Cl. 93—36.5)



1. In apparatus of the character described, a curler head including a curling ring having an annular curling surface which is approximately half-circular in radial cross section, cup holding means for presenting a cup in axial alignment with the ring with the cup edge opposing said curling surface, curling finger means having curling grooving therein approximately half circular in cross section and presentable in opposition to the annular ring surface, means for presenting the finger means in edge curling opposition to the curling surface during a curling operation and for displacing the same after completion of a curling operation, means for bringing about relative movement of the holding means and the ring along and about a common axis to engage the cup edge and curling surface in edge curling contact while the finger means is in edge curling opposition to turn the edge inwardly upon itself to form a curl comprising at least a complete circle at any radial cross section thereof, and means for bringing about movement of separation of said holding means and the ring after the curling operation has been completed and said finger means has been moved away.

2,819,659

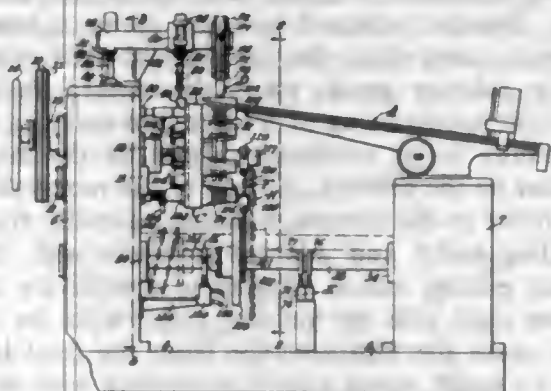
PAPER CUP BODY FORMING APPARATUS

Harry A. Scott and Louis F. Fallows, Van Wert, Ohio, assignors to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application June 9, 1953, Serial No. 360,512
27 Claims. (Cl. 93—39.3)

1. Apparatus for forming frusto-conical cup bodies from blanks each having a convex top edge, a concave

bottom edge, side edges which converge to intersect the longitudinal center line of the blank and an adhesive extending along one said edge, said apparatus including a hollow frusto-coniform mandrel having at least one ring of orifices extending completely thereabout and composed of a plurality of rows of small closely spaced orifices opening outwardly from the hollow interior through the outer surface of the mandrel, means for placing a blank



flatwise over and in contact with the mandrel with its longitudinal center line overlying and extending along the axis of the mandrel, means for partially shaping one side of the blank about the mandrel, means for bringing about an evacuation of the mandrel to complete the shaping of the blank about the mandrel solely by suction through the mandrel and with the marginal side edge of the side first partially shaped underlying the marginal side edge of the other side to form a side seam, and means for applying pressure to the side seam to form a secure adhesive bond.

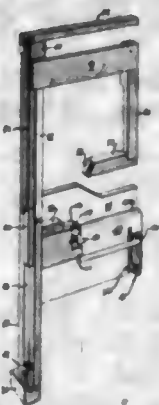
2,819,660

CARTON FOLDING AND LOCKING MACHINE

Al Johnson, Stockton, Calif.

Application October 7, 1954, Serial No. 460,815

13 Claims. (Cl. 93—51)



1. An apparatus for converting into carton form elongated carton blanks substantially symmetrical about a transverse center line, each blank including a bottom panel, a pair of end panels each connected to said bottom panel along a score line, a pair of side panels each connected to said bottom panel along a score line, a first pair of lock flaps scoredly connected to the ends of one of said side panels, a second pair of lock flaps scoredly connected to the ends of the other of said side panels, each of said first pair of flaps and the corresponding one of said second pair of flaps being provided with registering cuts whereby said flaps are foldable into interlocking and face to face engagement, said apparatus comprising a die, a plunger movable through said die, said plunger having a shoe for engaging said bottom panel, said die having arcuately shaped shoulders for folding in sequence said end panels about said shoe, for folding said lock flaps inwardly, and for folding said side panels about said shoe whereby adjacent lock flaps are moved into over-

lapping relation, a pair of leg members rockably mounted on the ends of said die each adapted to engage and flex inwardly one portion of each of said first lock flaps about said cut therein and to engage and flex inwardly each of said second lock flaps whereby said cuts in said first and said second flaps are moved into interlocking relation and said lock flaps are placed in face to face engagement, a pair of lock flap clamping fingers rockably mounted on each end of said die, each of said fingers being interconnected so that the engagement by the descending lower edge of said lock flaps with the lower of said fingers effects a downward motion of the upper of said fingers to interpose said lock flaps between said fingers and urge said lock flaps into full interlocking engagement, means for stripping the folded and interlocked carton from said plunger, and means for moving said plunger into and out of said die.

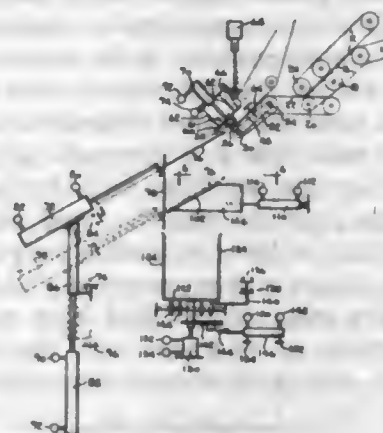
2,819,661

MACHINE FOR AND METHOD OF COUNTING AND STACKING NEWSPAPERS AND THE LIKE

Frederic E. Howdle, Milwaukee, and Charles W. Otto, West Allis, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware

Application June 10, 1953, Serial No. 360,674

22 Claims. (Cl. 93—93)



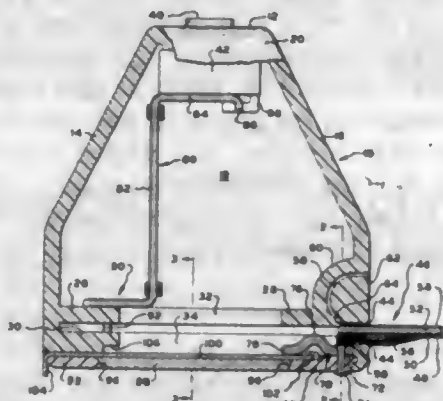
1. In a mechanism for handling units of flexible material flowing in a lapped stream which has a first side defined as the side on which the exposed portions of the lapped units are leading and a second side defined as the side on which the exposed portions of the lapped units are trailing, a counting section comprising opposed supports between which said stream is carried, a break in the support adjacent said second side, a guide in said break engaging said stream along one side only thereof, means for causing the unsupported side of each unit to move outwardly of said stream as such unit passes through said break, and a counting mechanism including a light beam extending from side to side of said counting section at said break and adjacent said stream so as to be cut by the unsupported outward portion of each unit.

16. In a stacking machine for units of flexible material flowing in a stream in overlapped and contacting relation, a conveyor having a counting section comprising means registering the passage of predetermined numbers of units and having a delivery end, an intercepting blade in line with and adjacent said delivery end, means providing relative movement of said delivery end and said blade transversely of the plane of the stream to effect separation of the lapped stream and storing of units of the stream upon said blade following passage of the last unit of a predetermined number below said blade, and a stacking section in which a predetermined number of units are stacked in a batch with their leading edges aligned and comprising support means movable to remove support from a completed batch to freely drop the latter while following units are temporarily stored upon said intercepting blade.

2,819,662

PHOTOGRAPHIC APPARATUS EMBODYING PROCESSING MEANS

Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

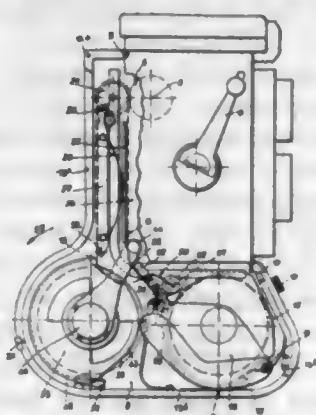
Application October 22, 1954, Serial No. 463,848
19 Claims. (Cl. 95—13)

1. Photographic apparatus adapted to make a single exposure upon the introductory movement of a photographic film unit into exposure position within said apparatus. said apparatus comprising, in combination, a housing defining a lighttight chamber, aperture means in a wall of said housing, shutter means associated with said aperture means, guide means within said chamber for locating said film unit in position for exposure, a passage, in said housing adjacent said guide means, communicating with the exterior of said housing and adapted to receive said film unit, and means responsive to introductory movement of said film unit through said passage into exposure position for actuating said shutter means when the latter is in exposure position, said shutter-actuating means comprising a lever operatively connected at one end with said shutter and so mounted within said camera housing that the other end of said lever extends into the path of movement of said film unit, the latter engaging said other end during movement into exposure position.

2,819,663

PHOTOGRAPHIC CAMERAS

Paul Lachaize, Tassin-la-demi-lune, France

Application September 9, 1953, Serial No. 379,144
Claims priority, application France September 18, 1952
13 Claims. (Cl. 95—31)

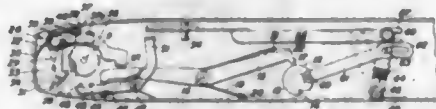
13. In combination with a view-taking camera, chiefly a reflex camera including a casing with open rear and lower surfaces, a view-taking gate registering with said rear surface, driving means located near the upper end of the rear open surface of the casing, and a control member for said driving means, the provision of a film-guiding roller adapted to be removably fitted in the camera in operative relationship with the driving means in the latter, a pinion coaxially rigid with said roller and located laterally thereof, a magazine adapted to be fitted on the camera over the open rear and lower surfaces of the latter and including two lateral flanges, a front lower and

a rear upper cross-member connecting the corresponding ends of said flanges and a lower and a rear door rigidly secured each to the corresponding cross-member and adapted with said flanges and cross-members to enclose a light tight space forming underneath the camera two large chambers lying in substantially adjacent relationship, a cover for the front chamber, means urging it into its open position, a feed spool revolvably carried inside said front chamber, a cylindrical holder carried inside the rear chamber adapted to open along a generating line, means controlling the opening of said cylindrical holder, a take-up spool revolvably carried inside the holder, both spools being of a large film-carrying capacity, a yielding roller revolvably carried by the magazine, when fitted on the camera, in front of the removable film-guiding roller in the camera, a pinion coaxially rigid with the yielding roller and adapted to mesh with the first mentioned pinion, means adapted to operatively connect the pinion rigid with the yielding roller with the take-up spool to make the film advance from the feed spool to the take-up spool, along a path registering with the view-taking gate of the camera and extending between the removable roller and the yielding roller cooperating therewith, a cam revolvably carried by one of the flanges in coaxial relationship with the location of the take up spool in the magazine, and adapted to hold the closing means of the front chamber in their operative conditions, a hand-operable lever on the outside of the magazine controlling said cam, means whereby said cam, when shifted, away from its position holding the closing means, in a predetermined direction, locks the magazine doors, and then releases the closing means for the front chamber enclosing the feed spool after said locking of the magazine doors and means whereby said cam controls the means controlling the opening of the cylindrical holder.

2,819,664

FILM METERING AND SHUTTER SETTING MECHANISM

Robert G. Elton, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application November 24, 1953, Serial No. 394,020
7 Claims. (Cl. 95—31)

1. In a roll film camera, the combination with a film take-up spindle for winding up a film strip and on which the film is wound, a ratchet on said spindle, a setting-type shutter, a slidable plate operatively connected to said shutter to set the latter, of means engageable with said ratchet to lock said spindle against operation, means controlled by said plate for moving said locking means out of engagement with said ratchet to release the latter, blocking means controlled by said film and movable into the path of said released means to hold the latter in released position, and means controlled by the film for moving said plate in one direction to set said shutter.

2,819,665

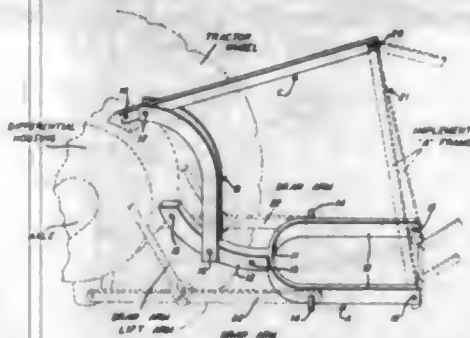
TRACTOR IMPLEMENT LINKAGE OR HOOK-UP

Wayne B. Skeem, Buhl, Idaho

Application March 15, 1954, Serial No. 416,009
2 Claims. (Cl. 97—47.5)

1. An implement raising hitch for connecting an implement to a tractor comprising, a substantially U-shaped portion having a point and having an additional arm extending axially from the point of the U away from the mouth thereof, said additional arm being curved and ter-

minating at a point above the position of horizontal extension of the arms of said U-shaped portion when said arms are positioned in a horizontal plane, said curved arm having a plurality of spaced apart apertures therein, said U-shaped portion being apertured in the outer arm portions thereof and being adapted for removable attachment to an implement, a pivot pin carried on the exterior of one of said arms of said U-shaped portion near the closed portion of the U for connection to the tractor, a second pivot pin exteriorly carried by the other of said arms of the U-shaped portion near the closed portion of the U for connection to the tractor, a curved link arm



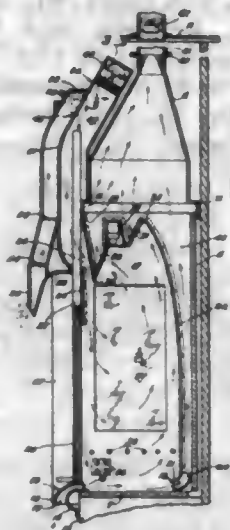
adapted to be secured at one end thereof to said additional arm of said U-shaped portion adjacent said point, a tie rod, said curved link arm extending upwardly and being adapted to be connected at the other end thereof to one end of said tie rod, said tie rod being adapted at its other end to be connected to an implement, whereby said tie rod may be positioned at a greater height from the ground than said U-shaped portion, and means on said tie rod for connecting it to the tractor, said curved link arm constituting means to hold said point of the U-shaped portion in a relatively immovable position when the apertured outer arm portions of the U-shaped portion and the said other end of the tie rod are raised to elevate the implement.

2,819,666

LABORATORY FUME HOOD

George L. McNeil, Dunlap, and Charles W. Burroughs, Milford, Ohio, assignors to The Kirk & Blum Manufacturing Company, Cincinnati, Ohio, a corporation of Ohio

Application December 14, 1955, Serial No. 553,114
8 Claims. (Cl. 98—115)



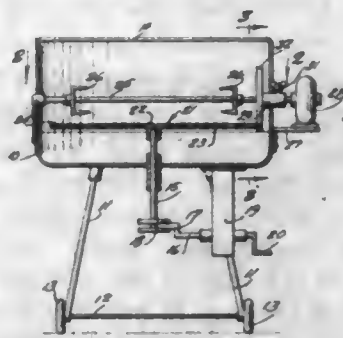
1. In a fume hood the combination of a cabinet having bottom, rear and side walls and an open top and an open front, an imperforate divider positioned laterally across the full width of the cabinet and extending upwardly and forwardly to the mid-portion of the open top of the cabinet and having its bottom edge in closely spaced parallelism above the bottom wall and forwardly of the rear wall of the cabinet, a power driven exhaustor means evacuating the open top of the cabinet at a fixed rate from both

sides of the divider, an air foil member providing a narrow, room air entry port across the bottom of the open front of the cabinet on a level with the bottom wall, a strip extending across the upper end of said open front and defining the top of an access opening for the cabinet, an inwardly and downwardly inclined baffle spaced behind said strip and forming with the strip a pressure air inlet port across the front of the cabinet above and inside the access opening, a pressure air manifold comprising a first chamber and a second chamber having a common wall therebetween and each chamber being laterally coextensive with the open front of the cabinet, the first chamber mounted on the exterior front and top of the cabinet and communicating at its lower end with said pressure air inlet port for delivering pressure air from the first chamber downwardly across the inner side of the access opening, said first chamber having across its opposite upper end an air inlet and a pressure distributing and equalizer means, a foraminated zone formed through the common wall of the chambers and located therein below the pressure distributing and equalizer means in the first chamber and communicating with the interior of the upper end of the second chamber, a power driven means for delivering pressure air to said inlet at a fixed rate of substantially one-half the rate of evacuation of the aforesaid exhaustor and for moving said air through the pressure distributing means and across the foraminated zone in said common wall, the second chamber having its lower end depending below the pressure air inlet port and terminating in a narrow, transverse nozzle located above the level of the top of the said access opening and spaced forwardly therefrom, and a sash adapted in its fully lowered position to close said access opening and movable upwardly into and across the lower portion of the first chamber, said sash in its fully raised position closing off communication between the upper end of the first chamber and the pressure air inlet port and diverting the pressure air flow through the foraminated zone in the common wall into the second chamber for delivery through the nozzle as an air curtain for setting up a uniform velocity air wall movement into the access opening.

2,819,667

PORTABLE BRAZIER

Frank M. Victor, Redondo Beach, Calif.
Application October 26, 1956, Serial No. 618,485
3 Claims. (Cl. 99—339)



3. In a portable brazier, a bowl, a plurality of legs for supporting said bowl, a body member depending from said bowl, a crank journaled in said body member, an adjustable rod extending up through said bowl, a bushing on said rod connected to said crank, an adjustable grill arranged within said bowl and including a collar connected to said rod, said grill including a ring, a shaft supported above said grill, a sleeve adjustably mounted on said shaft and provided with a slot, a securing element extending through said slot and into engagement with said shaft, a wheel connected to said sleeve and arranged in engagement with said grill, prongs on said shaft, and means for rotating said shaft.

2,819,668

HAND STAMP

Edward G. McAneny, Norton Hill, N. Y.
Application February 23, 1955, Serial No. 489,866
3 Claims. (Cl. 101-125)



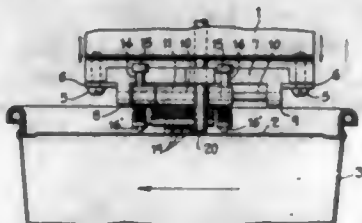
1. In a hand stamp of the character described, a transparent printing block member having a cavity therein providing side walls and a permanent closed bottom wall integrally connecting said side walls, said bottom wall having openings therethrough representing indicia for printing purposes; an inking and printing device including a container member having side walls and a closed top wall frictionally but slidably interfitted the cavity of said block member and being adapted interchangeably to receive similar block members with different indicia; a resilient ink-absorbing printing pad confined in said container member, but extending marginally from the bottom a distance sufficient to penetrate the openings in the bottom wall of said cavity; a hand gripping pressure applying handle connected to the top of said container, which handle has a longitudinal opening therein; resilient means mounted within said opening for releasably holding a quantity of ink in overlying communication with said pad; and means in said handle for actuating said resilient means to release said ink to saturate said pad.

2,819,669

APPARATUS FOR PRINTING ON MOVING ARTICLES

William H. Glunz, Flushing, N. Y., assignor to Lily-Tulip Cup Corporation, New York, N. Y., a corporation of Delaware

Application May 18, 1956, Serial No. 585,872
5 Claims. (Cl. 101-35)



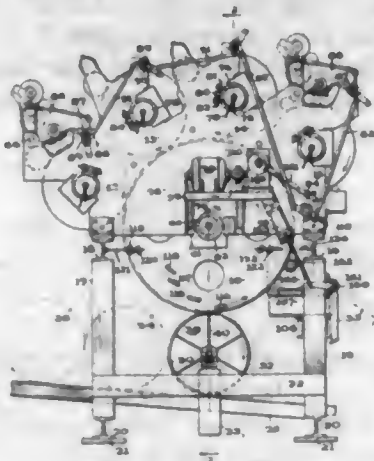
1. In a printing unit for printing on a linearly moving article, the combination of a frame adapted to be secured to a reciprocating printing head for movement of the unit in a direction normal to the moving article, a carriage for holding indicia type and slidably supported on said frame for longitudinal linear movement relative thereto parallel to the path of the moving article, resilient means urging said carriage in one direction of said longitudinal movement and yieldable to permit movement in the opposite direction, and registration means extending outwardly beyond the printing face of said type and yieldably supported for inward movement to substantially the plane of said printing face, whereby upon movement of said printing unit toward said article said registration means engages the surface of the article to be printed upon before it is engaged by the type and thereafter as said type comes into printing engagement with an article moving in opposition to said resilient means said type is permitted to move with said article through a period of printing engagement and at the end of said printing engagement said type is urged by said resilient means to its initial position on said frame.

2,819,670

BARREL PRINTING APPARATUS

Benjamin R. Newcomb, Bound Brook, and Laszlo M. Stempel, Metuchen, N. J., assignors to John Waldron Corporation, New Brunswick, N. J., a corporation of New Jersey

Application November 4, 1953, Serial No. 390,214
15 Claims. (Cl. 101-38)



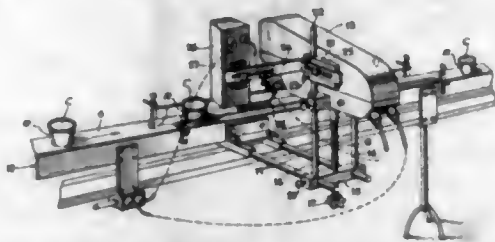
1. Mechanism for printing on the whole cylindrical surface of a large diameter, open ended steel tube adapted to be formed into a drum comprising in combination, a blanket cylinder having substantially one half its periphery covered by a blanket, means for mounting and driving said cylinder continuously, a plate cylinder having a plate sized and positioned for transfer contact with substantially all of the blanket surface and driven in unison with the blanket cylinder, continuous inking means for the plate, means for advancing contiguous tubes one at a time beneath said blanket cylinder during each non-printing half revolution of the blanket cylinder, power actuated means to engage and round out the tube directly beneath the cylinder, and means to subsequently pneumatically lift the last mentioned means and tube and present the latter in printing contact with the blanket, the drum and plate cylinder being of substantially the same circumference and the blanket cylinder being of twice the plate cylinder circumference.

2,819,671

ELECTRICALLY CONTROLLED APPARATUS FOR PRINTING ON MOVING ARTICLES

Harold Porter, Jr., Armonk, and William H. Glunz, Flushing, N. Y., assignors to Lily-Tulip Cup Corporation, New York, N. Y., a corporation of Delaware

Application May 18, 1956, Serial No. 585,701
6 Claims. (Cl. 101-44)



1. In apparatus of the character described, the combination of a reciprocable printing head, a type holder secured to said head supporting type movable with said head into printing engagement with an article to be printed and movable with respect to said head in a direction transverse to a direction of reciprocation for limited travel with an article to be printed upon, electrical actuating means for reciprocating said head, an electrical supply circuit for said actuating means, electrically actuated time delay switching means in said circuit, a supply circuit for said switching means, and a control switch for said switching supply circuit responsive to the movement of an article into the printing zone, said time delay

switching means providing a time delay switch to maintain said actuating means energized for a time interval substantially equal to the sum of the time of the printing stroke of the reciprocating head and the time of moving of said type in a direction transverse to the direction of reciprocation.

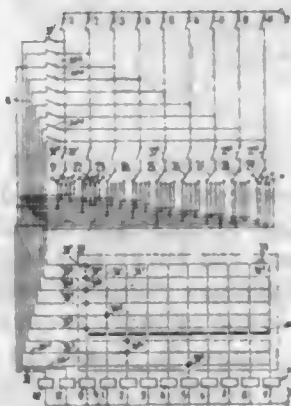
2,819,672

DECIMAL POINT SHIFTING DEVICE

Alfred Eckhard, Siegen, Germany, assignor to Siemens Felomechanische Werke G. m. b. H., Elserfeld (Sieg), Germany

Application October 23, 1956, Serial No. 617,743

Claims priority, application Germany October 24, 1955
15 Claims. (Cl. 101—93)



1. In a device of the type described, in combination, a set of carriage actuated contacts including a plurality of carriage actuated contacts respectively associated with decimal orders and one carriage actuated contact associated with the decimal point and being located in a predetermined position with respect to said plurality of carriage actuated contacts, so that said one carriage actuated contact is actuated in a predetermined sequence with said plurality of carriage actuated contacts; a set of actuating relays including a plurality of digit relays respectively associated with different digits for causing the printing of digits, and a decimal point relay for effecting the decimal point; and switch means connecting said set of carriage actuated contacts with said set of actuating relays, and being movable between a plurality of positions for establishing different connections between said carriage actuated contacts and said set of actuating relays for actuating said decimal point relay and said digit relays in different sequences in each of said positions for printing a number with the decimal point in different positions.

2,819,673

METHOD OF AND APPARATUS FOR OPENING OIL- AND GAS-BEARING STRATA

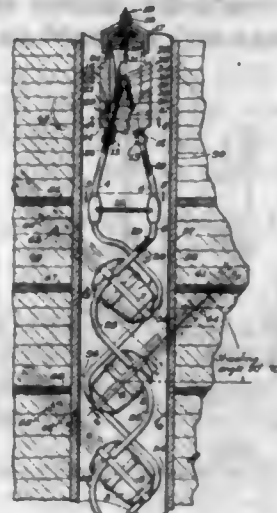
Clyde J. Cecil, Leo A. Courter and Clarence R. Olson, Oklahoma City, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

Application January 2, 1953, Serial No. 329,304

2 Claims. (Cl. 102—20)

1. A well wall piercing apparatus for wells drilled into the earth comprising a plurality of individual frangible enclosures each adapted to enclose a shaped detonable explosive charge having a single firing axis; a frangible elongated carrier for the enclosures comprising three tubular members adapted to be lowered endwise into the well bore, said frangible enclosures being mounted on the tubular members in a row extending along the longitudinal axis of the carrier, said tubular members being oriented so that the firing axis of the charge in each frangible enclosure makes an angle of 20 to 70 degrees with the longitudinal axis of the carrier; a housing adapted to enclose a detonator; means to secure the upper ends of the tubular members to the housing, said housing having passageways therein communicating with the bore of the tubular members; a detonable explosive

fuse means extending through the bore of each tubular member into the said housing, the fuses being bound together at their upper ends in the housing; a blasting cap in the housing adjacent to one of the explosive fuse



means; and strap means for securing to the bottom of each container the tubular member containing the explosive fuse means whose upper end is adjacent to the said blasting cap; said strap means also securing to the frangible enclosures on opposite sides thereof the other two tubular members.

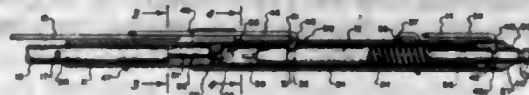
2,819,674

UNDERWATER SPORT FISHING GUN AND HARPOON

Jack Prodanovich, Old San Diego, Calif.

Application August 17, 1954, Serial No. 450,487

3 Claims. (Cl. 102—48)



1. An arrow of the type adapted to be ejected from a gun comprising in combination, an elongated tubular means, said means forming a firing chamber for an explosive charge, one end of said tubular means being adapted to receive the rear end of a dart, said end being in open communication with the firing chamber; a spring actuated firing pin for the explosive charge slidably mounted in the tubular means; a detent normally holding said firing pin in spaced relation from the explosive charge; means extending forwardly of the tubular means and adapted, when engaging the prey to be captured, to release said detent; a firing pin spring; an arrow shaft; an element associated with the opposite end of the tubular means and adapted to be slid forwardly longitudinally of said tubular means, by the inertia of said shaft when said shaft is ejected from a gun, for compressing said spring sufficiently to render said firing pin spring operative, said spring being interposed between the firing pin and said element; a shoulder on the element and movable with the element; and a movable detent carried by the tubular means and normally lying forwardly of said shoulder and adapted to engage the shoulder for preventing rearward movement of said element after said element has been moved forward by said arrow shaft.

2,819,675

PROPELLER PUMP OR BLOWER

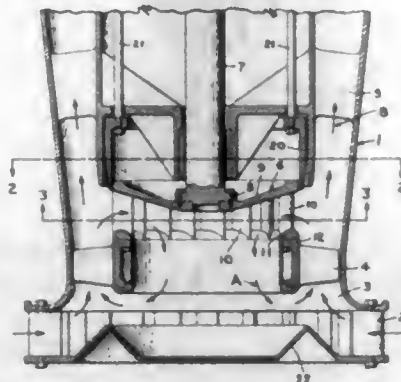
Frederick C. Gilman, Pompton Lakes, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware

Application August 18, 1953, Serial No. 375,036

5 Claims. (Cl. 103—41)

1. In an axial flow propeller pump, a casing having inlet and outlet passages, a propeller unit in said casing,

means for rotating said propeller unit, said propeller unit including a propeller blade-carrying ring, a plurality of recirculation flow-guiding vanes rigidly connected to said carrying ring rotatable therewith and spaced to provide communication between the interior of the ring and the casing outlet passage and arranged to guide part of the

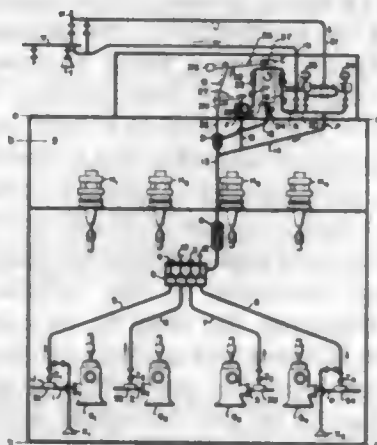


discharge flow of fluid pumped by said propeller blades back through the open carrying ring to the inlet side of the propeller blades, and adjustable means movable to regulate the area of the communicating spaces between said flow-guiding vanes and the outlet passage for controlling the quantity of fluid recirculated through said carrying ring.

2,819,676 OIL TANKERS

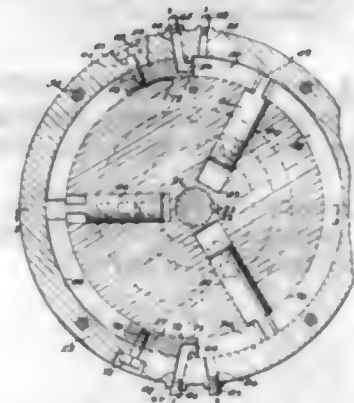
John Lamb, London, England, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

Application July 19, 1955, Serial No. 522,993
Claims priority, application Great Britain July 28, 1954
4 Claims. (Cl. 103—113)



1. In a liquid pumping system for tankers having a main centrifugal pump and a vacuum pump connected in parallel section relationship the combination of: a suction strum, an inlet to said centrifugal pump, a duct connecting said suction strum to said inlet, an inlet to said vacuum pump, a duct connecting said suction strum to said vacuum pump inlet, an elevated receiver having an elevated inlet in said duct connecting said suction strum to said vacuum pump inlet, a float in said receiver, a non-return valve positioned between the inlet to said receiver and said suction strum, an outlet in the bottom of said receiver said outlet being connected to the inlet of said centrifugal pump, an air valve in the top of said receiver and a toggle switch connected to said float and to said air valve so constituted and arranged that a movement of said float to the limit of its travel results in a snap closing or opening of said air valve.

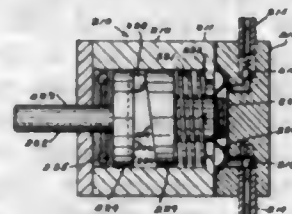
2,819,677 CAM ACTUATED RECIPROCATING BLADE CONSTANT AREA ROTARY PUMP Harry A. Leath, Hazel Park, Mich. Application September 20, 1955, Serial No. 535,475 1 Claim. (Cl. 103—136)



A rotary device comprising a housing having a circular base, a ring positioned on the base, and a circular cover mounted on the ring providing a cylindrical chamber in the ring and between the cover and base, a rotor having spaced continuous flanges extended from the peripheral surface positioned in the cylindrical chamber of the housing and concentric therewith, means for rotatably mounting the rotor in the housing, said rotor having radially disposed bores extended inwardly from the surface between the flanges and said flanges having arcuate recesses aligned with said openings providing sealing means at the sides, cylindrical shanks having flat blades on extended ends slidably mounted in the openings of the rotor, pins having rollers thereon extended from the cylindrical shanks through one side of the rotor, spaced inner and outer plates bolted to the inner surface of the cover providing a cam track in the housing and positioned to receive the rollers of the pins of the cylindrical shanks, head blocks with openings therethrough positioned in opposite sides of the cylindrical chamber and extended into the area between the flanges of the rotor, means for attaching the head blocks to the ring said head blocks and blades being positioned to provide a constant area or constant areas in the cylinder, fluid supply connections extended through the housing and head blocks, and outlet connections extended through the housing, said head blocks being removably mounted in the housing and said cam track being positioned whereby the blades are in retracted positions in passing the head blocks.

2,819,678 PUMPS

Edwin A. Nordell, Cleveland, Edmund A. Kathe, Columbus, and Arthur A. Thyreen, Cleveland Heights, Ohio; said Nordell and said Thyreen assignors to The Metal Craft Co., Inc., Cleveland, Ohio, a corporation of Ohio
Application April 28, 1951, Serial No. 223,468
29 Claims. (Cl. 103—150)



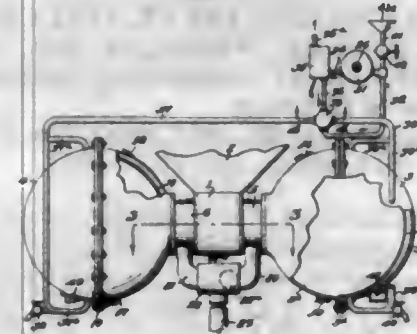
1. A pump, comprising a housing having a pumping chamber with a fluid inlet and a fluid outlet connected thereto; means preventing flow out of said chamber through said inlet; means preventing flow into said chamber through said outlet; a pumping means in the fluid flow path between said inlet and said outlet; and a means to reciprocate said pumping means including a driver mem-

ber rotatable about an axis and having a driving surface, a reciprocally driven surface carried by said pumping means, a freely rollable element drivingly contacting the surfaces, one of said surfaces being an inclined cam surface, and resilient means to keep said surfaces and rollable element in driving contact.

2,819,679 PLASTERING MACHINES

Broadus Wilson, Raleigh, N. C.; Margaret Wilson and Robert E. Long, executors of said Broadus Wilson, deceased

Application March 2, 1953, Serial No. 339,538
10 Claims. (Cl. 103—152)

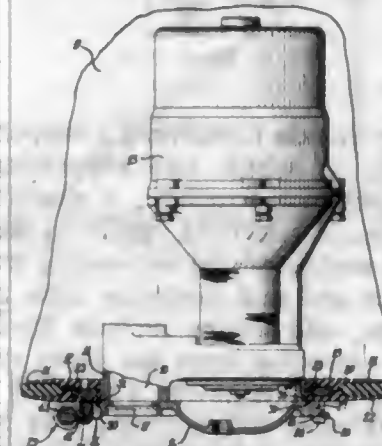


1. In a plastering machine, first and second closed drums of substantially like volumes, a diaphragm dividing each respective drum into first and second chambers of reciprocally varying volume, a hopper, a first passageway from said hopper to one said first chamber, a second passageway from said hopper to the other said first chamber, a one-way valve in each said passageway permitting flow of plaster from said hopper to respective ones of said first chambers only, a plaster discharge housing, third and fourth passageways from respective ones of said first chambers to said housing, a one-way valve in each of said third and fourth passageways permitting flow of plaster from chamber to housing only, connections between said second chambers and including a pump and a flow-receiving valve, said second chambers and connections being adapted to contain hydraulic fluid, means responsive to predetermined distention of said diaphragms to actuate said last-mentioned valve and reverse the flow of hydraulic fluid between said second chambers, and means responsive to vacuum in one said second chamber at reversal, to augment the flow delivered by said pump.

2,819,680 PUMP MOUNTING FOR A SYNTHETIC RUBBER FUEL CELL

Jacob Rush Snyder, Cleveland, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

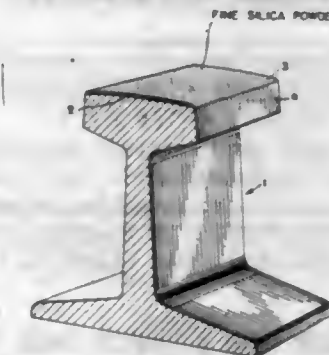
Application April 29, 1954, Serial No. 426,450
12 Claims. (Cl. 103—218)



1. In combination, means forming a fuel cell having a wall formed with an opening therein, a pump extending

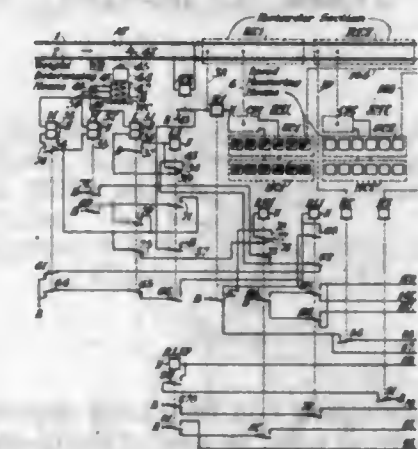
through said opening and into the inside of said fuel cell, a pump head member on said pump outside of said fuel cell, and a mounting ring connected to said fuel cell circumjacent said opening, said mounting ring and said pump head member providing first and second ring members, respectively, said first and second ring members having radially outwardly extending inter-fitted fingers offset axially from said mounting ring and a clamping ring surrounding said fingers including a turnbuckle adjusting screw to lock said pump in firm assembly with the walls of said fuel cell.

2,819,681 TREATMENT OF METAL SURFACES TO INCREASE THE COEFFICIENT OF FRICTION George W. Luvisi, Chicago, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware Application November 2, 1955, Serial No. 544,614 7 Claims. (Cl. 104—1)



1. The method of improving the frictional contact between two metal surfaces capable of motion one with respect to the other which comprises applying to at least one of said surfaces a fine silica in powder form having a specific surface area of at least 20 square meters per gram, and bringing said surfaces into contact with one another with said fine silica therebetween.

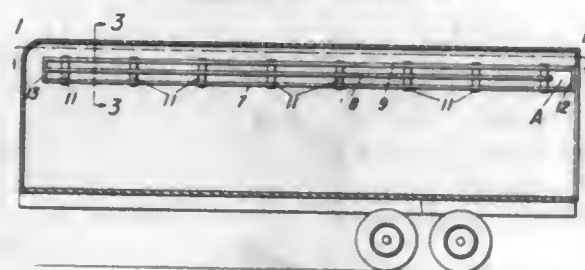
2,819,682 CAR RETARDER SPEED CONTROL APPARATUS Edward C. Falkowski, Edgewood, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania Application December 8, 1954, Serial No. 473,819 20 Claims. (Cl. 104—26)



1. In combination with a stretch of railway track equipped with a car retarder operable to exert different braking forces and having control means responsive to current selectively supplied thereto to select one of said braking forces, a car weight determining means including an operating element mounted in the stretch and operable to a first, a second, and a third circuit controlling position in response to a first, a second and a third car weight respectively; a first, and a second weight information storage relay normally deenergized; pickup circuit

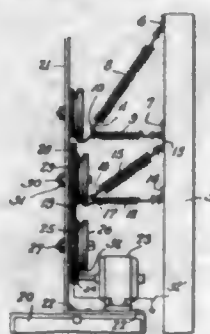
means including said positions of said weight determining means with connections to said storage relays to energize said first relay only in response to said first car weight, to energize both said relays in response to said second car weight and energize said second relay only in response to said third car weight, a stick circuit means including a contact closed in response to a car passing through the retarder with connections to said storage relays to retain them energized in the arrangement previously effected by the weight determining means, and control circuit means including contacts of said storage relays with connections to the retarder control means to selectively supply current thereto according to the energized arrangement of the storage relays.

2,819,683
MEAT TRUCK AND TRACK SYSTEM THEREFOR
Sidney Le Fiehl, San Francisco, Calif.
Application December 21, 1954, Serial No. 476,771
3 Claims. (Cl. 104-98)



1. In combination with a vehicle body having spaced parallel side walls, of a plurality of spaced rails attached to the opposed sides of said side walls, and in groups of three, said rails being arranged parallel to each other and extending substantially the length of said side walls, the top and bottom rails of each group being connected by spacers, the end of middle rail of each group being spaced from one of said spacers at one end of the group to form a transfer opening, and opposed wheeled carriers mounted on opposed corresponding rails of each of said groups and a bar connecting the opposed carriers.

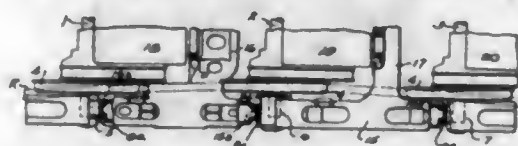
2,819,684
RURAL MAIL DELIVERY AND COLLECTION DEVICE
Julius J. Nohr, Grand Island, Nebr.
Application February 23, 1954, Serial No. 411,642
1 Claim. (Cl. 104-149)



In a mail collection and delivering apparatus, a plurality of supporting posts, a pair of horizontal vertically spaced track members, pairs of coiled spring connected between each of said posts and track sections, each pair of springs embodying a substantially heavy inclined spring and a weaker horizontal spring, yieldably supporting said track members spaced from said post, a carrier, an upstanding bracket secured to said carrier, in the form of a vertical bar, a pair of superposed grooved wheels mounted on one surface of said bar, operating over said track members, the uppermost grooved wheel embodying an idle wheel, the lowermost grooved wheel constituting the power wheel of the carrier, a pinion secured to said

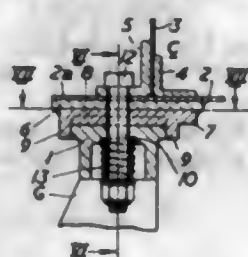
power wheel between the power wheel and bracket, a third grooved wheel mounted on said bracket below said power wheel, a pinion secured to said third grooved wheel between said third grooved wheel and bracket and meshing with the pinion of said power wheel, an electric motor, a power line for said motor, an operative circuit between said motor and a source of electricity supply, said motor having a shaft and pinion, mounted on said carrier, the pinion of said motor meshing with the pinion of said third grooved wheel for transmitting motion to said pinions and moving said carrier along said track members.

2,819,685
RAILWAY MOTOR TRUCK STRUCTURE
Thaddeus W. Podgajny, Wilmington, Del., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware
Application August 25, 1954, Serial No. 452,160
10 Claims. (Cl. 105-196)



1. In a railway truck, three axles with wheels, a rigid truck frame mounted thereon, means holding the end axles against substantial play transversely of the truck frame, the middle axle having substantial movement transversely of the truck frame, an individual driving motor carried in part by and operatively associated with each axle and provided with a housing held against movement lengthwise of the associated axle and including a part spaced from the axle lengthwise of the truck, and a support for the spaced end on the truck frame, the support of the middle axle motor housing only on the truck frame being movable transversely of the frame to accommodate substantial movement of the middle axle transversely of the truck.

2,819,686
WATER TANKS, FUEL BUNKERS, OR THE LIKE OF LOCOMOTIVES
James Hadfield, Romiley, England, assignor to Beyer Peacock & Company Limited, Manchester, England, a British company
Application July 14, 1952, Serial No. 298,711
Claims priority, application Great Britain July 19, 1951
5 Claims. (Cl. 105-362)



2. A railway vehicle comprising a supporting structure, railway wheels on which said supporting structure is mounted, a container structure, a plurality of spaced-apart mounting units secured rigidly to the underside of said container structure, said supporting structure having seating surfaces and said mounting units resting on said seating surfaces, said seating surfaces having a plurality of projections extending from the upper surfaces thereof and said mounting units having a plurality of projections depending therefrom, said mounting unit projections and said seating surface projections providing at least two first substantially-parallel spaced pairs of co-engaging contiguous surfaces, the projections between said first spaced pairs of co-engaging surfaces being associated with one

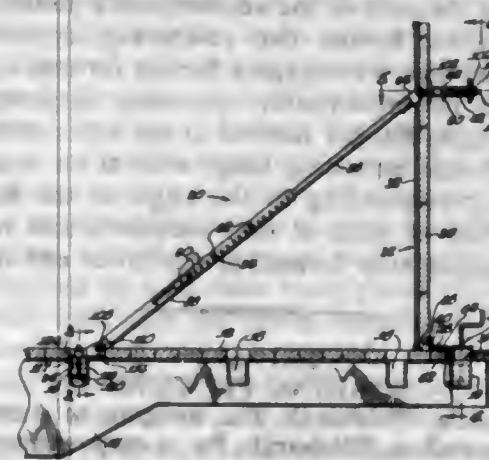
structure and the opposed projections being associated with the other structure, and at least two second substantially-parallel spaced pairs of co-engaging contiguous surfaces angularly arranged with respect to said first pairs of co-engaging surfaces, the projections between said second spaced pairs of co-engaging surfaces being associated with one structure and the opposed projections being associated with the other structure, so that relative horizontal movement will be prevented between said mounting units and said supporting structure both laterally and longitudinally of said supporting structure, and spring means biasing each mounting unit onto its associated seating surface, said spring means allowing vertical movement of said container with respect to said supporting means, whereby only vertical movement of the container structure with respect to the supporting structure will be permitted upon yielding of the spring means due to distortion of said supporting structure.

2,819,687
FREIGHT VEHICLE TURNTABLE
Jack E. Gutridge, Munster, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application July 28, 1953, Serial No. 370,842
5 Claims. (Cl. 105-368)



1. In a freight vehicle, a floor provided with a slot, a member positioned on the floor adjacent the slot, a sleeve engaging the member and extending through the slot, a pin extending through the sleeve and through the slot and having a collar extending therearound and threads thereon, a pair of spaced parts positioned on the underface of the floor and extending along the slot and secured to the floor, and a nut positioned between the parts and adapted to be threaded on the pin, upon threading the pin in the nut the collar on the pin engaging the sleeve to force the sleeve against the parts and the nut engaging the parts to prevent movement of the member along the slot.

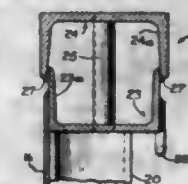
2,819,688
ATTACHMENT FOR RAILROAD FLAT CARS
James L. Hall, Des Moines, Iowa
Application August 24, 1954, Serial No. 451,917
3 Claims. (Cl. 105-374)



1. A removable attachment for use on an elongated railroad flat car that is provided with stake pockets on the floor thereof including stake pockets along the longitudinal edges of the flat car, said removable attachment being mountable on and de-mountable from a flat car without adding any structure to, or requiring modifica-

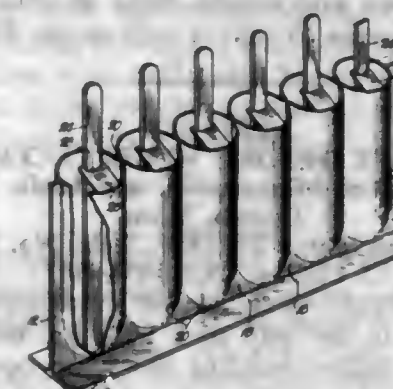
tions of, the existing structure of the flat car, said attachment comprising, in combination, upright barrier means of substantially the same width as the flat car and positioned transversely of the flat car, said barrier means presenting a front side, against which a load may abut, and a rear side; an elongated abutment engaging the rear side of said barrier means adjacent the lower end thereof and removably positioned upon the floor of the flat car, and a first connecting means securing said elongated abutment to stake pockets on said flat car; an elongated beam means of greater length than the width of said barrier means spaced above said elongated abutment and secured to the rear side of said barrier means and having the ends thereof extending laterally of said barrier means, a pair of elongated braces each connected at one end thereof to an end of said elongated beam means, said braces extending forwardly of the front side of said barrier means and being spaced laterally outwardly of the longitudinal edges of the flat car, and second connecting means connecting the other ends of said braces to side stake pockets on said flat car.

2,819,689
CAR TOP CHORD
William C. Sleeman, Birmingham, Ala., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application January 20, 1954, Serial No. 405,122
3 Claims. (Cl. 105-406)



2. In an open top railway car, a side sheet, a side post secured to said sheet, said sheet extending vertically a distance beyond the top of said post, and a top chord comprising an elongated horizontally disposed upwardly facing channel-like member having a base, an inside leg and an outside leg, said base being secured to the top of said post, and said inner leg being secured to said sheet and extending thereabove, a U-shaped lading strap bracket secured to said outer leg, an elongated horizontally disposed downwardly facing channel-like member secured to said upwardly facing member by welding and in an overlapping manner, and a tubular-like spreader inserted between said members.

2,819,690
FIGURE MOLD FOR FROZEN SUCKERS
Harold L. Baker, Kansas City, Mo., assignor of one-third to Otis D. Elliott and one-third to Robert K. Treasure, Mission, Kans.
Application July 5, 1955, Serial No. 519,855
1 Claim. (Cl. 107-19)



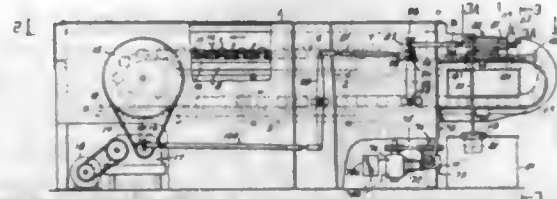
A unitary, one piece mold for frozen suckers comprising an aligned row of side-by-side, elongated, cylindrical elements of distortable, flexible material, each of said cylin-

ders being integrally interconnected to the cylinders next adjacent thereto at the point of juncture therebetween, there being longitudinal slots in each of said points of juncture between the cylinders for placing the latter into intercommunication, each of said cylinder being provided with a closed, substantially hemispherical end portion; an elongated, horizontal base having its longitudinal axis in alignment with the row of elements, the base integrally joining said one end of the elements for holding the latter in a normally upright position, the other end of the elements being open; a retainer for each element respectively at the open end thereof for holding a sucker handle in place therewith; gussets joining the hemispherical end portions of the elements, said gussets being integrally connected with the base; and a reinforcing rib at each end of the row of elements, each of said ribs extending the longitudinal length of its respective cylinder and integrally connected to the cylinder and to the base, said retainers comprising flexible ears integrally connected to the uppermost edges of each of the elements respectively, and extending radially therefrom over the open end, each of said ears having a slot disposed substantially on the longitudinal axis of the element for receiving said handles.

2,819,691

WAFFLE BAKING MACHINE

Theodore F. Schlicksupp, Long Island City, N. Y.
Application September 29, 1953, Serial No. 382,952
13 Claims. (Cl. 107—58)



1. In a waffle baking machine having an endless conveyor comprising a plurality of book-like mold devices each having two hinged mold sections forming a waffle mold when closed, a latching lever to hold said sections closed, said conveyor being arranged to travel past a filling device to supply batter to the opened mold devices and through a baking oven to a waffle discharge point and back to the filling device, means at said discharge point for releasing said latching levers and for opening said hinged mold sections, means for reclosing said mold sections after they pass the filling device, means for actuating said latching levers to lock said reclosed mold sections, one of said mold sections of each of said mold devices being fixedly mounted on a crosswise pivot member of the conveyor, an actuating arm fixed to said pivot member for opening and closing said sections, and a spring fixed on said arm, said latching lever being pivoted on said conveyor and having a portion to engage said spring to hold the mold sections in closed position, so as to permit excessive fluid pressure within the mold devices to partially open said hinged mold sections against the force of said spring to relieve said excess fluid pressure.

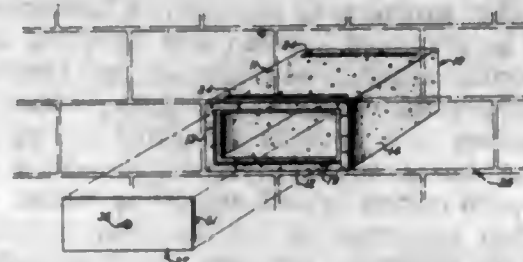
2,819,692

SAFE DEPOSIT RECEPTACLE

David B. Johnson, Minneapolis, and Leslie N. Knutson, Duluth, Minn.
Application March 21, 1956, Serial No. 572,865
5 Claims. (Cl. 109—50)

5. A safe deposit receptacle for installation as a structural element in the wall of a building, said receptacle comprising a hollow building block, an opening in one end of said block providing access to the interior, a rabbet surrounding said opening, locking bar receiving recesses in opposite side walls of said block adjacent said

rabbet, a removable closure for said opening comprising a metallic front panel of a size to be received in said rabbet substantially flush with the end edge of said block, a metallic rear panel spaced from said front panel and secured thereto, thermal insulation disposed between said panels, locking means for said closure comprising oppositely extending latch bars slidably mounted on the rear

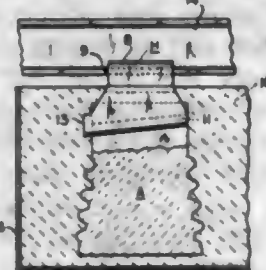


face of said rear panel, a lock extending through said front and rear panels substantially centrally thereof, a crossbar fixed to the inner end of said lock and rotatable therewith and means to pivotally connect said latch bars to said crossbar, whereby said closure may be placed in said opening with said latch bars projecting into said recesses to lock said closure in place and upon rotation of said lock to retract said latch bars said closure may be completely removed from said block.

2,819,693

REFRACTORY ANCHORS AND SUPPORTING HANGERS THEREFOR

Robert A. Rath, Pittsburgh, Pa.
Application November 28, 1955, Serial No. 549,317
1 Claim. (Cl. 110—99)



The combination of a refractory anchor and the supporting hanger therefor, consisting of an elongated anchor converging from the lower end thereof toward the upper end thereof and having two oppositely disposed laterally projecting hanger-engaging shoulders formed adjacent the upper end thereof, with the hanger-engaging surface of each such shoulder extending longitudinally of the shoulder at an angle to the horizontal and located intermediate the ends of the anchor; and a metallic hanger for said anchor having two re-entrant, oppositely disposed, spaced support-engaging flanges formed at one end thereof and two re-entrant, oppositely disposed spaced anchor-engaging flanges formed at the other end thereof, each such flange extending lengthwise at an angle to the horizontal corresponding to the angle of the hanger-engaging surface of each of said shoulders and having an anchor-engaging stop formed at the lower end thereof.

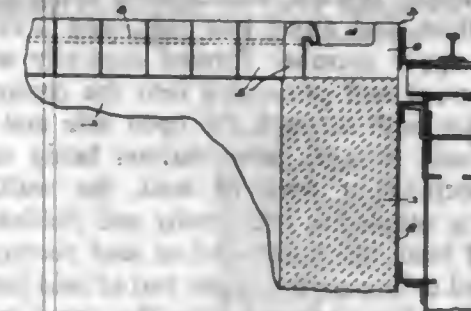
2,819,694

SOAKING PIT CURB

Louis J. Hartle, Pittsburgh, Pa., assignor to Amsler Morton Corporation, Pittsburgh, Pa., a corporation of Pennsylvania
Application February 24, 1956, Serial No. 567,544
5 Claims. (Cl. 110—181)

1. A soaking pit curb formed from a course of non-metallic refractory tiles disposed side by side and having central portions of less height than their ends to form a top sand-receiving trough in the curb for receiving the

lower edge of a removable cover, each tile comprising inner and outer blocks having their adjacent ends substantially abutting each other at the inner side of the trough, the outer block including all of said central portion and having a projection on top of its inner end, the

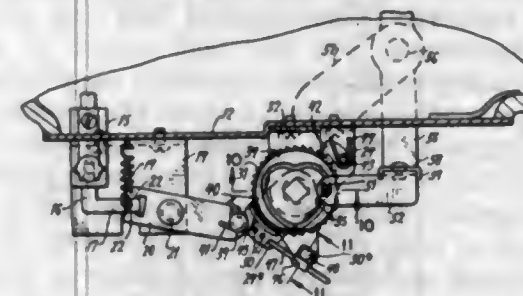


bottom of the trough being formed by the upper surfaces of said central portions, and the inner block having an outwardly extending portion overlapping the top of the inner end portion of the outer block and forming the inner side of said trough, said overlapping portion being provided with an upwardly extending recess receiving said projection to hold the two blocks together.

2,819,695

SEWING MACHINE ATTACHMENT

Wade W. Gergen, Wood River, and Granville V. Walmsley, East Alton, Ill., assignors, by mesne assignments, to G. M. Pfaff, A. G., Kaiserslautern, Germany, a corporation of West Germany
Application November 6, 1953, Serial No. 390,495
3 Claims. (Cl. 112—158)



1. In a sewing machine having an overhanging arm, a sewing head carried on said arm, a needle bar mounted in said head, a shaft disposed in said arm operatively connected to said needle bar for vertically reciprocating said needle bar, oscillating means disposed in said arm and operatively connected to said needle bar for oscillating said needle bar laterally to make stitches transverse to the direction of feed, driving means operatively connected to said shaft and to said oscillating means, an oscillating member disposed in said arm operatively connected to said shaft, a rear opening in said arm providing access to said oscillating member, and a control member mounted on the front of said arm operatively connected to said oscillating means and manually rotatable to vary the width of said transverse stitches; the improvement which comprises a cover-plate removably mounted in said rear opening, an aperture in said plate adjacent said oscillating member, a reciprocable driven element slidably mounted on said plate extending through said aperture, resilient means mounted on said plate biasing said driven element into contact with said oscillating member to be reciprocated thereby, cam means rotatably mounted on the rear of said plate, means pivotally mounted intermediate of its ends to the rear of said plate connected at one end to said driven element and at the other end to said cam to rotate said cam as said driven element is reciprocated, and a lever pivotally connected to said plate, said lever extending beneath said arm engaging said control member at one end and engaging said cam at its other end to be pivoted by rotational movement of said cam and thereby rotate said control member to vary the width of transverse stitches made by said needle bar.

2,819,696

SHRINKLESS SEAM AND METHOD OF MAKING SAME

Harry C. Donaldson, Jr., Troy, and Thomas A. Bramfitt, Watervliet, N. Y., assignors to Cluett, Peabody & Co., Inc., Troy, N. Y., a corporation of New York
Application April 27, 1955, Serial No. 504,221
3 Claims. (Cl. 112—262)

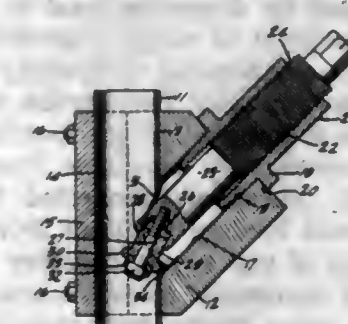


2. A textile article comprising a plurality of layers of textile fabric superposed face to face, and sewed together in a longitudinally extending seam with regular sewing thread, and a physically separate spacing yarn of a water soluble material removable by the action of a laundering solution which will not remove said regular thread, said spacing yarn being in the loop of each stitch of the sewing thread between an exterior face of the layers and the sewing thread lying along that face.

2,819,697

APPARATUS INCLUDING A ROTATING PART FOR FORMING FLANGES ON TUBULAR MATERIAL

William D. Kraemer, Maywood, Calif.
Original application December 1, 1952, Serial No. 323,368. Divided and this application October 12, 1953, Serial No. 385,362
3 Claims. (Cl. 113—52)



1. In a device of the character described: means defining a cylindrical bore; a stem in said bore having a diameter substantially less than said bore to permit a limited tilting movement of said stem in said bore; a flanged roller, a pintle mounted at one end of said stem mounting said roller for rotation about an axis angularly related to the axis of said stem for planetary movement of said roller; said roller having an annular lip describing in said planetary movement of said roller, a path the diameter of which is less than, but substantially equal to that of said bore; and means detachably securing said stem against tilting movement and mounting said stem in coaxial relation with said bore, but permitting rotation of said stem about its axis as well as permitting axial retraction of said stem in said bore.

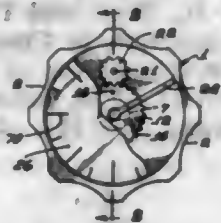
2,819,698

COMBINED KNOB AND DIAL

Berndt Kirsten, Los Angeles, Calif.
Application August 16, 1954, Serial No. 449,960
7 Claims. (Cl. 116—124)

1. In a device of the character disclosed: a fixed instrument panel, a rotatable knob member having a circular recess therein, said knob being adapted to be mounted adjacent the wall of said instrument panel, a shaft rotatably

mounted on said panel and extending into said recess, a dial member supported by said shaft and within said re-



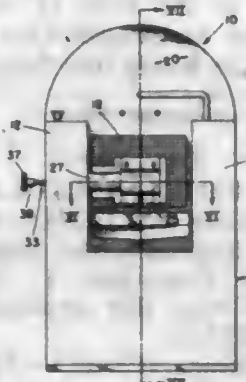
cess, gear means adapted to hold said dial against rotation, and detent means holding said locking means stationary relative to said panel.

2,819,699

COMBINED AUTOMATIC FOOD DISPENSER AND EXERCISING CAGE

Walter G. Klettke, Kalamazoo, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

Application October 7, 1954, Serial No. 460,903
18 Claims. (Cl. 119—51)



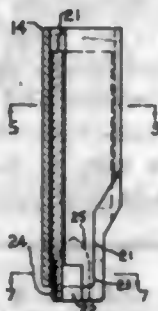
1. In an apparatus for dispensing food to an animal in proportion to the amount of energy voluntarily expended by said animal, the combination comprising: a cage and frame means supporting same for rotation about a horizontal axis; means defining a feeding location communicating with and continuously accessible from said cage; a supply chamber operatively connected to and communicating with said feeding location; drive means for urging the contents of said supply chamber to said feeding location; and automatic means connected to said cage and to said drive means for actuating said drive means in response and in proportion to predetermined movement of said cage.

2,819,700

PENCIL

Baruch Spector, Long Island, N. Y.

Application December 9, 1952, Serial No. 324,867
3 Claims. (Cl. 120—13)



1. A pencil of the character described, comprising a lower, inner member which is adapted to bear against a writing surface and to support the pencil thereon during a writing operation, and an upper, outer member which is adapted to be held in the hand during such writing operation and by which pressure is brought to bear upon the pencil, said inner and outer members being in tele-

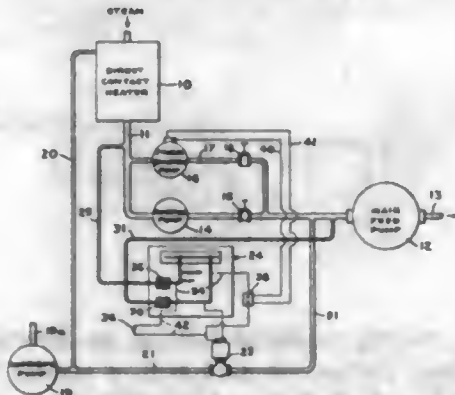
scopic engagement with each other, said upper member enclosing substantially all of the lower member except for the lower end of said lower member which is exposed to bear against the writing surface, said lower member having a rectangular channel formed therein, centrally and longitudinally thereof, said channel being open at the top and bottom and along one side, and a rectangular bar on the upper member formed centrally and longitudinally thereof and projecting into the channel of the lower member both through the open side and the open top end of said channel, said channel being adapted to receive a rectangular stick of lead, the walls of said channel being adapted to frictionally and yieldably engage said stick of lead, the lower end of said rectangular bar being adapted to engage the upper end of said lead, whereby a downward force exerted upon the upper member by a person writing with said pencil, the lower member being held against the writing surface, will feed the lead downwardly through the channel and its open bottom end into writing engagement with said writing surface, said lower end of the rectangular bar being provided with a downwardly extending extension which engages the side of the lead on the open side of the channel to cooperate with the walls of the channel in supporting the lead in operative position.

2,819,701

BOILER FEED PUMP CONTROL

Igor J. Karassik, Maplewood, N. J.

Application January 26, 1956, Serial No. 561,414
2 Claims. (Cl. 122—451)



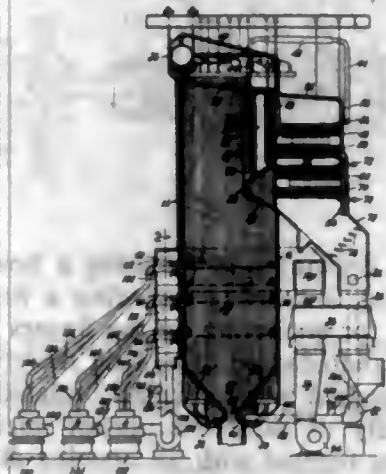
1. In a boiler feedwater system, a direct contact heater, a main feed pump, a feedwater conduit connected between said heater and main feed pump, a booster pump disposed in said conduit to deliver feedwater under pressure from said heater to said main feed pump, a second conduit communicating at one end with the direct contact heater and at the other end in communication with the suction side of the main feed pump a stand-by booster pump disposed in said second conduit to increase the pressure of feedwater delivered from the heater to said main feed pump, a condensate pump, a discharge conduit in communication with said condensate pump and said heater for passing condensate therethrough to said heater, a bypass conduit in communication with said condensate pump to said main feed pump for passing condensate therethrough to said main feed pump, a solenoid valve disposed in said bypass conduit to control the flow of condensate therethrough and control means for maintaining a predetermined pressure differential between the feedwater entering the main feed pump and the vapor pressure corresponding to the feedwater temperature at the suction side of the main feed pump to prevent flashing of the feedwater into steam, said control means being operatively connected to said stand-by booster pump and solenoid valve to start the stand-by booster pump in operation when the net pressure of said booster pump falls below a first predetermined value, and to open said solenoid valve when the net pressure of said booster pump falls below a second predetermined value.

2,819,702

METHOD OF AND APPARATUS FOR CONTROLLING VAPOR TEMPERATURES

Paul H. Koch, Bernardsville, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application December 29, 1951, Serial No. 264,029
11 Claims. (Cl. 122-479)



1. The method of maintaining a predetermined temperature of superheated steam delivered from a steam generator having a vertically elongated furnace with tubular water flow elements in the lateral walls and throughout the major extent of its height for receiving heat and generating steam, convection steam superheating elements located beyond the furnace gas outlet from the upper end of the furnace and in the path of heating gases flowing therefrom and fuel burning means arranged and constructed to deliver fluid fuel and combustion air to a combustion zone at different levels intermediate the height of the furnace, the method comprising the steps of; burning the preponderant portion of fuel in suspension in a combustion zone having a mean elevation intermediate the height of the furnace to produce high temperature heating gases, imparting heat from the gases to water as the gases flow upwardly in an elongated flow path to generate steam to meet a high load steam demand and to partially cool the gases, passing the gases in a flow path in heat transfer relationship with steam superheating elements to superheat steam and to further cool the gases, variably introducing a recirculated portion of the partially cooled gases from a position in the gas flow path downstream of the steam superheating heat transfer zone to a position within the furnace substantially below the mean elevation of said combustion zone to reduce heat transfer to the water surrounding the furnace zone subjacent the combustion zone, increasing the rate of said recirculated gas introduction as load decreases, and as the steam demand is decreased decreasing the fuel burning rate in a combustion zone the mean elevation of which is lower than the mean elevation of the combustion zone of the higher load and less remote from the point of recirculated gas introduction, whereby the vertical extent of the furnace zone subjacent the combustion zone is increased to effect a reduction in heat transfer to the surrounding water tubes and whereby the superheat regulation effect of the gas recirculation is enhanced.

2,819,703

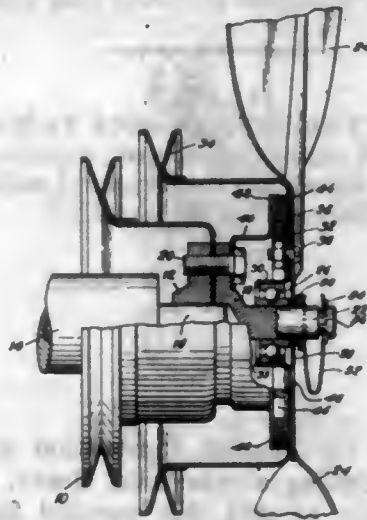
VARIABLE SPEED FAN DRIVE

Lawrence D. Suttle, Detroit, Mich., assignor to Robert J. Schaffer, Detroit, Mich.

Application January 27, 1955, Serial No. 484,345
8 Claims. (Cl. 123-41.12)

1. In a drive for use on an engine driven vehicle or the like adapted to drive an accessory such as a generator, air conditioning compressor, and the like, a body member adapted to be driven by the engine of the ve-

hicle, a fan member rotatably mounted on the body member, axially opposed friction elements on the fan and body member, means for causing slippage between



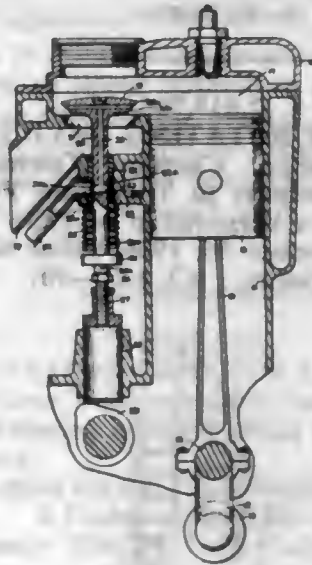
the friction elements above a predetermined speed including a slideable mounting for the fan on the body member, and an accessory connection on the fan.

2,819,704

AIR COOLED ENGINE EXHAUST VALVES

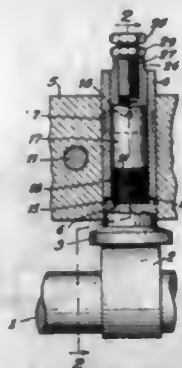
Henry Niederman, Bronx, N. Y.

Application December 9, 1955, Serial No. 552,009
6 Claims. (Cl. 123-41.17)



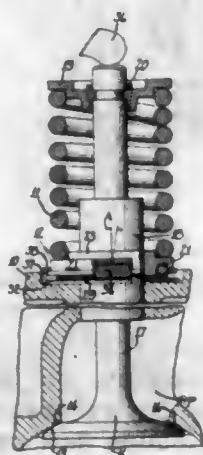
1. An internal combustion engine cylinder having a combustion chamber, an exhaust manifold communicating with the combustion chamber, an exhaust valve controlling said communication, and means for reciprocating the exhaust valve; the exhaust valve having a guide provided with a distribution flow passage therein and an inlet therefor, the exhaust valve having a stem slidable in said guide and provided with a lateral inlet port registerable with the distribution flow passage when the exhaust valve has been raised from communication closing position and with a longitudinal flow passage communicating with said inlet port and with a head provided with a lateral discharge passage opening through the edge of the valve head and communicating with the longitudinal flow passage, said valve head engaging a seat of said engine cylinder to close said lateral discharge passage, the inlet port being disposed out of registration with said distribution flow passage when the valve is in closed position, and means for supplying air under pressure to said distribution flow passage, whereby cooling air will be discharged through said exhaust valve when it is in an open or raised position and waste fuel gases will be displaced from said combustion chamber.

2,819,705
CUSHIONED VALVE TAPPET
 James G. Dickson, Glencoe, Ill.
 Application March 2, 1954, Serial No. 413,554
 10 Claims. (Cl. 123—90)



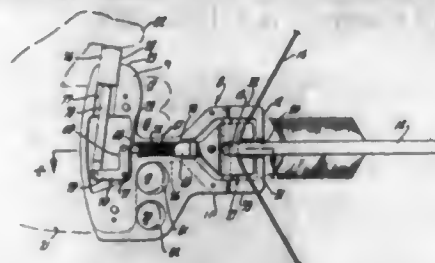
1. A cushion for internal combustion engine valves and the like, including a cylindrical sleeve, open at one end, a multiplicity of thin, flat, parallel faced metallic disks, the diameter of which is approximately the same as the bore of the sleeve, contained in the sleeve and arranged in a stack, a plunger in the sleeve remote from and out of direct contact with the valve actuating cam, having a plane face parallel with the disk faces, engaging one end of the stack, there being a plane faced abutment engaging the other end of the stack coextensive with and parallel with the disk faces, the plunger being a working fit in the sleeve free to move longitudinally therein, the area of contact between the plunger and the sleeve being long enough to positively maintain sleeve and plunger axes in parallel and in alignment.

2,819,706
VALVE ROTATING DEVICE
 Howard M. Gammon, Claridon Township, Geauga County, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
 Application September 30, 1955, Serial No. 537,814
 16 Claims. (Cl. 123—90)



1. A valve rotating device comprising a conical spring washer having axially spaced inner and outer edges, a spring means providing helically wound coils engaging one side of said spring washer between said edge portions, and first and second parts to be rotated, one of said edges of said spring washer engaging one of said parts, the other of said parts engaging the opposite side of spring washer between said edge portions, said spring washer having confining means for keeping said spring washer and the other of said parts in engagement with one another, said coils arranged to transmit forces transversely of said spring coils and moving said one of said edges out of engagement with said one of said parts under increased load whereupon said coils will tilt to rotatably drive the first and second parts with respect to one another.

2,819,707
BOW STRING DRAWING AND RELEASING DEVICE
 Joe M. Kayfes and Henry R. Garner, Richmond, Calif.
 Application March 25, 1955, Serial No. 496,878
 1 Claim. (Cl. 124—35)

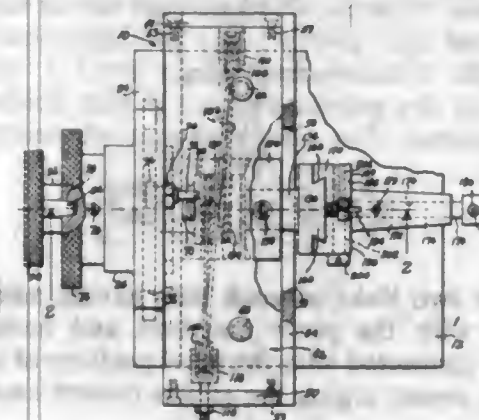


A device for drawing and releasing a bow string and arrow comprising, a housing including a first elongated portion formed for encircling by the fingers of the hand of the operator and adapted to be held thereby in vertical position and a second perpendicularly related portion extending forwardly of said first portion medially of its length and being formed with an opening at its forward end to receive an end of an arrow and a vertical slot to receive the bow string bisecting said opening and extending rearwardly therefrom in a common plane with said first portion, a pair of levers pivotally mounted internally of said housing on axes spaced on opposite sides of and parallel to said plane and having forwardly disposed jaw members arranged with confronting faces movable into contact at said plane in the closed position of said jaw members, said levers having rearwardly disposed ends spaced apart in said closed position, spring means urging said jaw members to closed position, the forward edges of said faces being beveled to receive and center the bow string between said faces and to effect a forced separation of said faces by said string against the resistance of said spring means to permit passage of said string between said faces to a supported position on the rearward edges of said faces, a latch part mounted in said housing for reciprocation into and from an engaged position between said lever ends for respectively holding and releasing said jaw members in closed position and for opening therefrom against the resistance of said spring means, said faces being formed with opposed recesses aligned with said opening for receipt of the arrow, a cylindrical plunger mounted for reciprocation in said first housing portion and projecting from the upper end thereof for engagement with and depressing by the thumb of the hand holding the housing, said plunger and latch part being connected for movement of the latter from its engaged position upon depressing said plunger and for movement of said latch part into its engaged position from outward extension of said plunger, and spring means urging said latch part and plunger to their last named positions.

2,819,708
RADIUS-TO-TANGENT GRINDING WHEEL DRESSER
 Edwin V. Statia, Sr., Phoenix, Ariz.
 Application December 29, 1955, Serial No. 556,303
 12 Claims. (Cl. 125—11)

1. A radius-to-tangent grinding wheel dresser comprising a base adapted to be mounted adjacent the grinding wheel to be dressed, an elongated hollow mount structure rockably mounted on said base and having a rectilinear guideway disposed transverse to the rocking axis of said mount structure, a carriage mounted on said mount structure in engagement with said guideway for reciprocation therealong, a drum rotatably mounted adjacent said carriage, a drum-rotating device drivingly connected to said drum, an elongated flexible motion-transmitting member

operatively connecting said drum to said carriage for reciprocating said carriage in response to the rotation of said drum, a dressing tool holder structure connected to



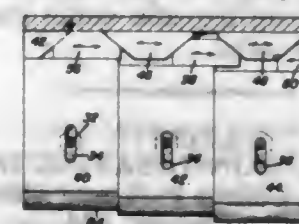
said carriage for travel therewith and for rocking therewith in response to the rocking of said mount structure, and a grinding wheel dressing tool mounted on said holder structure.

2,819,709
MASONRY SAW FRAME
 Richard K. MacGregor, Englewood, Colo.
 Application August 9, 1956, Serial No. 602,959
 9 Claims. (Cl. 125—13)



1. In combination: a portable saw frame comprising a bed frame adapted to be laid flat on a supporting surface, a work-piece supporting table mounted on the bed frame for forward and rearward movement relative thereto, an upright frame hingedly attached to one end of the bed frame for movement into folded inoperative position relative thereto, latch means interconnecting the upright frame and bed frame for maintaining the operative relation therebetween, a swinging frame carried by the upright frame for upward and downward swinging movement above and relative to the bed frame, the swinging frame including spaced side elements arranged to permit insertion of the bed plate of a portable saw therebetween, said side elements including portions positioned beneath the bed plate in supporting relation thereto and portions extending upwardly in position to maintain the bed plate therebetween and means carried by the swinging frame for detachably connecting a portable electric saw thereto in position to cut a work piece moved thereunder on the supporting table.

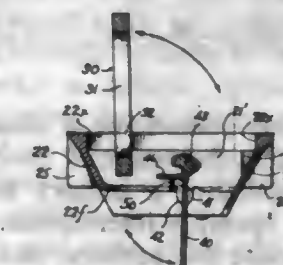
2,819,710
KNIFE EQUALIZER FOR STONECUTTER
 Elmer F. Mangis, Frankfort, Ind.
 Application July 17, 1957, Serial No. 672,478
 6 Claims. (Cl. 125—23)



1. A knife equalizer for a stonecutting apparatus comprising a frame, a plurality of knives vertically adjustably carried by said frame, a set of wedges mounted on said frame and including a pair of spaced end wedges fixedly

secured to said frame and a plurality of other wedges horizontally movable with respect to said frame, and movable means engageable with said wedges and said knives interspaced between said wedges of said set of wedges holding said knives in vertically adjusted position.

2,819,711
HEARTH VENT AND ASH DUMP COMBINATION
 Albert P. Robinson, Seattle, Wash.
 Application January 24, 1955, Serial No. 483,747
 3 Claims. (Cl. 126—143)



1. A hearth vent and ash dump combination comprising a frame structure adapted to be set within the hearth of a fireplace combustion chamber to define a vertically directed passage for the dumping of fireplace ashes to a pit below the hearth, and for an inflow of air to the fireplace chamber from the pit, a grate supported by the frame across the upper end of the passage, for adjustment from a position flush with the hearth surface to a raised position, for the disposal of ashes through the passage, and a door disposed within the lower end of the passage for closing it against an inflow of air, and having supporting trunnions on which it can be swung, independently of the grate from its closed position to an open position for an inflow of air through the passage and grate; said door being weighted at one edge to cause it to be yieldingly retained in closed position when moved to that position, and to be yieldingly retained in its open position when adjusted to that position.

2,819,712
FLOATING CONTOUR CUSHION
 Nina K. Morrison, Fairborn, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
 Application May 8, 1956, Serial No. 583,599
 4 Claims. (Cl. 128—33)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



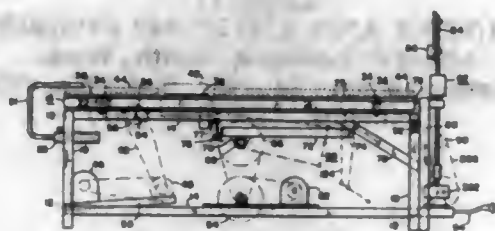
1. A cushion comprising a top section and a contoured lower section, both of comparatively soft elastomeric material such as foam rubber, a rigid contoured plate and a superimposed inflatable bladder bonded together and positioned between the top section and the lower section, the edges of the top and lower section being bonded together around the edges of said plate and bladder, a pair of openings in said rigid plate located to lie beneath the region of the ischial tuberosities of the seated incumbent of the cushion, a pair of openings through said inflatable bladder and located coincident to the openings in said rigid plate, a pressure conduit connected to said bladder to provide for intermittent inflating and deflating said bladder, a cover for said cushion, a pair of openings located in the forward region of each element of said cushion, including said cover, and located coincidently for the purpose of accommodating the straps of a parachute harness.

2,819,713

MASSAGE TABLE

Nelson L. Buck, Bethel, and Thomas G. Beckwith, Hampton Township, Allegheny County, Pa., assignors to Slim-Zelle, Inc., Pittsburgh, Pa., a corporation of Pennsylvania

Application August 15, 1956, Serial No. 604,197
9 Claims. (Cl. 128—33)

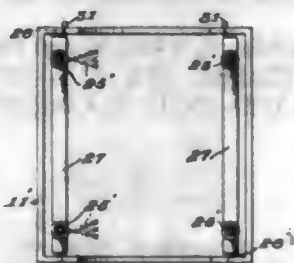


1. A massage table comprising a table frame, a driving member mounted thereon and carrying pin means cyclically rocked thereby, a unitary table top having transversely spaced openings intermediate its end portions and having the opposite end portions secured to the frame by means of a set of deformable mounting bodies, said table top having a pad received in the individual ones of the openings therein, with each pad mounted substantially in the plane of that opening and connected to the margins thereof by means of a set of channel and roller connections for reciprocatory movement in the aforesaid plane, means forming separate connections between the pin means carried by the driving member and each of the pads comprising an individual drive link for each pad, a slide block connecting each drive link and the pin means, and linkages for setting the slide block on each of the pin means at adjusted positions with respect to its rocking axis to vary the stroke of the pads independently of one another, and means operatively connected to said table top and effective to vibrate the same on the deformable mounting bodies independently of the operation of said driving member.

2,819,714

MASSAGING APPARATUS

Bessie P. London, Baltimore, Md.
Application September 19, 1952, Serial No. 310,401
4 Claims. (Cl. 128—57)



1. Massaging apparatus comprising a frame, a plurality of rollers revolubly mounted on said frame with the axes of the rollers substantially parallel to each other, said rollers being closely adjacent to each other, the diameter of adjacent rollers varying in size to give a bumping action to a body rubbing against them, a pair of bars pivotally supported at the rear of said frame, and a plurality of resilient members mounted on said bars for engaging a supporting surface.

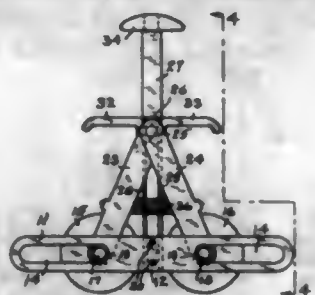
2,819,715

MASSAGING ROLLER

Verna E. Calhoun, Seattle, Wash.
Application June 29, 1954, Serial No. 440,076
4 Claims. (Cl. 128—57)

1. In a massaging device, two spaced apart parallel massaging rollers positioned side by side; handhold means including a stem movable by the grip of a hand toward

and away from the rollers; two pivot members carried by said stem; two pairs of divergent links connecting said pivot members and said rollers at opposite ends of the

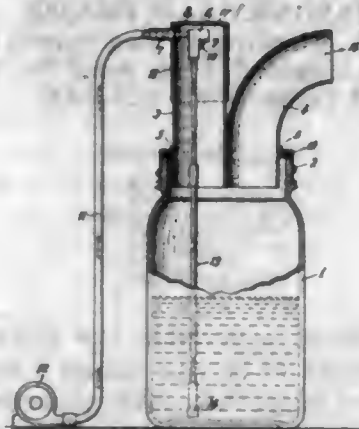


rollers, the two links of each pair having adjacent ends connected with the pivot members and having spread apart ends connected with the axial portions of the rollers; and spring means urging the rollers toward each other.

2,819,716

NEBULIZER FOR MEDICINAL PREPARATIONS

Joseph B. Miller, Mobile, Ala.
Application November 16, 1954, Serial No. 469,243
6 Claims. (Cl. 128—186)



1. A device for nebulizing an inhalable medicinal preparation and for regulating the flow of such preparation to a patient, comprising a reservoir, an inlet and outlet therefrom, said inlet and outlet being juxtaposed and arranged at the top of the nebulizer, the lower ends of said inlet and outlet being open and communicating with the interior top portion of the reservoir, and inlet and outlet being in the form of conduits, said inlet conduit extending from the reservoir and to a height above the inner end of the outlet conduit, a nozzle in the upper portion of the inlet conduit, a source of pressure connected to the nozzle, an adjustable member carrying the nozzle and adjustable with the nozzle toward and away from the open end of said inlet conduit, a duct one end whereof is positioned at the lower portion of the reservoir and the upper end communicates with the nozzle at the upper portion of the inlet conduit and above the inner end of the outlet conduit, atomized medicament under pressure of said source of pressure initially streaming through the inlet conduit out of the open end thereof, then impinging the surface of the medicament in the reservoir, then impinging, directly from such surface, against a wall of the reservoir, then passing into the outlet conduit and then against a wall of the outlet.

2,819,717

SURGICAL SKIN-TREATING DEVICE

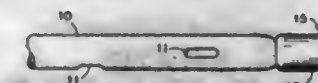
Heinz W. Kugler, College Park, and Allan L. Lorincz, Silver Spring, Md.
Application August 3, 1956, Serial No. 602,089
4 Claims. (Cl. 128—303)

(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A surgical skin-treating device, comprising an integral sectionalized housing and including a motor in one

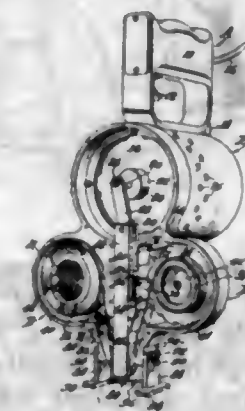
2,819,719

BRANCHED SURGICAL DRAIN

George D. Utley, Forest Hills and Sidney Hirsch, Cedarhurst, N. Y.
Application January 7, 1955, Serial No. 480,390
8 Claims. (Cl. 128—350)



section of the housing, a vertically reciprocally operating tape-applying member in another portion of the housing and actuated by the motor, a pair of rolls mounted in additional sections of the housing oppositely off-set with respect to the tape-applying member, one of which rolls is a tape-supplying roll carrying tape having a side coated with a layer of pressure-sensitive adhesive, the other of which rolls is a tape-receiving roll for receiving the tape from the tape-supplying roll, portions of tape



intermediate the rolls being successively engageable by the tape-applying member in downstroke movements thereof for applying successive portions of the pressure-sensitive adhesive coating on the tape to an area of live skin being treated, cooperating means on the tape-applying member and on the tape-receiving roll for operating the latter responsively to upward strokes of the tape-applying member to wind used tape on the tape-receiving roll, a foot member for the device engaging the area of skin being treated, and a hand grip for the device including a manually-depressible control switch for controlling operation of the motor.

2,819,718

DRAINAGE TUBE

Isidore H. Goldman, New York, N. Y.
Application July 16, 1953, Serial No. 368,375
10 Claims. (Cl. 128—350)



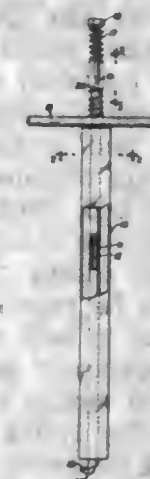
1. A catheter comprising an elongated flexible tube having a closed inner end provided with drainage openings, inflatable membrane means provided in said tube near said drainage openings, inflation duct means communicating with said inflatable membrane means, and a rigid hollow section forming part of said tube and formed of the same material adjacent said membrane means whereby to prevent collapse of the main drainage opening within said tube upon inflation of said membrane means.

726 O. G.—22

2,819,721

METHOD AND APPARATUS FOR SELECTIVE HAIR DYEING

Otho L. Zakon, Brooklyn, N. Y.
Application June 14, 1955, Serial No. 515,457
12 Claims. (Cl. 132—7)

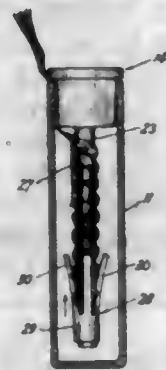


1. The method of providing a contrasting color between a lock of hair and the balance of the hair on a scalp which comprises drawing such lock of hair into a tube of de-

formable liquid-impervious material, moving said tube down over said lock of hair into substantial engagement with the scalp, clamping the scalp-engaging end of the tube to provide a liquid-tight seal thereat and applying a hair coloring solution to that portion of the hair which is to be treated to completely envelop the lock of hair within the tube.

2,819,722 METHOD AND APPARATUS FOR HAIR TREATMENT

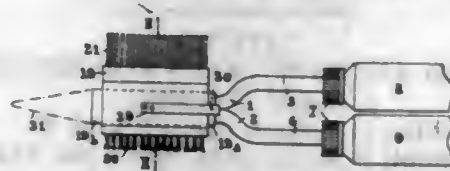
Leon A. Spilo and Mario Petitta, New York, N. Y., assignors to Clairol Incorporated, New York, N. Y., a corporation of Connecticut
Application April 29, 1954, Serial No. 426,406
14 Claims. (Cl. 132-41)



1. A device for treating in situ a discrete strand of hair, said device comprising, in combination, a relatively elongated tubular casing having an open end and a substantially imperforate end, and in which a treatment fluid is disposable; a relatively elongated mandrel having an inner end formed for connection to the end of the strand of hair for disposition of the intermediate portion of the strand along the mandrel, and an outer end of resilient material formed as a stopper having a tight frictional fit within the open end of the casing to sealingly close the same; the part of the strand of hair beyond the mandrel extending out of the casing and being tightly gripped between peripheral surfaces of the casing and stopper when the latter is force fitted into the open end of the casing.

2,819,723 HAIR DYEING APPARATUS

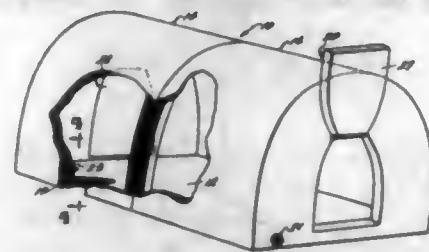
Roger Meyer, Pleasantville, N. Y., assignor to Jean Leclabart, Paris, France
Application May 31, 1955, Serial No. 512,264
4 Claims. (Cl. 132-116)



1. Apparatus for dyeing hair comprising, in combination, compressible container means for a latently dyeing substance; compressible container means for an activating substance for said latently dyeing substance; a mixing container connected to said container for said latently dyeing substance and said container for said activating substance for receiving said substances from the same when both said compressible container means are compressed, creating in said mixing container an activated dyeing substance; means for regulating the relative pressures that can be applied to both said compressible container means; and dye applicator means connected to and communicating with said mixing container for applying the thus-obtained activating dyeing substance to the hair, enabling thereby, during the period of application of said activated dyeing substance, continuous creation of the same during such period of application in said mixing container immediately preceding application thereof.

2,819,724 INFLATABLE TENT

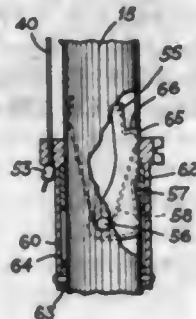
Edward D. Barker, New Carlisle, Ohio, assignor to Aviators Clothing Company, Inc., Beacon, N. Y., a corporation of New York
Application September 16, 1952, Serial No. 309,955
10 Claims. (Cl. 135-1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A pneumatic device which is completely self sustaining within itself on inflation thereof to form a shelter comprising, a flexible outer wall, a flexible inner wall, thread elements woven into said inner wall and connected to and interwoven into said outer wall and constituting load members, means connecting said walls to form an airtight enclosure thereby, and inflation means connected therewith whereby on inflation thereof the device is self erecting to define a free standing shelter, whereupon the said load members become operative to resist deformation of said shelter by the elements to provide a shelter of uniform strength which is impervious to the elements.

2,819,725 UMBRELLA

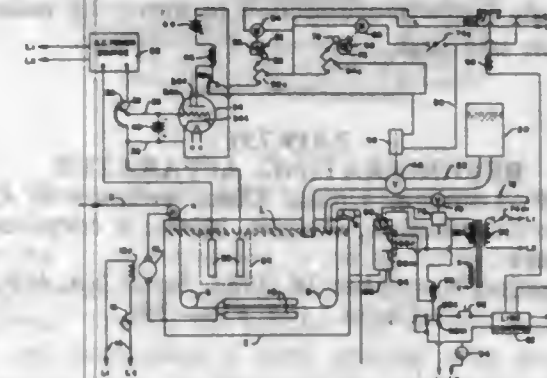
Robert J. Deisenroth, Troy, and Howard E. Wintrow, Tipp City, Ohio, assignors to The Troy Sunshade Company, Troy, Ohio, a corporation of Ohio
Application March 19, 1956, Serial No. 572,526
2 Claims. (Cl. 135-20)



1. An umbrella of the character described comprising a standard, a top secured to said standard, a runner slidable upon said standard and connected with said top to raise and lower said top in response to movement of said runner on said standard, a downwardly facing shoulder within the upper end of said runner, a releasable latch carried by said standard and projecting outwardly therefrom for engagement with said shoulder to retain said runner in predetermined position holding said top raised, yieldable means biasing said latch outwardly of said standard, a latch-releasing member mounted within said runner for sliding movement with respect to said shoulder, and means in the lower end of said runner limiting downward movement of said latch-releasing member and effective upon upward movement of said runner above said predetermined position to raise said member into releasing relation with said latch to provide for downward movement of said runner shoulder past said latch for lowering said top.

2,819,726 CONTROL SYSTEM FOR REGULATING THE CONDUCTIVITY OF LIQUIDS

George H. Rendel, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application November 12, 1954, Serial No. 468,457
3 Claims. (Cl. 137-93)



1. In apparatus including a container for a liquid mixture containing water and a substance which changes the conductivity of the mixture in accordance with the amount of said substance in the mixture, a first conduit for supplying said substance to said container and a second conduit for supplying water to said container; a control system for filling the container and regulating the conductivity of the liquid comprising a conductivity cell in said container, an electric circuit for supplying electric current to said cell, a potentiometer in said circuit, an electronic tube having a grid and cathode connected across said potentiometer, means for supplying a bias voltage to said tube in opposition to the voltage from said potentiometer, a second electric circuit including said tube, a power source and a relay coil, a third electric circuit including a contact and a solenoid connected in series, said contact being connected for operation by said relay coil, a second contact connected in parallel with the first contact, a timing relay connected to operate said second contact, and a valve in said first conduit controlled by said solenoid.

2,819,727 FLUSH TANK RISER ASSEMBLY

Bernard M. Levine, Chicago, Ill.
Application October 26, 1955, Serial No. 542,830
1 Claim. (Cl. 137-444)

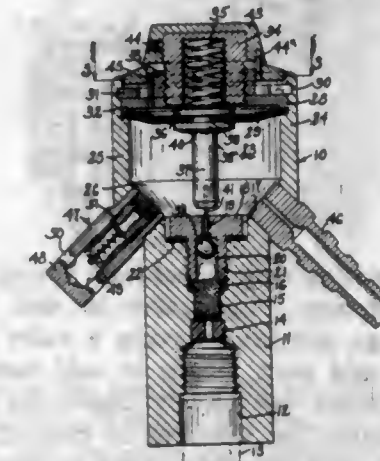


In combination, a one piece vertically extending toilet flush tank water-inlet riser pipe comprising a drawn metal body having an external mounting flange adjacent to the bottom end of the pipe and constituted by an outwardly creased imperforate accordion fold formed in the pipe wall around the entire periphery thereof, which fold is an integral part of the pipe above and below the flange, said pipe being externally threaded below the flange for mounting of the same and said pipe having a frusto conical portion above and adjacent to said flange which portion tapers upwardly to a reduced diameter and a reduced wall thickness and terminates in and merges with an upwardly extending cylindrical portion of a diameter and wall thickness less than that of said pipe below said flange, all of said aforementioned parts of the pipe being formed as one continuous, imperforate, homogeneous

swaged and drawn metal structure, and a float controlled water valve supported by and mounted on top of said cylindrical portion with the cylindrical portion terminating at and opening into the inlet side of the float controlled valve so that the valve controls the flow of water through the pipe.

2,819,728 FLOW REGULATOR

Robert T. Gage and Arthur S. Brown, Milford, Conn., assignors to The Cycle-Flo Company, Milford, Conn., a corporation of Connecticut
Application January 12, 1955, Serial No. 481,385
1 Claim. (Cl. 137-505.39)



In a flow regulator for compressed fluids, the combination of an upwardly extending valve casing provided with a lower inlet portion for connection to a cylinder of highly compressed fluid, the casing being provided with means above said portion forming a valve seat and a vertical chamber for a ball valve below said seat, a ball valve received in said chamber for free-floating movement therein and of a diameter only slightly less than the width of said vertical chamber, a fluid dispersing and filtering element intermediate said inlet portion and said means and engageable by said valve to limit downward movement of the latter, the valve casing having an enlarged opening in the upper portion thereof above said seat and communicating with an outlet port, said opening being further enlarged by an upwardly facing counterbore extending through the upper end of the valve casing, a diaphragm covering the bottom of said counterbore and forming with said casing a pressure-reducing chamber below the diaphragm, a reciprocable control element extending through said diaphragm and fixed thereto, said control element having a lower portion engageable with said ball valve to unseat the same, a flange member snugly received in the counterbore and having the peripheral portion thereof clamping the peripheral part of the diaphragm to the bottom of the counterbore, a snap ring above and positioning said flange member, said snap ring engaging the last-mentioned member and being received in a transverse groove formed in said counterbore, said flange member having an internally threaded sleeve part extending therethrough, a manually operable element of generally inverted cup shape threaded into said sleeve part and having a radially outer flange part embracing the sleeve part and extending into said counterbore, a helical spring in the cup-shaped element and compressed therein, one end of the spring bottoming in the last-mentioned element and the other end thereof bearing against the upper end of said control element and urging the latter downwardly in the casing, said spring and said diaphragm operably connecting said control element with said ball valve and the arrangement being such that said control element may be adjusted upon rotation of said manually operable element, and means on said flange member co-acting with means on said manually operable element to limit rotation of the latter.

2,819,729

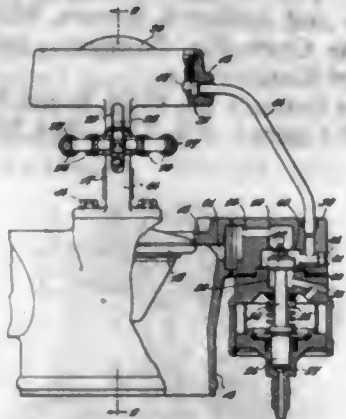
PRESSURE RELIEF VALVES FOR FUEL TANKS
Peter S. Macgregor, Upton, Poole, England, assignor to Flight Refueling Incorporated, Baltimore, Md.; a corporation

Application November 15, 1954, Serial No. 468,951

Claims priority, application Great Britain

November 20, 1953

7 Claims. (Cl. 137-529)



1. In combination with a fuel tank having a fuel supply passage, a pressure relief valve in said tank formed with a discharge port and having a valve element normally closing said port, means in said tank defining an expansible chamber operatively connected to said valve element to control the opening or closing of said port, the exterior of said chamber being exposed to the tank pressure, a control valve alternately operative to establish communication between said chamber and either the tank interior or the atmosphere, resilient means normally positioning said control valve to supply atmospheric pressure to said chamber, and means actuated responsive to the pressure of fluid in said supply passage for positioning said control valve to establish communication between the chamber and the tank interior.

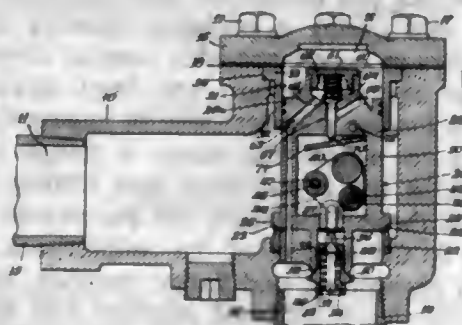
2,819,730

TRAIN LINE END VALVE

Edward B. Moore, La Grange Park, and Elwood H. Stonich, Chicago, Ill., assignors to Vapor Heating Corporation, Chicago, Ill., a corporation of Delaware

Application May 14, 1954, Serial No. 429,726

7 Claims. (Cl. 137-630.13)



1. A train valve comprising a housing having two ports, a valve seat defining a main passageway between said ports within the housing, a cylinder having one end closed and its other end in communication with one of said ports, a combined reciprocable piston and valve member including a piston part slidable in said cylinder and cooperating with the closed end thereof to provide a pressure chamber and having a main valve part movable with the piston toward and away from said seat to effect closing and opening of the main passageway, there being a relief passageway in said combined piston and valve for establishing communication between the said other port and said pressure chamber, a biased closed relief valve disposed in said relief passageway, an operating shaft rotatably journaled in said housing and extending through said combined piston and valve member

at a location intermediate said main valve part and said relief valve, a cam eccentrically mounted on said shaft and movable upon rotation of the shaft in one direction into effective engagement with said relief valve to open the same, said cam upon continued rotation of the shaft in said direction being thereafter movable into effective engagement with said combined piston and valve member to move the latter in a direction to move the main valve away from said seat.

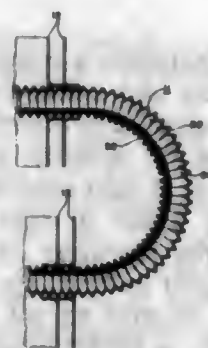
2,819,731

REFRIGERATING APPARATUS

Chester F. Louthan, Union, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 16, 1954, Serial No. 469,069

1 Claim. (Cl. 138-38)



A return bend construction for use in a heat exchanger comprising in combination, a fluid conveying conduit having a plurality of spaced apart substantially parallel and arcuate wall portions, a divider element interposed between said wall portions and comprising a single strip of metal arranged in zigzag form to provide a plurality of internal fins extending between said spaced apart portions of said conduit and disposed in intimate thermal contact therewith, each of said walls and said divider element having registering transversely extending corrugations, said corrugations being closer together at the inside of each return bend than at the outside of the return bend.

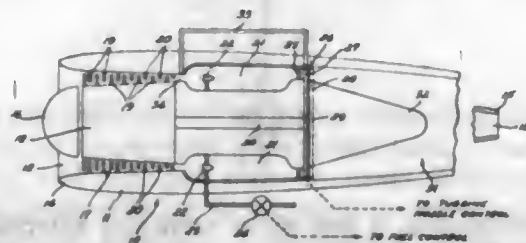
2,819,732

VARIABLE AREA TURBINE ENTRANCE NOZZLE

Robert A. Paetz, University Heights, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application July 14, 1954, Serial No. 443,343

11 Claims. (Cl. 138-46)



1. In a turbine entrance nozzle to control the flow of fluid to a turbine, a pair of radially spaced coaxial rings, a first plurality of spaced fluid directing fixed vanes radially disposed between said rings and secured to both of said rings in firm assembly therewith, a second equal plurality of movable fluid directing vanes disposed between said rings and alternately between the vanes of said first plurality thereof and shiftable pivotally and axially to control fluid flow between alternate movable vanes and fixed vanes, a third ring coaxially mounted with said pair of rings, and means coupling said third ring to said vanes whereby controlled rotation of said third ring is operative to controllably move said pivotal vanes to control fluid flow between said movable vanes and said fixed vanes.

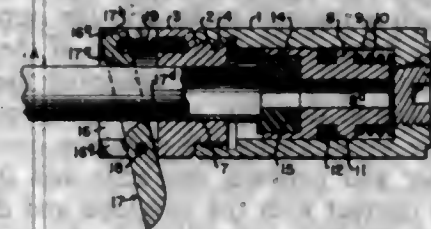
2,819,733

TUBE SEALER AND CONNECTOR

Oliver Malsch, Chicago, Ill.

Application May 15, 1956, Serial No. 585,030

3 Claims. (Cl. 138-89)



3. A device of the character described, comprising a hollow body member, a plunger within and slidable lengthwise in said member, a spring between one end of the plunger and one end of said member tending to press the plunger toward the second end of said member, the latter end containing a bore, coaxial with and smaller in diameter than the plunger, for admission of a plain tube, a yieldable element on the second end of the plunger for engaging and sealing the end of such a tube, said plunger and said sealing element containing a bore coaxial with and smaller in diameter than the aforesaid bore, and means at said second end of said member for engaging the exterior of such tube and locking it against withdrawal from any point to which it may have entered the body member.

2,819,734

APPARATUS FOR CONTROLLING THE WARP IN A LOOM FOR WEAVING

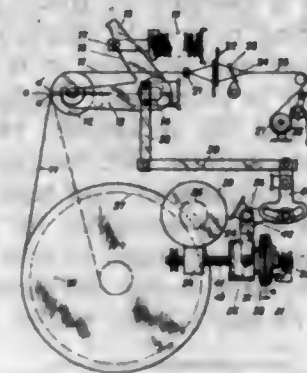
Erwin Pfarrwaller, Winterthur, Switzerland, assignor to Sulzer Freres, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application January 26, 1954, Serial No. 406,116

Claims priority, application Switzerland

February 21, 1953

12 Claims. (Cl. 139-110)



1. A device for operating the warp beam in a loom for weaving, comprising a clutch having a driving and an axially movable driven part, supervising means responsive to changes of the length of the warp between the warp beam and the fabric, a mechanism interconnecting said supervising means and said driven clutch part for changing the axial position of the latter according to the length of the warp between the warp beam and the fabric, and self-locking means interposed in said mechanism and affording transmission of motion in one direction and preventing transmission of motion in the opposite direction for preventing a reaction of the movements of said driven clutch part on said supervising means.

2,819,735

LOOM LET-OFF MECHANISM

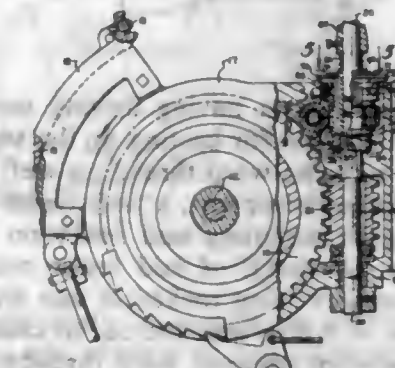
Jasper Wylie Babb and Marshall C. Voss, Asheboro, N. C.

Application June 28, 1956, Serial No. 594,656

10 Claims. (Cl. 139-110)

1. In a let-off mechanism for a loom having a warp beam which rotates forwardly to deliver warp, said let-off

mechanism including a worm gear fixed to the warp beam, a weighted carrier concentric with the worm gear mounted to turn relative to the worm gear, a worm mounted for rotation on the carrier and meshing with the worm gear and an actuator which reciprocates transversely of the axis of the worm in response to demand of the loom for warp; the combination of a ratchet wheel coaxial with said worm and having a clutch connection with said worm, a pawl-carrying member encircling said ratchet wheel and having feeding and return angular motion imparted thereto



about the axis of the worm by the actuator, a plurality of circularly spaced ratchet pawls carried by said pawl-carrying member and engaging corresponding teeth in said ratchet wheel, and said pawls being each spaced out of phase with respect to the others and with respect to the teeth in the ratchet wheel so that, with each active stroke of said actuator, one of the pawls engages a corresponding tooth in said ratchet wheel to impart movement thereto and whereby the pawl-carrying member need have angular movement relative to the ratchet wheel a substantially lesser amount than the length of any given tooth in the ratchet wheel.

2,819,736

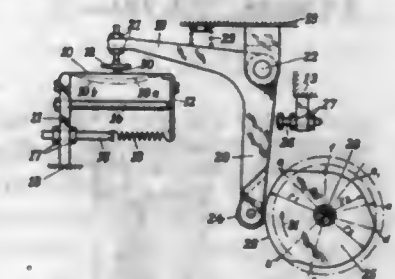
PERIODICALLY ACTING THREAD BRAKE

Erwin Pfarrwaller, Winterthur, Switzerland, assignor to Sulzer Freres, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland

Application January 26, 1954, Serial No. 406,115

Claims priority, application Switzerland February 7, 1953

8 Claims. (Cl. 139-194)



1. A periodically acting thread brake for textile machines comprising a yieldable brake element, means for tensioning said yieldable brake element, a rigid brake element adapted to be pressed against said yieldable brake element for braking a thread moving between said two elements, and means for actuating at least one of said elements, said actuating means including first means for disengaging said elements, second means for pressing said elements against each other at a predetermined force, and third means for pressing said elements against each other at a force different from that produced by said second means; and means for individually adjusting the forces produced by said second and third means.

2,819,737

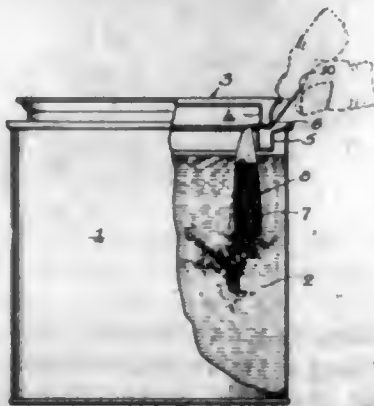
WEFT STOP MOTION FOR WEAVING LOOMS
Robert Opletal, Brno-Komin, Czechoslovakia, assignor to
Výzkumný ústav tvářecích strojů a technologie tvářeni,
Brno, Czechoslovakia
Application May 2, 1955, Serial No. 505,238
Claims priority, application Czechoslovakia May 7, 1954
6 Claims. (Cl. 139—370)



1. In a weaving loom having driving means therefor and a reciprocated reed for beating up the successive weft threads woven with the warp threads; a weft stop motion comprising a rockable support, a weft feeler of relatively small mass, means mounting said feeler on said support and permitting movement of said feeler relative to said support, said support being rocked in one direction, prior to the insertion of a new weft thread, to cause said feeler to penetrate between adjacent warp threads and to come to rest against the last beaten up weft thread previously woven with the warp threads, said support being rocked in the opposite direction, after the reciprocating movement of the reed for beating up a new weft thread in back of the penetrating feeler, to withdraw said feeler from between the adjacent warp threads so that, when a new weft thread has been normally inserted, the new weft thread acts against said feeler to cause movement of the latter relative to said support during withdrawal of the feeler and, when a failure has occurred in the insertion of the new weft thread, said feeler is free to be withdrawn from between the warp threads while remaining immobile relative to said support, and means responsive to the movement of said feeler relative to said support to halt the operation of the driving means for the loom when said support rocks in said opposite direction to withdraw said feeler and the latter remains immobile relative to said support during its withdrawal.

2,819,738

METHOD OF PREPARING SURFACE COATINGS
Edwin H. Marberg, Chicago, Ill., assignor, by mesne assignments, to National Chemical & Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application May 19, 1951, Serial No. 227,139
3 Claims. (Cl. 141—1)



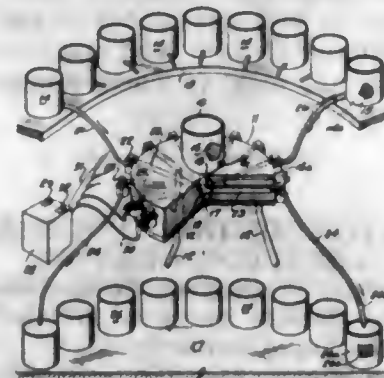
1. The method of producing a paint or other surface coating of a predetermined color by the admixture of a predetermined and measured quantity of pigment with a predetermined and measured quantity of non-pigmented base ingredients, which consists in supplying a predetermined and measured quantity of these base ingredients in a container having an imperforate lid removable to secure access to the contents of the container, supplying a predetermined and measured quantity of a selected pigment in a flexible and compressible envelope sealed against

leakage, removing the lid of the container to secure access to the contents, slitting one end of the envelope, inserting the slitted end of the envelope into the open container for introducing the pigment from the envelope into the base ingredients in the container, placing the lid on the container in such a manner as to grip the opposite sides of the envelope between the upper edge of the container and the adjacent edge of the lid, stripping the predetermined and measured quantity of selected pigment from the envelope by withdrawing the envelope over the edge of the container and between this edge and the edge of the lid held in contact with the envelope and discharging the pigment into the base ingredients in the container and mixing the pigment with the base ingredients.

2,819,739

APPARATUS FOR THE PROCESSING OF TISSUE MATERIAL

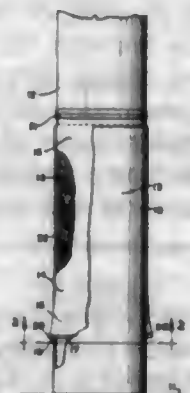
Joseph C. Ehrlich and Kurt G. Stern, New York, N. Y.;
Hans S. Grossmann, executor of the estate of said Stern, deceased, assignor to said Ehrlich
Application March 28, 1955, Serial No. 497,102
17 Claims. (Cl. 141—82)



11. Apparatus for the processing of tissue material comprising, in combination a bank of supply containers each adapted to receive a quantity of treating liquid, a stationary liquid holding receptacle adapted to be charged with tissue specimens and arranged to receive the liquid from each container in succession, conduits between the supply containers and the receptacle, valve mechanism for controlling said conduits, electromagnetic means for operating said valve mechanism, said bank of supply containers including a supply container for a fusible solid material, heating means arranged in said container, and means controlled by said timing mechanism for controlling the operation of said heating means.

2,819,740

HOLDER FOR FILLING PILLOW PACKAGES
Andrew A. Root, Concord, Mass., assignor to Bradley Container Corporation, Maynard, Mass., a corporation of Delaware
Application September 14, 1955, Serial No. 534,283
3 Claims. (Cl. 141—316)



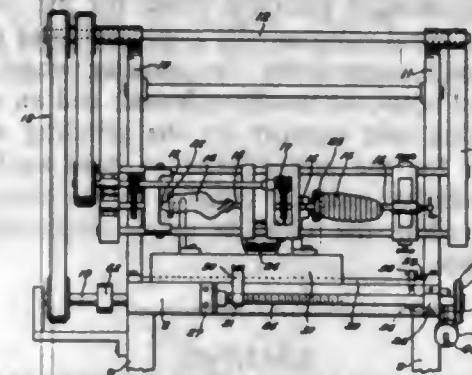
1. In combination, an upright tubular holder having diametrically disposed slots extending downwardly from the upper end thereof a predetermined distance and short

of the opposite end of the holder, the lower end walls of the slots forming supporting seats, an empty flexible container insertable in said holder, said container having a major portion thereof of cylindrical shape so as to conform in shape with the holder, the lower end of the container being sealed flat to form a transverse centrally disposed straight edge strip of greater length than the external diameter of the holder, said strip being slidable in said slots and arranged when the container is positioned within the holder to rest on said seats and extend laterally and outwardly from opposite sides thereof, and feeding means above the container and registering with the open end of the latter for feeding material into the container, said tubular holder coacting with the flexible container to insure a major portion of the cross section of the container assuming a substantially cylindrical shape when the material is fed into the container, so that the latter may be filled to its maximum capacity.

2,819,741

SHOE LAST TURNING LATHE

Henry G. Clausing, Portsmouth, Ohio, assignor to Vulcan Corporation, Portsmouth, Ohio, a corporation of Ohio
Application December 29, 1954, Serial No. 478,353
5 Claims. (Cl. 142—7)



1. In a machine for copying shoe lasts the combination of a laterally shiftable means for holding a model and a work block, a longitudinally shiftable means for holding a model wheel and cutter, said two means being longitudinally displaceable to one another in a direction such that the cutter moves from heel-to-toe with respect to the work block, a translating device for effecting said longitudinal displacement, power actuated drive means for the device, a change speed element interposed between the drive means and the device, and a control in the path of the longitudinally shiftable means for holding the model and work block, said control being connected to the change speed element and made operative as the cutter approaches the toe portion of the work block for actuating the change speed element.

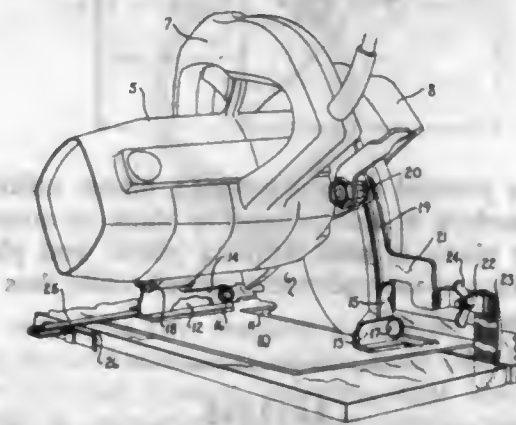
2,819,742

KERF GUIDE AND SPLITTER

Donald L. Blachly, Milwaukee, Wis., assignor to John Oster Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin
Application July 5, 1955, Serial No. 519,753
2 Claims. (Cl. 143—43)

1. In a portable electric saw of the type wherein a rotatable circular saw blade is driven by an electric motor and a shoe supports the motor housing for translation of the saw across the surface of a workpiece: means pivotally mounting the motor and the saw blade as a unit upon the shoe in a manner providing for tilting of the motor and blade with respect to the shoe about an axis parallel and adjacent to the plane of the blade, said means including a bracket comprising an upright arm, means rigidly connecting the upper end portion of the arm to the motor housing, and means connecting the lower portion of the arm to the rear portion of the shoe to provide for swinging of the arm on said axis and consequently tilting of the motor and saw blade with the arm during such

swinging motion thereof; means fixed with respect to the bracket providing a rearwardly projecting extension of said arm having a trailing end portion which projects beyond the rear of the shoe and is offset from the arm toward the plane of the saw blade; a kerf guide and splitter in the form of a flat blade having a thickness substantially equal to the width of the kerf cut by the

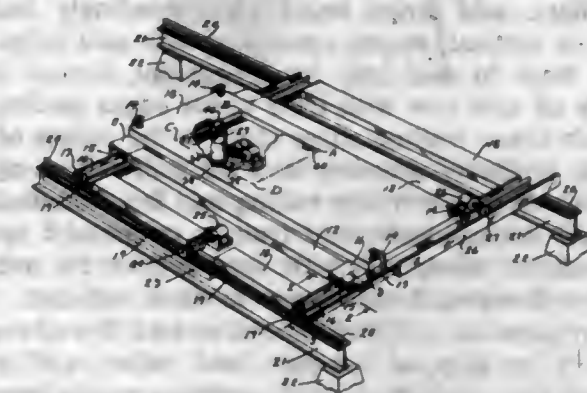


saw blade; and means mounting the kerf guide upon the offset trailing end portion of said extension on the arm with the kerf guide in coplanar alignment with the saw blade and projecting below the bottom of the shoe to enter and move along the kerf cut by the saw, the mounting of the kerf guide upon said bracket assuring the maintenance of coplanar relationship between the kerf guide and saw blade despite tilting adjustment of the saw blade and motor with respect to the shoe.

2,819,743

APPARATUS FOR CUTTING RECTANGULAR OPENINGS IN DOORS AND THE LIKE

Walter G. Birkel, Lynbrook, N. Y., and Robert E. Schram, Paramus, N. J., assignors to Hardware Products Corporation, Neenah, Wis., a corporation of Wisconsin
Application November 2, 1956, Serial No. 620,061
14 Claims. (Cl. 143—48)



13. A cutter-head assembly comprising: a cutter-head; a single circular-saw blade; a stub axle rigid with the blade, and extending to one side only of the blade, for drivably supporting the blade; means, adjacent the end of the cutter-head, for journaling the stub axle on the cutter-head; a plurality of chain-saw cutting-chains, trained around the stub axle and the end of the cutter-head, for cutting a path through the work, to enable the stub axle and the end of the cutter-head to pass there-through; and means for cuttingly rotating the circular-saw blade and for cuttingly operating the cutting-chains.

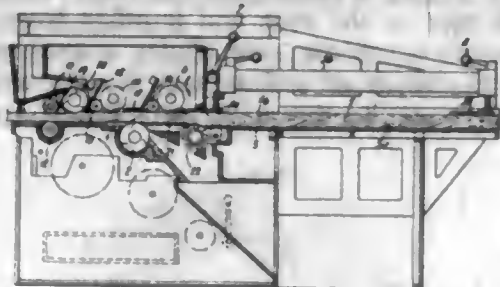
2,819,744

METHOD OF AND MACHINE FOR ROUGH-PLANING OF WOODEN MATERIALS OR THE LIKE

Henri Louis Leon Chuet, Pierre Marie Chuet and Jean Marie Chuet, Nevers, France
Application May 17, 1955, Serial No. 509,018
Claims priority, application France May 18, 1954
9 Claims. (Cl. 144—253)

1. A method of planing a plank of wood or the like, comprising, in combination, the steps of supporting said

plank in a working plane while continuously advancing it in feed direction for planing; cutting into a face of said advancing plank a grooved surface having a bottom

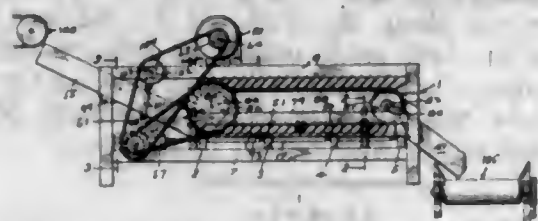


in a plane parallel to said working plane; utilizing said grooved surface in said advancing plank to maintain the advancing plank in said working plane; and planing at least one face of said advancing plank while thus utilizing the grooved surface.

2,819,745

FRUIT STEMMING MACHINE

Salvador A. Minera, San Francisco, Calif.
Application July 26, 1954, Serial No. 445,541
7 Claims. (Cl. 146—55)



5. In a fruit stemming machine that includes a pair of parallel, horizontally extending rollers in side by side yieldable engagement, for supporting fruit thereon in a single file extending longitudinally of said rollers, a row of resilient strips extending transversely across said pair of rollers and spaced from each other longitudinally of said rollers, said strips being correspondingly inclined relative to vertical, means connected with said strips supporting them in said row for movement thereof longitudinally of said row with their upper edges leading and with their lower trailing edges close to the rollers of said pairs for yieldably pressing fruit on said rollers against the latter and for positively rolling said fruit longitudinally of said rollers while said fruit is so pressed by said strips, means connected with said rollers for rotating them for downward movement of their adjacent sides, whereby stems on said fruit moved to said line of engagement will be gripped between said rollers and pulled from said fruit, stationary fruit confining means over said rollers and extending longitudinally of the latter for holding said fruit on said rollers and in said file, and means stationary against movement longitudinally of said rollers spaced longitudinally of said rollers and projecting from said confining means toward said rollers engageable by the stems that extend laterally over said rollers for swinging such stems rearwardly of said fruit and generally over said line of engagement as such fruit is rolled on said rollers longitudinally thereof.

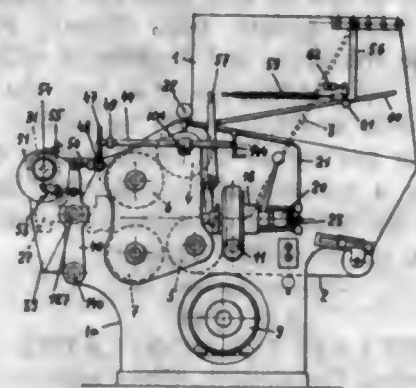
2,819,746

ROTARY AUTOMATIC SHREDDING MACHINE FOR TOBACCO LEAVES AND THE LIKE

Amilcare Baglioni, Rome, Italy, assignor to S. A. S. I. B. S. p. A. Scipione Innocenti-Bologna, Bologna, Italy, an Italian joint-stock company
Application August 10, 1953, Serial No. 373,319
Claims priority, application Italy April 24, 1953
4 Claims. (Cl. 146—118)

1. In a machine of the type described for cutting leaf tobacco or similar material the improvement comprising

in combination a machine frame, a mouth piece or other discharge member arranged within said frame for feeding said material to be cut; a cutter head rotatably mounted in front of said mouthpiece; a plurality of cutters rigidly though adjustably mounted thereupon; a support for said rotatable cutter head displaceably mounted upon said machine frame to move the cutter head relative to the mouthpiece; driving means in said frame continuously effecting such displacement of said support

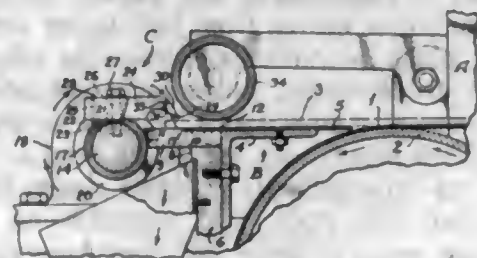


in accordance with the progressive wear of the cutters during their operation; a grinding wheel for the cutters, the width of the wheel substantially conforming to the length of the cutters; a support for the grinding wheel displaceably mounted upon the machine frame; and an adjustable link connecting said support for the grinding wheel and said support for the cutter head to hold said grinding wheel in operative position relative to the cutters of the cutter head while the same is being displaced towards the mouthpiece.

2,819,747

CUTTING MECHANISM FOR CONTINUOUSLY MOVING BAKED SHEETS

Jason A. Hervin, Portland, Oreg.
Application April 26, 1956, Serial No. 580,923
2 Claims. (Cl. 146—119)

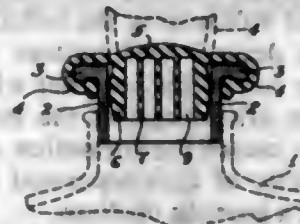


1. In a machine having a platform over which a baked dough sheet moves continuously to be subdivided, in combination, a cutting mechanism assembly comprising, a shear plate supporting member positioned at one extremity of said platform said member having a plurality of uniformly spaced slots transversely thereof, a shear plate positioned in each of said slots with a portion extending outwardly therefrom, a cutter bar completely covering the portions of the shear plates disposed in said slots and secured to said member, a cylinder having means for retaining the extended portions of the shear plates in uniformly spaced and positive alignment, disposed in front of said cutter bar and said shear plates, and a plurality of coacting cutter blades extending tangential thereto in alignment with the spaces between the extended portions of said shear plates and adapted to coact with the forward edge of said cutter bar and the sides of the shear plates, said cutter bar and said shear plate supporting member having their respective forward faces inclined rearwardly from the cylindrical locus defined by the movement of the cutter edges of the cutter blades.

2,819,748

BOTTLE CLOSURE

Calogero Attilio Catalano, Buenos Aires, Argentina
Application May 24, 1955, Serial No. 510,792
1 Claim. (Cl. 150—8)

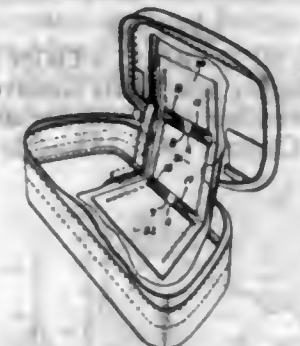


A one piece friction type closure for a container comprising a bulbous body, said body being provided with integral interior walls to define a plurality of square cells, said body having a bulging top, and an integral elastic flange having an edge bead, said flange being constructed and arranged so that it is normally cup-shaped and is U-shaped in cross section when said closure is applied to a container.

2,819,749

TOILET CASE CONSTRUCTION

Emil K. Renz, Dedham, and George Miller, Wellesley, Mass., assignors to Knight Leather Products, Inc., Jamaica Plain, Mass., a corporation of Massachusetts
Application December 17, 1954, Serial No. 475,878
5 Claims. (Cl. 150—34)



1. A travelling case having a rear wall, bottom and cover, means flexibly securing the cover to said rear wall, a reinforcing member comprising an upper section secured in the cover, a central section secured in the rear wall, and a lower section secured in the bottom, providing a rear wall section with hinging edges on the upper and lower edges of the rear wall, and a torsional spring structure secured to said reinforcing member comprising a pair of springs, each having a longitudinally extending central and pair of end sections, with said central section offset from said end sections, and transversely extending sections connecting said central to said end sections, said transversely extending sections aligned with said hinging edges.

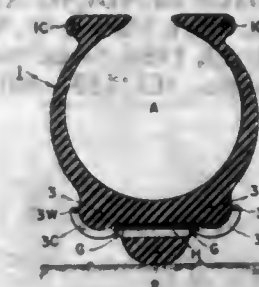
2,819,750

ADJUSTABLE TIRES

Jesse D. Langdon, Long Beach, Calif.
Application February 12, 1953, Serial No. 336,588
8 Claims. (Cl. 152—176)

1. A pneumatic tire adjustable to various road surface conditions comprising a hollow casing forming a pneumatic cavity surrounded by a wall made of elastic deformable material, a relatively narrow ridge forming a chief tread for constant contact with a road bed, secondary auxiliary tread provided with non-skid means paralleling said chief tread, same holding the secondary tread out of contact with the road surface, the tire being sufficiently inflated whereby both treads face radially outwardly and circumscribe said hollow casing and are confined to that area radially outwardly of said hollow casing that normally extends radially outwardly between the side walls of

said pneumatic tire from the inside of the casing, both treads positioned to indent the tread side of the hollow casing and recede inwardly of said adjacent portions of said side-walls when the tire is suitably deflated, the aggregate transverse diameter of the cavity and side-walls being greater than the combined width of said both treads, said secondary tread provided with rigid inserts

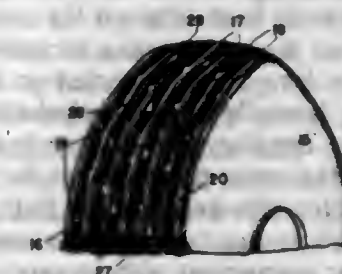


whereby when the tire pressure is suitably adjusted by deflation, the combined area of said both treads is urged inwardly by road contact indenting that side of said cavity that is proximate said both treads, same being compressed between and effective to spread said side-walls and expose more area to such road surfaces as loose sand, mud, snow and ice, said rigid inserts protruding from the surrounding deformable material with pre-hensile effect.

2,819,751

TIRE TREAD

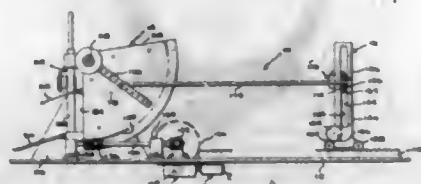
Evan A. Frary, Marshfield, Wis., and David E. Crooker, Ontonagon, Mich., said Frary assignor to Lloyd L. Felker, Marshfield, Wis.
Application March 19, 1953, Serial No. 343,404
2 Claims. (Cl. 152—209)



1. In a tire having a rubber tread portion provided with a plurality of spaced circumferentially extending serpentine rider strips which are formed by laterally waved portions, there being serpentine grooves between said rider strips, and metal traction augmenting members in said rider strips, there being one of said members for a rider strip with said member having a side portion substantially flush with the wearing surface of the rider strip and each of said traction augmenting members being waved in serpentine fashion to conform to its rider strip, the outermost rider strips being of varying width and having outer sides formed by the side walls of the tire, the tire having circumferentially spaced side wall recesses throughout the circumference which are of varying depth transversely of the tread and which extend through portions of the outermost rider strips to the surface of the tread, the recesses of greatest transverse depth extending into those portions of the outermost rider strips where the adjacent traction augmenting member is waved the greatest distance away from the side wall of the tire, and there being transverse recesses of progressively less transverse depth extending into other portions of the outermost rider strips as the adjacent traction augmenting members approaches closer to the side wall, and there being an absence of side wall recesses at those locations where the traction augmenting member is closest to the side wall, the last-mentioned distance approximating the distance between the bottom of any side wall recess and the adjacent portion of the adjacent traction augmenting member whereby

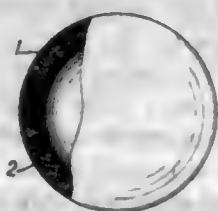
more uniform heat transfer from the outermost coils to the atmosphere at the sides of the tire is provided regardless of variation in the distance of outermost coil portions from said side walls.

2,819,752
MULTIPLE-RADIUS BENDING APPARATUS
Henry A. Hart, Fireco, W. Va.
Application July 13, 1956, Serial No. 597,771
5 Claims. (Cl. 153—40)



1. Multiple-radius bending apparatus for elongated rod-like members comprising a base member, a support frame extending vertically from said base member and including a support shaft extending transversely in overlying relationship over said base member, a bending-sector assembly journaled in radially extending relationship from said support shaft, said bending-sector assembly comprising a plurality of aligned arcuate segmental bending dies extending radially in concentric relationship from said support shaft, the outer peripheries of said bending dies defining the radius of curvature of plural bends to be formed, mounting means for the bending dies permitting lateral relative offset displacement between the dies for exposing the outer periphery of a predetermined bending die, a vertically adjustable support on one side of the bending-sector assembly including reciprocable clamp means for elevating a member to be bent adjacent the outer periphery of a selected bending die, vise means including a clamping head member reciprocably supported on the bending-sector assembly in laterally spaced relationship from a side portion of the bending dies for urging a member to be bent beneath the outer periphery of the selected die and laterally displacing dies extending radially beyond the selected die, a second vertically adjustable support including clamp means for engagement with an intermediate portion of the member to be bent, said second vertically adjustable support being reciprocably disposed on the base member for movement toward the bending-sector assembly when the same is rotated, and power means engaged with said bending-sector assembly for rotating the same about the support shaft and bending the member about the outer periphery of a selected bending die.

2,819,753
METHOD OF MAKING AN INFLATED HOLLOW RUBBER ARTICLE
Carlos Capella Nogué, Barcelona, Spain
Application June 18, 1956, Serial No. 591,842
2 Claims. (Cl. 154—16)



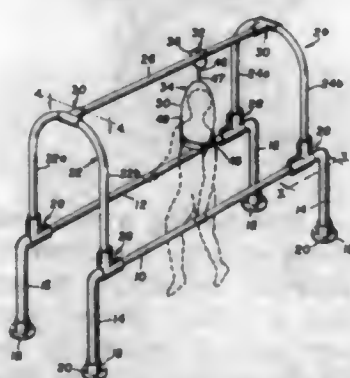
1. The method of manufacturing a hollow rubber article which comprises the steps of preparing blank wall sections, each consisting of two superposed layers of vulcanizable rubber sheet, one layer being the inner layer of the article being provided with a foaming agent adapted to be activated by vulcanizing and uniformly distributed therein; assembling together the blank wall sections substantially to the shape of the hollow article and seaming

all but one of the adjoining edges of the sections; introducing an expanding agent between the open adjoining edges into the cavity within the article formed by the assembled blank sections; seaming the open adjoining edges; inflating the hollow article substantially to its desired shape and size; and vulcanizing the inflated article within a mold having the desired final contour of the article so that said layers are vulcanized together while said expanding agent holds the article against the mold surface, and said foaming agent causes the formation within said inner layer of a multiplicity of cells separated from each other and each enclosing a gaseous medium.

2,819,754
SURFACE COVERINGS
David A. Feigley, Jr., Lancaster Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
No Drawing. Application April 18, 1955
Serial No. 502,215
37 Claims. (Cl. 154—25)

1. In the method of making a surface covering which comprises forming a siccative oil linoleum composition-applying said composition to a felted supporting layer containing proteinaceous material as a contaminant therein, and curing said composition at elevated temperature, the improvement which comprises treating said proteinaceous material prior to said curing step with a tanning agent to stabilize reactive nitrogenous groups thereon.

2,819,755
PHYSICAL REHABILITATION DEVICE
William Harold Berger and Louis Kosover, Chicago, Ill.
Application November 12, 1954, Serial No. 468,331
4 Claims. (Cl. 155—22)

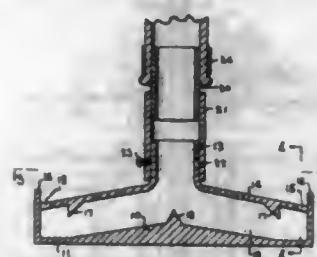


1. A mechanism for assisting in the physical rehabilitation of the ambulation of a patient, comprising, in combination, a pair of spaced elongated parallel bars mounted on a supporting base at a level between the knees and the hips of a patient who is standing substantially erect on said base between said bars with his arms hanging downwardly, said bars adapted to be grasped by said patient for assistance in ambulation; a removable superstructure connected to said spaced parallel bars, said superstructure including a longitudinal support bar positioned substantially parallel to said parallel bars and substantially centrally between said bars, and at a level above the height of a patient standing erect on said base; a patient supporting harness means suspended from said longitudinal support bar and mounted thereon for movement therealong; and hinged segmental connector means for selectively securing the superstructure to said parallel bars without mutilating said parallel bars.

2,819,756
PUTTY REMOVER
Willard E. Schmidt, Bellevue, Ky.
Application July 7, 1955, Serial No. 520,503
1 Claim. (Cl. 158—13.6)

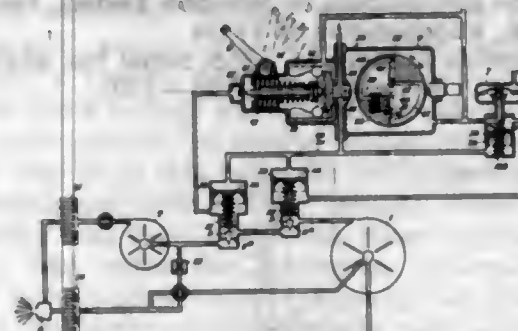
A device for softening putty comprising in combination an elongated housing of V formation having an internal

triangular chamber, the forward internal face of said chamber having a heavy central section receding to the ends of said chamber, a tubular extension extending centrally from the rear face of said triangular chamber, a baffle extending rearwardly from said heavy section central of said tubular extension for diverting a flame pro-



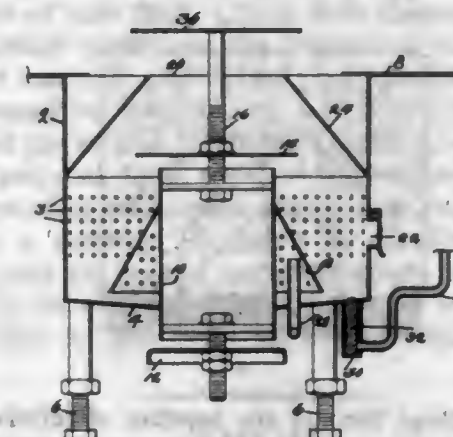
jected through said tubular extension along said receding internal face, vents in the rear face of said chamber adjacent to the ends thereof for dispersal of the flame, baffles in advance of said vents to divert the hot flame to the forward receding face of said chamber, and extensions on the rear face of said housing at the ends thereof to protect the surface adjacent to the surface being treated from the heat of said flame.

2,819,757
FUEL SUPPLY SYSTEMS FOR GAS TURBINE ENGINES
Leonard Sidney Greenland, Compton, Wolverhampton, England, assignor to H. M. Hobson Limited, London, England, a company of Great Britain
Application March 8, 1955, Serial No. 492,956
Claims priority, application Great Britain March 10, 1954
1 Claim. (Cl. 158—36.3)



In combination with an aircraft gas turbine engine, an engine driven fuel pump for supplying fuel to the engine, a metering valve for controlling the supply of fuel to the engine, a first servo piston means for pressurizing said first servo piston, means connecting said first servo piston to said metering valve to move said metering valve to increase the fuel supply in response to increase in the pressure acting on the low pressure side of said first servo piston and to move said metering valve in the reverse direction in response to decrease in said pressure, means permitting of restricted flow of liquid from one side to the other of said servo piston and for balancing said servo piston against the hydraulic pressure across it, a servo valve for controlling the flow of liquid from the low pressure side of said first servo piston, a device responsive to ram pressure exerting a force on said servo valve in one direction, a second servo piston exerting an opposing force on said servo valve, means for subjecting one side of said second servo piston to high pressure and the other side thereof to the pressure at the low pressure side of the first servo piston, means providing a restricted flow of liquid from one side of the second servo piston to the other, and means connecting said servo valve to said device responsive to ram pressure for moving said servo valve to decrease the pressure at the low pressure side of said first servo piston in response to decrease in ram pressure and to increase said pressure in response to increase in ram pressure.

2,819,758
APPARATUS FOR THE BURNING OF GASEOUS HYDROCARBONS AND GAS-OILS
Theodore Nagel, Brooklyn, N. Y.
Application August 4, 1955, Serial No. 526,449
3 Claims. (Cl. 158—91)

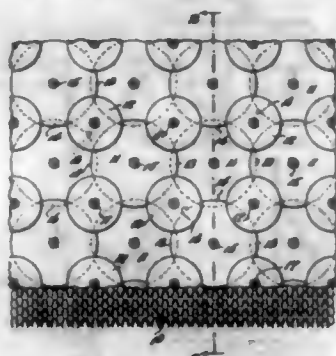


3. A burner for hydrocarbons, said burner comprising, in combination, an outer, vertically extending, heat-conducting, cylindrical shell; means for mounting said shell in sealed relation to a combustion chamber, with the upper end of said shell opening into said chamber; a heat-conducting bottom for said shell sloping downwardly and inwardly toward the shell axis; a cylindrical member extending upwardly into said shell through said bottom, said shell and said cylindrical member being coaxial, said cylindrical member being open at its upper and lower ends and having imperforate side walls; a damper adjacent the lower end of said cylindrical member and vertically adjustable relatively thereto for regulating the admission of induced secondary air to the cylindrical member; an air deflector above the upper end of the said cylindrical member for causing induced secondary air flowing upwardly through said cylindrical member to be discharged in the form of a diverging, annular stream; a hollow, frusto-conical fuel distributor within said shell, said distributor surrounding said cylindrical member and fitting the same at its upper end, thereby providing an annular space triangular in cross-section between the wall of the distributor and the imperforate wall of the cylindrical member; and means for supplying gas-oil to the burner at the outer periphery of said inclined shell bottom, the wall of said distributor and the wall of said shell being perforated, so that the gas-oil vapors rising from the gas-oil will flow outwardly from the distributor in a diverging, annular stream through the perforations in the distributor wall and mix with a converging, annular stream of induced primary air flowing into the shell through the perforations in the shell wall, the mixture of fuel and primary air, as it rises upwardly in the shell, flowing into the diverging stream of secondary air discharging from the upper end of the said cylindrical member.

2,819,759
FLAME BARRIER MATERIAL
Alfred M. Goodloe, Westfield, N. J., assignor, by mesne assignments, to Metal Textile Corporation, a corporation of Delaware
Application March 28, 1955, Serial No. 497,349
2 Claims. (Cl. 160—330)

1. A composite flexible and stretchable metallic sheet structure for the purposes set forth comprising a backing member formed by a knitted metallic wire fabric of selected length and width, an assemblage of metallic foil elements superposed upon said backing member in covering relation thereto and comprising an inner layer of foil elements disposed in vertical and horizontal alignment and a superposed outer layer of foil elements also disposed in vertical and horizontal alignment and in such overlying staggered relation to the elements of said inner

layer as to close through openings therebetween, spot welds adapted to attach substantially central portions of respective foil elements of both the inner and outer layer thereof directly to said backing member, whereby the unattached portions of the assembled elements are free to flex and overlapping portions of adjoining elements

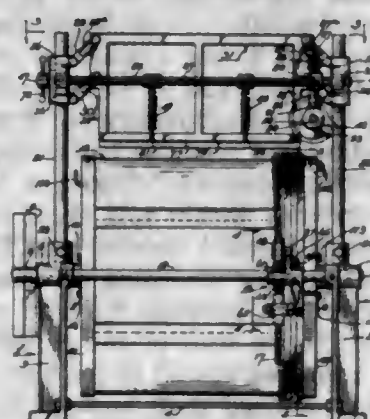


of the assemblage thereof are capable of relative sliding movement in both vertical and horizontal directions when the backing member is subjected to stretch, and a continuous thin coating of resilient gas impervious substance overlying the external face of the assemblage of foil elements, only areas of said coating which are contiguous to substantially central portions of underlying foil elements being adhered thereto.

2,819,760

CUTTING MACHINE

Onnig M. Norehad, Chicago, Ill.
Application April 13, 1954, Serial No. 422,776
8 Claims. (Cl. 164—76)



1. In a cord-cutting device, a frame, a reel rotatably mounted on said frame and means for rotating it, means for guiding a cord as it is wound in a single layer on said reel, said cord being wound in a generally spiral pattern on said reel, cutting means including an electric motor and a knife disc mounted for rotation with the shaft of said motor, said motor being mounted for vertical adjustment on said frame and for movement parallel with the axis of said reel, a holding bar mounted for vertical movement downwardly against the cord on said reel in response to continued downward pressure on said motor means, said holding bar having a face positioned to guide said knife disc along said cord, and means for adjusting the normal position of said cutting means and holding bar on said frame in relation to the diameter of said reel.

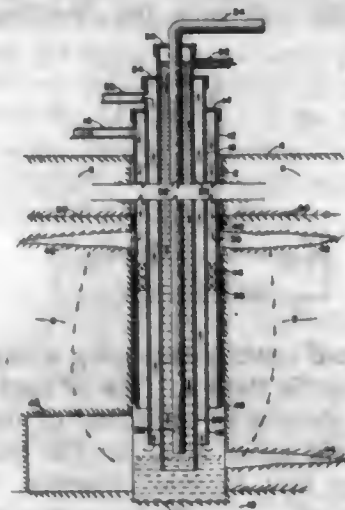
2,819,761

PROCESS OF REMOVING VISCOUS OIL FROM A WELL BORE

Jack L. Popham and D'Arcy A. Shock, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware
Application January 19, 1956, Serial No. 560,171
9 Claims. (Cl. 166—39)

1. A process of removing viscous oil from a subsurface strata traversed by a vertical well bore, including the steps of: (a) initiating combustion in the upper portion

of the strata around the well bore to form a flame front, and (b) continuously forcing gas only into the upper portion of the strata for feeding the flame front and forcing the flame front downwardly around the well

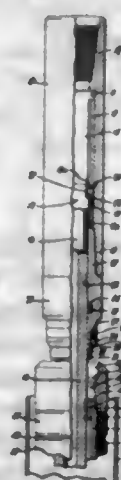


bore, whereby the strata is progressively heated in a downward direction and the products of combustion are forced downwardly to release oil entrained in the strata and direct the released oil into the well bore at the lower portion of the strata.

2,819,762

BYPASS WELL PACKER

Mordica O. Johnston, Glendale, Wilbur F. Bettis, Montrose, and Frank E. O'Neill, Glendale, Calif., assignors, by mesne assignments, to Johnston Testers, Inc., Houston, Tex., a corporation of Texas
Application January 11, 1955, Serial No. 481,078
6 Claims. (Cl. 166—130)



1. A well packer comprising a mandrel, a sleeve mounted over the mandrel intermediate its ends and having its inner wall spaced therefrom to provide a passage therepast, packing means carried by the sleeve, a valve seat upon the upper end of the sleeve, an actuating head slidably engaging the upper end of the mandrel and providing with valve means movable therewith axially of the mandrel and sleeve from a normal unseated position spaced from said valve seat into seating engagement with the valve seat for closing the passage, a locking head upon the mandrel within the actuating head, interengaging splines and keyways upon the locking head and the actuating head, means for holding the splines of the actuating head normally in axial alignment with and seating upon the splines of the locking head to prevent downward axial movement of the actuating head relative to the mandrel, and means for moving the splines into alignment with their respective keyways in response to rotation of the actuating head.

2,819,763

DRY POWDER FIRE EXTINGUISHER

Stewart Boal, Winnetka, Ill., assignor to Margate Corporation, Chicago, Ill., a corporation of Illinois
Application May 19, 1955, Serial No. 509,462
5 Claims. (Cl. 169—31)

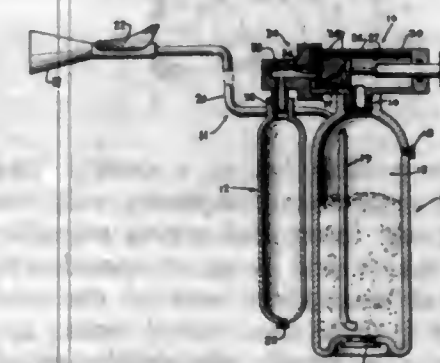


1. In a fire extinguisher of the type having a receptacle containing a fire extinguishing medium and charged with a pressurized fluid medium, an integral release valve means affixed to said receptacle and comprising a valve housing, an outlet valve for said extinguishing medium received in said housing and normally held in a closed position, a pneumatic piston connected to said outlet valve and adapted upon exposure to said pressurized medium to open said outlet valve, and manually operated pilot valve means for controlling the application of pressure to said piston; the improvement characterized by said pilot valve means comprising a valve rod slidably received in said housing and having a manually engageable portion projecting outwardly thereof, fluid passage means for exposing said piston to said pressurized fluid medium comprising a control valve near the inner end of said valve rod and a passage surrounding an intermediate portion of said valve rod, an annular sealing ring surrounding an outer portion of said valve rod and adapted to form a seal between said valve rod and housing, means normally maintaining said valve rod in an outer position in said housing, said valve rod having an indented portion adapted to lie adjacent said sealing ring when said valve rod is in said outer position whereby said sealing ring is ineffective to form a seal, said valve rod being adapted when moved inwardly of said housing to open said control valve.

2,819,764

FIRE EXTINGUISHING APPARATUS

Charles Anthony, Jr., East Orange, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application April 5, 1956, Serial No. 576,389
4 Claims. (Cl. 169—31)



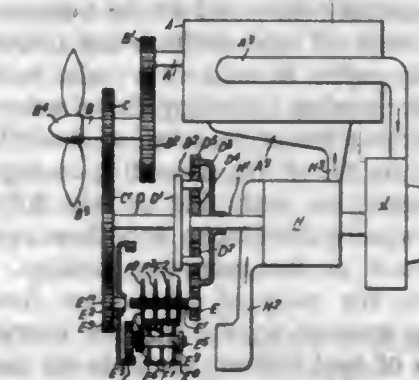
1. In a fire extinguisher, the combination of a receptacle having a normally closed discharge outlet, a given quantity of a non-gaseous fire extinguishing fluid confined in said receptacle, a gas confined in said receptacle in a quantity and at a pressure to effectively expel ap-

proximately one half of said fluid upon opening of said discharge outlet and which gas after such discharge is reduced to a pressure incapable of effectively expelling the remainder of said fluid, a container having an outlet, a gas entirely in gaseous state confined in said container in a quantity and at a pressure to effectively expel the remainder of said fluid, a fluid flow connection between said container outlet and the interior of said receptacle, and valve means in said fluid flow connection constructed and arranged for fully closing said fluid flow connection while said gas in said receptacle is at a pressure to effectively expel said fluid and for fully opening said fluid flow connection when said gas in said receptacle is reduced to a pressure incapable of expelling said fluid, whereby said gas in said container enters said receptacle and boosts the pressure therein to a value and for a duration of time to effectively expel the remainder of said fluid.

2,819,765

COMPOUND POWER PLANT

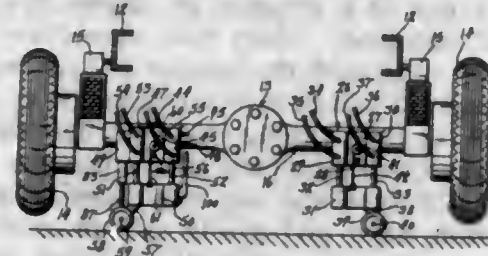
Ernest Edward Chatterton, London, England, assignor to D. Napier & Son Limited, London, England, a company of Great Britain
Application August 14, 1952, Serial No. 304,236
9 Claims. (Cl. 170—135.74)



1. A compound power plant comprising in combination a reciprocating fuel injection type combustion ignition engine, a turbine arranged to be driven by the exhaust gases from the reciprocating engine, a rotary compressor arranged to deliver its gaseous charge to the reciprocating internal combustion engine, a direct mechanical connection between the rotors respectively of the turbine and the compressor, variable ratio transmission mechanism connecting the crankshaft of the internal combustion engine to the rotors of the turbine and compressor and of the kind in which for each setting of the ratio-controlling mechanism a definite transmission ratio is established between the crankshaft of the reciprocating engine and the turbine and compressor rotors, adjustable governor mechanism sensitive to the speed of rotation of the engine, and acting to control the speed thereof automatically by controlling the load thereon, adjustable fuel control means controlling the quantity of fuel delivered to the engine per cycle and master control mechanism operatively connected with said governor mechanism, fuel control means, and ratio controlling mechanism to control simultaneously the speed of the reciprocating engine, the quantity of fuel delivered to the engine per cycle and the transmission ratio of the transmission mechanism between the reciprocating engine crankshaft and the compressor and turbine rotors.

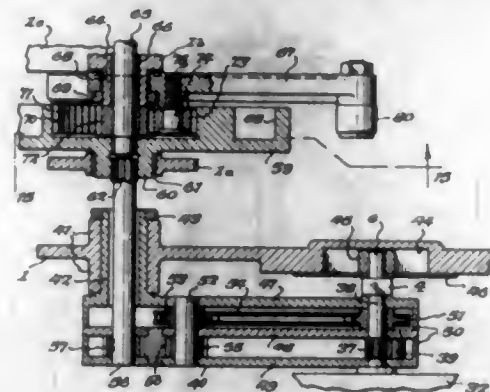
2. A power plant as claimed in claim 1 including a variable pitch propeller driven from the crankshaft of the reciprocating internal combustion engine and pitch control mechanism controlling the pitch of said propeller and in which the engine speed governor device is constituted by a variable datum constant speed governor acting on said propeller pitch control mechanism to control the pitch of the propeller.

2,819,766
AUTOMOBILE PARKING DEVICE
 Frank Bisceglie, New York, N. Y.
 Application October 5, 1953, Serial No. 384,251
 2 Claims. (Cl. 180—1)



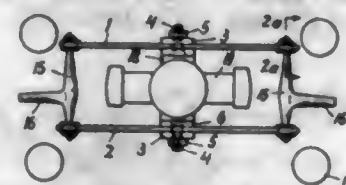
1. In a parking device for automobiles having front and rear axles with main traction wheels thereon, the combination comprising auxiliary wheels, means for rotatably mounting said auxiliary wheels at the rear of the automobile transversely of the rear main wheels thereof, means for raising and lowering said auxiliary wheels, and reversible means for driving at least one of said auxiliary wheels whereby to move the rear of the automobile in and out of parking spaces about the front wheels of the automobile as a fulcrum, said means for rotatably mounting the auxiliary wheels comprising a pair of substantially vertical, laterally aligned brackets, a horizontal shaft rotatably mounted at the bottom of each of said brackets, each of said shafts being disposed at substantially right angles to said rear axle, said rear axle having an axle housing including drive axles and a differential connecting the drive axles, said auxiliary wheels being mounted on the shafts, mounting casings connected to the axle housing on each side of said differential and extending rearwardly therefrom, a hollow upper housing mounted on each of the mounting casings, a movable bottom housing for each of said upper housings, said brackets being secured to the bottom housings, means mounting each of said bottom housings on corresponding ones of said upper housings for relative vertical movement therebetween, said reversible means for driving said auxiliary wheels comprising one of said mounting casings having an opening communicating with one of the drive axles, a first gear keyed onto said one drive axle forwardly of said opening, a pair of bearing supports secured to the axle housing, one on each side of said gear, whereby to prevent flexing of said one drive axle when said gear is in mesh, the upper portion of said upper housing adjacent said one mounting casing being hollow and communicating with said opening, a first shaft rotatably mounted within said hollow portion of said last-named upper housing and aligned horizontally with said one drive axle, a second gear on said first shaft, said first shaft having an elongated keyway and a key slidably engaged in said keyway carried by said second gear whereby said second gear is adapted to slide along said first shaft to thereby mesh with said first gear, bevel gear means connecting said first shaft with said one of said auxiliary wheels, a second shaft, means mounting said second shaft in said last-named upper housing for lateral displacement parallel to and above said first shaft, one end of said second shaft extending outwardly from the end wall of said last-named upper housing, a bifurcated member fixedly carried by said second shaft and extending downwardly therefrom, the hub portion of said second gear having an annular groove receiving said bifurcated portion, spring means sleeving said second shaft and abutting one end of said bifurcated member and adapted to urge said second gear into mesh with said first gear, and a cam fixedly carried by the bottom housing adapted to move said second shaft inwardly against the action of said spring means upon upward movement of said bottom housing associated with the last-named upper housing whereby to remove said second gear from meshing relationship with said first gear.

2,819,767
TRACTION DRIVE FOR VEHICLES HAVING NON-CIRCULAR WHEELS
 John F. Kopczynski, Buffalo, N. Y.
 Application August 25, 1953, Serial No. 376,341
 15 Claims. (Cl. 180—7)



3. A vehicle comprising a body frame and a plurality of rolling supports spaced apart on the vehicle frame, one of said supports being a driving support and includes a wheel whose peripheral tread is formed of a plurality of arcuate humps spaced equally about the axis of rotation of the wheel and connected together by convex, arcuate curves of greater radii of curvature than of the humps that are closer to the center of the wheel than the crests of the humps, a gear coupled to said wheel concentrically of said wheel to rotate therewith for all movements of rotation and translation of the wheel, a member rotatably mounting said wheel for rotation about an axis through said wheel center, and in turn mounted on said frame for limited vertical pivotal movement thereon, a crank arm pivoted on said member eccentrically of the axis of rotation of said wheel, an operative connection between said gear and said crank arm causing rotation of said gear and crank arm at the same time at a selected speed ratio, said arm having a crank pin on its free end, a coupling connecting said crank pin to said frame with limited forward and rearward movement of the pin relatively to the frame, and driving means on said member connected to and operating said operative connection between said arm and gear and thereby causing rotation of said wheel and said arm at said selected speed ratio.

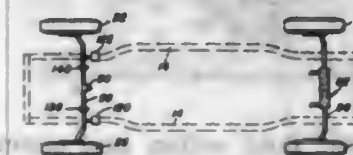
2,819,768
WHEEL SUSPENSION IN MOTOR VEHICLES BY MEANS OF LEAF SPRINGS
 Bela Barényi, Stuttgart-Rohr, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
 Application July 23, 1954, Serial No. 445,354
 6 Claims. (Cl. 180—55)



1. In a motor vehicle having a central longitudinal frame, a wheel suspension comprising only one upper leaf spring and one lower leaf spring extending transversely of the vehicle and being of considerable width along the central longitudinal axis of the vehicle and narrowing toward their free lateral ends, a pair of mounting plates of a length substantially equal to the width of said springs, a single pair of bolts extending through said frame along the central longitudinal axis thereof and through said upper and lower springs and said mounting plates, and a nut at least at one end of each of said bolts for pressing said plates against the outer surfaces of said springs to clamp said springs to

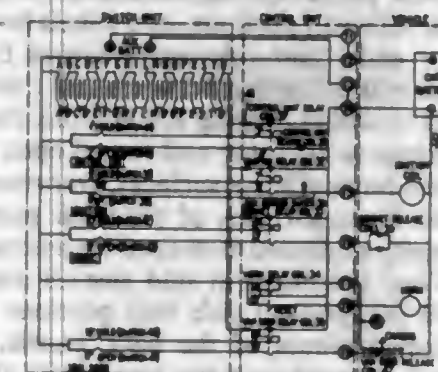
the upper and lower surfaces of said frame respectively, said free spring ends each forming an aperture, a pair of wheel supporting elements each comprising a vertical member and a substantially horizontal member extending from said vertical member for mounting a wheel thereon, and means for pivotally supporting said wheel supporting elements on said spring ends in said apertures.

2,819,769
HYDRAULIC POWER STEERING MECHANISM
 Alexander S. Moorehead, Willow Creek, Calif.
 Application September 22, 1955, Serial No. 535,924
 3 Claims. (Cl. 180—79.2)



1. A vehicle chassis assembly comprising a frame, front and rear wheels supporting said frame, means mounting all of said wheels for steering movement, steering means for said front wheels including tie rods, a hydraulic system carried by said frame including a hydraulic motor, a hydraulic control valve, and a pressure supply, steering means for said rear wheels including said hydraulic motor and a tie rod connected to said hydraulic motor of said rear wheels, and means carried by said frame for engagement by said front wheel tie rods upon turning of said front wheels to a predetermined angle to actuate said control valve to effect turning of said rear wheels.

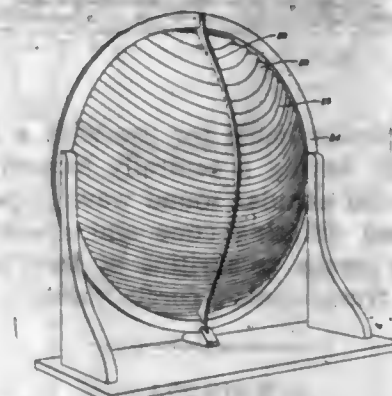
2,819,770
MEANS FOR SECURING A MOTOR VEHICLE AGAINST THEFT
 Kenneth Donald Reginald Gibbs, Bristol, England, assignor to Britonic Products Limited, Bristol, England
 Application March 25, 1954, Serial No. 418,592
 4 Claims. (Cl. 180—82)



1. Means for securing a motor vehicle having an electric ignition circuit against interference by unauthorized persons comprising in combination a relay for energising the ignition circuit, a switch unit comprising a plurality of individual selectively operable "code" switches indicated by code symbols, at least one additional switch for controlling the closure of the ignition circuit and a control unit comprising a corresponding number of "code" switches indicated by the same code symbols and having electrical connections with the said "code" switches of the switch unit, the circuit connections being such that with appropriate individual switches in the control unit set according to the setting of said switches with corresponding code symbols in the switch unit and also the ignition switch being closed, the ignition relay is energised and the ignition circuit is closed.

2,819,771
ARTIFICIAL DELAY STRUCTURE FOR COMPRESSIONAL WAVES
 Winston E. Kock, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
 Original application October 1, 1948, Serial No. 52,350, now Patent No. 2,684,724, dated July 27, 1954. Divided and this application June 1, 1954, Serial No. 433,660

4 Claims. (Cl. 181—5)



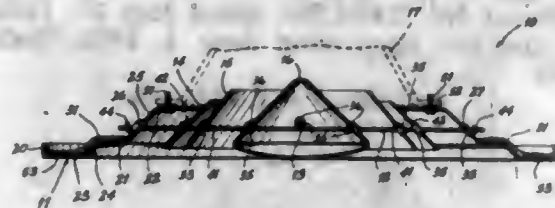
1. An artificial delay structure for compressional waves having a normal axis, said structure comprising an assembly of a plurality of plane, rigid, compressional wave baffle plates, said plates being of uniform thickness, the widths of each plate varying and the maximum widths of successive plates varying, said plates being mounted opposite one another and parallel to each other, the spacing between plates being small relative to the maximum width dimensions of the larger of said plates, the planes in which said plates lie being at a substantial angle with respect to the normal axis of said structure.

2,819,772
WIDE RANGE LOUDSPEAKER
 Samuel Bryan, Silver Spring, Md., assignor to Laboratory of Electronic Engineering, Inc., a corporation of Maryland
 Application December 14, 1954, Serial No. 475,112
 4 Claims. (Cl. 181—31)



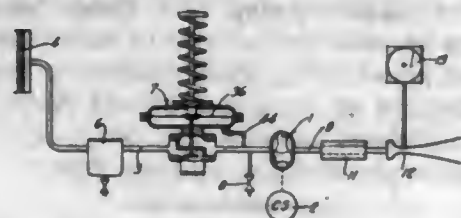
2. A loudspeaker comprising a cabinet formed of outer walls defining rectangularly related front, top and side walls, converging panels extending from said side walls to correspond to walls of a room corner, inner panels defining a closed chamber whose center is below and rearward of the center of said cabinet to define a horn-like channel, open at one end only, between the cabinet walls and the inner panels, one of said inner panels forming an upper closure panel for the chamber, the open end of said channel being defined between the proximate edges of the upper portions of said converging panels and between said top wall and the upper closure panel of said closed chamber.

2,819,773
HIGH FREQUENCY SPEAKER BAFFLE
 Benjamin W. Lowell, Richmond Heights, Mo.
 Application May 23, 1955, Serial No. 510,382
 11 Claims. (Cl. 181-31)



1. A loud speaker baffle for use with a loud speaker cone, said baffle having a centrally located imperforate diffusing cone and annular sound wave dispersing means surrounding said diffusing cone and spaced therefrom, said dispersing means comprising at least one ring element having a frusto-conical configuration.

2,819,774
CONSTANT FLOW SUCTION UNIT
 Alfred C. Schmidt, San Carlos, Calif., and
 Francis J. Sisk, Pittsburgh, Pa.
 Application June 4, 1956, Serial No. 589,348
 6 Claims. (Cl. 183-37)
 (Granted under Title 35, U. S. Code (1952), sec. 266)

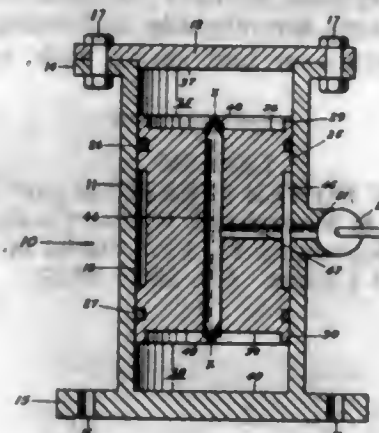


1. Apparatus for maintaining at a constant the intake fluid flow rate of a flow-permeable member, said apparatus comprising a fixed displacement pump, means for driving said pump at a constant speed for producing a predetermined reduced atmospheric suction pressure at the pump intake, a conduit communicating said pump intake with said flow permeable member, and pressure-responsive means normally introducing a predetermined pressure drop in said conduit whereby the amount of pump intake suction applied to said permeable member is limited and said suction draws fluid into said member at a desired flow rate, said pump intake suction varying only in response to variations in the flow resistance of the permeable member, and said limiting means being mechanically and automatically responsive to said pump intake pressure variations for altering said pressure drop sufficiently to offset said flow-resistant variations of said permeable member, whereby said desired flow rate of said permeable member is maintained.

2,819,775
VIBRATION ABSORBER
 Wilhelm S. Everett, Santa Paula, Calif.
 Application July 31, 1953, Serial No. 371,737
 5 Claims. (Cl. 188-1)
 (Granted under Title 35, U. S. Code (1952), sec. 266)

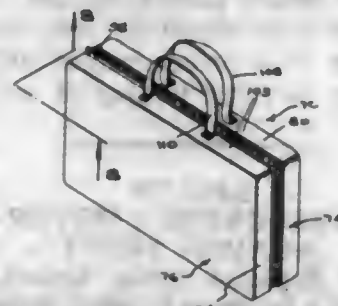
1. A device for absorbing vibration recurring at a substantially constant frequency which comprises a hollow body means having a longitudinal axis, an inertia means positioned within said body means for reciprocal movement along the longitudinal axis thereof, a pair of chambers respectively disposed between said inertia means and those portions of said body means lying along said longitudinal axis, a compressible fluid within each of said chambers, means constituting a communication channel between said chambers, means associated with said last mentioned means for providing a high resistance to fluid

flow from each of said chambers into said channel and a relatively low resistance to fluid flow from said channel into each of said chambers, and means for adjusting



the pressure of the fluid within said chambers to bring the resonant frequency of the said vibration absorbing device into substantial coincidence with the recurrence frequency of the vibration to be absorbed.

2,819,776
COMBINED SUN SHADE AND ARTICLE CARRIER
 Alfred D. Balsam, Augusta, Ga.
 Application December 28, 1956, Serial No. 631,234
 5 Claims. (Cl. 190-42)

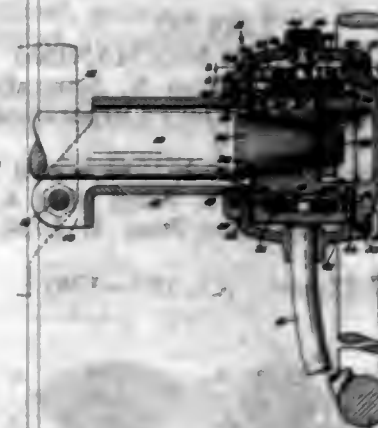


1. A combined sun shade and article carrier device comprising a pair of elongated rectangular pan-shaped sections having back panels and side walls thereon comprising longitudinal side wall portions, said panels having outer ends and inner ends, said side walls having free edges, hinge means on and extending between said inner ends of the back panels enabling hinging the sections from closed registered positions to coplanar end to end open positions, said back panels having inner surfaces, transverse sleeves secured on said inner surfaces of the back panels at the outer ends thereof, elongated U-shaped leg assemblies having bight portions journaled in said sleeves and legs located near said longitudinal side wall portions and lying against the inner surfaces of the back panels, said legs having free ends located near the inner ends of the back panels, retaining means releasably engaged with the free ends of the legs and retaining the legs against the inner surfaces of the back panels, said leg assemblies when released by said means being swingable in said sleeves to support the device in open position on a support surface to serve as a sun shade, and securing means for releasably securing the sections together in their closed positions.

2,819,777
VEHICLE STEERING AID
 Alois J. Kosch, Columbus, Nebr., assignor to Kosch Co., Columbus, Nebr., a corporation of Nebraska
 Application March 18, 1953, Serial No. 343,126
 10 Claims. (Cl. 192-8)

1. A steering aid for vehicles comprising a drum, means for mounting said drum fixedly on a vehicle in substantial axial alignment with the steering post of the vehicle, a shell adapted for mounting on such a steering post in

non-rotational relation thereto and having a portion overlapping said drum exteriorly thereof, a pair of coiled springs sleeved on said drum, said springs being wound in a common direction, the adjacent ends of said springs facing each other and peripherally spaced from each other, the remote ends of said springs being operatively connected to said overlapping portion of said shell, a manually manipulable steering element mounted for rota-



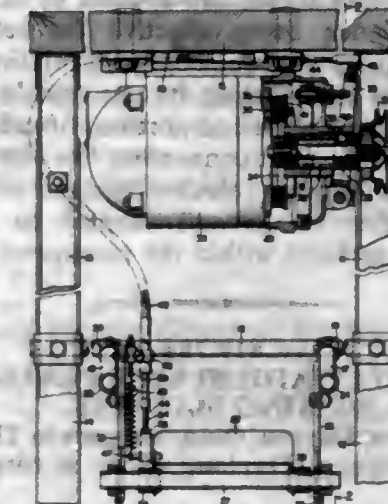
tion upon the axis of said drum, said steering element having a lost-motion rotary connection with said shell, and means fixed with respect to said steering element and positioned between said adjacent ends of said springs, whereby rotational movement of said steering element relative to said shell in one direction or the other causes said last-named means to shift an end of one or the other of said springs to tend to unwrap the same from said drum.

2,819,778
STEERING AID FOR VEHICLES
 Alois J. Kosch, Columbus, Nebr., assignor to Kosch Co., Columbus, Nebr., a corporation of Nebraska
 Application December 18, 1953, Serial No. 398,927
 10 Claims. (Cl. 192-8)



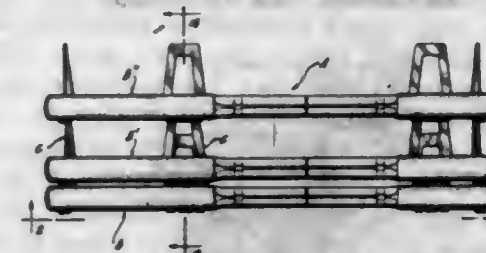
1. In a device of the class described, a stationary drum, a continuous spring wound on the external surface of said drum as a substantially cylindrical spiral, a hub mounted for rotation about the axis of said drum and having an internal surface closely surrounding said spring, said surface being interrupted by a pocket having an angular extent of less than 180° and an axial depth slightly greater than one-half the length of said cylindrical spiral, means moving with said hub and disposed in peripherally-abutting relation with the ends of said spring, an intermediate member mounted for coaxial rotational movement relative to said drum adjacent the open end of said pocket, means providing a lost-motion, rotational driving connection between said hub and said intermediate member, and means carried by said intermediate member, projecting into said pocket, and operatively engaging said spring at a point in the length of said cylindrical spiral substantially midway between the ends of said cylindrical spiral.

2,819,779
POWER TABLES AND CONTROLS
 Harry B. Fuge, Somerville, and Edgar P. Turner, Watchung, N. J., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
 Application January 28, 1955, Serial No. 484,645
 3 Claims. (Cl. 192-18)



1. A power unit adapted to drive a sewing machine comprising a stand having spaced end legs, a table top supported by said end legs, a longitudinal stabilizing bar connected to said end legs, an electric powered clutch-brake transmitter carried by said stand, said transmitter including a clutch-brake mechanism and actuating means for said mechanism, a control treadle support structure mounted on said longitudinal stabilizer bar and comprising spaced transverse support members, a longitudinal treadle support, a control treadle pivotally mounted on said treadle support, means attaching said longitudinal treadle support to said transverse support members, and means connecting said transverse members to said longitudinal stabilizer bar for turning about the latter whereby said control treadle support structure may be moved away from and above a normal floor engaging position, a flexible cable having one end secured to said transmitter clutch-brake actuating means, means for connecting the other end of said cable to said treadle, and resilient means on said treadle control support structure and operatively connected to said treadle for yieldingly urging said treadle toward a predetermined rest position about said treadle support when said transmitter actuating means is in a braked position.

2,819,780
LINKS FOR FABRICATING FLEXIBLE AMMUNITION CHUTES
 Raymond D. Fallon, Venice, and Harry E. Elliott and Leslie K. Locher, Los Angeles, Calif., assignors to Hughes Tool Company, Aircraft Division, Houston, Tex., a corporation of Delaware
 Application November 18, 1955, Serial No. 547,685
 12 Claims. (Cl. 193-25)



1. A series of chute-forming elements flexibly interconnected to form an adjustable chute having a member-guiding passageway, each of said elements comprising: a frame shaped to determine the general cross-sectional configuration of the passageway, said frame including a

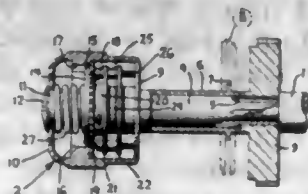
pair of end portions and a medial portion with a longitudinal central axis interconnecting the end portions in spaced and normally coplanar relationship, said medial portion being characterized by axial torsional resilience and substantial transverse rigidity to permit relative angular displacement of the end portions about the central axis without bending the end and medial portions of the frame when twisting forces are applied to said end portions, said resilience being effective for returning the end portions to their normal coplanar relationship upon discontinuance of the twisting forces; readily detachable first means mounted on the end portions of said frame and adapted for flexibly interconnecting the chute-forming elements in chute-forming relationship; and second means overlying said first means and adapted to form overlapping guiding surfaces within the passageway.

2,819,781

UNIVERSALLY ADJUSTABLE PLATEN FOR WRITING MACHINE

John T. Davidson, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio

Application February 9, 1954, Serial No. 409,237
8 Claims. (Cl. 197-123)



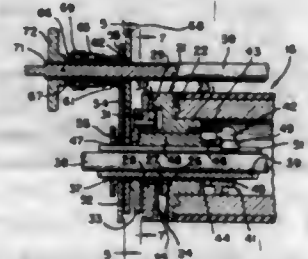
1. In a universally adjustable platen roll for a writing machine, a variable drive coupling therefor, including a rotary drive shaft upon which the platen roll is mounted, a tubular shaft concentrically disposed about one end thereof, means for actuating said tubular shaft by operation of the writing machine, and means for variably interconnecting the tubular shaft with the rotary drive shaft including reciprocatory interlock means interconnecting said shafts for unison rotation, actuating means therefor comprising a reciprocatory spring biased sleeve supported on said drive shaft for unison rotary motion therewith and extending as a handle in enclosing relation to said interlocking means, and means for interengaging the reciprocatory interlock means in various positions of rotary adjustment of said shafts, one relative to the other, said shafts being rotated, one relative to the other, by rotation of the reciprocatory sleeve while in operated position.

2,819,782

ADJUSTABLE PLATEN ROLL

Albert W. Metzner, Dayton, and Andrew J. Kozul, Troy, Ohio, assignors to The Standard Register Company, Dayton, Ohio, a corporation of Ohio

Application September 7, 1954, Serial No. 454,294
12 Claims. (Cl. 197-133)



12. In a typewriting or like machine, a platen shaft, a platen surrounding said shaft, a pin wheel body in concentric interconnected relation to said platen and movable therewith, a radial series of feeding pins extensible above

the periphery of said pin wheel body in different circumferential areas thereof, means for effecting bodily lateral shifting motion of said platen and body assembly relatively to said shaft, means for varying the circumferential area of extension of said feeding pins, and a common actuator for said shifting means and said varying means selectively engageable therewith.

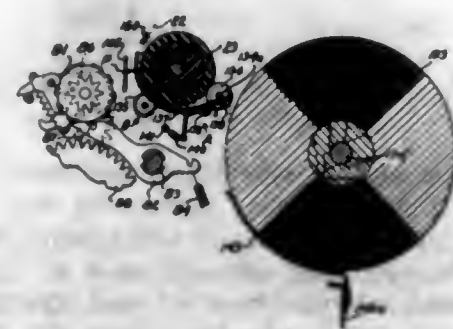
2,819,783

PAPER FEED MECHANISM

Eugene E. Bennett and Milton V. Scozzafava, Temple City, Calif., assignors to Clary Corporation, a corporation of California

Original application February 2, 1953, Serial No. 334,632, now Patent No. 2,744,682, dated May 8, 1956. Divided and this application June 1, 1954, Serial No. 433,695

7 Claims. (Cl. 197-138)



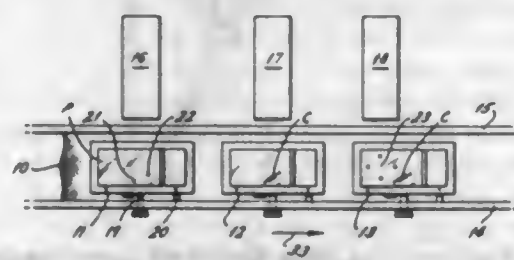
1. In a calculating machine having a rotatable platen, means for maintaining a paper strip in contact with said platen comprising a pressure roller, spaced guideways on which said pressure roller is adapted to both roll and rotate, said guideways each extending at an acute angle to a line tangent to the point of contact of said platen and said pressure roller, and means for guiding said strip around said pressure roller sufficiently to enable any drag exerted on said strip to urge said roller toward said platen.

2,819,784

TRANSFER PALLET

Everett R. Brown, Jr., Warrington, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application March 13, 1956, Serial No. 571,252
8 Claims. (Cl. 198-19)



1. A pallet for transferring and precisely positioning an electrical circuit panel, with respect to successive fabricating heads in a system for mechanized insertion of small components on the panel, said pallet comprising: an open frame, adapted to be transferred from one of said heads to another and then to engage an external control device for registering the frame relative to the other fabricating head; a rigid member extending in one direction across the frame and adapted to be shifted in another direction across the frame; positioning means for rigidly securing said member to the frame in a predetermined position relative thereto; first holder means, carried by and secured to said member, for removably holding one edge of a panel upon the so-positioned member; second holder means, carried by and secured to the frame, for similarly holding another edge of the panel to the frame; stop means forming a rigid part of one of said holder

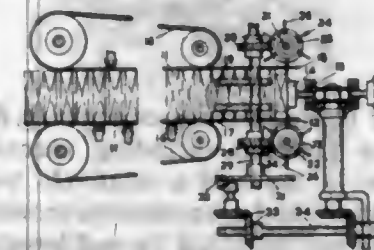
means, for stopping motion and vibration of the panel relative to the frame; and resilient means forming part of one of the holder means for urging the panel against said stop means.

2,819,785

ARTICLE CONVEYING AND TRANSFER MECHANISM

James Arthur Kay and Alfred German Rose, Gainsborough, England, assignors to Rose Brothers (Gainsborough) Limited, Gainsborough, England, a British company

Application August 16, 1955, Serial No. 528,788
Claims priority, application Great Britain August 25, 1954
2 Claims. (Cl. 198-31)



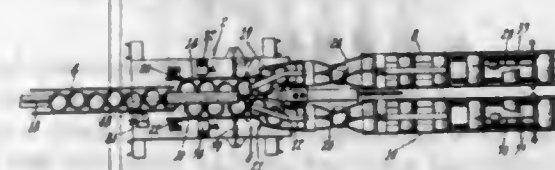
1. In a carton-filling and closing apparatus comprising a conveyor having a horizontal supporting surface, spaced pushing elements located adjacent thereto for forwarding the cartons through the apparatus and delivering them at a transfer station and a pressure conveyor consisting of a pair of spaced bands located transversely of said supporting surface and arranged to move transversely of the path of movement of the delivery conveyor, the combination of a guide channel between the delivery conveyor and the spaced bands for leading the cartons into the space between the bands, with a pair of opposed movable bladed members arranged one on each side of the guide channel and means for driving the bladed members synchronously to cause their blades to move simultaneously through said supporting surface into engagement with opposed marginal portions of one side of a carton during its conveyance by the delivery conveyor so as to move the carton transversely away from that conveyor and into the guide channel by pressure exerted in a parallel plane against those marginal portions, successive cartons then pushing preceding cartons through the channel and into the space between the opposed bands.

2,819,786

CAN DIVIDER MECHANISM

Charles E. Walters, Vancouver, British Columbia, Canada, assignor to American Can Company, New York, N. Y., a corporation of New Jersey

Application October 23, 1956, Serial No. 617,758
11 Claims. (Cl. 198-31)



1. In a mechanism having means for feeding a plurality of curvilinear objects along a supply line, a divider for providing plural flow paths for said objects comprising a drag platform positioned to receive said objects fed from said supply line, a pair of supply lanes extending from said drag plate, a dividing horn interconnecting adjacent sides of said supply lanes, a pair of deflecting gates, means pivotally supporting the same in a rest position on said drag plate to define lateral guides for said drag plate for guiding said objects fed by said supply line normally into each of said supply lanes, throat means for each supply lane defined by said dividing horn and a corresponding one of said deflecting gates respectively, individual power

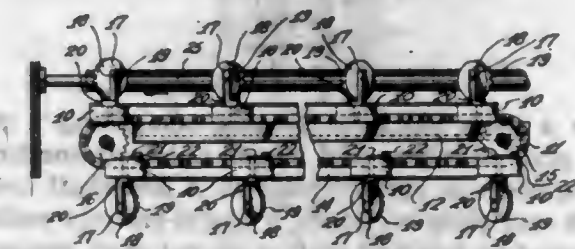
means for said deflecting gates for moving the same from a rest position to a deflected position wherein said gate is moved towards said dividing horn to block the entrance throat of its corresponding supply lane, and means responsive to a predetermined condition in one of said supply lanes for actuating said power means for the corresponding deflecting gate.

2,819,787

PEACH ORIENTATOR

Ellsworth W. Carroll, Redwood City, Calif., assignor to S & W Fine Foods, Inc., San Francisco, Calif., a corporation of California

Application September 25, 1947, Serial No. 776,058
15 Claims. (Cl. 198-33)



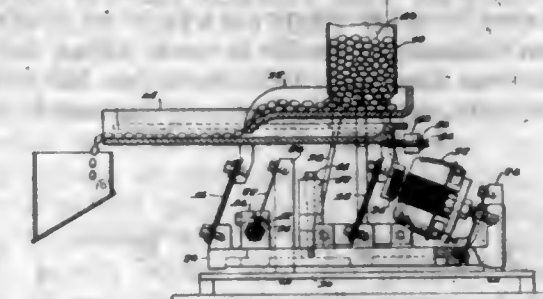
1. In a device for orientating indented fruit, a receptacle having separate receptacle halves opposed to hold a fruit with a lower space between said halves, a fruit revolving member extending into said space to partially support said fruit and mounted to revolve in a vertical plane, means for rotating said member, and means for changing the vertical plane of rotation of said member with reference to said receptacle halves.

2,819,788

MATERIAL FEEDING DEVICE

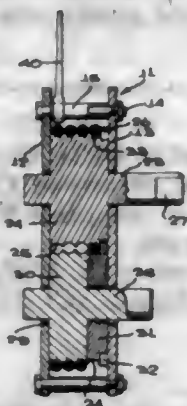
Stanley R. Howard, Milton, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts

Application November 23, 1954, Serial No. 470,572
8 Claims. (Cl. 198-220)



1. A material feeding device for coarse materials comprising a horizontal vibratory conveyor adapted to be vibrated to effect a relatively slow conveying action, a supply conduit having its mouth spaced from said conveyor a distance such as to permit a uniform withdrawal of the coarse material by said conveyor forming a relatively thick stream in said conveyor, a second horizontal vibratory conveyor disposed to receive the material discharged from said first conveyor, means for supporting said second conveyor including a relatively heavy base member, flexible means connecting the second conveyor to said base, means for vibrating said base, said vibrating means being mounted on said base and operative to vibrate said second conveyor to effect a relatively large amplitude of vibration of said second conveyor whereby to impart a relatively fast conveying action thereto to form a thin stream of material being conveyed thereby, the reaction impulses of said vibrating means being transmitted to said base to vibrate the same, and a rigid connection between said base and said first conveyor whereby vibration of said relatively heavy base will be transmitted to said first conveyor to effect vibration thereof at a relatively smaller amplitude.

2,819,789
HOIST BLOCK
 Raymond W. Lang, Fresno, Calif.
 Application August 10, 1956, Serial No. 603,311
 5 Claims. (Cl. 203-220)



1. In a hoist block, a housing comprising a pair of spaced plate members and means rigidly connecting said plate members in parallel relation, a first shaft journaled between said plate members, a plural-grooved pulley rigidly secured on said first shaft, a second shaft, means rotatably and slidably supporting said second shaft between said plate members for adjustment toward said pulley, a second plural-grooved pulley rigidly secured on said second shaft, a disc member having a peripheral groove rotatably mounted on said second shaft adjacent the end peripheral groove of the first named pulley, means coupling said first named pulley and disc member for simultaneous rotation in opposite directions, whereby the ends of a cable engaged on the pulleys may be clampingly received between said end groove and the groove in the periphery of said disc member, and means coupling said pulleys together for simultaneous rotation in the same direction.

2,819,790
PROCESS FOR THE MANUFACTURE OF SEAMLESS TUBES BY THE THRUST BENCH METHOD FROM OPEN AND PERFORATED BLANKS
 Alberto Calmes and Emilio Dvorak, Milan, Italy
 Application January 7, 1953, Serial No. 329,958
 Claims priority, application Germany January 9, 1952
 1 Claim. (Cl. 205-4)



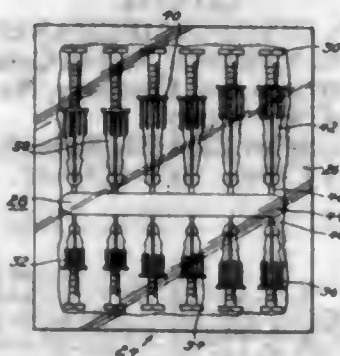
In a tube drawing apparatus, in combination, a mandrel having a leading front end portion of reduced cross section; means for moving said mandrel in axial direction along a predetermined path; supporting means arranged along said path; constricting means mounted on said supporting means adjacent to said path and adapted to force the leading front end portion of a tube carried by said mandrel against the reduced leading front end portion thereof so that the front end portion of said tube firmly engages the leading front end portion of the mandrel, permitting transportation of said tube along said path solely by movement of said mandrel along said path, said constricting means being shaped and mounted on said supporting means so as to automatically engage the leading front end portion of the tube, constrict the same and move out of the path of said tube when said mandrel with said tube thereon passes through said constricting means; and rotatable tube drawing means mounted on said supporting means along the path of said mandrel and in direction of movement of said mandrel after said constricting means so as to reduce the wall thickness of the tube while the same is transported by said mandrel solely held thereon by the constricted front end portion thereof formed by said constricting means.

2,819,791
HOT WATER BOTTLE PACKAGE
 John F. Coburn, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
 Application June 13, 1955, Serial No. 514,811
 3 Claims. (Cl. 206-17.5)



1. A hot water bottle package comprising flexible, continuous sheet-like material including spaced-apart side marginal portions, a top and a relatively wider bottom end marginal portion, and a continuous mounting portion extending between and bounded by and integral with said marginal portions, said side and said top and bottom end marginal portions each having an inwardly flexed overlapping disposition relative to a face of said mounting portion, both said flexed end marginal portions being in superimposed overlapping contacting relation to opposite end parts of said flexed side marginal portions, a flat hot water bottle including a projecting flat tab at its mouth end disposed upon said mounting portion with said side marginal portions above, closely adjacent and overlapping the side margins of said bottle and with said bottom end marginal portion above, closely adjacent and overlapping the closed end of said bottle and with the top end marginal portion above, closely adjacent and overlapping said tab of the bottle to provide an assembly, an open end protective bag of transparent, flexible, thermoplastic sheet-like material entirely enclosing the assembly and means for detachably closing an end portion of said bag at its open end.

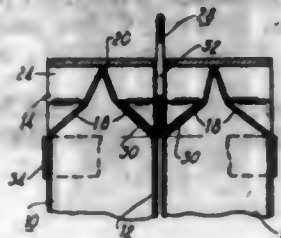
2,819,792
EXPANSION WALL FASTENER UNIT
 Joseph M. Margulis, Philadelphia, Pa.
 Application July 9, 1956, Serial No. 596,636
 1 Claim. (Cl. 206-47)



A package unit comprising a transparent sealed envelope, an expansion wall fastener unit disposed within said envelope, said expansion wall fastener unit comprising a single piece of plastic formed into a central anchor bar, a plurality of expansion wall fastener elements spaced along one side of said anchor bar and joined at one end to said anchor bar by relatively thin stems which may be readily broken, a plurality of expansion wall fastener elements spaced along another side of said anchor bar and joined to said anchor bar by relatively thin stems which may be readily broken, said expansion wall fastener elements including a plurality of sizes of such elements, and mating screws for said expansion wall fastener elements disposed within said envelope, said mating screws being

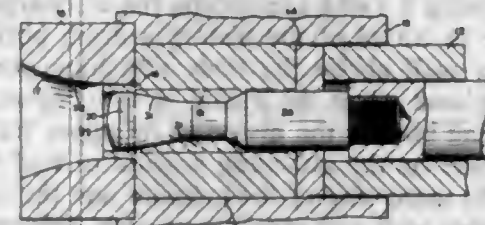
individually positioned within mating expansion wall fastener elements of the expansion wall fastener unit, with the heads of said screws being adjacent the sides of said envelope.

2,819,793
BEVERAGE CONTAINER
 Guy L. Lamb, Elkhart, Ind., assignor to Edlo, Incorporated, San Francisco, Calif., a corporation of California
 Application November 10, 1954, Serial No. 467,950
 1 Claim. (Cl. 206-65)



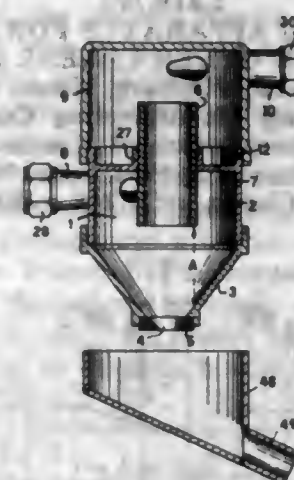
A multi-part container unit comprising, a plurality of separate containers each container being fashioned at its top portion to provide a recess outlined in part by an inclined triangular shaped portion, a generally rectangular shaped one piece handle member positioned between and in disconnected engagement with the containers, said handle member being folded at its central portion to provide two substantially identical parts positioned back to back, the fold extending in a line lying in a plane extending between the containers, said handle member including triangular shaped hanger members integrally connected to its lower edge and extending outwardly and upwardly therefrom on opposite sides thereof with the apices of the triangles snugly fitting within the recesses of the containers; together with a one piece keeper member relatively tightly encircling the containers and serving to bind the containers together with the handle tightly fitted therebetween.

2,819,794
EXTRUSION PRESS MANDREL
 Gerhard P. Krause, Harrison, N. Y., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
 Application December 11, 1953, Serial No. 397,677
 1 Claim. (Cl. 207-3)



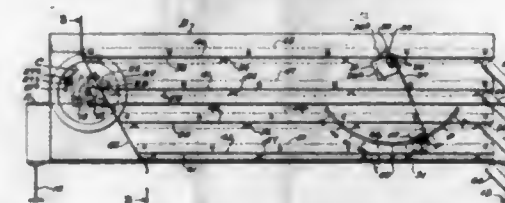
In an extrusion press for extruding metal tubes of varying outer contour, said press having a container for supporting a metal billet, a die cooperating with the forward end of the container, said die having a bore therethrough, an extrusion ram adapted to enter the container at the rearward end thereof to force the billet through the die, and a mandrel of varying diameter having a head adapted to enter the die bore, the improvement which consists in said die bore having its minimum diameter substantially at its rearward end through which the mandrel head enters, and said bore having a portion increasing in diameter progressively toward its forward end at a predetermined rate, said mandrel head having a section of maximum diameter adjacent the forward end thereof and having a portion whose diameter diminishes progressively rearwardly from said section of maximum diameter at a rate of decrease at least substantially equal to said predetermined rate of increase of said die bore diameter.

2,819,795
PROCESS FOR THE SEPARATION ACCORDING TO SPECIFIC GRAVITY OF SOLIDS OF DIFFERENT SPECIFIC GRAVITY AND PARTICLE SIZE
 Freerk J. Fontein, Heerlen, and Cornelis Dijkman, Geleen, Netherlands, assignors to Stamicarbon N. V., Heerlen, Netherlands
 Continuation of abandoned application Serial No. 228,834, May 29, 1951. This application February 25, 1955, Serial No. 490,468
 Claims priority, application Netherlands May 30, 1950
 6 Claims. (Cl. 209-211)



1. A continued process of separating into two fractions a liquid suspension having particles diverse both as to size and specific gravity, which comprises the steps of establishing and maintaining a rotating body of such suspension in a confined generally conical space having axial discharge outlets at its ends, continuously supplying such suspension tangentially and under pressure to the rotating body in the region of the base of the conical space together with a liquid separating medium of specific gravity substantially lower than a predetermined specific gravity of separation, and maintaining the major portion of the length of the envelope of the rotating body within an included angle of at least 50° and not exceeding 90°, the feed pressure of said suspension and separating medium being effective to maintain a cylindrical air column between said outlets, discharging from the base end of said space a fraction containing separating medium and suspended particles of a specific gravity less than the specific gravity of separation, and discharging from the apex end of said space into the open air a fraction containing separating medium and suspended particles of a specific gravity higher than the predetermined specific gravity of separation, the specific gravity of the medium discharged from the apex end of said space being less than the specific gravity of separation and less than the specific gravity of suspended particles discharged from the base end of said space.

2,819,796
MICRO-VIBRATING SCREEN
 Frederick H. Edwards, Meriden, Conn.
 Application February 4, 1954, Serial No. 408,232
 1 Claim. (Cl. 209-319)



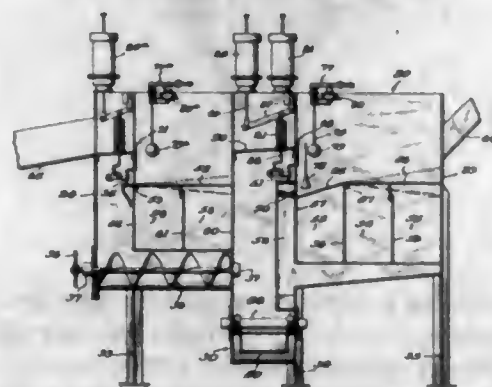
In a vibratory apparatus for screening finely divided materials, a base, a screen body mounted on said base and having receiving and discharging ends, power means mounted on said base for imparting a continuous translatory motion in a circular path to the receiving end of

said screen body, a pair of downwardly extending resilient leaf springs connected at their upper ends to the discharge end of said body, whereby said discharge end will be oscillated in a controlled arcuate path, said base being provided with a pair of vertical side walls having aligned upwardly concave arcuate graduated slots, the lower ends of said leaf springs being detachably locked in adjusted position by a pair of elongated horizontal bolts passing through said slots and a pair of nuts.

2,819,797

METHOD AND APPARATUS FOR CLEANING CORN AND OTHER CEREAL GRAINS

Robert C. Woodhead, Pittsburg, Kans., assignor to The McNally Pittsburg Manufacturing Corporation, Pittsburg, Kans., a corporation of Kansas
Application August 3, 1954, Serial No. 447,501
13 Claims. (Cl. 209-455)

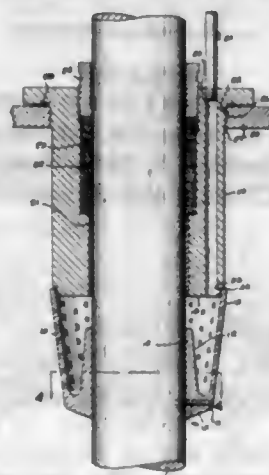


4. In apparatus of the character described, the combination with a wash box, of a screen extending longitudinally thereof for supporting material to be treated, means for periodically pulsating a liquid within the wash box to cause surging flows of said liquid transversely of the wash box, whereby the liquid will periodically pass through the screen to stratify the material thereon, a sludge gate at the discharge end of the screen, a product gate also at the discharge end of the screen and located above the sludge gate, a weir likewise having a position at the discharge end of the screen and located above the product gate, and means for effecting actuation of the gates independent of each other including a float suspended above the discharge end of the screen, and a second float also suspended above the discharge end of the screen but located above the first mentioned float.

2,819,798

ROTARY STRAINER FOR A PUMP

J. Warne Carter, Rockdale, Tex.
Application November 2, 1954, Serial No. 466,367
2 Claims. (Cl. 210-402)



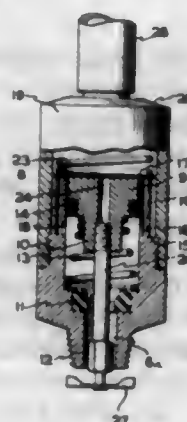
1. The combination with a rotatable pump shaft, of a perforated sleeve surrounding and spaced from said shaft and secured to said shaft, said sleeve having one end

closed and having the other end open, and a gland housing circumposed about and carried by said shaft and having one end closing the open end of said sleeve, there being a bore in said housing extending from said one end to the other end and having the end adjacent said one housing end in communication with the open end of said sleeve, and means on the other end of the bore for receiving water from said bore.

2,819,799

LOW PRESSURE DRAIN VALVE

Dewey L. Wilkerson, Denver, Colo., assignor to Wilkerson Corporation, Englewood, Colo., a corporation of Colorado
Application March 30, 1955, Serial No. 497,835
1 Claim. (Cl. 210-430)

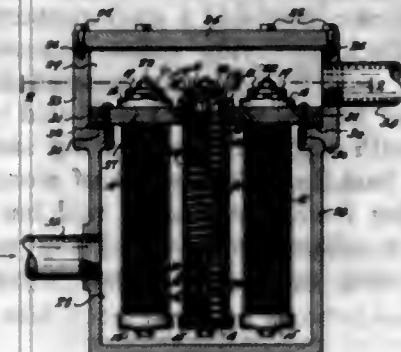


In a drain valve, a body having an attaching portion adapted for connection into an enclosed space to be drained, a cylinder extension on and above said attaching portion, said body having an axial bore entirely therethrough from top to bottom and including the cylinder, the lower end of said bore constituting a drain discharge passage, a piston reciprocable in the cylinder and closing the upper end of said bore, the upper face of the piston being exposed to and subject to ambient fluid pressure in a space to be drained, a stem depending from said piston and constituting a valve controlling the discharge passage in response to travel of the piston, a drain port through the cylinder wall above the body attaching portion and below the piston when the piston is at its upward travel limit, a spring biasing the piston to its upper travel limit, a strainer cage on the attaching portion of said body and enclosing the upper end of the cylinder and the drain port in the cylinder wall and providing a stop defining the upper travel limit of the piston, said piston being responsive to ambient pressure in excess of the biasing force of said spring for travel to a lower travel limit to close the discharge passage control valve in opposition to the force of said spring, a valve seat in the lower end portion of said axial bore and surrounding said drain discharge passage for closing engagement by the piston stem valve, said piston and stem having an axial secondary drain passage therethrough opening at its upper end to the top face of the piston and opening at its lower end through said valve seat into said drain discharge passage when the piston stem valve is closed on the seat, a drain cock fitting connected into the lower end of said secondary drain passage and extending downwardly with ample clearance through the valve seat and the drain discharge passage to a point externally below the valve body when the piston is at its upper travel limit, and means on the external end of the drain cock fitting for manual opening and closing thereof.

2,819,800

FILTERING APPARATUS AND FILTER UNIT THEREFOR

Alfred M. Goodloe, Westfield, N. J., assignor, by mesne assignments, to Metal Textile Corporation, a corporation of Delaware
Application October 8, 1954, Serial No. 461,057
6 Claims. (Cl. 210-497)

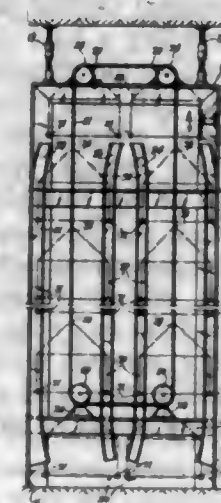


1. A hollow filter unit for incorporation in filtering apparatus intermediate intake and outlet chambers thereof comprising a tubular body the wall of which is formed by supporting means provided by a helical spring member, and foraminous filtering means provided by a pre-shaped linear formation of compressed metallic filamentary or fibrous material of substantially T-shape cross-section to provide intake portions of relatively coarse porosity and discharge portions of relatively fine porosity, said filtering material being wound about and along the supporting spring members, with said discharge portions being gripped between helices of the latter, and with said intake portions externally spanning said helices along the exterior face of the tubular body, and means to close opposite ends of said tubular body, one of which is provided with an outlet passage leading from the interior of said tubular body.

2,819,801

AUTOMATIC ELEVATING SHELF DEVICE

Morris R. Winkler, Far Rockaway, N. Y.
Application June 30, 1955, Serial No. 519,181
1 Claim. (Cl. 211-121)



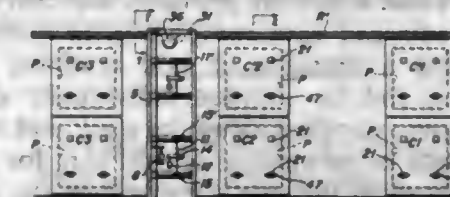
An elevating shelf device, comprising in combination a generally rectangular open frame, a first two pairs of channel-shaped guide members carried on one side of said frame, a second two pairs of channel-shaped guide members carried on the opposite side of said frame, the guide members on each of said sides being disposed vertically and the pairs being spaced apart to define two passageways on each side within said frame, each of said members having an upper curved end and a lower curved end, the curved ends of the members being inclined inwardly toward the center of each of said sides of the frame, a set of four sprocket wheels rotatably carried on each side of the frame, an endless chain passing over

each set of four wheels defining a rectangular path at each side of the frame, a plurality of rods transversely disposed across the frame and carried by said chains, a plurality of shelves freely suspended by shelf frames from said rods, four guide rollers carried by each of said shelves for movement in the channels of said guide members, sprocket means arranged to move said chains simultaneously on said sprocket wheels, each of said shelf frames having angularly disposed upper sides and parallel lower sides disposed at right angles to said shelf, a collar bearing carried at each end of said rods, said angularly disposed upper sides being mounted to pivot freely on said collar bearings so that the shelves remain horizontal in all positions thereof, said chains being movable endlessly on said wheels so that the shelves move in an endless path upwardly in one pair of said passageways, then horizontally straight across the frame to the other pair of passageways, then downwardly through the other pair of passageways, and then horizontally straight across the frame to said one pair of passageways, a U-shaped member carried at the top of the frame, and a pronged member carried by each of said shelves and arranged to fit into said U-shaped member to align the rollers with the channels in said members and to dampen lateral movements of the shelves.

2,819,802

APPARATUS FOR AND METHOD OF OPERATING SOAKING PIT FURNACE COVERS

William A. Hart, Poland, Ohio
Application May 6, 1952, Serial No. 286,404
8 Claims. (Cl. 212-4)

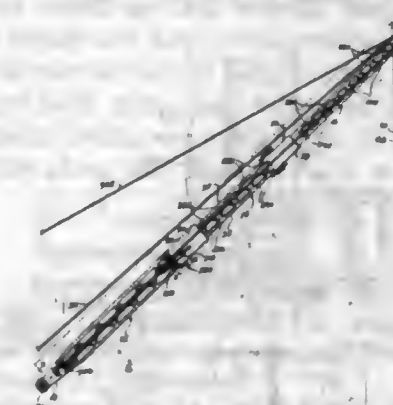


7. A method of operating a soaking pit cover traveling crane having control means actuated at a station remote from the pit which comprises moving the crane along a horizontal path adjacent a cover until a predetermined relation between the crane and cover is established, actuating the crane to raise the cover from the pit, moving the crane along said path to expose the open pit and then returning the crane to a predetermined position relatively to the pit preparatory to replacing the cover.

2,819,803

BOOM FOR CRANES

Leo B. Obenchain, Oceanway, Fla.
Application October 12, 1954, Serial No. 461,861
7 Claims. (Cl. 212-55)



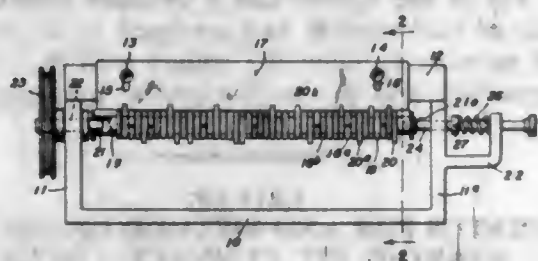
1. A boom for cranes comprising a plurality of telescoping sections including a base section adapted for pivotal connection to a crane, an intermediate section and an end section; an extension means operatively connected

to said intermediate and end sections to move them in extended telescopic relation, a lock mechanism carried by said base section and operatively connected to said intermediate and end sections to lock said sections in a selected position in their extending movement, said lock mechanism including a selectively operable hydraulic cylinder, rows of longitudinally spaced teeth on said intermediate and end sections, a plurality of latch plates, a linkage between said cylinders and said latch plates to move said plates into and out of engagement with said teeth upon actuation of said cylinder.

2,819,804

APPARATUS FOR ORIENTING RETAINING RINGS
Hans Erdmann, Maplewood, N. J., assignor to Waldes Kohinoor, Inc., Long Island City, N. Y., a corporation of New York

Application June 22, 1955, Serial No. 517,295
4 Claims. (Cl. 214-1)

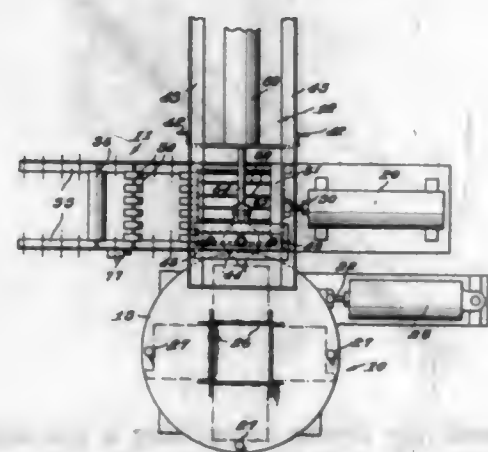


1. Apparatus for orienting a plurality of open-ended spring retaining rings of the type having a gap between their open ends and which are provided adjacent said ends with radially enlarged ears comprising, in combination, means mounting a plurality of said retaining rings in stack formation and for rotation individually about the stack axis, means extending along the stack and being disposed in the path of movement of said ears for arresting rotation of said rings through abutment of the ring ears therewith, said arresting means comprising a plurality of depending pawl-like fingers which are pivotally mounted at their outer ends for limited pivotal movement and whose inner ends extend into the path of movement of the ring ears, and means for rotating said rings about the stack axis in a direction as to bring corresponding ears of the plurality of rings into engagement with said arresting means and thereby the gaps of the plurality of rings into axial alignment.

2,819,805

BATTERY COMPONENT ASSEMBLING MACHINES
Albert B. Vieth, Hamburg, Pa., assignor to Price Battery Corporation, Hamburg, Pa., a corporation of Pennsylvania

Application October 5, 1953, Serial No. 383,956
8 Claims. (Cl. 214-6)



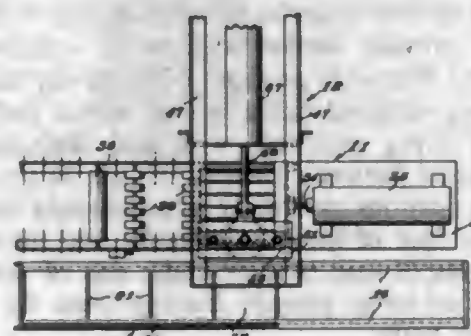
1. A battery component assembling machine, comprising a horizontally movable member for supporting stacks of positive, negative, and separator plates, means for in-

termittently moving said member to position said stacks in succession at a single pick-up position, a component stacking and conveying means adjacent said member, and a means mounted for successive linear, vertical and horizontal movements operable to transfer individual components from a stack on said member to said stacking and conveying means, said component-stacking and conveying means comprising a stack-supporting tray, and a series of stack-conveying rollers transversely aligned with the tray, said tray being supported for movement in a directional normal to the axes of said rollers, means cooperating with said tray for moving same, said tray comprising a base bar and a series of elongated parallel teeth projecting from one side of said bar, and certain of said rollers adjacent said tray being necked for receiving said teeth upon longitudinal movement of the tray.

2,819,806

BATTERY COMPONENT ASSEMBLING MACHINES
Albert B. Vieth, Hamburg, Pa., assignor to Price Battery Corporation, a corporation of Pennsylvania

Application October 5, 1953, Serial No. 383,957
1 Claim. (Cl. 214-6)



Means for supporting a plurality of stacks of battery plates and for positioning successive ones of said stacks at a single pick-up station, comprising an elongated frame, said frame being provided with laterally opposed guide channels, a component supporting plate for said stacks having opposite edges thereof received in said channels for movement thereof longitudinally of the frame, said frame including a base disposed below said plate, laterally opposed guide flanges on said base, a plurality of pneumatic cylinders having guide portions in longitudinal slidable engagement with said guide flanges, and a pneumatic cylinder immovably supported on said base rearwardly of said slidable cylinders, a piston stem connection between the foremost cylinder and said plate, and piston stem connections between adjacent ends of all of said cylinders, said plate being provided with a longitudinal vertical wall at one edge thereof and a plurality of longitudinally spaced vertical members projecting right-angulantly from said wall and providing therewith pockets for receiving stacks of battery plates.

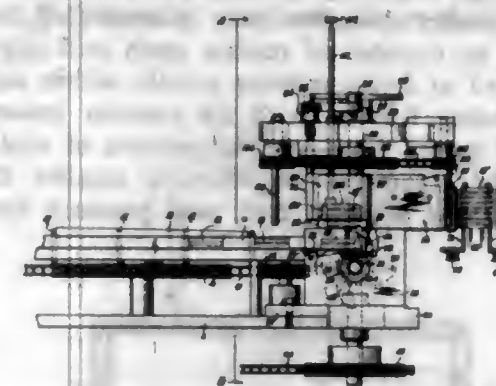
2,819,807

COUNTING AND STACKING DEVICE
James C. Petrea, Durham, N. C., assignor, by mesne assignments, to Sperry Rand Corporation, a corporation of Delaware

Application August 8, 1955, Serial No. 526,831
7 Claims. (Cl. 214-6)

1. In a device for counting and stacking articles; stacking means for receiving successive single articles and moving said articles upwardly along a fixed path to form a columnar stack of articles and lifting said stack as successive articles are added to the bottom thereof, opposed guide walls on opposite sides of said stack, movable gate means on a third side of said stack between adjacent edges of said guide walls, spaced confining means on the fourth side of said stack, transfer means cyclically movable be-

tween said confining means and guide walls to move a plurality of articles laterally from said stack past said gate



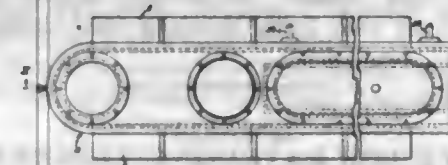
means, means for moving said transfer means, and means for opening and closing said gate means in timed relation to passage of said transfer means between said guide walls.

2,819,808

CHARGING APPARATUS

Carl E. Herschel, Newtown Square, Pa., and Charles D. Vandenburg, Charleston, Md., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application December 31, 1952, Serial No. 329,045
13 Claims. (Cl. 214-17)



1. Apparatus for metering a flowable material comprising a housing having an internal straight passageway, said passageway having a pair of opposite sides defined by rectilinear surfaces, each of said surfaces having a port in offset relationship with respect to the port of the other surface, a reciprocable member adapted to fit slidably within the passageway in substantial engagement with said surfaces and having a measuring chamber extending between said surfaces of the passageway with an opening at each end adjacent one of the surfaces, each opening being disposed for passing into registry with the port of the adjacent surface, said ports being disposed lengthwise of the passageway and the chamber being transversely aligned with respect to the surfaces to obtain registry of one opening of the chamber with one port with the other opening being completely offset from the other port, and an extension of the member projecting from the chamber in closely-fitting relationship with one of said surfaces to cover the port in such surface when the member is positioned with the measuring chamber in registry with the other port, said housing having an opening in each of said surfaces disposed on the side of the passageway opposite from each port for communication with an end of the measuring chamber when the member is positioned to place the other end of the measuring chamber in registry with the corresponding opposing port, said housing comprising a pair of removable closures for covering both openings of the housing, a reciprocator for the member mounted within the housing, the housing being normally enclosed except for the ports.

2,819,809

HAND TRUCK BELT TIGHTENING ASSEMBLY
Alfred H. Hanson, Garrison, N. Y., assignor to The Fairbanks Company, New York, N. Y., a corporation of New Jersey

Application March 15, 1954, Serial No. 416,165
9 Claims. (Cl. 214-374)

9. In a hand truck having a frame, a retaining belt for binding a load to said frame, guide means on said

frame for guiding an intermediate portion of said belt around said load, a reel mounted at the upper rear central portion of the frame and having a hand wheel for turning thereof, one end of the belt being connected to said reel whereby the belt may be tightened around said load by winding the excess belt on said reel, the other end of said belt having means for attachment thereof to said frame, and locking means mounted on said frame between said reel and said guide means for locking the

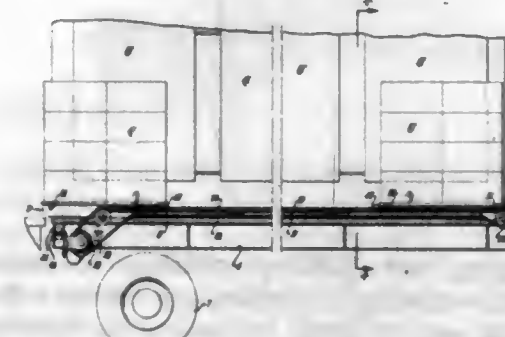


belt in tightened position automatically upon tightening of said belt around said load by means of said hand wheel, said belt extending from said reel downwardly and angularly through said locking means to said guide means and then around said load, the locking means including a movable body member carrying a first member engageable by said belt and a locking member normally spaced from the belt when the belt is slack, said body member being movable, by tension of the belt against said first member when the belt is tightened, to a locking position in which the second member engages and frictionally grasps the belt.

2,819,810

VEHICLE LOAD HANDLER

Nicklas R. DeWitt, Medford, Ore.
Application July 7, 1955, Serial No. 520,431
2 Claims. (Cl. 214-516)



1. A vehicle load handler for a vehicle having a floor and side framing upstanding from said floor comprising a pallet, wheels on said pallet, means on said floor for supporting said pallet on said wheels, means for conveying said pallet along said floor, wall panels, means for mounting said wall panels on said side framing for relative movement toward each other, and means for pressing said wall panels against lading on said pallet to arrest movement of said pallet along said floor.

2,819,811

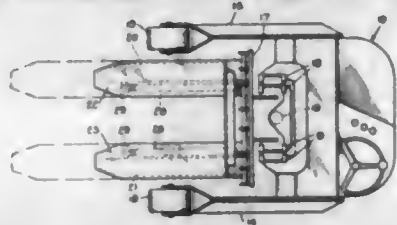
EXTENDIBLE FORK TRUCK

George F. Quayle, Philadelphia, Pa., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut

Application May 31, 1955, Serial No. 511,906
3 Claims. (Cl. 214-750)

1. In a truck of the class described, a main frame comprising a forward traction end and a pair of legs extending longitudinally from the lower sides of said forward traction end, a wheel at substantially the end of each leg

supporting one end of the truck, a traction unit at the said forward traction end, a pair of spaced vertical uprights for said truck positioned on said main frame rearwardly of said traction end, a load platform mounted for vertical movement on said vertical uprights from a lowermost position substantially against the ground and of such size that when fully lowered it lies entirely between said legs, a load support plate contributing a load surface



for the platform and adapted to slide longitudinally on said load platform whereby to move said surface between one position substantially coextensive with said load platform and a position substantially beyond the ends of said legs, bearing members between the plate and platform supporting the plate as it slides with a load on its surface, and means for sliding the plate and its load on said bearing members to enable the truck to handle the load beyond the ends of said legs and also to carry that load in stabilized relation to the wheels.

2,819,812

SHIPPING AND DRINKING VESSEL FOR CARBONIC GAS BEVERAGES

Albert Freundorfer, Arnstorf, Germany, assignor of one-half to Louise Widmann, Washington, D. C.
Application August 30, 1954, Serial No. 452,993
1 Claim. (Cl. 220-29)



A shipping and drinking container for carbonic gas beverages comprising a drinking cup having a lower conical portion and an upper cylindrical portion having the maximum diameter of said conical portion and terminating in a rim, an inner cover seated on said rim with sealing means therebetween, a threaded joint connecting said inner cover to said cylindrical portion, a beverage filling tube extending centrally through said inner cover, plug means for closing said tube, and an outer cover detachably secured to said inner cover and bearing on said plug means for resisting gas pressure in said container.

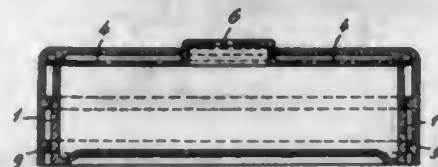
2,819,813

BOX WITH COVER

Fritz P. Larsen, Paris, France
Application April 26, 1956, Serial No. 580,815
1 Claim. (Cl. 220-43)

A box assembly comprising in combination: a body of rigid plastic material formed with a flat bottom portion and an upstanding peripheral wall with an upper edge extremity; a closure of resilient plastic material formed with a flat portion and a depending skirt with an inner diameter whereby said skirt is adapted frictionally to engage the outside of said upstanding peripheral wall of

said body, said closure having a central aperture; and a rigid pressure disc of a diameter larger than that of the upper edge extremity of said upstanding wall of said body and smaller than the inner diameter of said skirt in order to be capable of resting upon said upper edge extremity and of freely moving axially within said skirt, said skirt being formed with an annular inwardly directed bead spaced from said flat portion of said closure and the inner diameter of which is smaller than the diameter of said pressure disc, said pressure disc being

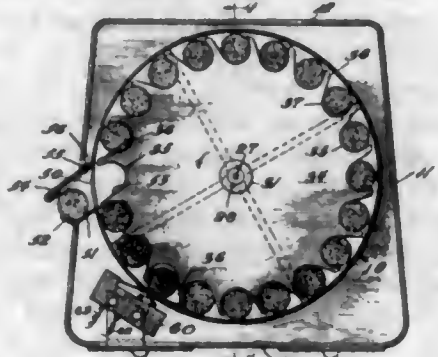


entrapped between said annular bead and said flat portion of said closure, whereby the box may be opened by a pressure being exerted downwardly against said pressure disc by a finger inserted through said aperture of said closure, the inner face of the flat portion of said closure including a peripheral resilient bead adapted to bear against the top face of said pressure disc, the skirt of said closure including a further annular bead formed upon the inner face of said skirt near the mouth thereof, the skirt of said closure frictionally engaging said upstanding wall of said body through said further annular bead.

2,819,814

DEVICE FOR RATIONING CIGARETTES

Paul R. Hatch, Barrington, R. I.
Application January 18, 1955, Serial No. 482,526
8 Claims. (Cl. 221-83)



1. In a cigarette rationing device, a rotary carrier, means including an electric circuit to rotate said carrier, a switch in said circuit engaged by said carrier during the movement thereof to open said circuit and stop the carrier, and manual means movable into engagement with said cover for moving the same to disengage with said switch to close the said circuit.

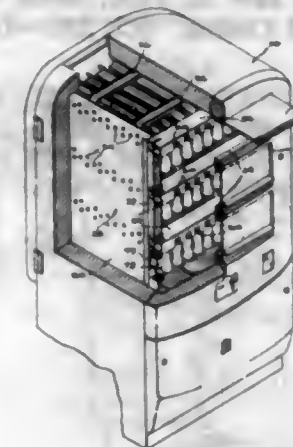
2,819,815

BOTTLE VENDING MACHINE

Owen L. Stumbaugh, Charlestown, W. Va., assignor to Victor Products Corporation, Hagerstown, Md., a corporation of Maryland
Application July 27, 1954, Serial No. 445,980
10 Claims. (Cl. 221-92)

1. In a bottle vending machine parallel guides defining therebetween ways along which move bottles, spaced rows of abutting bolts carried by the guides for movement transversely thereof and projection into the ways to define stops between which must pass the bottles as they are extracted from between the guides, means carried by the guides adjacent opposite ends of the rows of bolts and operatively engaging the endmost bolts in the rows

of bolts for holding projected the bolts in one row of bolts during the passage of a bottle between adjacent bolts

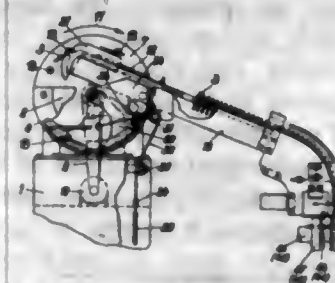


in the adjacent row of bolts, and releasable means carried by the machine and engaging a bolt in one row of bolts for holding said bolts projected into the ways.

2,819,816

DEVICE FOR FEEDING WORK PIECES

Wilhelm Moeltzner, Berlin-Charlottenburg, and Johann Hübl, Berlin-Haleusee, Germany, assignors, by mesne assignments, to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania
Application December 16, 1952, Serial No. 326,199
Claims priority, application Germany December 21, 1951
4 Claims. (Cl. 221-183)



3. In a device for removing work pieces from a container, a disc arranged to rotate in a substantially vertical plane, at least the lower portion of said disc extending into said container, magnetic means carried by said disc and having the magnetic poles thereof arranged substantially in the plane of one face of said disc and radially spaced from the axis of rotation of said disc, a scoop mounted for rocking movement about the axis of said disc closely adjacent said one face of said disc, said scoop having a pickup portion extending into said container opposite the path of the poles of said magnets as they pass through said containers, scoop return means constantly yieldably urging said scoop in a direction counter to the direction of the rotation of said disc, and means carried by said disc for periodically overcoming the resistance of said scoop return means and positively rocking said scoop in the direction of rotation of said disc to separate said work pieces and to load said work pieces on said magnetic means.

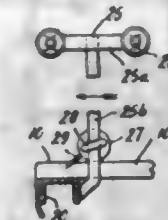
2,819,817

NEWSPAPER, MAGAZINE, OR LIKE VENDING MACHINES

John Mackenzie, George Philip Bissett, and Robert Wilson Bissett, Auckland, New Zealand
Application May 7, 1954, Serial No. 428,204
Claims priority, application New Zealand June 12, 1953
1 Claim. (Cl. 221-213)

In a vending machine, an article feeding device comprising a shelf mounted in said machine adapted to receive the paper articles to be dispensed in a stack, a pair of guide tracks mounted in said machine above the shelf,

a wheeled carriage mounted in said tracks to move thereon by means of the wheels of the carriage, actuating bars suspended from the carriage and extending downwardly, one on each side of the stack, for the entire height of the stack, an eye member slidably mounted on each of the bars with clearance about the bars, a roller secured between the eye members with the eye members in a plane which is parallel and adjacent to the axis of the roller, downward sliding of the roller on the bars occurring upon dispensing of papers from the top of the



stack, the eye members surrounding the bars with clearance so that the roller will have a limited rotary movement on the bars limited by the diameter of the eye as the latter abuts against its bar, the roller having spikes therein to contact the top paper when the roller is actuated, and means to reciprocate the carriage so that the roller will feed the articles one at a time upon each reciprocating cycle of the carriage in its tracks, and the roller, as restricted in its rotary movement by the eye members on the actuating bars, upon the initial forward travel of the carriage inserting the spikes in the top paper, of the stack to carry the impaled paper forward.

2,819,818

DISPENSERS FOR RETAINING RINGS

Hans Erdmann, Maplewood, N. J., assignor to Walde Kohinoor, Inc., Long Island City, N. Y., a corporation of New York
Application July 14, 1952, Serial No. 298,869
4 Claims. (Cl. 221-220)



1. A retaining ring dispenser comprising a base having a horizontal upper surface and a rod extending therefrom for holding a plurality of retaining rings supported in stack formation on said base, a slideway formed in said upper surface extending beneath said stack, said slideway having different elevations and the difference in elevation equaling the thickness of a ring, a slide mounted to slide in said slideway portion of greater elevation and being adapted upon actuation in one direction of movement along the slideway to shift the lowermost ring of the stack to a position on the guide-way portion of lesser elevation, spring means for actuating said slide in said one direction, said slideway also providing a guideway for a ring dispensing tool having ring clamping and backing portions arranged at different levels and the difference in said levels corresponding generally to the difference in elevation of the slideway portions, whereby said slide is actuatable in the opposite direction along said slideway by the ring backing portion of the tool.

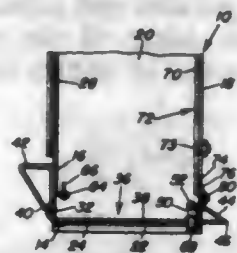
2,819,819

BREAD DISPENSER

George B. Warren, Los Angeles, Calif.
Application February 6, 1953, Serial No. 335,467
1 Claim. (Cl. 221-256)

A slice holder and dispenser comprising a vertically elongated container in which slices of bread are systematically stacked, said container having fixed bottom, top, side, back, and front walls, said front wall having a slice

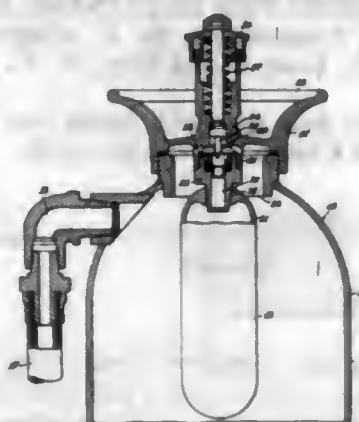
ejecting and withdrawing slot adjacent said bottom wall, said slot being sized for the withdrawal of a single slice, a single slice receiving and delivery tray slidably keyed on said bottom wall and projectible from the interior of the container through said slot, the trailing end of said tray having an upstanding horizontal member which is wedge-shaped in cross-section, the inclined surface of said



member being inclined rearwardly and downwardly toward said bottom wall, said back wall also having a horizontal slot adjacent said bottom wall, said member being projectible through said latter slot, a vertical shutter plate slidably mounted on the interior of said back wall and movable toward said bottom wall in a manner to close said slot under predetermined conditions, said shutter plate being provided on its lower end with an anti-friction roller.

2,819,820 STORED PRESSURE MEDIUM CONTAINER WITH DISCHARGE CONTROL

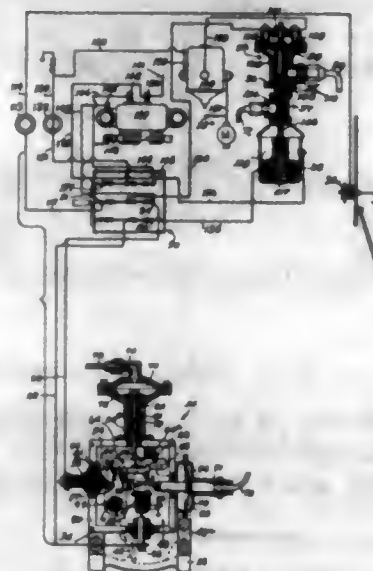
Frank B. Allen, Towaco, N. J., assignor, by mesne assignments, to The Fyr-Fyter Company, Dayton, Ohio, a corporation of Ohio
Application July 19, 1954, Serial No. 444,312
6 Claims. (Cl. 222-5)



1. A readily chargeable stored high pressure medium container for use with a separable discharge device including a reciprocable puncturing member, the puncturing member having a predetermined length of stroke and normally maintained in an upward position away from contact with the container, outlet means for the container forming a passage into the container, an outwardly turned sealing seat about the passage, a closure assembly for the outlet means including an axially slotted sealing disc nut threadedly engaged in the closure assembly, a sealing disc at least of a strength to hold the normal pressure in the container and rupturable by a puncturing member, a flow limiting member having an orifice therein and of a strength to hold the pressure in the container while the container is being discharged through the orifice, means spacing the portions of the sealing disc and flow limiting member along the center line of the puncturing member a distance greater than the length of travel of the puncturing member so that upon a stroke of the puncturing member the flow limiting member is free from contact with the puncturing member, and means securing the sealing disc and the flow limiting member with the sealing disc nut in a unitary assembly, whereby upon the retraction of the sealing disc nut away from the sealing seat an unobstructed filling passage is provided through an axial slot of the sealing disc nut past the seat into the container.

2,819,821 FLUID DELIVERY EQUIPMENT

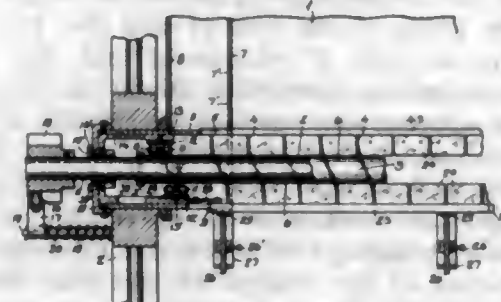
Willard C. Morse, Lisbon Falls, Maine
Application July 22, 1955, Serial No. 523,828
10 Claims. (Cl. 222-75)



1. In combination, a delivery vehicle having a propelling engine controlled by electrical circuits, and having a container for liquid which is to be delivered; a delivery line including a hose connected to said container; means for storing said hose on the vehicle; a member movable with respect to the vehicle and having a normal position thereon, said member requiring actuation from said position as an incident to removing the hose from storage position; and safety means connected to the electrical circuits of the engine and controlled by said movable member for rendering inoperative said circuits when the member is out of said normal position, thereby to reduce the likelihood of inadvertent operation of the engine; and a holder for the nozzle of the hose, the said movable member comprising the said nozzle.

2,819,822 FERTILIZER DISTRIBUTER AND PLANTER

Sigmund Stokland, Oslo, Norway
Application December 12, 1955, Serial No. 552,541
27 Claims. (Cl. 222-136)

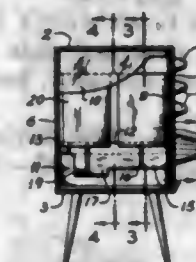


1. An agricultural machine for spreading granular material, comprising a material supply hopper having a rear wall and two end walls, a rotatable roller positioned transversely within said hopper at the bottom thereof adjacent the rear wall, said roller having a plurality of adjacent circumferential grooves, a pair of sleeve-shaped support members having a bore corresponding to the diameter of said roller, means for securing the support members to each of said hopper end walls, roller bearing members secured to said sleeve shaped support members to support said roller rotatably, the rear wall of the hopper having a horizontal row of discharge openings positioned to have their upper edges level with a horizontal plane through the axis of the roller, a closing member movably secured to the outside of the rear wall for regulating the effective area of said openings, scraper means mounted on the rear wall for transverse movement in respect of

the roller and radially projecting into the circumferential grooves therein at a position behind said openings with regard to the direction of rotation of the roller, and means for rotating said roller.

2,819,823 SALT AND PEPPER SHAKER SETS

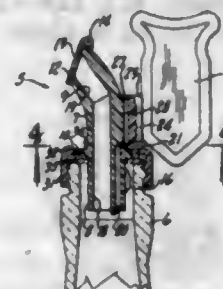
Alfred C. Morganstern, Belleville, Ill.
Application May 8, 1957, Serial No. 657,973
8 Claims. (222-142.3)



2. A salt and pepper shaker set comprising a housing having a chamber therein and having a rectangular aperture opening into said chamber, a pair of hollow rectangular shakers removably disposed within said chamber and presented at one end through said opening, means within the housing for normally supporting said shakers in such manner that their tops are substantially flush with each other and with said aperture, said shakers each being free to move shiftably through said aperture for removal from the housing and bearing slidably against marginal portions of said aperture so as to be guided thereby, and mechanical means operatively mounted in the housing for simultaneously shifting said shakers outwardly through the aperture of said housing chamber to permit manual gripping and removal of said shakers.

2,819,824 POURING DISPENSER

Glen W. Ebert, Fox Point, Wis.
Application April 13, 1956, Serial No. 578,089
2 Claims. (Cl. 222-192)

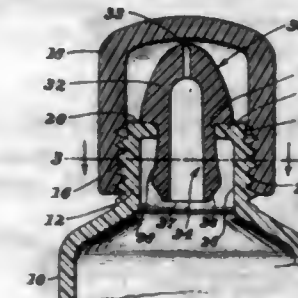


1. A pouring dispenser for liquor bottles and the like, of the type comprising a stopper for the mouth of a bottle and a tubular spout having a bored inlet portion extending below the stopper to project down into the bottle and an outlet portion projecting above the stopper and having a bore communicating with that of the inlet portion; characterized by a vent passage extending lengthwise in the wall of the lower portion of the spout, opening to the bottom of the inlet portion and to one side of the spout adjacent to the top of the stopper, by which vent air may be admitted to the bottle during pouring; further characterized by a pair of spaced apart, parallel, upright ribs on said side of the spout, one on each side of the vent opening; and further characterized by a detachable flag having a substantially channel shaped securement portion endwise slidably engageable with said ribs and having an abutment portion closing the upper end of said channel portion and overlying the upper ends of said ribs when the flag is in place to provide a stop defining the lowermost position of the flag on the spout,

said securement portion cooperating with said ribs to prevent entry of foreign matter into said vent and to define a downwardly opening passage which communicates said vent with the atmosphere.

2,819,825 DISPENSING PLUG SEAL

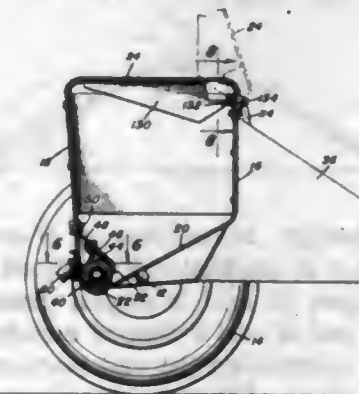
Albert Quinche, St-Sulpice, and Edouard Lecluyse, Vevey, Switzerland, assignors to Uni-Tubo S. A., Vevey, Switzerland, a corporation of Switzerland
Application July 9, 1954, Serial No. 442,226
1 Claim. (Cl. 222-215)



In combination, a flexible container having a reduced neck provided with a transverse resilient flange at the top thereof, said flange having a central opening of smaller diameter than the interior diameter of the neck, the outer surface of the neck adjacent the top having a smooth annular portion and a threaded portion below the smooth portion, a dispensing plug insertable in said flange opening, said plug having an outer end portion and an inner end portion, the outer end portion being enlarged and having a central reduced opening, said enlarged outer end being connected to the inner end by a reduced shoulder portion that engages the flange when the inner portion is inserted through the flange opening into the container, the inner end portion of said plug having an outer diameter slightly larger than the diameter of the central opening in the said flange, and a cap having an internally threaded portion connected to the external threads of said neck, the smooth portion of the neck being spaced from the adjacent inner wall of the cap, so that the plug when inserted into the container exerts a high pressure adjacent the flexible flange to provide a tight seat at a point above the threaded portion of the neck without the tight-engaging pressure distorting the external threads on the neck in order that the cap may be attached to or removed from the container without interference resulting from the locking engagement of the plug with the flexible flange.

2,819,826 FERTILIZER DISTRIBUTOR

John D. Kirschmann, Dickinson, N. Dak.
Application July 3, 1956, Serial No. 595,730
8 Claims. (Cl. 222-272)

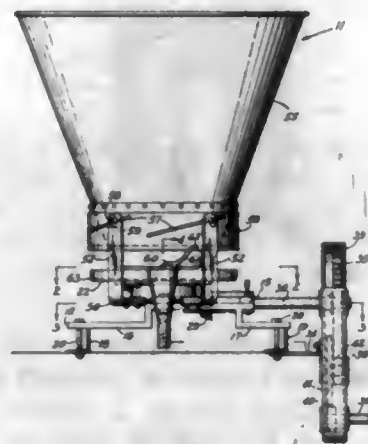


1. In a fertilizer distributor or the like, a hopper for receiving fertilizer, said hopper having a trough at its lower portion, an auger in said trough extending through an end wall of said hopper, means for driving said auger,

a plurality of spaced discharge openings in the hopper adjacent the auger and disposed above the bottom of said trough, discharge spouts for said openings and a plate in said hopper secured to the rear wall thereof and inclined downwardly therefrom and overlying said auger.

2,819,827 MATERIAL SPREADER

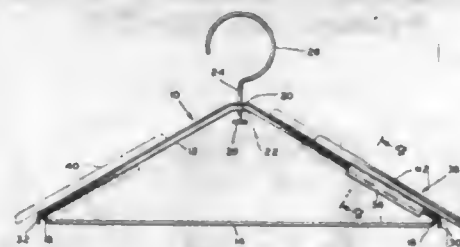
Samuel H. Barefoot and Nealy B. Wingard, Gilbert, S. C.
Application February 23, 1955, Serial No. 489,988
2 Claims. (Cl. 222-286)



1. A material spreader attachment for a farm tractor comprising a frame, a horizontal trough rotatably mounted on said frame, a hopper disposed over said trough, said hopper having a tapering open bottom end, a skirt member secured to said hopper above said bottom end, a plurality of upstanding arms rigidly secured on said frame and extending adjacent said skirt member, means adjustably securing said skirt member to said arms, whereby the height of said bottom end over said trough may be adjusted, a baffle member pivotally secured to said skirt member for free rotation on a substantially horizontal axis and extending obliquely into the outer marginal portion of and slidably engaging the bottom wall of said trough, and a depending discharge conduit secured to said frame laterally adjacent said baffle member and being arranged to receive material deflected laterally from said baffle member responsive to rotation of said trough.

2,819,828 ADJUSTABLE COAT HANGER

James L. Thurber, Denver, Colo.
Application June 2, 1954, Serial No. 433,979
1 Claim. (Cl. 223-39)

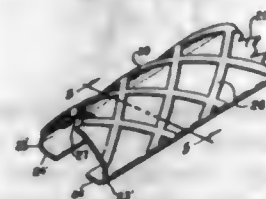


A clothes hanger comprising a V-shaped member formed of a pair of parallel rails, a hook extending upwardly at the apex of said V-shaped member, an off-set portion at each end of said V-shaped member, each of said off-set portions comprising the end portions of said rails, bent out of the plane of the main portion of the rails and inclined toward each other to form a V-shaped portion, a cross-bar extending between the opposite ends of said V-shaped member, the ends of said cross-bar being fixed within said V-shaped portions, a cross-strut extending

between the rails at the junction of the main portions of said rails and the off-set portions thereof, a pad slidably mounted on each arm of said V-shaped members, a block removably secured to each pad, a pair of oppositely disposed flanges on each of said blocks and positioned on the side of said rails opposite said pads, said blocks being slidably positioned between the rails of said V-shaped member, said cross-struts being adapted to limit the movement of said pads on said V-shaped member.

2,819,829 GUARD FOR GARMENT HANGER

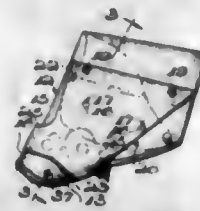
Theodore F. Gensmer, deceased, late of Portland, Oreg., by Orville T. Gensmer, executor, and Dudley C. Kleist, Portland, Oreg.
Application March 11, 1954, Serial No. 415,627
2 Claims. (Cl. 223-98)



1. A guard for supporting trousers and the like on a cross bar of a garment hanger, comprising an elongated strip of semi-rigid sheet material such as cardboard having an unbroken arcuate garment supporting surface less than 180° in arcuate extent, longitudinal edge portions of said strip being intumed toward each other forming flat stiffening flanges disposed in a common plane, and a plurality of projections embossed in said arcuate supporting surface of the strip having smooth surfaces presented for frictional engagement with a garment thereon.

2,819,830 UNIVERSAL HAND GUN HOLSTER AND HARNESS

Norris N. Murray, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Army
Application March 6, 1956, Serial No. 569,950
3 Claims. (Cl. 224-2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



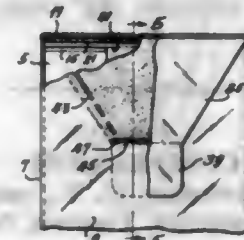
1. In a hand gun holster including a downwardly tapering holster body, a belt loop for said body, said belt loop having a tethered end fixed to said body rearwardly thereof, said loop having a free end having two laterally spaced portions extending partially around said tapering holster body in opposite directions and in flat engagement therewith below said tethered end of said loop, securing means on said holster body forwardly thereof, and means connecting said spaced portions of said belt loop to said securing means so as to prevent relative movement of said belt loop and holster body.

2,819,831 CONTAINERS WITH POURING OUTLETS

Richard G. Polarek, Evergreen Park, and James R. Lyon, Downers Grove, Ill., assignors to Atlas-Boxmakers, Inc., Chicago, Ill., a corporation of Delaware
Application May 3, 1954, Serial No. 427,068
2 Claims. (Cl. 229-17)

1. A carton formed from a blank of semi-flexible sheet material comprising side and end walls connected to one

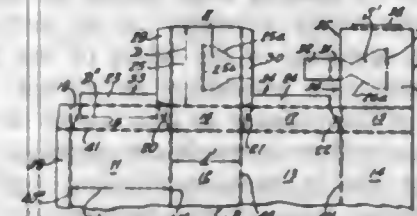
another, a top-closure flap integrally hinged to one of said side walls, a pouring outlet delineated in one of said end walls near the top thereof, said pouring outlet being defined by weakened lines converging toward a lower edge that extends parallel with the top of the carton, said lower edge being defined by a slot which has its ends extending laterally beyond the ends of the pouring outlet-defining weakened lines, an integral ear projecting laterally from one end of the top-closure flap in overlying relationship with said pouring outlet and



having a greater area than said pouring outlet, and a tab hinged to said ear at the free end thereof along a score co-extensive with the slot defining the lower edge of the pouring outlet, said tab being substantially rectangular in shape and having a width which is greater than the distance between the lower ends of the weakened lines and substantially the length of said slot, said ear being adhesively secured to that portion of the end wall defined by the weakened lines and slot and to portions beyond said weakened lines and slot to thereby seal the cuts defining the pouring outlet and to remove that portion of the side wall defined by said weakened lines and slot when the tab is pulled.

2,819,832 CARTON CONSTRUCTION

Harold A. Stoller, Metuchen, N. J.
Substituted for abandoned application Serial No. 337,529, February 18, 1953. This application April 23, 1956, Serial No. 579,815
2 Claims. (Cl. 229-17)



1. A leakproof tubular container of sheet material comprising a blank having a plurality of side wall panels foldable into tubular form and overlapping end flaps as extensions of two alternate side wall panels, score lines on all of said side wall panels defining adjacent rectangular upper panels equal in number to said side wall panels, two of which upper panels directly connect said end flaps and their side wall panels, score lines within two alternate rectangular upper panels defining, when the blank is folded into tubular form, triangles in said alternate upper panels between the end flap connecting panels, each foldable along its hypotenuse to direct the two alternate panels inwardly and simultaneously bring the insides of the two upper panels of the remaining two alternate side walls without triangles into contact with the inside surfaces of said triangles, outwardly foldable flaps of uniform width on said alternate upper panels having opposite parallel ends aligned with corresponding ends of said hypotenuses, said flaps being of approximately the same width as the said alternate side walls without triangles so that, when said end flaps are folded one over the other, they define a substantially flat top for the container and the rectangular upper panels are folded inwardly between the side walls for support and strengthening purposes, a spout portion partially formed in each of said overlapping end

flaps and adapted to be completely formed by lifting along indicated lines, the lower one of said spout portions being extended past the marginal edge of its end flap to define a tongue portion normally folded around one of said outwardly foldable flaps, whereby said alternate rectangular portions having the triangular portions may be folded inwardly in the assembly of the container to provide inwardly inclined surfaces beneath the folded end flaps, the said flap having the tongue portion being adapted to be folded under the other end flap, so that said tongue portion may be lifted to facilitate simultaneous separation of the spout portions.

2,819,833 POLYGONAL PAPERBOARD BOXES

Charles E. Sauer, Highland, Ill., assignor to Highland Box Company, Highland, Ill., a corporation of Delaware
Application April 5, 1954, Serial No. 420,996
8 Claims. (Cl. 229-41)



1. A paperboard container comprising top and bottom panels joined by a first side-forming member, a second side-forming member joined to said top panel opposite said first side-forming member, a second pair of side-forming members hinged to said top panel, said second pair of side-forming members having lateral extensions which are folded inwardly generally toward said first and second side wall members, all of the above side-forming members being in spaced relationship from one another, and a set of four additional side-forming members in said intervening space, each of said four intervening side-forming members being hinged to said bottom panel and having an end flap tucked between said top panel and the lateral extensions on said second pair of side-forming members.

2,819,834 BAG

Charles V. Brady, St. Louis, Mo., assignor to Bemis Bros. Bag Company, St. Louis, Mo., a corporation of Missouri
Application July 13, 1955, Serial No. 521,756
8 Claims. (Cl. 229-53)



1. A bag comprising a length of flat tubing having portions folded over on longitudinal fold lines which are spaced inward from the edges of the tubing one-quarter the width of the tubing, and said tubing further being folded on its longitudinal center line so that the bag has a width corresponding to one-quarter the width of the flat

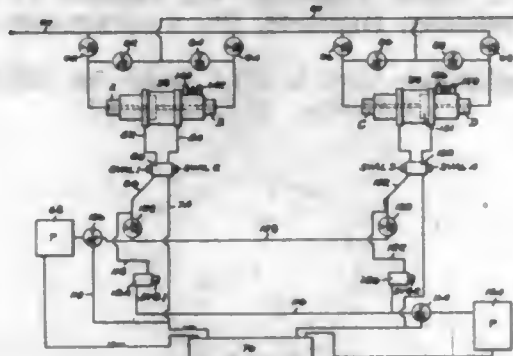
tubing and comprises four superimposed two-layer portions each having a width corresponding to one-quarter the width of the flat tubing, and said bag having a bottom closure in which the bottom margins of the two layers of each two-layer portion are secured together, and in which the two-layer portions are secured together.

2,819,835

SYSTEM FOR DELIVERING A CONTINUOUS AND STEADY FLOW OF A COMPRESSIBLE FLUID AT HIGH PRESSURE

Donald H. Newhall, Walpole, Mass., assignor to Harwood Engineering Co., Walpole, Mass., a corporation of Massachusetts

Application November 26, 1954, Serial No. 471,417
18 Claims. (Cl. 230-49)



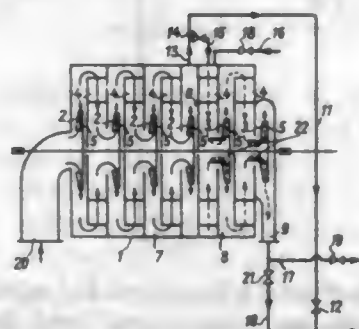
1. A fluid pressure system for delivering a continuous and steady flow of compressible fluid at a predetermined high delivery pressure which comprises, in combination, means for supplying said compressible fluid, a plurality of high pressure cylinders with high pressure chambers and pistons having high pressure faces, a delivery manifold, conduits connecting each of said cylinders with the means for supplying compressible fluid, conduits connecting each of said cylinders with the delivery manifold in parallel relation, means for imparting reciprocating delivery and return strokes to said pistons including means operable during at least the latter portion of the delivery stroke of each high pressure piston face to move said piston with a delivery pressure producing force, and means for producing in each said cylinder chamber a charge of said compressible fluid compressed to a charge pressure in the order of 1-10% less than the delivery pressure, and means for controlling the reciprocation of each of said pistons to effect said delivery strokes at delivery pressure in a continuous sequence.

2,819,836

MULTI-STAGE RADIAL COMPRESSOR

Meinrad Eberle, Zurich, Switzerland, assignor to Oerlikon Engineering Company, Zurich-Oerlikon, Switzerland, a corporation of Switzerland

Application October 24, 1956, Serial No. 618,030
Claims priority, application Switzerland October 29, 1955
2 Claims. (Cl. 230-114)



1. In a radial flow multi-stage centrifugal compressor, a plurality of rotors establishing a path of air flow from an inlet at the first stage to a full-pressure outlet at the

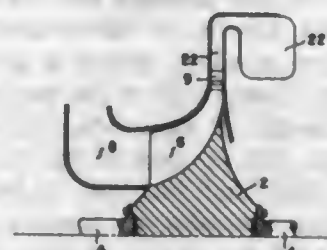
final stage, each rotor having an axial intake chamber, a partial-pressure outlet from the compressor at a point preceding at least one of the final stages to permit air to be drawn off at less than full pressure, means for selectively opening and closing said outlets, means for introducing a relatively small amount of cooling medium to the rotor of each unused final stage during periods of partial-pressure operation when the partial-pressure outlet is open and the full-pressure outlet closed, an axially movable cylindrical shell in the intake chamber of each of said final stage rotors concentric with the latter and adapted to vary the cross-sectional area of said intake chamber.

2,819,837

COMPRESSOR

William A. Loeb, Hartsdale, N. Y., assignor to De Laval Steam Turbine Company, Trenton, N. J., a corporation of New Jersey

Application June 19, 1952, Serial No. 294,420
2 Claims. (Cl. 230-127)



1. A compressor comprising a rotor having blades imparting to elastic fluid a superacoustic velocity of flow and a diffuser receiving flow from said blades at superacoustic velocity, said diffuser having relatively diverging vanes extending in a direction outwardly from said rotor defining passages receiving flow from the rotor passages at supersonic velocity, said vanes being non-radially extended and the leading edge of each vane being adjacent to a side of an adjacent vane, each vane being bevelled on the side of its leading edge facing an adjacent vane, and each vane being bevelled on its surface substantially directly opposite to the bevel of the leading edge of an adjacent vane providing an abrupt reduction in cross-section of the passage to give rise to shock waves in the superacoustic flow through the passage thereby producing abrupt rise in pressure therein, and means providing a diffuser beyond the location of said abrupt changes to provide rise of pressure at sub-acoustic velocities of flow.

2,819,838

CENTRIFUGAL COMPRESSORS

Douglas K. Warner, Sarasota, Fla.

Application July 23, 1952, Serial No. 300,535
3 Claims. (Cl. 230-128)

1. A centrifugal compressor comprising a housing, a centrifugal impeller mounted rotatably in said housing, said impeller having outwardly extending blades and said blades having sharp leading edge portions directed with rotation of said impeller and radially extending portions attached to said leading edge portions, said radial portions having rearwardly outwardly inclined slots, said slots being located adjacent to the outer ends of said radial portions of said impeller blades and said slots being disposed at the point of minimum stress in said blades whereby said slots provide an outward high velocity air flow stream adjacent the down-stream side of said blade tip portion, said housing having a diffuser peripherally disposed about said impeller and said diffuser comprising a plurality of forwardly inclined walls having sharp leading edges wherein adjacent walls form downstream outwardly diverging flow passages, a plurality of downstream outwardly inclined nozzles in said diffuser adja-

cent the periphery of said impeller and located between the said adjacent forwardly inclined walls whereby wet steam flowing through said nozzles at a higher velocity than the air leaving the tips of said blades increases the



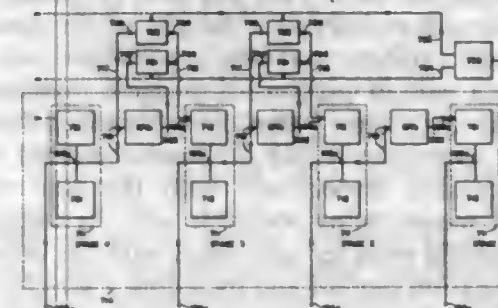
air velocity and aids said slots in keeping the air velocity uniform across the diffuser passage so eliminating shock waves in the diffuser and the reflection of those waves back to the rotor periphery whence in other compressors it is carried back to the blade roots cracking same.

2,819,839

HIGH SPEED REGISTER USING GATING CIRCUITS TO BYPASS DELAY ELEMENTS

Donald H. Jacobs, Brookdale, and Michael May, Chevy Chase, Md.; said May assignor to Donald H. Jacobs, Brookdale, Md.

Application February 23, 1951, Serial No. 212,447
18 Claims. (Cl. 235-61)



1. In a relay binary digital computer, an accumulator register having a plurality of digital stages, a delay element connected between each two successive stages, and a plurality of relay gates connected between each two successive stages except the lowest two, one of said gates being in circuit with said delay element and another of said gates being connected in parallel therewith, together with control means for causing first carry signals between said successive stages to pass through said delay element and second carry signals to pass through said another gate, bypassing said delay element.

2,819,840

BINARY COUNTER AND SHIFT REGISTER APPARATUS

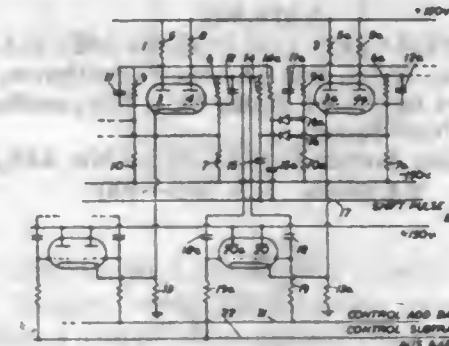
Kelth Gordon Huntley, Harlington, Hayes, and Eric Lawrence Castling White, Iver, England, assignors to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain

Application September 12, 1952, Serial No. 309,231
Claims priority, application Great Britain September 15, 1951
3 Claims. (Cl. 235-61)

1. A number register comprising a series of triggers each trigger comprising two valves each having at least a cathode, a control electrode and an output electrode, and means intercoupling said valves to establish one

728 O. G.-24

state of equilibrium for each trigger with one valve conducting and a second state of equilibrium for each trigger with the other valve conducting, a source of shift pulses, first coupling means coupling said triggers in cascade and to said source to set each trigger but the first in the state of the preceding trigger in response to a shift pulse, second coupling means coupling each trigger but the last to the succeeding trigger to produce a change of state of each succeeding trigger in response to each alternate change of state of the preceding trigger, said



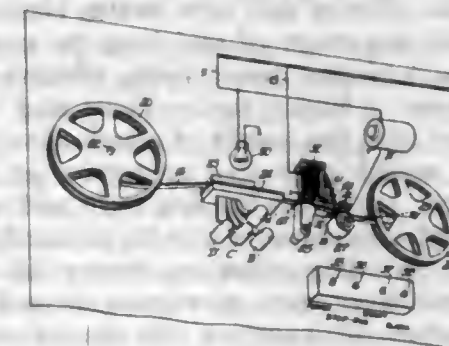
second coupling means comprising a plurality of paths each connected from an output electrode of one trigger to an electrode of a succeeding trigger, and each comprising a single unilaterally conductive device, and conditioning means comprising a bias source, and resistors connected from said bias source to said unilaterally conductive devices in said paths one resistor for each device, said bias source being variable for selectively biasing said unilaterally conductive devices to selectively render said second coupling means responsive and unresponsive to any change of state of said triggers.

2,819,841

ANALYZER FOR TICKETING SYSTEM

William H. Blashfield, Gallon, Ohio, assignor to North Electric Company, a corporation of Ohio

Application October 11, 1952, Serial No. 314,393
49 Claims. (Cl. 235-61.9)

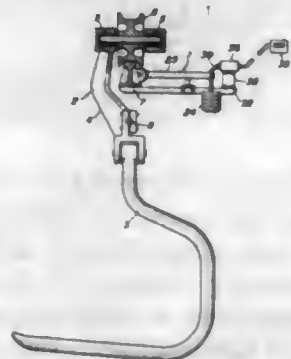


41. In an analyzer unit for sensing a tape upon which is recorded information concerning telephone calls in the form of a series of perforations, the perforations being separated by predetermined and different spaces to establish a division between the digits of a group, groups of a call, and between the different calls on the tape, certain of said perforations representing the number of minutes of the call, scanner means including a perforation detecting unit for sensing the number of perforations in each digit and a space recognition unit for sensing the various spacings on the tape following the last perforation of each digit, a first counting chain register controlled by said perforation detecting unit to count the number of minute perforations on the tape for each call, a second counting chain register for counting the perforations representing the other digital information on said tape, code converting means for translating the number of minute perforations to a charge for the call in accordance with a predetermined scale, said code converting means being controlled at times by

said first counting chain, and at other times by said first and second counting chain; a third counting chain operative with said space recognition unit to determine the position of the spaces between said groups, printer means operative to print an individual ticket for each one of the calls on said tape, and transmitting means for transmitting the digital information as registered on each of said chains to said printer means to effect the printing thereof on the ticket.

2,819,842

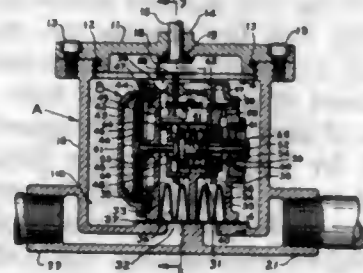
WHEEL-OPERATED COUNTING MECHANISM
John J. Adamic, Joliet, and Charles P. Pettigrew, Elwood, Ill., assignors to United States Steel Corporation, a corporation of New Jersey
Application August 2, 1954, Serial No. 447,296
4 Claims. (Cl. 235-98)



1. In a conveyor system including both empty and loaded conveyors, a trackway, and wheels supporting the conveyors for movement over said trackway, an apparatus for counting the loaded conveyors moving over said trackway comprising an actuating member normally occupying a position lying in the path of movement of conveyor wheels over said trackway and mounted for movement from said position to an actuated position by the action of a conveyor wheel moving thereover, a biasing lever having a pair of oppositely projecting arms with a pivotal support located at the junction of said arms, one of said arms being engaged with and movable by said actuating member and the other of said arms having biasing means resisting pivotal movement of said lever by said actuating member, said biasing means being effective through said lever to exert a biasing force against said actuating member greater than the weight of empty conveyors but less than the weight of loaded conveyors so that the wheels of empty conveyors moving over said actuating member are ineffective to move it to its actuated position, and a counter including operating mechanism therefor actuated by said lever upon movement thereof by said actuating member for counting the loaded conveyors passing over said trackway.

2,819,843

MIXING VALVE
Miles Lowell Edwards, Portland, Oreg.
Application July 16, 1954, Serial No. 443,727
8 Claims. (Cl. 236-12)



1. A fluid mixing device comprising a pressure resistant housing, fluid supply connections in said housing, a fluid discharge connection in said housing, a body mem-

ber mounted in said housing, a central confluence chamber in said body member, inlet chambers on opposite sides of said confluence chamber communicating with said fluid supply connections in said housing, port and valve means in said confluence chamber for admitting fluids from said inlet chambers, a diaphragm chamber mounted on said housing, a diaphragm in said diaphragm chamber connected with said valve means, a sensing chamber communicating with said confluence chamber and said discharge connection in said housing, an orifice in said body member communicating with said diaphragm chamber, a nozzle in said body member connected with one of said inlet chambers, a thermostatic element in said sensing chamber having a vane movable between said nozzle and orifice, a surface on said element perpendicular to said vane, and a nozzle connected with said one of said inlet chambers directed toward said surface in a direction to cause a jet from said nozzle to move said vane toward said orifice.

2,819,844

TEMPERATURE AND RELATIVE HUMIDITY CONTROLLER DEVICE FOR AIR CONDITIONING APPARATUS

Kenneth R. Dennick, New York, N. Y.
Application April 26, 1956, Serial No. 580,780
3 Claims. (Cl. 236-44)



1. A combined temperature and relative humidity setting and controller device for use with air conditioners in the selection and maintenance thereby of the desired temperature and relative humidity conditions, said device comprising a pair of pressure-responsive regulator members; a pair of screws respectively bearing thereon for setting the members; a pair of interconnected rotatable means associated respectively with the pair of setting screws, one means being rotatable with its setting screw; and an actuating member associated with the other setting screw for rotation thereof and including a selector element radially adjustable along said actuating member, extending through the other of the interconnected rotatable means parallel to its axis of rotation, and adapted at selected angular positions along the actuating member for engagement with said other of the interconnected rotatable means to effect its rotation.

2,819,845

DRAFT REGULATOR WITH DOWNDRAFT SAFETY MEANS

Andrew H. Ziph, St. Joseph, Mo., assignor to Walker Manufacturing and Sales Corporation, St. Joseph, Mo., a corporation of Missouri
Application June 13, 1955, Serial No. 515,016
1 Claim. (Cl. 236-45)

A draft regulator comprising a frame ring defining an air inlet and outlet opening, said frame being adapted to be inserted in an opening in the flue pipe of a combustion apparatus, a damper door pivotally mounted in said ring on a horizontal axis lying substantially in the plane of the door and above the center thereof whereby to divide said door into a lower major segment and a minor upper segment, whereby the door will normally remain closed by gravity, and the lower segment will be swung inwardly toward the flue side of the frame by a negative pressure updraft in the flue, and outwardly toward the opposite side of the frame by a positive pressure downdraft in the flue, a lever pivoted to said door coaxially with the

pivotal axis of said door and extending inwardly from the plane thereof, a weight carried at the free end of said lever, a support member fixed to said frame whereby to

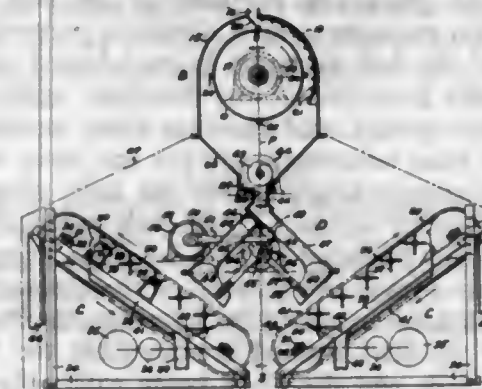


engage and support said lever when said door is closed or pivoted outwardly, and a lift member fixed to said door and operable to engage and elevate said lever from said support member when said door is pivoted inwardly.

2,819,846

PROCESS OF AND APPARATUS FOR SEPARATING ASBESTOS FIBRE FROM ROCK AND FOR CLEANING THE FIBRE

Charles V. Smith, Thetford Mines, Quebec, Canada
Application February 15, 1954, Serial No. 410,408
30 Claims. (Cl. 241-4)



2. A process of separating asbestos fibre from rock which comprises, projecting crushed asbestos ore at high velocity against a disintegrating surface, with fiberizing effect; transferring the fiberized material to a classifying zone; moving the material in a thin layer rapidly upwardly along a sharply inclined path in said zone while vibrating the material of the layer, the inclination of the path and the speed of upward movement of the material along said path being such that during the time the material remains in the classifying zone the force of gravity acting on incompletely fiberized material eventually overcomes the force moving the material upwardly while the upward movement of the separated fibre overcomes the force of gravity acting thereon; and separately collecting the unfiberized material and the fibre.

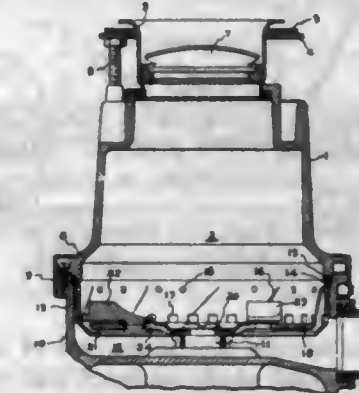
2,819,847

WASTE DISPOSAL APPARATUS

Charles E. Hauser, Jeffersonville, Ind., assignor to General Electric Company, a corporation of New York
Application October 15, 1956, Serial No. 615,852
4 Claims. (Cl. 241-46)

1. Waste disposal apparatus for use with a sink having a drain outlet comprising a housing providing a grinding chamber and having at its upper end an inlet opening for water and waste material, mounting means for securing said housing to the sink with said inlet opening in alignment with said drain outlet, projecting shredding members fixedly secured within said chamber, a rotatable grinding member within said grinding chamber, an impeller pivotally mounted on said rotatable member for movement about an axis generally parallel to the

axis of rotation of said rotatable member, and spring means associated with said impeller for imposing a frictional force restraining pivotal movement of said

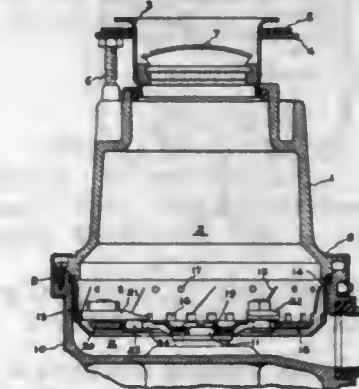


impeller sufficient to maintain said impeller in a radially extended position when said rotatable member coasts to a stop after a completed comminuting operation.

2,819,848

WASTE DISPOSAL APPARATUS

Thomas T. Woodson, La Canada, Calif., assignor to General Electric Company, a corporation of New York
Application November 19, 1956, Serial No. 623,015
8 Claims. (Cl. 241-46)



1. Waste disposal apparatus for use with a sink having a drain outlet comprising a housing providing a grinding chamber having at its upper end an inlet opening for water and waste material, mounting means for securing said housing to the sink with said inlet opening in alignment with said drain outlet, shredding members fixedly secured within said chamber, a rotatable grinding member within said grinding chamber, an impeller pivotally mounting on said rotary member for movement about an axis generally parallel to the axis of rotation of said rotary member, said impeller having a substantially flat top surface, and a rotary block element rotatably mounted on said surface, said block element having at least two external boundary surface portions spaced at unequal distances from and generally parallel to the rotary axis thereof.

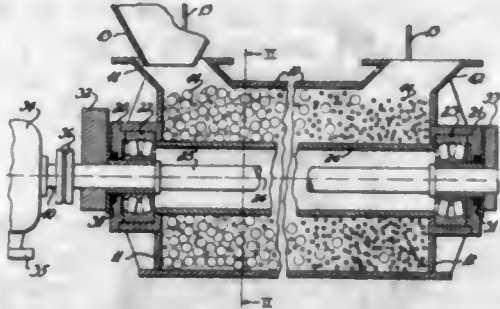
2,819,849

VIBRATING BALL MILL WITH GREATER AMPLITUDE OF VIBRATION AT FEED END

George D. Becker, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application October 4, 1954, Serial No. 459,939
4 Claims. (Cl. 241-175)

3. A grinding mill comprising a container having a pair of spaced end walls with an inlet opening adjacent one of said end walls and an outlet opening adjacent the other of said end walls, means resiliently supporting said container for vibratory movement relative to a stationary support, a charge of grinding media of various sizes in said container, bearing means connected to each of said end walls, a rotatably driven shaft extending through said container and journaled in said bearing means, ec-

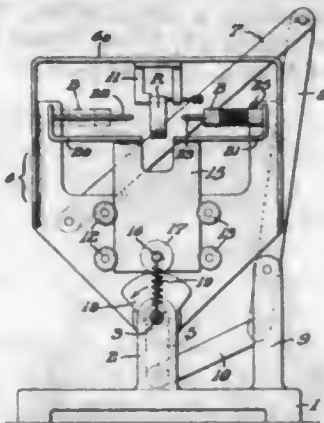
centric weight means attached to opposite ends of said shaft outward of said end walls, said weight means at said feed end having a greater moment of inertia than



said weight means at said discharge end of said container so that rotation of said shaft vibrates said container and said shaft moves in a path that traces a cone having its apex outward of the discharge end of said container.

2,819,850 COIL WINDING MACHINES

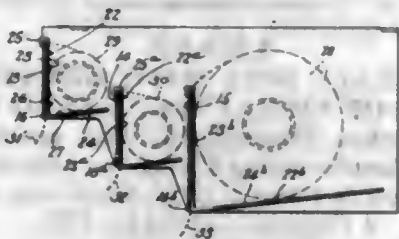
Julian D. Mathis, Bristol, Pa.
Application October 15, 1956, Serial No. 616,044
6 Claims. (Cl. 242-4)



1. In a toroidal coil winding machine, a tubular wire-carrying bobbin, a support for a core ring to be wound; a member supporting a pair of axially-aligned guide pins of which the distal ends are spaced to clear the core ring; means operative to cause the tubular wire carrying bobbin to shuttle back and forth between the pins; and means for relatively positioning the core ring support and pin supporting member so that the bobbin is caused to pass through the core ring when thrown in one direction, and to pass outside the core ring when thrown in the opposite direction.

2,819,851 ROLL DISPENSING MEANS

Jack H. Robertson, Sacramento, Calif.
Application December 18, 1956, Serial No. 629,125
3 Claims. (Cl. 242-55.4)

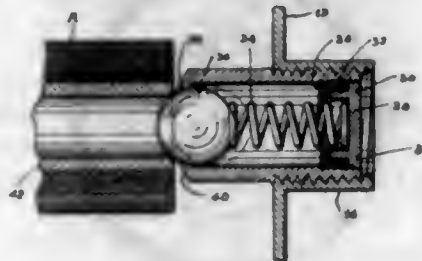


1. A roll dispenser comprising a supporting rack formed of parallel side walls, a connecting wall fixed between said side walls, teeth carried by the lower edge of said connecting wall, a roll supporting member between said side walls comprising a bottom wall, a vertical wall extending upwardly from said bottom wall, and a pair of suspension hooks carried by said vertical wall and engaging over the upper edge of said connecting wall.

2,819,852 RECESSED TOILET TISSUE ROLL HOLDER

Silvio Sarro, New York, N. Y.

Application April 19, 1956, Serial No. 579,393
1 Claim. (Cl. 242-55.53)



A toilet tissue roll holder adapted for mounting in an opening of a wall, comprising an open front container, sleeves mounted in opposite ends of said container in coaxial alignment, horizontally disposed tubular housings engaged in said sleeves and having confronting ball seats, ball bearing elements engaged against said seats and projecting outwardly of the housings toward each other, springs in the housings bearing against the ball elements to yieldably urge the same against said seats, adjustable plugs in the housings providing abutments engaging the springs at the ends of the springs remote from the ball elements, and a toilet tissue roll having a tubular core member between the housings and having open ends receiving the projecting portions of the ball elements, said core on movement in a direction perpendicular to the axes of the ball elements being adapted to bias the ball elements inwardly of the housings against the restraint of the springs, said housings being mounted in the sleeves for axial adjustment toward and away from each other to correspondingly locate the ball elements at a selected, adjusted distance from each other, the sleeves being internally threaded and the housings being threaded externally to engage the threads of the sleeves, whereby to effect said adjustments of the housings, the housings including, at the ends thereof remote from the ball seats, internal threads and the plugs being externally threaded to engage the internal threads of the housings, whereby to permit adjustment of the plugs toward and away from the ball seats to correspondingly adjust the tension of the springs.

2,819,853 THREAD HOLDER

Mary Kozlevcar, Cleveland, Ohio

Application April 25, 1955, Serial No. 503,687
1 Claim. (Cl. 242-125.2)



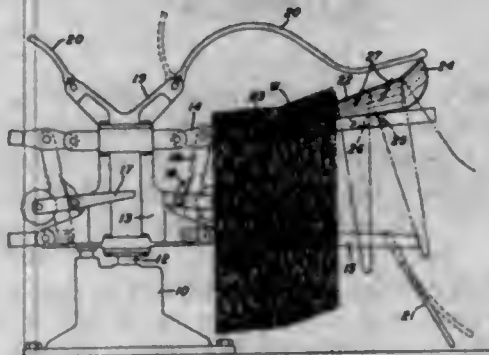
The combination with a thread spool having enlarged portions at each end thereof, of a deformable, pressure sensitive cap adapted to be press fitted onto one end of the spool whereby to engage the free end of the thread between the end of the spool and said cap, said cap comprising a substantially circular top wall integrally formed with a depending hollow, cylindrical skirt having an inside diameter slightly less than that of the enlarged end of the spool, said top wall being provided with a central opening aligned with the longitudinal bore of the spool, said top wall and skirt being formed of deformable, elastic, plastic material, said skirt on the outer face thereof

being integrally formed with a plurality of vertically spaced peripheral ridges whereby to increase the contractual properties of said skirt when in engagement with the enlarged end of the spool.

2,819,854

PAY-OFF GUIDE FOR COIL HOLDER

Earl J. Romig, Monongahela, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 11, 1955, Serial No. 487,550
5 Claims. (Cl. 242—129)



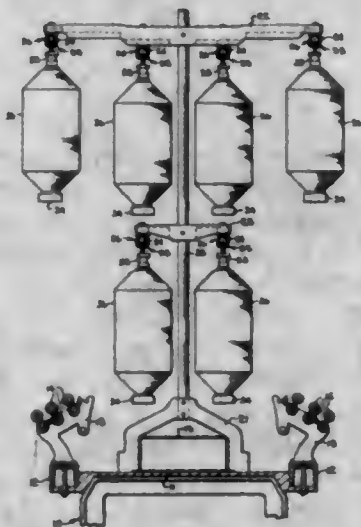
1. A guide for supporting a coil on a holder in an upright position to enable it to pay off comprising an elongated saddle of arcuate cross section diverging outwardly, means on the underside of said saddle for positioning it on a holder, a plurality of ribs on the upper face of said saddle adapted to fit between convolutions of the coil, and an extension of arcuate cross section projecting upwardly and outwardly from the outer end of said saddle.

2,819,855

CREEL FOR TWISTING AND SIMILAR MACHINES

Woodrow W. Hewitt, Charlotte, N. C., assignor to Spin-SaVac Corporation, Charlotte, N. C., a corporation of North Carolina

Application June 15, 1956, Serial No. 591,598
7 Claims. (Cl. 242—131)



1. In a twisting machine having a creel including lateral arms and longitudinal tracks for the support of spindles having bobbins mounted thereon, means for adjustably and releasably connecting the tracks to the lateral arms comprising a first bracket having a web and legs depending in diverging relation from the web, said first bracket being disposed astraddle one of said tracks with the web extending laterally across the top of the track and the legs extending about the sides of the track, a second bracket also having a web and a pair of diverging legs extending from the web, the web of said second bracket being disposed beneath and bearing against the lower surface of at least one of said lateral arms, said first bracket being disposed within the confines of said second bracket, means spacing the webs of said brackets

apart, and screw means extending through the webs of both brackets and said lateral arm whereby said first bracket may be moved vertically relative to said second bracket to selectively clamp and disengage the track between the legs of the first bracket.

2,819,856

STABILIZING APPARATUS FOR BOMBS

Sterling K. Hight, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force

Application September 27, 1955, Serial No. 537,074
5 Claims. (Cl. 244—138)
(Granted under Title 35, U. S. Code (1952), sec. 266)



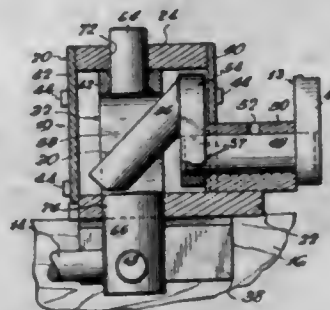
5. A device adapted for dropping from an aircraft comprising a body portion, a truncated expansible cone member having its larger end secured to one end of the body portion, the larger end of the expansible cone member being closed and the smaller end of the expansible cone member being open, and a parachute secured to the one end of the body portion, said parachute extending beyond the smaller end of the cone member when inflated to inflate the cone member to aid the parachute in stabilizing the body portion.

2,819,857

OPERATING STAND

Stanley W. Hayes, Wayne Township, near Richmond, Wayne County, Ind., assignor to Hayes Track Appliance Company, Richmond, Ind., a corporation of Indiana

Application December 21, 1953, Serial No. 399,424
2 Claims. (Cl. 246—411)



2. An operating stand for a device such as a derail or the like, including in combination, a base plate adapted to be mounted upon adjacent cross ties, a base forging of generally U-shape mounted in inverted position above and having leg portions secured to said base plate, closure plates secured to said plate and forging and constituting a housing therewith, one of said plates having an aperture, a vertical shaft assembly including means comprising a pair of vertically spaced apart shaft portions and laterally spaced apart side plates interconnecting said shaft portions and defining a vertical rectangular slot disposed in said housing between the bight of said base forging and said base plate and rotatably mounted on said plate and forging with the lower ends of said side plates abutting against said base plate, said shaft assembly having a portion extending below said base plate, a prong mounted at an angle of about 45° relative to the axis of said vertical shaft and having one end in said slot and the other end outside said slot, a crank abutted against and secured to said other end of said prong, a shaft secured to the opposite end of said crank and extending through said aperture in said plate to the exterior of said housing

for oscillating the crank and rotatable about an axis intersecting the axis of rotation of said vertical shaft assembly, a bearing block mounted on said base plate between the legs of said U-shaped forging for rotatably supporting said shaft, an operating lever secured to the end of said shaft opposite said crank, and a device operating mechanism secured to the lower end of said vertical shaft assembly.

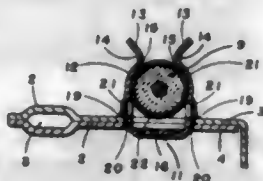
2,819,858

CLIP FOR DEFROSTER-HEATERS

William R. Mittendorf, Cincinnati, Ohio, assignor to AVCO Manufacturing Corporation, Cincinnati, Ohio, a corporation of Delaware

Application December 2, 1955, Serial No. 550,524

3 Claims. (Cl. 248—54)



1. A clip comprising a base, sides projecting perpendicularly from said base, said sides terminating in flared distal ends, said distal ends being formed in part by re-entrant portions of said sides, said re-entrant portions also defining clamping surfaces on the interior of said sides, an outwardly projecting detent lanced out of each side and ears projecting substantially co-planar from the ends of said base.

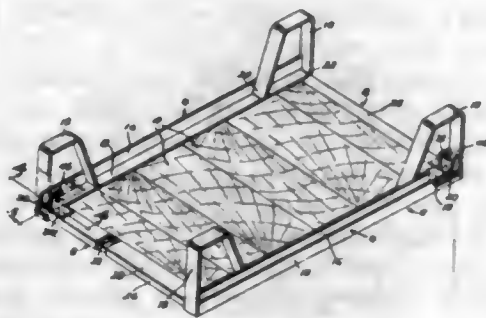
2,819,859

SKID PLATFORM CONSTRUCTION

Americo Frank Garbarino, West Acton, Mass., assignor to Lewis-Shepard Company, Watertown, Mass., a corporation of Massachusetts

Application March 8, 1955, Serial No. 493,033

2 Claims. (Cl. 248—120)



1. A skid platform comprising a pair of spaced parallel side members, each having upper and lower inwardly extending horizontal flanges connected by a vertical flange, a pair of end members the ends of which are rigidly attached to the ends of said side members, a flooring member having its opposite side portions positioned within said flanges, the points of attachment between said side and end members at one pair of diagonally opposite corners being separable and at the other pair of diagonal corners being inseparable, the structure at said diagonally opposite separable points of attachment comprising the end of the end member fitting within the confines of said flanges, a first bracket connected to the under side of said end member and having a vertically disposed portion, another bracket connected to the lower of said flanges and having a vertically disposed portion located in close parallel relationship with the said vertical portion of said first bracket, and a bolt for drawing said portions together, said side and end members when separated at the said diagonally opposite separable corners upon release of both of said pairs of brackets enabling the release and replacement of said flooring member.

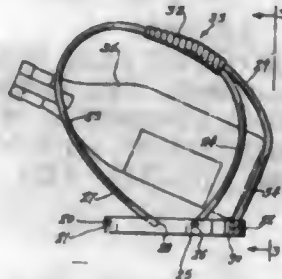
2,819,860

BOTTLE HOLDER AND POURER

Max Orbach, Brooklyn, N. Y.

Application June 22, 1955, Serial No. 517,121

2 Claims. (Cl. 248—128)



1. A bottle holder comprising a base and a springy frame supported on the base, said frame including flexible looped rods with their front ends secured to the front end of the base closely spaced apart and their rear ends secured to the rear end of the base widely spaced apart, said looped rods being juxtaposed for a portion of their length midway their ends, another rod of flexible material secured at one end to the rear end of the base centrally of the rear ends of the other looped rods, the other end of the last-named rod overlapping the juxtaposed portions of the looped rods, and a strip of flexible material coiled around said juxtaposed and overlapping portions for fastening the same together, and serving as a handle for the holder.

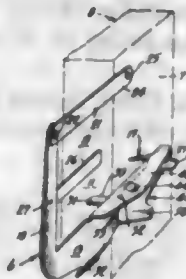
2,819,861

SUPPORT BRACKET FOR WALERS IN CONCRETE FORMS

Lemuel R. Vines, Hayward, Calif.

Application December 16, 1953, Serial No. 398,497

6 Claims. (Cl. 248—216)



1. A waler bracket for concrete forms comprising, a plate-like bracket adapted for flat mounting against the side of a rectangular wooden stud, a first portion of said bracket extending from the plane thereof at an intermediate part thereof for engagement with the outer face of said stud with a second portion of said bracket projecting outwardly from said face for support of a waler, and an arm having a pivotal connection to said bracket intermediate its ends to swing in a plane perpendicular to said plane of said bracket and being formed at one end with a sharpened lug spaced from said pivotal connection for driving into said side of said stud, the opposite end being formed with a portion for striking to withdraw said lug from said stud, said lug being of curved hook shape in said plane of its rotation and being formed with an outer edge curved about said pivotal connection as a center and with an opposite inner edge tapered therefrom to provide a wedge shape cooperating with said first portion to lock said bracket upon said stud.

2,819,862

JALOUSIE LOUVER SUPPORT CLIP

John J. Limbach, Tysons Corner, Va.

Application February 15, 1955, Serial No. 488,300

1 Claim. (Cl. 248—226)

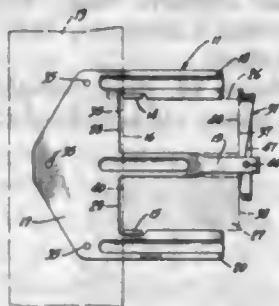
In combination, a jalousie louver support clip having a sidewall at right angles to a bottom, with an operating arm extending outwardly from the bottom and in substan-

tially the same plane, spring arms attached to the bottom and at right angles thereto and substantially parallel to the side wall and adapted to pinch a louver between said arms and the side wall, an auxiliary panel clip having two side walls, a bottom and an end wall defining a channel therebetween, one side wall having a return flange



lying outside the channel and in substantial parallelism with said side wall and spaced therefrom, the said side wall of the support clip lying between a side wall and its return flange of the auxiliary panel clip, whereby a second panel may be removably held in the channel of the auxiliary clip in proximity to but spaced from a louver held by said support clip.

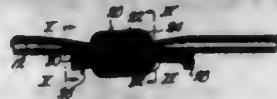
2,819,863
WATER BRACKET FOR CONCRETE FORMS
Lemuel R. Vines, Hayward, Calif.
Application May 27, 1954, Serial No. 432,868
6 Claims. (Cl. 248-247)



1. A water bracket for concrete forms comprising, a member adapted for mounting against and securing to the side of a rectangular wooden stud and having three spaced and substantially parallel arms extending from an edge of said member for projection horizontally outwardly from the outer face of said stud and with said arms vertically superimposed so as to define with said edge a pair of compartments open at their outer sides at the ends of said arms and being dimensioned for receipt of a pair of vertically superimposed walers, the lower of said arms being dimensioned to underlie and support the lower of said walers, the middle arm being dimensioned to underlie and support the upper of said walers in vertically spaced relation to the lower waler, the upper of said arms being dimensioned to overlie said upper waler and to cooperate with said lower arm to lock said walers against relative vertical deflection, said member being provided with an offset portion spaced inwardly from said edge and positioned to engage said stud face with said member edge spaced from and exposing said stud face in said compartments to define the inner boundaries thereof, and means carried by one of said arms and engageable with the outer faces of said walers for compressively securing said walers against said stud face.

2,819,864
VALVE FOR A LIQUID APPLICATOR TUBE ASSEMBLY FOR GIVING ENEMAS OR THE LIKE

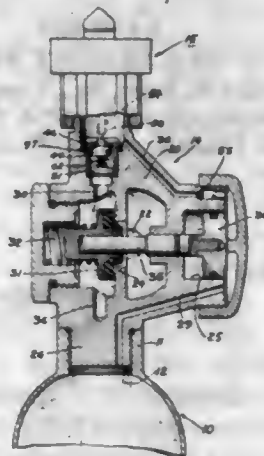
Mark M. Marks, Kansas City, Mo., assignor to Clyserol Laboratories, Inc., Oklahoma City, Okla., a corporation of Oklahoma
Application March 8, 1954, Serial No. 414,560
2 Claims. (Cl. 251-7)



1. A closure for an elongated pliable tube comprising a collar of flexible material adapted to be slidably threaded on the tube intermediate the ends thereof; and an elongated wedge, longer than the collar and reciprocable therein, longitudinally thereof for engagement with the tube to squeeze the tube closed upon movement of the wedge toward one end of its path of travel relative to the collar, said wedge having a frusto-conical length at one end thereof provided with a base end disposed outside the collar and an apex end within the collar, and a second length joined at one end thereof to said apex end and extending outwardly beyond the collar, the second length being semi-circular in cross-section, presenting an elongated flat face disposed for engagement with the tube, said base end having substantially the same diameter as the inner diameter of the collar whereby the frusto-conical length collapses the tube throughout a substantial distance along said frusto-conical length upon movement of the wedge in one direction relative to the collar toward said one end of its path of travel.

2,819,865
FLUID PRESSURE CONTROLLED TIME DELAY APPARATUS

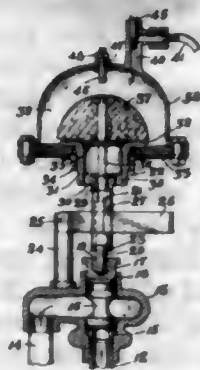
Walter J. Olson, Bloomfield, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application August 11, 1954, Serial No. 449,219
4 Claims. (Cl. 251-25)



1. Time delay apparatus comprising a container; a valve body having an inlet chamber, an outlet chamber, a vertical partition including a valve seat between said inlet and outlet chambers, horizontal cylinder means at one side of said body and facing said outlet chamber and a vertical lower end section beneath said partition secured to said container and formed with passageway means extending from said container to said inlet chamber and formed with second passageway means extending from said container to said cylinder means, said inlet and outlet chambers each having an opening at opposite sides of said body and in horizontal alignment with each other and perpendicular with respect to the longitudinal axis of said cylinder means; a metering tube mounted at the exterior end of said first mentioned passageway means and extending into said container; a valve for said seat normally

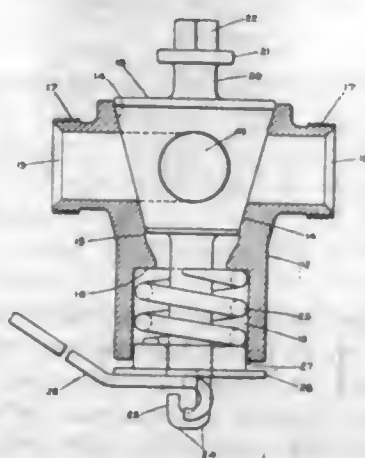
seated thereon and disposed in said inlet chamber; and piston means in said cylinder means for effecting unseating of said valve member.

2,819,866
PILOT CONTROLLED BALL COCK VALVES
Huey Warren Blackman, Birmingham, Ala.
Application May 21, 1956, Serial No. 586,082
3 Claims. (Cl. 251-43)



1. A device of the character described comprising a head, a delivery pipe extending from said head, a supply pipe connected to said head, a ball cock valve in said head for controlling the flow of liquid from said supply pipe to said delivery pipe, and pressure responsive means for controlling said ball cock valve, said pressure responsive means including a casing mounted upon said head, a diaphragm mounted in the lower end of said casing and having a central opening therein, a valve body extending vertically through said opening, an actuating valve seated upon the upper end of said body, a drain plug in the lower end of said body, an arm dependent from said plug, said arm having a vertical slot therein, a stem dependently carried by said actuating valve and extending through said plug and arm and having its lower end in said slot, a trip lever carried by said head and extending through said slot beneath said stem, and a by-pass pipe interconnecting said supply pipe and said casing.

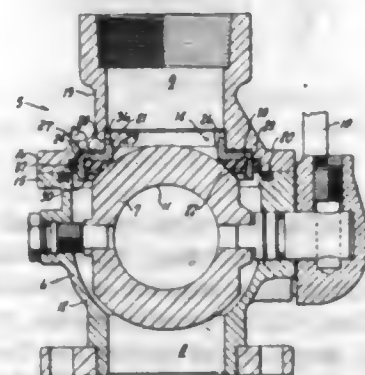
2,819,867
SANITARY MULTI-PORT PLUG VALVES
Walter S. Baer, Sr., Yeadon, Pa.
Application November 15, 1954, Serial No. 468,892
6 Claims. (Cl. 251-183)



1. A valve comprising, in combination, a valve body having an internal conically-shaped chamber communicating by means of openings in the side wall of the chamber with passages leading to the exterior of the said valve body, the taper of the inner wall or bearing surface of the said chamber being at least substantially $3\frac{1}{2}$ inches to the foot taper and/or all higher desired tapers, including tapers from eight to sixteen degrees to the vertical axis of the chamber, a valve plug in the chamber and dimensionally proportioned and tapered to match

bearing surface of chamber and have a rotary sliding fit in the chamber, the contacting bearing surface portions of the inner chamber wall and the valve plug being plated with a hard metal to resist wear and lessen sliding friction, the valve plug further having a passage therethrough adapted in at least one position in the rotative movement of the valve plug to register with certain of the openings in the chamber to provide a communicating passage therebetween and in another position in the rotative movement of the valve plug to cut off such communicating passage, an axial extension on each opposite end of the valve plug projecting beyond the exterior of the valve body, the axial extension leading from the wider end of the valve plug having a circular neck portion providing a hand grip and terminating in a polygonally shaped extremity for wrench engagement, the axial extension leading from the smaller end of the valve body forming a shank and terminating in a hooked shaped extremity, a collar encircling the shank of the second mentioned extension near the hooked extremity thereof and being axially movable thereon, a coiled spring encircling the shank of the second mentioned extension and seated at one end on the valve body and on the other end on the collar, and a lever having one end interengaging between the hooked extremity of the second mentioned extension and the collar, said lever having the interengaging end thereof shaped with a cam surface such that upon swinging movement of the lever in one direction the collar is depressed and compresses the spring and causes the increased force resulting therefrom to be transmitted through the lever to the hooked extension of said shank in the direction to draw the valve plug into closer bearing contact with the wall of the chamber.

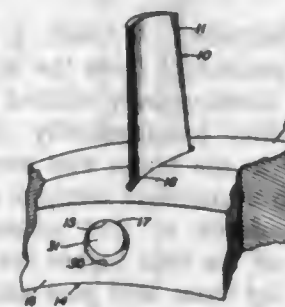
2,819,868
BALL VALVE HAVING ADJUSTABLE SEAT UNIT
John W. Cauffman, Elkhart, Ind., assignor to Elkhart Brass Manufacturing Company, Inc., Elkhart, Ind., a corporation of Indiana
Application March 12, 1956, Serial No. 570,985
2 Claims. (Cl. 251-315)



1. In a valve: a body provided with axially aligned inlet and outlet passages and having a valve chamber between said passages; a rotatable ball type valve element having a hole therethrough; means mounting the ball in the valve chamber for rotation about a fixed axis crosswise of the common axis of the inlet and outlet passages and with the hole in the ball registerable with said passages by rotation of the ball; a valve seat unit cooperable with the ball and comprising a carrier ring having a cylindrical outer portion, a flange joined to one end of the cylindrical outer portion and projecting inwardly therefrom, and a neck projecting axially from said flange at the side thereof remote from the cylindrical outer portion and concentric therewith, a resilient washer confined in said cylindrical outer portion, concentric therewith and flatwise seated on said flange, a retaining ring screw-threaded into the cylindrical outer portion of the carrier ring and engaged over said washer to hold the same clamped under pressure between it and the flange, said retaining ring having an

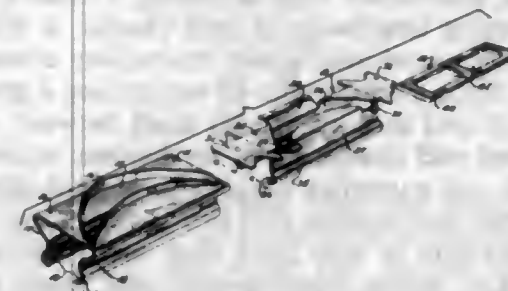
inside diameter larger than that of the washer so that the inner edge of the washer is exposed; and means adjustably and removably securing the seat unit in the inner end portion of one of said valve passages with the inner edge of the washer in sealing engagement with the spherical surface of the ball, said means comprising a threaded connection between the neck of the retaining member and the inner end portion of the valve passage in which the retaining ring is located, and circumferentially spaced abutments on the neck accessible from the outer end of said valve passage so that the retaining ring may be turned to adjust the valve seat unit toward and from the ball, from outside the valve.

2,819,869
MOUNTING ARRANGEMENT FOR TURBINE OR COMPRESSOR BLADING
Andre J. Meyer, Jr., Elyria, Ohio
Application May 2, 1950, Serial No. 159,565
15 Claims. (Cl. 253-77)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. Apparatus for the elimination of vibratory stresses inherent in impeller blades attached to a high speed rimmed rotor and for prevention of stresses therein due to differences in thermal coefficients of expansion between the blade and rotor materials comprising a plurality of blades, root extensions on said blades, said extensions having arcuate bearing surfaces thereon, and a rotor having a rim divided medially in the plane of rotation and provided with a plurality of spaced, transverse, peripheral slots through each of which a blade is adapted to extend, the slot width being greater than the slot thickness, and pairs of aligned bores having axes parallel to the rotor axis, said bores being radially inward of the periphery of said rim, each pair of said aligned bores having continuous bearing surfaces adapted to receive the blade root extensions of a single blade along said bearing surfaces and to engage the arcuate surfaces of said extensions along a single pivot line, the curvature of the bores at the surfaces of contact with the arcuate area of the blade root extensions being less than the curvature of the blade root extensions at this area.

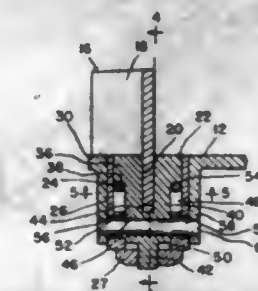
2,819,870
SHEET METAL BLADE BASE
Oleh A. Wayne, Cleveland, Ohio
Application April 18, 1955, Serial No. 502,260
5 Claims. (Cl. 253-77)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A turbine blade base for attaching turbine blades to turbine wheels provided with transverse rim slots com-

prising an outer shell, an inner shell fixed within said outer shell and a base plate enclosed within said inner shell, said inner shell being substantially U-shaped in cross section and having back and side plates, the free edge sections of said side plates being channeled for reception of said base plate and end plates attached to the ends of the back plate of said inner shell and projecting over the inner shell and base plate ends for restraining end movement of said base plate; and said outer shell being substantially U-shaped in cross section with back and side plates contoured and dimensioned to enclose snugly said inner shell and end plates and to fit into one of said rim slots, the back plate of said outer shell being apertured to receive the root end of a turbine blade; and means for attaching said blade root end to said outer shell.

2,819,871
VANE STRUCTURE
John R. McVeigh, Williamsville, N. Y.
Application September 7, 1954, Serial No. 454,264
12 Claims. (Cl. 253-78)



7. In a vane ring construction having an annular vane ring and a plurality of vane members, vane mount assemblies adapted to be secured to said vane ring and comprising a substantially cylindrical vane support structure, said support structure having a flange portion and a barrel portion of reduced diameter defining a shoulder on said flange portion, an axial slot through said flange and a portion of said barrel, said vane members each comprising a blade portion and a tang depending therefrom, said tang having a base and undercut edges between said base and said vane blade portion and defining shoulders on said base, said tang constructed and arranged to be located in the slot of said support structure so that said base portion laterally extends from said slot to provide a space between said tang base shoulders and said flange shoulder, and locking means disposed in the space between said flange shoulder and said tang base shoulders for retaining said vane member in said vane mount assembly, and fastening means urging said tang base shoulders and said flange shoulder into rigid engagement with said locking means, said vane tang undercut edges aforesaid defining shoulders on said vane blade portion, said vane mount assemblies aforesaid each having a collar arranged over said support structure and against said blade portion shoulders to enclose the support structure, the vane tang, and the locking means, and means securing said support structure in said collar, said support structure having a threaded hub end depending from said barrel portion and projecting beyond said collar, and said fastening means comprising a threaded element adapted to be secured to said threaded hub end and to bear against said collar to retain said collar in firm engagement with said blade portion shoulders aforesaid, said annular vane ring aforesaid having spaced tubular members depending therefrom and arranged for the insertion of said vane mount assemblies therein, said support structure and collar of each vane mount assembly and each vane ring tubular member having pin holes bored in axial alignment therethrough, and a pin located in said aligned pin holes throughout the extent thereof, said threaded means aforesaid adapted

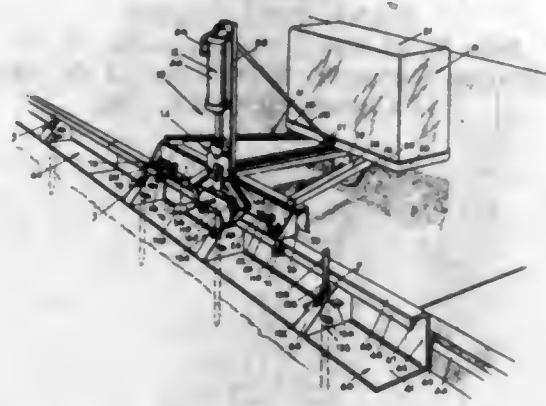
to draw said support structure against said pin in one direction and to force said collar against said pin in the opposite direction, whereby to lock said collar and said support structure firmly on said pin.

2,819,872

STAKE GRAPPLING AND PULLING MACHINE
Lorin H. Janzer, Bowling Green, and Lloyd Raymond Harriman, Pemberville, Ohio, assignors to Urschel Engineering Company, Bowling Green, Ohio, a corporation of Ohio

Original application September 10, 1953, Serial No. 379,402, now Patent No. 2,733,950, dated February 7, 1956. Divided and this application December 22, 1955, Serial No. 554,711

6 Claims. (Cl. 254-18)



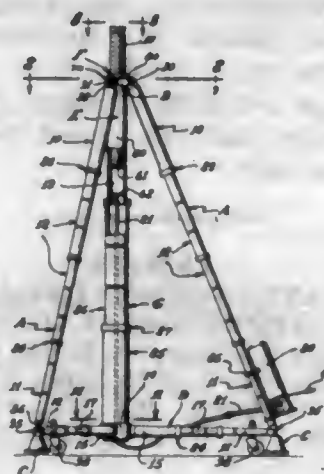
4. In a portable grappling and pulling machine for removing stakes holding road-building side-forms in position on a road bed, said machine having a frame, a stake engaging chuck on said frame; a pneumatic cylinder and piston; said cylinder being in engagement with said frame whereby said cylinder and piston are supported for movement relative each other along a vertical extending axis; a train of interengaging relatively movable elements in engagement at one end thereof with said piston and at the other end with said chuck whereby the relative movement of said cylinder and piston causes movement of said chuck and means on said frame for rollably supporting it and including cooperating wheel and roller elements; an axle in engagement with said wheel; said frame having a pair of cylindrical journal bearings in co-axial spaced relation; one of the last named journal bearings being in bearing engagement with one end of said axle; the other of said last named journal bearings being of greater diameter than the one in engagement with said axle; a sleeve member having an inner cylindrical surface in engagement the other end of said axle to support said axle in a substantially horizontal extending plane; said sleeve member having in addition an outer cylindrical surface in engagement with the last named frame journal bearing of greater diameter; said inner and outer cylindrical sleeve member surfaces being eccentric to each other; a handle in engagement with said sleeve member for moving the sleeve member about the axis of said frame journal bearing to and from two positions in each of which said axle is positioned in canted relation to a line along which said side-forms extend to cause said wheel to track inwardly of said side forms when the frame moves in a direction toward that in which the axle has been canted; a stub shaft in engagement with said frame and with said roller element and being in a plane having right angular relation to said horizontal plane of extension of said wheel element axle to support said roller element in position to engage an outer side of said upper edge of said side-forms and thereby resist forces tending to move the frame inwardly of said side-forms by reason of the canting of said wheel element axle and thus cooperating with said wheel element to maintain the frame in rolling support on the upper edge of said side-forms.

2,819,873

LOAD HANDLING APPARATUS

Frank S. Pearne, Alhambra, Calif., assignor to Regent Jack Mfg. Co., Downey, Calif., a corporation of California

Application August 17, 1953, Serial No. 374,543
3 Claims. (Cl. 254-148)



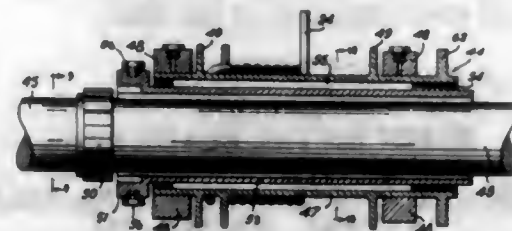
1. A support including, a head, a plurality of legs connected to and projecting from the head, each leg having a plurality of telescopically related sections movable relative to each other longitudinally of the leg, a flexible line anchored to the upper end portion of each section below the two uppermost sections and having a first portion extending down to and around a part at the lower end portion of the next higher section and a second portion extending up from said part and anchored to the section above said next higher section, a line anchored to the upper end portion of the section adjacent the uppermost section and extending around a part at the lower end portion of the uppermost section and then from the upper end of the uppermost section, a fluid pressure actuated means carried by the head and adapted to operate the lines extending from the upper ends of the uppermost leg sections, and a base having radially projecting arms each connected to a leg and including a plurality of relatively movable sections, and lines anchored to the base and connected to the legs to be operated thereby and being adapted to operate the arms of the base.

2,819,874

WHEELED CARRIER MOUNTED DRUM

Siméon Belec, Mont Laurier, Quebec, Canada, assignor of fifty percent to Bernard St. Jean, Mont Laurier, Quebec, Canada

Application September 20, 1954, Serial No. 457,241
4 Claims. (Cl. 254-166)



1. In an automotive vehicle having a chassis, a drive shaft extending lengthwise of said chassis, a differential and a change speed mechanism operatively connected to said drive shaft; a power take-off comprising a gear wheel coaxial with and secured to said shaft between said differential and said change speed mechanism, sleeve means slidable on and extending lengthwise of said drive shaft, a winch drum surrounding said sleeve means and movable in axial direction of said drive shaft and relative to said sleeve means, means interengaging said drum and said sleeve means for rotation with each other, when said sleeve means is connected for rotation with said gear wheel, means actuatable in axial direction of said sleeve means

for coupling the latter with and decoupling the same from said gear wheel, and manipulating means operable from within said vehicle and operatively connected to said change speed mechanism and in operative connection through said actuatable means with said sleeve means to cause connection of the latter with said gear wheel, so that said winch drum may be rotated in accordance with the operation of said change speed mechanism of said vehicle.

2,819,875

HYDRAULIC BORING DEVICE

Archie W. Gage, Forest Grove, Oreg.
Application September 8, 1954, Serial No. 454,698
3 Claims. (Cl. 255-24)



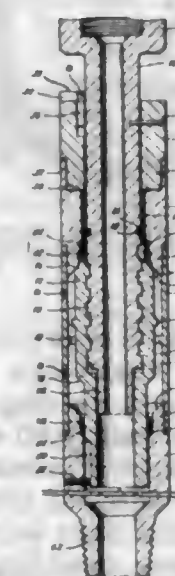
1. A hydraulic boring device comprising a pipe having a passage therethrough, means connecting said pipe at one end to a source of fluid under pressure, and a perforated sleeve surrounding and spaced from said pipe and secured to said pipe at a spaced distance from its other end, said pipe and said sleeve having their complemental lower ends formed with beveled cutting edges.

2,819,876

COMBINED SAFETY JOINT AND JAR

Russell A. Ransom, Houston, Tex.

Application April 6, 1954, Serial No. 421,336
5 Claims. (Cl. 255-27)



2. A safety joint comprising inner and outer telescopically arranged tubular parts movable longitudinally relative to each other, said outer part having an internal groove opening outwardly at one end of the outer part, means on said inner part shaped to enter said groove

and movable with the inner part to one position relative to the outer part to engage the outer part in said groove to hold the parts against relative rotation and to another position out of said groove to permit such relative rotation of the parts, a sleeve in said outer part having a threadable connection with the inner part and movable longitudinally therewith relative to the outer part, said outer part having a portion positioned for engagement with said means to limit relative rotation of said parts in a direction to connect said inner part with said sleeve, and interengageable means on the sleeve and outer part for holding the sleeve and outer part against relative rotation.

2,819,877

SAFETY JOINT AND JARRING TOOL

Ernest Koppl, Huntington Park, Calif., assignor to Tripod Oil Tool Co., Los Angeles, Calif., a corporation of California

Application May 20, 1954, Serial No. 431,066
9 Claims. (Cl. 255-27)



4. A well tool comprising an externally threaded tubular male member, an internally threaded female member fitted to the male member, the threads on each of said members being interrupted whereby said members are separable upon disengagement of their threads, contractile means in engagement with each of the members for contraction thereof upon application to the members of a torque of a predetermined value applied in a direction for interengaging the threads on the members respectively whereby upon contraction of the contractile means the threads on the members are no longer tightly wedged against each other in thread engagement position, a tubular stem integral with the male member and extending axially in the female member whereby the outer surface of the stem is adjacent the inside surface of the female member, anvil means on one of said surfaces, a channel formed in the other of said surfaces, said anvil means being in registry with the channel, said channel comprising a plurality of circumferentially spaced apart and axially directed portions providing a plurality of hammer surfaces for striking against said anvil means as the stem is moved axially in the female member.

2,819,878

SUSPENSION DRILLING DEVICE AND JAR

Julius S. Beck, Long Beach, Calif., assignor to

J. E. Hill, Fort Worth, Tex.

Application September 24, 1956, Serial No. 611,461
4 Claims. (Cl. 255-28)

1. In combination with a drill string, a tubular body connected at one end thereof with a section of said drill string, a tubular mandrel slidably mounted in said body and extensible therefrom, the extending end of said man-

drel being connected with a second section of said drill string, means limiting the longitudinal movement of said mandrel and means limiting rotation of said mandrel within said body, said tubular body providing a hydraulic chamber, a sealing member comprising a cylindrical mem-



ber of resilient compressible material in said chamber adjacent the upper end of said mandrel, said sealing member having an axial passage therethrough providing communication between the tubular body and the bore of the mandrel, and means urging said sealing member into engagement with the upper end of the mandrel and into sealing engagement with the wall of the tubular body.

2,819,879
SUSPENSION DRILLING DEVICE AND JAR
Julius S. Beck, Long Beach, Calif., assignor to
J. E. Hill, Fort Worth, Tex.
Application January 9, 1957, Serial No. 633,357
3 Claims. (Cl. 255-28)



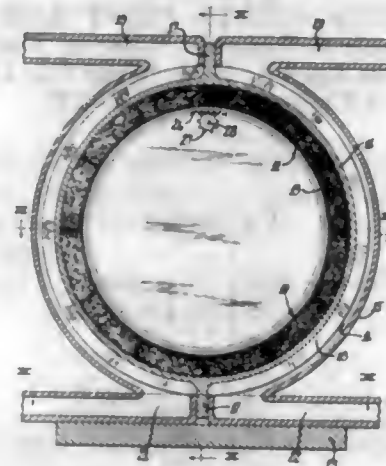
1. In combination with a drill string, a tubular body connected at one end thereof with a section of said drill string, a tubular mandrel slidably mounted in said body and extensible therefrom, the extending end of said mandrel being connected with a second section of said drill string; means limiting the longitudinal movement of said mandrel and means limiting rotation of said mandrel within said body, said tubular body providing a hydraulic chamber, a sealing member comprising a cylindrical member of resilient compressible material in said chamber adjacent the upper end of said mandrel, said sealing member having an axial passage therethrough providing communication between the tubular body and the bore of the mandrel, means urging said sealing member into engagement with the upper end of the mandrel and into sealing engagement with the wall of the tubular body, and a sleeve snugly fitting within and extending axially through said sealing member and serving to retain the same against inward distortion.

2,819,880
ROCK DRILLS
John E. Gilchrist, Seattle, Wash.
Application October 3, 1955, Serial No. 538,063
5 Claims. (Cl. 255-63)



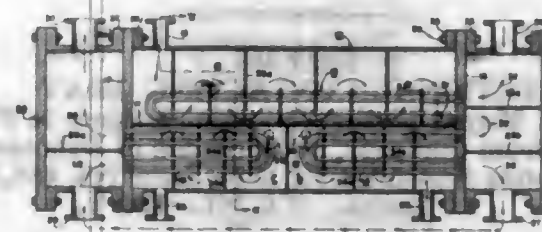
1. An adaptor for use with a drill bit and a drill rod having a cylindrical body with end surfaces in parallel radial planes, a cylindrical plug extending axially out from the first of said end surfaces, a conical plug extending out from the second of said end surfaces, an undercut groove extending around the base of said conical plug leaving a conical surface on said plug spaced some distance from said second end surface, a radial slot in said conical plug extending through the entire length of said cylindrical surface and almost to the said second end surface.

2,819,881
HEAT EXCHANGER
Achilles C. Sampletro, Ann Arbor, Mich., assignor to
Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application April 19, 1955, Serial No. 502,406
2 Claims. (Cl. 257-6)



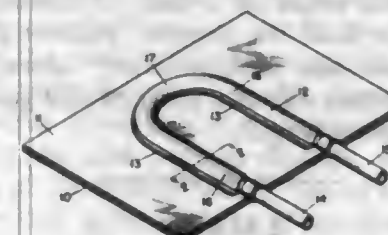
1. In a heat exchanger, a main housing having pairs of inlets and outlets, an intermediate generally cylindrical housing having partitions dividing the main housing into separate fluid chambers each with an inlet and an outlet, an inner cylindrical housing nested within said intermediate housing, means effecting relative rotation between said intermediate and inner housings, radial partitions on said inner housing extending to close running relation with said intermediate housing, and compacted relatively movable solid flowable material carried by said inner housing between said radial partitions for scrubbing the surface of the intermediate housing during relative rotation between the intermediate and inner housings to effect heat transfer therebetween and between fluid in said separate fluid chambers.

2,819,882
HEAT EXCHANGE APPARATUS
Richard M. Stephan, Crum Lynne, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 1, 1953, Serial No. 383,550
4 Claims. (Cl. 257-239)



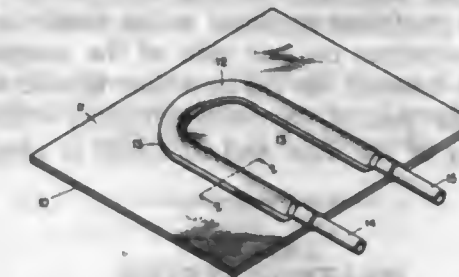
1. A heat exchanger comprising a tubular shell having openings at opposite ends, a longitudinal imperforate partition mounted in said shell and extending to said opposite ends, a transverse imperforate partition extending from said longitudinal partition to said shell, said partitions dividing said shell into a large substantially fluid-tight compartment and a pair of substantially smaller substantially fluid-tight compartments, said smaller compartments being disposed in end-to-end relation and being accessible from the opposite ends of said shell, a bundle of U-shaped tubes disposed in each of said compartments, a first water box structure including a first tube plate associated with the tube bundle in said large compartment and one of the tube bundles in said smaller compartments and providing for circulation of water therethrough in a plurality of passes, a second water box structure including a second tube plate associated with the other of the tube bundles in said smaller compartments and providing for circulation of water therethrough in a plurality of passes, said tube plates being demountably attached to said opposite ends of the shell and closing said openings, said shell having a steam inlet and a discharge outlet for each of said compartments, each of said tube plates being individually demountable from said shell together with its associated tube bundle or bundles as a unit.

2,819,883
PRESSURE-WELDED TUBING TURN
Perry J. Rieppel, Worthington, and Melvin C. Clapp and Edwin G. Elliott, Jr., Columbus, Ohio, assignors, by mesne assignments, to The Metal Specialty Company, Cincinnati, Ohio, a corporation of Ohio
Application August 25, 1954, Serial No. 452,083
3 Claims. (Cl. 257-256)



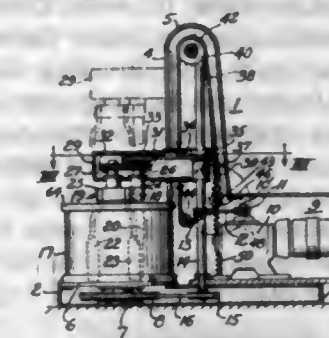
1. In a pressure-welded heat-exchange unit, formed from a pair of sheets of aluminum or pressure-weldable aluminum alloy, a tubing formed in one of said sheets, said one sheet being about 0.04 inch thick, said tubing being substantially semicircular in cross section and having a radius of about $\frac{3}{16}$ inch, a curved section in said tubing, said curved section having a radius of about 1 inch measured from the center line of said tubing.

2,819,884
PRESSURE-WELDED TUBING
Perry J. Rieppel, Worthington, and Melvin C. Clapp and Edwin G. Elliott, Jr., Columbus, Ohio, assignors, by mesne assignments, to The Metal Specialty Company, Cincinnati, Ohio, a corporation of Ohio
Application August 25, 1954, Serial No. 452,084
4 Claims. (Cl. 257-256)



1. In a heat-exchange unit formed from a pair of sheets of aluminum or a pressure-weldable aluminum alloy substantially 0.04 inch in thickness, a tubing formed in one of said sheets and having an outside cross-sectional radius of about $\frac{3}{16}$ inch, transitional cross-sectional radii of about $\frac{1}{8}$ inch, a total over-all width of about 0.6 inch, and a continuous pressure weld adjacent said tubing, welding said sheets together.

2,819,885
MIXING MACHINE
Walter A. Baechle, North College Hill, Ohio, assignor, by mesne assignments, to Climax Products Corp., Cincinnati, Ohio, a corporation of Ohio
Application April 5, 1955, Serial No. 499,439
5 Claims. (Cl. 259-84)



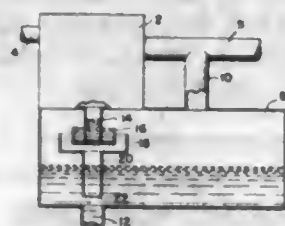
1. A mixing device comprising a rotatable support provided with a vertically disposed shaft, means for driving said support, a container mounted on said support for rotation therewith, said container having an upright wall, a vertically movable support member, means for guiding said movable support member in its vertical motion a pair of rotating support members each having blades thereon, extending downwardly from and supported by said movable support member, means for driving said rotating members in opposite directions, the axis of rotation of said blades being substantially coincidental with the same diameter of said container and eccentrically located with respect to the axis of rotation of the container, the axis of rotation of one of said rotating blade support members being relatively close to a wall of the container and rotating counter thereto and the axis of rotation of the other blade supporting member being eccentric of but spaced from the center of rotation of said container and rotating in the same direction, a carriage movably mounted on said movable support member and movable toward and away from the axis of the rotatable support, a scraper blade supported by said carriage and disposed within said container, the edge of said scraper blade being adjacent the intake of said blades, a roller mounted on the carriage and disposed to engage the exterior of the wall of the container at a location relatively close to said scraper blade for maintaining the edge of said scraper blade at a relatively fixed distance from the

inner wall of the container, whereby the wall of the container passes between the roller and the blade, and the roller and blade are shifted automatically to compensate for variations in the contour of the wall of the container, said rotating blades causing the fluid in the area immediately adjacent the same to circulate with a circular motion but counter to the rotation of the container and causing the fluid between the blades and the wall surface of the container to travel in the direction of rotation of the container on one side of the container axis and to travel counter to the rotation of the container on the opposite side of the container axis, whereby uniform agitation of the fluid and its solids is obtained.

2,819,886

HEATING SYSTEM

Edgar S. Daugherty, Elkins Park, Pa., assignor to Cochran Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application January 24, 1956, Serial No. 561,044
4 Claims. (Cl. 261-19)

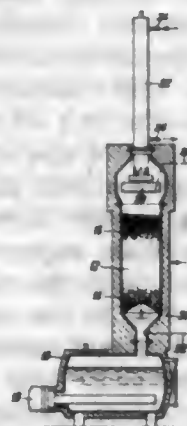


2. A heating system comprising a heating compartment, means directing water and steam into said heating compartment, a storage compartment for water from said heating compartment, an outlet for water from said storage compartment, a conduit opening below the water level in said storage compartment for directing freshly heated water downwardly from said heating compartment substantially directly to said outlet so that normal flow of water from said outlet contains a major portion of freshly heated water and a minor proportion of stored water from said storage compartment, and means providing free communication between the upper end of said conduit and vapor space in said storage compartment.

2,819,887

LIQUID-GAS CONTACTING APPARATUS

William G. Eversole, Kenmore, Tudor L. Thomas, Snyder, and George L. Ribaud, Buffalo, N. Y., assignors to Union Carbide Corporation, a corporation of New York
Application February 17, 1954, Serial No. 410,946
2 Claims. (Cl. 261-94)



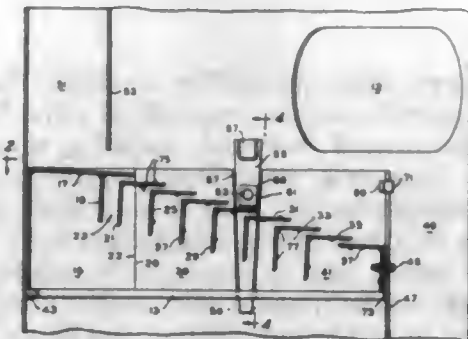
1. Apparatus for bringing a gas and a liquid into contact comprising an enclosed contact chamber, means positioned near the top of said chamber for providing liquid to flow down through said chamber, means positioned

near the base of said chamber for providing for the flow of gas up through said chamber, and particles of porous packing material positioned in a random distribution in said contact chamber, said material having pores passing entirely through said particles in substantially all directions, interconnecting in a continuous network and having substantially uniform radii selected at between about 10 and 400 microns.

2,819,888

SECTIONAL CONTACTING TRAY

Golden A. Moyer, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application September 30, 1954, Serial No. 459,316
13 Claims. (Cl. 261-114)



1. In a column for contacting liquid with a vapor, a vapor-liquid contacting tray assembly comprising, in combination, a removable tray extending in general across the column and having means for producing a plurality of generally horizontally flowing parallel sheets of vapor, means for introducing liquid to said tray assembly in the direction of flow of said parallel sheets of vapor, means for removing liquid from the side of said tray assembly opposite its points of introduction to said tray, said vapor flow producing means comprising a plurality of vapor guide baffles so disposed that their longitudinal axes are arranged horizontally and in a direction perpendicular to the general direction of liquid flow across the tray assembly, each vapor guide baffle extending substantially entirely across the column and being so disposed that vapor flowing therebetween and in a generally upward direction in said column issues from between each pair of adjacent baffles as said sheets of vapor, said tray assembly being divided into separate, distinct and removable sections, each section comprising at least one baffle support plate and at least one guide baffle extending across the column and affixed to said support plate in such a manner that when said removable sections are installed operatively in said column the baffle support plates are disposed against the column walls, and a wedge inserted between mutually adjacent edges of a pair of mutually adjacent support plates to hold the support plates rigidly against the column walls and said generally upwardly flowing vapor passes between adjacent pairs of said guide baffles as said parallel sheets of vapor.

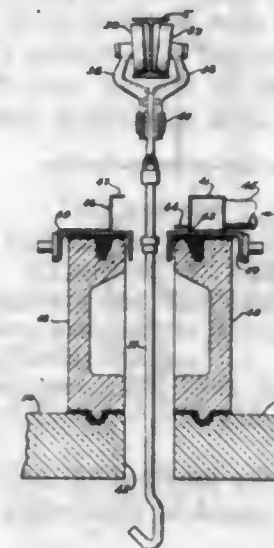
2,819,889

FURNACE SLOT SEAL

Elmer W. Dany, Brecksville, Ohio, assignor to Ferro Corporation, Cleveland, Ohio, a corporation of Ohio
Application February 26, 1954, Serial No. 412,851
4 Claims. (Cl. 263-8)

3. In a furnace having a longitudinally extending slot through which externally mounted work-supporting members project, an elongated conduit arranged closely adjacent the outer end of such slot to one side thereof, a relatively narrow discharge opening extending substantially the length of the slot and positioned to discharge air supplied under pressure to the conduit in the form

of a thin curtain flowing across the surfaces of the respective outer edge-defining members of the slot, a baffle located at the other slot side in the path of discharge

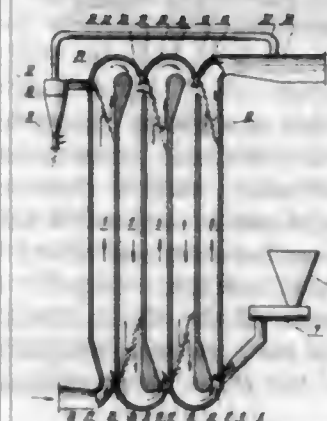


air flow, and blower means for supplying air to said conduit at a pressure such that the velocity of the resulting air curtain precludes the passage of dirt and the like therethrough.

2,819,890

COUNTER-CURRENT RECIRCULATING DEVICE FOR THE EXCHANGE OF HEAT BETWEEN A GAS AND A FINELY GRANULATED MATERIAL

Josef Rosa, Drasov, near Tisnov, and Vlastimil Petr, Brno, Czechoslovakia
Application June 11, 1956, Serial No. 590,559
Claims priority, application Czechoslovakia June 14, 1955
5 Claims. (Cl. 263-21)



1. A counter-current recirculating device for the exchange of heat between a gas and a finely granulated material for treating such material by a stream of gas, comprising in combination a predetermined number of gas ducts arranged next to each other, arcuate tubular members connecting the gas ducts in series, conduits for the gas and material to and from the gas ducts, the conduits for the material being provided for a flow of the material counter-current to the general flow of gas, an oblique sieve consisting of rails mounted in each gas duct adjacent the end portion thereof, when viewed in the direction of the flow of gas, a slot in the wall of each gas duct provided in the vicinity of the farther end of the sieve, said farther sieve end being determined according to the direction of the flow of gas, each slot opening into the preceding gas duct, and means contracting the passage through each gas duct in the immediate vicinity of the slot so as to increase the velocity of the gas flowing therethrough, to transform static pressure into dynamic pressure, and to produce in the slot a pressure gradient of a reverse sense than in the remaining system, thus causing a flow of a portion of the gas with the material contained therein from the last gas duct through the

respective slot to the preceding duct, and thence successively always through the respective slot from duct to duct in a direction counter-current to the general gas flow, the material being carried in the individual ducts co-current with the gas flow in each duct.

2,819,891

NOZZLE PROVIDED WITH COOLING JACKET

Rudolf F. Graef, Oberhausen, Germany, assignor to Huttenwerk Oberhausen Aktiengesellschaft, Oberhausen, Germany
Application December 27, 1954, Serial No. 477,897
Claims priority, application Germany December 28, 1953
2 Claims. (Cl. 266-34)



2. A nozzle unit for introducing gases, vapors, liquids, fine grained solids, and mixtures thereof beneath the surface of molten metals, which comprises in combination: a tubular nozzle member having one end portion arranged for immersion into a metal bath, a first cooling jacket surrounding said tubular nozzle member along said one end portion to be immersed into the metal bath up to the mouth of said nozzle member and also surrounding another portion not to be immersed of said nozzle member, said first cooling jacket having a first bottom at the mouth of said tubular nozzle member and having a second bottom spaced from said first bottom in axial direction of said nozzle member, first cooling agent conveying conduit means extending into said first cooling jacket and having its mouth close to said first bottom thereof, first cooling agent discharging conduit means arranged near said second bottom of said first cooling jacket, a casing surrounding the major part of the upper portion of said first cooling jacket and being connected to said first cooling jacket so as to form an entity therewith, said casing forming with the outer wall thereof a second cooling jacket, said second cooling jacket having a first bottom adjacent to the first bottom of said first cooling jacket but spaced therefrom by a distance greater than the respective intended depth of immersion of said first cooling jacket into said metal bath, said second cooling jacket also having a second bottom spaced from its first bottom in axial direction of said nozzle member, second cooling agent conveying conduit means having its mouth near the first bottom of said second cooling jacket, and second cooling agent discharging means arranged at the second bottom of said second cooling jacket.

2,819,892

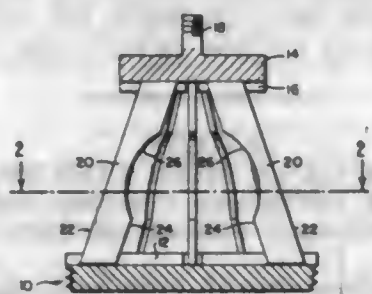
FRICTIONLESS PIVOT

Joseph F. Huff, Hyde Park, Mass., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application October 25, 1954, Serial No. 464,472
4 Claims. (Cl. 267-1)

3. A pivot comprising a stationary base, a plurality of leaf springs mounted at one end on said base and lying in planes radiating from a line perpendicular to said base,

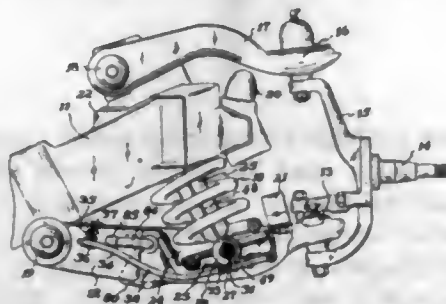
and a pivot plate secured to the other ends of said leaf springs capable of limited frictionless rotation with re-

engagement with the wedge surfaces, whereby upon movement of the spindle and consequent movement of



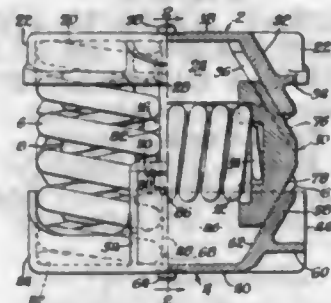
spect to said base, said leaf springs having center lines substantially defining a truncated cone having an axis about which said leaf springs are disposed.

2,819,893
APPARATUS FOR CONTROLLING THE UNLOADING OF A SPRING
Robert W. Edwards, Midland, Ontario, Canada
Application March 5, 1956, Serial No. 569,497
9 Claims. (Cl. 267-8)



the arm along its own longitudinal axis relative to said body the shoes are urged to frictionally engage the surfaces.

2,819,895
SNUBBED SPRING GROUP
Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application March 22, 1956, Serial No. 573,234
15 Claims. (Cl. 267-9)



11. A friction device comprising spaced followers each having opposed friction surfaces symmetrically diverging toward the other follower, friction shoes each complementally engaging surfaces of respective followers, compressed resilient means between said shoes for actuation thereof, certain of said surfaces being flat to accommodate lateral movement of the shoes along said certain surfaces, other of said surfaces being nonplanar to prevent lateral movement of the shoes along said other surfaces.

2,819,896
LEAF SPRING SPACING STRUCTURES AND ANCHORAGES THEREFOR
John Warren Watson, Wayne, Pa.
Application April 14, 1950, Serial No. 155,913
2 Claims. (Cl. 267-49)



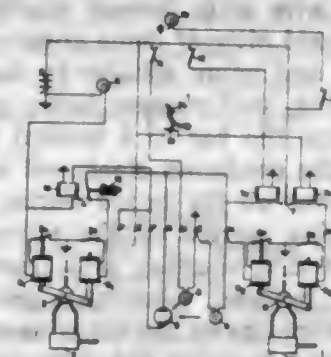
2,819,894
AXLE ASSEMBLY
Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application October 21, 1953, Serial No. 387,351
10 Claims. (Cl. 267-9)

1. In an axle assembly for supporting a related vehicle body, a main shaft rotatably journaled to the body, a spindle eccentrically carried by the main shaft for arcuate movement thereabout, a brake flange journaled on said spindle, a shock absorber having a connection to the vehicle, said absorber comprising a member having friction surfaces thereon, friction shoes in engagement with the surfaces, an arm operatively connected to the brake flange and extending into the member, wedge surfaces on the shoes, and wedge means carried by the arm in

1. In combination, two adjacent leaves of a leaf spring, a leaf-end friction bearing structure between said leaves and presenting to at least one of them a surface of sufficient yieldability to conform to irregularities thereof, and anchoring means for limiting longitudinal, lateral and turning movements of said bearing structure with relation to said leaves while in service, said anchoring means comprising an anchor member of soft rubber or rubber-like material in deep penetrative engagement with a through hole provided in said bearing structure and in deep penetrative engagement with a hole provided in one of said

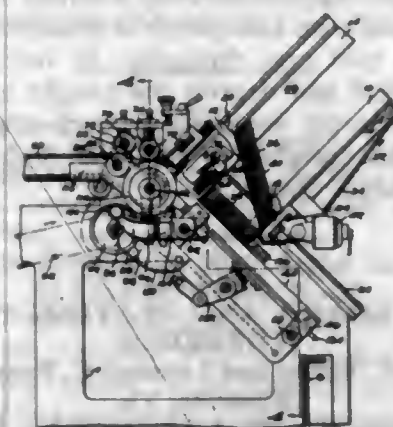
leaves adjacent an end thereof and being supported against downward movements with relation to said holes by flange means integral with said anchor member, the mean horizontal cross sectional area of one of said holes being appreciably greater than the mean horizontal cross sectional area of that portion of said anchor member which is positioned within that hole.

2,819,897
MEANS FOR AUTOMATICALLY OPENING AND CLOSING DOORS
Ernst Georg Skogsberg and Karl Henning Harnell, Ornskoldsvik, Sweden, assignors to Aktiebolaget Hagglund & Soner, Ornskoldsvik, Sweden
Application September 24, 1953, Serial No. 382,143
12 Claims. (Cl. 268-64)



1. A control system in road and rail passenger vehicles, the vehicles having a door and vehicle brakes arranged for operation by servomotors, the system comprising a main circuit including a manually operated first contact means for closing a first control circuit arranged to prepare opening of the door, a second contact means arranged to be closed by depressing the throttle pedal of the vehicle for opening said first control circuit thereby causing the door to close, and a second control circuit, the latter being arranged to be energized only when the first control circuit is energized, and wherein the second control circuit includes photoelectrically responsive control means disposed in front of the door and arranged to effect opening of the door when a person interrupts the beam of light emitted from a first lamp of the photoelectrically responsive control means, there being door operating means arranged to close the door automatically after a predetermined delay, when said beam of light is uninterrupted again.

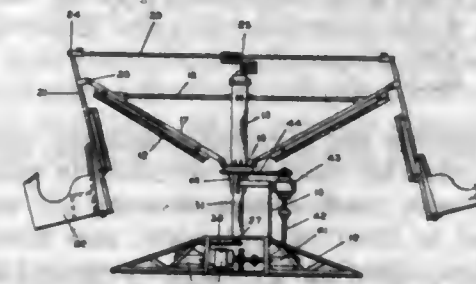
2,819,898
OSCILLATING FEEDER MECHANISM FOR BOX BLANKS
Omer E. Cote, Providence, R. I., assignor to United States Automatic Box Machinery Co., Inc., Boston, Mass., a corporation of Massachusetts
Application August 13, 1954, Serial No. 449,815
8 Claims. (Cl. 271-41)



1. A feeder mechanism comprising a frame, a magazine for storing flat blanks supported on said frame, a feed roll, means for rotatably supporting said feed roll,

means for rotating said feed roll, means secured to said frame for pivotally carrying said feed roll supporting means, a cam follower carried by said feed roll supporting means, a cam shaft having a cam affixed thereto rotatably carried by said frame, said cam and said cam follower being in engaging relation, means for rotating said cam shaft, whereby said cam acts through said cam follower and said feed roll supporting means to oscillate said feed roll supporting means about its pivot to repeatedly bring said feed roll into and out of engaging relation with blanks stored in said magazine, said cam maintaining said feed roll in said engaging relation for an interval of time sufficient to remove at least one blank from said magazine, and means for terminating rotation of said cam at a point whereat said feed roll is out of engaging relation with the blanks stored in said magazine.

2,819,899
AMUSEMENT RIDE
Fred Alfred Thumberg, Columbus, Ohio
Application November 15, 1956, Serial No. 622,320
4 Claims. (Cl. 272-36)



1. An amusement device comprising a frame, a supporting post on which said frame is mounted for revolving movement about the vertical axis thereof, means for revolving said frame on the post, chair-supporting pendulum arms pivoted to said frame for swinging radial movement about horizontal axes, means for positively swinging said arms under control as the frame is revolved, said means causing certain arms to swing radially outwardly while others are swinging radially inwardly and comprising a crank and connecting rods connecting the crank to the pendulum arms, means for driving said crank independently of said frame and at a different speed said crank being a double crank formed of diametrically opposed crank arms extending in opposite directions from said vertical post axis, certain of said pendulum arms being connected by said connecting rods to the outer end of one of the crank arms and others being connected by said connecting rods to the outer end of the other of said crank arms.

2,819,900
CALF-ROPING AMUSEMENT DEVICE
Clarence Harvey Brackett, Woodland, Calif.
Application October 3, 1955, Serial No. 538,000
4 Claims. (Cl. 273-1)



1. A device for amusement and instruction in cattle roping comprising: a continuous conveyor including a lay virtually at ground level; a support hingedly connected to said conveyor for movement about an axis substantially transverse to the direction of movement of the conveyor; spring means normally biasing and holding said support in a vertical position; a three-dimensional

representation of a cattle removably carried upon said support; a second continuous conveying means having an upper lay virtually at ground level adjacent to and extending in substantially parallel relation to said first conveyor; a representation of a horse securely carried by said conveying means, said horse representation being adapted to support a human being; and driving means for driving said first conveyor and said conveying means, said driving means including means for varying the relative speed of said conveying means and conveyor.

2,819,901

KNOCKDOWN BACKSTOP

Joseph S. Mateja, North Chicago, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 23, 1955, Serial No. 489,852
7 Claims. (Cl. 273-25)

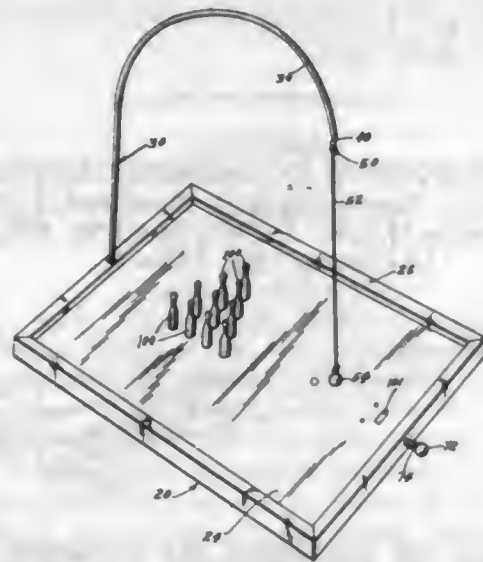


1. A collapsible and removable backstop comprising a pair of end posts for mounting vertically in spaced socket supports, a wire mesh screen covering the entire area between and in front of said posts, said screen having opposite edges extending around and arranged along sides of said posts which face outwardly relative to each other, fastening connections securing said opposite screen edges to said post sides, a pair of links having pivot connections securing their outer ends to the upper ends of said posts at points respectively located diametrically opposite said sides for movement from vertical positions lying along said posts to horizontal bracing positions behind and parallel to said screen, and a detachable connection securing said links at their inner ends against movement out of said horizontal bracing positions.

2,819,902

BOWLING GAME

Jullus Dicker, Gary, Ind.
Application December 3, 1953, Serial No. 395,868
2 Claims. (Cl. 273-45)



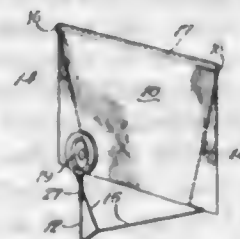
1. A bowling game, comprising a rectangular board, a frame peripherally surrounding said board, a plurality of pins positioned on the board in predetermined array, a plurality of eyelets disposed in said array and secured in apertures in the board to provide passages there-through, a plurality of cords extending through said eye-

lets and respectively secured to said pins, a pin resetting bar, said bar having a longitudinal series of transverse openings, a plurality of coil springs respectively disposed in each of said openings and having opposite ends thereof extending out of opposite sides of said bar, a rod disposed in longitudinal contacting relation with the bar, one end of each of said springs being engaged on said rod for simultaneous tensioning of the springs, the other end of each of said springs being connected to one end of each of said cords respectively, a hollow housing having a rectangular shaped portion at one end and a progressively narrowed portion at the other end, said housing being disposed underneath said board, said bar being slidably mounted in the housing on the underside of the board, a yoke connected to the bar, a manually operable plunger connected to the yoke, said yoke being a generally V-shaped member with ends thereof attached to opposite ends of the bar, said plunger being connected to the apex end of the yoke and being slidable in the narrow other end of the housing, said plunger being spring-loaded in a direction to urge the bar to a normal inoperative position in which the cords are slackened so that the pins can be bowled over on the board during play, the last-named spring being carried on the plunger and having opposite ends thereof abutting said frame and narrow other end of the housing, whereby a pull manually exerted on the plunger draws the cords toward the narrow end of the housing to raise the pins to an upstanding position.

2,819,903

TARGET WITH PROJECTILE STOP

Charles A. Saunders, Columbus, Nebr.
Application October 5, 1955, Serial No. 538,557
2 Claims. (Cl. 273-102.4)



1. A target assembly consisting of a pliant metallic rod frame including a horizontal ground engaging substantially V-shaped base portion, a target support portion bent upwardly from the apex of said base portion, and uprights, one bent upwardly from each leg of said base portion; a shallow target pouch painted to simulate a bull's-eye; circular means at the outer rim of said pouch for maintaining said pouch circular in shape; a tightly wound coil spring arm connected at one end to said circular means and extending radially therefrom for releasably retaining said target pouch in a vertical position; a connector joining the other end of said coil arm with said target support portion, whereby the impact of a projected missile on said pouch is absorbed by said coil arm to cause said arm thereafter to swing said target pouch downward and deposit the caught missile on the ground in the target area; and a back-stop screen supported by said uprights to end the flight of missiles missing said target pouch.

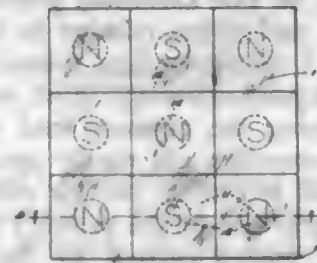
2,819,904

GAME BOARD AND PLAYING PIECES THEREFOR

Walter M. Nelson and Leonard C. Pagenhardt, Roanoke, Va.
Application May 17, 1956, Serial No. 585,457
1 Claim. (Cl. 273-130)

A game comprising a flat game board having a plurality of equidistantly spaced apart openings arranged in longitudinal and lateral rows thereacross, a permanent

magnet in each opening, each magnet having either a north pole or a south pole facing upwardly, covering sheets for the top and bottom faces of the board concealing the magnet, the top covering sheet being divided into a plurality of playing squares, one square overlying each magnet, a plurality of magnetic game pieces, each

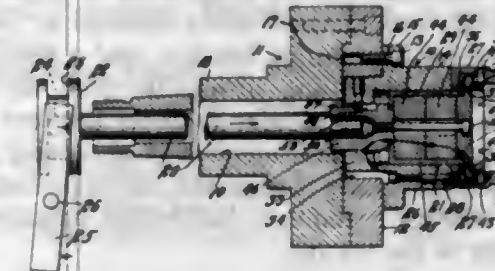


having a north pole and a south pole, the game pieces being colored differently on opposite sides, the pieces having a side of one color uppermost being provided for one player, and the pieces having the other color uppermost being provided for his opponent, the coloring of the game pieces having no intended relation to the polarity thereof.

2,819,905

ROTARY MAGNETIC WORK HOLDERS

Clifford Stead, North Smithfield, R. I., assignor to The Taft-Petree Manufacturing Company, Woonsocket, R. I., a corporation of Rhode Island
Application July 30, 1956, Serial No. 600,843
15 Claims. (Cl. 279-1)



1. A rotary magnetic work holder comprising, in combination, a rotatable body of magnetic material having a transverse work-engageable face and providing a portion of a flux path, another body of magnetic material rotatable with said first-mentioned body and having a transverse work-engageable face located in the vicinity of said first-mentioned face while being spaced therefrom with interposed appreciable reluctance, said second body providing another portion of the flux path to be closed at said faces by an intervening work piece of magnetic material abutted thereto, a source of magnetic lines of force intervening said bodies in a flux transfer respect to cause flux to flow along said path, and movable shunt means of magnetic material associated with said magnetic source which in one position shunts flow of flux from the latter directly through one of said bodies without passage through the other body and in another position completes the flux path through both of said bodies and the intervening work piece.

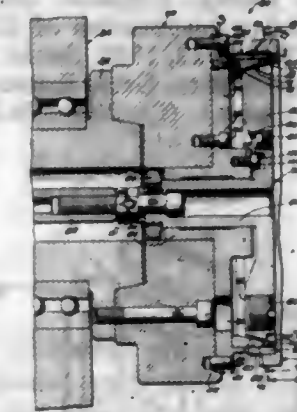
2,819,906

COLLET CHUCK

Harry E. Sloan, Hartford, Conn., assignor to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut
Application October 21, 1953, Serial No. 387,341
13 Claims. (Cl. 279-2)

3. A collet chuck, comprising a collet having a peripheral wall portion provided with an annular inner surface and peripherally spaced, longitudinally extending, wall-reducing recesses and gapless radial cracks leading to said recesses and cooperating therewith to divide said wall portion into a series of expansible jaws; an expander mem-

ber encompassed by said wall portion and having an annular outer surface conforming, in a plane perpendicular to the collet axis, to the cross-sectional contour of said annular inner surface of said wall portion and disposed adjacent thereto; at least one of said adjacent wall and expander surfaces being inclined axially of the collet; and a single layer of steel balls confined between said surfaces;



said expander member being axially movable relative to said peripheral wall portion to wedge said balls between said adjacent surfaces and expand said jaws; one of said adjacent surfaces being formed to provide depressions coinciding with and extending throughout the longitudinal extent of said gapless cracks in said peripheral wall portion to keep said steel balls out of pressure transmitting relation with the edges of the jaws formed by said cracks.

2,819,907

CONVERTIBLE ROLLER SKATE AND SKI

Carl B. Thoresen, Richmond Hill, N. Y.
Application November 17, 1955, Serial No. 547,402
1 Claim. (Cl. 280-7.13)



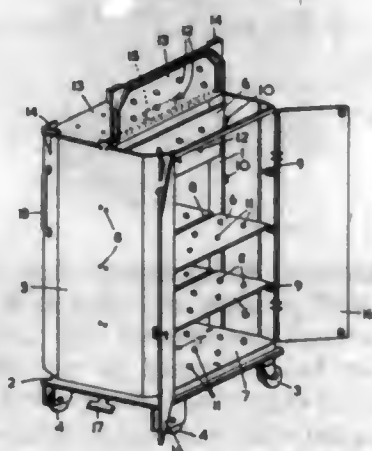
A combined roller skate and ski comprising a pair of independent runners upwardly curved at their front ends and having smooth bottom surfaces for sliding on snow, shoe engaging mats on the top surfaces thereof, and roller assemblies pivotally supported on the runners at the front and rear ends thereof, and swingable over said ends to rest on said top surfaces in out of the way positions with respect to said mats, the front roller assembly consisting of a frame including spaced plates, each plate composed of a curved arm portion conforming to the curvature of the curved end of the runner and a straight arm portion extending substantially at right angles to the curved arm portion, the space between said plates being slightly greater than the width of the runner, said rear assembly consisting of a frame including spaced plates, each plate being composed of straight arm portions disposed at right angles to each other, the space between said latter plates being slightly greater than the width of the runner, means for limiting the movements of the frames, said means including notched portions formed on the frames and pins protruding laterally from the runners at both ends thereof positioned in the path of movement of said notched portions, and an elongated flexible member having its ends connected by removable clasps to the extremities of the forward ends of the runners and adapted to be grasped

near the center thereof by a coaster standing on the runners whereby the coaster may be supported in a standing position and may steer the apparatus.

2,819,908

YARN TRANSPORTING MEANS

Kenneth Connors Jackson and Thomas Barnard Frearson, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain
Application March 22, 1955, Serial No. 495,862
Claims priority, application Great Britain March 25, 1954
1 Claim. (Cl. 280—79.2)

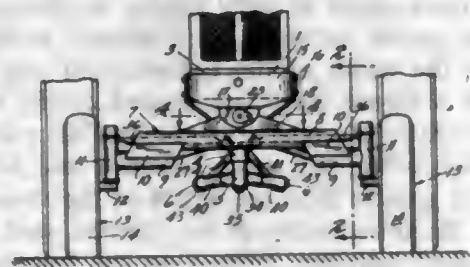


A carrier for the transportation of yarn packages, said carrier comprising a base, wheels mounted beneath said base and adapted to render said carrier mobile for transportation, a frame, means pivoting said frame on said base for rotation about a vertical axis, said frame having sides of continuous sheet material, front and rear doors for said frame, a lowermost shelf rigid with and defining the bottom of said frame, a plurality of pairs of shelves hinged to the side walls of said frame above said lowermost shelf, the hinges of each pair running close together across the centre of and parallel to the front and rear of said frame, locating pegs on the upper side of each shelf except the uppermost adapted to engage and fit the lower ends of package supports, and studs mounted on the lower face of each shelf except the lowermost, each of said studs being in register with a corresponding one of said pegs and adapted to cooperate therewith in locating said package supports, said uppermost shelves being of continuous sheet material to close the top of the frame and being reinforced and provided with metal brackets at each corner of said frame for supporting a further carrier placed thereon.

2,819,909

WIDE WHEEL FRONT END CONVERSION FOR TRACTORS

Raymond H. Calundan, Belgrade, Minn.
Application January 5, 1955, Serial No. 479,999
1 Claim. (Cl. 280—93)

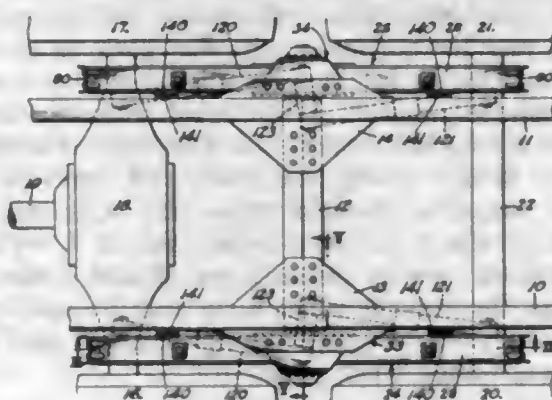


A wide wheel front end conversion for tractors including a centrally disposed steering column having generally horizontally disposed wheel mounting spindles projecting in opposite directions from its lower end portion,

said attachment comprising a mounting bracket adapted to be releasably secured to the front end of a tractor frame independently of said steering column, a second bracket adapted to be secured to said tractor frame in rearwardly spaced relation to said first-mentioned bracket, said first-mentioned bracket including a pair of depending mounting flanges, an axle extending generally transversely of the tractor in underlying relation to said flanges, said axle comprising a relatively long primary tubular member, a pair of aligned relatively short secondary tubular members underlying the opposite end portions of said primary tubular member and rigidly secured thereto, the outer ends of said secondary tubular members extending beyond the adjacent end of the primary tubular member, wheel mounting means carried by the outer ends of said secondary tubular members, a generally rearwardly extending tongue bolted at its front end to the bottom of said steering column, a pair of rigid links pivotally connected at their inner ends to the rear end portion of said tongue and at their outer ends each to a different one of said wheel mounting means, a pair of sleeves telescopically mounted one each on the wheel mounting spindles of said steering column, said sleeves being substantially equal in length to the wheel carrying portions of said spindles, a pair of rigid arms each anchored at its front end to a different one of said sleeves, the rear ends of said arms being releasably anchored to the rear end portion of said tongue by a common bolt in spaced relation to the connection between the inner ends of said links to said tongue, a pair of rearwardly converging radius rods rigidly secured at their front ends to opposite end portions of said axle and pivotally secured at their rear ends to said second mounting bracket, and a longitudinally extending rib projecting upwardly from the central portion of said primary tubular member between the depending flanges of said first-mentioned mounting bracket, said rib being pivotally connected to said flanges for swinging movements about a horizontal axis extending longitudinally of the tractor.

2,819,910

TANDEM VEHICLE WHEEL SUSPENSION
Robert J. Walter, Kenmore, N. Y., assignor to
Truck Equipment Co., Inc., Buffalo, N. Y.
Application February 28, 1955, Serial No. 490,917
39 Claims. (Cl. 280—104.5)

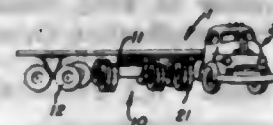


1. In a tandem suspension for vehicles having a pair of longitudinally spaced transverse axle units and a body portion adapted to be supported thereby, a longitudinally extending rigid beam member at each side of said suspension, leaf spring means extending along each beam member and supported at its opposite ends thereby, support means comprising a portion fixed to said body portion and a portion abutting downwardly against said leaf spring means medially thereof, means at opposite ends of each beam member engageable with the ends of said axle units, and longitudinal spacing means acting between said downwardly abutting support portion and said axle unit engageable means.

2,819,911

SEMI-TRAILER WITH STEERABLE INTERMEDIATE WHEEL ASSEMBLY

James A. Ranta, Grand Rapids, Mich.
Application April 2, 1956, Serial No. 575,680
4 Claims. (Cl. 280—426)



1. A tractor and trailer combination, said trailer having a center wheel assembly, and a steering mechanism for the center wheel assembly of the trailer connected to a tractor, said steering mechanism comprising: an elongated helical grooved drum connected directly to said tractor; a second elongated helical grooved drum connected directly to said center wheel assembly; a pair of cables each having respective ends wrapped about said drums in said helical grooves substantially more than 90°; said helical grooves being elongated along perpendicular axes when said tractor is headed straight or turned exactly 90° whereby said second drum and wheel assembly turns less than said first drum and tractor in turning from 0 to 90° and turns more than said first drum and tractor in turning over 90°.

2,819,912

QUICK DISCONNECT COUPLING

Weldon S. Mitchell, Andover, Kans., assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware
Application August 27, 1956, Serial No. 606,524
5 Claims. (Cl. 284—19)



1. A quick disconnect coupling comprising a casing having a bore extending axially therethrough, a valve body having a first section thereof projecting from said casing to form a connecting means and a second section thereof residing in said bore, said body being further provided with a bore extending through said first section and partially through said second section and a radially extending port providing communication between the bore of said valve body and the bore of said casing, a piston reciprocably disposed in the bore of said body, a coil spring contained in the bore of said body and abutting the inner end of said piston to urge said piston into a blocking relation with said port, and a spring guide extending through said spring having one end anchored to the closed end of said valve body and means at its other end for limiting outward movement of said piston under the influence of said spring; and a male portion including a tubular probe having a diameter corresponding to that of said piston and adapted at one end to abut said piston to overcome the action of said coil spring, said one end of the probe being provided with at least one radially directed aperture registrable with said port, and a connecting collar associated with said probe providing a connecting means engageable with said first connecting means.

2,819,913

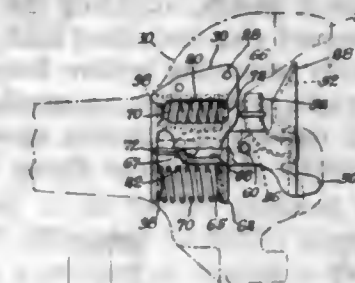
SPRING MOUNTED AIR CONNECTOR COUPLING

Frank H. Kayler, Alliance, Ohio, assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Application March 9, 1953, Serial No. 341,049
14 Claims. (Cl. 285—63)

1. In a mounting arrangement for an air connector unit associated with a coupler of the interlocking type and adapted for interlocking engagement with a similar unit

on another coupler, a bracket rigidly secured to the coupler head, a trunnion on the bracket, a casting having air connection means thereon, a mounting arm projecting from the casting and engageable with said trunnion, spring means compressively interposed directly between the casting and the bracket, said spring means being operative to act on said casting and bring said arm into



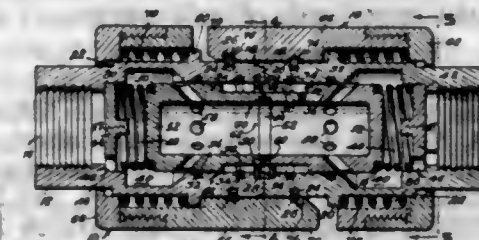
line engagement with said trunnion, said bracket and mounting arm having substantial length in direction longitudinally of the mounting arm in mutual engagement, whereby said connection means is maintained in a predetermined plane relative to the coupler and vertical angling between the casting and bracket is restricted, and means to maintain said connection means in another predetermined plane relative to the coupler in response to action of said spring means.

2,819,914

FLUID LINE COUPLING DEVICE

George R. Eitner, New Baltimore, Mich., assignor to the United States of America as represented by the Secretary of the Army
Application March 17, 1955, Serial No. 495,074
1 Claim. (Cl. 285—70)

(Granted under Title 35, U. S. Code (1952), sec. 266)



In a fluid coupling of the type described, two structurally identical coupling units of generally cylindrical form connectable axially at respective connecting end portions thereof, means for connecting said two units comprising adjacent each respective end portion thereof, an annular retainer member axially slidable upon said unit, shoulders formed on said unit engageable by said retainer member limiting the axial movement thereof, a plurality of alternate circumferentially spaced and axially extending latch members and slots formed on said retainer member, the latch members and slots of one of said units being contiguously interfitting with corresponding slots and latch members of the other of said units upon relative axial movement of the two units, and locking catch means axially fixed on each of said units engageable by the latch members of the other unit upon relative axial movement of said retainer members and biasing means acting on said retainer members maintaining engagement of said latch members and locking catch means.

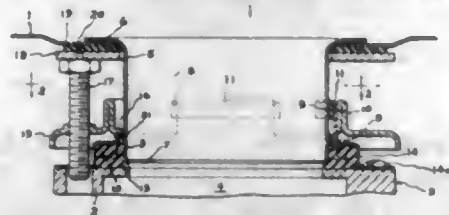
2,819,915

SINK CONNECTION FOR WASTE DISPOSAL APPARATUS

Thomas T. Woodson, La Canada, Calif., assignor to General Electric Company, a corporation of New York
Application November 19, 1956, Serial No. 623,013
3 Claims. (Cl. 285—159)

3. Waste disposal apparatus for use in connection with a sink having a drain opening comprising a housing en-

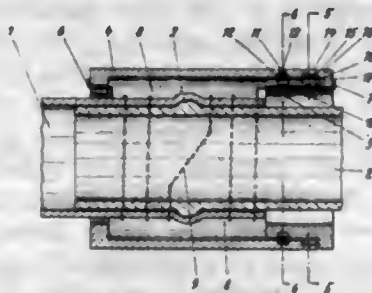
closing a grinding chamber having an inlet opening for water and waste material at the top thereof, a cylindrical sleeve adapted to be disposed in said drain opening including an outwardly projecting flange on the upper end thereof adapted to overlie the marginal edge of said drain opening, a plurality of circumferentially extending ledge members on the external surface of said sleeve, a circumferential resilient gasket encircling the lower end of said sleeve, a support ring encircling said sleeve and including an outwardly projecting bottom flange in interlocking engagement with said gasket, an annular coupling member secured by removable fastening means to said housing so as to overlie said bottom flange and clamp



said gasket to said housing, said support ring including a plurality of circumferentially spaced upwardly extending portions each provided with a circumferentially extending intumed rim, each of said rims being in engagement with one of said ledge members so as to support said housing on said sleeve, a clamp ring encircling said sleeve, said clamp ring including inwardly projecting portions overlying portions of said gasket between said support ring and said sleeve, a compression ring encircling said sleeve between said inwardly projecting portions of said clamp ring and said portions of said gasket, a sealing ring encircling said sleeve above said clamping ring below said upper flange, a plurality of screws threaded in said clamping ring and adapted to bear against said sealing ring, and connecting means for securing said sealing ring on the upper ends of said screws.

2,819,916

WOUND WIRE HOSE COUPLING MEANS
Julius Seifert, Munich, Germany; Ursula Seifert, sole heir of the estate of said Julius Seifert, deceased
Application July 15, 1953, Serial No. 368,164
Claims priority, application Germany March 1, 1952
3 Claims. (Cl. 285-244)

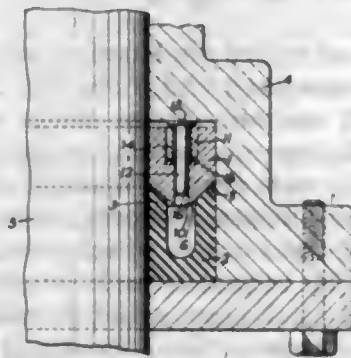


1. Apparatus for connecting an end portion of a flexible hose or the like to an end portion of a rigid tubular member extending into the flexible hose, comprising, in combination, an elongated helically wound wire adapted to extend about the hose at the part thereof which overlaps the tubular member, said wire having an intermediate portion of a pitch substantially larger than the remainder of said wire and adapted to pass over an enlarged part of the tubular member; a pair of annular members respectively connected to opposite end portions of said wire, being coaxial with each other and adapted to be located about the axis of the hose, and being rotatable with respect to each other so as to tension said wire and press the windings thereof against the hose to press the latter against a rigid tubular member extending into the same; and releasable lock means extending between said annular members to prevent rotation thereof under the influence of the tensioned wire so as to maintain the latter tensioned.

2,819,917

HYDRAULIC PACKINGS

Thomas Frank Watson, William Thomas Tank, and Cecil Henry Bonsey, Woking, England, assignors to James Walker and Company Limited, Surrey, England, a corporation of Great Britain
Application November 14, 1955, Serial No. 546,614
Claims priority, application Great Britain October 25, 1955
4 Claims. (Cl. 286-26)

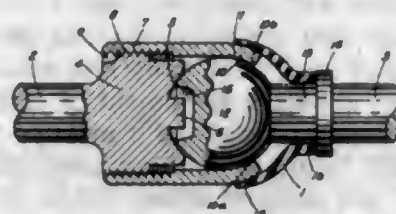


1. Mechanism for spring loading a sealing packing comprising a header ring having a plurality of bored and counterbored openings with a shoulder therebetween, and an annular sealing member engaged by said header ring and adapted to contact the surfaces to be sealed; said mechanism comprising, a plurality of pin elements each provided with a head portion dimensioned to slide in the counterbored opening and with a shank portion, a plurality of resilient annular pads each received above the shoulder and urged against the surface of the counterbored opening, each of said shank portions extending through the hole of one of said annular pads, and a plurality of springs each abutting one of said head portions and one of said annular pads to spring-load said header ring and said pin elements, each of said springs projecting above one of said annular pads, and an enlarged extension provided at the free end of each of said shank portions and larger than the hole of the corresponding of said annular pads, said enlarged extensions sliding in said bored openings, whereby each of said annular pads is secured to said header element and each of said pin elements is secured to one of said annular pads.

2,819,918

SEAL FOR BALL AND SOCKET JOINT

James J. Seaquist, Ingleside, Ill., assignor to McGraw-Edison Company, a corporation of Delaware
Application February 15, 1954, Serial No. 410,349
1 Claim. (Cl. 287-90)



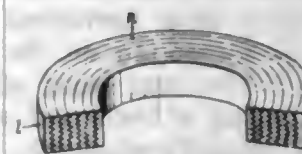
In a ball and socket assembly for connecting a pair of substantially longitudinally aligned shaft means in articulate tiltable relation with respect to each other, said assembly including a plug member coaxial and integral with one of said shaft means and having a concave face generated from a center of curvature, a cylindrical housing having a uniformly thick wall concentrically embracing said plug member at one end, a converging arcuate margin at the other end of said housing having an interior surface and a convex surface generated from the same aforementioned center of curvature, a ball in confluent bearing relation with said interior surface and concave face, a neck portion extending integrally from said ball outwardly from said housing, shoulder means affixed circumjacent said neck portion and spaced from the margin of said

housing, in combination with a silicone rubber seal having a substantially hemispherical body portion generated from the aforesaid common center of curvature of the concave plug member face, of the converging arcuate margin, and of the ball, said hemispherical body portion also having an integral throat portion, said body portion freely and flexibly extending from said throat portion into sealing overlying relation with the convex margin of said housing and said throat portion sealingly surrounding said neck portion and sealingly abutting said shoulder means.

2,819,919

METAL PACKING FOR ROTARY AND RECIPROCATING SHAFTS AND THE METHOD OF MAKING THE SAME

Louis William Henry Pearce and Rodney Vernon Jones, Woking, England, assignors to James Walker and Company Limited, Surrey, England, a corporation of Great Britain
Application November 14, 1955, Serial No. 546,613
2 Claims. (Cl. 288-15)

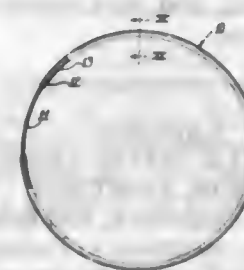


1. A self-lubricating packing for shafts comprising of at least a single length of a flat strip of foil with longitudinal corrugations extending throughout its length, and coated with lubricant on at least one face, said corrugated strip of foil being in the form of a spirally wound axially compressed ring with the corrugations extending longitudinally in the convolutions in nesting engagement with each other and transversely of the axis of the ring, and with the interengaging corrugations of the foil being flattened and permanently imprisoning the lubricant therebetween.

2,819,920

ANNULAR METAL SEAL

Jacob R. Snyder and John E. Taylor, Cleveland, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 8, 1955, Serial No. 492,912
2 Claims. (Cl. 288-30)

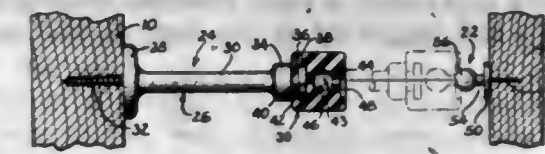


1. An annular seal for use with companion machined surfaces comprising a plurality of concentric tubular metal annuli each having relatively resilient thin walls, an endless coil spring annulus core filling the innermost tubular annulus, said coil spring core having uniformly spaced coils providing uniform resistance to deformation around the entire seal, each of said tubular annuli being composed of complete rings wrapped into tubular cross-section form with the ends thereof abutting and secured together to form a tight seam thereby providing impervious continuous tubes, and the abutting ends and seams of the respective tubes lying on diametrically opposite sides of said core whereby said seal has uniform restorative powers.

2,819,921

DOOR BUMPER AND LATCH

Archie J. Solari, Chicago, Ill., assignor of one eighth to Edward R. Lowndes, Evanston, Ill.
Application July 22, 1955, Serial No. 523,790
1 Claim. (Cl. 292-70)



In a combination door stop and holder for maintaining a swinging door in a position of close proximity and parallelism to one surface of a reaction member, a first part adapted to be fixedly attached to the door and a second part adapted to be fixedly attached to the reaction member in a position of register with the first part, said first part including a first shank having a first base plate formed thereon, an anchoring screw extending centrally outwardly from said first base plate and designed for reception in said door, the free end of said first shank being formed with a button thereon, a combined bumper and holder pad having a socket formed therein in which said button is removably embedded, said pad presenting a forward face in opposition to the reaction member when the reaction member and door are in their positions of close proximity, said pad at its forward face having a socket therein presenting a relatively narrow cylindrical wall surrounding a bore having an enlarged counterbore at its mouth and terminating in an enlarged bottom, said second part comprising a second base plate, a tapered driving pin extending laterally in one direction from said second base plate and adapted to penetrate the material of said reaction member when forcibly driven thereagainst, a second shank projecting laterally in the other direction from said second base plate, and an enlargement mounted on the free end of said second shank, said enlargement, shank and base plate of said second part being receivable into the enlargement, bore and counterbore, respectively of the socket of said pad and substantially filling the same whereby said tapered driving pin is maintained in alignment with the shank of said first part when the parts are assembled in their free state and whereby said pin is caused to penetrate the material of said reaction member at a right angle to the surface thereof when the first part, with the second part assembled thereon, is fixedly attached to said door and the latter is swung forcibly to its position of close proximity with and parallelism to the surface of said reaction member, said enlarged counterbore presenting a forwardly facing radial shoulder of appreciable width designed for impact with the outer face of said second base plate when the door is thus swung forcibly to said position of close proximity with and parallelism to the surface of said reaction member for pin-penetrating purposes, the degree of resiliency of the material of said pad being such as to permit the enlargement of the second part to pass into said socket when the door and reaction member approach said position of close proximity with a predetermined maximum degree of impelling force being applied to the door, the material of said pad in the vicinity of and surrounding said counterbore serving as an impact bumper to repel said second part when a degree of impelling force insufficient to drive the enlargement of said second part into said socket is applied to said door.

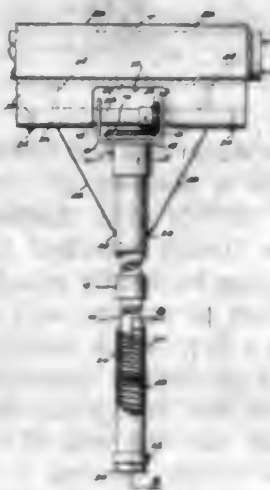
2,819,922

TOOL FOR INSTALLING AND REMOVING FLUORESCENT LAMPS

Joseph A. Panzica, Brooklyn, N. Y.
Application April 1, 1955, Serial No. 498,718
3 Claims. (Cl. 294-20)

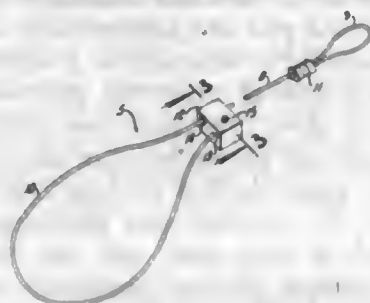
1. A tool for installing and removing fluorescent lamp tubes comprising an upstanding handle, a sleeve surround-

ing and slidable upon said handle, a collar surrounding said sleeve, there being a slot in said collar, a stud projecting from said sleeve and extending through said slot, a U-shaped yoke having its bight secured centrally of and on the upper end of said collar with its legs projecting vertically above said collar, a shaft arranged transversely of said handle and supported in the legs of said yoke, a



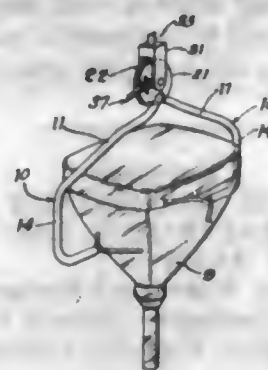
clamp secured to the shaft, said clamp including a pair of convergent, spreadable, tube gripping arms, a spreader bar extending parallel to the shaft between and in engagement with the arms and supported on said shaft so as to spread said arms responsive to shifting of the bar in a direction toward the convergent ends of the arms, and means connected between the spreader bar and said sleeve for shifting the spreader bar in said direction on slidable movement of the sleeve along the handle.

2,819,923
SUSPENSION SLING
Doyle Anderson, Fort Wayne, Ind.
Application August 17, 1955, Serial No. 528,866
1 Claim. (Cl. 294-74)



A suspension sling comprising: a length of flexible metal cable; a ferrule clinched around an end portion of the cable and a medial portion thereof to define a permanent loop in the cable; a metal block of a size to readily pass through said fixed loop and having a pair of lengthwise adjacent bores therethrough of substantially equal diameter and spaced apart a distance substantially greater than the diameter of the cable; the medial portion of the cable being freely slidably received in one of said bores in the block and the other end of the cable being received in the other of said bores; and a set screw threaded into said block and entering said second designated bore therein, transversely to the axis thereof, to engage and secure said other end of the cable, so that the length of the cable between the portions thereof received in the bores in the block defines an adjustable loop at the side of the block remote from said fixed loop, the size of which may be readily changed from a minimum at which the adjustable loop end of the cable extends nearly straight across the adjacent end of the block to confine very small objects therebetween, to a maximum size limited only by the engagement of said ferrule with the opposite side of the block, by sliding the block along the medial portion of the cable.

2,819,924
CONVEYOR HANGER FOR TELEVISION PICTURE TUBES AND LIKE ARTICLES
Melberne L. Hayes, Oak Park, Ill., assignor to National Video Corporation, Chicago, Ill.
Application July 10, 1953, Serial No. 367,161
1 Claim. (Cl. 294-78)



A device for suspending a television picture tube or like article upon an overhead conveyor with the larger end of the tube upwardly and the principal axis thereof vertical during manufacturing or other operations thereon which comprises a part for suspension on the conveyor, the point of suspension of the part being aligned with the tube axis, a pivot having a horizontal axis carried by said part, a pair of rotatably-adjustable, disc-like members carried on said pivot in face-to-face relation, a depending arm rigidly secured to and forming individual rigid extensions of each of said members for mutual angular adjustment, each arm including at its lower free end a U-shaped element, said elements having their open ends confronting in a substantially horizontal plane for partially encircling the tube at points below its enlarged upper end and upon which the tube may be suspended in a suitably balanced position below said pivotal axis, means for maintaining said members in a predetermined, angularly-adjusted position comprising a plurality of openings in one of said members corresponding to a plurality of adjusted positions of said arms and the provision on the other member of a latch supported for movement between latching and unlatching positions with respect to the said one member, said latch having a projection for engagement with a selected one of said openings and a handle for operating the same, the handle of said latch being disposed adjacent one of said arms for unlatching movement theretoward whereby manual movement of said arm in an opening or closing direction and release of said latch may be effected concurrently with grasping movement of one hand, and bias means for urging said latch to latching position.

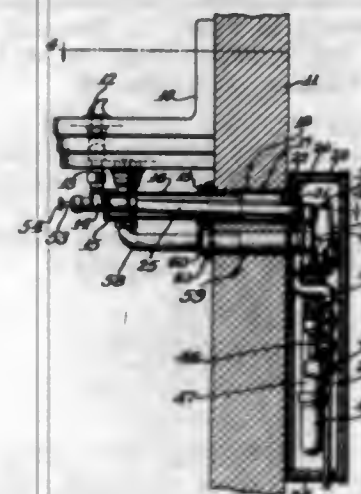
2,819,925
MOTOR VEHICLE WITH LIGHT METAL FLOOR PORTION
Karl Wilfert, Stuttgart-Degerloch, and Béla Barényi, Stuttgart-Rohr, Germany, assignors to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application August 6, 1953, Serial No. 372,736
Claims priority, application Germany August 8, 1952
4 Claims. (Cl. 296-28)



1. In a motor vehicle having a floor portion comprising light-metal parts including a floor plate and at least one transverse wall thereof, and means for fastening said floor plate and said transverse wall with each other and with the other parts of said floor portion including apertures

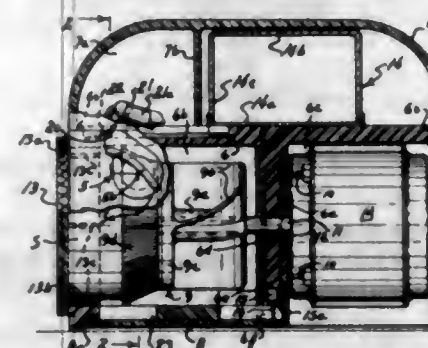
provided in said light-metal parts and put-on strips with cup-like insertion members formed of sheet steel extending at least partially through said apertures, and further sheet steel members for attachment with said cup-like members to secure together said light-metal parts.

2,819,926
FREEZE-PROOF DRINKING FOUNTAIN
Walter H. Wood, Chicago, Ill.
Application October 4, 1954, Serial No. 459,962
2 Claims. (Cl. 299-13)



1. In combination, a drinking fountain having a bowl and a bubbler for mounting exteriorly of a building, a drain from the bowl which extends through the wall of the building and downwardly to a point of discharge within the building, a self-draining valve mounted adjacent to the downwardly extending portion of the drain, a perforated tube connected with the valve drain, a pipe connecting the tube with the main drain, said valve having a spring pressed plunger for opening and closing the same, a lever mounted on the valve and coacting with the valve stem, a casing extending through the wall of the building, a pipe from the valve passing through the casing, a cap engaging with the inner end of the casing, said pipe pitching downward for draining, a connection from the cap for supplying water to the bubbler, a tube mounted in the casing and extending through the wall of the building, a plunger mounted in the tube and coacting with the lever for opening the valve, and a spring on the plunger tending to return it to normal position.

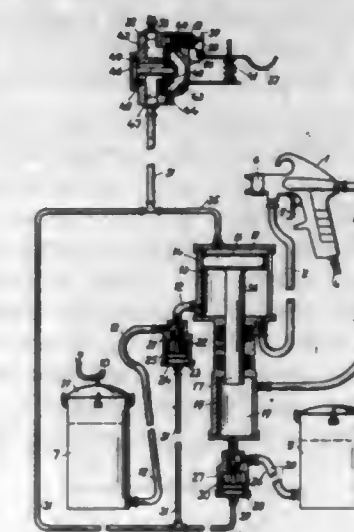
2,819,927
LATHER MAKING MACHINE
Walter W. Svendsen, St. Paul, Minn., assignor to Morris B. Holmberg, Minneapolis, Minn.
Application July 28, 1954, Serial No. 446,339
3 Claims. (Cl. 299-83)



1. A lather mixing machine having in combination a housing defining a lather chamber, a medial partition and an adjacent motor-receiving chamber, a vertical socket in

said partition extending to and in communication with the bottom of said lather chamber for receiving the discharge tube of a removable water reservoir, a water reservoir removably mounted on said housing with its discharge tube depending in said socket and having means associated therewith for controllably supplying water to said lather chamber, means for holding a bar of soap within the outer end of said chamber, a brush head mounted in said lather chamber and occupying most of the space therein and disposed substantially coaxially with the bar of soap and carrying a multiplicity of bristles at its outer end for contact with said soap, said brush head having radially extending agitating and propelling blades extending from the periphery thereof and a driving shaft having sealed relation through said partition and connecting said motor with said brush head.

2,819,928
APPARATUS FOR SIMULTANEOUSLY DISCHARGING MATERIALS
Kurt Herman Liedberg, Skara, Sweden, assignor to Atlas Copco Aktiebolag, Nacka, Sweden, a corporation of Sweden
Application May 18, 1954, Serial No. 430,710
6 Claims. (Cl. 299-86)



3. Apparatus for simultaneously spraying two or more materials capable of being handled by positive displacement pumps and for discharging said materials in predetermined relative quantities, comprising a positive displacement pumping device, a first pump chamber in said pumping device, a first supply conduit leading from a first material source under pressure to said first pump chamber, a compressed air operated supply shut-off valve in said first supply conduit, a first pump piston movable in the first pump chamber upon actuation by compressed air to displace a volume of the first pump chamber, a second pump chamber in the device, a second supply conduit leading from a second material source to said second pump chamber, a compressed air operated supply shut-off valve in said second supply conduit, a second pump piston movable in the second pump chamber to displace a volume of the second pump chamber, means for maintaining a predetermined relation between the delivery capacities of the pump chambers, valve means controlling the supply of compressed air for actuation of the supply shut-off valves to shut their pertaining conduits and the first pump piston to apply pressure on the material in the first pump chamber, delivery conduits leading from the pump chambers to a spraying device, and delivery valve means for the pump chambers in said spraying device operable independently of said supply shut-off valves to discharge the material simultaneously from the pump chambers in said predetermined relative quantities.

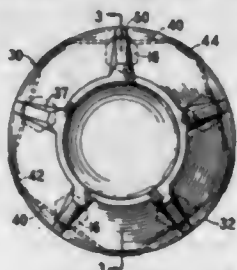
2,819,929

HUB CAP STRUCTURE

J Harold Hunt, Lansing, Mich., assignor to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan

Application June 3, 1954, Serial No. 434,205

6 Claims. (Cl. 301-108)



1. In a vehicle wheel structure wherein the wheel is secured to a hub by a plurality of headed fastener elements, a hub cap comprising, a hollow body having an open side adapted to fit over the center of the wheel, said body having adjacent its open side a plurality of separate circumferentially arranged recesses, the circumferentially opposite sides of said recesses forming shoulders, means forming a polygonal wire loop having side portions and corner portions, said loop being mounted within said body with said corner portions seating directly within said recesses, each of said corner portions engaging against both of the shoulders defining the recess in which it is seated, so that said wire loop and body are secured together in non-rotatable relation, said side portions forming circumferentially spaced wire grips disposed in cordal relation to the interior of the body, said grips being radially resiliently yieldable, said grips having central portions formed with bights positioned slightly radially inwardly of the headed fastener elements when said body is centered on the wheel, said corner portions extending radially outwardly of said fasteners when said body is centered on the wheel, so that said bights engage said fasteners in a snap over action by rotating said body relatively to the wheel to facilitate removably securing said hub cap thereon.

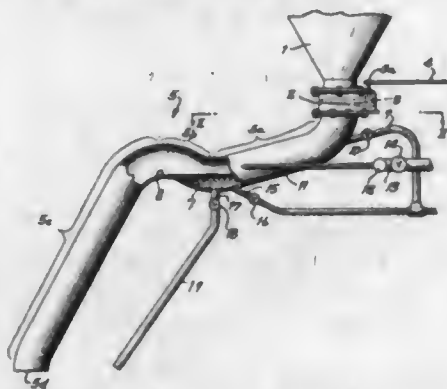
2,819,930

APPARATUS FOR REMOVING DUST

James P. Foreman, Poland, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey

Application October 14, 1953, Serial No. 386,044

6 Claims. (Cl. 302-20)



1. Dust removing apparatus, comprising a hopper to collect dust in bulk, a pipe connected to the bottom of the hopper and having a first section extending diagonally downward from the hopper and providing a path for the flow of dust, a second section joining said first section in a wide upright U-shaped bend and extending diagonally upward therefrom, and a third section joining said second section in a wide inverted U-shaped bend and extending downwardly therefrom to a discharge outlet opening to the atmosphere, said upright U-shaped bend defining a basin and said inverted U-shaped bend defining an overflow sill for said basin, the vertical distance between the

bottom of said basin and said sill being substantially less than the diameter of said first and second sections, at least one water inlet nozzle opening into said first section above the level of said sill and directed toward the middle of said first section, and a steam inlet nozzle opening into said basin upstream from the lowest point thereof and below said sill and directed generally upwardly toward a point above said sill.

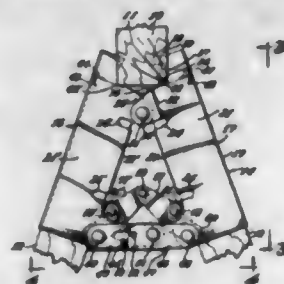
2,819,931

SAWHORSE TOGGLE CLAMP

Robert L. Chesney, Los Angeles, Calif., assignor, by mesne assignments, to Frank A. Driesch

Application July 6, 1954, Serial No. 441,567

4 Claims. (Cl. 304-5)



1. A clamp for anchoring legs to a cross piece of a trestle, comprising a pair of channels, each channel having a back wall and a pair of side walls, pivot means securing the side walls of one channel to the side walls of the other channel, that portion of each channel above said pivot means constituting a jaw, said jaws being adapted to straddle the cross piece, that portion of each channel below said pivot means constituting a socket, said sockets being adapted to receive the legs, a pair of arms, means pivotally securing each of said arms to respective side walls of one of the channels in the socket portion thereof, a pair of links, each of said links being pivotally secured to respective side walls of the other of the channels in the socket portion thereof, pivot means securing each of the arms to respective links, a pair of lever arms for each channel, means pivotally securing each of the lever arms intermediate its ends to respective side walls, means pivotally securing the lever arms of one channel to respective lever arms of the other channel, whereby the lever arms project into respective channels for engaging the legs when said socket portions are spread apart.

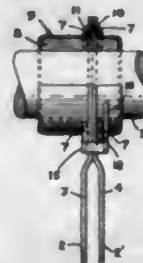
2,819,932

SELF-ALIGNING SHAFT HANGER

Warren W. Walker, Montclair, N. J.

Application June 20, 1955, Serial No. 516,368

10 Claims. (Cl. 308-29)



1. A self-aligning shaft hanger assembly, comprising a pair of plates attached together in flatwise engagement, said plates provided with a shaft receiving opening extending therethrough, the portions of each of said plates surrounding said opening being shaped to form arcuate outwardly curving portions forming in combination an inwardly opening arcuate substantially semi-circular retaining recess surrounding said shaft receiving opening, portions of said arcuate portions being cut away at diametrically opposed points leaving spaces at each side

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of the shaft receiving opening and retaining recess portions at diametrically opposed positions relative to the shaft receiving recess, a cylindrical self-lubricating bushing, a casing enclosing said bushing and having its ends open, pairs of radiating tongues formed on said casing in diametrically opposed pairs, the distance between the outer end edges of the tongues of each pair being less than the length of the cut away portions of the arcuate portions to permit the casing and bushing to be partially inserted through said shaft receiving opening and rotated slightly to move said tongues into said retaining recess portions, and locking means for preventing rotary movement of the casing relative to the hanger.

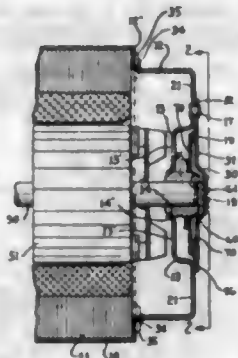
2,819,933

BEARING STRUCTURE

Blake W. Carrington, Elyria, Ohio, assignor to The General Industries Company, Elyria, Ohio, a corporation of Ohio

Application July 29, 1954, Serial No. 446,621

3 Claims. (Cl. 308-72)



1. Bearing structures comprising a cup shaped end plate, said end plate having a centrally disposed bearing seat portion, said seat portion being centrally perforated, the inner peripheral portions of said seat portion being provided with a shoulder portion, a generally ball-shaped bearing having inboard and outboard portions, said inboard portion seating upon said shoulder portion, a cover plate, securing means securing said cover plate to said end plate, said cover plate provided with a centrally disposed portion conically shaped to conform to the outboard end of the bearing and being spaced therefrom and having an annular outer peripheral groove therein, a collar element having a generally dome-shaped portion and outwardly extending flange portion, said dome-shaped portion being centrally perforated and telescoped over an outboard end of said bearing, a bearing retainer spring element having an annular centrally perforated portion and a plurality of arm portions outwardly projecting therefrom, said arm portions having longitudinally extending slots therein, said slots communicating with said centrally disposed perforation in the spring element, the inner peripheral flange of said spring element being seated upon the outwardly extending flange portion of said collar element and a portion of each of said arms contacting the under surfaces of said grooved portion of the said cover plate.

2,819,934

REMOVABLE PLUNGER ARRANGEMENT

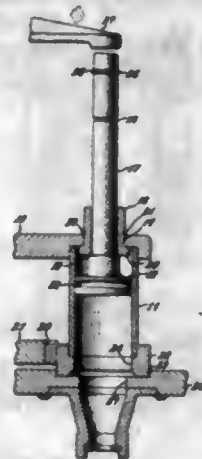
Marcellus C. Luterick, Montrose, Calif., assignor, by mesne assignments, to Diced Cream of America Co., Los Angeles, Calif., a corporation of Delaware

Application April 5, 1954, Serial No. 421,057

3 Claims. (Cl. 309-2)

1. Dispensing apparatus comprising a cylinder having an opening in at least one end wall thereof, a piston reciprocable within said cylinder, a piston rod secured to said piston and extending through said opening, a bushing circumjacent said rod and disposed in said opening, said piston rod being fitted and reciprocating loosely in said

bushing, said bushing having a flange on the inner end thereof abutting the wall of said cylinder around said opening, said bushing also having a peripheral groove



therearound immediately outside said wall, and an elastic, easily stretchable, unbroken ring disposed in said groove, the outer diameter of said ring being greater than the diameter of said wall opening, said ring thereby holding said bushing in position in said wall.

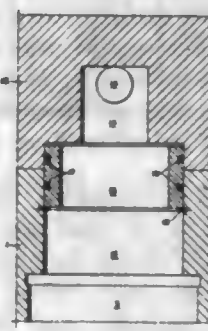
2,819,935

SEAL FOR VERY HIGH PRESSURES

Adolf R. Grad, Milwaukee, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin

Application September 7, 1954, Serial No. 454,265

4 Claims. (Cl. 309-2)



4. In a machine having a body, a head engaging said body, bolts fastening said head to said body, a large diameter bore formed in said body and in said head, and means for creating an extremely high pressure in said bore, the combination with said body and said head of a tubular sleeve loosely fitted in said bore and spanning the joint between said body and said head, means in said bore to prevent inward movement of said sleeve during assembly of said head to said body, continuous grooves formed in the outer peripheral surface of said sleeve at opposite sides of said joint, and a continuous packing of yieldable material arranged in each of said grooves and having a thickness greater than the depth of said grooves, said sleeve being of such a thickness that a predetermined high pressure therein will expand said sleeve and force its outer periphery against the wall of said bore.

2,819,936

PISTON, ESPECIALLY FOR INTERNAL COMBUSTION ENGINES

Walter Cambels, Essen-Bredeney, Germany, assignor to Fried. Krupp Motoren- und Kraftwagenfabriken G. m. b. H., Essen, Germany

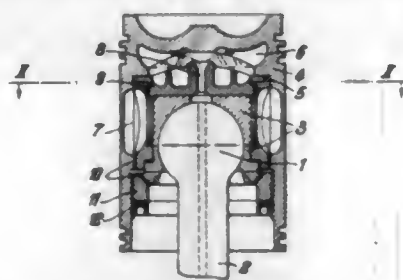
Application July 20, 1955, Serial No. 523,317

Claims priority, application Germany August 3, 1954

11 Claims. (Cl. 309-16)

1. In combination in a cylinder of an internal combustion engine: a piston rotatably and reciprocally mounted in said cylinder, a connecting rod, and a socket rotatably mounted within said piston and comprising supporting

means supporting the adjacent end of said connecting rod, the central axis of the supporting means for said adjacent connecting rod end being eccentrically arranged with



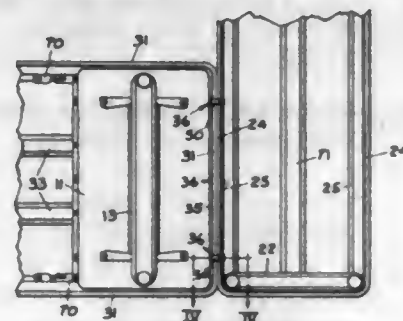
regard to the central axis of said piston whereby said piston will positively be caused to turn about its longitudinal axis in response to an axial movement of said piston in said cylinder.

2,819,937

MEANS FOR JOINING DESK AND TABLE TOGETHER WITH EDGES ABUTTING

Earle C. Bullock, East Grand Rapids, Mich., assignor to Steelcase, Inc., Grand Rapids, Mich., a corporation of Michigan

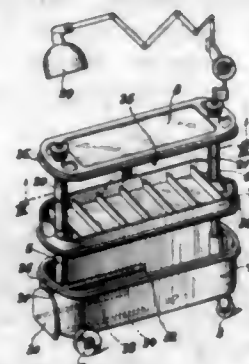
Application August 15, 1955, Serial No. 528,360
6 Claims. (Cl. 311-4)



1. In means for locking together the tops of two units of metal furniture, each of said units having rigid depending side aprons, said means comprising: a pair of jaws movable with respect to each other; each of said jaws having an upstanding member and finger elements, said finger elements projecting from said upstanding members toward each other; each of said finger elements engaging one of said aprons; means characterized by mechanical advantage and secured to said upstanding member for drawing said jaws together.

2,819,938
TOOL STAND

Alfred M. Zerver, Remscheid, Germany
Application April 30, 1954, Serial No. 426,819
Claims priority, application Germany December 16, 1953
1 Claim. (Cl. 312-201)



A portable tool stand comprising a tool box having a lid consisting of at least two superimposed tray-like members, at least two columns respectively connected to two opposite sides of said tool box, said lid being slidably guided on said columns substantially the entire length thereof whereby said lid means may selectively be placed

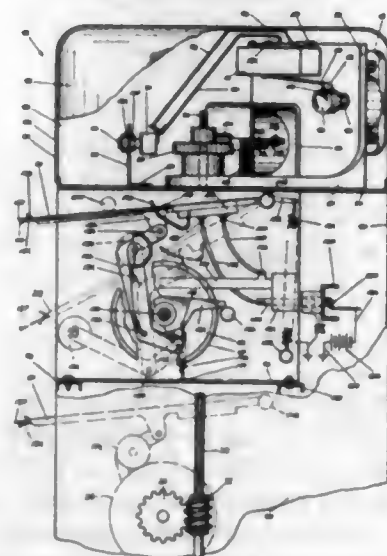
upon said box or may be separated therefrom, means interconnecting the tray-like members of said lid with lost motion whereby the uppermost tray-like member of the lid may be moved away from the adjacent tray-like member of the lid by a desired distance before the last mentioned tray-like member of the lid is caused to follow said uppermost tray-like member of the lid, latching means carried by at least said uppermost tray-like member of the lid for arresting the same on said columns, said columns extending at least to normal table level, and locking means carried by said lid and engageable with said box for firmly interlocking said lid and said box and simultaneously closing the latter.

2,819,939

LAPSED TIME PRINTER

Raymond A. Dull, Omaha, Nebr., assignor of one-half to Lucien Pettengill, Jr., Omaha, Nebr.

Application August 23, 1954, Serial No. 451,459
6 Claims. (Cl. 346-87)



1. A parking meter comprising a card holder, a drum having characters on the peripheral surface, a shaft for rotatably mounting the drum whereby the drum is positioned with the peripheral surface adapted to be engaged by a card in the card holder, a magnetic clutch positioned in the drum, a pawl and ratchet assembly operatively connected to the shaft for rotating the shaft, a solenoid for actuating the pawl, a synchronous motor for energizing the solenoid, and means for energizing the magnetic clutch by a card positioned in the card holder to actuate the drum by the shaft to correspond with periods of time, said card holder being adapted to be pressed against the surface of the drum whereby characters on the drum are adapted to be printed on a card in the holder.

2,819,940

DRIVE CONTROLS FOR MAGNETIC RECORDER-REPRODUCER

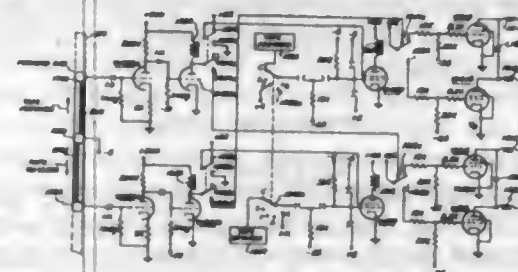
John R. Sorrells, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of Commerce

Original application August 11, 1954, Serial No. 449,286.
Divided and this application March 9, 1956, Serial No. 570,650

3 Claims. (Cl. 346-74)

1. In a multichannel magnetic data-recording system of the type employing a movable magnetic recording medium adapted to be driven in either one of two alternate directions or to be stopped by a capstan drive having a clutch controlled by a plurality of selectively energizable solenoids, a control circuit for determining energization of said solenoids comprising a current-switching device connected to each of said solenoids, respectively, a signal feedback connection coupling individual pairs of said switching

devices whereby conduction of one switching device in a pair will block conduction of the other switching device, a gating circuit common to each pair of said current-



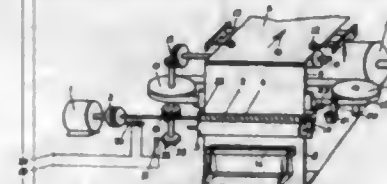
switching devices, each of said gating devices having means for selectively energizing an individual current-switching device in each pair and means for selectively energizing each of the gating devices.

2,819,941

FACSIMILE TELEGRAPH RECEIVER

Rudolf Hell, Kiel-Dietrichsdorf, Germany, assignor to Dr.-Ing. Rudolf Hell, Kommanditgesellschaft, Kiel-Dietrichsdorf, Germany, a German company

Application February 20, 1953, Serial No. 338,119
Claims priority, application Germany May 2, 1952
22 Claims. (Cl. 346-101)



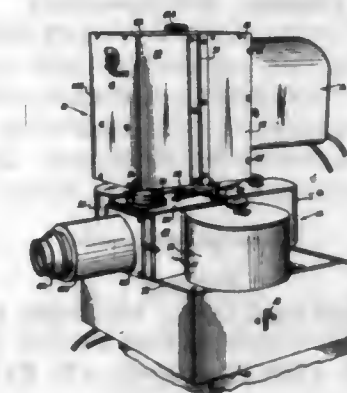
1. Facsimile telegraph receiver for line-by-line printing of symbol elements comprising an elongated rotatable drum carrying a printing spiral having multiple turns coiled about said drum between the opposite ends thereof forming a spirally extending printing edge, the axis of said drum and said printing spiral thereon extending in parallel with the plane of the line to be printed, means for rotating said drum with the multiple-turn printing spiral thereon, a movable printing member for coaction with the printing edge formed by said printing spiral, means for moving said printing member longitudinally of said drum in parallel with and along the plane of the line to be printed so as to select a turn of said multiple-turn spiral for printing coaction with the edge thereof, a printing bar extending in parallel with the plane of a line to be printed for the entire length of said line, and means for impulsively moving said printing bar to move said printing member impulsively relative to and for printing coaction with the printing edge of the turn of the printing spiral selected during the motion thereof longitudinally of said drum.

2,819,942

PHOTOFINISH CAMERA AND DIRECT READING PHOTOGRAPHING TIMER

Richard E. Goodling, Hempstead, N. Y., assignor to Crowley-Jones Camera Corp., Hempstead, N. Y., a corporation of Florida

Application December 21, 1953, Serial No. 399,547
5 Claims. (Cl. 346-107)



1. An optical system for simultaneously progressively recording images of two independent objectives in fixed relation to each other on a moving film strip comprising a light-tight housing structure; a pair of independent objective lens means operatively associated with said housing structure to form and transmit images of respective objectives thereinto along optical axes intersecting with in said housing at right angles; an aperture plate within said housing behind one of said objective lens means and intersecting the optical axis thereof; aperture means in said aperture plate; film guide means adapted to progressively position a moving film strip behind said aperture in a plane substantially parallel to said plate whereby the image formed by said one objective lens means is projected on one side of a film strip positioned by said guide means; a tubular member removably supported by said guide means on the opposite side thereof with respect to said aperture plate and in substantially coaxial alignment with the optical axis of the other of said objective lens means; reflecting means in said tubular member adapted to refract the image formed by said second objective lens means 90° toward said film guide means along a line of transmission parallel to the optical axis of said one objective lens means; and aperture means in said tubular member and film guide means to permit passage therethrough of the image formed by said second objective lens means to the other side of a film strip moving through said guide means; the apertures in said aperture plate and those in said tubular member and guide means being aligned in a plane through the optical axis of said one objective lens means but offset with respect to each other and of such size as to mask said images and confine them to laterally separate areas of the film strip.

CHEMICAL

2,819,943

PROCESS FOR DYEING OR PRINTING FIBERS OF POLYACRYLONITRILES

Paul Rhyner, Basel, Harald Stern, Neu Welt, near Basel, and Jacques Wegmann, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application December 13, 1954
Serial No. 474,968

Claims priority, application Switzerland
December 18, 1953

10 Claims. (Cl. 8-55)

1. A process for coloring fibers of polyacrylonitriles, which comprises the step of dyeing the fibers with a mem-

ber selected from the group consisting of dyestuffs corresponding to the formula



in which A represents a tertiary amino group and R₁ represents a benzene radical substituted by H₂N-groups in an ortho-position and the para-position to the azo group, and of salts of the said dyestuffs with acids, said dyestuffs being free from further groups imparting solubility in water, and also the step of subjecting the fibers to the action of a member selected from the group consisting of an aliphatic aldehyde of low molecular weight and an agent yielding such an aldehyde.

2,819,944

PURIFICATION PROCESS

Howard L. Wibbles, Joliet, Ill., and Earl I. Miller, St. Louis, Mo., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application January 26, 1954

Serial No. 406,381

6 Claims. (Cl. 23—14.5)

1. A process of removing molybdenum heteropoly acids from an ether solution containing said acids together with uranyl nitrate comprising contacting said ether solution with activated charcoal, and separating said charcoal containing said molybdenum heteropoly acids from the ether solution containing said uranyl nitrate.

2,819,945

METHOD OF SEPARATING VALUES OF COLUMBIUM AND/OR TANTALUM FROM A CONCENTRATE SOLUTION IN WHICH AT LEAST ONE OF THESE VALUES AND AN ELEMENT OF GROUP IV B

John R. Ruhoff and George L. Martin, Webster Groves, and Charles O. Gerfen, Brentwood, Mo., assignors to Mallinckrodt Chemical Works, St. Louis, Mo., a corporation of Missouri

No Drawing. Application February 15, 1955,

Serial No. 488,401

5 Claims. (Cl. 23—18)

1. The method of separating values of at least one element selected from the group consisting of columbium and tantalum from a concentrate solution in which at least one of these values and an element of group IV B of the periodic table are present as their fluocomplexes, comprising adding a base selected from the group consisting of ammonium hydroxide, sodium hydroxide and potassium hydroxide to said solution to precipitate the hydrous oxide of at least one element selected from the group consisting of columbium and tantalum from the solution containing of said group IV B element.

2,819,946

PREPARATION OF TITANIUM TETRAIODIDE

Subramanya Ramamurthy, Banaras, India, assignor to Council of Scientific and Industrial Research, New Delhi, India, a corporation of India

No Drawing. Application January 17, 1955

Serial No. 482,437

8 Claims. (Cl. 23—87)

1. A process for the preparation of titanium tetraiodide which consists in reacting in an inert atmosphere of argon a mixture of titanium dioxide (TiO_2) and a salt from the group consisting of aluminum tri-iodide (AlI_3) and the double salt of aluminum tri-iodide with potassium iodide (KAlI_4) in the proportions of 3 moles of titanium dioxide to 4 moles of the aluminum tri-iodide salt, with a temperature range between 100° and 500°C. , and separation of the resulting titanium tetra-iodide.

2,819,947

PROCESS FOR THE PRODUCTION OF SULFURIC ACID BY THE CONTACT PROCESS

Erich Stahl, Frankfurt am Main, Germany, assignor to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, Germany

No Drawing. Application June 27, 1955

Serial No. 518,339

Claims priority, application Germany July 17, 1954

2 Claims. (Cl. 23—167)

1. In a process for the production of contact sulfuric acid in which sulfuric acid is recycled in separate streams to a drying tower for SO_2 containing gases and to an absorption tower for the absorption of SO_3 from a common acid vessel containing sulfuric acid of an average concentration of 98.5% with the aid of a common pump and additional water is required beyond that contained

in the SO_2 containing gases for binding the SO_2 in the absorption tower, the step which comprises adding the additional water required for binding the SO_3 only to the separate acid stream recycled to the drying tower after it has passed the pump and before it is introduced into the drying tower.

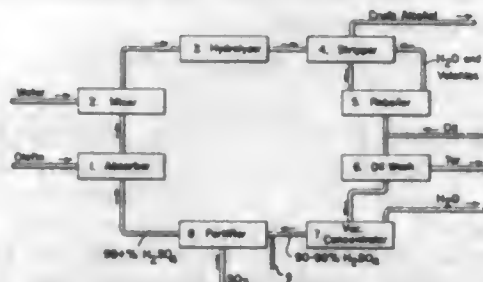
2,819,948

METHOD OF FORTIFYING SULFURIC ACID

Samuel W. Wilson, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application January 4, 1954, Serial No. 402,009

2 Claims. (Cl. 23—172)



1. In fortifying a reconcentrated oil-washed spent black sulfuric acid by absorption therein of sulfur trioxide, the spent black acid having been washed with oil to remove oil-soluble carbonaceous material including oil-soluble sulfonated hydrocarbons prior to the reconcentrating, the improvement which comprises admixing with said reconcentrated black sulfuric acid to be fortified a small amount of oil-soluble sulfonated hydrocarbon effective for increasing the rate of absorption of sulfur trioxide by said reconcentrated acid, then absorbing gaseous sulfur trioxide in the resulting mixture of the reconcentrated black acid containing the admixed oil-soluble sulfonated hydrocarbon.

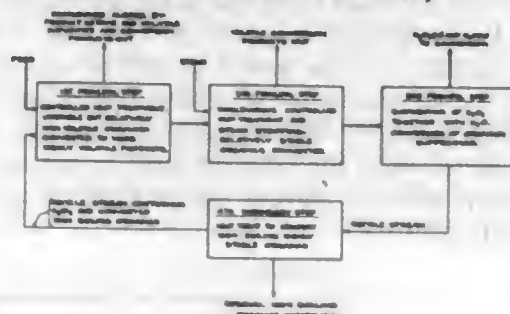
2,819,949

PURIFICATION OF HYDROGEN PEROXIDE

William R. Keeler and Roy J. Evans, Berkeley, and Gino J. Prerotti, El Cerrito, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application January 19, 1953, Serial No. 331,784

7 Claims. (Cl. 23—207)



1. In the recovery and purification of hydrogen peroxide existing in a mixture of the character hereinafter defined, said mixture comprising in predominant amount water-soluble, low molecular weight alcohol and the corresponding low molecular weight carbonylic compound, each distilling in the presence of water at a temperature lower than water alone, and water, and in minor amount hydrogen peroxide and oxygenated organic compounds comprising unstable organic peroxygen compounds, the method which comprises in an initial step degrading by heat treatment a portion of the organic peroxygen compounds to relatively stable organic products having volatilities greater than that of water and distilling from the heat-treated mixture in the presence of water the alcohol and corresponding carbonylic compound together with water and at least a substantial portion of said relatively

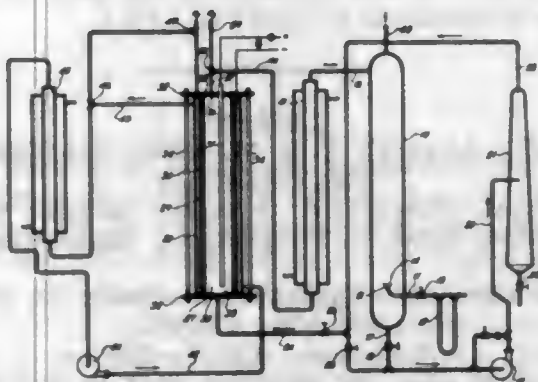
stable organic products, in a subsequent step degrading by further heat treatment in the presence of added steam a further portion of the organic peroxygen impurities remaining to additional relatively stable organic products, said additional products having volatilities in the presence of water greater than that of the hydrogen peroxide, while simultaneously therewith volatilizing said additional organic products together with water from the mixture undergoing heat-treatment, and thereafter evaporating hydrogen peroxide together with water at a pressure below 150 mm. mercury absolute and with a residence time for the liquid feed in the evaporator of not more than about 20 minutes so as to separate overhead the evaporated hydrogen peroxide from the hydrogen peroxide solution containing the substantial amount of relatively stable but relatively non-volatile organic impurities remaining after said step of degrading impurities in the presence of added steam under conditions non-conducive to degradation of the organic impurities remaining, and condensing the evaporated hydrogen peroxide and water to the liquid state.

2,819,950

CONVERSION OF HYDROGEN SULFIDE TO SULFUR WITH QUINONES

Richard A. Patton, Pittsburgh, Pa., assignor to Texas Gulf Sulphur Company, New York, N. Y., a corporation of Texas

Application March 27, 1952, Serial No. 279,493
12 Claims. (Cl. 23-225)



1. A process of decomposing hydrogen sulfide comprising circulating a fluid acid medium in a cyclic path, conveying a quinone having an oxidation potential of at least 0.2 volt in said medium to a first reaction zone in said path, introducing hydrogen sulfide into said zone and reacting it with said quinone, thereby converting said hydrogen sulfide substantially quantitatively into free sulfur and reducing at least part of said quinone substantially quantitatively to the corresponding hydroquinone, and removing sulfur from the reaction products, conveying said hydroquinone in said medium together with unreacted quinone to a second reaction zone in said path and oxidizing the hydroquinone back to the quinone in said second reaction zone.

2,819,951

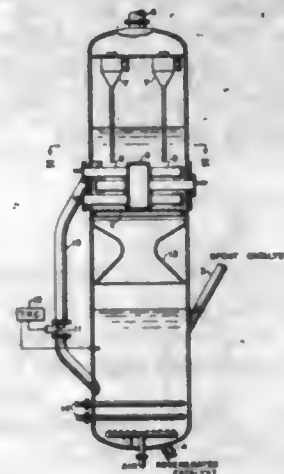
APPARATUS FOR THE REGENERATION OF CATALYST

William V. Medlin and George E. Liedholm, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application February 23, 1955, Serial No. 489,892
6 Claims. (Cl. 23-288)

1. Apparatus for the regeneration of catalyst containing combustible carbonaceous deposits by burning the combustible carbonaceous deposits therefrom which comprises a vertically arranged apparatus having two interconnecting zones, namely, an upper cooling zone adapted to contain a bed of fluidized catalyst and a lower burning zone adapted to contain a second bed of fluidized catalyst. a grid between said lower and upper zones arranged to

distribute spent regeneration gas from said lower zone over the horizontal cross section of said upper zone, a zone of restricted cross section between said upper and lower zones and below said grid, a conduit provided with a control valve interconnecting said two zones and arranged to insure passage of fluidized catalyst from the



upper fluidized bed to the lower fluidized bed, means responsive to temperature in the fluidized bed in said lower zone arranged to control said control valve, cooling coils within said upper cooling zone said coils consisting of a plurality of separately controlled heat transfer tubes, and separate conduits adapted for the introduction and withdrawal of catalyst from the fluidized bed in the lower zone.

2,819,952

LIQUID-COOLED SEAL

Meier E. Freed, Philadelphia, Pa., assignor to American Home Products Corporation, New York, N. Y., a corporation of Delaware

Application June 1, 1954, Serial No. 433,468
2 Claims. (Cl. 23-292)



1. A vapor seal adapted to seat in and close the outlet of a distillation apparatus, said seal comprising, in combination: an outer generally-tubular member; an inner member positioned therewithin and joined to said outer member at the base portion thereof; a ground ball and socket joint at the upper portion of said outer member, said ball and socket joint being apertured to permit the passage of a stirring rod therethrough; an open-ended tubular stem on said ball portion of said joint; a stopper positioned in the open end of said tubular stem, said stopper supporting a stirring rod which extends there-through, and said stirring rod passing through said aperture in said ground ball and socket joint into said distillation apparatus; and cooling means surrounding said outer generally-tubular member and cooling the space there-within, whereby vapor is condensed so that the condensate falls back into said distillation apparatus, thereby preventing its escape from said apparatus.

2,819,953

FUEL COMPOSITION

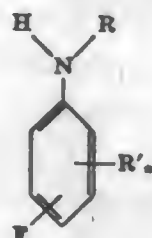
Jerome E. Brown and Hymin Shapiro, Detroit, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 28, 1956

Serial No. 574,386

7 Claims. (Cl. 44-74)

1. A hydrocarbon fuel of the gasoline boiling range for use in spark ignition internal combustion engines containing a small amount of a fluoro substituted aromatic amine compound having the formula



where R is a member of the group consisting of hydrogen, alkyl, aryl, aralkyl, alkaryl and cycloalkyl; R' is alkyl and n is an integer from 0 to 4; said compound being present in an amount sufficient to improve the anti-knock properties of said fuel.

2,819,954

RUST INHIBITOR FORMULATION

Charles F. W. Gebelein, Fanwood, Harry W. Rudel, Roselle, and Marion Gargisa, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application May 28, 1953

Serial No. 358,178

4 Claims. (Cl. 44-75)

1. A petroleum distillate fuel having incorporated therein as a rust inhibiting additive in a concentration of about 1/4 to 25 pounds per 1000 barrels of distillate a mixture of one part by weight of an ammonium polypropyl benzene sulfonate wherein the polypropyl group contains from 9 to 15 carbon atoms and from one to three parts by weight of an ammonium isooctyl phosphate.

2,819,955

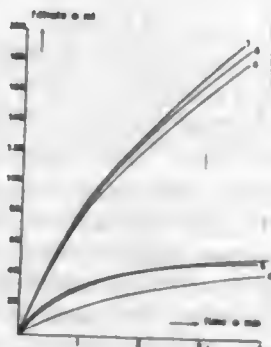
TREATMENT OF IMPURE CALCIUM NITRATE
Willem Slot, Geleen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands

Application February 16, 1953, Serial No. 337,160

Claims priority, application Netherlands

February 28, 1952

2 Claims. (Cl. 71-58)



1. A continuous process for converting impure calcium nitrate-tetrahydrate crystals having an acidic reaction and containing acid phosphorus-containing ions into solid

calcium nitrate fertilizer, consisting essentially of the following steps: forming an acidic calcium nitrate-containing liquor from said calcium nitrate-tetrahydrate crystals; reducing the acidity of said liquor in a single stage by introducing a stream of said liquor and a stream of ammonia simultaneously and continuously into a reaction zone provided with an overflow and maintained at a temperature above about 60° C.; adjusting the relative amounts of acidic liquor and ammonia supplied to the reaction zone to maintain the pH value of the liquor between 4 and 5, whereby any precipitate formed in the reaction zone is relatively small in amount and readily filterable; treating the overflow reaction products to remove the precipitate therefrom, and concentrating the remaining solution into a solid calcium nitrate-containing fertilizer product.

2,819,956

ADDITION AGENT FOR AND METHOD OF TREATING STEEL

Jerome Strauss, New York, N. Y., assignor to Vanadium Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application September 15, 1955

Serial No. 534,620

3 Claims. (Cl. 75-57)

1. An addition agent for the treatment of steel, containing 0.3 to 3.0% silicon, up to 1% titanium, up to 6% manganese, up to 0.5% alkali metals and up to a total amount of iron and manganese of 20%, the remainder consisting of calcium and aluminum in the range of ratios of calcium to aluminum of 1.00:1 to 1.75:1.

2,819,957

STEEL ALLOYS FOR MAKING MAGNETIC RECORDINGS

Karl Appel, Hagen-Fley, Germany, assignor to Firma Stahlwerk Kabel, C. Poupier, Jr., Hagen-Kabel, Germany

No Drawing. Application December 24, 1954

Serial No. 477,592

4 Claims. (Cl. 75-128)

1. A steel alloy for materials used in making magnetic recordings with high frequency sounds, said alloy having metastable austenitic structure and a coercive force of at least 300 oersted; and containing from 0.8 to 5% manganese, 15-40% nickel, about 2.5 chromium, about 0.21-2% silicon, 0.3-1.5% carbon, balance iron, and minor amounts of impurities.

2,819,958

TITANIUM BASE ALLOYS

Stanley Abkowitz and Lee S. Busch, Warren, Ohio, assignors to Mallory-Sharon Titanium Corporation, Niles, Ohio, a corporation of Delaware

No Drawing. Application August 16, 1955

Serial No. 528,819

6 Claims. (Cl. 75-175.5)

1. An alloy consisting of from 3% to 5% aluminum, from 1% to 2% vanadium, from 0.5% to 1% chromium, from 0.5% to 1% molybdenum, balance titanium.

2,819,959

TITANIUM BASE VANADIUM-IRON-ALUMINUM ALLOYS

Stanley Abkowitz and Paul E. Moorhead, Warren, Ohio, assignors to Mallory-Sharon Titanium Corporation, Niles, Ohio, a corporation of Delaware

No Drawing. Application June 19, 1956

Serial No. 592,260

7 Claims. (Cl. 75-175.5)

1. A titanium base alloy consisting of 8% vanadium, 3% to 5% iron, 1.5% aluminum, and the balance titanium with incidental impurities.

2,819,960

FORMABLE ACID RESISTANT TITANIUM ALLOYS

Howard B. Bomberger, East Liverpool, Ohio, assignor to Rem-Cru Titanium, Inc., Midland, Pa., a corporation of Pennsylvania

No Drawing. Application November 15, 1956

Serial No. 622,275

6 Claims. (Cl. 75-175.5)

1. A formable titanium alloy, characterized by a high resistance to corrosion by acids of the reducing type, containing about 20 to 30% molybdenum, at least one element selected from the group consisting of about 1 to 25% vanadium and about 1 to 30% columbium, the total amount of vanadium and columbium not exceeding 30%, and the balance substantially titanium.

2,819,961

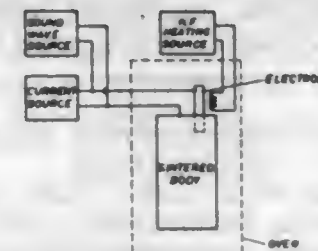
PROCESS FOR CONNECTING A TANTALUM ELECTRODE PIN TO AN ELECTRODE BODY

Heinrich Bartels and Helmut Fritsch, Nurnberg, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application December 10, 1953, Serial No. 397,384

Claims priority, application Germany December 20, 1952

3 Claims. (Cl. 75-208)



1. A process for connecting a tantalum electrode pin to a sintered electrode body, adapted for use in an electrolytic condenser, comprising pressing said pin a given distance into a powdered tantalum body, applying heat for sintering said body, and simultaneously and separately heating said pin to approximately the welding temperature thereof, to produce an efficient weld between the pin and tantalum body.

2,819,962

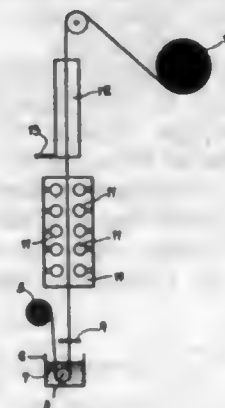
METHOD OF PRODUCING SINTERED PLATES FOR GALVANIC CELLS

Jean Salauze, Paris, France, assignor to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme), Pont de la Folie, Romainville, France, a company of France

Application March 12, 1954, Serial No. 415,748

Claims priority, application France March 17, 1953

14 Claims. (Cl. 75-208)



1. A method of producing sintered plates for galvanic cells, comprising the steps of preparing an aqueous homogeneous suspension consisting solely of water, a viscosity increasing agent dissolved therein and of fibrous iron-nickel group metallic powder having interlacing properties and derived from the thermal decomposition

726 O. G.-26

of corresponding metal carbonyl, maintaining the suspension quiescent, passing a perforated metallic band through the quiescent suspension to coat both faces of the band and fill its perforations, thereafter doctoring the thickness of the coatings retained on the band as a result of its passage through said suspension, passing the doctored, coated band through a heating zone to dry the coatings and then subjecting the band with its dried coatings to sintering heat in a non-oxidizing atmosphere, said coating, doctoring, drying and sintering steps being effected as a continuous sequential operation, and thereafter cutting the band into required dimensions.

2,819,963

LIGHT SENSITIVE COMPOSITION FOR PHOTO-MAGNETIC PRINTING PROCESS

Franklin A. Hamm, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application January 7, 1955, Serial No. 480,489

7 Claims. (Cl. 96-94)



1. A photomechanical resist composition comprising a photographic gelatin-silver-halide emulsion and a ferromagnetic iron oxide.

2,819,964

SUPRESENSITIZING COMBINATIONS COMPRISING MESO-SUBSTITUTED CARBOCYANINE DYES AND METAL SALTS

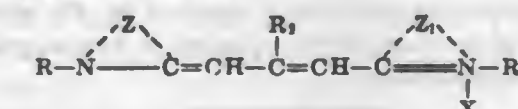
Jean E. Jones, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application March 8, 1955, Serial No. 492,951

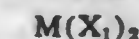
18 Claims. (Cl. 96-104)



18. A washed, photographic silver halide emulsion selected from the group consisting of a washed, photographic silver chloride emulsion and a washed, photographic silver chlorobromide emulsion containing (1) a sensitizing dye selected from those represented by the following general formula:



wherein R, R₁ and R₂ each represents an alkyl group, X represents an acid radical, and Z and Z₁ each represents the non-metallic atoms necessary to complete a heterocyclic nucleus selected from the group consisting of those of the benzothiazole series, those of the benzoxazole series, those of the benzoselenazole series, and those of the 2-quinoline series, and (2) from 5 to 35 grams per mol. of silver halide of a metal salt selected from those represented by the following general formula:



wherein M represents a member selected from the group consisting of a cadmium atom and a zinc atom and X₁ represents a member selected from the group consisting of a chlorine atom and a bromine atom.

2,819,965

CARBOXYMETHYLMERCAPTO COMPOUNDS AS STABILIZERS FOR PHOTOGRAPHIC EMULSIONS

Thomas F. Murray, George A. Reynolds, and James A. Van Allan, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 23, 1956

Serial No. 567,418

14 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing a monoheterocyclic nitrogen compound containing a substituent selected from the group consisting of a carboxymethylmercapto group and a salt of a carboxymethylmercapto group, said substituent being attached to said monoheterocyclic nitrogen compound in the α -position with respect to the nitrogen atom of said nitrogen compound.

2,819,966

FEED COMPOSITION

Robert W. Colby, Lake Jackson, Tex., and Robert J. Mesler, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 1, 1954

Serial No. 413,437

2 Claims. (Cl. 99—2)

1. A ruminant feed composition which comprises protein, carbohydrate and from about 5 to 50 percent by weight of the total available nitrogen of the composition in the form of hydantoin.

2,819,967

FEED COMPOSITION

Robert W. Colby, Lake Jackson, Tex., and Robert J. Mesler, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 1, 1954

Serial No. 413,438

2 Claims. (Cl. 99—2)

1. A ruminant feed composition which comprises protein, carbohydrate and from about 5 to 50 percent by weight of the total available nitrogen of the composition in the form of hexamethylene tetramine.

2,819,968

FEED COMPOSITION

Robert W. Colby, Lake Jackson, Tex., and Robert J. Mesler, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 1, 1954

Serial No. 413,439

2 Claims. (Cl. 99—2)

1. A ruminant feed composition which comprises protein, carbohydrate and from about 5 to 50 percent by weight of the total available nitrogen of the composition in the form of melamine.

2,819,969

PASTE WARES OF HIGH BIOLOGICAL VALUE AND A PROCESS OF MAKING SAME

Felix Grandel, Inningen, near Augsburg, Germany

No Drawing. Application August 25, 1954

Serial No. 452,201

Claims priority, application Germany August 29, 1953

2 Claims. (Cl. 99—85)

1. In a process of producing macaroni, spaghetti, vermicelli, noodles, and the like paste wares of high biological value, the steps comprising admixing cereal germ flakes to superfine wheat flour and other ingredients of paste wares and converting said mixture into paste wares, said cereal germ flakes being prepared by providing an aqueous paste of a partially de-oiled cereal grain germ material, having an oil content between about 1% and about 4%, ground and milled to a superfine flour and

having a low content of crude fiber and bran particles, and drying said paste in a moving thin layer with only short exposure to heat to form flakes, thereby causing heat transfer indirectly to said thin layer of paste from one side only through metallic heat conductor material, said paste substantially not being affected by and substantially not being heated by contact with the drying zone.

2,819,970

FOOD PRODUCT AND PROCESS

Albert E. Steigmann, Stoneham, Mass., assignor to General Foods Corporation, White Plains, N. Y., a corporation of Delaware

No Drawing. Application October 6, 1955

Serial No. 539,010

14 Claims. (Cl. 99—130)

1. A dry, cold water soluble gelatin composition comprising amorphous gelatin coated with dispersant.

2,819,971

FOOD PRODUCT AND PROCESS

Hans Gunthardt, Hoboken, N. J., assignor to General Foods Corporation, White Plains, N. Y., a corporation of Delaware

No Drawing. Application October 6, 1955

Serial No. 539,027

8 Claims. (Cl. 99—130)

1. A dry, particulate, amorphous gelatin composition comprising amorphous gelatin and coated with lecithin.

2,819,972

METHOD OF PRESERVING FRUITS AND VEGETABLES

Albert A. Robbins, West Covina, Calif., assignor of one tenth to Philip Subkow, Los Angeles, Calif.

No Drawing. Application April 3, 1952

Serial No. 280,373

24 Claims. (Cl. 99—154)

1. A process for treating agricultural products chosen from the group consisting of fruits and vegetables, comprising wetting the agricultural products with a water solution of cinnamate ions and naphthol.

2,819,973

METHOD OF PRESERVING FRUITS, FLOWERS AND VEGETABLES

Albert A. Robbins, West Covina, Calif., assignor of one tenth to Philip Subkow, Los Angeles, Calif.

No Drawing. Original application November 10, 1950, Serial No. 195,149, now Patent No. 2,790,717, dated April 30, 1957. Divided and this application April 26, 1957, Serial No. 655,178

16 Claims. (Cl. 99—154)

1. A process for treating agricultural products chosen from the group consisting of fresh fruits and vegetables, comprising wetting said agricultural product with a water solution of cinnamate ions.

2,819,974

4,4'-ALKYLIDENEBIS(5-ACENAPHTHENOLS)

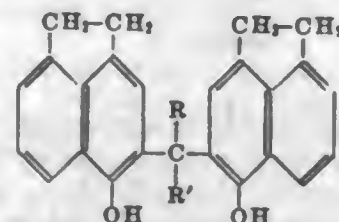
Alan Bell and Wayne V. McConnell, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application October 24, 1956

Serial No. 617,939

14 Claims. (Cl. 99—163)

1. A new class of chemical compounds having the following formula:



wherein R and R' each represents a member selected from the group consisting of a hydrogen atom and an alkyl radical containing from 1 to 8 carbon atoms.

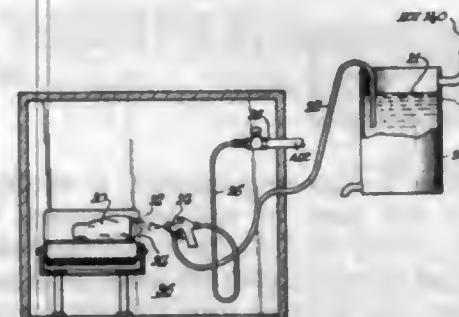
2,819,975

METHOD OF COATING FRESHLY CUT SURFACES OF MEAT

Le Roy Letney, Waterloo, Iowa, assignor to The Rath Packing Company, Waterloo, Iowa, a corporation of Iowa

Application December 24, 1953, Serial No. 400,269

3 Claims. (Cl. 99—169)



1. A method of coating freshly cut meat surfaces to prevent dehydration and preserve bloom which comprises providing a piece of meat having an exposed freshly cut surface at a temperature below 40° F., spraying a molten fat through a chilled atmosphere maintained substantially below the temperature required to congeal said molten fat to produce congealed droplets, permitting said droplets to deposit individually on said freshly cut surface, thereby forming a porous protective coating thereover.

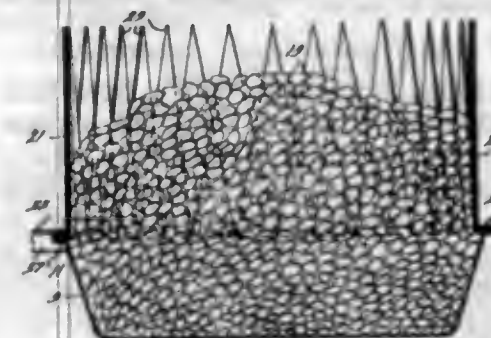
2,819,976

EXPANDABLE POPCORN PACKAGE

Eugene W. Hines, Lambeth County, Ontario, Canada

Application December 27, 1954, Serial No. 477,669

14 Claims. (Cl. 99—171)



1. A food package in which food may be cooked, including an open top pan type container in which the food to be cooked may be placed, cover means normally closing the top of said container and including a plurality of sheet sections hingedly secured at their outer edges with said container and extending inwardly from said outer edges toward each other, said sections normally being disposed in a generally flat plane and closing the top of said container and being actuatable to swing upwardly out of said plane to provide a package in which said container top will be open and said sections will be disposed in a generally upstanding position around the periphery of said container.

2,819,977

INFRARED TRANSMITTING FLUORIDE GLASS

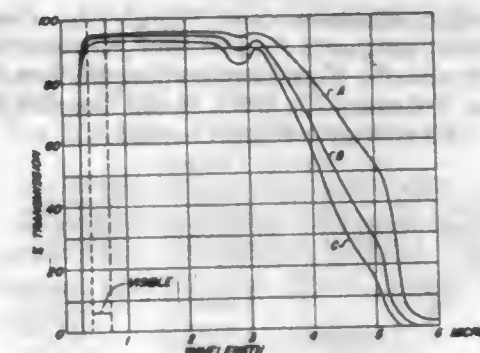
Paul F. De Paolis, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application July 1, 1955, Serial No. 519,539

2 Claims. (Cl. 106—47)

1. A glass resulting from fusion of a batch free of thorium and cerium, and consisting of fluorides includ-

ing the following fluorides in the percentages by weight given: magnesium 6 to 13 percent, aluminum 15 to 25



percent, beryllium 12 to 25 percent, lanthanum 2.5 to 10 percent, lead 2 to 10 percent and strontium 30 to 50 percent.

2,819,978

STABILIZED CELLULOSE ESTER PLASTICS

Harmon Long and John W. Tamblyn, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application September 13, 1955

Serial No. 534,173

10 Claims. (Cl. 106—178)

1. A cellulose ester plastic composition containing a small but effective amount of a stabilizer selected from the class consisting of copper 2,5-dihydroxy terephthalate and copper phenolate.

2,819,979

PLASTICIZERS FOR CELLULOSICS

Nelson G. Baumer, James Harper, and Gordon D. Hiatt, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application February 17, 1956

Serial No. 566,099

10 Claims. (Cl. 106—186)

1. A cellulose derivative selected from the group consisting of lower fatty acid esters of cellulose and lower alkyl ethers of cellulose containing only carbon, hydrogen, and oxygen in the molecule plasticized with a poly-nitrile selected from the class consisting of compositions having the following formula



in which n is a number from 2-8, the reaction product of reacting essentially completely acrylonitrile with glycerol and the reaction product of reacting essentially completely acrylonitrile with ethylene glycol.

2,819,980

PROCESS OF PRODUCING A COLD WATER SOLUBLE LAUNDRY STARCH AND THE PRODUCT THEREOF

Frank P. McCombs, Bexley, and Roy G. Hyldon, Columbus, Ohio, assignors to National Industrial Products Company, a corporation of Ohio

Application June 20, 1955, Serial No. 516,564

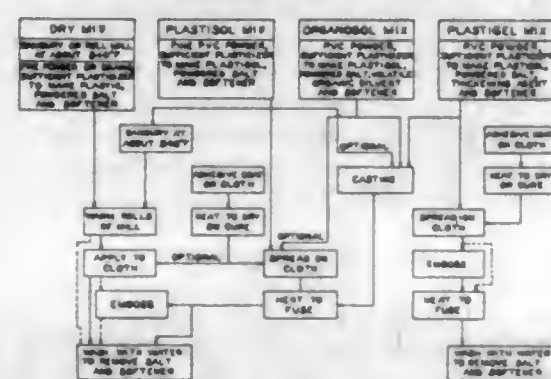
5 Claims. (Cl. 106—213)

1. A process of producing a cold water soluble laundry starch which consists of slurring a starch, adding borax in an amount corresponding to from 7% to 15% of the starch by weight, adjusting the pH of the mixture to a pH in the range of 3.5 to 6.5 by the addition of an acid, rolling the dispersion dry and sifting.

2,819,981

METHOD FOR MAKING FLEXIBLE, VAPOR-PERMEABLE, WATER-RESISTANT VINYL FILMS AND THE LIKE HAVING IMPROVED SLIP AND HAND

Robert E. Schornstheimer and Hugh P. Campbell, Marietta, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application February 23, 1955, Serial No. 490,142
12 Claims. (Cl. 117-11)



1. The method which comprises mixing together to form a nonaqueous polymeric composition a polymer of a monomeric material in which each monomeric constituent contains a single olefinic double bond and in which the predominant monomer is a haloethylene having from 1 to 2 halogen atoms on only one carbon atom, a plasticizer for said polymer, a water-soluble softener for said polymer and from about 50 to 300% by weight based on the weight of the polymer of a solid, finely-divided, nonhygroscopic water-soluble pore-forming material, forming a relatively thin continuous fused layer of said composition and treating said layer with an aqueous solution to remove said softener and said nonhygroscopic material to provide a slick and shiny, vapor-permeable, water-resistant layer of said polymeric composition with improved hand and slip characteristics, said softener and said plasticizer being present in a total amount of from about 30 to 200 parts by weight per 100 parts by weight of said polymer and said softener being present in a minor amount as compared to said plasticizer.

2,819,982

PRODUCTION OF SILVER MIRRORS BY VOLATILISATION

Willem Westerveld, Jan Willem Van Tjén and Bartholomeus Haes, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application October 29, 1953
Serial No. 389,156
Claims priority, application Netherlands November 15, 1952
3 Claims. (Cl. 117-35)

1. A method of producing silver mirrors comprising the steps, introducing an alloy of silver and a minute amount of silicon into a metallic filament consisting essentially of a refractory metal having a high melting point, and heating to incandescence said filament to evaporate the silver therefrom and deposit said silver on the surface of a body placed in the vicinity of said filament thereby to form a silver mirror on said body.

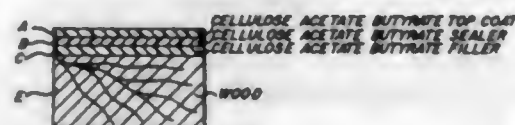
2,819,983

WOOD FINISHING LACQUER SYSTEMS

Martin Salo, Gerard J. Clarke, and John F. Gallagher, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
Application February 1, 1954, Serial No. 407,581
2 Claims. (Cl. 117-73)

1. An article comprising a wooden structure having thereon a ternary wood-finishing lacquer system having a

cellulose acetate butyrate base in each of the three components, a filler coat comprising 2-30 parts cellulose acetate butyrate, magnesium silicate and 10-30 parts of an adhesive resin selected from the class consisting of non-oxidizing pure short-oil alkyd resins, semioxidizing pure medium-oil alkyd resins, vinyl chloride-acetate-dibasic acid copolymers, aryl sulfonamide-formaldehyde conden-

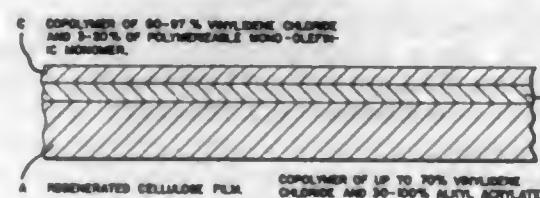


sate, and terpene acetate-rosin-coester, a sanding sealer comprising 10-100 parts of cellulose acetate butyrate, 90-10 parts of a rosin maleic acid condensate, and a plasticizer, a top coat comprising 40-90 parts cellulose acetate butyrate, a plasticizer selected from the class consisting of dibutyl phthalate and dioctyl phthalate, and 10-30 parts of a hard resin selected from the class consisting of Damar, ester gum, an oxidizing short-oil alkyd resin and a rosin-modified alkyd phenolic resin.

2,819,984

REGENERATED CELLULOSE PACKAGING MATERIALS AND PROCESS OF MAKING SAME

Hervey Winfield Ackerman, Jr., Grand Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application November 22, 1954, Serial No. 470,551
12 Claims. (Cl. 117-76)

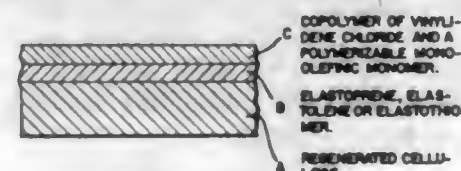


1. A packaging film comprising a base film of regenerated cellulose having at least one surface coated with a subcoating comprising a copolymer obtained from up to 70% of vinylidene chloride and 30-100% of an alkyl acrylate, wherein the alkyl group contains at least 2 carbon atoms and a top coating comprising a copolymer obtained from 80-97% vinylidene chloride and from 3-20% of at least one polymerizable mono-olefinic monomer copolymerizable with vinylidene chloride.

2,819,985

REGENERATED CELLULOSE PACKAGING MATERIALS AND PROCESS

Walter Herbert Cobbs, Jr., Grand Island, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application December 9, 1954, Serial No. 474,265
20 Claims. (Cl. 117-76)

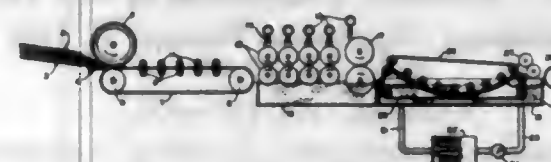


1. A packaging film comprising a base film of regenerated cellulose having at least one surface coated with a subcoating comprising an elastomer selected from the group consisting of elastoprene, elastolene and elastothiomers, and a top coating comprising a copolymer obtained from 80-97% vinylidene chloride and 3-20% of at least one other polymerizable mono-olefinic monomer copolymerizable with vinylidene chloride.

2,819,986

LOW FRICTIONAL DRAG COATED PAPER PRODUCTS AND METHOD OF PREPARATION THEREOF

David G. Edwards, Concord, and Melvin C. Edlund, Berkeley, Calif., assignors to Fibreboard Paper Products Corporation, a corporation of Delaware
Application July 26, 1954, Serial No. 445,726
5 Claims. (Cl. 117-92)



1. The method of reducing frictional resistance between a surface and an adjacent sheeted paper blank having a water insoluble substantially solid protective coating composed primarily of wax in order to enhance relative movement between said surface and said coating and to protect said coating against scuffing, which consists essentially in forming on such coating of said paper blank a film of a lubricating agent by applying to said coating an organic liquid compound which is essentially insoluble in and softer than said coating and which is substantially non-volatile, and retaining said organic liquid lubricating agent as a discrete film on such coating to provide reduced frictional resistance to movement between contacting areas of such coated paper blank and to reduce chattering and frictional resistance between said coated paper blank and machinery for handling such paper blank.

2,819,987

FRICTION MATERIAL

Theodore Malerson, Dayton, Robert A. Todd, Trotwood, and Harold W. Schultz, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
No Drawing. Application May 3, 1956
Serial No. 582,318
5 Claims. (Cl. 117-140)

1. A friction facing adapted to be coextensively attached to a strong metal backing, comprising in combination; a porous sheet of felted material, each fiber thereof being bonded together and coated over with a phenol formaldehyde base resin, said sheet including interconnecting pores therein, said porous sheet comprising a combination of comminuted cotton stock in quantities of from 45 to 55%, leather dust and asbestos, each in quantities of from 9 to 11%, together with an inorganic absorbent filler and red iron oxide each in quantities of from 13.5 to 16.5%.

2,819,988

REGENERATED CELLULOSE CORDAGE

Robert R. Smith, Wilmington, Del., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application June 2, 1955, Serial No. 512,857
14 Claims. (Cl. 117-145)



1. A regenerated cellulose multi-filament strand comprising filaments coated with a composition which comprises, based on the weight of the composition, from 50 to 75 percent of a substance from the class consisting of pitches of coal and petroleum origin and mineral asphalts, 20 to 40 percent of a substance from the class consisting of rosin ester gum, maleic anhydride-modified

rosin, and rosin modified with pentaerythritol, and from 6 to 20 percent of a hard wax, said composition imparting to the strand increased knot strength.

2,819,989

DYNAMOELECTRIC BRUSH

Edwin F. Kiefer, St. Mary's, Pa., assignor to Stackpole Carbon Company, St. Mary's, Pa., a corporation of Pennsylvania
No Drawing. Application June 26, 1956
Serial No. 593,833
2 Claims. (Cl. 117-228)

1. A dynamoelectric brush comprising a carbon body impregnated with a material selected from the group consisting of polyethylene glycol borate and ethylene glycol borate.

2,819,990

TREATMENT OF SEMICONDUCTIVE BODIES

Calvin S. Fuller, Chatham, and Howard Reis, Maplewood, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 26, 1956, Serial No. 580,909
8 Claims. (Cl. 148-1.5)



1. In the manufacture of a semiconductor device, the steps of preparing a semiconductor body at least one portion of which includes a first conductivity-type determining impurity and a second conductivity-type determining impurity of type opposite to the first impurity and which forms stable ion-pair bonds with the first impurity in a temperature range, where the first impurity has a significant diffusion rate in said body, said ion-pair bonds being stable in the operating temperature range of said device, heating at least one portion of the body to a temperature in the range of thermal dissociation of the ion-pair bonds for a time to redistribute the first impurity to form a rectifying junction in the body, said range of thermal dissociation being below the temperature at which thermal degradation of said body becomes appreciable, and thereafter reducing the temperature below the temperature of thermal dissociation of the ion-pair bonds to stabilize the rectifying junction.

2,819,991

CARBURIZED THORIATED TUNGSTEN ELECTRODE AND METHOD OF ENHANCING ITS EMISSIVITY

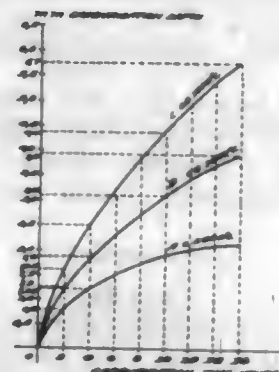
Willis E. Harbaugh, Bareville, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application August 30, 1952, Serial No. 307,295
9 Claims. (Cl. 148-13.1)



1. The method of making a thoriated tungsten filamentary cathode electrode, said method comprising the steps of carburizing said electrode, heating said electrode to approximately 1600° C., and applying axial tension to stretch said electrode beyond its elastic limit approximately one-half of one percent of its length.

2,819,992

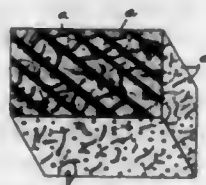
CARBURIZATION OF IRON AND STEEL
 Carl Albrecht, Kronberg, Germany, assignor to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler, Frankfurt am Main, Germany
 Application April 27, 1956, Serial No. 581,126
 Claims priority, application Germany April 27, 1955
 3 Claims. (Cl. 148—15.5)



1. A method of carburizing ferrous metals which comprises introducing such ferrous metals into a fused salt bath essentially consisting of a fusion of a mixture of 75 to 95% of barium chloride and 25 to 5% of an alkali metal cyanide maintained at a temperature of at least 1000° C.

2,819,993

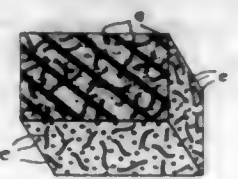
POROUS AND FOAMY SPONGELIKE MATERIALS
 Thurlow G. Gregory, Cleveland Heights, Ohio
 Application July 22, 1955, Serial No. 523,694
 3 Claims. (Cl. 154—54)



1. A cord re-enforced sponge rubber article, comprising a mass of sponge rubber having independent, disconnected, short lengths of cord of fibrous organic material dispersed in random relationship throughout the entire body of said mass, said cords being within the range of one-fourth of one inch and four inches in length when straightened full length and between approximately one one-hundredth of one inch and approximately one-sixteenth of one inch in diameter, whereby said short lengths of cords tend to move relative to one another while embedded in said mass, when it is stretched in any direction and resist tearing of said article.

2,819,994

POROUS AND FOAMY SPONGELIKE MATERIALS
 Thurlow G. Gregory, Cleveland Heights, Ohio
 Application July 22, 1955, Serial No. 523,695
 1 Claim. (Cl. 154—54)



An elastically re-enforced sponge rubber article, comprising a mass of sponge rubber having short lengths of independent, disconnected, randomly arranged rubber cords wholly embedded within and throughout so as to form an elastic means for re-enforcing the mass, whereby

the respective cords may stretch independently as a group from end to end while still remaining embedded within the mass as it is stretched in any direction.

2,819,995

INSECT REPELLENT STICKS

Helen E. Wassell, Pittsburgh, Pa., assignor to Union Carbide Corporation, a corporation of New York
 No Drawing. Application February 18, 1954
 Serial No. 411,287

6 Claims. (Cl. 167—42)

5. An insect repellent stick consisting essentially of from about 65 to 75 parts of an insect repellent, from about 18 to 23.4 parts of fatty acid, and from about 7 to 11.6 parts of ozokerite wax, the repellent comprising about 30 percent 2-ethylhexanediol-1,3 and about 70 percent of a member selected from the group consisting of 2-ethylhexanediol-1,3, ortho-dimethyl phthalate, 2-cyclohexylcyclohexanol, 2-phenylcyclohexanol and mixtures thereof, the fatty acid being a mixture of stearic acid and palmitic acid containing from about 26 parts to 70 parts of stearic acid, all parts by weight, said stick being substantially free of water and alcohol.

2,819,996

STABILIZED PESTICIDAL EMULSIFIER COMPOSITION

Gerard C. Riley, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application November 23, 1955
 Serial No. 548,759

16 Claims. (Cl. 167—42)

1. An insecticidal composition comprising 10% to 90% by weight of an oil solvent essentially consisting of hydrocarbons boiling within the range of 176° to 760° F., 3% to 10% by weight of emulsifying material comprising at least one alkylene oxide condensate type of emulsifier containing at least one group selected from the group consisting of oxyethylene and oxypropylene groups, an unsaturated bicyclic terpene selected from the group consisting of α -pinene, β -pinene, α -thujene, and sabinene as a stabilizer in an amount of 10% to 50% by weight of the total alkylene oxide condensate component of the emulsifying material, and 4% to 60% by weight of a member of the group consisting of Chlordane and chlorinated bicyclic terpenes as an active agent.

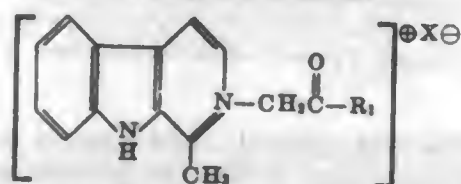
2,819,997

QUATERNARY SALT DERIVATIVES OF HARMAN
 William M. McLamore, Kew Gardens, N. Y., assignor to Chas. Pfizer & Co., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Original application January 30, 1956, Serial No. 562,026. Divided and this application March 1, 1957, Serial No. 643,244

5 Claims. (Cl. 167—65)

1. A compound having the formula



wherein R₁ is selected from the group consisting of a lower hydrocarboxy group containing up to six carbon atoms and the —NHCH₂CH₂NL₂ group wherein L is a lower alkyl group containing up to three carbon atoms; and X is a pharmacologically acceptable anion.

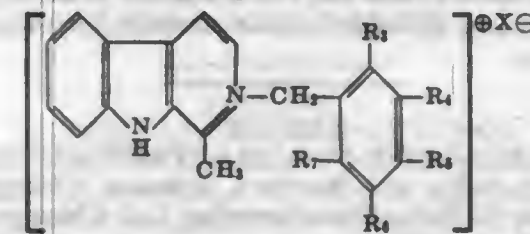
2,819,998

QUATERNARY SALT DERIVATIVES OF HARMAN
 William M. McLamore, Kew Gardens, N. Y., assignor to Chas. Pfizer & Co., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Original application January 30, 1956, Serial No. 562,026. Divided and this application March 1, 1957, Serial No. 643,254

4 Claims. (Cl. 167—65)

1. A compound having the formula:



wherein from two to four of the substituents R₂, R₄, R₅, R₆, and R₇ are hydrogen and each remaining substituent is selected from the group consisting of halogen and a lower hydrocarboxy group containing up to six carbon atoms, and X is a pharmacologically acceptable anion.

2,819,999

PROCESS FOR CRYSTALLIZATION OF INSULIN USING FREEZE DRIED INSULIN AS SEEDING MATERIAL

Jørgen Schlichtkrull, Copenhagen, and Inger Merete Nørting, Charlottenlund, Denmark, assignors to Novo Terapeutisk Laboratorium A/S, Copenhagen, Denmark, a limited liability company of Denmark

No Drawing. Application November 12, 1954

Serial No. 468,542

Claims priority, application Denmark November 13, 1953
 9 Claims. (Cl. 167—75)

1. In a process of producing insulin crystals from an aqueous insulin-containing medium by adjusting the pH of said medium to a value between 5 and 7, said medium containing at least one metal selected from the group consisting of zinc, cobalt, nickel, cadmium, copper, manganese and iron in bivalent form, the step which comprises adding freeze-dried insulin to said medium before the crystals begin to be formed, whereby the insulin crystals appear in the form of individual crystal bodies of substantially the same size.

2,820,000

DENTIFRICE COMPRISING DIATOMACEOUS SILICA

Alfred Menzies, Los Angeles, Calif.

No Drawing. Application April 3, 1953

Serial No. 346,791

4 Claims. (Cl. 167—93)

1. A dental cleansing composition, comprising a major portion of diatomaceous silica and a minor portion of a dry powdered soap, said silica being pure to the extent of containing in excess of 90% SiO₂, said silica having a particle size distribution such that the entire silica will pass a 300-mesh screen and not more than about 10% thereof has a particle size of under 2 microns, all the ingredients of said composition having a hardness value less than dental enamel.

2,820,001

RECTIFICATION PROCESS

Willem J. D. Van Dijk, The Hague, and Pieter L. Kooljman, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Original application July 28, 1947, Serial No. 764,240, now abandoned. Divided and this application January 19, 1953, Serial No. 331,952

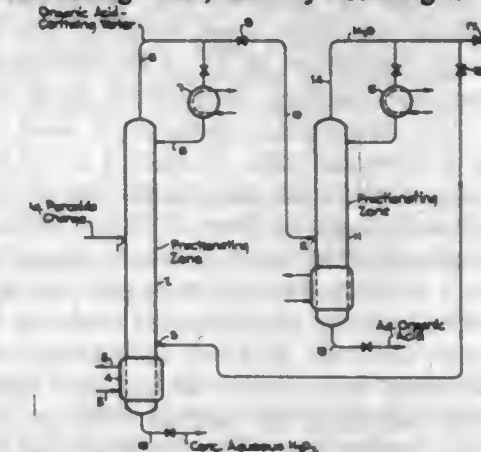
Section 1, Public Law 690, August 8, 1946

Patent expires April 6, 1963

3 Claims. (Cl. 202—46)

1. The process for the recovery of hydrogen peroxide free of any substantial amount of organic impurities

from an aqueous mixture comprising formic acid and hydrogen peroxide which comprises introducing said aqueous mixture into a fractionating zone at a point intermediate the points of removal of vapor overhead and liquid bottoms, introducing water vapor into said fractionating zone at a point intermediate the point of introduction of said aqueous mixture and the point of withdrawal of liquid bottoms, fractionating said aqueous mixture in the presence of said added water vapor in said fractionating zone, thereby forming a vapor fraction



comprising water vapor and formic acid and a liquid fraction comprising water and hydrogen peroxide free of any substantial amount of organic impurities in said fractionating zone, separately withdrawing said vapor fraction and said liquid fraction from the upper and lower parts respectively of said fractionating zone, condensing said vapor fraction withdrawn from the upper part of said fractionating zone, and returning a part of the condensed vapor fraction as reflux to the upper part of said fractionating zone.

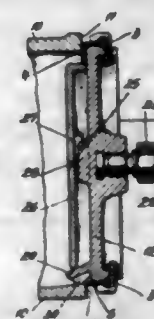
2,820,002

CLOSURE ARRANGEMENT FOR THE PLANISHING OPENING OF HORIZONTAL COKE OVEN CHAMBERS

Ernst Wolff, Bochum-Linden, Germany

Application August 1, 1951, Serial No. 239,718

Claims priority, application Germany August 2, 1950
 3 Claims. (Cl. 202—248)



1. A closure arrangement for the planishing opening of horizontal coke oven chambers, which comprises in combination, a frame confining the planishing opening including sealing means, a closure member, sealing means mounted on said closure member and adapted when said closure member is placed into closing position for closing said planishing opening to contact the sealing means of said frame, at least one of said sealing means being metallic and one of said sealing means being frictionally held in its respective position, first guiding means connected to that side of said closure member which faces said frame, a fire screen provided with second guiding means slidably engaging said first guiding means to be slidably guided thereby, ledge means connected to the lower side of said closure member and extending below said fire screen so as to support the same, and locking means for pressing said first-mentioned sealing means and said second sealing means tightly against each other while locking said closure member to said frame.

2,820,003
COMPOSITIONS FOR SMOOTHENING METAL SURFACES AND PROCESSES FOR USING THE SAME

John E. Logan and Alexander Vujakla, Pittsburgh, Pa., assignors to Chem-Metals, Incorporated, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application April 19, 1955
 Serial No. 502,533

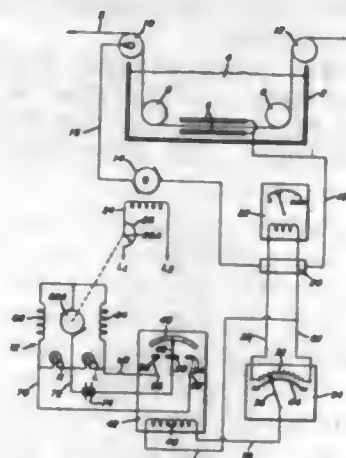
17 Claims. (Cl. 204—140.5)

17. In the process of reducing the roughness of the surface of a clean low alloy steel member, the surface having an average roughness of up to 30 microinches, to produce a smoother surface free from deep random scratches, the steps comprising applying at least once to the surface for a period of time of from 1 to 10 minutes an aqueous composition consisting essentially of aqueous sulfuric acid of a strength of from 50% to 78%, and a soluble nitrite dissolved in the aqueous sulfuric acid to provide from 0.1 to 2.5 ounces of NO_2 per gallon of the composition, the aqueous composition being at a temperature of from 155° F. to 215° F., thereby leveling the surface, washing with water the surface after each application, then polishing the surface with an abrasive substantially finer than 100 mesh to level the surface further, and then applying the aqueous composition at least once to the abrasive polished surface, the surface being washed with water after each application, thereby producing a surface of a roughness of less than 6 microinches and free from deep random scratches.

2,820,004
CURRENT DENSITY INDICATOR AND CONTROL
 George H. Rendel, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey

Application August 19, 1955, Serial No. 529,549

2 Claims. (Cl. 204—211)



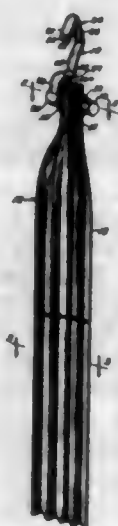
1. A current density indicator and control for a continuous strip processing line for removing material from said strip in which strips of different widths pass through an electrolyte comprising a generator for supplying current to said electrolyte, a field circuit for controlling the output of said generator, a rheostat in said field circuit for regulating the output of said generator, a potentiometer having a resistor and a movable arm, means connecting the ends of said resistor to the output of said generator, said arm being movable in proportion to the width of the strip being processed, an ammeter having a field, electrical means connecting one side of said field to said arm, electrical means connecting the other side of said field to one side of said resistor, a contact for said ammeter movable in proportion to the current on said ammeter, a pair of contacts associated with said ammeter and adapted to be selectively contacted by said movable contact as the current on said ammeter reaches a predetermined high or low limit, each of said pair of contacts being mounted for adjustment toward and away from said contact, a reversible motor for moving the arm of said

rheostat, a pair of fields for said motor, an electrical connection between one of said pair of contacts and one of said pair of fields, an electrical connection between the other of said pair of contacts and the other of said pair of fields, an electrical connection between the armature of said motor and each of the fields of said pair of fields, an electrical connection between said movable contact and said armature, and a power source for supplying current to said armature and one of the fields of said pair of fields when said movable contact contacts one of said pair of contacts.

2,820,005
LEAD ANODE FOR ELECTROPLATING
 William E. Belke and Harvie J. Johnson, Chicago, Ill., assignors to Belke Manufacturing Co., Chicago, Ill., a corporation of Illinois

Application February 28, 1955, Serial No. 490,774

6 Claims. (Cl. 204—286)



1. A lead anode assembly for electroplating comprising, a connector hook having an upper V-shaped formation for engaging on anode rod and effecting an electrical connection, said hook having a threaded bolt extending laterally from its lower end in a direction similar to the direction of the anode rod, a lead electrode mounted on said bolt and depending therefrom, and a threaded member on the threaded end of said bolt clamping the electrode between said threaded member and a shoulder at the other end of said bolt, the said electrode comprising a bar of lead alloy material having an aperture in its upper end, and having the rest of its body formed with a multiplicity of folds extending back and forth forming an elongated corrugated electrode, the said corrugations being substantially V-shaped in form with rounded apices, and the corrugations being deformed at the end about said aperture for said bolt until the corrugations are brought into firm engagement with each other.

2,820,006
PROCESS FOR THE PREPARATION OF GREASE COMPOSITIONS

John Bryant Matthews, Chester, and Sydney Dawtrey, Upton-by-Chester, England, assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

No Drawing. Application July 31, 1953

Serial No. 371,732

Claims priority, application Great Britain March 2, 1953

8 Claims. (Cl. 252—28)

1. In the process for the formation of grease compositions, wherein a hydrogel of an inorganic grease-forming colloid is mixed with a water immiscible lubricating oil of the group consisting of hydrocarbon oils and aliphatic esters of dicarboxylic acids and a hydrophobing proportion between 25% and 100%, based on the colloid, of a hydrophobic cationic surface-active agent, water is re-

moved therefrom and the remaining substantially anhydrous composition is homogenized, whereby a grease composition is formed, the improvement which comprises admixing with said oil and hydrogel a sufficient amount of a lower mono-hydric alcohol mutual solvent with the oil and water so as to maintain a single liquid phase at least at the temperature of water removal and until substantially all of the water and mutual solvent have been removed, the initial weight ratio of water to solvent being between about 5.6:94.4 and about 20:100.

2,820,007
LUBRICATING COMPOSITIONS
 Johan Leonard Van Der Milne and Pieter Hendrik Jan Hermanie, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 15, 1954

Serial No. 469,036

Claims priority, application Netherlands

November 24, 1953

3 Claims. (Cl. 252—33.3)

1. A stable water-in-mineral oil emulsion composition consisting essentially of at least 25% water and the balance being mineral oil containing totally from 0.05% to 0.5% by weight of calcium calculated on the oil phase of an additive combination of an oil-soluble basic calcium petroleum sulfonate and an oil-soluble basic calcium C_{12-18} alkylsalicylate, the water phase of the emulsion being free of water-soluble inorganic metal salts.

2,820,008
LUBRICATING GREASE COMPOSITION
 Harold A. Woods and Harvey M. Trowbridge, Martinez, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application April 22, 1955

Serial No. 503,340

9 Claims. (Cl. 252—33.3)

1. A grease composition comprising a mineral lubricating oil thickened to a grease consistency with an alkali metal soap of a hydroxy fatty acid having from 12 to 24 carbon atoms per molecule and between about 0.25% and about 5% by weight each of an oil-soluble alkaline earth metal basic sulfonate and a mono(unsaturated fatty acid) ester of a polyalkylene glycol said glycol having 5-20 alkylene radicals, said fatty acid having from about 12 to about 24 carbon atoms per molecule.

2,820,009
CORROSION RESISTANT LUBRICATING GREASE COMPOSITIONS

Joshua D. Smith and Harris L. Hendricks, New Orleans, La., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application May 17, 1955

Serial No. 509,103

9 Claims. (Cl. 252—33.3)

1. A lubricating composition comprising a mineral lubricating oil as the predominant constituent, the oil being thickened to a grease consistency with lithium 12-hydroxy stearate, said grease also containing about 1.5% calcium mahogany sulfonates, 0.5% sodium nitrite, 0.6% water and 1% phenyl- α -naphthylamine.

2,820,010
LUBRICATING COMPOSITIONS
 Roland Frederick Bergstrom and Harvey M. Trowbridge, Martinez, and Robert C. Jones, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application August 11, 1955

Serial No. 527,876

3 Claims. (Cl. 252—33.4)

1. A lubricating oil composition which is non-corrosive and wear resistant toward silver consisting essentially

of a major proportion of mineral lubricating oil containing from 1.2% to 2.4% of oil-soluble calcium petroleum sulfonate, from 1.0% to 1.5% of oil-soluble calcium salt of octyl phenol-formaldehyde condensation product, and from 0.2% to 0.4% each of phenyl- α -naphthylamine and 0.25% to 0.5% P_2S_5 treated chlorinated sperm oil.

2,820,011
LUBRICATING COMPOSITIONS
 Clarence Lynn Mahoney and Hyman Diamond, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application September 17, 1956

Serial No. 610,397

5 Claims. (Cl. 252—33.6)

1. A mineral lubricating oil composition comprising a major amount of an aromatic free, essentially isoparaffinic lubricating oil obtained by isomerizing a paraffin wax in the presence of an isomerizing catalyst at a temperature between 300° C. and 550° C. and thereafter dearomatizing the oil and incorporating therein from about 0.05% to about 5% of an oil-soluble cadmium dithiocarbamate and an oil-soluble copper salt in an amount from about 1 to about 200 parts per million as copper.

2,820,012
HIGH TEMPERATURE PHTHALAMATE GREASE COMPOSITIONS

Bruce W. Hotten, Orinda, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application December 14, 1954

Serial No. 475,299

16 Claims. (Cl. 252—33.6)

1. A grease composition comprising a major proportion of an oil of lubricating viscosity, and, in an amount sufficient to thicken said lubricating oil to the consistency of a grease, a metal salt of an N-organo phthalamide acid having at least one carbon atom of the benzene nucleus between the benzene carbon atom to which the amido radical is attached and the benzene carbon atom to which the carboxyl radical of said phthalamide acid is attached, and wherein said organo group is selected from the group consisting of: straight-chain, branched-chain, saturated and unsaturated hydrocarbon radicals containing from 1 to 22 carbon atoms, and cyclic saturated and unsaturated hydrocarbon radicals containing from 6 to 28 carbon atoms, said metal being selected from the group consisting of metals of groups I and II of Mendeleev's Periodic Table.

2,820,013
STABILIZED EXTREME PRESSURE LUBRICANT
 Paul R. Chapman and Allan A. Mantenuff, Crystal Lake, and George Wolfram, Des Plaines, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application January 13, 1956

Serial No. 558,830

10 Claims. (Cl. 252—46.7)

1. An extreme pressure lubricant which comprises a mineral oil, an extreme pressure additive comprising at least one phosphorized and sulfurized ester of a fatty acid and aliphatic alcohol, in amount sufficient to enhance the load-carrying properties of the oil, and a nitrogen-containing compound comprising at least one substance of the group consisting of aliphatic hydroxy amines having at least one carbon chain of at least 16 carbon atoms, aliphatic hydroxy amides having at least one carbon chain of at least 16 carbon atoms and aliphatic hydroxy amine salts, having at least one carbon chain of at least 16 carbon atoms, of fatty acids, said substance being present in an amount sufficient to improve the storage stability of said lubricant.

2,820,014

ESTER LUBRICANTS

James Hartley, Wirral, Thomas Henry Ramsay, Rockferry, and James Donald Shimmin, Little Sutton, England, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application May 2, 1955
Serial No. 505,532

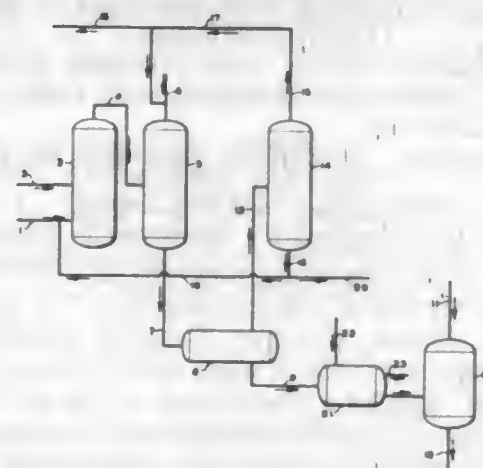
Claims priority, application Great Britain May 14, 1954
7 Claims. (Cl. 252-56)

1. A lubricating composition consisting essentially of a mixture of liquid esters, one of which is a diester of a branched chain alkane primary diol having from 4 to 18 carbon atoms per molecule with a straight chain saturated fatty acid having from 4 to 18 carbon atoms per molecule, and the other of which is a diester of a straight chain alkane di-primary diol having from 3 to 12 carbon atoms per molecule with a branched chain saturated fatty acid having from 4 to 18 carbon atoms per molecule, the mol ratio of the first diester to the second diester being between 65:35 and 2:98.

2,820,015

METHOD FOR PRODUCTION OF ALKARYL SULFONATE DETERGENT COMPOSITIONS

Fredrick M. Smith, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application November 25, 1949, Serial No. 129,476
8 Claims. (Cl. 252-161)



1. A process for producing an oil-free detergent composition comprising sulfonating a long-chain alkyl mononuclear aromatic hydrocarbon having from ten to fifteen carbon atoms in its alkyl group with one to three times its weight of concentrated sulfuric acid in a first sulfonating zone at a temperature between 40° and 120° F., admixing from two to ten weights of a short-chain alkyl mononuclear aromatic hydrocarbon having from four to eight carbon atoms in its alkyl group with each weight of the total effluent from said first zone, passing the resulting admixture to a second sulfonating zone and sulfonating in said second zone between 10 and 60 percent of said short-chain alkyl aromatic hydrocarbon with the excess of sulfuric acid contained in said effluent, separating the unsulfonated short-chain alkyl aromatic hydrocarbon from the sulfonated product to thereby concomitantly extract therewith unsulfonated higher boiling hydrocarbons from the said sulfonated product, and recovering the sulfonated product.

2,820,016

CORROSION INHIBITING COMPOSITION AND INDICATOR THEREFOR

Philip J. Raifsnider, Richmond, and Rita Wieland, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application June 30, 1954
Serial No. 440,524

5 Claims. (Cl. 252-408)

1. An indicator solution for the determination of nitrite compounds on papers containing a vapor phase cor-

rosion inhibiting nitrite, comprising the following ingredients in the stated proportions:

	Parts by weight
Water	75
Methyl alcohol	25
Methylene blue	0.2
Sodium formaldehyde sulfoxalate	0.5
Ascorbic acid	8

said solution being acidified to a pH value below about 5 with hydrochloric acid.

2,820,017

SOLUTIONS OF AN ALPHA-CHLORO-ACRYLONITRILE POLYMER STABILIZED WITH HYDROGEN CHLORIDE

Max Henry Dilke, Coulsdon, England, assignor to The Distillers Company Limited, Edinburgh, Scotland, a British company
No Drawing. Application January 19, 1954
Serial No. 405,047

Claims priority, application Great Britain

February 7, 1953

6 Claims. (Cl. 260-30.4)

1. A composition comprising an α -chloroacrylonitrile polymer dissolved in a solvent selected from the group consisting of tetrahydrofuran and ketones, said solvent containing dissolved therein free hydrogen chloride.

2,820,018

BUTADIENE ACRYLONITRILE COPOLYMER SOFTENED WITH LIQUID ALKYLACRYLATE-ACRYLONITRILE COPOLYMER PREPARED IN THE PRESENCE OF A POLYHALOMETHANE CHAIN TERMINATING AGENT

Howard K. Nason, St. Louis, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application December 27, 1955
Serial No. 555,227

3 Claims. (Cl. 260-31.8)

1. A vulcanized plasticized rubbery copolymer of butadiene and acrylonitrile characterized by high resistance to hydrocarbon solvents comprising butadiene-1,3-acrylonitrile copolymer rubber in admixture with a liquid plasticizer polymer having a molecular weight within the range of 2000-10,000 consisting of an addition polymer of one molecule of a copolymer of an alkyl ester of an acid selected from the group consisting of acrylic acid and methacrylic acid with 10 to 50 mole percent of a nitrile selected from the group consisting of acrylonitrile and methacrylonitrile and one molecule of a chain terminating agent consisting of polyhalomethane prepared by copolymerizing one molecular proportion of said ester with 0.1-0.5 molecular proportion of said nitrile in the presence of the said chain terminating agent the moles thereof exceeding the total moles of monomer present, the chain terminating agent containing at least three halogen atoms selected from the group consisting of chlorine and bromine.

2,820,019

PROCESS FOR PREPARING A CONCENTRATED ORGANIC COLLOIDAL POLYMERIC CHLORO-TRIFLUOROETHYLENE SUSPENSION

John Walker Eustance, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
No Drawing. Application June 5, 1953
Serial No. 359,961

14 Claims. (Cl. 260-34.2)

1. The process for preparing a concentrated organic colloidal polychlorotrifluoroethylene suspension which comprises adding a water-immiscible organic liquid compound which is substantially a non-solvent for the polymer at the temperature of transfer to a dilute aqueous

suspension of polychlorotrifluoroethylene, adding a strong electrolyte to the resulting two-phase system, agitating said system to flocculate said polychlorotrifluoroethylene and allowing said flocculated polychlorotrifluoroethylene to transfer from the aqueous phase to the organic phase by settling to a form a concentrated organic colloidal suspension.

2,820,020

ETHYLENICALLY UNSATURATED UREA COMPOUNDS, METHOD OF MAKING SAME, AND METHODS OF USING SAME

Borivoj Richard Franko-Filipasic, Niagara Falls, N. Y., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
No Drawing. Application September 13, 1954
Serial No. 455,799

17 Claims. (Cl. 260-45.4)

1. A N-polymethylene bis(N',N'-allylurea).

2,820,021

RESINS COMPRISING TETRAALLYLAMIDES OF DICARBOXYLIC ACIDS AND METHODS OF COATING THEREWITH

Borivoj Richard Franko-Filipasic, Niagara Falls, N. Y., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
No Drawing. Application September 13, 1954
Serial No. 455,800

8 Claims. (Cl. 260-45.4)

3. A polymer of an N, N, N', N'-tetraallylamide of an aliphatic dicarboxylic acid.

2,820,022

RESINOUS PRODUCTS FROM MANNICH BASES OF ALICYCLIC KETONES

Robert W. Martin, Lafayette, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application June 30, 1954
Serial No. 440,541

12 Claims. (Cl. 260-63)

1. A process for the manufacture of a resinous product which comprises mixing and reacting at about 0 to 100° C. a substance selected from the group consisting of hydrogen sulfide, a polymercaptan, and mixtures thereof with an alicyclic ketone containing 4 to 10 ring carbon atoms, one of which is the carbon atom of the carbonyl group, and having a hydrogen atom and the methylene carbon atom of a tertiary aminomethylene group linked directly to each of the two ring carbon atoms directly adjacent to the carbonyl group, in which reaction the sulfur atom of a sulfhydryl group from the first-mentioned reactant replaces the nitrogen atom in said tertiary aminomethylene group and the corresponding secondary amine is liberated.

2,820,023

ESTER INTERCHANGE REACTION USING A LANTHANUM CATALYST

Robert Morris Cavanaugh, Wilmington, Del., and Jane Bowen Dempster, Sunbury, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application November 15, 1954
Serial No. 468,992

10 Claims. (Cl. 260-75)

1. A process for the manufacture of esters of dicarboxylic acids, which comprises reacting at a temperature from 150° C. to about 290° C. a glycol of the general formula HO-(CH₂)_n-OH, in which n is a number not less than 2 and not greater than 10, with a compound from the group consisting of the dicarboxylic acids in which each carboxyl group has been esterified by an alcohol containing not more than four carbon atoms,

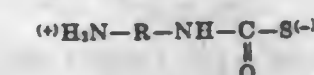
2,820,024

PREPARATION OF LINEAR POLY-UREAS

Gerrit Johann Meine van der Kerk, Utrecht, Netherlands, assignor to Nederlandse Organisatie voor Toegepast-Natuurwetenschappelijk Onderzoek ten behoeve van Nijverheid, Handel en Verkeer, The Hague, Netherlands, a corporation of the Netherlands
No Drawing. Application March 31, 1954
Serial No. 420,197

Claims priority, application Netherlands March 12, 1949
8 Claims. (Cl. 260-77.5)

1. A process for the preparation of a synthetic resin mass comprising reacting a diamine volatilizable under the vacuum and temperature conditions hereinafter specified, having the general formula H₂N-R-NH₂, wherein R is an aliphatic, non-functional, divalent group having at least four carbon atoms in the chain, with carbonoxysulfide and subsequently transforming the monothiocarbamate compound formed containing equimolecular amounts of thiocarbamic acid and amine groups and possessing the schematic molecular formula



into a linear polyurea derivative by heating the said monothiocarbamate compound to a temperature from about 100° C. to a final temperature of 150° to 230° C. under an absolute pressure of not more than 3 cm. of mercury and during and by means of said heating under vacuum, removing diamines and other volatile reaction products formed before these volatile products react further and inhibit the subsequent uniform polymerization, and continuing the heating until resin polymers having fiber-forming properties are obtained.

2,820,025

HOMOPOLYMERS FROM 2,2,2-TRIFLUORO-ETHYL VINYL ETHER

Calvin E. Schildknecht, Montclair, N. J., assignor to Air Reduction Company, Incorporated, New York, N. Y., a corporation of New York
No Drawing. Application February 8, 1954
Serial No. 409,057

13 Claims. (Cl. 260-91.1)

1. A high molecular weight, form-stable, non-tacky, rubberlike homopolymer of 2,2,2-trifluoroethyl vinyl ether.
2. The process for the preparation of high molecular weight, form-stable, non-tacky, rubberlike polymers of 2,2,2-trifluoroethyl vinyl ether which comprises polymerizing 2,2,2-trifluoroethyl vinyl ether with a Friedel-Crafts catalyst in a low boiling chlorine-containing solvent which promotes said polymerization selected from the group consisting of chloroform, methyl chloride, methylene chloride, and ethyl chloride, at a temperature ranging from about -40° C. to about -100° C.

2,820,026

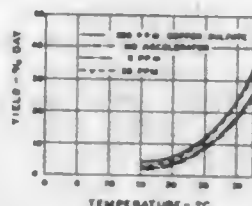
MANUFACTURE OF FLUORINE CONTAINING POLYMERS

Herbert J. Passino, Englewood, and Albert L. Dittman, North Bergen, N. J., and John M. Wrightson, Whittier, Calif., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware
Application June 11, 1953, Serial No. 360,892

13 Claims. (Cl. 260-92.1)

1. A process for the production of a normally solid fluorine-containing polymer which comprises polymeriz-

ing a substituted ethylene compound having at least 2 fluorine atoms in the molecule at a temperature above 0° C. and below 40° C. in the presence of an aqueous-suspension medium containing a water-soluble inorganic peroxide as a promoter, a water-soluble reducing agent



POLYMERIZATION OF ETHYLENE USING
WATER-SOLUBLE INORGANIC PEROXIDE AS PROMOTER

selected from the group consisting of alkali bisulfites, alkali hydrosulfites, alkali thiosulfates and trimethylamine as an activator and an amount of a water-soluble salt of copper as an accelerator within a range between about 1 and about 1000 p. p. m. calculated as copper.

2,820,027

POLYMERIZATION OF TRIFLUOROCHLORO-ETHYLENE

William E. Hanford, Short Hills, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application September 7, 1954
Serial No. 454,622

2 Claims. (Cl. 260—92.1)

1. A process for polymerizing trifluorochloroethylene monomer which comprises polymerizing the monomer in the presence of an organic peroxide promoter and at least about 40 percent by weight, based upon the weight of monomer charged, of a perfluorinated tertiary alkyl amine.

2,820,028

PROCESS FOR THE POLYMERIZATION OF MONOMERIC VINYL HALIDE COMPOUNDS TO UNIFORM HOMOGENEOUS GRANULES

Heinrich Wenning, Marl, Westphalia, Germany, assignor to Chemische Werke Hüls Aktiengesellschaft, a corporation of Germany

No Drawing. Application August 24, 1953
Serial No. 376,229

Claims priority, application Germany September 3, 1952

2 Claims. (Cl. 260—92.8)

1. Process for the polymerization of a monomeric vinyl compound to homogeneous, uniform granules which comprises polymerizing a vinyl compound of the general formula



in which X is a member of the group consisting of hydrogen and chlorine, in a homogeneous organic phase consisting essentially of the vinyl monomer and a water soluble organic solvent to a conversion of not more than 25%, adding water in quantity sufficient to cause the mixture to separate into three phases and continuing the polymerization.

2,820,029 NEW THIO-DERIVATIVES OF COLCHICEINE COMPOUNDS AND A PROCESS OF MAKING SAME

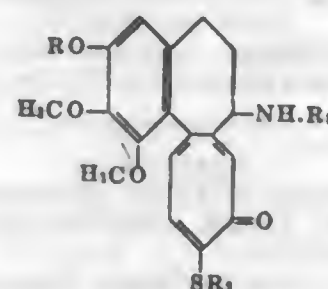
Georges Muller and Leon Velluz, Paris, France, assignors to U. C. L. A. F., Paris, France, a corporation of France

No Drawing. Application February 3, 1955
Serial No. 486,036

Claims priority, application France February 10, 1954

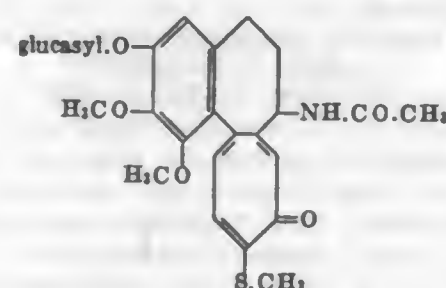
10 Claims. (Cl. 260—210)

1. As a new compound, a thiocolchicine compound of the formula



wherein R is a member selected from the group consisting of hydrogen, the methyl radical, the benzoyl radical, the glucosyl radical, and the tetraacetyl glucosyl radical. R1 is a member selected from the group consisting of hydrogen, the methyl radical, the lower alkanoyl, the benzoyl, and the carbethoxy radical, and R2 is a member selected from the group consisting of a lower alkyl radical and a hydroxyl (lower) alkyl radical.

3. Thiocolchicoside of the formula



2,820,030

CERTAIN 16,17-OXIDO-STEROIDS OF THE C₂₁ SERIES

Percy L. Julian, Oak Park, Edwin W. Meyer, Chicago, and Isabelle Waller, Northbrook, Ill., and William J. Karpel, deceased, late of Chicago, Ill., by Ruth Betty Karpel, legal representative, Chicago, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Original application February 8, 1950, Serial No. 143,146. Divided and this application February 21, 1957, Serial No. 641,767

6 Claims. (Cl. 260—239.55)

1. A steroid selected from the class consisting of 16,17-oxido-5-pregnene-3,21-diol-20-one, the acylates of 16,17-oxido-5-pregnene-3,21-diol-20-one in which the acyloxy group is the acyloxy group of a lower hydrocarbon carboxylic acid containing not more than seven carbon atoms, 16,17-oxido-4-pregnene-21-ol-3,20-dione and the esters of 16,17-oxido-4-pregnene-21-ol-3,20-dione with lower hydrocarbon carboxylic acids containing not more than seven carbon atoms.

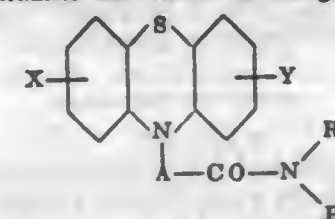
2,820,031 PHENOTHIAZINYL-ALKANOIC ACID-ALKYL AMIDES

Raymond Jacques Horclois, Malakoff, Jean Metivier, Arpaion, and Edouard Suau, Choisy-le-Roi, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application July 8, 1953
Serial No. 366,876

Claims priority, application France August 4, 1952
6 Claims. (Cl. 260—243)

6. A phenothiazine derivative of the general formula



where A is an alkylene group containing less than three carbon atoms, R1 and R2 when taken singly are each selected from the class consisting of hydrogen atoms and alkyl groups containing up to four carbon atoms at least one of them being an alkyl group containing up to four carbon atoms, and, taken together, represent a group selected from the class consisting of the piperidine group and the pyrrolidine group, and X and Y are selected from the class consisting of hydrogen atoms, halogen atoms, alkyl groups containing up to four carbon atoms and alkoxy groups containing up to four carbon atoms.

2,820,032

PREPARATION OF THIOAMMELINES

Eugene F. Hill, Birmingham, and Ernest Clinton, Huntington Woods, Mich.

No Drawing. Application April 21, 1954
Serial No. 424,766

3 Claims. (Cl. 260—249.5)

1. In a process for the preparation of a material selected from the group consisting of 2-chloro-4,6-aryl-amino-s-triazine and 2,4-dichloro-6-aryl-amino-s-triazine, comprising reacting cyanuric chloride with a substantially water-insoluble aromatic amine wherein said aromatic portion is selected from the group consisting of phenyl, naphthyl, alkyl phenyl, halo phenyl and alkyl halo phenyl groups and having at least one hydrogen attached to the amino nitrogen, the improvement which comprises intimately dispersing both reactants in substantially aqueous reaction medium containing as a surface active agent a metal salt of lignin sulfonic acid in an amount between about 0.2 and 2.0 weight percent of the total reaction mixture and conducting the reaction for a period of 30 minutes to 2 hours.

2,820,033

PREPARATION OF THIOAMMELINES

Donald W. Kaiser and Richard Parke Welcher, Old Greenwich, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 18, 1956
Serial No. 616,612

1 Claim. (Cl. 260—249.8)

As a new composition of matter: N-phenylthioameline.

2,820,034

ORGANIC COMPOUNDS

Fred Kagan, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 16, 1955
Serial No. 528,808

4 Claims. (Cl. 260—256.4)

1. A compound selected from the class consisting of 2-[(2-dimethylaminoethyl)(p-methoxybenzyl)amino]pyrimidine N-oxide and the acid addition salts thereof of pharmacologically acceptable acids.

2,820,035

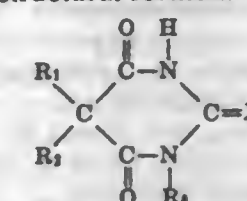
BARBITURIC ACID DERIVATIVES

Heinz Scheffler and August Kottler, Biberach (Riss), Germany, assignors to C. H. Boehringer Sohn, Ingelheim (Rhine), Germany, a partnership

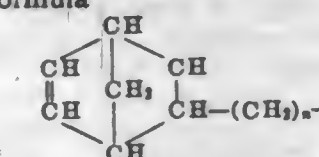
No Drawing. Application October 5, 1954
Serial No. 460,514

Claims priority, application Germany October 7, 1953
9 Claims. (Cl. 260—257)

1. As a product of manufacture, a barbituric compound having the structural formula



wherein R is a 2,5-endomethylene-Δ³-tetrahydrophenyl radical of the formula



wherein n is an integer from 0 to 3, inclusive, R2 is selected from the group consisting of alkyl radicals with from 1 to 6 carbon atoms and alkenyl radicals with from 1 to 6 carbon atoms, X is selected from the group consisting of oxygen, sulfur and the imino radical, and R4 is selected from the group consisting of hydrogen and methyl.

2,820,036

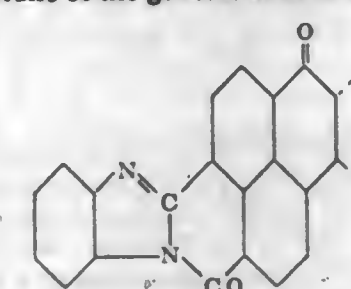
DYESTUFFS OF THE BENZIMIDAZO-BENZISO-QUINOLINES

Wilhelm Schmidt-Nickels, Little York, N. J., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 24, 1956
Serial No. 586,905

11 Claims. (Cl. 260—272)

1. Vat dyestuffs of the general structure:



wherein the two broken lines indicate the addition of ring systems formed from a cyclic compound selected from the group consisting of thionaphthene, carbazole, biphenylene sulfide and fluoranthene.

2,820,037

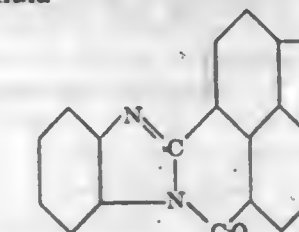
BENZIMIDAZOBENZISOQUINOLINES

Wilhelm Schmidt-Nickels, Little York, N. J., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 24, 1956
Serial No. 586,916

12 Claims. (Cl. 260—282)

1. A 4-substituted 1,8-naphthylene-benzimidazole of the general formula



where x is CN, COOH or COCl.

2,820,038

2-DIPHENYL-METHYL-PIPERIDINE

Karl Hoffmann and Jules Heer, Binningen, Ernst Sury, Basel, and Ernst Urech, Binningen, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application June 11, 1954

Serial No. 436,226

Claims priority, application Switzerland July 6, 1953

3 Claims. (Cl. 260-293)

1. 2-diphenylmethyl-piperidine.

2,820,039

1-(γ-BUTOXYPHENYL)-3-(γ-PYRIDYLPHENYL)-2-THIOUREAS

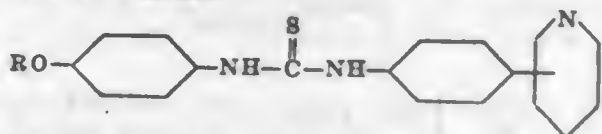
Leonard Doub, Pontiac, and David R. Herbst, Detroit, Mich., assignors to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application March 5, 1956

Serial No. 569,256

6 Claims. (Cl. 260-394.8)

1. A 1 - (p - butoxyphenyl) - 3 - (p - pyridylphenyl) - 2-thiourea of formula,



where R is a member of the class consisting of normal butyl and isobutyl groups.

2,820,040

SUBSTITUTED MONO-AMMONIUM SALTS

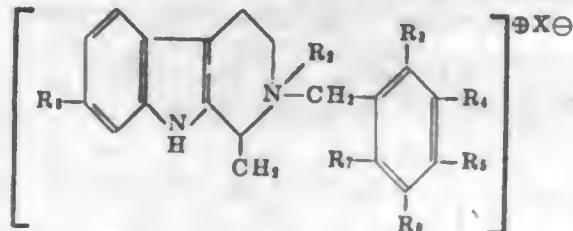
William M. McLaure, Kew Gardens, N. Y., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application January 30, 1956

Serial No. 562,026

8 Claims. (Cl. 260-296)

1. A compound having the formula:



wherein R₂ is selected from the group consisting of hydrogen and a lower aliphatic hydrocarbon group containing up to about six carbon atoms; at least two to four of R₃, R₄, R₅, R₆, and R₇ are hydrogen and the remainder are selected from the group consisting of a halogen atom and a lower hydrocarbonoxy group containing up to about six carbon atoms; R₈ is selected from the group consisting of hydrogen and a lower hydrocarbonoxy group containing up to about six carbon atoms; and X is a pharmacologically acceptable anion.

2,820,041

PREPARATION OF NITROPHENYLOXAZOLINES

Basil Jason Heywood, Dagenham, England, assignor, by mesne assignments, to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application November 16, 1951

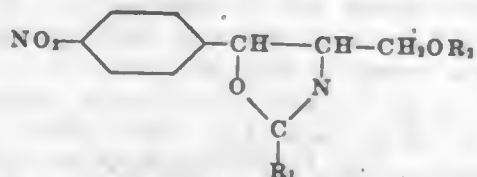
Serial No. 256,821

Claims priority, application Great Britain

November 22, 1950

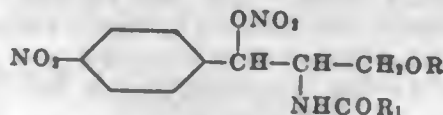
5 Claims. (Cl. 260-307)

5. Process for preparing an oxazoline having the formula



where R₁ is a member of the class consisting of methyl

and halogen substituted methyl groups and R₂ is a member of the class consisting of hydrogen, carboxylic acid acyl and carboalkoxy groups, which comprises cyclizing a substituted propane compound of formula



where R is a member of the class consisting of carboxylic acid acyl and carboalkoxy groups by reacting said substituted propane compound in an organic solvent medium with alkali metal hydroxide at a temperature below about 40° C.

2,820,042

2-(DIALKYLAMINOALKYLTHIO)BENZOXAZOLES AND PROCESSES FOR THEIR PRODUCTION

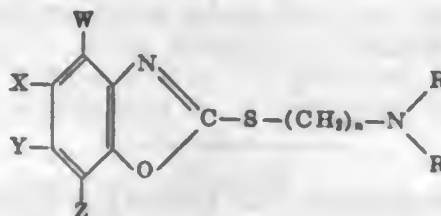
Leon Katz, Springfield, and Murray S. Cohen, Dover, N. J., assignors to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application March 7, 1955

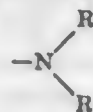
Serial No. 492,794

7 Claims. (Cl. 260-307)

1. A 2-(dialkylaminoalkylthio)benzoxazole of the group represented by the formula:



in which n is a small integer; W is a radical of the group consisting of hydrogen and methyl; Y is hydrogen; and one of the radicals X and Z is an alkyl radical containing not more than 8 carbon atoms and the other is a radical of the group consisting of hydrogen and chlorine; and



is selected from the group consisting of di-(lower alkyl)-amino radicals and the morpholino radical, and the hydrohalide and quaternary salts thereof with lower alkyl halides.

2,820,043

PREPARATION OF IMIDAZOLINE PROPIONIC ACID DERIVATIVES

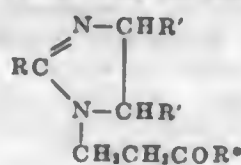
James L. Rainey, Abington, and William G. Rinear, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application October 26, 1954

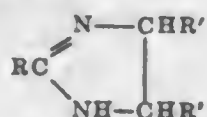
Serial No. 464,903

6 Claims. (Cl. 260-309.6)

1. A process for preparing an ester of the structure



in which R^{*} is a lower alkyl group from methyl to butyl, which comprises reacting by addition, without the benefit of added catalyst and at a temperature between 75° and 150° C., an alkyl acrylate in which the alkyl group has from 1 to 4 carbon atoms and an imidazoline, in dry powder form, of the formula



the R in both formulae being a hydrocarbon group of 9

2,820,046

OXIDATION OF FATTY ACIDS

**No Drawing. Application September 10, 1954
Serial No. 455,359**

14 Claims. (Cl. 260—406)

2,820,044
SEPARATION OF 21-ACYLOXY PREGNANE OR
ALLO-PREGNANE DERIVATIVES FROM MIX-
TURES CONTAINING THEM

William Graham, Greenford, England, assignor to Glaxo Laboratories Limited, Greenford, England, a British company

No Drawing. Application September 13, 1955

Serial No. 534,165

**Claims priority, application Great Britain
September 14, 1954**

11 Claims. (Cl. 260—397.45)

1. A process for the separation of a 21-acyloxy-3 β :17 α -dihydroxy-11:20-dioxoallopregnane in which the acyl radical of the acyloxy group is derived from a lower aliphatic acid containing from 2-8 carbon atoms from its mixture with a 3 β :17 α -dihydroxy-11:20-dioxoallopregnane unsubstituted at the 21-position, comprising reacting said mixture with a Girard reagent selected from the group consisting of carboxymethyltrimethyl ammonium chloride hydrazide and carboxymethylpyridinium chloride hydrazide and separating the unreacted 21-acyloxy compound from the Girard derivative of the unsubstituted allopregnane by difference in solubility.

2,820,045

1-(α -HYDROXYALKYL) ANDROSTENES AND PROCESS

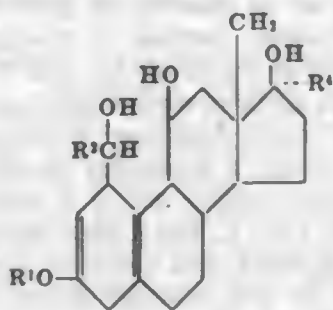
Barney J. Magerlein, Kalamazoo, and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application August 21, 1956

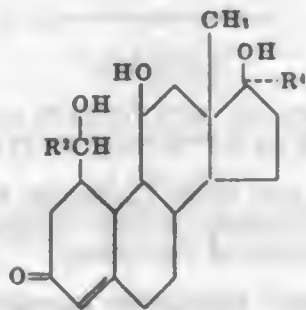
Serial No. 605,443

14 Claims. (Cl. 260—397.45)

1. An unsaturated 1-(α -hydroxyhydrocarbyl)-3-oxygenated-estrane-11 β ,17 β -diol selected from the group consisting of compounds of the formulae



and



wherein R¹O is hydrocarboxy containing less than twelve carbon atoms.



is α -hydroxyalkyl containing less than nine carbon atoms, and R^4 is selected from the group consisting of hydrogen and alkyl containing less than five carbon atoms.

1. Process for the production of mono- and dicarboxylic acids which comprises reacting oxygen with a solution of an unsaturated higher fatty acid containing from 10 to 24 carbon atoms, in which the unsaturation is ethylenic, and propanol, the ratio of said higher fatty acid to propanol being from about 2:1 to about 1:10, at a temperature of about 25 to 150° C.

7. Process for the production of azelaic and pelargonic acids which comprises reacting oxygen with a liquid body of oleic acid at a temperature of about 25 to 150° C., and, while said oleic acid is being oxidized, adding to said liquid body 9,10-dihydroxystearic acid, while maintaining in said liquid body, a minor concentration, insufficient to stop said oxidation reaction, of said 9,10-dihydroxystearic acid.

2,820,047

PRETREATMENT OF OILSEED MEATS

William H. King, Metairie, La., assignor to the United States of America as represented by the Secretary of Agriculture

**No Drawing. Application April 22, 1955
Serial No. 503,359**

5 Claims. (Cl. 260—412.3)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of pretreating oilseed meats in preparation for removal of oil therefrom, comprising forming a mixture containing the oilseed meats, from about 20% to 50% of the weight of said oilseed meats of a 1% to 10% aqueous solution of sodium hydroxide, and a water-miscible organic solvent selected from the group consisting of methanol and 2-propanol thereby obtaining a liquid solution in which the said oilseed meats are suspended as solid oilseed particles, separating the said oilseed particles from the liquid solution, and freeing the separated oilseed particles from entrained liquid to yield oilseed particles having a moisture content of between about 4% and 12%.

2,820,048

PROCESS FOR DEHYDROCHLORINATING POLY- CHLOROCYCLOHEXYLCHLOROSILANES

Arthur N. Pines, Snyder, and George H. Wagner, Clarence, N. Y., assignors to Union Carbide Corporation, a corporation of New York

**No Drawing. Application January 21, 1955
Serial No. 483,434**

15 Claims. (Cl. 260—448.2)

1. A process for dehydrochlorinating a polychlorocyclohexylchlorosilane to an unsaturated derivative thereof which comprises heating a polychlorocyclohexylchlorosilane in the presence of catalytic amounts of a compound taken from the group consisting of aluminum chloride, isoquinoline and isoquinoline hydrochloride to its boiling temperature to evolve hydrogen chloride and recovering an unsaturated derivative of said polychlorocyclohexylchlorosilane.

12. Unsaturated derivatives of polychlorocyclohexyltrichlorosilane taken from the group consisting of 2,4-cyclohexadienyltrichlorosilane, 3-chloro-4-cyclohexenyltrichlorosilane and 4-chloro-2-cyclohexenyltrichlorosilane.

2,820,049

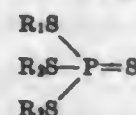
PREPARATION OF UNSYMMETRICAL TRIALKYL TETRATHIO-ORTHO-PHOSPHATES
 Carleton B. Scott, Pomona, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

No Drawing. Application February 13, 1956

Serial No. 564,887

11 Claims. (Cl. 260-461)

1. The process for preparing an unsymmetrical trialkyl tetrathio-ortho-phosphate having the formula:



wherein R_1 represents an alkyl group selected from the class consisting of methyl and ethyl, and R_2 represents a lower alkyl group different from that represented by R_1 , which comprises heating a mixture comprising an alkyl trithiomethaphosphate of the formula R_1SPS_2 , wherein R_1 has the meaning stated above, and an alkyl mercaptan of the formula R_2SH , wherein R_2 has the meaning stated above, at a reaction temperature and under sufficient pressure to maintain the components of said mixture in the liquid state, from about 2 to about 4 molecular equivalents of said mercaptan being employed per molecular equivalent of said alkyl trithiomethaphosphate.

2,820,050

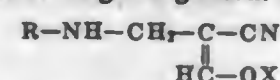
SUBSTITUTED PROPIONITRILES AND PREPARATION OF THE SAME
 Martin E. Hultquist, Boulder, Colo., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 22, 1955

Serial No. 523,927

8 Claims. (Cl. 260-465)

1. A compound having the general formula



in which R is a member of the group consisting of lower alkanoyl and benzoyl radicals and X is an alkali metal radical.

2,820,051

MONO-CYANOETHYLATED 2-NITROANILINE
 Saul R. Buc, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application April 10, 1956

Serial No. 577,199

1 Claim. (Cl. 260-465)

A process of preparing mono-cyanoethylated 2-aminoaniline which comprises reacting one mole of 2-nitroaniline with one mole of acrylonitrile in the presence of an inert solvent-diluent and in the presence of trimethylbenzyl ammonium hydroxide followed by the reduction of the nitro product to the corresponding o-amino, mono-cyanoethylated aniline.

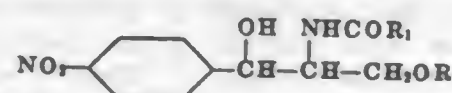
2,820,052

PRODUCTION OF CHEMICAL COMPOUNDS
 Basil Jason Heywood, Dagenham, England, assignor, by mesne assignments, to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

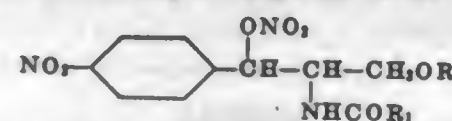
No Drawing. Original application November 16, 1951, Serial No. 256,821. Divided and this application February 23, 1956, Serial No. 569,666

4 Claims. (Cl. 260-466)

1. Process which comprises mixing a compound of formula



with concentrated nitric acid at a temperature below about 0° C. thereby producing a compound of the formula



where R is a member of the class consisting of carboxylic acid acyl and carboalkoxy groups and R_1 is a member of the class consisting of methyl and halogen substituted methyl groups.

2,820,053

TEREPHTHALAMATES

Bruce W. Hotten, Orinda, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application June 28, 1954

Serial No. 439,933

14 Claims. (Cl. 260-471)

1. Compounds having the general formula



wherein R is an aliphatic hydrocarbon radical having from 1-22 carbon atoms, and X is a member of the group consisting of hydrogen, a metal selected from the group consisting of alkali metals and alkaline earth metals, and an aliphatic hydrocarbon radical having from 1-22 carbon atoms.

2,820,054

SYNTHETIC LUBRICANTS

Alfred H. Matuszak, Westfield, and William E. McTurk, Elizabeth, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 17, 1954

Serial No. 416,942

2 Claims. (Cl. 260-481)

1. As a synthetic lubricant, a complex ester reaction product having a pour point below 35° F., a flash point above 375° F., and a viscosity at 210° F. in the range of 2 to 13 centistokes, formed by reacting an excess of an alcohol having in the range of 3 to 10 carbon atoms per molecule with carboxy methyl mercapto succinic acid, and then further reacting the ester so formed with a polyethylene glycol having a molecular weight of about 200, the reactions being carried out at a temperature in the range of 100° to 230° C. for a time sufficient for evolution of theoretical water, and said acid, glycol and alcohol being combined in said reaction product in the molar proportions of about 2/1/4.

2,820,055

MANUFACTURE OF ACETOXYPIVALIC ACID BY THE OXIDATION OF ACETOXYPIVALDEHYDE

John R. Caldwell and James C. Martin, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application January 27, 1955

Serial No. 484,553

3 Claims. (Cl. 260-491)

1. A process for obtaining acetoxypivalic acid from acetoxypivaldehyde comprising dissolving the acetoxypivaldehyde in a solvent selected from the class consisting of carbon tetrachloride, 1,2-dichloroethane, trichloroethane and tetrachloroethane, adding nitrogen dioxide, and refluxing the mixture from 2-3 hours.

2,820,056

ALKARYL SULFONATES

Kenneth R. Gerhart, Chicago, Ill., and Edward J. Karwacki, Baltimore, Md., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application July 2, 1954, Serial No. 440,966

1 Claim. (Cl. 260-505)

A method of producing an alkaryl sulfonate substantially free of inorganic salts which comprises reacting an alkaryl hydrocarbon with a sulfonating agent selected from the class consisting of sulfuric acid and oleum under sulfonating conditions, diluting the resulting alkaryl sulfonic acid reaction mixture with at least 1.5 parts by weight of an organic solvent selected from the group consisting of hexane, benzene, and toluene per part by weight of said alkaryl hydrocarbon, adding water thereto thus forming two layers, an upper organic layer comprising the alkaryl sulfonic acid, unsulfonated oil, and the organic solvent, and a lower inorganic layer comprising sulfuric acid and water wherein the amount of added water is sufficient to reduce the concentration of the sulfuric acid in said inorganic layer to within the range of 75-80 percent, separating the organic layer from the inorganic layer, recovering said sulfonic acid from said organic layer by extraction with an aqueous alcoholic solution, neutralizing said sulfonic acid and then recovering the alkaryl sulfonate.

2,820,057

KETENE REACTIONS

Arthur W. Schnitzer, Corpus Christi, Tex., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application April 1, 1955

Serial No. 498,758

4 Claims. (Cl. 260-544)

1. Process for the production of iodoacetyl chloride which comprises reacting ketene with iodine monochloride.

2,820,058

PRODUCTION OF KETENE

Oren V. Luke, Jr., Max O. Robeson and Wallace E. Taylor, Corpus Christi, Tex., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application June 15, 1953

Serial No. 361,864

6 Claims. (Cl. 260-585.5)

1. In a process for the production of ketene by vapor phase pyrolysis, the steps which comprise passing the vapors of acetic acid and a pyrolysis catalyst through a reactor comprising steel alloy containing between about 3 and 4% of molybdenum, between about 17 and 20% of chromium and between about 8 and 12% of nickel, and maintained at a pressure of up to about 20 pounds per square inch gauge, at a temperature of between about 625 and 750° C., and controlling the flow so that the vapors remain in the reactor between about 0.01 and 5.0 seconds.

2,820,059

IMPROVED HYDROFORMYLATION CATALYSTS AND REACTION MEDIA CONTAINING NITROGEN BASES

Robert H. Hasek and Clyde W. Wayman, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application April 18, 1956

Serial No. 578,895

16 Claims. (Cl. 260-604)

1. In a process for producing an aldehyde by hydroformylation of an olefinic compound, the improvement which comprises reacting said olefinic compound with carbon monoxide and hydrogen at an elevated temperature and an elevated pressure in a liquid phase comprising

a cobalt catalyst, at least 10% by weight of said catalyst being in the form of a cobalt carbonyl, an organic solvent containing only carbon, hydrogen and oxygen, said solvent being inert to said cobalt catalyst and to products of said hydroformylation reaction, and a monofunctional nitrogen-containing compound selected from the group consisting of organic bases having an ionization constant less than 10^{-4} and carboxylic acid salts of said organic bases, the mole ratio of said nitrogen-containing compound to said cobalt catalyst being within the range of 0.5 to 50.

2,820,060

PREPARATION OF ORGANIC THIOLS

Hillis O. Folkins, Crystal Lake, and Elmer L. Miller, Cary, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application July 23, 1954

Serial No. 445,481

8 Claims. (Cl. 260-609)

1. In the method for producing an organic thiol by the reaction between hydrogen sulfide and a C_1-C_{16} monohydric alcohol selected from the group consisting of alkanols, monocyclic aryl-substituted alkanols and monocyclic aralkyl-substituted alkanols, at a temperature within the range of 300-930° F. and at a suitable mol ratio of hydrogen sulfide to alcohol to effect the production of said thiol as the principal product of said reaction, the improvement which comprises conducting said reaction in the presence of an activated alumina catalyst containing, as an activity-promoting agent, about 0.5% to 15% by weight, based on the catalyst composition, of at least one alkali metal oxide.

2,820,061

PREPARATION OF ORGANIC THIOLS

Hillis O. Folkins, Crystal Lake, Elmer L. Miller, Cary, and Adolph Kempf, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application July 28, 1954

Serial No. 446,398

12 Claims. (Cl. 260-609)

1. In the method for producing organic thiols by the reaction between hydrogen sulfide and a C_1-C_{16} monohydric alcohol, selected from the group consisting of alkanols monocyclic aryl-substituted alkanols, and monocyclic aralkyl-substituted alkanols, at a temperature within the range of about 300-930° F., at a suitable mol ratio of hydrogen sulfide to alcohol to effect the production of said thiol as the principal product of said reaction, the improvement which comprises conducting said reaction in the presence of an activated alumina containing about 0.5 to 15% by weight of at least one activity-promoting agent selected from the group consisting of the carbonates, phosphates, halides, sulfides and sulfates of the alkali metals in an amount sufficient to enhance the catalytic activity of said alumina.

2,820,062

PREPARATION OF ORGANIC THIOLS

Hillis O. Folkins, Crystal Lake, Elmer L. Miller, Cary, and Adolph Kempf, Crystal Lake, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application August 11, 1954

Serial No. 449,256

15 Claims. (Cl. 260-609)

1. In a method for producing organic thiols by the reaction between hydrogen sulfide and a C_1-C_{16} monohydric alcohol, selected from the group consisting of alkanols monocyclic aryl-substituted alkanols, and monocyclic aralkyl-substituted alkanols, at a temperature within the range of 300-930° F. and at a suitable mol ratio of hydrogen sulfide to alcohol to effect the product of said thiol as the principal product of said reaction, the improvement which comprises conducting said reaction in

the presence of activated alumina catalyst containing as an activity-promoting agent 1.5% to 15% by weight, based on the catalyst composition, of at least one alkali metal salt of an oxy-acid of a metal selected from the group consisting of tungsten, chromium, molybdenum, uranium, vanadium, and manganese.

2,820,063

PRODUCTION OF ORGANIC THIOLS FROM ETHER AND HYDROGEN SULFIDE OVER PROMOTED ALUMINA CATALYSTS

Hillis O. Folkins, Crystal Lake, and Elmer Miller, Cary, Ill., assignors to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

No Drawing. Application October 15, 1954

Serial No. 462,609

11 Claims. (Cl. 260-609)

1. A method for producing a C_1-C_8 aliphatic, organic thiol by the reaction between hydrogen sulfide and a saturated aliphatic ether having the general formula $R-O-R$ where R is an alkyl substituent having not more than 8 carbon atoms, which comprises reacting hydrogen sulfide under the following conditions:

Temperature ----- ° F. 400-800
Ether/ H_2S , mol ratio ----- 2-5:1
Liquid volume hourly space velocity ----- 0.3-5

in the presence of a catalyst consisting essentially of a major portion of activated alumina having incorporated therein about 1-20% by weight of at least one promoting agent selected from the group consisting of the tungstates, chromates, molybdates, and carbonates of the alkali metals.

2,820,064

AUTOXIDATION OF HYDROCARBONS

Joseph L. Greene, Jr., and Hugh J. Hagemeyer, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 24, 1953

Serial No. 363,938

5 Claims. (Cl. 260-610)

5. As a new product, α,α' -dihydroperoxy-p-di-sec-butylbenzene.

2,820,065

2,4-DI-(TERTIARY-BUTYL)-6-CHLOROANISOLE

Harold R. Slach, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 19, 1956

Serial No. 560,079

1 Claim. (Cl. 260-612)

2,4-di-(tertiary-butyl)-6-chloroanisole.

2,820,066

SEPARATION OF MIXTURES OF PENTAERYTHRITOL AND DIPENTAERYTHRITOL

Wallace E. Taylor, Corpus Christi, Tex., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application May 27, 1954, Serial No. 432,791

20 Claims. (Cl. 260-615)



8. Process for the separation of monopentaerythritol and dipentaerythritol from a mixture thereof, which comprises boiling an aqueous solution containing dipentaerythritol and at least 3 parts, by weight, of monopentaerythritol per part of dipentaerythritol to evaporate water

therefrom and to precipitate monopentaerythritol therefrom, the evaporation of water being carried out until the ratio, by weight, of monopentaerythritol to dipentaerythritol in the solution is reduced to not more than about 2.9:1 but not so far as to cause the substantial precipitation of dipentaerythritol therefrom, separating the precipitated monopentaerythritol from the solution, diluting the solution with water and cooling the solution sufficiently to cause the precipitation of dipentaerythritol therefrom, without substantially precipitating monopentaerythritol, and to produce a solution in which the ratio, by weight, of monopentaerythritol to dipentaerythritol is at least 3:1, the temperature to which the solution is cooled being at least about 60° C., separating the precipitated dipentaerythritol from the remaining solution, and subjecting said remaining solution, together with a fresh feed mixture comprising an aqueous solution of monopentaerythritol and dipentaerythritol, to said boiling and separating steps to produce further quantities of monopentaerythritol, the ratio of monopentaerythritol to dipentaerythritol in the total feed supplied to said boiling step being at least 3:1.

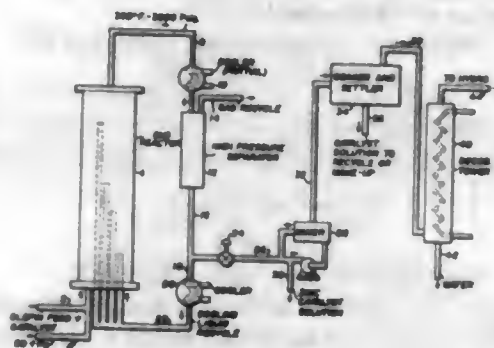
2,820,067

PREPARATION OF HIGH MOLECULAR WEIGHT ALCOHOLS

Joseph K. Mertzweiler, Baton Rouge, Neville L. Cull, Baker, and Edward A. McCracken, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application December 30, 1953, Serial No. 401,234

9 Claims. (Cl. 260-638)



1. In a process wherein olefins having n carbon atoms in the molecule are converted to an oxygenated reaction product comprising aldehydes by reaction with hydrogen, carbon monoxide and a cobalt carbonylation catalyst at elevated temperatures and pressures, and said reaction product converted to an alcoholic product, the improvement which comprises heating said oxygenated reaction product with a zinc comprising material for 2 to 48 hours at a temperature of from about 200°-450° F., hydrogenating said treated product, and recovering a product comprising monohydric primary alcohols having $2n+2$ carbon atoms.

2,820,068

MANUFACTURE OF HALOGEN COMPOUNDS

George L. Cunningham, Cleveland Heights, Ohio, assignor to Horizons Incorporated

No Drawing. Application March 9, 1955

Serial No. 493,310

4 Claims. (Cl. 260-659)

1. In a process for producing halogenated hydrocarbons which comprises: bringing into contact an alkali metal halide in solid form and a hydrocarbon in the presence of sulfur trioxide at an elevated temperature in a first reaction zone; maintaining the reactants therein at an elevated temperature whereby a halogen substituted hydrocarbon, sulfur dioxide and a hydrogen halide are produced as gaseous reaction products and an alkali metal sulfate is produced as a nongaseous reaction product; withdrawing the gaseous products mixture; recovering the

halogen substituted hydrocarbon from the gaseous products in a first separation; recovering an aqueous solution of the hydrogen halide content of said gaseous products in a second separation; and withdrawing the alkali metal sulfate in molten form from said zone; the improvement which comprises: cooling the molten alkali sulfate sufficiently to solidify the sulfate and then adding the solid alkali metal sulfate to the separated aqueous solution of hydrogen halide in an amount substantially sufficient to convert substantially all of the alkali metal sulfate to alkali metal halide; cooling the resulting solution to room temperature to precipitate the alkali metal halide formed therein; separating the alkali metal halide precipitate from said solution; and recycling said precipitated alkali metal halide to said first reaction zone in a repetition of the process.

2,820,069

PROCESS FOR PREPARING CHLORO-2,3,4-TRIMETHYLPENTANES

Robert A. Sanford, Park Forest, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 22, 1953

Serial No. 363,388

4 Claims. (Cl. 260-663)

1. A method of preparing a chloro-2,3,4-trimethylpentane which comprises reacting a member selected from the group consisting of 2,4,4-trimethyl-1-pentene and 2,4,4-trimethyl-2-pentene with hydrogen chloride in the presence of a catalytic amount of a Friedel-Crafts catalyst and at a temperature of 0 to 25° C. and a prolonged reaction time.

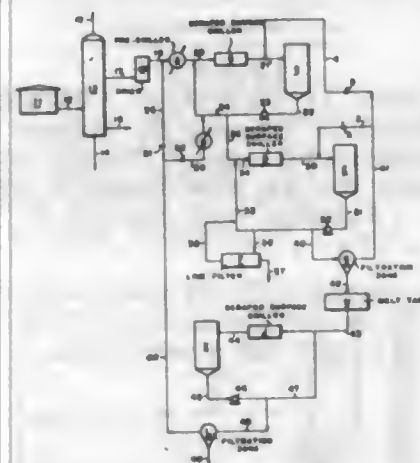
2,820,070

METHOD FOR RECOVERING PARAXYLENE

Rufus B. Bennett and John M. Powers, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application February 28, 1957, Serial No. 643,106

11 Claims. (Cl. 260-674)



1. In a process for recovering a selected cyclic hydrocarbon compound from a feed stock consisting essentially of a mixture of cyclic hydrocarbon compounds by chilling said mixture to selectively crystallize said selected compound to form a slurry of less than 30 weight percent of crystals of said selected compound in a mother liquor consisting of uncrystallized hydrocarbon compounds initially present in said feed stock, the improvement which comprises the steps of establishing a body of slurry of crystals of said selected compound in said mother liquor at about the lowest temperature of selective crystallization for said selected compound, withdrawing a stream of said slurry from said body while maintaining said body at about said lowest temperature of selective crystallization and turbulently isothermally filtering said stream to separate a portion of said mother liquor from said stream, discarding said portion of said mother liquor and

returning the remaining portion of said stream to said body in an amount sufficient to increase the crystals content of said body to about 30 to 60 weight percent and, after an average residence time of about 0.5 to 4 hours, recovering crystallized selected hydrocarbon from said thus concentrated body of slurry.

2,820,071

METHANE SEGREGATION METHOD AND PRODUCT

Norman H. Ceaglske, Minneapolis, Minn., assignor of ninety percent to Minnesota Valley Natural Gas Company, St. Peter, Minn., a corporation of Minnesota

No Drawing. Application November 20, 1953

Serial No. 393,495

21 Claims. (Cl. 260-676)

1. The method of segregating methane from a gas mixture which consists in contacting a gas mixture containing methane with wetted hydroquinone.

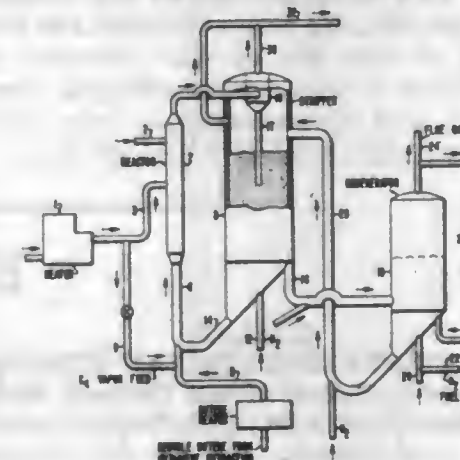
2,820,072

CATALYTIC DEHYDROGENATION IN TRANSFER LINE REACTOR

Donald W. Wood, Highland Park, Daniel S. Maisel, Union, and John C. Hunt, Linden, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application April 25, 1955, Serial No. 503,456

9 Claims. (Cl. 260-680)



1. An improved process for dehydrogenating a hydrocarbon stream into more unsaturated compounds which comprises suspending a preheated dehydrogenation catalyst in a vapor stream of said hydrocarbon in a dehydrogenation zone, passing the suspended catalyst uniformly and substantially at the same velocity as the reactant vapor upwardly through said reaction zone for a contact period of less than one second, passing a more readily dehydrogenatable hydrocarbon into said zone downstream from said first hydrocarbon injection point thereby rapidly quenching the reaction mixture and minimizing the degradation of product, dehydrogenating said second hydrocarbon in said zone at a lower temperature than said initially injected hydrocarbon, discharging resulting vaporous products and suspended catalyst from the upper end portion of said reaction zone into a separation zone, immediately quenching said vapor products, continuously withdrawing spent catalyst from said system, and withdrawing dehydrogenated hydrocarbons from said system.

2,820,073

ALKYLATION OF HYDROCARBONS

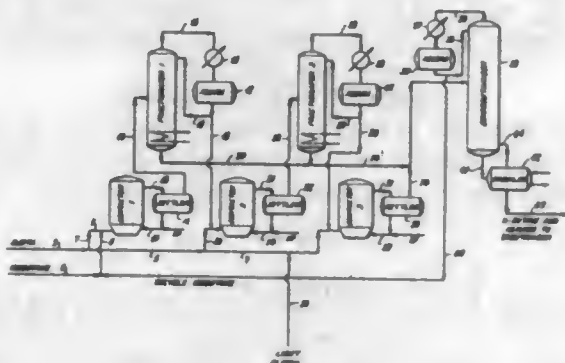
Rolland E. Dixon and Charles C. Chapman, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application January 26, 1954, Serial No. 406,266

9 Claims. (Cl. 260-683.45)

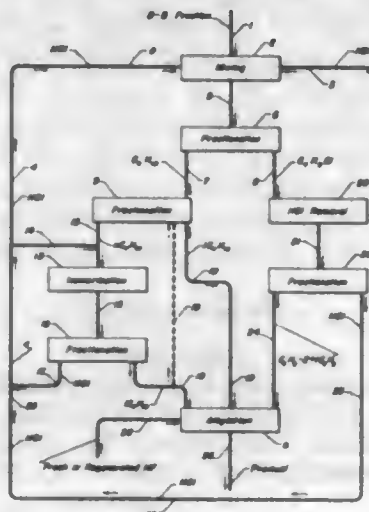
2. A method of increasing the capacity of an alkylation unit comprising a series of contactor zones, in which an

isoparaffin is contacted with an olefin under alkylation conditions, thus obtaining from each zone an alkylation effluent containing unreacted isoparaffin, normal paraffin and alkylate, which comprises in a fractionating zone fractionating the effluent from each of said contactor zones to remove therefrom by a rough separation a substantial proportion but not all of said unreacted isoparaffin substantially free from normal paraffin and alkylate yielding a stream containing substantially all of the normal paraffin, alkylate and some isoparaffin originally contained in said alkylation effluents, returning said



unreacted isoparaffin for use in at least one of said contactor zones, providing a deisoparaffinizing zone in said unit different from said fractionation zone, in said deisoparaffinizing zone deisoparaffinizing said stream containing some isoparaffin, the normal paraffin and the alkylate, returning to at least one of said contactor zones isoparaffin obtained in said deisoparaffinizing zone and recovering from said deisoparaffinizing zone as product of the process the normal paraffin and alkylate.

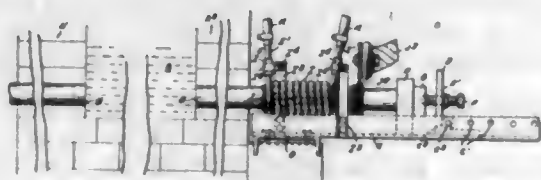
2,820,074
ALKYLATION PROCESS
Herman Pines, Evanston, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
Application October 19, 1954, Serial No. 463,246
7 Claims. (Cl. 260—683.49)



1. A process for producing alkylate which comprises contacting a mixture comprising normal butane, isobutane and butene-1 with hydrogen chloride at conditions to react hydrogen chloride with said butene-1 to form butyl chloride, separating said butyl chloride from said normal butane and said isobutane, dehydrohalogenating said butyl chloride at dehydrohalogenating conditions to remove a hydrogen chloride molecule from a butyl chloride molecule, separating the resultant hydrogen chloride from the resultant butene-2 and subjecting said butene-2 and said isobutane to alkylation.

ELECTRICAL

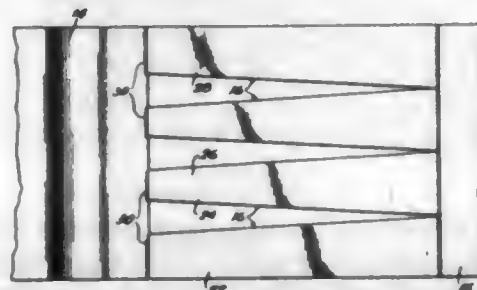
2,820,075
FUSED BATH ELECTRICAL FURNACE
Richard C. Upton, Mount Clemens, Mich.
Application October 24, 1955, Serial No. 542,302
5 Claims. (Cl. 13—23)



5. In an electrical furnace of the molten salt bath type in which the molten salt is heated by passage of electrical current through it as a resistor, a well for containing the molten salt having side and bottom walls, an electrode extending through one of said walls with the inner end approximately flush with the inner wall and in contact with the molten salt below the upper surface thereof, the outer end of said electrode projecting beyond the outside of said wall, means for supplying current to said electrode at its outer end at sufficiently high voltage to introduce the required electrical energy for heat generation to maintain the molten salt at the desired temperature, heat dissipating means for said electrode, said current supplying means together with said heat dissipating means being in contact with the portion of the electrode outside said wall with freedom for longitudinal adjustment of said electrode relative thereto, means for advancing said electrode as the end in contact with the molten salt wastes away so as to maintain said inner end approximately flush with the inner wall, and means operative after each longitudinal adjustment of said electrode for clamping said current sup-

plying means and said heat dissipating means to said electrode to form good electrical and thermal conductivity therebetween.

2,820,076
ELECTRICAL HEATING ASSEMBLY
August W. Lillienberg, Chicago, Ill., assignor to Lindberg Engineering Company, Chicago, Ill.
Application May 21, 1956, Serial No. 586,206
5 Claims. (Cl. 13—25)



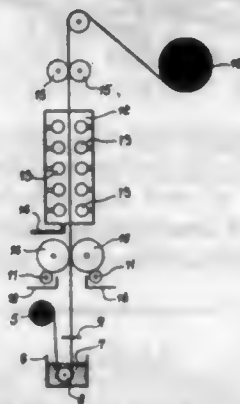
1. An electric heating furnace comprising a hollow body defining a chamber to receive material to be heated, a heating element of a relatively thin strip of conductive material mounted in said chamber adjacent a wall thereof, a link connected to an end of said heating element and further connected to a terminal extending out through the wall of the chamber for connection to a source of power, said link being formed of a relatively thick, low resistance conductive material for reducing losses therein and having portions cut away such that the edge of the link which is connected to the heating element has substantially the same cross-sectional area as the end of said heating element.

2,820,077

ELECTRODES FOR GALVANIC CELLS AND METHOD OF MAKING SAME

Jean Salauze, Paris, France, assignor to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme), Pont de la Folle, Romainville, France, a company of France

Application March 12, 1954, Serial No. 415,747
Claims priority, application France March 17, 1953
16 Claims. (Cl. 136-19)



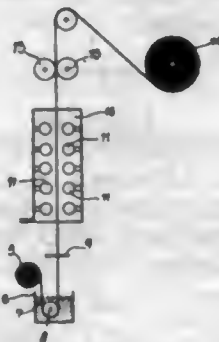
1. A method of producing plates for galvanic cells comprising maintaining an aqueous suspension consisting of pulverulent particles of an active material, water and a viscosity increasing agent dissolved in the water, said particles being metallic crystals selected from the group consisting of cadmium, zinc and silver and being characterized by interlacing properties, continuously passing a perforated band through the said suspension without agitation thereby coating both sides of said band and filling the perforations therein with suspended active material, then passing the strip through a slot whereby the edges of said slot contact the coating to remove excess thereof and to control the thickness of the final coatings, thereafter passing the band successively through a heated drying chamber wherein the coatings are dried and between pressure rolls where pressure of at least one ton per square centimeter without application of heat is applied to the dry coatings effecting interlacing of the said particles, and cutting the band into plates.

2,820,078

GALVANIC CELL ELECTRODES AND METHOD OF MAKING THE SAME

Jean Salauze, Paris, France, assignor to Societe des Accumulateurs Fixes et de Traction (Societe Anonyme), Pont de la Folle, Romainville, France, a company of France

Application March 12, 1954, Serial No. 415,749
Claims priority, application France March 17, 1953
16 Claims. (Cl. 136-19)



1. A method of producing plates for galvanic cells comprising maintaining an aqueous suspension consisting of an intimate pulverulent mixture of active material and copper microcrystals having interlacing properties, water and a viscosity increasing agent dissolved therein, continuously passing a perforated band through the said suspension without agitation and thereby coating both sides of said band and filling the perforations therein with the suspension, then passing the strip through a slot whereby

the edges of said slot contact the coating to remove excess thereof and to control the thickness of the final coatings, thereafter passing the band successively through a heated drying chamber wherein the coatings are dried and between pressure rolls where pressure of at least 1 ton per square centimeter without application of heat is applied to the dry coatings effecting interlacing of the said microcrystals, and cutting the band into plates.

2,820,079

BATTERY GRID ALLOY

Harold E. Zahn, Buffalo, N. Y., assignor to Gould National Batteries, Inc., Depew, N. Y.

No Drawing. Application December 22, 1955
Serial No. 556,361

6 Claims. (Cl. 136-65)

1. A storage battery grid metal alloy being substantially free from antimony and consisting essentially of from 0.50% to 3.0% tin, from .2 to .5% arsenic; from .05% to .35% silver; and the balance lead.

2,820,080

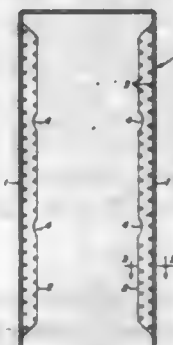
STORAGE BATTERIES

Erich Siegfried Kaljot, Sundbyberg, Stockholm, Sweden

Application March 11, 1955, Serial No. 493,728

Claims priority, application Sweden March 18, 1954

2 Claims. (Cl. 136-81)



1. A storage battery comprising a battery case, a plate assembly in the case, a spacing member interposed between the walls of the case and the flat surface of the plate assembly, the spacing member being in the form of a U-shaped clamp embracing said plate assembly with its legs extending vertically and resiliently engaging at all times the walls of the case and the surface of the plate assembly and its intervening portion extending across the top of said plate assembly and being supported thereon, each leg of said U-shaped clamp being in the form of a channel section extending along its length, the summits of these channel sections facing each other and lying in the center vertical plane of the clamp, the depth of the channels being slightly greater than the clearance between the plate assembly and the adjacent transverse cell wall.

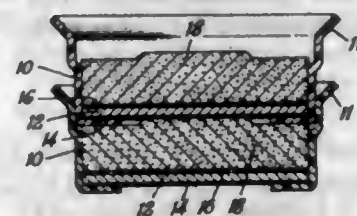
2,820,081

PRIMARY GALVANIC BATTERY AND METHOD OF MAKING SAME

John L. S. Daley, Lakewood, and Donald B. Cameron, Bay Village, Ohio, assignors to Union Carbide Corporation, a corporation of New York

Application June 12, 1953, Serial No. 361,374

5 Claims. (Cl. 136-111)



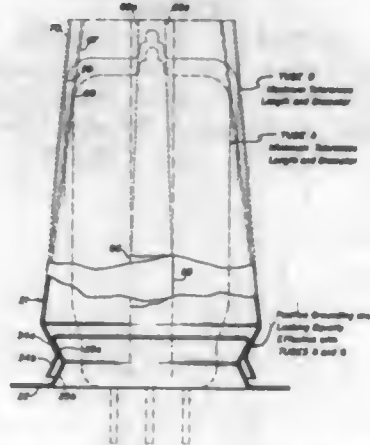
3. In the manufacture of a primary galvanic battery comprising a stack of flat cells contained in nested trays

the improved method which comprises forming trays by deforming a tubular band of thermoplastic synthetic organic resin, providing a highly strained outward flare on the upper side walls of said trays, inserting cell components in said trays, nesting said trays and placing them under endwise compression to form a stack, immersing said stack in a warm bath of permanently soft sealing compound and maintaining said stack in said bath until said outward flare on said side walls of said tray relaxes and grips the side walls of the adjacent tray, thus displacing excess sealing compound from between the side walls of said trays and forming a thin layer of said sealing compound between overlapping portions of said trays, and removing said stack from said bath and applying thereto endwise pressure-maintaining bands.

2,820,082

SHIELDING DEVICE

Linsley S. Gray, Aurora, and Lester W. Bell, Oswego, Ill., assignors to Gray Stamping & Manufacturing Co., Plano, Ill., a corporation of Illinois
Application July 9, 1952, Serial No. 297,902
2 Claims. (Cl. 174-35)



1. A shielding device for an electron tube which has a plug mounting on a chassis, comprising a base clip fixed on the chassis having an exterior V-shaped groove, a tubular shield body split longitudinally with its longitudinal edge portions in overlapping relation providing a resilient contraction force in resistance to expansion of the tube, the lower end portion of the shield body having an interior V-shaped surface arranged to snap over the upper edge of said V-shaped groove and position its upper angular interior surface in sliding engagement with the upper angular exterior surface of said V-shaped groove on the base clip and to be constantly urged into said engagement by said contraction force of the split shield to effect a downward force tending to hold the shield body in said engagement, the sleeve body having a longitudinal taper to engage the crown portion of a tube when the shield body is telescoped over the tube into said engagement when the tube is in its mounted position, said taper having constant engagement with said crown portion by said contraction force of the split shield, the combined function of said taper engagement and said engagement between the angular interior surface of the shield and said exterior surface of the base clip serving to constantly maintain the shield body in its taper engagement with the crown portion of the tube and also serving to maintain the tube against outward displacement from its mounting on the chassis regardless of variations in length and diameter of the tube within specified manufacturing tolerances for a given tube.

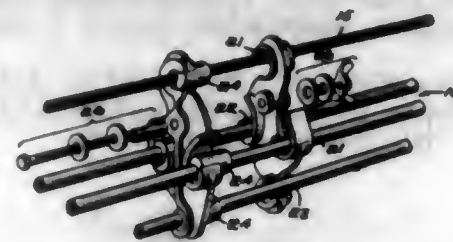
2,820,083

AERIAL CABLE

William L. Hendrix, Brighton, Mass.
Application June 2, 1955, Serial No. 512,600
8 Claims. (Cl. 174-43)

5. An aerial electric power cable comprising a supporting messenger, a set of lightly insulated conductors, and

longitudinally distributed hanger-spacer clamps having each a pair of identical plates, said plates applied oppositely to said cable and closed to side abutted relation, and formed each with an upper recess hooked over said

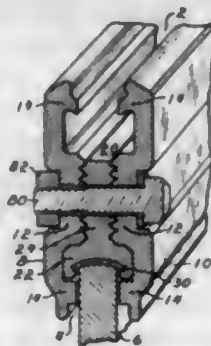


messenger and equidistant side and lower recesses seating said conductors, the juxtaposed recesses of said plates oriented variously of and together completely enclosing said messenger and conductors, and insulating bushings spanning said juxtaposed recesses.

2,820,084

ELECTRICAL CONDUCTIVE DEVICE HAVING FORCE FITTED MEMBERS

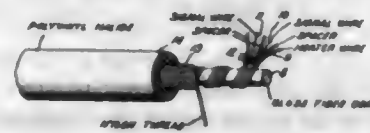
John B. Shaw, Redwood City, Calif., assignor to Insul-8 Corp., San Carlos, Calif., a corporation of California
Application November 8, 1956, Serial No. 621,127
7 Claims. (Cl. 174-94)



1. A device for transmitting electrical energy comprising two elongated side members having substantially identical cross-sectional shape, each of said members having a plurality of alternate grooves and ridges extending longitudinally thereof and formed on the side thereof facing the other member, an intermediate elongated member disposed between the two side members and having alternate ridges and grooves formed on its side faces adapted and arranged to interfit with the grooves and ridges of the side members, the walls defining each groove being so shaped and angularly disposed to each other and to the walls of the ridge received within it that when the side and intermediate members are forced toward each other to cause the ridges to be fully received within the grooves a galling action takes place between the contacting walls of the grooves and ridges.

2,820,085

FLEXIBLE THERMOSENSITIVE ELECTRIC CABLE
George C. Crowley, Asheboro, N. C., assignor to General Electric Company, a corporation of New York
Application October 8, 1953, Serial No. 384,826
3 Claims. (Cl. 174-107)



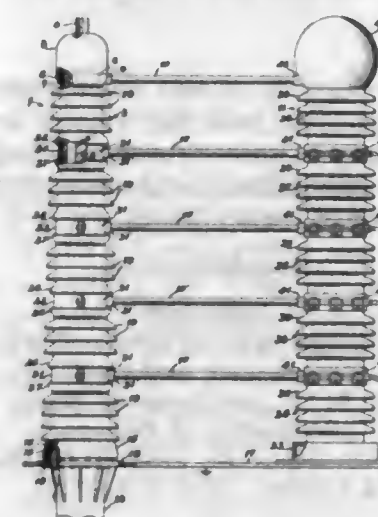
1. In an electric cable, a core of flexible insulating material, a plurality of flexible conductors with the metallic surfaces exposed spirally wound side by side on said core at a pitch providing physical separation between adjacent conductor turns, insulating spacing means between said conductors to maintain said separation between

adjacent conductors, a layer of organic material over said conductors and insulating spacing means which at a lower temperature is essentially an insulator and at a higher temperature becomes an electrical conductor which will permit of the flow of significant current comprising spirally wound thread of a pitch providing physical contact between adjacent turns, and an over-all insulating covering over such layer.

2,820,086

EXTERNAL POTENTIAL GRADIENT CONTROL FOR HIGH VOLTAGE CABLE TERMINATOR OR BUSHING

James H. Nicholas, Chicago, Ill., assignor to G & W Electric Specialty Company, Chicago, Ill., a corporation of Illinois
Application June 20, 1955, Serial No. 516,427
8 Claims. (Cl. 174-140)



4. In combination, a terminator for a high voltage cable including an outer insulator having an end into which the cable conductor extends, a line terminal at the other end of the insulator which terminal is connected to the cable conductor, a grounded member at said first-mentioned end of the outer insulator, and a number of separate conductive areas contiguous to and surrounding said outer insulator at equally and axially spaced locations between the line terminal end and the grounded member, the sum of the axial lengths of the conductive areas being less than the sum of the axial lengths of the insulator between said conductive areas; and an impedance assembly mounted separately and to one side of said terminator, said impedance assembly comprising a number of series connected impedance elements of progressively increasing value, means connecting the high impedance end of the impedance assembly to said line terminal, means connecting the low impedance end of said impedance assembly to said grounded member, and means connecting the respective junctures of said impedance elements to corresponding conductive areas of said insulator.

2,820,087

SEALS BETWEEN METAL CONDUCTORS AND CERAMIC INSULATORS

George D. Suter, Wauwatosa, Wis., assignor to Globe-Union Inc., Milwaukee, Wis., a corporation of Delaware

Application June 22, 1953, Serial No. 363,243
3 Claims. (Cl. 174-152)

1. A pressure resistant seal for the center electrode of a spark plug comprising: a ceramic insulator having an upper bore connected to a smaller lower bore to form an upwardly facing shoulder therebetween; a unitary center electrode in said bore having, a lower portion of erosion resistant metal extending from above said shoulder through said lower bore, a terminal mounting portion of cold rolled steel in said upper bore and having a flange resting

on the upper end of said insulator, the lower end of said terminal portion being cup-shaped with the walls of the cup forming a band slightly spaced from said upper bore, and a reduced diameter conductor of cold rolled steel attached to said cup-shaped end and to the upper end of said lower portion, said conductor being held within and spaced from said band; a ball-like ring of cold rolled

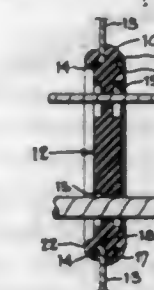


steel having close sliding fit on said lower portion within said upper bore and resting on said shoulder; and a body of common glass compressed between said shoulder and ring and said cup-shaped end with said glass entirely filling said cup between said conductor and said band with a thin layer of said glass between said band and said upper bore, said glass being bonded to said insulator and pressed toward said conductor by said band.

2,820,088

RUBBER BUSHING

Pierce Sperry, Harrison, Ohio, assignor to The Sperry Rubber and Plastics Company, Brookville, Ind., a corporation
Application August 25, 1955, Serial No. 530,474
5 Claims. (Cl. 174-153)



5. The combination of a sheet metal wall having a circular aperture therein and a right angular flange extending from one side of said wall immediately surrounding said aperture and a rubber bushing adapted to be mounted in said aperture, said bushing including means in the central portion thereof to resiliently support and seal wires, rods, cables and the like passing through said aperture, said bushing having a pocket in the outer edge thereof snugly seating said flange and the portion of the wall immediately surrounding said flange, a second pocket formed in the outer annular area of said bushing which is in the shape of a frustum of a cone and which terminates at its inner edge at a circle which is of a diameter greater than the diameter of the flange and expandable means seated in the latter pocket to exert a force radially outwardly to lock the bushing in place on the wall.

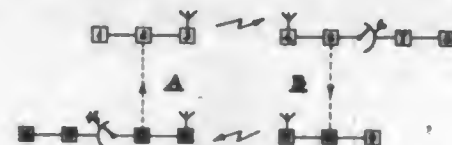
2,820,089

RHYTHMIC TELEGRAPH SYSTEM

Gerrit Hilbertus Schouten, Hilversum, and Hendrik Cornelis Anthony Van Duuren, Wassenaar, Netherlands, assignors, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware
Application September 8, 1955, Serial No. 533,182
4 Claims. (Cl. 178-2)

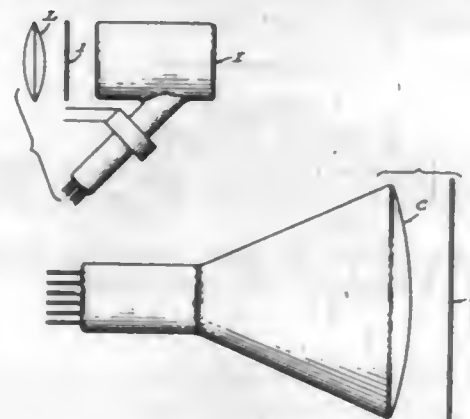
1. A telegraph system comprising a transmitter for producing telegraph signals each of which is composed

of a plurality of elements, the first and last of said elements normally having opposite electrical polarities thereby to function as a start element and a stop element, respectively, means for selectively reversing the polarity of



at least one of said first and last elements, and receiver means for receiving said telegraph signals and adapted to respond to said elements having reversed polarity, whereby said elements having reversed polarity function to provide a service signal.

2,820,090
COLOR TELEVISION
Harold Mountain, Los Angeles, Calif.
Application April 1, 1952, Serial No. 279,835
1 Claim. (Cl. 178-5.2)

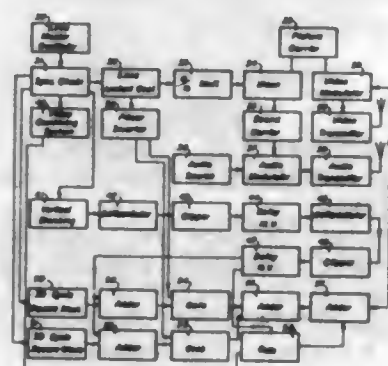


A color filter means effective to enable black and white television transmitting and receiving apparatus to transmit images with the illusion of color; said means comprising a pair of filter elements each comprising a flat transparent plate having a color transmitting film applied thereto by a photographic process; each of said films comprising identically arranged series of vertically disposed bands of four different colors with each two bands of the same color being separated by three bands comprising one band of each of the other colors; one of said filter elements being interposed in front of the light receiving area of the iconoscope tube of the television camera and the other of said filters being disposed in front of and closely adjacent to the viewing face of the receiver and said filter elements being proportional in area to the light receiving area of the iconoscope and the light emitting area of the receiver and having the same numbers of color bands in the same arrangement and the filter element having the larger area having color bands of proportionate greater width.

2,820,091
COLOR TELEVISION, FREQUENCY CONTROL SYSTEM
Norman W. Parker, Park Forest, and Bernard S. Parmet, Chicago, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application January 30, 1952, Serial No. 269,078
12 Claims. (Cl. 178-5.4)

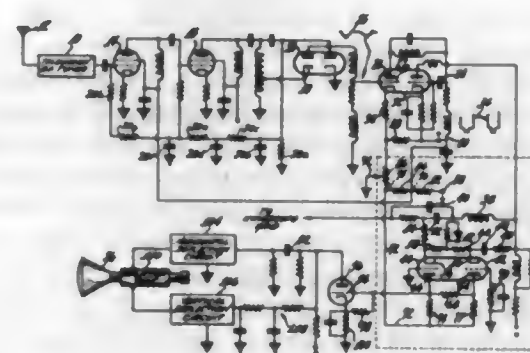
10. A color television transmitter for producing waves representing color pictures and accompanying sound including in combination, means for generating a first carrier wave, means for generating a color controlling wave,

means for multiplying the frequency of said color controlling wave by a predetermined factor to produce a third wave of higher frequency, means for mixing said first carrier wave and said third wave to produce a second carrier wave, means for producing a composite video



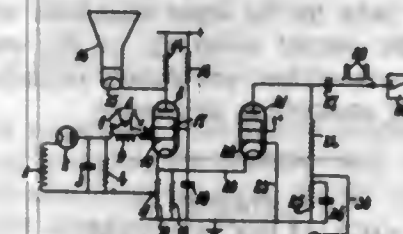
signal including portions of said color controlling wave, means for modulating said first carrier wave by said composite video signal, means for modulating said second carrier wave by audio signals, and means for transmitting said first and second carrier waves.

2,820,092
TELEVISION RECEIVING SYSTEMS
Clyde W. Hoyt, Pennsauken, and Lucius P. Thomas, Jr., Collingswood, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application November 30, 1950, Serial No. 198,372
2 Claims. (Cl. 178-7.3)



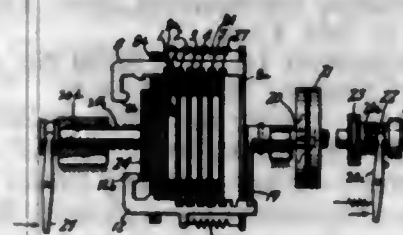
1. A synchronizing signal separator circuit comprising in combination, a source of signals of varying strength a voltage datum terminal, an input terminal coupled to said source of signals, an output terminal and a control terminal, a first and second electron discharge tube each having at least an anode a cathode and control electrode, a first resistance connected between the cathodes of said first and second discharge tubes, a second resistance connected from a point along said first resistance to said voltage datum terminal, a third resistance connected between the anodes of said first and second discharge tubes, a fourth and fifth resistance respectively connected between the anodes of said first and second discharge tubes and said control terminal, a direct connection from said first discharge tube control electrode and said voltage datum, a time constant circuit comprising the parallel combination of a resistance and capacitance connected between the control electrode of said second discharge and said voltage datum, an inductance and first capacitance connected in series between said input terminal and said first discharge tube cathode, a sixth resistance connected in series with a second capacitor connected between said input terminal and said second discharge tube cathode, and means for varying the potential of said control terminal relative to said datum.

2,820,093
CONTRAST CONTROL CIRCUIT IN TELEVISION RECEIVERS
Hendricus Lourens Berkhout, Frederik Kerkhof and Peter Johannes Hubertus Janssen, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 18, 1953, Serial No. 337,614
Claims priority, application Netherlands February 21, 1952
2 Claims. (Cl. 178-7.5)



1. A contrast control circuit in a television receiver which utilizes a cathode-ray tube, comprising an electron discharge device having an anode, an output circuit including means directly connecting an electrode of the cathode-ray tube to said anode, said electron discharge device also having a cathode and a control grid, a source of operating potential having positive and negative terminals, an impedance having an adjustable tap and connected between said cathode and the negative terminal of said potential source, said positive terminal being connected to said output circuit, a detector having an output circuit, means for connecting for direct current said detector output circuit between said control grid and said tap, a source of television signals connected to said detector and containing a video signal and synchronizing pulses which exceed the maximum amplitude of the video signal, said detector being polarized with respect to said television signals so as to provide at said control grid a detected television signal having negative-going synchronizing pulses whereby the tips of said synchronizing pulses provide an amplitude reference level, said impedance having a value of impedance sufficiently high at the signal frequencies so that the signal appears across said impedance whereby the setting of said tap controls the amount of negative feedback of said electron discharge device, and a circuit directly connected to the output circuit of said electron discharge device for providing an automatic gain control voltage for said television receiver.

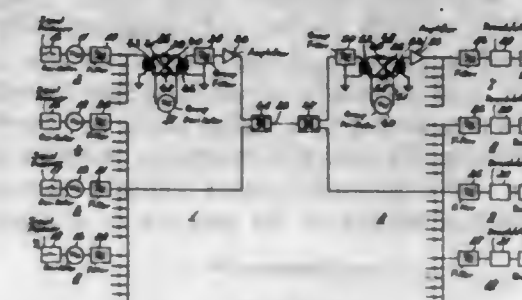
2,820,094
TELEGRAPH SIGNAL TRANSLATION MECHANISM
Gerhard Kratt, Nurnberg, and Otto Holstein, Pforzheim, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 17, 1955, Serial No. 547,499
Claims priority, application Germany November 25, 1954
7 Claims. (Cl. 178-34)



1. In a printing telegraph receiving device utilizing a rotating type carrier, apparatus for controlling the angular positioning of said carrier in response to received telegraph signal elements comprising a plurality of co-

axially mounted rotary code selecting rings, one for each element of the telegraph code utilized, each of said rings having a plurality of notches radially cut within a peripheral surface thereof, means for angularly positioning each of said rings so as to align a row of corresponding notches therein in accordance with a group of received elements constituting a character to be printed, a plurality of spaced stop elements disposed transversely about the peripheral surface of each of said rings, one of said elements for each angular printing position of said carrier, each of said elements comprising means for cooperating with an aligned row of notches in said rings, means to actuate said elements in a direction parallel to the axes of said rings and for causing cooperation of said cooperating means with said aligned row of notches and means for sensing the movement of said elements.

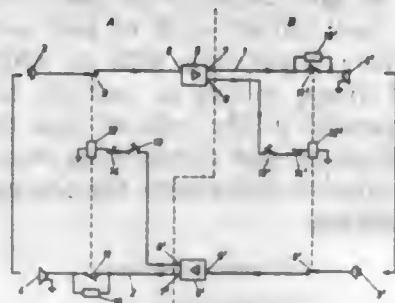
2,820,095
CARRIER-FREQUENCY TELEGRAPHY SYSTEM
Maurice Karlin, Brussels, Belgium, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application May 19, 1954, Serial No. 430,934
Claims priority, application Netherlands May 30, 1953
10 Claims. (Cl. 178-51)



1. A carrier-wave telegraphy system comprising a plurality of frequency channels lying in an intelligence-frequency band, said channels being arranged in four frequency groups lying in four successive group-frequency bands thereby to form a low-frequency band, a lower central-frequency band, a higher central-frequency band, and a high-frequency band, transmitter apparatus having an output circuit and comprising a plurality of channel oscillators associated respectively with each of said frequency channels, the channel oscillators associated with the channels in said central-frequency bands and said high-frequency band having different frequencies lying respectively in the channels of said central-frequency bands and said high-frequency band, and the channel oscillators associated with the channels in said low-frequency band having different frequencies lying in said central-frequency bands, a plurality of channel filters connected respectively between the channel oscillators of said central-frequency and high-frequency bands and said output circuit and tuned respectively to the frequencies of the last-named channel oscillators, a low-band group modulator comprising a signal-mixing circuit and a group oscillator for producing oscillations having a frequency higher than the frequency range of said lower central-frequency band, a plurality of channel filters connected respectively between the channel oscillators associated with said low-frequency band and said mixing circuit and tuned respectively to the frequencies of the last-named channel oscillators, means for feeding oscillations from said group oscillator to said mixing circuit whereby said group modulator converts the oscillations of the channel oscillators associated with said low-frequency band into oscillations falling respectively in the frequency channels of said low-frequency band, and a group filter having a passband for said low-frequency band and connected between the output of said group modulator and said output circuit.

2,820,096 CIRCUIT ARRANGEMENT FOR LOUDSPEAKER TELEPHONE SYSTEMS

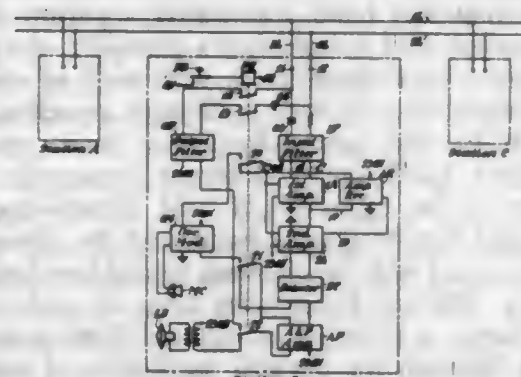
Heinz Nopp, Korntal, Wurttemberg, and Klaus Wernick, Ludwigsburg, Wurttemberg, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application June 11, 1954, Serial No. 436,135
Claims priority, application Germany June 13, 1953
5 Claims. (Cl. 179-1)



1. A duplex loudspeaker telephone system comprising a pair of stations, each station comprising a microphone, a loudspeaker, means connecting the microphone at one station with the loudspeaker of the other, said connecting means including a separate communications path, means for normally attenuating the energy in each path to inhibit audio oscillation between said paths, manually actuatable means at each station for simultaneously rendering inoperative the attenuating means and the microphone thereat, said manually actuatable means including a control means responsive to a signal in its corresponding path for rendering effectual said manually operable means and to restore said attenuating means and said microphone to their original condition in the absence of a signal.

2,820,097 APPARATUS FOR CARRIER INTERCOMMUNICATION SYSTEMS

Alexander Finlay, Swissvale, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application August 29, 1952, Serial No. 307,026
9 Claims. (Cl. 179-2.5)



1. In combination with a carrier telephone intercommunication system station, a transmitter including a microphone and an electron tube oscillator-modulator, a receiver including a first and a second amplifier stage and a detector stage in cascade, a loud-speaker, and a gain control voltage channel, the input of said gain control channel being coupled to the output of said first amplifier stage and the output of said gain control channel connected to the input of said second amplifier stage; an input filter having circuit elements tuned to resonance at a given carrier frequency and provided with input terminals which are adapted to be connected to a line circuit and output terminals which are coupled to said receiver; said tuned circuit elements having a circuit Q selected according to the frequency band of the telephone carrier current and a high impedance across the line, circuit at said given carrier frequency, an output filter having circuit elements

tuned to resonance at said given carrier frequency and provided with output terminals and input terminals, a power amplifier tube having input and output electrodes, a power source, a directional relay, circuit means including back contacts of said relay to connect the output of said detector stage to the input electrodes of said power amplifier tube and the output electrodes of said power amplifier tube to said loudspeaker; other circuit means including front contacts of said relay to connect output electrodes of said oscillator-modulator to the input electrodes of said power amplifier tube, the output electrodes of said power amplifier tube to the input terminals of said output filter and the output terminals of the output filter to a line circuit connection; and means including a push-to-talk device for controlling said relay.

2,820,098 SIGNALING SYSTEM Erik Lennart Skogsberg, Huddinge, Sweden Application March 19, 1952, Serial No. 277,345 6 Claims. (Cl. 179-5)



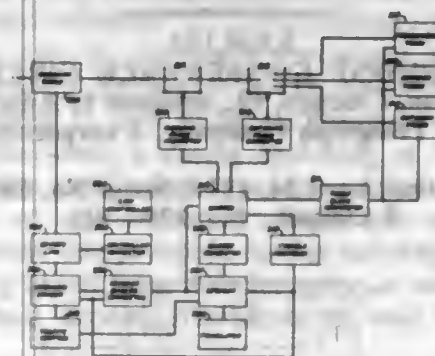
1. In an alarm signal system a number of alarm boxes, which comprises a speech equipment and a selecting means, a central installation, lines common to a number of said boxes for connecting the same with said central installation, an impedance, which is of a high ohmic value compared with the speech equipment and connected to the line at the farthest end from the central installation, the said central installation having a line relay device for each of the connected lines, and at least one connecting link combined with an impulsing device and common to a number of the said relay devices, and switching devices for connecting an arbitrary line to a connecting link, the said relay devices including a source of current and at least one relay providing rest current control of the line over the said impedance and having contact means operable by break in the line when the rest current vanishes and by operating of the means to connect the said speech equipment to the line, the said contact means comprising contacts to operate the switching device, the said impulsing device connected to the line over the connecting link in order to operate the selecting means in the boxes, which device is operated to connect only one by one in turn of the said speech equipment in the respective boxes to the same line.

2,820,099 TROUBLE RECORDING ON TIME-OUT CIRCUIT FOR AUTOMATIC TELEPHONE

John W. Gorgas, Hollis, N. Y., Edward Jacoblitti, Newark, N. J., Richard J. Jaeger, Jr., West Hempstead, N. Y., Charles G. Morrison, Livingston, N. J., and James B. Newsom, Great Neck, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 14, 1954, Serial No. 455,822
15 Claims. (Cl. 179-8.5)

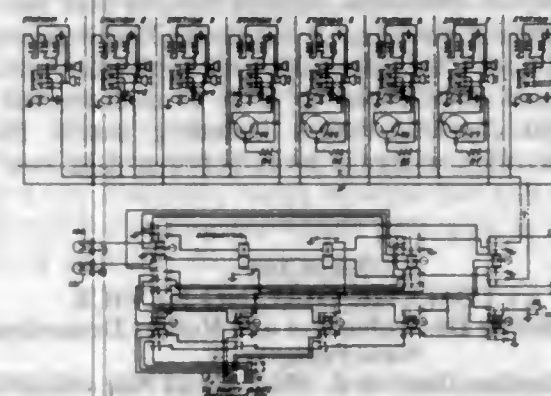
1. In a telephone system, incoming trunks, outgoing trunks, local signaling trunks, switches for connecting said incoming trunks to said outgoing trunks or to said local signaling trunks, senders for registering designations received over said incoming trunks, control equipment for controlling the operation of said switches, a trouble recorder, means for transmitting registered designations from said senders to said control equipment to cause said control equipment to operate said switches to connect an incoming trunk with an outgoing trunk, means for transmitting special trunk request signals from said senders

to said control equipment, means in said control equipment responsive to said special signals to operate said trouble recorder, and means responsive to the operation of



said trouble recorder to cause said control equipment to operate said switches to connect said incoming trunk with one of said local signaling trunks indicated by said trunk request signal.

2,820,100 STATION IDENTIFICATION DEVICE Henry H. Abbott, Yonkers, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York Application February 26, 1954, Serial No. 412,805 13 Claims. (Cl. 179-17)

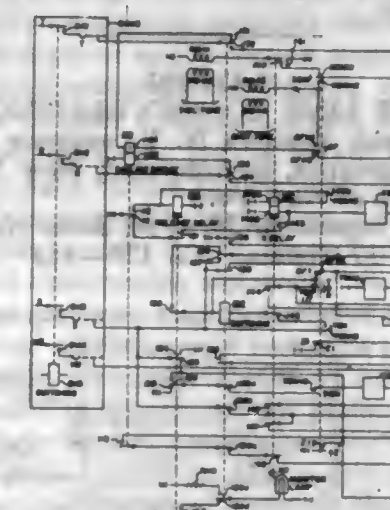


1. In a telephone system, a line comprising two conductors and having a plurality of stations connected thereto, means at some of said plurality of stations to directionally control direct-current flow between said conductors and ground thereat, sources of potential of opposite polarities, means for successively applying each of said sources of potential individually to each of said conductors, means for detecting direct-current flow at said stations, and means controlled by said detecting means for identifying the stations on said line.

2,820,101 SELECTOR CIRCUIT FOR AUTOMATIC TELEPHONE SYSTEMS William W. Pharis, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware Application October 2, 1952, Serial No. 312,686 9 Claims. (Cl. 179-18)

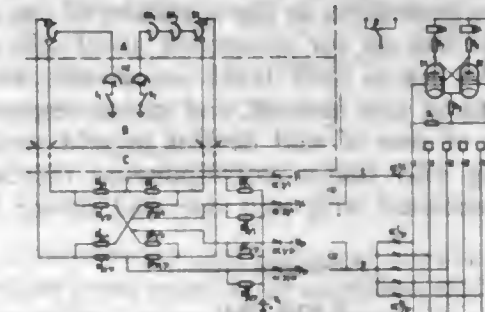
3. In a drop-back selector switch and circuit for use in automatic telephone systems wherein the selector switch may be directly operated to move in a primary direction to selected ones of a plurality of levels and automatically operated to move in a secondary direction to hunt for an idle line in the selected level or move in a primary direction to a different level to cause said selector switch to drop back to normal, means operated in response to the first selection of a predetermined level by directive primary movement of the switch to prevent the automatic secondary movement of the switch and return busy tone to the calling line, and means operated in response to a selection of the said predetermined level

by directive primary movement of the switch after a first selection and drop-back of the switch to normal from said



different level to thereby initiate the automatic secondary movement of the switch to hunt for an idle line in the said predetermined level.

2,820,102 IDENTIFICATION EQUIPMENT Roelof Maarten Marie Oberman, Voorburg, and Antonie Snijders, The Hague, Netherlands, assignors to de Staat der Nederlanden, Ten Deze Vertegenwoordigd Door de Directeur-Generaal der Posten, Telegrafie en Telefonie, The Hague, Netherlands Application October 14, 1953, Serial No. 386,087 Claims priority, application Netherlands October 21, 1952 5 Claims. (Cl. 179-18)

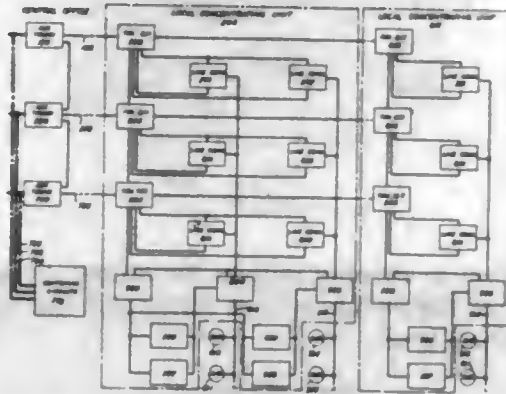


1. Apparatus for use in an automatic exchange for determining in which service class a desired connection between a calling and a called subscriber belongs comprising, in combination, a first plurality of input terminals, a calling appearance in the automatic exchange switches being coupled to one of said first plurality of input terminals; a second plurality of input terminals, a called appearance in the automatic exchange switches being coupled to one of said second plurality of input terminals; a plurality of pairs of series resistors having junction points, each of said input terminals of said first plurality being connected to each of said input terminals of said second plurality through a different pair of said series resistor; a battery having a first and a second pole, said junction point of said resistors being connected to one pole of said battery; a plurality of group marking terminals; means for connecting the second pole of said battery through the automatic exchange to said two input terminals to which said calling and called appearances are respectively applied; a plurality of output terminals; a plurality of electrical connections between said output terminals and said group marking terminals; and a plurality of discriminating switching means, each of said plurality of discriminating switching means being connected respectively to one of said output terminals, each of said discriminating switching means being responsive

to potentials appearing on its respective output terminal for determining the service class to which the desired connection belongs.

2,820,103

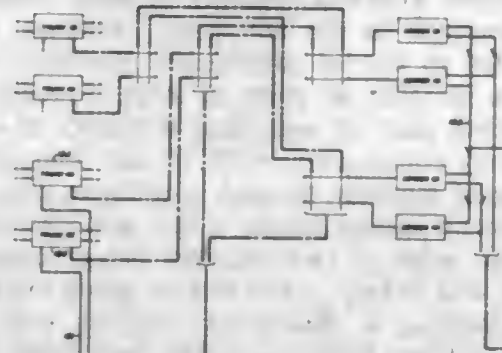
SUBSCRIBER LINE CONCENTRATING SYSTEM
Henry H. Abbott, Yonkers, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 30, 1954, Serial No. 459,432
17 Claims. (Cl. 179-18)



1. In a telephone system, a central office; a plurality of concentrator units remotely located from said central office; a plurality of trunks connecting said concentrator units with said central office; a plurality of subscriber stations connected to each of said concentrator units, said concentrator units each comprising a first set of frequency responsive devices associated individually with said trunks, a second set of frequency responsive devices corresponding individually with said stations connected thereto, means responsive to the operation of one of said devices in said first set for connecting all of said devices in said second set to said trunk associated with said operated device in said first set, and means responsive to the operation of one of said devices in said second set for connecting said station corresponding therewith to said trunk associated with said operated device in said first set.

2,820,104

SENDER LOAD CONTROL
Donald H. MacPherson, Freeport, Clarence H. McCandless, Garden City, and James B. Newsom, Great Neck, N. Y., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 14, 1954, Serial No. 455,844
7 Claims. (Cl. 179-22)

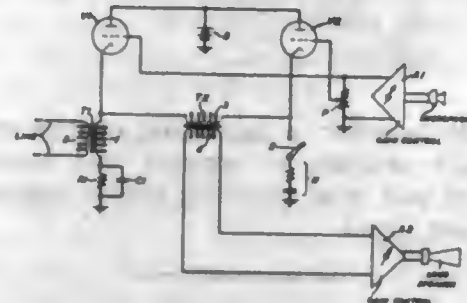


1. In a telephone system, trunk circuits, a plurality of register senders, link circuits for connecting said trunk circuits to said senders, a group of control circuits common to said link circuits for controlling the operation thereof, means for selectively connecting said link circuits with said control circuits, means responsive to the extension of a call to one of said link circuits to cause said link circuit to initiate the operation of said connecting means, means in each link circuit operated if all of said register senders are busy, and means under the control of said senders-busy-means to prevent said link cir-

cuits from initiating the operation of said connecting means in response to calls extended to said trunk circuits while said senders-busy-means is operated.

2,820,105

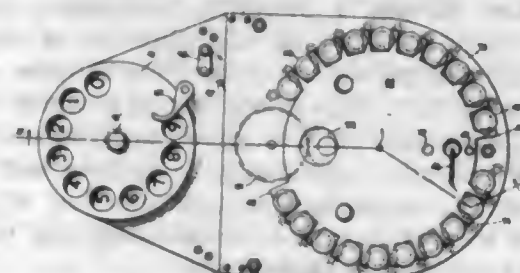
TELEPHONE CONFERENCE CIRCUIT
Luther L. Swan, Chicago, Ill., assignor to American Telephone and Telegraph Company, a corporation of New York
Application April 24, 1956, Serial No. 580,369
8 Claims. (Cl. 179-81)



1. A two-way loudspeaker telephone circuit for a subscriber's telephone station comprising a first vacuum tube and a second vacuum tube, each including an anode, a cathode and a control electrode, means connecting both of said anodes to ground through a source of anode supply potential, a loudspeaker circuit having a pair of input terminals connected, respectively, to said two cathodes, means for coupling a telephone line between one of said cathodes and ground, a microphone, means for coupling said microphone to both of said control electrodes, said coupling means including means for adjusting the relative signal level between said two electrodes.

2,820,106

AUTOMATIC DIALING DEVICE
Marcel Antoine Demeulenaere and Robert Demeulenaere, New York, N. Y.
Application October 8, 1954, Serial No. 461,237
Claims priority, application Belgium October 10, 1953
10 Claims. (Cl. 179-90)



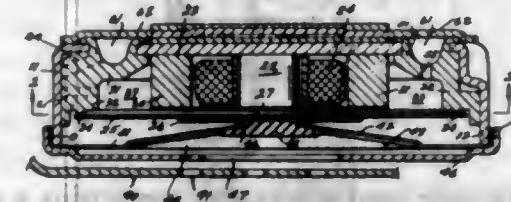
1. A dialing device comprising dial operating means, a call-initiating key, a control mechanism operable by said key, a key gear train for driving said control mechanism, a dial gear train for driving said dial operating means, and common motor means for driving both said gear trains, said control mechanism comprising means for connecting said motor means with said key gear train for driving the latter and for thereby operating said control mechanism, for alternately connecting said motor means with said dial gear train for driving the latter and for thereby driving said dial operating means and for interconnecting said dial gear and said key gear trains for driving said key gear train by said dial gear train.

2,820,107

ELECTRO-MECHANICAL SIGNAL TRANSDUCERS
William F. Knauert, Yonkers, N. Y., assignors to Sonotone Corporation, Elmsford, N. Y., a corporation of New York
Application December 22, 1954, Serial No. 477,080
2 Claims. (Cl. 179-115)

1. In an electromagnetic sound transducing device, a magnetic core structure including at least one pole piece

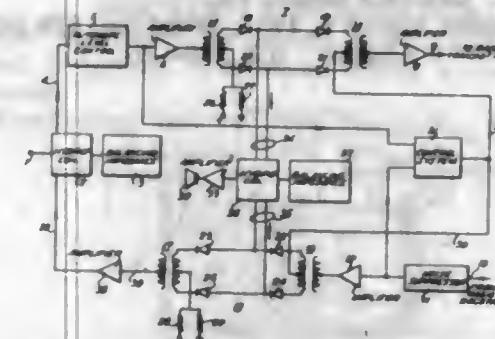
and windings interlinked with the magnetic path defined by said core structure, a magnetic armature arranged for vibration at a gap spacing from said pole piece and generating in said windings a corresponding output over a substantial part of the audio frequency range, an extended vibratory diaphragm having an intermediate portion connected to said armature for transmitting vibrations therebetween, a casing enclosing at least portions of said device and including a wall section overlying the outer side of said vibratory diaphragm and confining with it a front compartment having opening portions for propagating sound from exterior space to said front compartment and exciting vibrations of said vibratory di-



aphragm and vice versa, said casing including additional wall portions forming a rear compartment extending on the rear side of said vibratory diaphragm, a mounting structure within said rear compartment peripherally surrounding and carrying said magnetic core structure, an armature diaphragm extending over said mounting structure, said mounting structure including wall portions forming an acoustic channel of small cross sectional size compared to that of the rear compartment, said acoustic channel being connected with said rear compartment and forming therewith an acoustic system which resonates within a low frequency range between 200 and 500 cycles per second for raising the output generated in said windings over said low frequency range.

2,820,108

HYBRID SYSTEM FOR USE IN RADIO-TELEPHONE LINKS COMPRISING A MONITORING CIRCUIT
Eduard Kias, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application June 7, 1954, Serial No. 434,924
Claims priority, application Netherlands June 30, 1953
2 Claims. (Cl. 179-170.2)

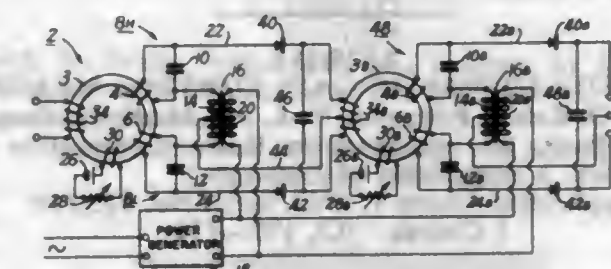


1. A radio-telephone hybrid system comprising a hybrid coil, signal conducting means connected to said hybrid coil, a transmitting branch connected to said hybrid coil, a transmission suppressor connected in said transmitting branch, said transmission suppressor comprising series-connected sub-branches, two unidirectionally conducting elements connected in series in each sub-branch of said transmission suppressor, the last-mentioned unidirectionally conducting elements being connected to conduct a transmitted signal in the transmission direction in said transmission branch, means for maintaining the unidirectionally conducting elements of said transmission suppressor in normally non-conducting condition, a receiving branch connected to said hybrid coil, a reception sup-

pressor connected in said receiving branch, said reception suppressor comprising series-connected sub-branches, two unidirectionally conducting elements connected in series in each sub-branch of said reception suppressor, the last-mentioned unidirectionally conducting elements being connected to conduct a received signal in the receiving direction in said receiving branch, means for maintaining the unidirectionally conducting elements of said reception suppressor in a normally conducting condition, control voltage rectifier means having the output thereof connected to said transmission suppressor and said reception suppressor for rendering said transmission suppressor conducting and for rendering said reception suppressor non-conducting upon the occurrence of an intelligence signal in said transmitting branch and for maintaining said suppressors in their normal conditions upon the occurrence of an intelligence signal in said receiving branch, and monitoring means connected between the two unidirectionally conducting elements of each sub-branch of said transmission suppressor and the two unidirectionally conducting elements of each sub-branch of said reception suppressor.

2,820,109

MAGNETIC AMPLIFIER
Gerhard H. Dewitz, Westport, Conn., assignor to C. G. S. Laboratories, Inc., Stamford, Conn., a corporation of Connecticut
Application March 22, 1952, Serial No. 278,069
15 Claims. (Cl. 179-171)



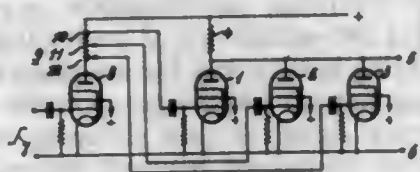
4. An amplifier system having an input circuit adapted to be fed an input signal to be amplified, said amplifier system comprising a signal source generating signals of constant frequency, first and second frequency-selective circuits coupled to said source and each including an inductor having a core of magnetically saturable material, said first circuit having gradually increasing impedance to the flow of currents at frequencies progressively lower than the frequency of said source, said second circuit having gradually increasing impedance to the flow of currents at frequencies progressively higher than the frequency of said source, means responsive to the input circuit and under the control of the signal to be amplified for modifying the extent of magnetic saturation of said core material thereby to change simultaneously and in opposite directions the respective impedances of said first and second circuits to the respective flows of current from said constant-frequency source, and output circuit means coupled to said first and second circuits and responsive to said respective current flows.

2,820,110

CIRCUIT-ARRANGEMENT FOR CONTROLLING THE GRADATION OF PICTURE SIGNALS
Josue Jean Philippe Valetton and Franciscus Henricus Jozef Van Der Poel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application April 30, 1953, Serial No. 352,174
Claims priority, application Netherlands May 7, 1952
5 Claims. (Cl. 179-171)

1. An amplifier for controlling the gradation of a television video signal having a black-representative ampli-

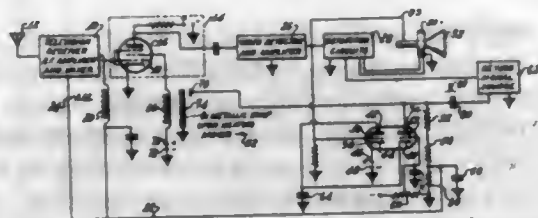
tude and a white-representative amplitude, comprising a first amplifier tube having a control grid and an output electrode and having an operating range, a source of fixed potential corresponding to said black-representative amplitude connected to said grid and lying in said operating range, means connected to apply said video signal to said grid with a total amplitude range falling within said operating range and with said black-representative amplitude coinciding with said fixed potential, a second amplifier tube having a control grid and an output electrode and



having a limited operating range and a cut-off point, a source of fixed potential connected to said last-named grid corresponding to black and lying in said last-named operating range, means connected to apply said video signal to said last-named grid with a total amplitude range greater than said last-named operating range and with said black-representative amplitude coinciding with said last-named fixed potential so that said white-representative amplitude falls beyond said cut-off point, and an output circuit including a common output impedance connected to said output electrodes.

2,820,111

KEYED AUTOMATIC GAIN CONTROL MEANS
 Eugene O. Keizer, Princeton, N. J., and Marlin G. Kroger, Oak Park, Ill., assignors to Radio Corporation of America, a corporation of Delaware
 Application March 1, 1954, Serial No. 413,119
 3 Claims. (Cl. 179-171)

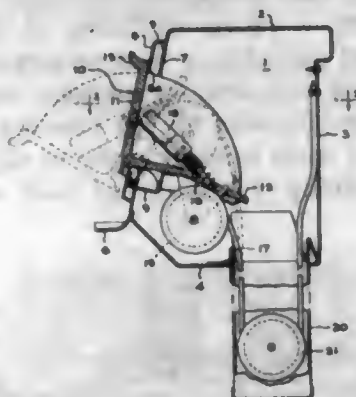


1. In a keyed automatic gain control system, the combination of: an automatic gain controlled amplifier designated to handle a signal whose amplitude undesirably varies, said amplifier including means rendering its power supply demands a function of the influence imposed thereon by an automatic gain control potential; a power supply for said amplifier; a heater element connected between said power supply and said amplifier for developing heat in accordance with amplifier power supply demands; a thermal actuated variable capacitance means thermally coupled with said heater element; an automatic gain controlled circuit of the keyed type operatively connected with said amplifier to deliver thereto an automatic gain control potential, said automatic gain control circuit being of the type operative to accept keying pulses whose amplitude define in part the magnitude of the automatic gain control potential developed thereby; a source of keying signal operatively connected to said automatic gain control circuit; means controlling the amplitude of keying signals applied to said gain control circuit as a function of the amplitude of signal applied to said amplifier, said means for controlling the amplitude of said keying signals comprising an impedance voltage divider means operatively including said variable capacitance means.

2,820,112

RETRACTABLE CORD MECHANISM

Michael N. Lupu, Louisville, Ky., assignor to General Electric Company, a corporation of New York
 Application May 24, 1956, Serial No. 587,004
 2 Claims. (Cl. 191-12.2)

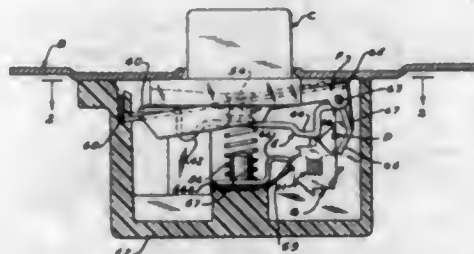


2. A retractable cord mechanism comprising a support member including first and second walls joined along a common edge in substantially right angle relationship, mounting means for pivotally mounting said support member in an opening in a generally vertical wall of a housing or the like for movement about a horizontal axis at the lower edge of said opening parallel and closely adjacent to said common edge, said support member being pivotally movable from a first position in which said first wall is generally vertical and covers said opening to a second position in which said second wall is generally co-extensive with said opening, a pulley carried by said support member for rotation about a horizontal axis below said second wall, an electric cord including a terminal plug removably supported on said support member so that said cord passes over said pulley, said cord including a looped portion depending from said pulley, said terminal plug being exposed for withdrawal from said housing only when said support member is in said second position, a vertically arranged tubular housing enclosing said looped portion, and a weighted free pulley in engagement with said looped portion.

2,820,113

ELECTRICAL SWITCHING DEVICE

Harold P. Lewis, Newtown, and Jacob Schmler, Allentown, Pa., assignors to Rodale Manufacturing Company, Inc., Lehigh County, Pa.
 Application March 8, 1956, Serial No. 570,302
 6 Claims. (Cl. 200-6)



1. An electrical switch comprising a parallelepiped casing, a plurality of T-shaped slots in the side wall, a pair of bearings integrally formed with said casing, said casing of insulating material, a shaft comprising a portion thereof which is square and a portion thereof which is circular and being mounted upon said bearings in said casing, a cam having a multiplicity of lobes mounted upon said square portion of said shaft, a ratchet wheel securely fastened to said shaft and rotatable in unison with said shaft, a plurality of contacts mounted in said T-shaped portion of the walls of said housing, one of said contacts being flexible and being adapted to be moved and one of said lobes being adapted to move said flexible contact, a projection integrally mounted upon the center

of said bottom wall, a helical spring mounted upon said projection, a button adapted to press upon said spring, a pivoted pawl lever located between said spring and said button, and a pawl pivotally connected to one end of said pawl lever, and a spring connected to said pawl lever and said pawl which is adapted to press said pawl against said ratchet wheel.

2,820,114

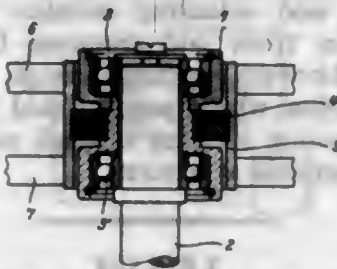
ROLLER CONTACT CURRENT CONVERTER

Walter Gottwald, Ratingen, near Dusseldorf, Germany, assignor to August Hamilton Schilling, Atherton, Calif.

Application July 6, 1953, Serial No. 366,297

Claims priority, application Germany August 4, 1952

11 Claims. (Cl. 200-19)



1. Roller contact current converter comprising, in combination, two concentric rings having electrically conducting arcuate portions at least along part of their peripheries, at least one of said concentric rings including an insulating arcuate portion adjoining a conducting arcuate portion, roller contact means supported for rolling on said concentric rings and periodically bridging said rings electrically, the support for said roller contact means comprising a shaft about whose axis the roller contact means is rotatable, said shaft being bodily rotatable about the axis of said concentric rings, a rotating support on the shaft for the roller contact means, and yielding means disposed between and firmly connected to the roller contact means and to its rotating support and enabling such contact means to assume oblique positions to maintain continuous contact with both concentric rings despite irregularities in the surfaces of said rings, the peripheral extent of said insulating portion being such that the roller contact means at no time bridges the insulating portion to make contact simultaneously with the conducting portions bordering the same.

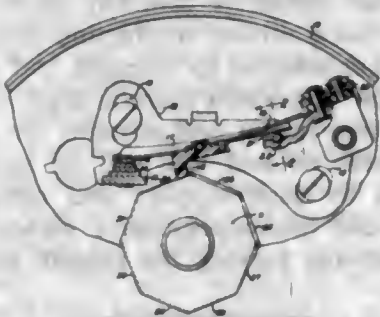
2,820,115

ROCKING DISTRIBUTOR

Challenor W. Rainey, Dearborn, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application July 19, 1956, Serial No. 598,890

8 Claims. (Cl. 200-30)



1. A distributor mechanism comprising a fixed contact, a moving contact, a contact carrying arm supporting said moving contact and a cam capable of imparting substantially only radial and torsional motion to said contact carrying arm and movable contact, said contact carrying arm being capable of both flexural and torsional oscillation and said cam having at least one face which is not parallel to the axis of the cam whereby a torsional oscillation of the contact carrying arm is secured and the locus of contact between the fixed and movable contact points is varied.

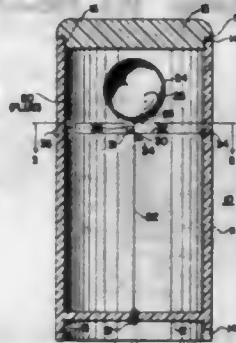
2,820,116

VERTICAL SENSOR

Lawrence E. Alberts, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application December 12, 1955, Serial No. 552,649

5 Claims. (Cl. 200-61.45)



5. In a device of the class described, a vessel containing a fluid, a buoyant float restrained in said vessel by flexible conductive means, and contact means secured to said vessel and substantially encircling said conductor means, said conductive means completing contact with said contact means upon disturbing said container.

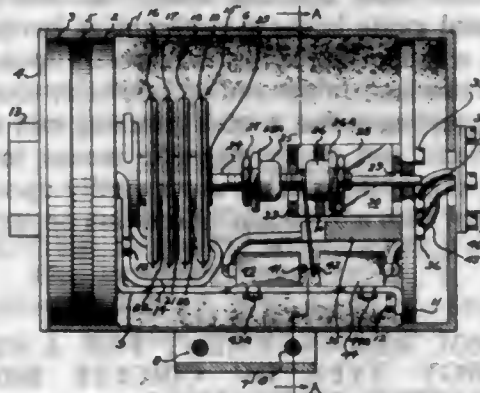
2,820,117

SWITCH

Ralph D. Waite, Sellersville, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware

Application July 6, 1955, Serial No. 520,325

1 Claim. (Cl. 200-83)

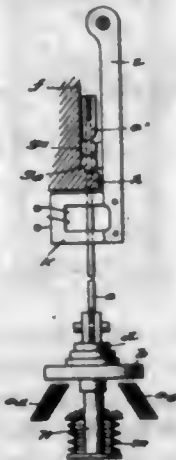


A pressure actuated switch assembly comprising a plurality of stacked communicating pressure wafers each connected to a common source of pressure and expandable thereby, an operating rod connected to said stack of pressure wafers and rectilinearly movable thereby, a pair of spaced abutments adjustably mounted on said operating member, guide means for each of said abutments spaced from each other and from said operating member and positioned along the line of travel of said operating member, each of said abutments entering its cooperating guide means so as to insure rectilinear movement thereof when said operating member is moved in the proper direction by said pressure sensing means, stop means on each of said abutments adapted to engage said guide means and limit the movement of the cooperating abutment in said proper direction, a pair of adjustably mounted spaced switches spaced from said operating member, and a pivoted movable member spaced from said operating member and having one portion between said guide means and another portion between said switches, said pivoted member being engageable by either of said abutments and adapted to engage either of said switches.

said switches depending on the position of said operating member, each of said abutments engaging said pivoted member after it has entered its cooperating guide means.

2,820,118 CIRCUIT CLOSER

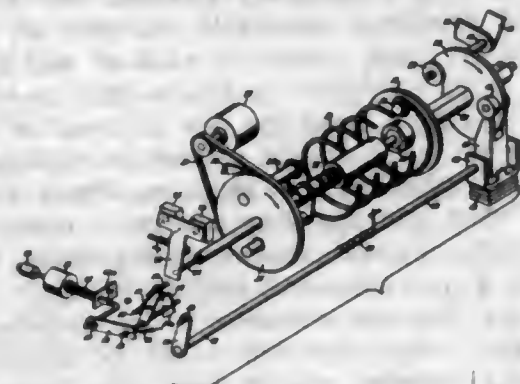
Ernst Zantop, Wettingen, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint stock company
Application September 30, 1954, Serial No. 459,266
Claims priority, application Switzerland October 2, 1953
6 Claims. (Cl. 200—87)



1. A circuit closer comprising a pair of normally-open fixed contacts, a movable contact adapted to bridge said fixed contacts, a slide rod connected to said movable contact and adapted to move axially at right angles to the plane of said fixed contacts, spring means urging said movable contact in a direction to cause engagement of the same with said fixed contacts, a guide body guiding said slide rod during its axial movement, and means normally latching said slide rod against switch closing movement by said spring means; said latching means including an abutment on said guide body, said abutment having a rotary periphery, a supporting roller superposed upon said abutment, an extension on the end of said slide rod supported by said supporting roller, a latch retaining said roller upon said abutment, and electromagnetic means for releasing said latch, said roller rolling downwardly upon said rolling abutment with a direction of rotation opposite thereto.

2,820,119 CONTROL ARRANGEMENT FOR A STORED-ENERGY TYPE OF CIRCUIT BREAKER OPERATING MECHANISM

Richard H. Miller, Havertown, and William C. Mitchell, Jr., Media, Pa., assignors to General Electric Company, a corporation of New York
Application September 25, 1956, Serial No. 612,007
6 Claims. (Cl. 200—89)



1. In an electric circuit breaker comprising stored-energy operating means dischargeable to produce operation of the breaker, restraining means operable in a holding position to hold said stored-energy means in a charged condition and movable from said holding position to a

releasing position to permit discharge of said stored-energy means, biasing means tending to return said restraining means to its holding position, an actuating member movable through a first predetermined travel to drive said restraining means from its holding to its releasing position, the position of said actuating member at the end of said first travel being such as to block return of said restraining means to its holding position, spring means biasing said actuating member through further travel into a position free of said restraining means to permit said restraining means to be returned to its holding position by its biasing means, a solenoid having an armature movable through an operating stroke to drive said actuating member through said first predetermined travel, and a force-transmitting linkage interconnecting said armature and said actuating member for transmitting operating forces from said armature to said actuating member, the force-transmitting linkage including a lost motion connection which permits said spring means to move said actuating member through said further travel independently of said armature.

2,820,120 ELECTRIC SWITCH

James Howard Flatt and Harold J. Cromwell, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 18, 1954, Serial No. 469,800
5 Claims. (Cl. 200—113)



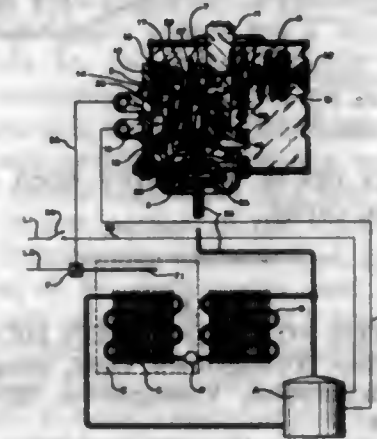
1. An electric switch, comprising; a support, a pair of spaced arms extending from said support, a stationary contact carried by said support and spaced from said arms, a movable contact adapted to mate with said stationary contact and means for reciprocally moving said movable contact relative to said stationary contact for alternately making and breaking the mating engagement therebetween, said means comprising; a contact actuator having one end fixed to said support and the other end freely movable with a slidable engagement with said arms, said actuator being formed of a single piece of metal having at least one slot therein so as to divide the piece into portions, one of which is stressed so that the member will impart a snap action movement to the movable contact which is centrally secured to one of said portions, and a current conducting tensioned thermoresponsive means adapted to elongate and contract in response to a flow of current therethrough having one end secured to the free end of said actuator for controlling the sliding movement of said free end on said arms and a means carried by said support and connected to the other end of said thermoresponsive means for adjusting the tension and for varying the control thereof on said actuator.

2,820,121 CONTROL APPARATUS

Frederick A. Greenawalt, Columbus, Ohio, assignor to Ranco Incorporated, Columbus, Ohio, a corporation of Ohio
Application March 21, 1956, Serial No. 572,935
7 Claims. (Cl. 200—140)

4. In a control apparatus comprising a control device and a pressure-responsive element for actuating said de-

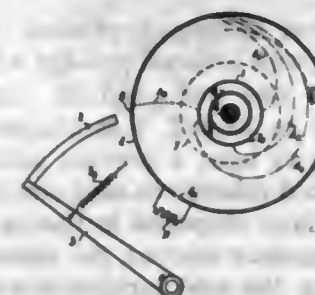
vice from one control position to another, the combination of means operatively inter-connecting said element and device comprising an oscillatable member movable by said element in one direction in response to an increase in pressure, means biasing said member in the opposite direction, a cam surface on said member, a cam follower for engaging said surface and guided for move-



ment in a direction transversely of the direction of movement of said cam as said member moves in one direction to follow the surface of said cam and provide a stop to block movement of said member in the direction opposite to said one direction, and means to bias said follower in a direction to cause said follower to engage said cam during movement of said member in said one direction.

2,820,122 CIRCUIT BREAKERS WITH MAGNETIC BLOWOUT

Stanislas Teszner, Paris, France, assignor to Forges & Ateliers de Constructions Electriques de Jeumont, Paris, France
Application July 1, 1955, Serial No. 519,580
Claims priority, application France July 16, 1954
9 Claims. (Cl. 200—147)

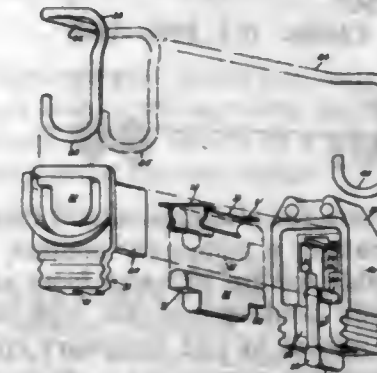


1. A circuit interrupting apparatus for interrupting electrical currents of relatively high potential and large current value comprising, two stationary, concentric spaced, substantially cylindrical, conductive electrodes; insulating members extending transversely of the longitudinal axis of said electrodes and spaced providing relatively large, cooling and arc-deionizing surfaces cooperating with said electrodes in defining at least one narrow substantially confined space between adjacent insulating members; circuit interrupting means including means for establishing an arc between said electrodes; and means comprising electro-magnetic means for producing a magnetic field having a selected phase shift with respect to the current being interrupted, said field being substantially transverse to the arc and having a greater intensity close to the inner electrode than it has near the outer electrode, whereby when established the arc is rotated and travels with a greater angular velocity at the inner electrode than at the outer electrode and said rotating arc being concomitantly stretched longitudinally and flattened transversely by said cooling surfaces, thereby being brought into optimum thermal contact with the large deionizing surfaces so as to be readily extinguished.

726 O. G.—28

2,820,123 MOLDED SWITCH HEAD

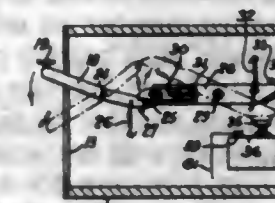
Louis W. Higgins and Russell S. Davis, Detroit, and John A. Herrmann, Grosse Pointe, Mich., assignors to BullDog Electric Products Company, Detroit, Mich., a corporation of West Virginia
Application May 18, 1956, Serial No. 585,890
17 Claims. (Cl. 200—149)



1. A switch head having an operating means for moving a contact slug into and out of engagement with a first and second stationary conductor; said switch head comprising a first and second insulating head section; a biasing means and a contact slug; said first insulating head section having depressions therein for receiving and positioning one end of said contact slug and biasing means; said second insulating head section being connectible to said first insulating head section; said second insulating head section having depressions therein for receiving and positioning the other end of said contact slug and biasing means when said first and second insulating head sections are connected; said biasing means being positioned to move stationary conductors into engagement with said contact slug when said switch head is moved to the engaged position; said operating means being connected to said switch head adjacent said depressions to place the portion of said switch head between said operating means and said contact slug in compression when said operating means moves said contact slug out of engagement with said first and second stationary conductors.

2,820,124 ELECTRICAL SWITCHING APPARATUS

George Semos, New York, N. Y.
Application July 15, 1955, Serial No. 522,227
2 Claims. (Cl. 200—160)



1. In a code transmitting switch, a lever, a pivot carrying said lever intermediate its ends, a key upon one end of said lever, a spring connected to the other end of said lever, a stop adapted to engage said other end of said lever, said spring pressing said other end of the lever against said stop, another lever, another pivot carrying said other lever intermediate its ends, a slide movably mounted upon one end of said other lever, another spring engaging said slide, a pin carried by said other end of the first-mentioned lever and adapted to engage said slide, a third spring pressing said other end of the second-mentioned lever against said other stop, a conducting contact carried by said other end of the second-mentioned lever, and a signal-emitting contact adapted to be engaged by the first-mentioned contact while said key is being depressed.

2,820,125 CONTACT MEANS

Clarence Huetten, Indianapolis, Ind., assignor to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware
Original application November 28, 1950, Serial No. 197,965, now Patent No. 2,682,594, dated June 29, 1954. Divided and this application January 26, 1954, Serial No. 406,247

1 Claim. (Cl. 200-166)



A contact structure for electrical circuit breakers comprising in combination, a stationary contact, an actuating member movable toward or away from said stationary contact, a main contact movable with said actuating member with respect to said stationary contact, each of said contact members comprising a single cup-shaped structure free of internal solid material having a top annular flexing disc, side walls vertically depending therefrom so as to form a cup-like structure thereby, and means for connecting said dependent side wall structure to associated supporting structure.

2,820,126

WIPER ASSEMBLY FOR AUTOMATIC SWITCHES
James S. Murray, Tampa, Fla., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application December 16, 1954, Serial No. 475,739
2 Claims. (Cl. 209-166)



1. A wiper for use in a switch mechanism having a set of fixed contacts, comprising a conducting resilient member having a terminal and pivotal point at its heel end and plurality of upturned flanges at its tip end, said member extending from and disposed to rotate about an axis including said pivotal point, a bearing pin having a groove at one end, a cylindrical contacting member having an aperture extending longitudinally therethrough and said bearing pin being mounted in said aperture to enable rotation of said contacting member on said pin, an aperture in one of said flanges, said bearing pin mounted so as to extend through said flange aperture and removably fastened to said conducting member by pinching other of said flanges into said groove, said contacting member disposed to rotate about said bearing pin and engage said fixed contacts with a rolling action when moved thereover.

2,820,127

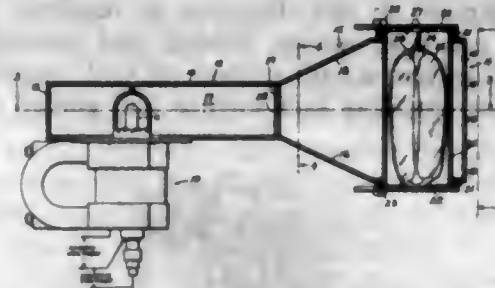
MICROWAVE COOKERS

Henry F. Argento, Newtonville, and Duane B. Haagen, Wayland, Mass., assignors to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application March 30, 1953, Serial No. 345,372

14 Claims. (Cl. 219-10.55)

5. A microwave cooker comprising an enclosure defining a cavity, means for radiating microwave energy into said cavity, means for positioning a body to be heated in said cavity, said cavity being structurally dimensioned to support one mode pattern of propagation of said energy when said body is not in said cavity, and another mode pattern of propagation of said energy when said body is in said cavity, and an uncovered energy coupling slot in the wall of said cavity, said slot being operative to

couple said energy out of said cavity when said body is not positioned in said cavity, said slot being inoperative

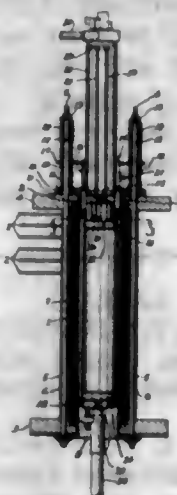


to couple energy out of said cavity when said body is positioned in said cavity.

2,820,128

APPARATUS FOR INDUCTION HEATING
Bruce E. McArthur, Youngstown, Ohio, assignor to Magnethermic Corporation, Youngstown, Ohio, a corporation of Ohio

Application January 10, 1955, Serial No. 480,743
14 Claims. (Cl. 219-10.67)



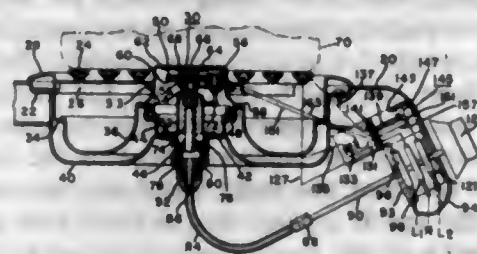
4. In an induction heating apparatus, a heating coil including a winding with an axial passage which is adapted to receive through one end, and to accommodate, a charge of metal to be heated, a laminated flux concentrating core having at least a portion accommodated in said passage in spaced relation to said one end of the coil, and a thermal insulator disposed in the passage in alignment with the innermost end of the core in a position so as to lie between the said innermost end of the core and the adjacent end of the charge when the charge is accommodated in the passage.

2,820,129

DOMESTIC APPLIANCE

George B. Long and Byron L. Brucken, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 2, 1954, Serial No. 407,747
1 Claim. (Cl. 219-20)



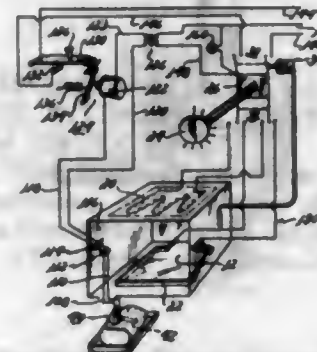
An electric range including a range top, an electric surface heater mounted upon the range top, a resiliently mounted contact device within said surface heater adapted to make thermal contact with the bottom of a vessel resting upon the surface heater, said contact device

including an adjustable bimetal switch means responsive to the temperature to said contact device, said switch means including adjustment means for adjusting its operating temperature, a rotatable adjusting knob and shaft means rotatably mounted upon said range top, means connecting said shaft means and the adjustment means of said adjustable bimetal switch means, said range top being provided with a switch box adjacent said adjusting knob provided with a first set of electrical terminals for connection to a supply source and a second set of electrical terminals for connection to said surface heater, conductors connecting said second set of terminals and said heater and said bimetal switch means for energizing said heater, said switch box including switches actuated by said shaft means connecting said first and second sets of terminals in one portion of the rotation of the shaft means and disconnecting said sets at a different position in the rotation of the shaft means, said switch box also having physically associated with it a transformer having a low voltage outlet and a relay connected in circuit with said low voltage outlet and said switch means and controlled by said bimetal switch means, said relay having high voltage contacts electrically connected between one of said switches and one of said second set of terminals for energizing and deenergizing said heater.

2,820,130 RANGE

Thomas E. Dadson, Franklin, Mich., assignor to American Motors Corporation, Detroit, Mich., a corporation of Maryland

Application April 8, 1955, Serial No. 500,202
3 Claims. (Cl. 219-20)



1. An oven having in combination, an electrical heating element for the heating of the circulating air within said oven, a heat regulating and controlling device responsive to the temperature within said oven, said heat regulating and controlling device being connected in series circuit connection with said electrical heating element, a second heat controlling device arranged to be primarily responsive to the temperature of the food placed within said oven having a normally open switch and a heat responsive element for actuating said switch to closed position, means to vary the actuation of said switch by said heat responsive element, a second switch connected in series circuit connection with said electrical heating element, an electro-magnetic means for operating said second switch to open position, and said electro-magnetic means being connected in series circuit connection with said first switch.

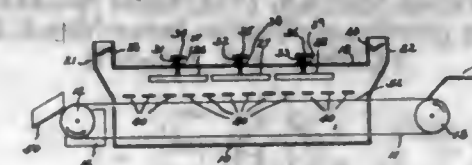
2,820,131 CURING OVEN

George T. Kodama, Nashua, N. H., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts

Application August 1, 1951, Serial No. 239,810
2 Claims. (Cl. 219-34)

1. A curing oven for printed circuit components comprising, a housing, a component carrier, driving mechanism connected to move the carrier in a predetermined

path through the housing, adjustable heating lamps in the housing directed toward the path in which the components are carried by the carrier, fixed shade bodies adjustably

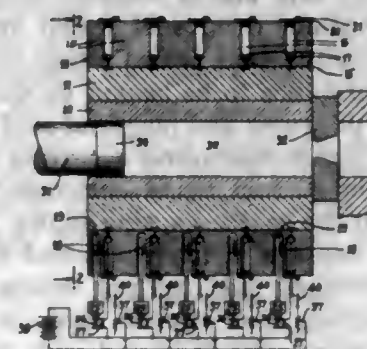


positioned between said lamps and said last named path, said members being narrower than the last named path to vary the radiant heating effects on a portion of the surface of the components as they are baked.

2,820,132

EXTRUSION PRESS CONTAINER

Gerhard P. Krause, Harrison, N. Y., assignor, by mesne assignments, to Baldwin-Lima-Hamilton Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application November 19, 1953, Serial No. 393,030
4 Claims. (Cl. 219-36)

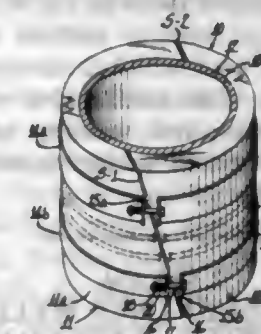


1. A container for a metal extrusion press, said container comprising an inner tubular member, an outer casing mounted on said member, said casing being composed of a plurality of rings positioned side by side along the length of said member, said tubular member being adapted to hold a metal billet to be extruded, and said tubular member and said casing being adapted to withstand the extrusion pressure, each pair of adjacent surfaces of said rings being formed to provide a circumferential cavity between the respective rings extending from the outer periphery of the casing inwardly toward a point closely adjacent said inner member, and an independent temperature control element in each of said cavities.

2,820,133

HEATING UNIT

William H. Norton, Chicago, Ill., assignor to Thermel, Inc., Chicago, Ill., a corporation of Illinois
Application April 12, 1956, Serial No. 577,885
6 Claims. (Cl. 219-38)

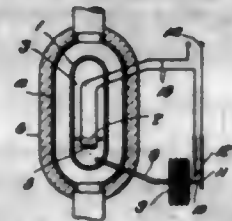


4. In an electric heater, a pair of allochiral semi-annular heating members separably secured together to define an annulus, each carrying electrical heating elements, the contiguous faces of said members extending at an angle to the annulus length and the annulus radius.

2,820,134

HEATING APPARATUS

Keigo Kobayashi, Tokyo, Japan
Application March 8, 1954, Serial No. 414,820
Claims priority, application Japan May 6, 1953
5 Claims. (Cl. 219—39)



1. A heating apparatus comprising in combination a hermetically sealed vessel having a liquid heating medium and the vapor thereof exclusively enclosed therein, a receptacle for the substance to be heated disposed in thermal relation with said sealed vessel, a fine pipe one end of which opens into said sealed vessel through the wall of the latter below the level of said liquid heating medium, an elastic bellows disposed externally of said sealed vessel and communicating with the other end of said fine pipe, said fine pipe and said elastic bellows being filled with liquid heating medium from said sealed vessel, a heating means for heating said sealed vessel and thermally coupled to the substance to be heated by the liquid heating medium, the thickness and length of said fine pipe being such that the high temperatures occurring in said sealed vessel are prevented from being communicated to said elastic bellows to the extent causing injury to the latter, a pair of electric contacts which is operated by said elastic bellows for controlling said heating means, and means adjustably supporting said electric contacts so that the position of the latter may be varied with respect to the free end of said bellows to permit the maintenance of the temperature in said sealed vessel at any desired value, the pressure in said sealed vessel being transmitted through the liquid medium in said fine pipe to said elastic bellows.

2,820,135

METHOD FOR PRODUCING ELECTRICAL CONTACT TO SEMICONDUCTOR DEVICES

Kazuo A. Yamakawa, Los Angeles, Calif., assignor to Pacific Semiconductors, Inc., Culver City, Calif., a corporation of Delaware
Application September 5, 1956, Serial No. 608,063
7 Claims. (Cl. 219—85)



1. The method of electrically and mechanically connecting a whisker element to a semiconductor crystal, said method including the steps of: bringing the end of a whisker element into contact with a body of solid solder; passing an electric current through the whisker and solder series combination to weld a portion of the body of solder to the end of said whisker element; withdrawing said whisker element from said solder with said portion thereof welded thereto; and welding said end of said whisker element having said solder welded thereto to said semiconductor crystal.

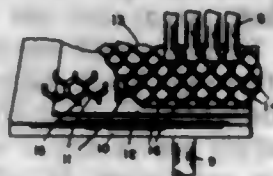
2,820,136

METHOD FOR RESISTANCE WELDING BLIND LOCATIONS WITH EXPENDABLE ELECTRODES

Monroe H. Bester, Whittier, Calif., assignor to North American Aviation, Inc.
Application March 2, 1956, Serial No. 569,104
8 Claims. (Cl. 219—117)

1. The process of fabricating a metal sandwich comprising placing supports on a first metallic member form-

ing one face of the sandwich; placing a sandwich core on said supports; means on said core to lock said supports between said core and said first member; welding said core at the locations of said depressions to said first metallic



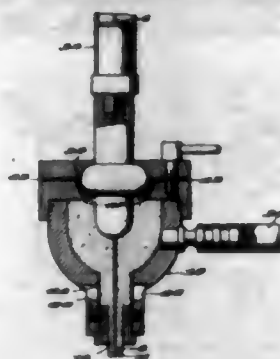
member; placing a second metallic member, forming the other face of the sandwich, on said core; welding the raised portions of said core to said second metallic member at locations where said supports contact said core; and removing said supports from said sandwich.

2,820,137

PROCESSES AND APPARATUS FOR COATING WITH MAGNETIC POWDER A METAL WIRE WHICH SERVES AS AN ARC-WELDING ELECTRODE

Louis Marcel Ghemar, Ixelles-Brussels, Belgium, and Rene Jacques Ferdinand Daniel Robert Mouton, Lausanne, Switzerland, assignors to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application December 20, 1955, Serial No. 554,356
Claims priority, application Luxembourg
December 30, 1954
8 Claims. (Cl. 219—137)



1. A process for coating with discrete magnetic powder a metal wire which serves as an electrode in arc-welding processes through the use of a machine for automatically advancing the electrode in the extent of its fusion in the arc, in which process the wire carrying the welding current passes into the magnetic powder in contact with a wall presenting a gauging orifice for the layer of powder drawn by the wire through this orifice under the combined action of the magnetic field created by the passage of welding current and by the resistance to friction between the wire and the powder attracted toward it, characterized in that the discrete magnetic powder is continuously mechanically thrust toward said gauging orifice and into a magnetic field created by the passage of welding current through the wire.

2,820,138

RELAY STATION FOR TRANSMITTING FREQUENCY MODULATED SIGNALS

Hans Bertil Hård, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden

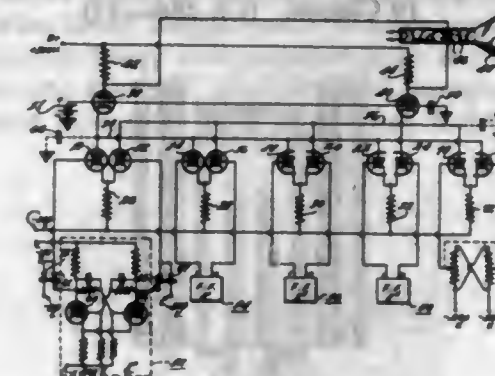
Application October 6, 1954, Serial No. 460,645
Claims priority, application Sweden October 19, 1953
2 Claims. (Cl. 250—15)

1. A relay station for transmitting frequency modulated signals, comprising local oscillating means, mixing means mixing an incoming frequency modulated signal with the voltage of said local oscillating means, intermediate frequency amplifying means, frequency de-

2,820,140

CODE CONVERTER

Jan A. Rajchman, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application January 5, 1954, Serial No. 402,385
7 Claims. (Cl. 250—27)



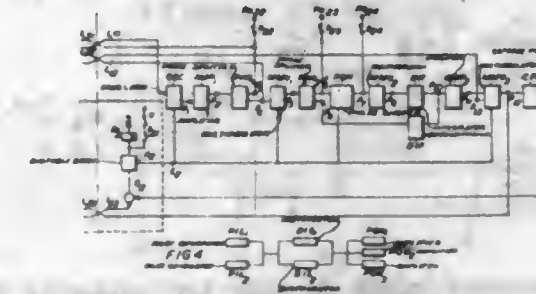
1. Apparatus for converting signals in a digital code form to signals in analogue form comprising a plurality of first electron control devices each having anode, cathode and control electrodes, separate digitally-operating means for receiving said digital code signals and for varying the anode-cathode current of each of said first devices in accordance with said digital code, a second electron control device having anode, cathode and control electrodes, means coupling said first device anodes together and to said second device cathode so that the total anode current of said first devices flows through said second device, and output means coupled to said second device anode.

2,820,141

CONTROL CIRCUIT FOR PULSE GENERATOR

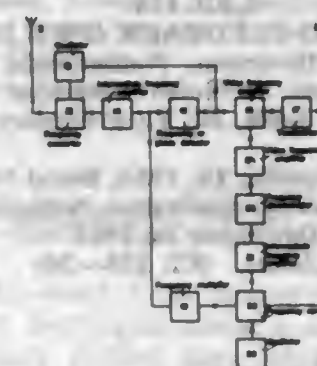
Camille Weill and Claude Hannigsberg, Paris, France, and Hans Adelaar, Antwerp, Belgium, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application June 14, 1954, Serial No. 436,620
Claims priority, application Netherlands June 17, 1953
6 Claims. (Cl. 250—27)



1. A control circuit for a pulse generating system having identical first and second pulse oscillator continuously and normally producing cophasal output pulses of equal duration and period, means responsive to said output pulses from said first and second oscillators for producing first and second control pulses respectively, and means, controlled by the control pulses and inoperative in the presence of both first and second control pulses, for blocking the oscillator whose corresponding control pulse is absent during the presence of the control pulse of the other oscillator, characterized by means within said control pulse producing means responsive to a change of duration of said output pulses of said first and second oscillator in either direction as well as their change in phase or absence thereof for aborting the pulses of the corresponding oscillator, said control pulse producing means comprising a first and second two-output condition device each having a natural period different from the normal repetition period of said oscillators, and means for applying said output pulses to said two-condition devices, the outputs of said two condition devices being coupled to the inputs of said blocking means.

tecting means, video frequency amplifying means, emitting means for emitting an output signal, a point between said detector means and said emitting means being connected to said local oscillating means to form an envelope feed-back circuit, distortion reducing means including a second mixing means mixing said output signal with the intermediate signal from said intermediate frequency amplifying means, a second detecting means

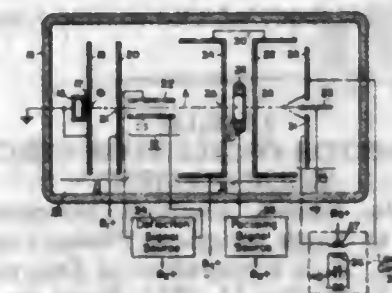


detecting the output of said second mixing means, the output of said second detecting means being connected to a point between said first detecting means and the output of said emitting means, and means for frequency multiplying the intermediate signal fed to said second mixing means by a factor such that the frequency swing of the signal applied to said second mixing means from the intermediate frequency amplifying means is substantially the same as the frequency swing of the output signal of the emitting means.

2,820,139

ELECTRON BEAM WAVE SIGNAL FREQUENCY CONVERTER UTILIZING BEAM DEFLECTION AND BEAM DEFOCUSING

Robert Adler, Northfield, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application November 8, 1954, Serial No. 467,621
17 Claims. (Cl. 250—20)



4. An electron-discharge device comprising: an electron gun for projecting a beam of electrons along a given reference path; a deflection-control system, responsive to an applied signal, for deflecting said beam transversely from said reference path as said beam passes through a predetermined center of deflection; an output electrode system, coupled to said electron beam, for deriving an output signal representative of transverse excursions of said beam from said path at a preselected image location spaced from said deflection system; and means for varying the effective transconductance of said deflection system with respect to said output electrode system over a predetermined range including values of opposite polarity, said means comprising an electron lens system interposed between said deflection-control system and said output electrode system for normally focusing said beam to form an image of said center of deflection at said preselected image location and for varying the position of said image along said path in response to a second signal.

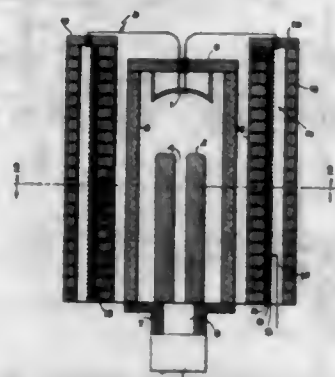
2,820,142

CHARGED-PARTICLE ACCELERATOR

Maurice G. Kelliber, Arlington, Mass., assignor to High Voltage Engineering Corporation, Cambridge, Mass., a corporation of Massachusetts

Application March 7, 1955, Serial No. 492,484

10 Claims. (Cl. 250-27)



1. Apparatus for accelerating charged particles, comprising in combination a vacuum envelope; a source of charged particles and a target electrode mounted within said vacuum envelope; a pulse transformer including a tubular core of high magnetic permeability and low conductivity surrounding said vacuum envelope, the windings of said pulse transformer being wound around said core; means for applying substantially rectangular, unidirectional voltage pulses to the primary of said pulse transformer; and means for applying the secondary voltage of said pulse transformer between said source and said target electrode, so as to accelerate charged particles emitted at said source.

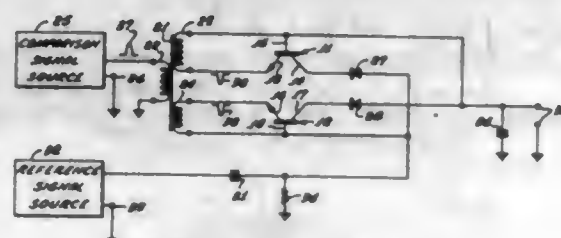
2,820,143

TRANSISTOR PHASE DETECTOR

Gregg O. D'Nelly, Santa Monica, and Norman B. Fjeldsted, Los Angeles, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application April 19, 1955, Serial No. 502,319

6 Claims. (Cl. 250-31)



1. A transistor phase detector for producing direct-current voltage levels in response to the phase relationships between applied reference and comparison signals comprising: a first transistor, including a first emitter electrode, a first collector electrode, and a first base electrode; a second transistor, including a second emitter electrode, a second collector electrode, and a second base electrode; first coupling means connected between said first emitter and base electrodes and said second emitter and base electrodes for applying the comparison signal to each of said transistors simultaneously in a polarity to cause each of said transistors to be conditioned to conduct; a first unidirectional current flow device connected between said first collector electrode and said second base electrode; a second unidirectional current flow device connected between said first base electrode and said second collector electrode; second coupling means connected between said second base electrode and a common terminal point for applying a continuous periodically recurring reference signal to each of said transistors simultaneously to cause either said first or said second transistor to pass the comparison signal during the time the reference signal is applied concurrently

therewith; and charge storage means connected between said first base electrode and said common terminal for converting said comparison signal to a direct-current voltage level, whereby a direct-current voltage level will be produced at said storage means representative of the phase relationship between the comparison and reference signals.

2,820,144

STABILIZED FEEDBACK OSCILLATOR

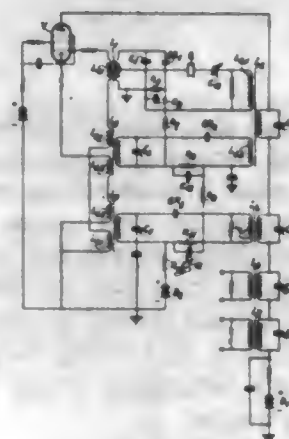
Willem Hermes, Hilversum, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 18, 1954, Serial No. 469,742

Claims priority, application Netherlands

December 14, 1953

5 Claims. (Cl. 250-36)



1. An oscillator comprising a feedback circuit including a master frequency-selective element and arranged to produce local oscillations at a frequency determined by said master frequency-selective element, a second feedback circuit including a tuned circuit which is tuned to a subharmonic of said local oscillations and arranged to produce subharmonic oscillations at a frequency determined by said tuned circuit, and means connected to apply said local oscillations to said second feedback circuit thereby to synchronize said subharmonic oscillations at a subharmonic frequency of said master frequency-selective element.

2,820,145

TRANSISTOR OSCILLATOR CIRCUIT ARRANGEMENT

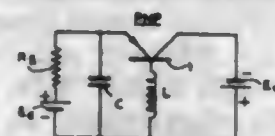
Eric Wolfendale, Horley, England, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 21, 1954, Serial No. 476,705

Claims priority, application Great Britain

December 23, 1953

6 Claims. (Cl. 250-36)



1. A circuit arrangement comprising a transistor having an emitter electrode, a collector electrode and a base electrode, said transistor having a characteristic emitter-collector current amplification factor of less than unity, a base input impedance and an emitter circuit coupled to said emitter electrode, means for energizing said electrodes thereby to produce current flow in said electrodes, means for applying an oscillation to said base electrode at a frequency at which a phase shift is produced between the base current and the emitter current and a capacitive impedance is thereby formed between said emitter and base electrodes, and a capacitive impedance connected in the emitter circuit of said transistor for producing a phase

shift in the current flowing therethrough, the reactance of said capacitive impedance at said frequency having a value producing a total phase shift greater than ninety electrical degrees in current flowing in the emitter and base paths thereby to impart to said transistor a base input impedance having a negative resistance component.

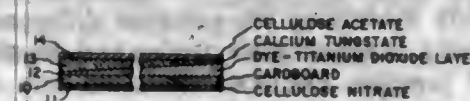
2,820,146

INTENSIFYING SCREENS

Arnold R. Kunes, Towanda, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application February 18, 1955, Serial No. 489,082

8 Claims. (Cl. 250-80)



4. A variable-speed X-ray intensifying screen comprising a support bearing in order a reflective-filter layer comprising finely divided inert white pigment particles and a dye uniformly dispersed through a hard film-forming polymeric binding agent, said layer being of uniformly varying thickness in a major part of its dimension along one axis and of uniform thickness in incremental coplanar portions along a perpendicular axis, a complementary fluorescent layer of inversely varying thickness comprising finely divided discrete phosphor particles uniformly distributed throughout a hard film-forming binding agent and a protective layer composed of such a binding agent.

2,820,147

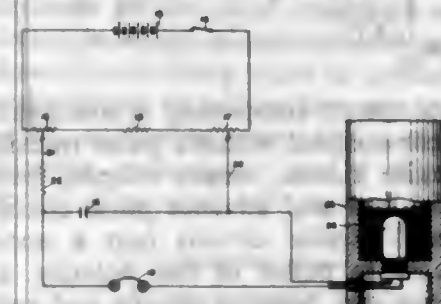
GRAIN INSECT TESTER

Norman M. Dennis, Manhattan, Kans.

Application July 8, 1955, Serial No. 520,938

1 Claim. (Cl. 250-83.3)

(Granted under Title 35, U. S. Code (1952), sec. 266)



A method of testing grain to determine the presence of insect infestation within the kernel comprising positioning the grain to be tested near the tube of a gaseous-tube relaxation oscillator thus to change the discharge frequency of the oscillator due to the infrared radiation from the insects, the change in frequency serving as the indicator of the presence of insect infestation within the kernels.

2,820,148

WAVE MOTOR AND ASSOCIATED MECHANISM

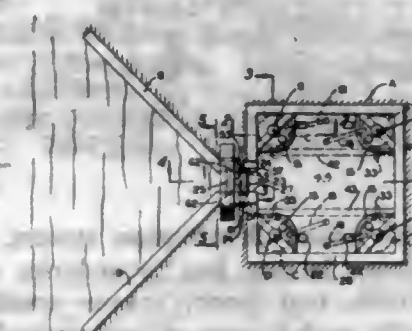
John W. Southwick, San Jose, Calif.

Application March 18, 1957, Serial No. 646,848

7 Claims. (Cl. 290-4)

1. In a wave motor mounted on an ocean shore and exposed to incoming waves, and comprising a reservoir having an upper water storage compartment above high tide level, and a discharge compartment with its floor substantially at or below low tide level, and a pair of sea walls diverging seawardly from their apex adjacent the seaward side of the reservoir; an entrance gap communicating the apex of the sea walls with the interior of the reservoir and extending throughout the height of the both compartments, a pair of gap walls bounding the gap on both sides, a heavy outer gate mounted for ver-

tical slidable movement between outer portions of said gap walls and movable from a closed condition closing the gap, to elevated condition fully exposing the gap, a check gate frame removably mounted between the gap walls shorewardly of the outer gate, a pair of check gates mounted in said check gate frame and swingable seawardly from closed condition shutting off the ingress of wave water into the lower compartment, to open condition communicating the lower compartment with the ocean outwardly beyond said gap, an inner gate mounted for vertical slidable movement between the gap wall for adjust-



ment from lowered condition wherein the upper edge of the inner gate is slightly above low water level in the storage compartment, to a raised condition wherein the upper edge of the inner gate is substantially at the top of the gap, a drive shaft mounted vertically in the lower compartment, an electric generator in driven connection with said shaft, a water driven turbine mounted for vertical slidable movement on said shaft and in driven relation therewith, and flexible duct means communicating the bottom of the upper compartment with the turbine for supplying water under pressure to the turbine.

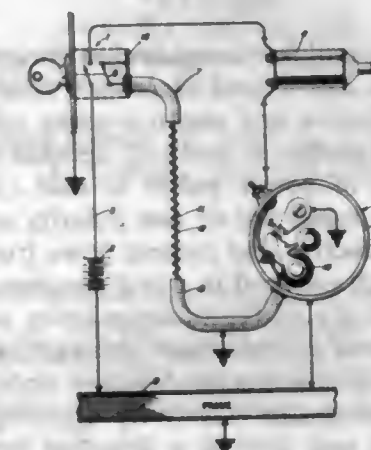
2,820,149

APPARATUS FOR PREVENTING THEFT OF A VEHICLE

David C. Roth, Pikesville, Md.

Application April 15, 1957, Serial No. 652,877

3 Claims. (Cl. 307-10)



1. An arrangement for preventing the theft of a motor vehicle, comprising, a battery, an ignition switch means located in a metal casing, an ignition coil and a distributor having a pair of breaker points connected in an electrical system to the frame of said motor vehicle, said ignition switch means including a pair of switches, one of said switches being arranged to be connected in said electrical system when the ignition system is turned on and the other switch being arranged to be connected in a closed circuit when the ignition system is turned off, and means connected between said second switch and said distributor to cause a permanent short circuit of the ignition system when the ignition system is off.

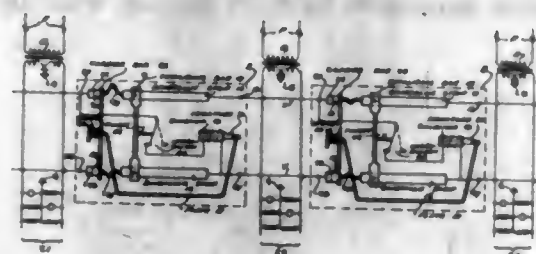
2,820,150

ELECTRIC POWER DISTRIBUTION SYSTEM AND ELECTRIC CIRCUIT BREAKER FOR USE THEREIN

Wallace A. Coburn, Brandon, Manitoba, Canada, assignor to C. T. Electrical Controls Limited, Brandon, Manitoba, Canada

Application March 15, 1955, Serial No. 494,459

Claims priority, application Canada January 31, 1955
24 Claims. (Cl. 307—35)



1. An electric power distribution system, comprising transformer means having two secondaries adapted for parallel operation, two loads, means connecting such loads individually each to one of said secondaries, and a circuit breaker connected for paralleling the terminals of said secondaries, said circuit breaker comprising electrically actuated operating means connected between a terminal of one of said secondaries and an electrically different terminal of the other said secondary.

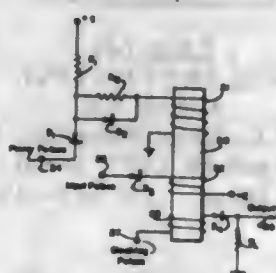
2,820,151

PARALLEL MAGNETIC COMPLEMENTERS

William F. Steagall, Merchantville, N. J., assignor to Sperry Rand Corporation, Philadelphia, Pa., a corporation of Delaware

Application March 30, 1955, Serial No. 497,981

18 Claims. (Cl. 307—88)



1. A magnetic amplifier comprising a core of magnetic material having a coil wound thereon, a source of regularly occurring positive and negative-going power pulses, a current source coupled to said coil, rectifier means coupling said source of power pulses to said coil whereby when said power pulses are of one polarity said rectifier means is non-conductive and current flows from said current source through said coil in a first direction, and when said power pulses are of the other polarity said rectifier means conducts and current flows through said coil and said rectifier means in a second direction opposite to said first direction, and means selectively applying a magnetomotive force to said core in a direction opposing that effected by said current flow in said second direction.

2,820,152

SEMI-CONDUCTOR NETWORK

Vernon P. Mathis and Jerome J. Suran, Syracuse, N. Y., assignors to General Electric Company, a corporation of New York

Application June 15, 1954, Serial No. 436,978

3 Claims. (Cl. 307—88.5)

1. In combination, an electric device comprising a semiconductor body of uniform conductivity type provided with spaced predominantly bilaterally conducting electrodes and a predominantly unilaterally conducting junction electrode adapted to inject carriers into the region affected by a potential difference between said bilaterally

conducting electrodes, means for applying a first potential between said bilaterally conducting electrodes, means including an impedance for applying a second potential of the same sense as said first potential and lesser magnitude than said first potential between said junction electrode



and one of said bilaterally conducting electrodes, and means jointly modifying the potential difference between said bilaterally conducting electrodes and the potential between said junction electrode and said one of said bilaterally conducting electrodes in response to a control impulse.

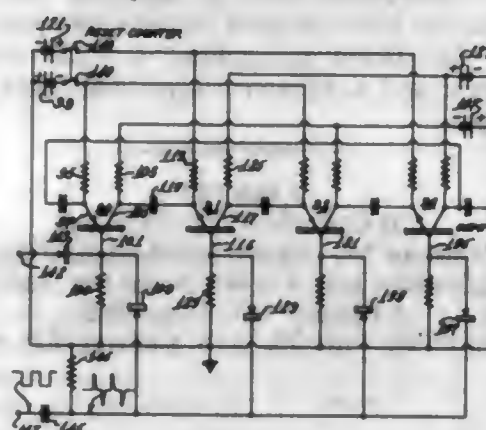
2,820,153

ELECTRONIC COUNTER SYSTEMS

Harry J. Woll, Haddon Heights, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 25, 1954, Serial No. 464,506

13 Claims. (Cl. 307—88.5)



1. A counter system comprising in combination, a plurality of cascade-coupled bistable pulse transfer circuits, an advance pulse circuit, means coupled between said bistable circuits and said advance pulse circuit for triggering alternate bistable circuits into a non-indicating state in response to pulses of one polarity, and means coupled between said bistable circuits and said advance pulse supply circuit for triggering the remaining bistable circuits into a non-indicating state in response to pulses of opposite polarity.

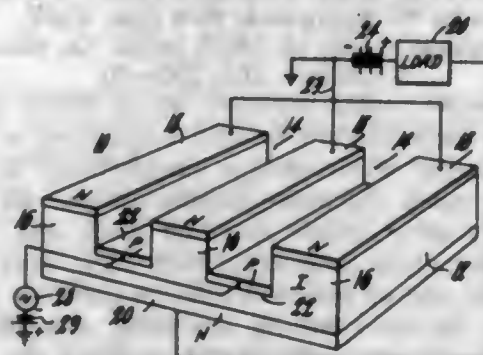
2,820,154

SEMICONDUCTOR DEVICES

Jerome Kurshan, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 15, 1954, Serial No. 468,770

8 Claims. (Cl. 307—88.5)



1. A semiconductor device comprising a body of semiconductor material of substantially intrinsic conductivity, a set of projections formed in said body and having slots

therebetween, a group of zones of semiconductor material of one type of conductivity on respective parts of said bodies near the tops of said projections, another zone of semiconductor material of said one type of conductivity on a part of said body opposite to said tops of said projections, and a group of separate zones of semiconductor material of opposite conductivity-type on respective parts of said body near the bottoms of said slots.

2,820,155

NEGATIVE IMPEDANCE DISTABLE SIGNAL-OPERATED SWITCH

John G. Lavill, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 9, 1955, Serial No. 493,247

21 Claims. (Cl. 307—88.5)



20. A two-terminal signal-operated apparatus for connection between a signal source and a load, and adapted to isolate said source from said load for signal voltages less than a preassigned threshold and to establish a low-impedance signal path from said source to said load in response to a signal voltage in excess of said threshold, which comprises a first transistor of one conductivity type and a second transistor of opposite conductivity type, each of said transistors having an emitter electrode, a collector electrode and a base electrode, two resistors connected in series between the collector electrodes of said transistors, a cross-coupling path interconnecting the base electrode of each transistor with the collector electrode of the other transistor; a breakdown diode connected in series in each of said paths, each of said breakdown diodes being poled to oppose the normal flow of current of the transistor base electrode to which it is connected, accessible terminals connected to said emitter electrodes, respectively, and a third breakdown diode connected in parallel with one of said two resistors.

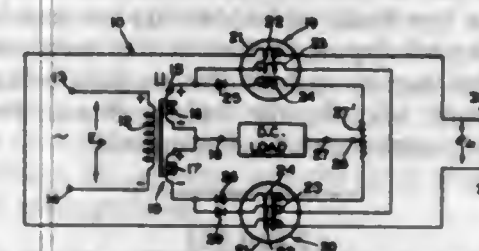
2,820,156

HIGH SPEED MAGNETIC AMPLIFIER

Herbert W. Kunes, Hackensack, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application September 30, 1954, Serial No. 459,285

8 Claims. (Cl. 307—106)



7. A high speed magnetic amplifier comprising a pair of elements each having a core with a power winding, a reset winding, and a control winding thereon, said power windings being connected in series aiding relationship, said reset windings being connected in series aiding relationship, and said control windings being connected in series opposition; a rectifier serially connected with each of said power windings with the polarities of said rectifiers aiding, said reset windings being connected in parallel with said power windings and rectifiers, a source of excitation connected across said parallel connected reset

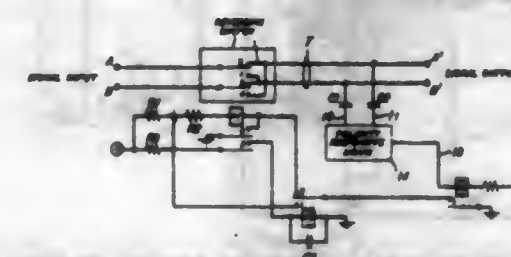
2,820,157

RELAY CIRCUIT

John W. Rieke, Basking Ridge, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application October 29, 1954, Serial No. 465,542

15 Claims. (Cl. 307—132)



13. In a relay circuit, a first relay, means for causing said first relay to operate at times and to release at times, a second relay, a third relay, first circuit means effective whenever said first relay is operated and said third relay is released to cause said second relay to operate, second circuit means effective whenever said second relay is operated to cause said third relay to operate and effective whenever said second relay is released to cause said third relay to start to release, third circuit means effective whenever said first and second and third relays are operated to cause said second relay to release, and fourth circuit means effective whenever said second relay is operated and said first relay is released to hold said second relay operated.

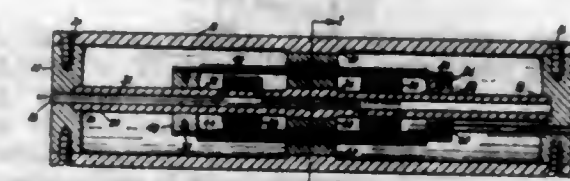
2,820,158

ACCELEROMETER

Avrel Mason, Birmingham, Mich., assignor to Bendix Aviation Corporation, Detroit, Mich., a corporation of Delaware

Application August 21, 1953, Serial No. 375,619

13 Claims. (Cl. 310—15)

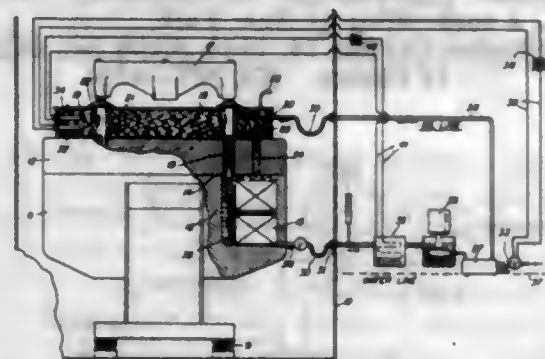


13. In combination, a sleeve having magnetic properties, a shaft having magnetic properties positioned within the sleeve and attached to the sleeve, a first pole piece on the sleeve, a second pole piece on the shaft positioned opposite the first pole piece to provide a substantially constant magnetic flux between the pole pieces and a passage of the flux through the inner and outer members, a closed electrical circuit including a first coil positioned between the first and second pole pieces and movable relative to the pole pieces to traverse the flux and to produce in the coil a current flow having an amplitude substantially proportional to the rate of movement of the coil relative to the pole pieces, the current flow in the first coil providing a magnetic flux for passage through the shaft and the sleeve for producing a variation in the flux in the

shaft and sleeve corresponding to the variations in the current through the coil, and a second coil positioned on the shaft for producing a voltage having an amplitude substantially proportional to the rate of flux variation in the shaft.

2,820,159

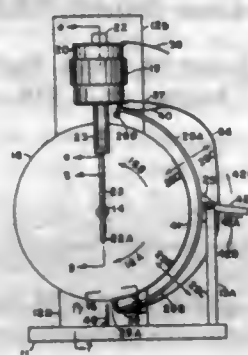
ELECTROMAGNETIC VIBRATION EXCITER
Gerald K. Reen, Woodbridge, and Donald S. McCluskey, New Haven, Conn., assignors, by mesne assignments, to Textron Inc., a corporation of Rhode Island
Application September 9, 1954, Serial No. 454,961
5 Claims. (Cl. 310-16)



1. An electromagnetic vibration exciter having a stationary body and a cover therefor together forming a magnetic flux path with an annular air gap, field coils in the body adapted to create a magnetic flux, a reciprocatory armature suspended freely in the air gap, a table for a specimen and driving elements attaching the table to the armature; in combination with an oil enclosure on the cover spaced above the air gap, a forced oil circulation system connected to the exciter adapted to deliver oil on one side of the air gap and to draw it away on the other, and a relief vent in the cover connecting the oil on the two sides of the cover to reduce the damping effect of the oil at high velocity.

2,820,160

SOLENOID POWERED MOTOR
Charles E. Erie, Mobile, Ala.
Application August 12, 1954, Serial No. 449,483
2 Claims. (Cl. 310-23)

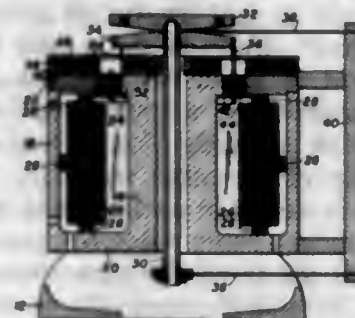


1. In an electric motor, a coil cylinder, said coil cylinder provided with a rotatable shaft attached to one side thereof, said shaft provided with supporting means, a piston working within said coil cylinder, said piston composed of non-conductive material but provided with a sleeve of conductive material on a predetermined length of said piston, a flywheel connected to said piston, said flywheel composed of non-conductive material, a thin layer of conductive material attached to a predetermined portion of the rim of said flywheel, a shaft of non-conductive material firmly attached within the center of said flywheel, means provided to support said shaft, a semi-circular shaped operating fork provided with a support, being attached movably therein, said semi-circular shaped fork positioned to encase but not touch one half of the

said fly wheel, each end of said semi-circular shaped fork provided with two rollers of conductive material attached adjacent one to the other but not in contact therewith, insulation means provided between the said semi-circular shaped fork and the said rollers, means provided on the said semi-circular shaped fork to allow it to be moved closer to said fly wheel, means also provided to allow the said rollers on either end of the said semi-circular shaped operating fork to touch the rim of the said fly wheel when desired, means also provided to hold the said semi-circular shaped operating fork in a desired position, a battery, a wire connecting one pole of said battery to one end of the said coil cylinder, wires connecting the opposite pole of said battery to one contact roller on each end of said semi-circular shaped operating fork, and wires connecting the second contact roller on each end of said semi-circular shaped operating fork to the opposite end of said coil from the end provided with the wire connecting the coil and the battery, and means provided whereby current is caused to activate the said coil through the contact of the said rollers on the conductor rim of the said fly wheel to the end that the wheel rotates as to current is intermittently applied through the closed and opened circuits.

2,820,161

ELECTROMAGNETIC VIBRATION GENERATOR
Robert C. Lewis, Winchester, Mass., assignor to The Caldyne Company, Winchester, Mass., a partnership
Application June 1, 1954, Serial No. 433,673
8 Claims. (Cl. 310-27)



1. Apparatus for producing a reciprocating movement in a connected load comprising a core structure having a main cylindrical air gap therein, a direct current winding for magnetizing the core structure and producing a magnetic flux across the air gap, an axially moveable armature connecting with the test load and having an alternating current carrying coil disposed in the air gap whereby a reciprocating movement is imparted to the load, and an auxiliary magnetic circuit having a secondary air gap interposed between the air gap of the core structure and the test load, said secondary air gap being concentric with and disposed adjacent the main air gap, the magnetic flux density in both the air gaps being substantially the same whereby the leakage flux in the vicinity of the table is substantially eliminated.

2,820,162

CONTOUR CONTROLLING TRACING HEAD
J. Kirk Snell, Waynesboro, Va., assignor to General Electric Company, a corporation of New York
Application April 11, 1957, Serial No. 652,209
4 Claims. (Cl. 310-75)

1. A tracing head comprising a casing, a ram mounted for reciprocating movement in said casing, a ball nut secured to said ram, a screw shaft mounted in said casing for rotating movement only and passing through said ball nut, motor means mounted on said casing, a shaft having portions extending from each end of said motor means, means coupling one portion of shaft to said screw shaft,

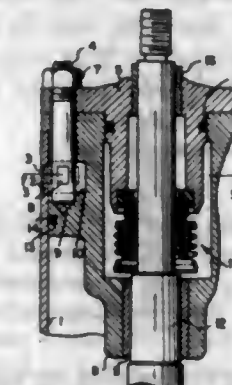
an electrical signal generating device having a rotatable element and means coupling the other portion of said



shaft to the rotatable element of said electrical signal generating means.

2,820,163

CLOSURE ATTACHING AND SEALING MEANS
William J. Ekey, Ashland, Ohio, assignor to The F. E. Myers & Bro. Co., Ashland, Ohio, a corporation of Ohio
Application January 28, 1957, Serial No. 636,648
7 Claims. (Cl. 310-87)



1. In combination; a cylindrical shell, a member slidably fitting in the end of said shell and engaging the end edge thereof, apertures in the wall of said shell spaced about the member and recesses in the member registering with said apertures, said member having axial bores extending from the outer end into said recesses, rods in the bores adapted for insertion therein from the outer end of said member, notches in the rods in said recesses lugs or yokes insertable into said apertures and recesses from outside the shell and being bifurcated so as to engage the notches in said rods, nuts on the outer ends of said rods to pull the yokes or lugs up against the outer edges of the apertures thereby to fix the closure member in the end of the shell, and resilient annular sealing O ring means between the member and the shell inwardly of the shell from said apertures.

2,820,164

ELECTRIC HEATER FOR DISCHARGE LAMPS
Theodore C. Retzer, Cedar Grove, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application September 27, 1955, Serial No. 537,079
7 Claims. (Cl. 313-15)

1. In combination with a globular discharge lamp having diametrically opposed electrode terminals extending therefrom; at least one electric heater adjacent said lamp, said heater comprising a reflector in fixed relationship relative to said lamp, said reflector having a reflecting sur-

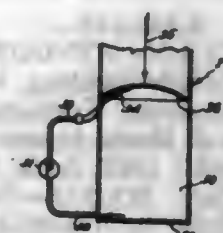
face defining a sector of a first cylinder which is concentric with and partially surrounds said lamp, a plurality of similar heating elements, each of said elements including a circular cylindrical rod of refractory material having a given diameter which is small relative to the diameter of said lamp and a given axial length, said rod having an axial bore therethrough, and a heating coil of resistance wire wound about said rod, a wire frame secured to said reflector mounting said plurality of elements, said frame including first and second wires which over most of their length have a substantially fixed spacing therebetween which is slightly greater than the axial length of said rods of said elements, and a like plurality of third wires each having a length which is greater than said given axial length, each of said third wires passing through the bore



of a separate rod and extending from both ends thereof, said plurality of elements being disposed between said first and second wires with the axes of the rods thereof oriented substantially perpendicular to said first and second wires, the axes of adjacent rods being spaced from each other by a distance which is greater than said given diameter, the portion of said third wire extending from one end of each rod of said plurality of elements being fixedly connected to said first wire, and the portion of said third wire extending from the other end of each rod of said plurality of elements being fixedly connected to said second wire, said frame being disposed intermediate said reflector and said lamp at a fixed distance from said reflecting surface, whereby said frame defines a sector of a second cylinder which is concentric with said globular lamp.

2,820,165

MEANS FOR COOLING THE WINDOWS OF ACCELERATION TUBES FOR ELECTROSTATIC GENERATORS
Dennis M. Robinson, Arlington, Mass., assignor to High Voltage Engineering Corporation, Cambridge, Mass., a corporation of Massachusetts
Original application July 13, 1951, Serial No. 236,652, now Patent No. 2,729,748, dated January 3, 1956. Divided and this application September 9, 1953, Serial No. 379,258
3 Claims. (Cl. 313-35)



3. A high-vacuum acceleration tube having means at one end portion for creating a beam of high-energy electrons for passage along said tube, a final electron-per-

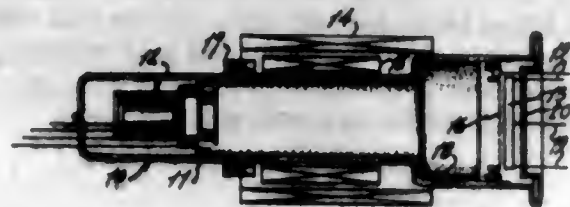
meable exit window and another electron-permeable window spaced from and anterior to the said final electron-permeable exit window, the space between said windows being adapted to be filled with a gas, and means in communication with the gas space to impart directed motion to the gas against that face of the said anterior window that is in contact with the gas space.

2,820,166
CONDUCTIVE MEDIUM FOR ANODE BUTTON IN A CATHODE RAY TUBE
Alfred D. Pinotti, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application May 18, 1955, Serial No. 509,169
7 Claims. (Cl. 313-64)



1. An electrical contact device in a hollow glass body which comprises a hollow metal button sealed into the wall of said glass body for exposure at opposite sides of said wall, a conductive coating over the major internal surface of said hollow glass body adapted to provide an electrical potential, a thin metallic film overlying the inner surface of said button and any surrounding localized surface irregularities in the internal glass surface, said film being interposed between said conductive coating and said button and between said conductive coating and the internal glass surface.

2,820,167
TRICOLOR PICKUP TUBE
Alfred C. Schroeder, Upper South Hampton Township, Bucks County, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application April 30, 1954, Serial No. 426,823
4 Claims. (Cl. 313-65)

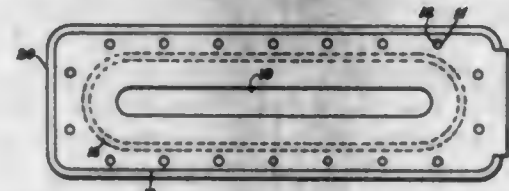


1. A tri-color pickup tube comprising an envelope containing means to project an electron beam along a path and a target in said path, said target comprising at least three signal output electrodes each supporting a separate photoconductive material, said signal electrodes being supported in spaced planes substantially normal to said path, and at least two of said signal output electrodes each comprising a set of substantially parallel spaced metallic members.

2,820,168
ELECTRON WINDOW
Bernard G. E. Stiff, North Reading, Mass., assignor to High Voltage Engineering Corporation, Cambridge, Mass., a corporation of Massachusetts
Application May 31, 1955, Serial No. 511,831
4 Claims. (Cl. 313-74)

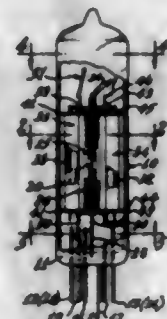
1. An electron window for the transmission of high-energy electrons from an evacuated acceleration tube, said high-energy electrons issuing from said acceleration tube as a stream at least one of whose lateral dimensions

is at least of the order of several inches, comprising a plate adapted to be secured to the lower end of said acceleration tube, said plate having a cavity in that surface thereof which faces said acceleration tube and having an aperture in the bottom of said cavity, a metal foil lining the surface of said cavity and covering said aperture in said cavity, a compressible annulus in said cavity along the periphery thereof, an apertured disk inside said com-



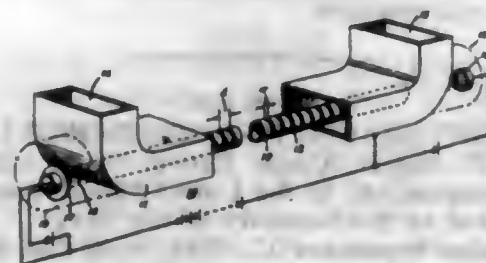
pressible annulus and cooperating with the periphery of said cavity to form a channel for said compressible annulus, and means for securing said plate to the lower end of said acceleration tube so as to compress said compressible annulus against the surfaces bounding said channel sufficiently to form a vacuum-tight seal and so as to compress said metal foil between said plate on one side and said compressible annulus and said apertured disk on the other side sufficiently to hold said metal foil in place.

2,820,169
COMBINATION BEAM PLATE AND OUTER SHIELD
Clifford M. Morris, Hackensack, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 14, 1955, Serial No. 494,111
14 Claims. (Cl. 313-299)



4. An electron tube comprising an elongated cathode to develop electron beams extending therefrom in opposite directions, at least one control grid surrounding said cathode, a pair of discrete anodes located on opposite sides of said control grid in alignment with said cathode, and a pair of shielding plates each substantially enclosing only a corresponding one of said anodes, said shielding plates each having a beam-passing window facing said cathode.

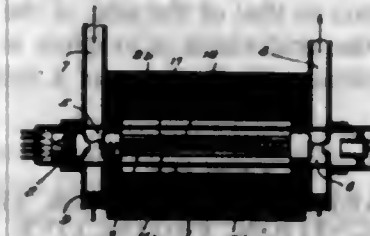
2,820,170
SPATIAL HARMONIC TRAVELING WAVE TUBE
Sloan D. Robertson, Fair Haven, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1952, Serial No. 328,580
4 Claims. (Cl. 315-3.5)



1. In a microwave device, means for beaming an electron stream along a path, and wave guiding means adapted to propagate therethrough in a direction parallel to said path an electric wave for interaction with said electron stream, said wave guiding means including a wave guide

asymmetrically surrounding a hollow cylindrical ridge having cut in its surface a plurality of slot-resonators lying transverse to the direction of wave propagation and regularly spaced in that direction, the lateral dimensions of said ridge being less than the lateral dimensions of said wave guide.

2,820,171
TRAVELING WAVE TUBE
Anton Lauer, Ulm, Germany, assignor to Telefunken Gesellschaft fuer drahtlose Telegraphie G. m. b. H., Hannover, Germany
Application February 8, 1954, Serial No. 408,965
Claims priority, application Germany February 7, 1953
16 Claims. (Cl. 315-3.5)



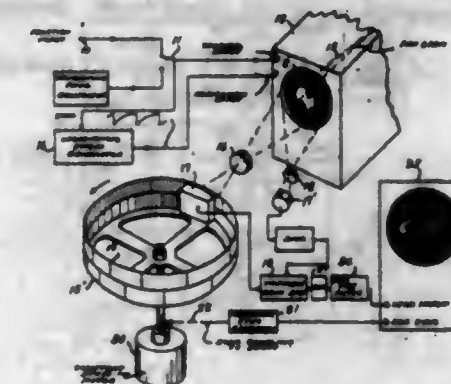
1. A traveling wave transmitting structure comprising in combination one helical conductor; a plurality of elongated members formed of dielectric material symmetrically arranged with respect to said helical conductor and extending in the direction of said helical conductor; and a strip of lossy substance secured to the surface of at least one of said members and extending along the greater portion of the length thereof, said lossy substance being of constant cross-section over its entire length and being located in close proximity to said helical conductor near the center portion of said strip and extending away from said helical conductor and out of the strong electromagnetic field of said helical conductor at the end portions thereof.

2,820,172
HIGH FREQUENCY AMPLIFYING DEVICE
Lester M. Field, Los Angeles, Calif., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Original application June 21, 1949, Serial No. 100,491, now Patent No. 2,725,499, dated November 29, 1955. Divided and this application April 20, 1955, Serial No. 502,556
13 Claims. (Cl. 315-3.6)



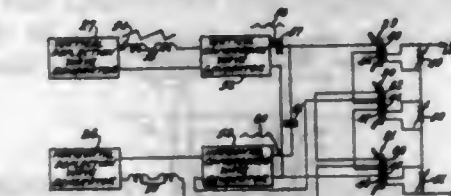
1. A space discharge device which utilizes the interaction between a traveling electromagnetic wave and a stream of charged particles for amplifying the wave comprising a wave transmission line for propagating a traveling electromagnetic wave including a pair of conductors in the form of interwound elongated coaxial helices of substantially equal transverse dimensions extending over the same portion of said path, said helices being in a bifilar relation, and means for projecting a stream of charged particles lengthwise of said helices and within the field region of the wave propagating therealong.

2,820,173
SPECTRUM ANALYZER
Herbert Paul Raabe, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application August 3, 1955, Serial No. 526,339
10 Claims. (Cl. 315-9)
(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A spectrum analyzer comprising a spatial optical filter having a time axis and a transparency that varies



sinusoidally along said time axis, means for forming an optical image of an amplitude-time function on said filter, said image having a time axis parallel to said filter time axis and an amplitude axis normal thereto, means for moving said filter relative to said image at constant speed

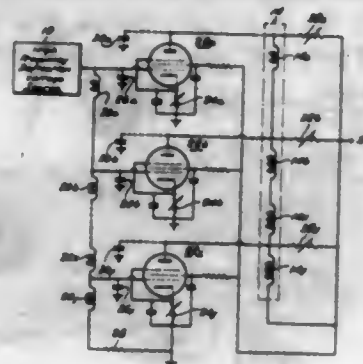
2,820,174
TRI-COLOR KINESCOPE BEAM CONVERGENCE SYSTEM
Hunter C. Goodrich, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application May 28, 1953, Serial No. 357,956
4 Claims. (Cl. 315-13)



1. In a cathode ray tube image-reproducing system wherein a plurality of electron beam components, which traverse predeflection paths that are spaced respectively about the longitudinal axis of the tube, are angularly deflected both horizontally and vertically by electromagnetic beam deflection apparatus to scan a raster at a target electrode, electron beam convergence apparatus comprising: a plurality of electromagnets respectively mounted adjacent to said predeflection beam paths and energizable to produce respective fields transverse to said beam paths, each of said electromagnets having a pair of pole pieces located internally of said tube and respectively extending into the region of said associated beam component; means developing correction wave energy varying in magnitude continuously during the entire raster-scanning period as a function of said raster-scanning beam deflection angle; and means energizing predetermined ones of said electromagnets by said correction wave energy in such a manner as to produce transverse field components of opposite polarity in respective ones of said predetermined electromagnets, whereby to counteract the misconverging effect of flux leakage from said beam deflection apparatus to said predetermined electromagnets.

2,820,175
ELECTROMAGNETIC DEFLECTION SYSTEM
Eugene G. Fubini, Glen Head, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application August 18, 1955, Serial No. 529,367
8 Claims. (Cl. 315-27)
1. In combination, a deflection voltage source, a distributed line amplifier, a yoke including a plurality of

individual coils connected in series with each other, said yoke providing when energized a magnetic field which is adapted to deflect the electron beam of a cathode ray tube, first means coupling said deflection voltage source to said distributed line amplifier for applying the output

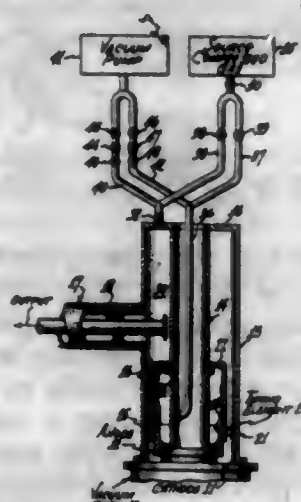


of said deflection voltage source as an input to said distributed line amplifier, and second means coupling the coils of said yoke to said distributed line amplifier as an output transmission line for said distributed line amplifier, whereby said yoke is energized by the output of said distributed line amplifier.

2,820,176

TUNABLE CAVITY RESONATOR

Wilfred P. Bennett, Lancaster, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application September 22, 1955, Serial No. 535,845
The terminal fifteen years of the term of the patent to be granted has been disclaimed
8 Claims. (Cl. 315-41)



3. A vacuum tube circuit comprising a vacuum tube, a coaxial line cavity resonator having inner and outer conductors sealed at one end by a connection to said vacuum tube and sealed at the other end by an end wall; a tuning element positioned between said coaxial conductors and adapted for axial movement in said resonator, said tuning element having sliding pressure seals engaging at least one of said conductors; a source of fluid, two conduits connected from said source of fluid to respective opposite sides of said tuning element, and means to vary the pressure difference in said conduits.

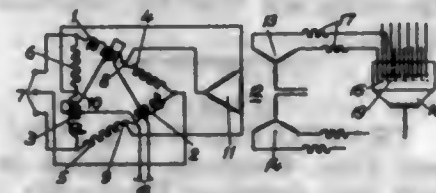
2,820,177

MEANS FOR GRID CONTROL OF A CONVERTER

Gunnar P. Engstrom and Harry Forsell, Ludvika, Sweden, assignors to Allmänna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application December 29, 1955, Serial No. 556,268
8 Claims. (Cl. 315-145)

1. Means for grid control of a current converter in which the grid voltage of a not burning anode is mainly determined by the voltage of the grid of a just burning anode and the voltage difference between the grids of

said anodes, comprising a device for delivering voltages with a time variation containing approximately momentaneous voltage jumps, means whereby said device is so connected to the grids of the converter that said grids

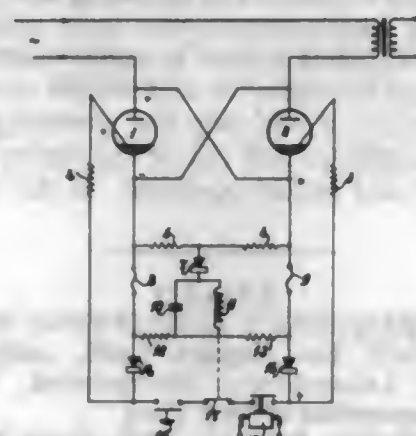


within each independently commutating system will obtain voltages giving all not burning grids a negative potential in relation to that of the grid of the just burning anode, and that the grid which is to ignite is ignited by a positive voltage obtained in the form of a voltage jump.

2,820,178

SWITCHING ARRANGEMENT FOR SWITCHING-OFF THE IGNITION PROTECTIVE GEAR ON THE BLOWING OF A FUSE

Heinz-Wilhelm Harms, Hamburg-Harburg, Germany, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 29, 1954, Serial No. 446,506
4 Claims. (Cl. 315-201)



1. An electrical circuit arrangement comprising two discharge devices each having an ionizable medium and having an electrode for initiating ionization of said medium, a first energizing current path connected to the said electrode of the first of said devices and comprising a first member for interrupting said first path upon the flow of excessive current therein, a second energizing current path connected to the said electrode of the second of said devices and comprising a second member for interrupting said second path upon the flow of excessive current therein, and means responsive to the interruption of one of said paths by the said path interrupting member thereof for interrupting the other of said paths.

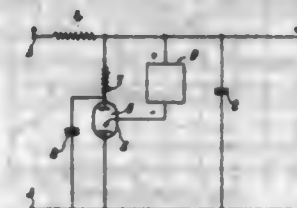
2,820,179

VOLTAGE STABILISER CIRCUIT ARRANGEMENT

Gerald Offley Crowther, New Malden, England, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 23, 1954, Serial No. 412,010
Claims priority, application Great Britain May 8, 1953
3 Claims. (Cl. 315-230)

1. A voltage stabilizer circuit arrangement comprising a pair of output terminals, a reservoir capacitor connected across said output terminals, a first resistor, means connected in series with said resistor for charging said capacitor in accordance with the value of an unstabilized input

voltage, a first cold cathode trigger-controlled gas discharge tube having an anode, a cathode, and a trigger electrode, a second resistor connected in series with said tube, the series combination of said tube and said second resistor being connected across said capacitor, a second capacitor connected substantially between the anode and cathode of said tube, said second resistor and said second capacitor periodically blocking said tube in accordance

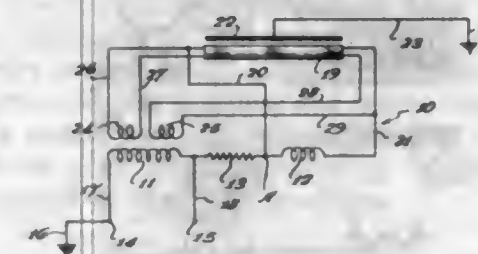


with the value of said unstabilized voltage, and a voltage reference source connected between the trigger electrode of said tube and the positively charged terminal of said reservoir capacitor, said reservoir capacitor and said voltage reference source periodically unblocking said tube in accordance with the value of said unstabilized voltage thereby producing a substantially stabilized output voltage across said output terminals having a value dependent upon the voltage of said voltage reference source.

2,820,180

BALLAST AND LIGHTING SYSTEM FOR FLUORESCENT LAMPS

Albert E. Feinberg, Chicago, Ill., assignor to Advance Transformer Co., Chicago, Ill., a corporation of Illinois
Application August 4, 1953, Serial No. 372,310
4 Claims. (Cl. 315-257)

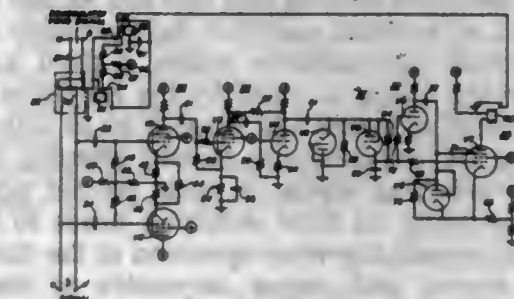


1. A system for igniting and operating at least one gaseous discharge lamp from a source of A. C. voltage substantially less than the igniting voltage of the said lamp which comprises, an iron core transformer having a primary winding and at least one secondary winding inductively coupled thereto to have a voltage induced in the secondary winding, an elongate gaseous discharge lamp in circuit with the secondary winding, a fixture supporting said lamp and having an elongate, grounded metal part thereof extending along the length of said lamp contiguous and capacitively coupled therewith, a high ohmage resistor connected between one terminal of the primary winding and one terminal of said lamp and providing a connection with said circuit electrically separating the primary and said circuit, the second terminal of the primary winding being grounded, the primary winding being connected across said source, the secondary winding being connected to the lamp to provide igniting and operating voltage therefor, the instantaneous open circuit voltage sense of said primary winding relative said lamp and secondary winding being such as to provide an augmenting additive starting voltage for said lamp, said resistor having a value such as to provide a substantial electrical connection between the primary winding and the circuit, including the secondary winding while limiting current flow through the system to a relatively safe value.

2,820,181

POLARIZING CIRCUIT FOR TELEVISION SIGNALS OR THE LIKE

Brice M. Bowman, Erie, Pa., and John W. Riecke, Basking Ridge, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 29, 1954, Serial No. 465,541
13 Claims. (Cl. 317-8)

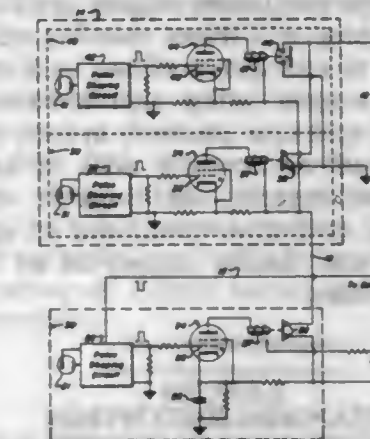


1. In combination, a source of signals of either correct or inverted polarity for which correct polarity is desired, controllable means for reversing the polarity of inverted signals, means for transmitting said signals through said controllable means, means connected to the output of said controllable means for monitoring the polarity of said signals comprising means for deriving control signals of a first kind in response to signals of correct polarity and means for deriving control signals of a second kind which are distinctly different from said first kind in response to inverted signals, means for applying said control signals to said controllable means to control the same, and said controllable means controllable to reverse the polarity of said signals only in response to control signals of said second kind.

2,820,182

PHOTOSENSITIVE RELAY CONTROL CIRCUIT

Charles F. Martin, Albuquerque, N. Mex., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application September 28, 1955, Serial No. 537,308
2 Claims. (Cl. 317-130)



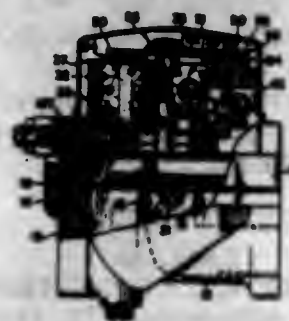
1. In cooperation with a system wherein a body executes damped harmonic oscillations, apparatus for triggering an electronic counter having a normally grounded input when said oscillations have decayed to a selected amplitude, comprising rotatable light beam projecting means adapted to sweep a light beam angularly along a plane path in accordance with the oscillations of the body, a first, a second, and a third photosensitive means spaced from the light beam projecting means in the order named along a generally arcuate path within the plane of said light beam, the first and second photosensitive means positioned to respond to two separate light beam positions representative respectively of oscillation ampli-

tudes above and below the selected value by a predetermined amount, the third photosensitive means positioned closely adjacent the rest position of the light beam and energized by every oscillation thereof, a first normally open and a second normally closed switching means connected in parallel between the counter input and ground, said first and second switching means actuated by the operation of the first and second photosensitive means respectively, means including a DC power supply for thereafter holding said first and second switching means in an actuated condition independently of said first and second photosensitive means, a third normally closed switching means actuated by the operation of the third photosensitive means and adapted when actuated to interrupt said DC power supply, thereby resetting the first and second switching means to their normal positions, means for returning the third switching means to its normal position immediately after operation of the third photosensitive means, and means responsive to the third photosensitive means for delivering a voltage pulse to the recording circuit input.

2,820,183

ELECTROMAGNETIC ACTUATORS

Eric B. Ander, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 1, 1953, Serial No. 358,933
9 Claims. (Cl. 317-172)



4. In an electromagnetic actuator, a base; a magnetic frame member having two arm portions, said arm portions having ends defining generally coplanar pole face portions; coil means positioned around one of said arm portions; a bar type permanent magnet positioned so that one of its ends abuts said frame member and so that it extends adjacent to said arm portions, said other end of said permanent magnet being approximately coplanar with said ends of said arm portions; at least two support members positioned on opposite sides of and adjacent to said permanent magnet, said support members including adjustable extension means and an armature assembly pivotally and flexibly supported on the tops of said support members.

2,820,184

TITANATE RECTIFIERS

Joseph J. Dymon, Flushing, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application March 11, 1953, Serial No. 341,726
19 Claims. (Cl. 317-236)

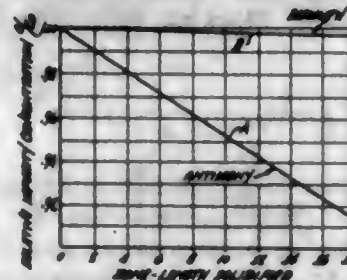


1. A current rectifier comprising an electrode of a partially reduced titanate of an alkaline earth metal having a lead oxide surface.

2,820,185

SEMI-CONDUCTOR DEVICES AND METHODS OF MAKING SAME

Schuyler M. Christian, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 1, 1953, Serial No. 395,381
10 Claims. (Cl. 317-239)

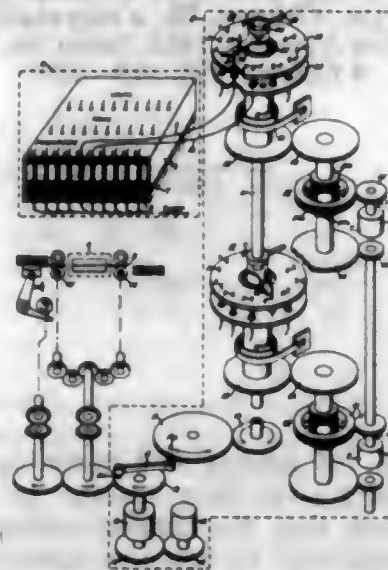


1. In a semi-conductor device comprising a semi-conductor body of a material selected from the class consisting of germanium and silicon and electrodes connected to said body, the improvement consisting of said body comprising a region of n-type semi-conductive material having an excess of n-type over p-type impurity concentration, said excess being of the order of 10^{-1} to 10^{-2} , and said excess impurity being atoms of bismuth.

2,820,186

DIRECTOR POSITIONING SYSTEM

Leroy U. C. Kelling, Waynesboro, Va., assignor to General Electric Company, a corporation of New York
Application June 9, 1955, Serial No. 514,138
10 Claims. (Cl. 318-30)



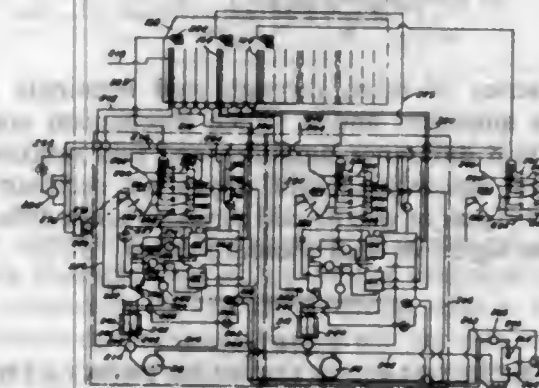
7. In combination, a data storage medium reader for detecting digital indicia in the form of holes in selected locations a data storage medium having a plurality of sensing pins and means for actuating said pins to pass through said holes, a support member provided with a plurality of equally spaced-apart circumferentially disposed stop pins each corresponding to a different digit spring means biasing each of said stop pins to a retracted position, a rotary electrical device having a rotor member and a stator member, driving means for said rotor member having a driving member oscillatable through a range of forward and reverse movements and a driven member mechanically coupled to said rotor and disposed in the path of the forward movement of said driving member to effect rotation of said rotor member to a predetermined initial position with respect to its stator member spring means for biasing said driven member into engagement with said driving member to cause said driven member to follow the reverse movement of said driving member and means responsive to actuation of each of said sensing pins for advancing a corresponding one of said stop pins into the path of return movement of said

driven member to stop said rotor in an angular position corresponding to the numerical value represented by said actuated sensing pin comprising a Bowden cable connection between each sensing pin and its corresponding stop pin.

2,820,187

MOTOR CONTROLLED APPARATUS FOR POSITIONING MACHINE TOOL

John T. Parsons and Frank L. Stulen, Traverse City, Mich., assignors to Parsons Corporation, Traverse City, Mich., a corporation of Michigan
Application May 5, 1952, Serial No. 286,162
23 Claims. (Cl. 318-39)

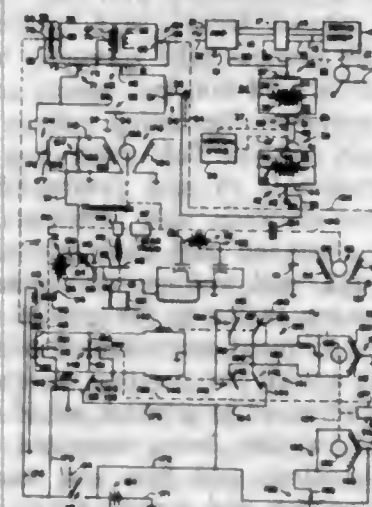


1. A system for controlling the movement of a plurality of parts of a machine tool each of which is movable along a separate path in order to vary the relative position of a workpiece and a tool acting on the workpiece, a record containing an instruction for each part setting forth the desired distance for moving the same from a given position to a new position, said record further containing an instruction setting forth the order in which the parts will be moved, separate means for moving each part along its respective path, means for sensing the distance and the order instructions for each part set forth on the record, means responsive to said sensing means and controlling each part moving means to effect movement of its respective part to its new position, and means responsive to said sensing means and permitting movement of any of said parts only after all parts earlier in the instructed order have moved to their new positions.

2,820,188

ALTITUDE CONTROL FOR AIRCRAFT

Robert J. Kutzler, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application January 29, 1951, Serial No. 208,391
19 Claims. (Cl. 318-489)



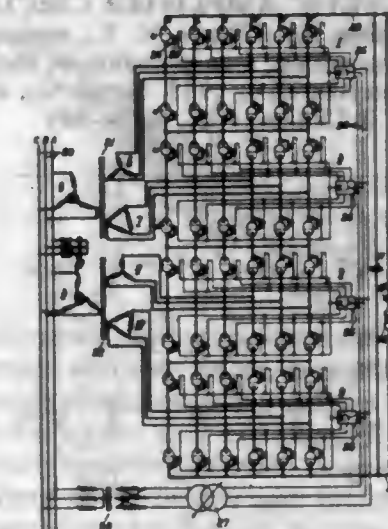
1. In an automatic pilot for an aircraft having attitude changing means for controlling attitude of the craft about its lateral axis, a barometric device, a pick-off operated

by said device for generating a signal upon change from normal altitude of said craft, motor means connected to said pick-off and operable from a selected position corresponding with the normal altitude of the craft for zeroing said pick-off, a first signal generator for providing a signal proportional to the change in altitude, a second signal generator for providing a signal proportional to the duration of the said change in altitude, drive means connecting the motor means and said first generator to provide a signal proportional to said change, further means operatively connected to the second signal generator and controlling the same for deriving a signal therefrom and responsive to continued departure of said motor means from its selected position, and signal responsive means connected to both generators and controlled by both generators for operating the said attitude changing means to restore the craft to the normal altitude.

2,820,189

STATIC CURRENT CONVERTER USING VOLTAGE COMMUTATION

Erich Uhlmann, Ludvika, Sweden, assignor to Allmannas Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a Swedish corporation
Application August 14, 1956, Serial No. 604,027
7 Claims. (Cl. 321-27)



1. A static converter comprising several polyphase constituent valve converters mutually displaced in phase and connected in series on the direct current side, each of said constituent converters having valves for successively connecting the alternating current phases to the direct current terminal having a voltage of a corresponding sense while the current may flow in the opposite sense through another valve, elements directly connected to the direct current terminals and acting to keep the voltage therebetween substantially constant, and means for preventing a short-circuiting of voltage harmonics through said constituent converters.

2,820,190

ELECTROMAGNETIC RECTIFIER

Fritz Kesselring, Zollikon, Zurich, Switzerland, assignor to FKG Fritz Kesselring Geratebau A. G., Bachtobel-Weinfelden, Thurgau, Switzerland, a corporation of Switzerland
Application August 5, 1953, Serial No. 372,455
9 Claims. (Cl. 321-48)

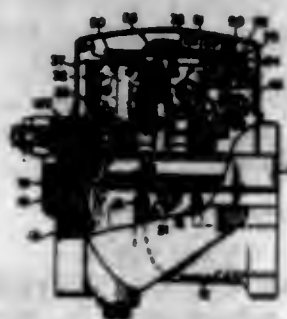
1. In an electromagnetic rectifier having a current path and a voltage path connected in parallel; said parallel combination connected in series between an alternating current source and a load; a transformer coupling said current circuit to said voltage circuit; an electromagnetic switch having a closing winding, a holding winding and an opening winding; said closing winding and said opening winding of said electromagnetic switch electrically con-

tudes above and below the selected value by a predetermined amount, the third photosensitive means positioned closely adjacent the rest position of the light beam and energized by every oscillation thereof, a first normally open and a second normally closed switching means connected in parallel between the counter input and ground, said first and second switching means actuated by the operation of the first and second photosensitive means respectively, means including a DC power supply for thereafter holding said first and second switching means in an actuated condition independently of said first and second photosensitive means, a third normally closed switching means actuated by the operation of the third photosensitive means and adapted when actuated to interrupt said DC power supply, thereby resetting the first and second switching means to their normal positions, means for returning the third switching means to its normal position immediately after operation of the third photosensitive means, and means responsive to the third photosensitive means for delivering a voltage pulse to the recording circuit input.

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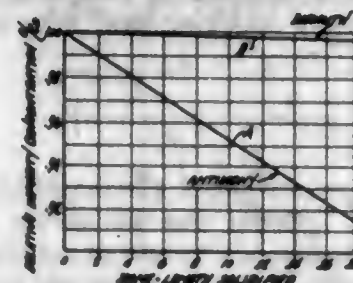


1. A current rectifier comprising an electrode of a partially reduced titanate of an alkaline earth metal having a lead oxide surface.

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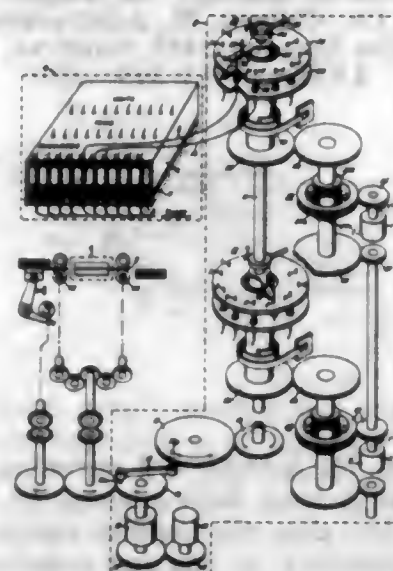


1. In a semi-conductor device comprising a semi-conductor body of a material selected from the class consisting of germanium and silicon and electrodes connected to said body, the improvement consisting of said body comprising a region of n-type semi-conductive material having an excess of n-type over p-type impurity concentration, said excess being of the order of 10^{-7} to 10^{-9} , and said excess impurity being atoms of bismuth.

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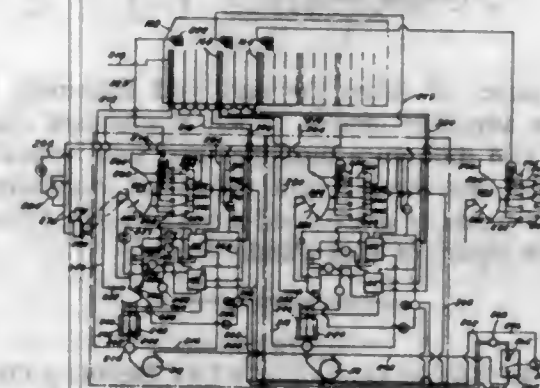
7. In combination, a data storage medium reader for detecting digital indicia in the form of holes in selected locations a data storage medium having a plurality of sensing pins and means for actuating said pins to pass through said holes, a support member provided with a plurality of equally spaced-apart circumferentially disposed stop pins each corresponding to a different digit spring means biasing each of said stop pins to a retracted position, a rotary electrical device having a rotor member and a stator member, driving means for said rotor member having a driving member oscillatable through a range of forward and reverse movements and a driven member mechanically coupled to said rotor and disposed in the path of the forward movement of said driving member to effect rotation of said rotor member to a predetermined initial position with respect to its stator member spring means for biasing said driven member into engagement with said driving member to cause said driven member to follow the reverse movement of said driving member and means responsive to actuation of each of said sensing pins for advancing a corresponding one of said stop pins into the path of return movement of said

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2,820,187

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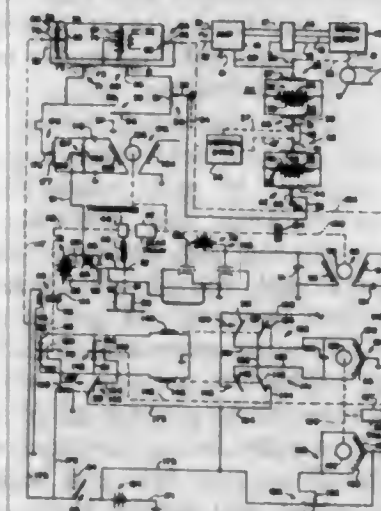


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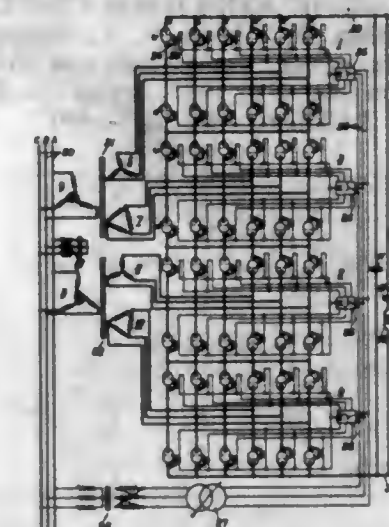
1. In an automatic pilot for an aircraft having attitude changing means for controlling attitude of the craft about its lateral axis, a barometric device, a pick-off operated

by said device for generating a signal upon change from normal altitude of said craft, motor means connected to said pick-off and operable from a selected position corresponding with the normal altitude of the craft for zeroing said pick-off, a first signal generator for providing a signal proportional to the change in altitude, a second signal generator for providing a signal proportional to the duration of the said change in altitude, drive means connecting the motor means and said first generator to provide a signal proportional to said change, further means operatively connected to the second signal generator and controlling the same for deriving a signal therefrom and responsive to continued departure of said motor means from its selected position, and signal responsive means connected to both generators and controlled by both generators for operating the said attitude changing means to restore the craft to the normal altitude.

2,820,189

STATIC CURRENT CONVERTER USING VOLTAGE COMMUTATION

Erich Uhlmann, Ludvika, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a Swedish corporation
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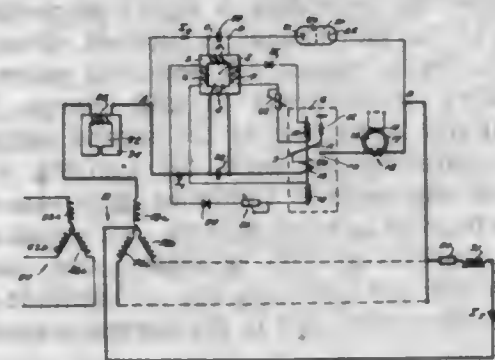
2,820,190

ELECTROMAGNETIC RECTIFIER

Fritz Kesselring, Zollikon, Zurich, Switzerland, assignor to FKG Fritz Kesselring Geratebau A. G., Bachtobel-Weinfelden, Thurgau, Switzerland, a corporation of Switzerland
Application August 5, 1953, Serial No. 372,455
9 Claims. (Cl. 321-48)

1. In an electromagnetic rectifier having a current path and a voltage path connected in parallel; said parallel combination connected in series between an alternating current source and a load; a transformer coupling said current circuit to said voltage circuit; an electromagnetic switch having a closing winding, a holding winding and an opening winding; said closing winding and said opening winding of said electromagnetic switch electrically con-

ected to said transformer and energized therefrom; said holding winding connected in series with said current circuit; said closing winding energized at a period of time when the current through said current circuit is zero; a choke connected in series with said parallel current and voltage path; said choke coil having a saturated iron

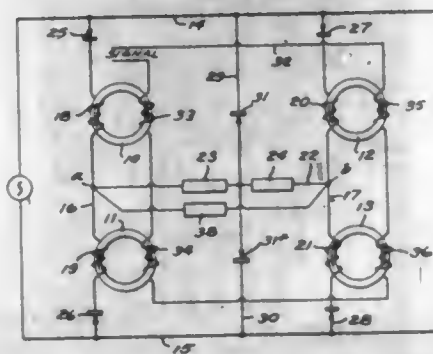


core; said core saturated during the period of time when said electromagnetic switch is moved from said engaged to disengaged position and when moved from disengaged to engaged position; a tube connected in series with said voltage circuit; said tube energized before the energization of said opening winding from said transformer.

2,820,191

MAGNETIC AMPLIFIER CIRCUIT

William T. Keating, St. Albans, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application March 4, 1955, Serial No. 492,107
3 Claims. (Cl. 323-89)



1. A magnetic amplifier comprising two pairs of closed magnetic circuits, a reactor winding disposed on each magnetic circuit, an alternating current line, two branch circuits connected in parallel across the line, each branch circuit including in series two of said reactor windings, a load circuit connecting the two branch circuits at points intermediate the magnetic circuits in each branch, a pair of half wave rectifiers in the branch circuits, one rectifier being disposed on each side of the load circuit connections and poled in the direction of said connections, a signal circuit having a control winding disposed on each magnetic circuit, the said control windings in each conducting half of the system being arranged in push-pull relation to the magnetic circuits on which they are disposed, a lead parallel to the branch circuits and connecting said load circuit to both sides of the line and half wave rectifiers in said lead disposed on each side of the load circuit connection and poled in the direction of the line.

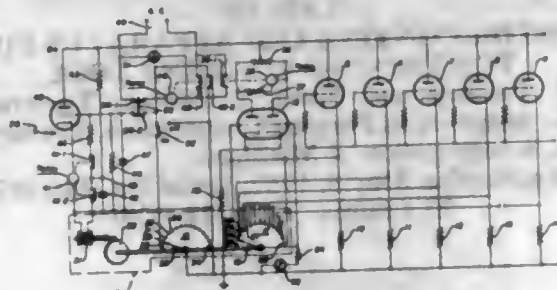
2,820,192

TUBE TESTER

Homer T. Glittings, Jr., Los Alamos, N. Mex., and John F. Kalbach, Altadena, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application June 29, 1956, Serial No. 595,037
8 Claims. (Cl. 324-25)

1. A tube testing apparatus for sequentially comparing a series of tubes in service with a standard tube compris-

ing a stepping switch having terminals connected each to a different one of said series of tubes, a difference amplifier connected to said standard tube and said stepping switch, a relaxation oscillator intermittently energizing said switch for sequentially connecting a different one

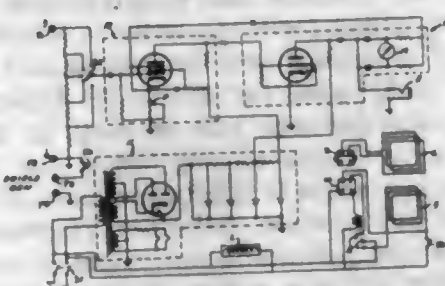


of said series of tubes through said terminals to said difference amplifier, and a switch mechanism connected between said difference amplifier and said relaxation oscillator for inactivating said relaxation oscillator when the output signal of one of said series of tubes differs from the output signal of said standard tube.

2,820,193

ELECTROMAGNETIC ELECTROSTATIC SHIELDING ANALYZER

George Thomas Clawson, Westernville, N. Y., assignor to the United States of America as represented by the Secretary of the Air Force
Application October 14, 1955, Serial No. 540,657
5 Claims. (Cl. 324-51)
(Granted under Title 35, U. S. Code (1952), sec. 266)

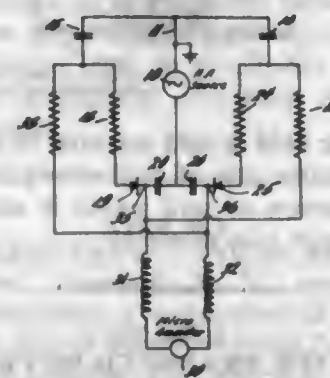


1. An electromagnetic and electrostatic shielding analyzer comprising, a housing, at least one magnetic field generating coil, said coil being wound within a superstructure mounted on top of said housing, said coil and said superstructure being so shaped as to permit the insertion within the coil's magnetic field of a shielded sample to be tested; a preamplifier unit connected in cascade with a vacuum tube voltmeter unit, a power supply for said units, said power supply and said units being connected in operative relationship with each other and being mounted on a chassis within said housing, the meter movement of said vacuum tube voltmeter being mounted on a front panel of said housing; means controlled by a first switch to apply an alternating voltage in parallel to said power supply and said field generating coil; first and second input terminals to said preamplifier, a voltage divider connected between said terminals, said second terminal being grounded and said first terminal being connected through said voltage divider and a second plural position range switch to the grid of said preamplifier; a third input terminal connected to said second input terminal through a third two position switch, and a fourth input terminal connected to ground; all of said input terminals and said switches being mounted on said front panel of said housing; said first and second terminals being used to connect said sample to be tested to said preamplifier for electromagnetic testing, and said first and third terminals being used to connect said sample to be tested to said preamplifier for electrostatic testing.

2,820,194

APPARATUS FOR MEASURING ELECTRICAL CHARACTERISTICS

John L. Rehmartz, Burlingame, Calif., assignor to Eitel-McCullough, Inc., San Bruno, Calif., a corporation of California
Application November 18, 1953, Serial No. 392,815
6 Claims. (Cl. 324-57)

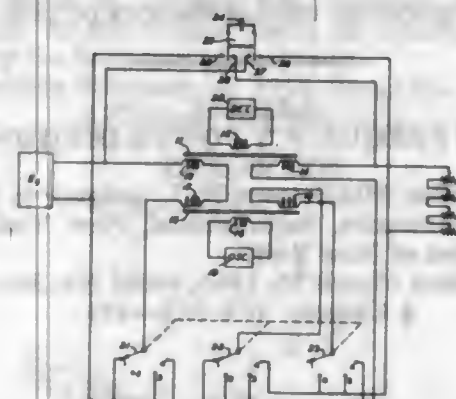


1. In apparatus for comparing an electrical device of known characteristic with a similar electrical device of high frequency energy, of a direct current responsive meter, a pair of circuits, each circuit including, in series with one of said devices, a resistor, a diode, and a condenser, one terminal of each of said condensers being directly connected to one another and said diodes being poled so that the commonly connected terminals assume the same charge polarity, an inductive impedance element connecting each of the meter terminals with one of the circuits at a point intermediate the diode and the condenser, a second resistor connecting the last named point in each of said circuits with a point in the other circuit intermediate the electrical device and the first named resistor, corresponding elements in each of said circuits having comparable characteristics, and means for impressing energy from said source across said circuits.

2,820,195

IMPEDANCE MEASURING

Stanley T. Meyers, East Orange, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 5, 1954, Serial No. 427,815
8 Claims. (Cl. 324-57)



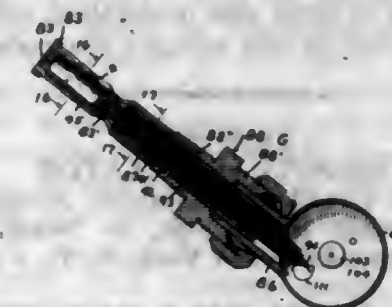
8. An impedance measuring set for both positive and negative impedances which includes, in combination, first and second transformers each having a primary winding and a pair of secondary windings, each of said transformers having a turns ratio from its primary winding to each of its secondary windings many times greater than unity, means to connect an oscillator across the primary winding of said first transformer, means to connect a current measuring device across the primary winding of said second transformer, means providing a series circuit consisting impedance-wise of the unknown impedance and one of the secondary windings of each of said transformers, means providing a series circuit consisting im-

pedance-wise of a standard resistance and the other secondary windings of each of said transformers, means to adjust the magnitude of the standard resistance until it is equal to the magnitude of the unknown impedance, means to determine the phase angle of the unknown impedance which comprises switching means to measure the transmission from said oscillator through said transformers when the currents in the unknown impedance and the standard resistance add vectorially in the primary winding of said transformer and switching means to measure the transmission from said oscillator through said transformers when the currents in the unknown impedance and the standard resistance subtract vectorially in the primary winding of said second transformer, and means to determine the sense of the phase angle of the unknown impedance which comprises switching means to connect a capacitance across the unknown impedance and switching means to connect the same capacitance across the standard resistance.

2,820,196

ICING DETECTION DEVICE

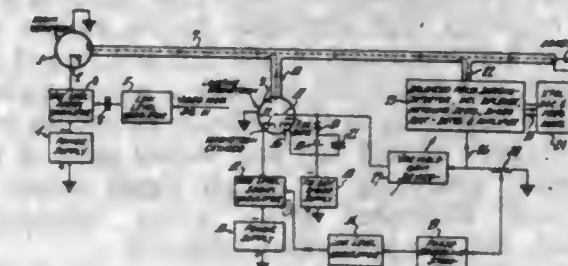
John E. Lindberg, Jr., Lafayette, Calif.
Application December 10, 1951, Serial No. 260,835
7 Claims. (Cl. 324-61)



1. In combination with a unidirectional stream of a gaseous mixture carrying water, a condenser structure mounted in said stream and comprising an elongated tubular electrode having its axis extending in and across the stream and freely receiving a second electrode in spaced relation to its bore and provided with intake and discharge openings at opposite sides thereof, the inlet opening of the tubular electrode being effectively larger than the discharge opening thereof whereby to retard the incident stream flow through the condenser for providing a cooling effect thereat.

2,820,197

MAGNETRON FREQUENCY CONTROL SYSTEM
John S. Donal, Jr., Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 11, 1954, Serial No. 415,480
12 Claims. (Cl. 332-5)



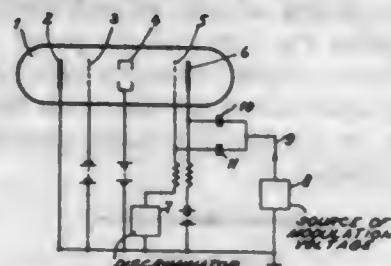
1. In combination, a high power magnetron oscillator the frequency of which is to be stabilized, a transmission line coupling the output of said magnetron to a load, a magnetron oscillator of lower power than said first-named magnetron coupled to inject power into said line to lock the frequency of said high power magnetron to the frequency of said low power magnetron, means for detecting undesired phase modulation present at said load, and means for utilizing the voltage output of said detecting means to amplitude modulate said low power mag-

neutron by variation of its anode voltage, to thereby incidentally phase modulate said low power magnetron oppositely to the undesired phase modulation present at said load.

2,820,198

DEVICE FOR FREQUENCY MODULATION OF HIGH FREQUENCY OSCILLATIONS

Jacques Cayzac, St. Hilaire, France, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 9, 1954, Serial No. 467,850
Claims priority, application France December 18, 1953
2 Claims. (Cl. 332-7)

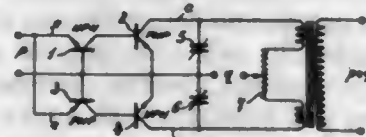


1. An arrangement for frequency-modulating high frequency oscillations, comprising a velocity modulation tube of the reflex kind having two successively arranged reflector electrodes, a source of modulation voltage, and means connected to apply said modulation voltage simultaneously in parallel to said reflector electrodes.

2,820,199

PUSH-PULL MODULATOR

Johannes Anton Greefkes, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application May 25, 1955, Serial No. 510,977
3 Claims. (Cl. 332-31)



1. A circuit arrangement comprising a first and second pair of transistors each comprising a first junction transistor having an emitter electrode, a collector electrode and a base electrode, and a second junction transistor of opposite conductivity type from said first transistor having an emitter electrode, a collector electrode and a base electrode, means for directly connecting the base electrode of said first transistor to the emitter electrode of said second transistor and means for directly connecting the collector electrode of said first transistor to the base electrode of said second transistor, means for applying a first signal of relatively high amplitude to the emitter electrodes of the first transistors of said first and second pairs of transistors, and means for applying a second signal of relatively low amplitude to the collector electrodes of the second transistors of said first and second pairs of transistors thereby producing an output signal across said last-mentioned electrodes which varies substantially linearly with said last-mentioned amplitude.

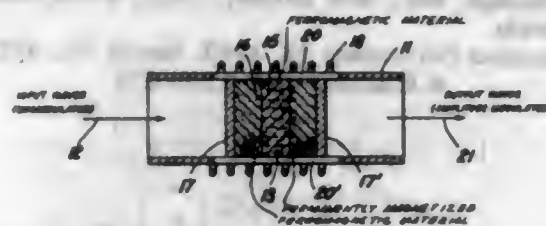
2,820,200

WAVEGUIDE MODULATOR

Frits Karl du Pré, White Plains, N. Y., assignor to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 4, 1954, Serial No. 466,730
7 Claims. (Cl. 332-51)

1. A waveguide modulator comprising a rectangular waveguide, means providing polarized electromagnetic

waves in said waveguide, an electrically non-conductive ferromagnetic material positioned within said waveguide in the path of said waves and filling a major portion of the cross-sectional area of said waveguide, and means pro-

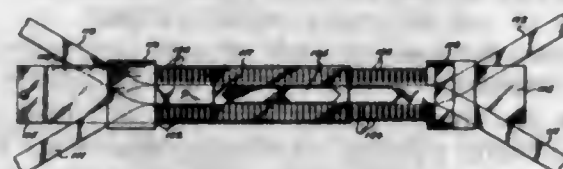


viding a magnetic field in said material in substantial alignment with the major axis of said waveguide, whereby the plane of polarization of said waves is rotated when said waves pass through said material.

2,820,201

SELECTIVE TRANSFER DEVICE FOR MICROWAVE ENERGY

Kiyo Tomiyasu, Flushing, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application February 28, 1951, Serial No. 213,276
16 Claims. (Cl. 333-7)

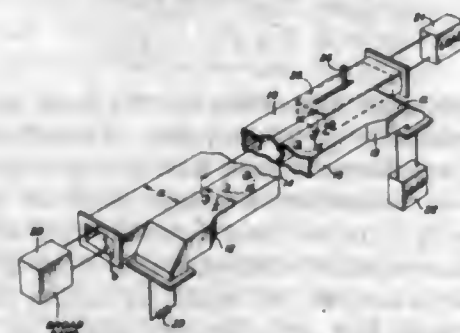


1. Selective microwave power transfer apparatus comprising first and second wave guides having substantially adjacent walls, each one of said substantially adjacent walls having a longitudinally extensive opening therein for microwave power transfer between said first and second wave guides, the length of said openings in said adjacent walls being substantially greater than the width of said adjacent walls for providing substantially full power transfer between said wave guides, each end of one of said wave guides being open for receiving applied microwave power at one end and for supplying microwave power to an external utilization device at the opposite end, and shutter means movable between said substantially adjacent walls for selective interposition between the openings in said substantially adjacent walls for controlling the transfer of microwave power between said first and second wave guides by varying the area of said openings.

2,820,202

HIGH FREQUENCY POWER DIVIDING NETWORKS

Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 26, 1953, Serial No. 344,701
6 Claims. (Cl. 333-10)



1. Apparatus for abstracting an amplitude fraction E of electromagnetic wave energy traversing a main transmission line, said main transmission line having a phase velocity constant β_1 radians per unit length, said fraction

being substantially independent of frequency over a broad frequency band, said apparatus comprising an auxiliary transmission line, and means directionally coupling said main and auxiliary lines over an interval of their lengths, said interval being equal to

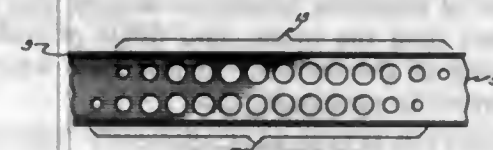
$$\frac{\pi\sqrt{1-E^2}}{\beta_1-\beta_2}$$

unit lengths, wherein β_2 is the phase velocity constant of said auxiliary line along said interval of coupling, β_2 being substantially different from β_1 along said interval, whereby any inherent frequency selectivity of said coupling means is minimized.

2,820,203

DIRECTIONAL COUPLERS

Peter J. Sferrazza, Wantagh, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application March 18, 1954, Serial No. 417,072
4 Claims. (Cl. 333-10)

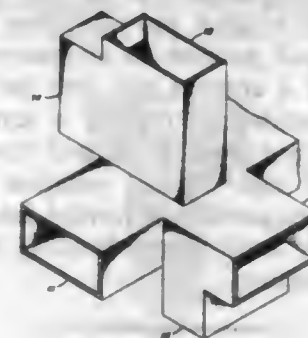


1. A directional coupler comprising a main waveguide and an auxiliary waveguide, said waveguides being parallel and adjacent throughout a portion of their lengths to provide a coupling region, a plurality of substantially identical rows of coupling elements in said region, each of said rows extending along a respective line parallel to the longitudinal axes of said guides, the elements of each of said rows being spaced apart longitudinally at equal intervals of substantially one quarter guide wavelength at the center of the frequency band throughout which the device is to operate, whereby each row of elements constitutes a directional coupling array, said rows being displaced longitudinally with respect to each other by a distance equal to said longitudinal intervals between coupling elements.

2,820,204

BROADBAND MAGIC T

Bert E. Wallace, Jr., Towson, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 16, 1956, Serial No. 566,056
5 Claims. (Cl. 333-11)

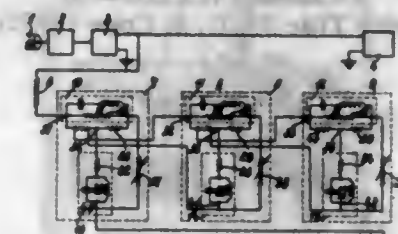


1. A broadband magic T comprising: a main wave guide, an H arm connected to said main wave guide so that the axes of the H arm and main wave guide intersect at a point, an E arm joined to said main wave guide so that its axis passes through the point of intersection of the axes of said H arm and main wave guide, a series stub joined to said H arm, and a parallel stub joined to said E arm.

2,820,205

EQUALIZING NETWORK

Willem Van Doorn, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application October 26, 1954, Serial No. 464,756
Claims priority, application Netherlands November 4, 1953
6 Claims. (Cl. 333-28)



1. An equalizing network for level control of a transmitted signal in a coaxial cable having an inner conductor and an outer conductor comprising a plurality of damping branches connected in parallel with said cable, each of said damping branches comprising a series branch and an associated parallel branch, each said series branch being the inverse impedance of its associated parallel branch, each of said damping branches operating in a different frequency range, each said impedance being tunable to a frequency within the operating range of its damping branch, means for connecting one of said series branches to a conductor of said cable, a shunt branch connected across each said series branch comprising a shunt resistor in series-connection with the resistance of the next succeeding damping branch, means for including the resistance of each said damping branch in the shunt branch of the next preceding damping branch, the shunt branch of the last said damping branch comprising two series-connected shunt resistors, means for connecting each said parallel branch to its associated shunt branch, means for connecting one of said parallel branches to the other conductor of said cable, and a terminating resistor adjustable for damping control connected between each said series branch and its associated parallel branch.

2,820,206

MICROWAVE FILTERS

Maurice Arditi, Clifton, N. J., and Georges A. Deschamps, New York, and Jack Elefant, Brooklyn, N. Y., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland
Application May 8, 1952, Serial No. 286,761
5 Claims. (Cl. 333-73)

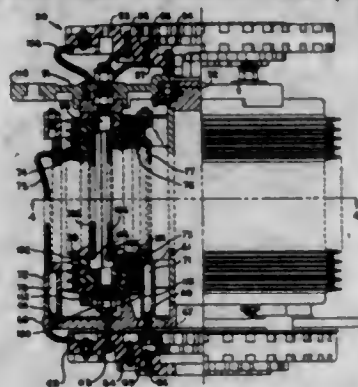


2. A microwave filter comprising a pair of ribbon-like strip conductors, one of said conductors being of a width narrower than the other whereby the mode of propagation of wave energy therealong approximates the TEM mode, means disposing said conductors with the wide surfaces thereof in spaced substantially parallel relation a fraction of a quarter wavelength apart to provide a waveguide having the space between said conductors conductively open along the sides thereof, said means disposing said conductors in spaced substantially parallel relation includes bodies of dielectric material spaced apart longitudinally of said strip conductors, said strip conductors between said dielectric bodies being spaced a shorter distance apart than at the location of said bodies, the spacing changing gradually adjacent the terminated portions of said bodies, and a pair of susceptible obstacle discontinuities disposed in longitudinally spaced relation relative said conductors and in the space between said conductors to form a resonant section therebetween, the narrow spacing of said conductors and the different widths

thereof operating to minimize radiation effects laterally through said open sides in the vicinity of said obstacle discontinuities.

2,820,207

ELECTRIC ROTARY MULTICONTACT DEVICE
James A. S. Roy, Herndon, Va., and Daniel E. Schwartz,
Silver Spring, Md.
Application September 27, 1954, Serial No. 458,723
8 Claims. (Cl. 339-5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An electrical rotary multicontact device comprising: a stationary member and a rotatable member rotatively supported by said stationary member, said stationary member having two upstanding cylindrical walls providing an annular cylindrical space therebetween concentric with the axis of said rotatable member; a plurality of electrically isolated electrical brush elements extending into said cylindrical space from both said cylindrical walls; a cylindrical wall on said rotatable member depending into said cylindrical space and having a plurality of electrically isolated inner and outer conductor rings, one each inner ring being in slidable contact with one each electrical brush element extending from said inner wall and one each outer conductor ring being in slidable contact with one each electrical brush extending from said outer wall; and means connecting each brush element exteriorly of said stationary member and each conductor ring exteriorly of said rotatable element whereby a plurality of isolated electrical circuits may be established between relatively rotatable parts through the rotary multicontact device.

2,820,208

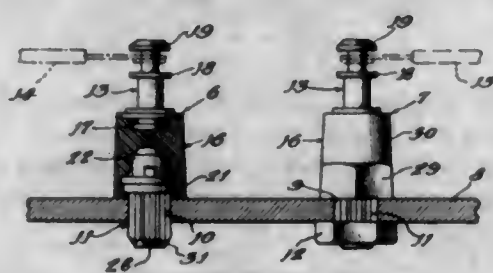
BATTERY TERMINAL ANTI-CORROSION DEVICE AND BATTERY TERMINAL PROTECTOR
Rulon S. Howells, Salt Lake City, Utah
Application April 22, 1955, Serial No. 503,260
1 Claim. (Cl. 339-116)



A device of the character described comprising a substantially rectangular outer sheet of thin lead having a circular opening adjacent one end thereof and a cutout portion adjacent one corner thereof, an inner sheet of felt of similar shape and of slightly less size than said outer sheet and having an opening and a cutout portion registering with the opening and cutout portion of said first sheet, inwardly extending ears formed integrally with all sides of said first sheet and bearing against the outer face of said inner sheet, and a pair of ears integrally formed centrally at either side of said outer sheet and adapted to bear against the sides of the device when the same is in folded condition.

2,820,209

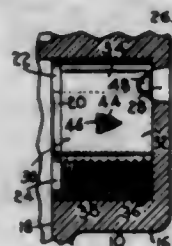
INSULATED ELECTRICAL TERMINAL
John B. Whitted, Kenilworth, Ill., assignor to
Whitso Inc., a corporation of Illinois
Application February 28, 1956, Serial No. 568,404
4 Claims. (Cl. 339-125)



1. A member for attachment to an apertured base, comprising: a resilient body having an integral post portion and an enlargement at one end of the post portion, said post portion being of elongated generally cylindrical configuration formed with outer longitudinally extending grooves of different sectional configuration to form spaced fillets of generally triangular section with one side more exposed than the other, said fillets providing frictional securing of the member to said base when forced into an aperture in said base.

2,820,210

ELECTRICAL CONNECTOR
Hector D. Petri, Framingham, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application December 14, 1954, Serial No. 475,049
1 Claim. (Cl. 339-156)



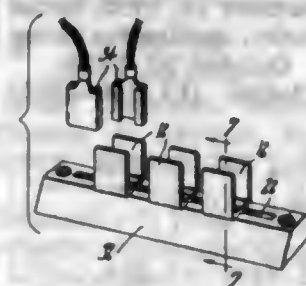
A connector comprising a body formed of insulating material, said body having an aperture formed in one face thereof, the aperture having enlarged portions at the ends and an elongated slot between the enlarged portions, said body having an opening extending from the other face in alignment with and connecting to one of the enlarged portions of the aperture, and a contact member disposed in said aperture, said contact member formed from a single piece of metal and having a medial portion disposed in the elongated slot, an end portion bent to provide a smooth contact pin-receiving portion located in the said enlarged portion in alignment with the said opening to receive a contact pin, and the other end portion bent and threaded to receive a screw and located in the other enlarged portion of said aperture, and said medial portion of said contact member and said body adjacent to the elongated slot having interengaging portions providing the only means holding the said contact member in said aperture.

2,820,211

MULTIPLE ELECTRIC TERMINAL AND INSULATING BOARD
Hugh W. Batcheller, Newton Highlands, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts
Application April 28, 1955, Serial No. 504,405
2 Claims. (Cl. 339-198)

1. A multiple electric terminal comprising a metal member consisting of a piece of sheet metal folded upon

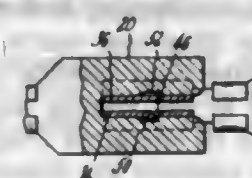
itself to form a doubled portion along the line of fold, the portions more remote from the line of fold being shaped to form a plurality of terminal tongues offset from the plane of said doubled portion, said member having a plurality of barbs projecting from said doubled



portion away from the line of fold and inclined with respect to the plane of the doubled portion, and a body of insulating material with a groove in which said doubled portion is fitted, said barbs engaging in the side walls of the groove to prevent removal of the metal member from the insulating body.

2,820,212

ELECTRIC CONNECTOR WITH BIFURCATED MEMBER
Hugh W. Batcheller, Newton Highlands, Mass., assignor to Kent Mfg. Corp., Newton, Mass., a corporation of Massachusetts
Application March 16, 1953, Serial No. 342,380
7 Claims. (Cl. 339-258)



1. An electric connector comprising two sheet metal members, one said member having a rigid plane tongue with a central slot extending in from the end thereof, the other member having two elements bearing against substantial portions of respective side walls of said slot and resilient means connecting said elements and pressing them against said side walls.

2,820,213

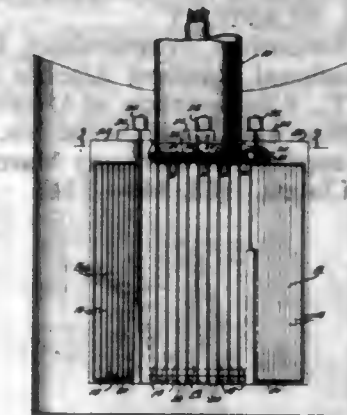
PIN JACK ASSEMBLY
Thomas P. Sheehan, Union, N. J., assignor to Weston Electrical Instrument Corporation, Newark, N. J., a corporation of New Jersey
Application December 14, 1953, Serial No. 398,096
1 Claim. (Cl. 339-275)



A pin jack for mounting in the bore of an insulating panel comprising an outer longitudinally-split sleeve, an intermediate roughened portion for interlocking mechanically with the wall of the bore of the insulating panel, and inner end means for securing the pin jack to the panel, said inner end means comprising a threaded stud portion and a nut with an integral soldering terminal threaded on said stud portion.

2,820,214

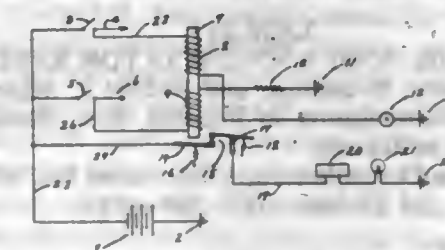
SONAR TRANSDUCERS
John P. O'Neill, Chestnut Hill, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 28, 1949, Serial No. 96,106
3 Claims. (Cl. 340-8)



1. The combination with a scanning compressional wave transducer having a cylindrical active area of a polygonal baffle surrounding said cylindrical active area, said baffle comprising a plurality of pivotally mounted staves, a stave gear coaxially mounted at one end of each stave, a rack gear for each side of said polygonal baffle simultaneously engaging the stave gears in the associated side, and pinion gears respectively engaging each of said rack gears whereby the directional pattern of said transducer is determined by the setting given to each pinion gear.

2,820,215

AUTOMOBILE ALARM SYSTEM
Ralph Lewton Hughes, Los Angeles, Calif.
Application October 15, 1956, Serial No. 615,984
8 Claims. (Cl. 340-54)



1. An alarm system for motor vehicles having an alarm circuit with an alarm relay provided with an armature and switch contacts, and further provided with two closing coils, one coil connected to the motor vehicle's electrical battery through the ignition switch, the other coil being connected to said battery through the headlight switch of the motor vehicle, each coil so connected to the alarm circuit to produce a magnetic field of equal value and of opposite polarity, the remaining terminals of both said relay coils connected to the battery return circuit through a common resistor and grounded vehicle frame connections, a self-opening push-button switch connected in electrical parallel with said resistor, one pair of relay switch contacts operated by said alarm relay armature to a closed position when an electrical current flows through said relay coil and resistor, a second pair of relay switch contacts in normally closed position operated by said relay armature to an open position when the said push-button switch is temporarily closed to short circuit the said resistor and hold the said second pair of relay switch contacts in their open position after the push-button switch is self-opened, due to increased magnetic attraction of relay core and armature upon physical contact with each other, an alarm sounding buzzer and a warning lamp in electrical series with each other connected to the motor vehicle's electrical battery through an additional electrical alarm circuit containing both said

pairs of relay switch contacts connected in electrical series with said alarm buzzer, warning lamp and electrical battery.

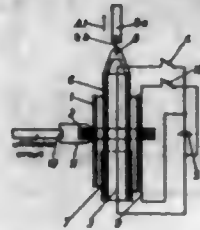
2,820,216

SENSING ARRANGEMENT FOR STORED INFORMATION CONCERNING POSITIONING OF A MECHANICAL ELEMENT

Helmut Gröttrup, Birkenfeld, Württemberg, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application March 14, 1956, Serial No. 571,508
Claims priority, application Germany March 19, 1955

7 Claims. (Cl. 340—174)



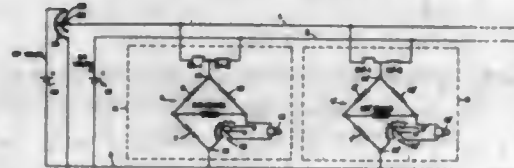
1. A device of the class described comprising magnetic storage means of high remanence, output means coupled to said storage means, first means for applying to said storage means a magnetic flux having a first polarity, second means for applying to said storage means a magnetic flux having a second polarity, movable shielding means adapted to be selectively interposed between said storage means and said second flux application means, and means for sequentially operating said first and said second flux application means whereby said storage means undergoes no flux change when said shielding means is in shielding relation with said storage means and undergoes a flux change when said shielding means is out of shielding relation with said storage means.

2,820,217

CONTROL AND ANNUNCIATOR SYSTEM

Albert F. Sperry, Evanston, and Robert J. Marmorstone, Chicago, Ill., assignors to Panellit, Inc., Skokie, Ill., a corporation of Illinois

Application December 16, 1955, Serial No. 553,585
24 Claims. (Cl. 340—213)



1. Apparatus for monitoring the condition of a number of variables comprising: individual detecting means associated with said variables for continuously monitoring the condition of the variables, annunciator means associated with and controlled by each of said individual detecting means for indicating at least one level of variable operation, control means responsive to another level of operation of the variables, first means for conditioning each of said detecting means to operate the annunciator means to provide an indication of at least said one level of operation of the associated variable when a variable reaches or goes beyond said one level in a given direction, second means for conditioning each of said detecting means to operate said control means when the variable reaches or goes beyond said another level in said first given direction, means for normally rendering only said first conditioning means operative, and means responsive to initial operation of said first conditioning means when the associated variable exceeds said one level for rendering only said second conditioning means operative, whereby said detecting means becomes sequentially conditioned automatically to operation at said levels.

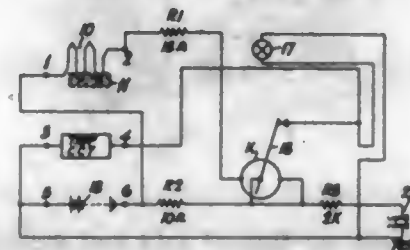
2,820,218 THERMALLY SENSITIVE DETECTING ARRANGEMENTS

Henry Joseph Lovegrove, Hadley Wood, Barnet, England, assignor to Weston Electrical Instrument Corporation, Newark, N. J., a corporation of New Jersey

Application September 15, 1955, Serial No. 534,504
Claims priority, application Great Britain

October 22, 1954

2 Claims. (Cl. 340—227)

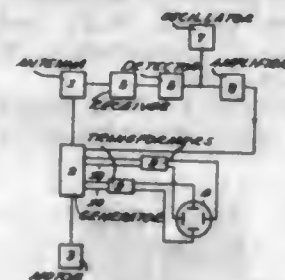


1. A temperature-sensitive detecting arrangement comprising a thermocouple assembly, a moving coil instrument relay connected to the said thermocouple assembly so as to be energized by the output thereof, magnetic means for completing closure of the relay contacts, and manually operable means comprising a testing switch incorporated in a three-position resetting and testing device having a test position, a relay resetting position and an inoperative position for resetting said relay contacts without breaking the circuit through the thermocouple and relay coil, a testing circuit comprising a source of continuous voltage, and a voltage dropping resistor connected in parallel across the thermocouple assembly and the relay moving coil, said testing device, when operated, injecting a test voltage from said source into the thermocouple assembly and the relay moving coil, and a warning device connected to the voltage source through the relay contacts so as to be energized from the said source either when the relay contacts are closed due to a generation of an electromotive force by the thermocouple assembly or due to the injection of said test voltage through the thermocouple assembly and the moving coil, said relay contacts in each case being held on by the magnetic closing means until manually opened by the three-position device.

2,820,219

WIRELESS DIRECTION-FINDER

Shigeo Sato, Tokyo-to, Japan
Application July 13, 1953, Serial No. 367,569
7 Claims. (Cl. 343—118)



1. A direction finder comprising, in combination, a directional antenna, a motor connected to said antenna to rotate the same and thereby to sweep its directional pattern, a generator having a ring-shaped stator core and a ring-shaped rotor core, a toroidal exciting winding on one of said cores and a two-phase toroidal output winding on the other of said cores, said cores and windings being inductively related to one another, a direct mechanical connection between said motor and said rotor core and its winding for rotation of the latter synchronously with the rotation of said antenna, a cathode-ray tube indicator provided with orthogonally disposed deflection control elements, circuits connecting the respective control elements to the respective phase outputs of said output wind-

ing, a signal receiver connected for energization from said antenna, and means connecting the signal output of said receiver to said exciting winding whereby the two-phase output of said generator is controlled in amplitude by the output signal strength of said receiver.

2,820,220

SLOT AERIALS

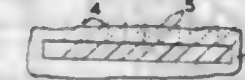
Frederick John Henry Charman, Stoke Poges, England, assignor to Electric & Musical Industries Limited, Hayes, Middlesex, England, a company of Great Britain

Application December 7, 1954, Serial No. 473,580

Claims priority, application Great Britain

December 9, 1953

8 Claims. (Cl. 343—749)



1. A resonant slot aerial having more than two effective shunt inductance elements for each quarter wavelength of said aerial disposed at discrete intervals along its length with the number and magnitudes of the shunt elements chosen to increase the phase velocity of a wave set up in said aerial beyond the free space velocity of electromagnetic propagation.

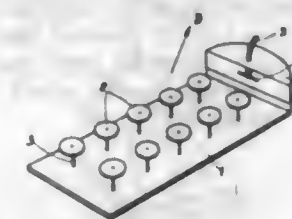
2,820,221

DIRECTIONAL AERIALS

Georges Broussaud, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France

Application September 13, 1955, Serial No. 534,116
Claims priority, application France September 18, 1954

6 Claims. (Cl. 343—753)



1. Directive aerial for ultra short waves comprising: at least one solid plane metal plate, said plate having edges; at least one array of coplanar metal discs parallel to said plate, the respective centers of said discs of one array forming a square mesh; thin metal rods carried by said plate and perpendicular thereto, each supporting one disc of each array by its center and means positioned

at one of the edges of said plate, for feeding wave energy between said plate and said array of coplanar metal discs to excite the aerial.

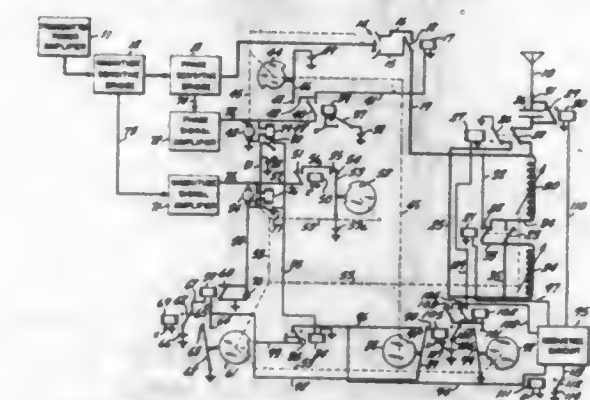
2,820,222

ANTENNA TUNER

William E. Patterson, Coral Gables, Fla., assignor to Aeronautical Communications Equipment, Inc., Miami, Fla., a corporation of Florida

Application May 4, 1954, Serial No. 427,472

30 Claims. (Cl. 343—861)

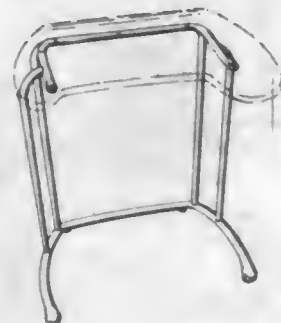


14. Apparatus for tuning an antenna to a source of radio frequency energy comprising variable capacity means series connected between said source and said antenna, means responsive to the phase angle mismatch between the output impedance of said source and the impedance of said antenna for adjusting said capacity means in a direction to eliminate the phase angle mismatch, said capacity adjusting means being deactuated upon substantial elimination of the phase angle mismatch, two variable inductances coupled to said antenna, means responsive to the magnitude of the impedance mismatch between said source and said antenna for adjusting said inductances in a direction to eliminate the impedance magnitude mismatch, first control means for initially connecting said inductances in series relation with respect to each other and for selectively connecting said inductances between said antenna and ground or between said antenna and said capacity means, a condenser adapted to be connected in series with said antenna, and second control means operative upon the adjustment of said inductances to a first predetermined minimum value thereof for connecting said inductances in parallel relation with respect to each other, said second control means being operative upon the further adjustment of said inductances in parallel to a second predetermined minimum value thereof for connecting said condenser directly to said antenna in series with said capacity means.

DESIGNS

JANUARY 14, 1958

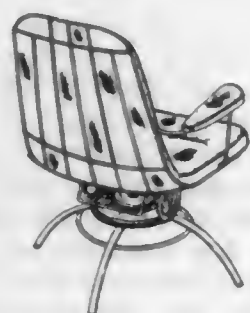
181,893
TABLE FRAME OR THE LIKE
William James Bergen, Waukegan, Ill.
Application February 26, 1957, Serial No. 44,997
Term of patent 14 years
(Cl. D33-14)



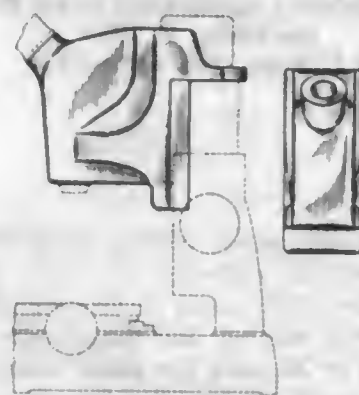
181,894
SHOE
Max W. Borkum, Newton, Mass.
Application June 6, 1957, Serial No. 46,507
Term of patent 14 years
(Cl. D7-7)



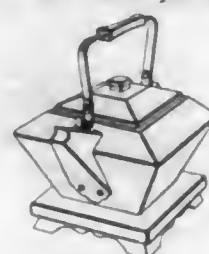
181,895
CHAIR
Merton M. Bottemiller, Wadena, and Alvin L. Engelmann, Bertha, Minn., assignors to Homcrest Company, Wadena, Minn., a corporation of Minnesota
Application May 28, 1956, Serial No. 41,676
Term of patent 7 years
(Cl. D15-1)



181,896
MICROSCOPE BODY TUBE UNIT
Olin W. Boughton, Canandaigua, N. Y., assignor to Bausch & Lomb Optical Company, Rochester, N. Y., a corporation of New York
Application April 10, 1957, Serial No. 45,666
Term of patent 14 years
(Cl. D57-1)



181,897
RADIO CABINET
Robert E. Bowers, El Cerrito, Calif., assignor to R-E-B, Inc., El Cerrito, Calif., a corporation of California
Application April 12, 1957, Serial No. 45,727
Term of patent 14 years
(Cl. D56-4)



181,898
FISH LURE
Earle Richard Cappel, Sun Valley, Calif.
Application May 13, 1957, Serial No. 46,137
Term of patent 14 years
(Cl. D31-4)



181,899
SPECTACLE FRAME OR THE LIKE
Walter C. Carmichael, Lexington, Mass., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application May 9, 1956, Serial No. 41,404
Term of patent 14 years
(Cl. D57-1)



JANUARY 14, 1958

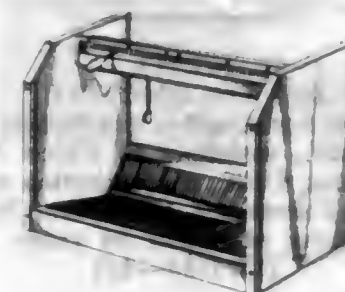
U. S. PATENT OFFICE

481

181,900
BUILDING BLOCK
Raymond W. Clanton, Sunland, Calif., assignor to North Hollywood Concrete Tile Co., North Hollywood, Calif., a copartnership
Application December 26, 1956, Serial No. 44,324
Term of patent 14 years
(Cl. D18-2)



181,901
RECORD RACK
Eugene C. Clarke, Chambersburg, Pa., assignor to Chambersburg Engineering Company, Chambersburg, Pa., a corporation of Pennsylvania
Application January 22, 1957, Serial No. 44,538
Term of patent 3½ years
(Cl. D33-3)



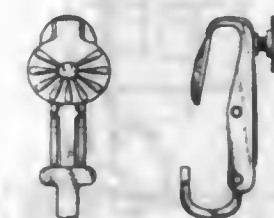
181,902
CHRISTMAS ORNAMENT
Sam Derico, Cleveland, Ohio
Application June 20, 1956, Serial No. 41,981
Term of patent 14 years
(Cl. D29-1)



181,903
CLEANER FOR PAINT ROLLERS
Anthony H. Dreyling, St. Paul, and Cecil B. Woofter, Crystal, Minn.; said Woofter assignor to said Dreyling
Application May 21, 1956, Serial No. 41,566
Term of patent 14 years
(Cl. D9-6)



181,904
EAR CLIP OR SIMILAR ARTICLE
Hans J. Felbelman, Providence, R. I., assignor to Coro of Rhode Island, Inc., Providence, R. I., a corporation of Rhode Island
Application April 18, 1957, Serial No. 45,791
Term of patent 14 years
(Cl. D45-9)



181,905
NARROW WOVEN FABRIC
Aaron Geffen, Woodmere, N. Y.
Application April 9, 1957, Serial No. 45,657
Term of patent 7 years
(Cl. D92-1)



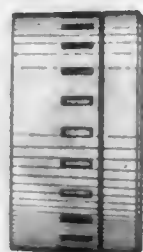
181,906
GUARD UNIT FOR A TRICYCLE OR SIMILAR ARTICLE
Donald W. Gill, Amberly Village, Ohio, assignor to The Frank F. Taylor Company, Cincinnati, Ohio, a corporation of Ohio
Application April 10, 1957, Serial No. 45,659
Term of patent 14 years
(Cl. D34-15)



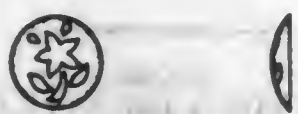
181,907
SUBSOIL CULTIVATOR
 Kenneth E. Golt, Minneapolis, Minn.
 Application July 20, 1955, Serial No. 37,050
 Term of patent 7 years
 (Cl. D39—1)



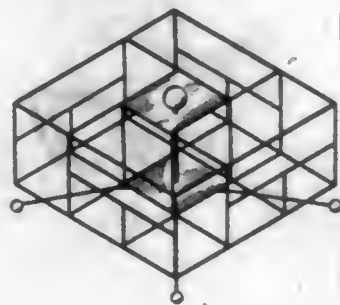
181,908
CAMERA LENS MOUNT
 Frederick W. Hertzler, Detroit, Mich., assignor, by mesne assignments, to Sylvania Electric Products Inc., a corporation of Massachusetts
 Application August 20, 1956, Serial No. 42,673
 Term of patent 14 years
 (Cl. D61—1)



181,909
JEWELRY STONE FINDING OR SIMILAR ARTICLE
 Adolph Katz, Providence, R. I., assignor to Coro, Inc., New York, N. Y., a corporation of New York
 Application November 23, 1956, Serial No. 43,885
 Term of patent 7 years
 (Cl. D45—1)



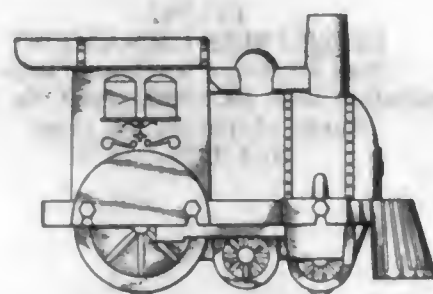
181,910
ROTARY BOOK RACK
 Robert Lieberman, Detroit, Mich.
 Application January 7, 1957, Serial No. 44,415
 Term of patent 7 years
 (Cl. D33—2)



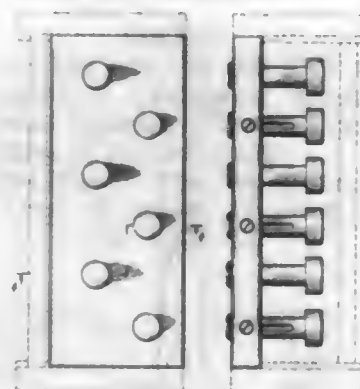
181,911
AIR CONDITIONER CABINET FRONT OR SIMILAR ARTICLE
 Jean O. Reinecke, Oak Park, Ill., assignor to Amana Refrigeration, Inc., Amana, Iowa, a corporation of Iowa
 Application December 3, 1956, Serial No. 44,047
 Term of patent 7 years
 (Cl. D62—4)



181,912
TOY LOCOMOTIVE
 Robert Silverstein, Los Angeles, and Robert J. Mortonson, Alhambra, Calif., assignors to Eldon Manufacturing Co., Los Angeles, Calif., a corporation of California
 Application February 7, 1957, Serial No. 44,789
 Term of patent 14 years
 (Cl. D34—15)



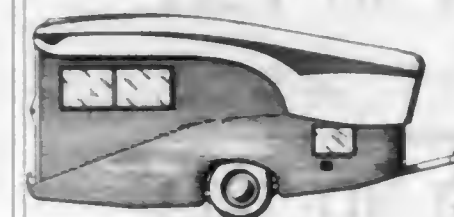
181,913
POUNDING TOY OR SIMILAR ARTICLE
 Gilbert G. Southwick, Plainfield, N. J., assignor to Childhood Interests, Inc., Roselle Park, N. J., a corporation of New Jersey
 Application January 30, 1956, Serial No. 39,968
 Term of patent 14 years
 (Cl. D34—15)



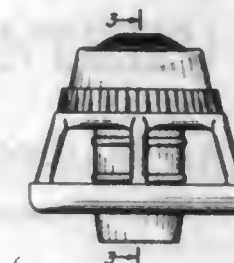
181,914
TRAILER
 Stephen L. Spencer, Atherton, Calif.
 Application October 15, 1956, Serial No. 43,354
 Term of patent 14 years
 (Cl. D14—3)



181,915
TRAILER
 Stephen L. Spencer, Atherton, Calif.
 Application October 15, 1956, Serial No. 43,356
 Term of patent 14 years
 (Cl. D14—3)



181,916
CHAMPAGNE BOTTLE STOPPER
 Floyd A. Terwilliger, Rochester, N. Y.
 Application September 26, 1957, Serial No. 47,880
 Term of patent 14 years
 (Cl. D58—10)



181,917
WEARING APPAREL HANGER
 Earl S. Tupper, Smithfield, R. I.
 Application December 18, 1956, Serial No. 44,241
 Term of patent 14 years
 (Cl. D80—8)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 14TH DAY OF JANUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Deere & Co.: See—
Oehler, William P., Youngberg, and Johnson. Re. 24,415.
Johnson, Leslie W.: See—
Oehler, William P., Youngberg, and Johnson. Re. 24,415.
Lyon, George A. Wheel cover. Re. 24,417, 1-14-58, Cl. 301-37.
Oehler, William P., C. H. Youngberg, and L. W. Johnson, to Deere & Co. Hitch device of the connection facilitating type. Re. 24,418, 1-14-58, Cl. 280-477.
Walker, Brooks. Rear fender compartment for spare tire. Re. 24,416, 1-14-58, Cl. 296-37.2.
Youngberg, Charles H.: See—
Oehler, William P., Youngberg, and Johnson. Re. 24,415.

LIST OF PLANT PATENTEES

Compton, Verna A. Nectarine tree. 1,674, 1-14-58, Cl. 47-62.

LIST OF DESIGN PATENTEES

Amana Refrigeration, Inc.: See—
Reinecke, Jean O. 181,911.
American Optical Co.: See—
Carmichael, Walter C. 181,899.
Bargen, William J. Table frame or the like. 181,893, 1-14-58, Cl. D33-14.
Bausch & Lomb Optical Co.: See—
Boughton, Olin W. 181,896.
Borkum, Max W. Shoe. 181,894, 1-14-58, Cl. D7-7.
Bottmiller, Merton M., and A. L. Engelmann, to Homecrest Co. Chair. 181,895, 1-14-58, Cl. D13-1.
Boughton, Olin W., to Bausch & Lomb Optical Co. Microscope body tube unit. 181,896, 1-14-58, Cl. D57-1.
Bowers, Robert E., to R-E-B, Inc. Radio cabinet. 181,897, 1-14-58, Cl. D56-4.
Cacpal, Earle R. Fish lure. 181,898, 1-14-58, Cl. D31-4.
Carmichael, Walter C., to American Optical Co. Spectacle frame or the like. 181,899, 1-14-58, Cl. D57-1.
Chambersburg Engineering Co.: See—
Clarke, Eugene C. 181,901.
Childhood Interests, Inc.: See—
Southwick, Gilbert G. 181,913.
Clanton, Raymond W., to North Hollywood Concrete Tile Co. Building block. 181,900, 1-14-58, Cl. D18-2.
Clarke, Eugene C., to Chambersburg Engineering Co. Record rack. 181,901, 1-14-58, Cl. D33-3.
Coro of Rhode Island, Inc.: See—
Feibelman, Hans J. 181,904.
Derico, Sam. Christmas ornament. 181,902, 1-14-58, Cl. D29-1.
Dreyling, Anthony H., and C. B. Woofter; said Woofter assor. to said Dreyling. Cleaner for paint rollers. 181,903, 1-14-58, Cl. D9-6.
Eldon Mfg. Co.: See—
Silverstein, Robert, and Mortonson. 181,912.
Engelmann, Alvin L.: See—
Bottmiller, Merton M., and Engelmann. 181,895.
Feibelman, Hans J., to Coro of Rhode Island, Inc. Ear clip or similar article. 181,904, 1-14-58, Cl. O45-9.
Geffen, Aaron. Narrow woven fabric. 181,905, 1-14-58, Cl. D92-1.
Gill, Donald W., to The Frank F. Taylor Co. Guard unit for a tricycle or similar article. 181,906, 1-14-58, Cl. D34-15.
Golt, Kenneth E. Subsoil cultivator. 181,907, 1-14-58, Cl. D39-1.
Hertzer, Frederick W., to Sylvania Electric Products Inc. Camera lens mount. 181,908, 1-14-58, Cl. D61-1.
Homecrest Co.: See—
Bottmiller, Merton M., and Engelmann. 181,895.
Katz, Adolph. Jewelry stone finding or similar article. 181,909, 1-14-58, Cl. D45-1.
Lieberman, Robert. Rotary book rack. 181,910, 1-14-58, Cl. D33-2.
Mortonson, Robert J.: See—
Silverstein, Robert, and Mortonson. 181,912.
North Hollywood Concrete Tile Co.: See—
Clanton, Raymond W. 181,900.
R-E-B, Inc.: See—
Bowers, Robert E. 181,897.
Reinecke, Jean O., to Amana Refrigeration, Inc. Air conditioner cabinet front or similar article. 181,911, 1-14-58, Cl. D62-4.
Silverstein, Robert, and R. J. Mortonson, to Eldon Mfg. Co. Toy locomotive. 181,912, 1-14-58, Cl. D34-15.
Southwick, Gilbert G., to Childhood Interests, Inc. Pounding toy or similar article. 181,913, 1-14-58, Cl. D34-15.
Spencer, Stephen L. Traller. 181,914, 1-14-58, Cl. D14-3.
Spencer, Stephen L. Traller. 181,915, 1-14-58, Cl. D14-3.
Sylvania Electric Products Inc.: See—
Hertzer, Frederick W. 181,908.
Taylor, Frank F., Co., The: See—
Gill, Donald W. 181,906.
Terwilliger, Floyd A. Champagne bottle stopper. 181,916, 1-14-58, Cl. D58-10.
Tupper, Earl S. Wearing apparel hanger. 181,917, 1-14-58, Cl. D80-8.
Woofter, Cecil B.: See—
Dreyling, Anthony H., and Woofter. 181,903.

LIST OF PATENTEEES

TO WHOM

PATENTS WERE ISSUED ON THE 14TH DAY OF JANUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Abbott, Henry H., to Bell Telephone Laboratories, Inc. Station identification device. 2,820,100, 1-14-58, Cl. 179-17.
 Abbott, Henry H., to Bell Telephone Laboratories, Inc. Subscriber line concentrating system. 2,820,103, 1-14-58, Cl. 179-18.
 Aberle, Robert C., to General Electric Co. Washing machine having soap dispenser. 2,819,800, 1-14-58, Cl. 68-17.
 Abkowitz, Stanley, and L. S. Busch, to Mahory-Sharon Titanium Corp. Titanium base alloys. 2,819,958, 1-14-58, Cl. 75-175.5.
 Abkowitz, Stanley, and P. E. Moorhead, to Mahory-Sharon Titanium Corp. Titanium base vanadium-iron-aluminum alloys. 2,819,959, 1-14-58, Cl. 75-175.5.
 Abramson, Oscar and S. Blind unit. 2,819,499, 1-14-58, Cl. 20-63.
 Abramson, Stephen: See—
 Abramson, Oscar and S. 2,819,499.
 Acker, Ellsworth G.: See—
 Gammill, Adrian M., and Acker. 2,819,491.
 Ackerman, Hervey W., Jr., to E. I. du Pont de Nemours and Co. Regenerated cellulose packaging materials and process of making same. 2,819,984, 1-14-58, Cl. 117-76.
 Adams, John J., and C. P. Pettigrew, to United States Steel Corp. Wheel-operated counting mechanism. 2,819,842, 1-14-58, Cl. 235-98.
 Adelaar, Hans: See—
 Weill, Camille, Hannigsberg, and Adelaar. 2,820,141.
 Adler, Robert, to Zenith Radio Corp. Electron beam wave signal frequency converter utilizing beam deflection and beam defocusing. 2,820,139, 1-14-58, Cl. 250-20.
 Advance Transformer Co.: See—
 Feinberg, Albert E. 2,820,180.
 Aeronautical Communications Equipment, Inc.: See—
 Patterson, William E. 2,820,222.
 Agriculture, United States of America as represented by the Secretary of: See—
 Kling, William H. 2,820,047.
 Air Force, United States of America as represented by the Secretary of: See—
 Clawson, George T. 2,820,193.
 Hight, Sterling K. 2,819,856.
 Morrison, Nina K. 2,819,712.
 Raabe, Herbert P. 2,820,173.
 Air Reduction Co., Inc.: See—
 Schildknecht, Calvin E. 2,820,025.
 Aktiebolaget Bofors: See—
 Bräthe, Karl B. 2,819,653.
 Aktiebolaget Hagglund & Soner: See—
 Skogberg, Ernst G., and Harnell. 2,819,897.
 Aktiebolaget Sangfabriken: See—
 Ericsson, Tore. 2,819,475.
 Aktiengesellschaft Brown, Boveri & Cie: See—
 Ghemar, Louis M., and Mouton. 2,820,137.
 Zantop, Ernst. 2,820,118.
 Alberts, Lawrence E., to Minneapolis-Honeywell Regulator Co. Vertical sensor. 2,820,116, 1-14-58, Cl. 200-61.45.
 Albrecht, Carl, to Deutsche Gold- und Silber-Scheideanstalt vormals Roessler. Carburization of iron and steel. 2,819,992, 1-14-58, Cl. 148-15.5.
 Allen, Frank B., to Fyr-Fyter Co. Stored pressure medium container with discharge control. 2,819,820, 1-14-58, Cl. 222-5.
 Allis-Chalmers Mfg. Co.: See—
 Becker, George D. 2,819,849.
 Allmanna Svenska Elektriska Aktiebolaget: See—
 Engstrom, Gunnar P., and Forsell. 2,820,177.
 Uhlmann, Erich. 2,820,189.
 Amara Refrigeration, Inc.: See—
 Smith, Harold. 2,819,593.
 American Can Co.: See—
 Walters, Charles E. 2,819,786.
 American Cyanamid Co.: See—
 Hultquist, Martin E. 2,820,050.
 Kaiser, Donald W., and Welcher. 2,820,033.
 American Home Products Corp.: See—
 Freed, Meier E. 2,819,952.
 American Machine and Metals, Inc.: See—
 Walte, Ralph D. 2,820,117.
 American Motors Corp.: See—
 Dudson, Thomas E. 2,820,130.
 American Radiator & Standard Sanitary Corp.: See—
 Huff, Joseph F. 2,819,892.
 American Steel Foundries: See—
 Kayler, Frank H. 2,819,913.
 Tack, Carl E. 2,819,894.
 Tack, Carl E. 2,819,895.
 American Telephone and Telegraph Co.: See—
 Swan, Luther L. 2,820,105.
 American Viscose Corp.: See—
 Herschel, Carl E., and Vandenburg. 2,819,808.
 Smith, Robert R. 2,819,988.
 Ansler Morton Corp.: See—
 Hartle, Louis J. 2,819,694.
 ii

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Bartels, Heinrich, and H. Fritsch, to International Standard Electric Corp. Process for connecting a tantalum electrode pin to an electrode body. 2,819,961, 1-14-58, Cl. 75-208.
 Batcheller, Hugh W., to Kent Mfg. Corp. Multiple electric terminal and insulating board. 2,820,211, 1-14-58, Cl. 339-198.
 Batcheller, Hugh W., to Kent Mfg. Corp. Electric connector with bifurcated member. 2,820,212, 1-14-58, Cl. 330-258.
 Baumer, Nelson G., J. Harper, and G. D. Hiatt, to Eastman Kodak Co. Plasticizers for cellulose. 2,819,970, 1-14-58, Cl. 104-186.
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 Baur, Carl, and C. Otzen, to Firma Agfa Camera-Werk Aktiengesellschaft. Telephoto objective. 2,819,652, 1-14-58, Cl. 88-37.
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 Bennett, Wilfred P., to Radio Corp. of America. Tunable cavity resonator. 2,820,176, 1-14-58, Cl. 315-41.
 Berger, William H., and L. Kosover. Physical rehabilitation device. 2,819,753, 1-14-58, Cl. 155-22.
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- Carroll, Ellsworth W., to S. & W. Fine Foods, Inc. Peach orientator. 2,819,787, 1-14-58, Cl. 198-33.
- Carter, J. Wayne. Rotary strainer for a pump. 2,819,798, 1-14-58, Cl. 210-402.
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- Ceaglske, Norman H., 90% to Minnesota Valley Natural Gas Co. Methane segregation method and product. 2,820,071, 1-14-58, Cl. 260-676.
- Cecil, Clyde J., L. A. Courter, and C. R. Olson, to The Dow Chemical Co. Method of and apparatus for opening oil- and gas-bearing strata. 2,819,673, 1-14-58, Cl. 102-20.
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- Cobba, Walter H., Jr., to E. I. du Pont de Nemours and Co. Regenerated cellulose packaging materials and process. 2,819,985, 1-14-58, Cl. 117-76.
- Coburn, John F., to The B. F. Goodrich Co. Hot water bottle package. 2,819,791, 1-14-58, Cl. 206-175.
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- O'Neill, Frank E.: See—
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- O'Neill, John P., to the United States of America as represented by the Secretary of the Navy. Sonar transducers. 2,820,214, 1-14-58, Cl. 340-8.
- Opletal, Robert, to Vyzkumny ustav tvarecich stroju a technologie tvareni. Weft stop motion for weaving looms. 2,819,737, 1-14-58, Cl. 139-370.
- Orbach, Max. Bottle holder and pourer. 2,819,800, 1-14-58, Cl. 248-128.
- Oren, Bernard S.: See—
Werth, Rudolph G. 2,819,565.
- Oster, John, Mfg. Co.: See—
Blachly, Donald L. 2,819,742.
- Ostrov, George: See—
Iaroff, Helaine P., and Ostrov. 2,819,519.
- Otto, Charles W.: See—
Howdle, Frederic E., and Otto. 2,819,661.
- Otzen, Christian: See—
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Baur, Carl, and Otzen. 2,819,652.
- Owens-Illinois Glass Co.: See—
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Pinotti, Alfred D. 2,820,166.
- Packard Semiconductors, Inc.: See—
Yamakawa, Kazuo A. 2,820,135.
- Paetz, Robert A., to Thompson Products, Inc. Variable area turbine entrance nozzle. 2,819,732, 1-14-58, Cl. 138-46.
- Pagenhardt, Leonard C.: See—
Nelson, Walter M., and Pagenhardt. 2,819,904.
- Palmer, Rundlette K. Adjustable pillar type tool. 2,819,638, 1-14-58, Cl. 81-316.
- Panellit, Inc.: See—
Sperry, Albert F., and Marmorstone. 2,820,217.
- Panica, Joseph A. Tool for installing and removing fluorescent lamps. 2,819,922, 1-14-58, Cl. 294-20.
- Parke, Davis & Co.: See—
Doub, Leonard and Herbst. 2,820,039.
Heywood, Basil J. 2,820,041.
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- Parker, Henry W. Finger shears for self haircut. 2,819,521, 1-14-58, Cl. 30-135.
- Parker, Norman W., and B. S. Parmet, to Motorola, Inc. Color television frequency control system. 2,820,091, 1-14-58, Cl. 178-54.
- Parmet, Bernard S.: See—
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- Parrott, Harold G.: See—
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- Parsons Corp.: See—
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- Paselino, Herbert J., A. L. Dittman, and J. M. Wrightson, to Minnesota Mining and Mfg. Co. Manufacture of fluorine containing polymers. 2,820,026, 1-14-58, Cl. 260-92.1.
- Patterson, Harry A., to Eastman Kodak Co. Method and apparatus for making mounts for diapositives. 2,819,656, 1-14-58, Cl. 93-1.
- Patterson, William E., to Aeronautical Communications Equipment, Inc. Antenna tuner. 2,820,222, 1-14-58, Cl. 343-861.
- Patton, Richard A., to Texas Gulf Sulphur Co. Conversion of hydrogen sulfide to sulfur with quinones. 2,819,950, 1-14-58, Cl. 23-225.
- Pearce, Louis W. H., and R. V. Jones, to Walker, James and Co. Ltd. Metal packing for rotary and reciprocating shafts and the method of making the same. 2,819,919, 1-14-58, Cl. 288-15.
- Pearne, Frank S., to Regent Jack Mfg. Co. Load handling apparatus. 2,819,873, 1-14-58, Cl. 254-148.
- Peebles, Edgar G., to O. O. Collins. Drift indicator. 2,819,537, 1-14-58, Cl. 33-205.5.
- Peters, Melville F. Sealed transmission system. 2,819,619, 1-14-58, Cl. 74-87.
- Petersen, William. Sheet holding clamp. 2,819,507, 1-14-58, Cl. 24-250.
- Peterson, Ellen J.: See—
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- Petitta, Mario: See—
Spillo, Leon A., and Petitta. 2,819,722.
- Petr, Vlastimil: See—
Rosa, Josef. 2,819,890.
- Petrea, James C., to Sperry Rand Corp. Counting and stacking device. 2,819,807, 1-14-58, Cl. 214-6.
- Petri, Hector D., to United-Carr Fastener Corp. Electrical connector. 2,820,210, 1-14-58, Cl. 339-156.
- Pettengill, Lucien, Jr.: See—
Dull, Raymond A. 2,819,939.
- Pettigrew, Charles P.: See—
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- Pfaff, G. M., A. G.: See—
Gergen, Wade W., and Walmsley. 2,819,693.
- Parrwaller, Erwin, to Sulzer Frères, Societe Anonyme. Apparatus for controlling the warp in a loom for weaving. 2,819,734, 1-14-58, Cl. 139-110.
- Parrwaller, Erwin, to Sulzer Frères, Societe Anonyme. Periodically acting thread brake. 2,819,736, 1-14-58, Cl. 139-194.
- Pfizer, Chas., & Co.: See—
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McLamore, William M. 2,819,998.
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- Pharis, William W., to General Dynamics Corp. Selector circuit for automatic telephone systems. 2,820,101, 1-14-58, Cl. 179-18.
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- Phillips Petroleum Co.: See—
Dixon, Roland E., and Chapman. 2,820,073.
Moyer, Colden A. 2,819,888.
Smith, Fredrick M. 2,820,015.
- Pines, Arthur N., and G. H. Wagner, to Union Carbide Corp. Process for dehydrochlorinating polychlorocyclohexylchlorosilanes. 2,820,048, 1-14-58, Cl. 260-448.2.
- Pines, Herman, to Universal Oil Products Co. Alkylation process. 2,820,074, 1-14-58, Cl. 260-683.49.
- Pinotti, Alfred D., to Owens-Illinois Glass Co. Conductive medium for anode button in a cathode ray tube. 2,820,166, 1-14-58, Cl. 313-64.
- Pipe Linings, Inc.: See—
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- Pittsburgh Plate Glass Co.: See—
Franko-Fillpasic, Borivoj R. 2,820,020.
Franko-Fillpasic, Borivoj R. 2,820,021.
- Pneumatic Scale Corp., Ltd.: See—
Howard, Stanley R. 2,819,788.
- Podgajny, Thaddeus W., to General Steel Castings Corp. Railway motor truck structure. 2,819,685, 1-14-58, Cl. 105-196.
- Polard, Jean, and R. Herbrecht, to Societe Anonyme dite: Compagnie Electro-Mecanique. Method of fitting closing channels in stator slots of electrical machines. 2,819,514, 1-14-58, Cl. 29-155.58.
- Polarek, Richard G., and J. R. Lyon, to Atlas-Boxmakers, Inc. Containers with pouring outlets. 2,819,831, 1-14-58, Cl. 229-17.
- Polaroid Corp.: See—
Land, Edwin H. 2,819,662.
- Pompa, Carlos, to P. D. La Douce. Holder, feeder and dispenser for soluble products. 2,819,556, 1-14-58, Cl. 45-28.
- Popham, Jack L., and D. A. Shock, to Continental Oil Co. Process of removing viscous oil from a well bore. 2,819,761, 1-14-58, Cl. 166-39.
- Porter, Harold, Jr., and W. H. Gluns, to Lilly-Tulip Cup Corp. Electrically controlled apparatus for printing on moving articles. 2,819,671, 1-14-58, Cl. 101-44.
- Powers, John M.: See—
Bennett, Rufus B., and Powers. 2,820,070.
- Praeg, Walter S., to National Broach & Machine Co. Gear checker. 2,819,532, 1-14-58, Cl. 33-179.5.
- Prerotti, Gino J.: See—
Keeler, William R., Evans, and Prerotti. 2,819,949.
- Presto Lock Co.: See—
Levine, Abraham. 2,819,603.
- Price Battery Corp.: See—
Vleth, Albert B. 2,819,805.
Vleth, Albert B. 2,819,806.
- Prodanovich, Jack. Underwater sport fishing gun and harpoon. 2,819,674, 1-14-58, Cl. 162-48.
- Pullman-Standard Car Mfg. Co.: See—
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Steele, William C. 2,819,689.
- Pure Oil Co., The: See—
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Folkina, Hillis O., Miller, and Kempf. 2,820,061.
Folkina, Hillis O., Miller, and Kempf. 2,820,062.
- Pursell, Robert T., to Stone & Webster Engineering Corp. Method of welding pipes ends together. 2,819,517, 1-14-58, Cl. 29-483.
- Quackenbush, Henry: See—
Stewart, Edward L., Brewton, and Quackenbush. 2,819,542.
- Quayle, George F., to The Yale & Towne Mfg. Co. Extendible fork truck. 2,819,811, 1-14-58, Cl. 214-750.
- Quinche, Albert, and E. Lecluyse, to Uni-Tubo S. A. Dispensing plug seal. 2,819,825, 1-14-58, Cl. 222-215.
- Raabe, Herbert P., to the United States of America as represented by the Secretary of the Air Force. Spectrum analyzer. 2,820,173, 1-14-58, Cl. 315-9.
- Radio Corp. of America: See—
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Brown, George H., Jr. 2,819,526.
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- Raislander, Philip J., and R. Wieland, to Shell Development Co. Corrosion inhibiting composition and indicator therefor. 2,820,016, 1-14-58, Cl. 252-408.
- Rainey, Challenger W., to Ford Motor Co. Rocking distributor. 2,820,115, 1-14-58, Cl. 200-30.
- Rainey, James L., and W. G. Rinear, to Rohm & Haas Co. Preparation of imidazole propionic acid derivatives. 2,820,043, 1-14-58, Cl. 260-309.6.
- Rajchman, Jan A., to Radio Corp. of America. Code converter. 2,820,140, 1-14-58, Cl. 250-27.
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- Ramamurthy, Subramanya, to Council of Scientific and Industrial Research. Preparation of titanium tetraiodide. 2,819,946, 1-14-58, Cl. 23-87.

- Ramsay, Thomas H.: See—
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- Ranco Inc.: See—
Greenwalt, Frederick A. 2,820,121.
- Ransom, Russell A. Combined safety joint and jar. 2,819,876, 1-14-58, Cl. 255-27.
- Ranta, James A. Semi-trailer with steerable intermediate wheel assembly. 2,819,911, 1-14-58, Cl. 280-426.
- Rath Packing Co., The: See—
Letney, Le Roy. 2,819,975.
- Rath, Robert A. Refractory anchors and supporting hangers therefor. 2,819,663, 1-14-58, Cl. 110-99.
- Rausch, Hans, and K. Meyer, to Metallgesellschaft Aktiengesellschaft. Process for treating materials. 2,819,539, 1-14-58, Cl. 34-9.
- Raytheon Mfg. Co.: See—
Argento, Henry F., and Haagenesen. 2,820,127.
- Reed Rolled Thread Die Co.: See—
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- Reeder, Jack G., to The Reliance Electric and Engineering Co. Automatic constant tension control with high-speed pick-up. 2,819,512, 1-14-58, Cl. 28-36.
- Reen, Gerald K., and D. S. McCluskey, to Textron Inc. Electromagnetic vibration exciter. 2,820,159, 1-14-58, Cl. 310-16.
- Refriger, Ugo J. Plastic cap having parallel partitions to engage the sides of a nut. 2,819,642, 1-14-58, Cl. 85-53.
- Regent Jack Mfg. Co.: See—
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- Reinartz, John L., to Eitel-McCullough, Inc. Apparatus for measuring electrical characteristics. 2,820,164, 1-14-58, Cl. 324-57.
- Reiss, Howard: See—
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- Relterman, Leroy C.: See—
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- Reliance Electric and Engineering Co., The: See—
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- Rem-Cru Titanium, Inc.: See—
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- Remington Arms Co., Inc.: See—
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- Rendel, George H., to United States Steel Corp. Control system for regulating the conductivity of liquids. 2,819,726, 1-14-58, Cl. 137-93.
- Rendel, George H., to United States Steel Corp. Current density indicator and control. 2,820,004, 1-14-58, Cl. 204-211.
- Renx, Emil K., and G. Miller, to Knight Leather Products, Inc. Toilet case construction. 2,819,749, 1-14-58, Cl. 150-34.
- Repholtz, Jacob J. Display cabinet. 2,819,546, 1-14-58, Cl. 40-102.
- Republic Steel Corp.: See—
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- Retzer, Theodore C., to the United States of America as represented by the Secretary of the Navy. Electric heater for discharge lamps. 2,820,164, 1-14-58, Cl. 313-15.
- Revere Camera Co.: See—
Golick, Joseph J., and Moore. 2,819,647.
- Reynolds, George A.: See—
Murray, Thomas F., Reynolds, and Van Allan. 2,819,965.
- Rhoades, Harry L.: See—
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- Rhyner, Paul, H. Stern, and J. Wegmann, to Cliba Ltd. Process for dyeing or printing fibers of polyacrylonitriles. 2,819,943, 1-14-58, Cl. 8-55.
- Ribaud, George L.: See—
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- Rieke, John W.: See—
Bowman, Brice M., and Rieke. 2,820,181.
- Rieke, John W., to Bell Telephone Laboratories, Inc. Relay circuit. 2,820,157, 1-14-58, Cl. 307-132.
- Rieppel, Perry J., M. C. Clapp, and E. G. Elliott, Jr., to The Metal Specialty Co. Pressure-welded tubing turn. 2,819,883, 1-14-58, Cl. 257-256.
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- Riley, Gerard C., to Rohm & Haas Co. Stabilized pesticide emulsifier composition. 2,819,996, 1-14-58, Cl. 167-42.
- Rinear, William G.: See—
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- Robbins, Albert A., to P. Subkow. Method of preserving fruits and vegetables. 2,819,972, 1-14-58, Cl. 99-154.
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- Robbins, Edgar C., to General Motors Corp. Ice block harvesting apparatus. 2,819,591, 1-14-58, Cl. 62-106.
- Robertson, Jack H. Roll dispensing means. 2,819,851, 1-14-58, Cl. 242-55.4.
- Robertson, Sloan D., to Bell Telephone Laboratories, Inc. Spatial harmonic traveling wave tube. 2,820,170, 1-14-58, Cl. 315-35.
- Robeson, Max O.: See—
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- Robinson, Albert P. Hearth vent and ash dump combination. 2,819,711, 1-14-58, Cl. 126-143.
- Robinson, Clarence J., to The Irwin Auger Bit Co. Method of making shanks for auger bits and the like. 2,819,629, 1-14-58, Cl. 76-108.
- Robinson, Denis M., to High Voltage Engineering Corp. Means for cooling the windows of acceleration tubes for electrostatic generators. 2,820,163, 1-14-58, Cl. 313-35.
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- Rodj & Wienenberger Akt.-Ges.: See—
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- Rohm & Haas Co.: See—
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- Riley, Gerard C.: See—
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- Rohrer, Douglas P.: See—
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- Root, Andrew A., to Bradley Container Corp. Holder for filling pillow packages. 2,819,740, 1-14-58, Cl. 141-316.
- Rosa, Josef, and V. Petr. Counter-current recirculating device for the exchange of heat between a gas and a finely granulated material. 2,819,890, 1-14-58, Cl. 263-21.
- Rose, Alfred G.: See—
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- Rose Brothers (Gainsborough) Ltd.: See—
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- Rose, Saul: See—
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- Roth, David C. Apparatus for preventing theft of a vehicle. 2,820,149, 1-14-58, Cl. 307-10.
- Roush, Milton S., to Thompson Products, Inc. Method of making a blade. 2,819,515, 1-14-58, Cl. 29-156.8.
- Roy, James A. S., and D. E. Schwartz. Electric rotary multicontact device. 2,820,207, 1-14-58, Cl. 339-5.
- Rudel, Harry W.: See—
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- Ruhoff, John R., G. L. Martin, and C. O. Gerfen, to Mallinckrodt Chemical Works. Method of separating values of columbium and/or tantalum from a concentrate also containing an element of group IV B. 2,819,945, 1-14-58, Cl. 23-18.
- Russell, Frank J., Jr. Fishing lure. 2,819,552, 1-14-58, Cl. 43-42.2.
- Ryan, John E.: See—
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- S. A. S. I. B.-S. p. A. Scipione Innocenti-Bologna: See—
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- S. K. F. Kugellagerfabriken, G. m. b. H.: See—
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- S & W Fine Foods, Inc.: See—
Carroll, Ellsworth W. 2,819,787.
- Saber, Charles. Window guard. 2,819,500, 1-14-58, Cl. 20-71.
- St. Jean, Bernard: See—
Belec, Simeon. 2,819,874.
- St. Pierre, Henry. Joiner link with two part bracing means having stop means thereon. 2,819,586, 1-14-58, Cl. 59-85.
- St. Pierre, Henry. Basin wrench. 2,819,637, 1-14-58, Cl. 81-98.
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- Samplietto, Achilles C., to Thompson Products, Inc. Heat exchanger. 2,819,861, 1-14-58, Cl. 257-6.
- Sanford, Robert A., to Sinclair Refining Co. Process for preparing chloro-2,3,4-trimethylpentanes. 2,820,069, 1-14-58, Cl. 260-663.
- Sarro, Silvio. Recessed toilet tissue roll holder. 2,819,852, 1-14-58, Cl. 242-55.53.
- Sarto, Jorma O., to Chrysler Corp. Liquid fuel and air pumping unit. 2,819,588, 1-14-58, Cl. 60-39.2.
- Sato, Shigeo. Wireless direction-finder. 2,820,219, 1-14-58, Cl. 343-118.
- Sauer, Charles E., to Highland Box Co. Polygonal paperboard boxes. 2,819,833, 1-14-58, Cl. 229-41.
- Saunders, Charles A. Target with projectile stop. 2,819,903, 1-14-58, Cl. 273-102.4.
- Scaglia, Phillip P.: See—
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- Schaffer, Robert J.: See—
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- Scheffer, Heinz, and A. Kottler, to C. H. Boehringer. Barbituric acid derivatives. 2,820,035, 1-14-58, Cl. 260-257.
- Schenley Industries, Inc.: See—
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- Schildknecht, Calvin E., to Air Reduction Co., Inc. Homopolymers from 2,2,2-trifluoroethyl vinyl ether. 2,820,025, 1-14-58, Cl. 260-91.1.
- Schilling, August H.: See—
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- Schlichtkrull, Jörgen, and I. M. Nöring, to Novo Terapeutisk Laboratorium A/S. Process for crystallization of insulin using freeze dried insulin as seeding material. 2,819,999, 1-14-58, Cl. 167-75.
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- Schmidt, Charles E. Hydrostatic level. 2,819,538, 1-14-58, Cl. 33-209.
- Schmidt, Willard E. Putty remover. 2,819,756, 1-14-58, Cl. 158-13.6.
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- Schmier, Jacob: *See*—
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- Schnitzer, Arthur W., to Celanese Corp. of America. Ketene reactions. 2,820,037, 1-14-58, Cl. 260-544.
- Schoening, Alton L.: *See*—
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- Schornstheimer, Robert E., and H. P. Campbell, to The B. F. Goodrich Co. Method for making flexible, vapor-permeable, water-resistant vinyl films and the like having improved slip and hand. 2,819,981, 1-14-58, Cl. 117-11.
- Schouten, Gerrit H., and H. C. A. Van Duuren, to North American Phillips Co., Inc. Rhythmic telegraph system. 2,820,089, 1-14-58, Cl. 178-2.
- Schram, Robert E.: *See*—
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- Schroeder, Alfred C., to Radio Corp. of America. Tricolor pickup tube. 2,820,167, 1-14-58, Cl. 313-65.
- Schultz, Harold W.: *See*—
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- Schwartz, Daniel E.: *See*—
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- Scott, Carleton B., to Union Oil Co. of California. Preparation of unsymmetrical trialkyl tetrathio-ortho-phosphates. 2,820,049, 1-14-58, Cl. 260-461.
- Scott, Elmer T., and J. G. Willard, to Reed Rolled Thread Die Co. Thread rolling device. 2,819,631, 1-14-58, Cl. 80-6.
- Scott, Harry A., and C. A. Uncapher, to Continental Can Co., Inc. Apparatus for curling edges on paper drinking cups. 2,819,658, 1-14-58, Cl. 93-36.5.
- Scott, Harry A., and L. F. Fallows, to Continental Can Co., Inc. Paper cup body forming apparatus. 2,819,659, 1-14-58, Cl. 93-39.3.
- Scozzafava, Milton V.: *See*—
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- Scully-Jones and Co.: *See*—
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- Selfert, Ursula: *See*—
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- Semos, George. Electrical switching apparatus. 2,820,124, 1-14-58, Cl. 200-160.
- Seron, Suren M. Spectacle holder. 2,819,650, 1-14-58, Cl. 88-51.
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- Shadley, George R. Animal shackle. 2,819,489, 1-14-58, Cl. 17-44.1.
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- Wood, Donald W., D. S. Maisel, and J. C. Hunt, to Esso Research and Engineering Co. Catalytic dehydrogenation in transfer line reactor. 2,820,072, 1-14-58, Cl. 260-680.
- Wood, George A., Jr., and D. P. Rohrer, to Arthur D. Little, Inc. Variable pitch lead screw mechanism. 2,819,621, 1-14-58, Cl. 74-99.
- Wood, Walter H. Freeze-proof drinking fountain. 2,819,926, 1-14-58, Cl. 299-13.
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- Woods, Harold A., and H. M. Trowbridge, to Shell Development Co. Lubricating grease composition. 2,820,008, 1-14-58, Cl. 252-333.
- Woodson, Thomas T., to General Electric Co. Waste disposal apparatus. 2,819,848, 1-14-58, Cl. 241-46.
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- Ziph, Andrew H., to Walker Mfg. and Sales Corp. Draft regulator with downdraft safety means. 2,819,845, 1-14-58, Cl. 236-45.
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252- 33. 4: 2,820,010 33. 6: 2,820,011 2,820,012 46. 7: 2,820,013 56: 2,820,014 161: 2,820,015 408: 2,820,016	253- 77: 2,819,869 2,819,870 78: 2,819,871 18: 2,819,872 148: 2,819,873 166: 2,819,874 24: 2,819,875 27: 2,819,876 2,819,877 28: 2,819,878 2,819,879 63: 2,819,880 6: 2,819,881 239: 2,819,882 256: 2,819,883 2,819,884 259- 84: 2,819,885	260- 210: 2,820,029 239. 55: 2,820,030 243: 2,820,031 249. 5: 2,820,032 249. 8: 2,820,033 256. 4: 2,820,034 257: 2,820,035 272: 2,820,036 282: 2,820,037 293: 2,820,038 294. 8: 2,820,039 296: 2,820,040 307: 2,820,041 2,820,042 309. 6: 2,820,043 397. 45: 2,820,044 2,820,045 406: 2,820,046 412. 3: 2,820,047 448. 2: 2,820,048 461: 2,820,049 465: 2,820,050 2,820,051 466: 2,820,052 471: 2,820,053 481: 2,820,054 491: 2,820,055 505: 2,820,056 544: 2,820,057 585. 5: 2,820,058 604: 2,820,059 609: 2,820,060 2,820,061 2,820,062 2,820,063 92. 8: 2,820,064	260- 612: 2,820,065 615: 2,820,066 638: 2,820,067 659: 2,820,068 663: 2,820,069 674: 2,820,070 676: 2,820,071 680: 2,820,072 683. 45: 2,820,073 683. 49: 2,820,074 261- 19: 2,819,886 94: 2,819,887 114: 2,819,888 263- 8: 2,819,889 21: 2,819,890 34: 2,819,891 267- 1: 2,819,892 8: 2,819,893 9: 2,819,894 2,819,895 49: 2,819,896 64: 2,819,897 41: 2,819,898 36: 2,819,899 1: 2,819,900 25: 2,819,901 45: 2,819,902 102. 4: 2,819,903 130: 2,819,904 279- 1: 2,819,905 2: 2,819,906 280- 7. 13: 2,819,907 70. 2: 2,819,908 93: 2,819,909 104. 5: 2,819,910 426: 2,819,911	280- 477: Re. 24, 415 19: 2,819,912 284- 63: 2,819,913 285- 70: 2,819,914 159: 2,819,915 244: 2,819,916 26- 2,819,917 267- 90: 2,819,918 288- 15: 2,819,919 30: 2,819,920 290- 4: 2,820,148 202- 70: 2,819,921 294- 20: 2,819,922 74: 2,819,923 78: 2,819,924 296- 28: 2,819,925 37. 2: Re. 24, 416 299- 13: 2,819,926 53: 2,819,927 53: 2,819,928 301- 37: Re. 24, 417 108: 2,819,929 302- 20: 2,819,930 304- 5: 2,819,931 307- 10: 2,820,149 35: 2,820,150 88: 2,820,151 88. 5: 2,820,152 2,820,153 2,820,154 2,820,155 106: 2,820,156 132: 2,820,157 308- 29: 2,819,932 72: 2,819,933 309- 2: 2,819,934	309- 2,819,935 16: 2,819,936 310- 15: 2,820,158 16: 2,820,159 23: 2,820,160 27: 2,820,161 75: 2,820,162 87: 2,820,163 311- 4: 2,819,937 312- 201: 2,819,938 313- 15: 2,820,164 35: 2,820,165 64: 2,820,166 65: 2,820,167 74: 2,820,168 299: 2,820,169 315- 3. 5: 2,820,170 2,820,171 3. 6: 2,820,172 9: 2,820,173 13: 2,820,174 27: 2,820,175 41: 2,820,176 145: 2,820,177 201: 2,820,178 230: 2,820,179 257: 2,820,180 8: 2,820,181 317- 130: 2,820,182 172: 2,820,183 236: 2,820,184 239: 2,820,185 318- 30: 2,820,186 39: 2,820,187 489: 2,820,188 321- 27: 2,820,189	321- 48: 2,820,190 323- 89: 2,820,191 324- 25: 2,820,192 51: 2,820,193 57: 2,820,194 61: 2,820,195 61: 2,820,196 5: 2,820,197 7: 2,820,198 31: 2,820,199 51: 2,820,200 7: 2,820,201 10: 2,820,202 2,820,203 11: 2,820,204 28: 2,820,205 73: 2,820,206 5: 2,820,207 116: 2,820,208 125: 2,820,209 156: 2,820,210 198: 2,820,211 258: 2,820,212 275: 2,820,213 340- 8: 2,820,214 54: 2,820,215 174: 2,820,216 213: 2,820,217 227: 2,820,218 118: 2,820,219 749: 2,820,220 753: 2,820,221 861: 2,820,222 74: 2,819,940 87: 2,819,939 101: 2,819,941 107: 2,819,942
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CLASSIFICATION OF DESIGNS

D 7- 7: Des. 181,894 D 9- 6: Des. 181,903 D14- 3: Des. 181,914 Des. 181,915 D15- 1: Des. 181,895	D18- 2: Des. 181,900 D29- 1: Des. 181,902 D31- 4: Des. 181,898 D32- 2: Des. 181,910	D33- 3: Des. 181,901 14: Des. 181,893 D34- 15: Des. 181,906 Des. 181,912	D34- 15: Des. 181,913 D39- 1: Des. 181,907 D45- 1: Des. 181,909 9: Des. 181,904	D56- 4: Des. 181,897 D57- 1: Des. 181,896 Des. 181,899 D58- 10: Des. 181,916	D61- 1: Des. 181,908 D62- 4: Des. 181,911 D80- 8: Des. 181,917 D92- 1: Des. 181,905
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TRADEMARKS NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 353,542 (NIFTY), Birmingham Paper Co., School tablets, pads, blank books, etc.; TM 574,598 (NIFTY AND DESIGN, same, Glue and library and school paste used for pasting paper; TM 576,957, same, School tablets, paper pads, etc.; TM 581,498, same, Catalogs, drawings and printed charts; TM 586,475, same, Boxes made of cardboard and/or paper as follows: jewelry boxes, etc.; 2,406,104, Compton and Autry, Dispensing machine, filed Apr. 18, 1957, D. C., N. D. Tex. (Dallas), Doc. 7006, *Birmingham Paper Co. v. Allan A. Burleson et al.* Defendants enjoined from using expression "NIFTY-VEN" in connection with sale of paper products, etc.; by stipulation; counterclaim dismissed; patent held not infringed Nov. 14, 1957.

TM 364,376 (CHRISTIAN BROTHERS), Mont La Salle Vineyards, Wines; TM 394,283 (THE CHRISTIAN BROTHERS), De La Salle Institute, Brandy; TM 570,230 (THE CHRISTIAN BROTHERS TREASURE PORT), Mont La Salle Vineyards et al., Port wine; TM 595,650 (THE CHRISTIAN BROTHERS), same, Wine; TM 597,702, same, Brandy; TM 631,893 (THE CHRISTIAN BROTHERS AND DESIGN), same, Vermouth, filed July 11, 1957, D. C. N. J. (Newark), Doc. 740/57, *The Order of the Brothers of the Christian Schools et al. v. International Wines, Inc. et al.* Cause dismissed Dec. 5, 1957.

TM 394,283. (See TM 364,376.)

TM 519,950 (FRITOS), The Frito Co., Candy shelled salted peanuts and corn chips, filed Dec. 26, 1950, D. C., E. D. Mo. (St. Louis), Doc. 11004(1), *The Frito Co. v. So Good Potato Chip Co.* Cause dismissed with prejudice by stipulation Nov. 18, 1957.

TM 570,230. (See TM 364,376.)

TM 574,598. (See TM 353,542.)

TM 576,957. (See TM 353,542.)

TM 581,498. (See TM 353,542.)

TM 582,599 (DONEGAL), M. & D. Simon Co., Inc., Sportswear—namely, men's and boys' dress shirts, sport shirts, and neckties, filed June 13, 1957, D. C., S. D. N. Y., Doc. 121/252, *Dorset Knitwear, Ltd. v. M. & D. Simon Co., Inc.* Stipulation and order of voluntary dismissal Dec. 5, 1957.

TM 586,475. (See TM 353,542.)

TM 595,650. (See TM 364,376.)

TM 597,702. (See TM 364,376.)

TM 617,878 (FAMILY CIRCLE), The Family Circle, Inc., Magazine produced monthly, filed Nov. 14, 1957, D. C., W. D. Wis. (Madison), Doc. 3022, *The Family Circle Inc. v. Mutual Indemnity Insurance Co.*

TM 631,895. (See TM 364,376.)

TM 640,384 (DUBBELIFE), Burlington Industries, Inc., Hosiery, filed June 25, 1957, D. C., S. D. N. Y., Doc. 121/400, *Burlington Industries, Inc. v. Albrecht's Retail Stores, Inc. et al.* Consent order of dismissal Dec. 6, 1957.

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]..... 10,934
Date of oldest new application..... Apr. 17, 1957
Date of oldest amended application..... May 1, 1957

J. H. MERCHANT, Director, Trademark Examining Operation		Oldest Application	
TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION		New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation			
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50.....		4-17-57	5-13-57
(II) R. F. SFRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B.....		6-10-57	8-20-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks (Goods) Class A.....		5-16-57	5-1-57
Renewals (All Classes).....		10-28-57	11-26-57
Sec. 12 (c) Publications (All Classes).....		10-17-57	11-22-57

Applications Filed During the Month of November 1957—1,672

Registrations Issued..... 351—No. 656,953 to No. 657,303
Renewals Issued..... 46

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5. As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

CLASS 2

RECEPTACLES

SN 31,421. The Springfield Metallic Casket Co., Inc., Springfield, Ohio. Filed June 5, 1957.

"HART-LOCK"

For Caskets.
First use June 20, 1956.

SN 33,962. Helier-Sperry, Inc., New York, N. Y. Filed July 18, 1957. Sec. 2(f).

SPERRY

Owner of Reg. No. 533,522.
For Compact Cases, Sold Empty.
First use Jan. 1, 1947.

CLASS 3

BAGGAGE, ANIMAL EQUIPMENTS, PORTFOLIOS, AND POCKETBOOKS

SN 34,037. Bernard Cabn Co., Inc., New York, N. Y. Filed July 19, 1957.

FOTO-FAN

For Billfolds and Wallets With Attached Photo Leaf Albums.
First use May 1, 1956.

CLASS 4

ABRASIVES AND POLISHING MATERIALS

SN 20,570. Standard Merchandising Co., Inc., Hillside, N. J. Filed Dec. 6, 1956.

SEMCO VOGUE MIRACLE

For Shoe Polish; Cleaner and Polish for Floors, Furniture, and Metal Surfaces; Wax for Cleaning and Polishing Windows and Glass Surfaces; General Purpose Cleaning and Polishing Liquid Used as a Spray; Polish for Automobiles and Painted Surfaces; Polishing and Cleaning Pads.
First use Aug. 27, 1956.

SN 27,044. Norton Company, Troy, N. Y. Filed Mar. 27, 1957.

BEAR

Owner of Reg. Nos. 216,121, 592,079, and others.
For Coated Abrasives.
First use on or about Mar. 7, 1957.

TM 44

SN 27,046. Norton Company, Troy, N. Y. Filed Mar. 27, 1957.



Owner of Reg. Nos. 216,121, 592,079, and others.
For Coated Abrasives.
First use on or about Mar. 7, 1957.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

SN 12,486. American Cyanamid Company, New York, N. Y. Filed Nov. 20, 1956.

AERO

Owner of Reg. Nos. 124,050, 627,187, and others.
For Catalyst.
First use Jan. 9, 1948.

SN 15,454. Dodge & Olcott, Inc., New York, N. Y. Filed Sept. 11, 1956.

SWEETMINT

For Peppermint Oil.
First use January 1935.

SN 20,233. Almar Supply Co., Indianapolis, Ind. Filed Dec. 3, 1956.



For Aerosol Bomb Fire Extinguisher.
First use Sept. 17, 1956.

SN 21,429. E. F. Drew & Co., Inc., New York, N. Y. Filed Dec. 21, 1956. Sec. 2(f).



Applicant disclaims the word "Chemicals" apart from the mark as shown. Owner of Reg. No. 550,583.
For Compositions Containing Organic and Inorganic Chemicals in Liquid, Powder, and Paste Form for Addition to Water for Prevention of Corrosion and Deposit Formation for Domestic and Industrial Applications Such as Boiler Water, Diesel Engine Water, Steam Line Condensates, Evaporator Water, and Brines, Said Chemicals Becoming Dissolved in the Aforesaid Waters.
First use Dec. 1, 1947.

JANUARY 14, 1958

U. S. PATENT OFFICE

TM 45

SN 22,289. The Amburgo Company Inc., Philadelphia, Pa. Filed Jan. 9, 1957.

AMBUR-KILL

For Rodent Killer.
First use September 1954.

SN 22,763. National Aluminate Corporation, Chicago, Ill. Filed Jan. 17, 1957.

NALCAMINE

For Organic Amines.
First use October 1956.

SN 23,225. Distributors Supply Co., Inc., St. Paul, Minn. Filed Jan. 25, 1957.

FIVE STAR

For Chemical Compositions—Namely, Herbicides in the Form of Weed and Brush Killers Adapted for Application in Various Ways; Rodent Killers, Fumigants; Insect Killers; Anti-Freeze Compositions for Internal Combustion Engine Cooling Systems.
First use Mar. 28, 1952, on herbicide.

SN 27,490. Columbia-Southern Chemical Corporation, Pittsburgh, Pa. Filed Apr. 4, 1957.

EPCENE

For Cyclopentadiene Monoepoxide for Use as an Intermediate in the Industrial Arts.
First use Mar. 15, 1957.

SN 30,249. Heyden Newport Chemical Corporation, New York, N. Y. Filed May 17, 1957.

NUOZENE

Owner of Reg. No. 434,458.
For Mildewproofing and/or Self-Sanitizing Compositions To Be Added to Oleoresinous, Alkyd, and Emulsion Paints.
First use May 6, 1957.

SN 32,121. Quaker Chemical Products Corporation, Conshohocken, Pa. Filed June 17, 1957.

DIASETT

For Agents for Treating Textiles for Rendering Same Dimensionally Stable and Shrinkproof.
First use May 7, 1957.

SN 32,257. Reichhold Chemicals, Inc., Detroit, Mich. Filed June 19, 1957.

PEROXIDOL

For Epoxidized Oils.
First use June 3, 1957.

SN 32,354. Virginia-Carolina Chemical Corporation, Richmond, Va. Filed June 20, 1957.

FOLEX

For Defoliant.
First use May 31, 1957.

CLASS 10

FERTILIZERS

SN 31,072. Associated Seed Growers, Incorporated, New Haven, Conn. Filed May 31, 1957.

GREEN ICE

For Fertilizers.
First use Apr. 18, 1957.

SUNNILAND

Owner of Reg. Nos. 109,820, 179,070, and 182,405.
For Fertilizers and Plant Foods.
First use Feb. 5, 1957.

SN 34,578. America Corporation, San Pedro, Calif. Filed July 30, 1957.

FISH-GRO

For Liquid Fertilizers.
First use Jan. 15, 1951.

CLASS 12

CONSTRUCTION MATERIALS

SN 693,996. The Lith-I-Bar Company, Holland, Mich. Filed Aug. 31, 1955.

JOISTILE

For Precast Concrete Joist and Filler Blocks.
First use 1947.

SN 7,440. Clair I. Hull, d. b. a. Northwest Venetian Blind Company and/or Norco Metal Products Company, Seattle, Wash. Filed May 1, 1956.

ALUMA-PLEAT

For Aluminum Draperies.
First use November 1954.

SN 7,442. Clair I. Hull, d. b. a. Northwest Venetian Blind Company and/or Norco Metal Products Company, Seattle, Wash. Filed May 1, 1956.



For Aluminum Awnings.
First use January 1955.

SN 17,796. Fabrimarble Corp., Granite Springs, N. Y. Filed Oct. 19, 1956.



Applicant disclaims the term "Carrara" and the representation of the map of Italy, apart from the mark.
For Fabricated Marble Tiles and Slabs.
First use Nov. 26, 1954.

SN 18,537. Weatherguard Products Corp., Bronx, N. Y. Filed Oct. 31, 1956.

FABROID

For Synthetic Rubberized Impermeable Roll Sheetting for Use as a Waterproofing Barrier.
First use March 1954.

SN 19,541. Tannoy Limited, London, England. Filed Nov. 19, 1956.

TANNOY

Owner of British Reg. No. 633,458, dated Dec. 9, 1944; and U. S. Reg. No. 411,187.

For Fibre Board; Perforated Fibre Board; Rock Wool, Glass, and Asbestos Fibre; Acoustic and Heat Insulating Material; and Gypsum Plasters With Fibre Filling.

SN 19,671. The B. F. Goodrich Company, Akron, Ohio. Filed Nov. 21, 1956.

SAPER

For Sound Absorbing Sheetting or Panels for Underwater Sound Application.
First use Oct. 5, 1956.

SN 19,672. The B. F. Goodrich Company, Akron, Ohio. Filed Nov. 21, 1956.

ISOPER

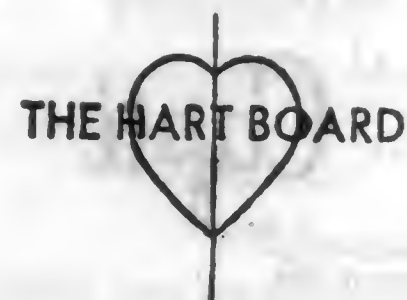
For Sound Isolating Sheetting or Panels for Underwater Sound Applications.
First use Oct. 5, 1956.

SN 20,265. Gold Star Homes, Inc., Rome, Ill. Filed Dec. 3, 1956.

GOLD STAR

For Prefabricated Housing.
First use Sept. 17, 1956.

SN 21,805. Hart Wood Products, Inc., Hart, Mich. Filed Dec. 28, 1956.



The word "Board" is disclaimed apart from the mark as shown.

For Composition Boards Known as Chip Boards, for Use in the Wood-Working and Construction Industries.
First use July 20, 1956.

SN 25,849. Entec Products Corporation, New York, N. Y. Filed Mar. 11, 1957.



For Prefabricated Floors and Walls, and Parts Thereof.
First use Jan. 23, 1957.

SN 27,383. The Lux Company, Inc., Elkhart, Ind. Filed Apr. 2, 1957.

FILZIT

For Crack Filler and Patching Plaster.
First use in 1930.

SN 27,904. Southern Sash Sales & Supply Company, Inc., Sheffield, Ala. Filed Apr. 10, 1957.



For Aluminum Tension Screens, Full Frame Aluminum Screens and Wood Double Hung Windows.
First use Apr. 1, 1954.

SN 29,179. Societe Industrielle du Bois John Holt, Libreville, Gaboon, French Equatorial Africa. Filed Apr. 30, 1957.



Owner of French Reg. No. 1, dated Oct. 15, 1956 (Libreville); Natl. Inst. No. 80,337.

For Timber, Plywood; and Panel Boards Made Principally of Wood.

SN 29,250. Rocher Bros., Inc., East Pittsburgh, Pa. Filed May 1, 1957.

DUROSIL

For Aggregate Used in Cement.
First use Mar. 18, 1957.

SN 29,611. Continental Can Company, Inc., New York, N. Y. Filed May 8, 1957.

POLYMET

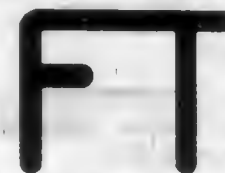
For Plastic Film Material Having at Least One Metalized Surface.
First use Feb. 28, 1957.

SN 31,495. Lite-Vent Industries, Inc., Detroit, Mich. Filed June 6, 1957.



For Aluminum Awnings.
First use June 3, 1956.

SN 31,836. Florida Tile Industries, Inc., Lakeland, Fla. Filed June 12, 1957.



For Ceramic Tiles.
First use May 15, 1954.

SN 31,868. The F. C. Russell Company, Cleveland, Ohio. Filed June 12, 1957.

SUPREME

For Combination Screen and Storm Windows and Doors.
First use Dec. 13, 1956.

SN 31,948. Season-All Sales Corporation, Pittsburgh, Pa. Filed June 13, 1957.

TEMP-GARD

For Storm Windows and Doors.
First use May 1, 1957.

SN 32,200. Middlesex Aluminum Fabrication Company, Incorporated, East Brunswick, N. J. Filed June 18, 1957.

COLOR-MATIC

For Storm Windows.
First use Feb. 3, 1957.

CLASS 15**OILS AND GREASES**

SN 30,591. The Kaul Clay Manufacturing Company, Toronto, Ohio. Filed May 23, 1957.



"Lube" is disclaimed apart from the mark as shown.
For Lubricant for Use in Forming the Joints of Vitrified Clay Pipe.
First use May 9, 1957.

CLASS 16**PROTECTIVE AND DECORATIVE COATINGS**

SN 695,082. The Durox Company, Cleveland, Ohio. Filed Sept. 21, 1955.

DUROX

Owner of Reg. No. 209,366.
For Liquid Primer-Sealer Surface Coating Which May Also Be Used as an Additive for Paints, Enamels, and Lacquers.
First use Aug. 12, 1955.

SN 25,441. Marson Corporation, Revere, Mass. Filed Mar. 4, 1957.



For Additives for Automotive Paints.
First use November 1952.

SN 30,920. Monsanto Chemical Company, St. Louis, Mo. Filed May 28, 1957.

E-120

For Pipe Enamel and Primer.
First use Apr. 10, 1950.

SN 31,042. Standard Oil Company of California, San Francisco, Calif. Filed May 29, 1957.

CHEVRON

Owner of Reg. Nos. 521,798, 406,343, and others.
For Rust Preventing and Filter Coating Petroleum Compounds Applied as Films on Metal and Other Surfaces, Wax for Coating Containers for Dairy Products, and Wax, Asphalt, Asbestos, and Aluminum Base Water Proofing and Surfacing Compositions for Metal, Wood, Concrete, Masonry, Cloth and Surfaces in General.
First use in November 1956.

SN 31,926. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed June 13, 1957. Sec. 2(f).

GRIPTRED

Owner of Reg. No. 404,474.
For Protective Coatings.
First use Oct. 9, 1942.

SN 33,636. Phelan-Faust Paint Mfg. Co., St. Louis, Mo. Filed July 12, 1957. Sec. 2(f) as to "Phelan's."



The drawing is shaded to indicate the color red, but the use of the mark is not restricted to this color. Owner of Reg. No. 510,048.
For Brilliant Prime Colors.
First use June 10, 1957; in August 1919 as to "Phelan's."

SN 33,866. Devco & Reynolds Company, Inc., Louisville, Ky. Filed July 17, 1957.

WOODSILK

For Self-Sealing Wood Stains and Interior Wood Finishes.
First use as early as July 3, 1956.

SN 34,660. Burndy Corporation, Norwalk, Conn. Filed July 31, 1957.

BURNDY

Owner of Reg. No. 361,631.
For Metal Sealing and Oxide Inhibiting Compound.
First use Mar. 15, 1954.

SN 36,583. The Hanna Paint Manufacturing Company, Columbus, Ohio. Filed Sept. 3, 1957. Sec. 2(f).

SATIN SHEEN

Owner of Reg. No. 221,233.
For Ready-Mixed Paints.
First use Oct. 1, 1930.

CLASS 18**MEDICINES AND PHARMACEUTICAL PREPARATIONS**

SN 693,926. National Distillers Products Corporation, New York, N. Y., now by change of name to National Distillers and Chemical Corporation. Filed Aug. 30, 1955.



For Feed for Use as an Animal and Poultry Feed Supplement Containing Vitamins and an Antibiotic.
First use July 8, 1955.

SN 15,864. Blood Bank Foundation, Nashville, Tenn. Filed Sept. 18, 1956.



For Serum and Plasma.
First use June 6, 1955, on plasma.

SN 18,663. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed Nov. 2, 1956.

PLESTRAN

Owner of Reg. No. 506,786.
For Thyroid-Androgen-Estrogen Preparation in Tablet Form.
First use Sept. 24, 1956.

SN 18,665. Warner-Lambert Pharmaceutical Company, Morris Plains, N. J. Filed Nov. 2, 1956.

PAXITAL

Owner of Reg. No. 534,040.
For Veterinary Medicine for Calming Disturbed Animals.
First use Oct. 23, 1956.

SN 18,828. American Cyanamid Company, New York, N. Y. Filed Oct. 30, 1957.

LEDERKYN

For Sulfonamide Preparation for the Treatment of Bacterial Infections.
First use Oct. 25, 1956.

SN 19,172. Neda-Werk Eduard Palm, Munich, Germany. Filed Nov. 13, 1956.



Owner of German Reg. No. 271,930, dated Sept. 15, 1921.
For Pharmaceutical Products—Namely, Laxatives, Reducing Preparations, and Heart Remedies.

SN 22,768. Pentex Incorporated, Kankakee, Ill. Filed Jan. 17, 1957.

PENTEX

Owner of Reg. No. 602,094.
For Animal Enzymes for Use in Medicinal Preparations.
First use Nov. 17, 1953.

SN 23,821. Organon Inc., Orange, N. J. Filed Feb. 5, 1957.

ORGASETTES

Owner of Reg. Nos. 347,233, 358,640, and 574,384.
For Medicinal Rectal Suppositories Containing Medicinal Hormone Preparations and Used To Produce Anabolic or Tissue Building Effects.
First use Dec. 4, 1956.

SN 24,242. Corn Products Refining Company, New York, N. Y. Filed Feb. 12, 1957.

HI-D-TROL

For Vitaminized Supplement for Addition to Livestock and Poultry Feed.
First use Feb. 29, 1956.

SN 30,460. Viomul Chemical Corp., Caldwell, N. J. Filed May 21, 1957.

VIOMUL-K

For Vitamin Additive to Animal Feed.
First use Oct. 10, 1956.

SN 31,000. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed May 29, 1957.

GRESUTON

Owner of German Reg. No. 553,139, dated Jan. 15, 1943.
For Pharmaceutical Preparations.

SN 31,077. Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. Filed May 31, 1957.

'OTOSPORIN'

Owner of Reg. Nos. 505,252, 616,775, and others.
For Preparation for the Treatment of Certain Conditions of the Auditory Canal.
First use May 17, 1957.

SN 31,078. Burroughs Wellcome & Co. (U. S. A.) Inc., Tuckahoe, N. Y. Filed May 31, 1957.

'SPORIN'

Owner of Reg. Nos. 505,252, 616,775, and others.
For Antibiotic Ointment for Use in the Prevention of Infections in Minor Cuts, Wounds, Burns, and Abrasions.
First use May 17, 1957.

SN 32,523. Nutritional Quality Controls, Inc., New York, N. Y. Filed June 24, 1957.

CONSTABS

For Preparation for the Treatment of Constipation.
First use May 13, 1957.

SN 32,623. Organon Inc., Orange, N. J. Filed June 25, 1957.

ORGADERM

Owner of Reg. Nos. 347,233 and 574,384.
For Medicinal Hormone Preparation in Ointment Form.
First use Apr. 15, 1957.

SN 32,625. Organon Inc., Orange, N. J. Filed June 25, 1957.

LIQUAMAR

Owner of Reg. No. 361,309.
For Medicinal Preparation Used as a Blood Anticoagulant.
First use June 8, 1957.

SN 32,660. Arrow Medical Co., Inc., Coral Gables, Fla. Filed June 26, 1957.

POLYDERM

For Antiseptic, Protective, Soothing, and Healing Ointment.
First use Apr. 25, 1957.

SN 32,709. The Upjohn Company, Kalamazoo, Mich. Filed June 26, 1957.

BIOSOL

For Antibiotic, for Veterinary Use.
First use Feb. 15, 1957.

SN 32,710. The Upjohn Company, Kalamazoo, Mich. Filed June 26, 1957.

ROTEBAN

For Preparation for the Treatment of Skin Parasites, for Veterinary Use.
First use Nov. 20, 1956.

SN 32,711. The Upjohn Company, Kalamazoo, Mich. Filed June 26, 1957.

CORDIPEN

For Medicinal Antibiotic and Hormonal Preparation, for Veterinary Use.
First use Jan. 29, 1957.

SN 32,834. Merck & Co., Inc., Rahway, N. J. Filed June 28, 1957.

HYDROCORTONE-T.B.A.

Owner of Reg. No. 565,020.
For Hormonal Compound for Medicinal and Pharmaceutical Use.
First use Jan. 7, 1955.

SN 32,835. Merck & Co., Inc., Rahway, N. J. Filed June 28, 1957.

HYDELTRA-T.B.A.

Owner of Reg. Nos. 643,173 and 632,567.
For Hormonal Compound for Medicinal and Pharmaceutical Use.
First use May 10, 1956.

SN 32,836. Merck & Co., Inc., Rahway, N. J. Filed June 28, 1957.

HYDELTRASOL

Owner of Reg. Nos. 632,567 and 643,173.
For Hormonal Compound for Medicinal and Pharmaceutical Use.
First use June 24, 1957.

SN 32,869. Henry K. Wampole & Company Incorporated, Philadelphia, Pa. Filed June 28, 1957.

BIORESP-C

For Bioflavonoid-Antihypertensive Preparation.
First use Mar. 19, 1957.

SN 33,010. The Upjohn Company, Kalamazoo, Mich. Filed July 1, 1957.

NEO-AQUATEF

For Antibiotic and Hormonal Preparation.
First use Jan. 29, 1957.

SN 33,011. The Upjohn Company, Kalamazoo, Mich. Filed July 1, 1957.

CARBESTROL

For Estrogenic Preparation.
First use Feb. 13, 1957.

SN 33,021. Xtrium Co., Chicago, Ill. Filed July 1, 1957.

EGO-LERTIN

For Cerebral Stimulant for Persons Over Fifty (by Prescription Only).
First use May 6, 1957.

SN 33,201. David P. Barnes, d. b. a. Helthet Distributors, Oklahoma City, Okla. Filed July 5, 1957.

HELTHET

For Vitamins and Food Supplement in the Form of Capsules.
First use June 20, 1957.

SN 33,990. The Norwich Pharmacal Company, Norwich, N. Y. Filed July 18, 1957.

ALKA BISMOL

For Antacid Preparations for the Treatment of Hyperacidity, Sour Stomach, Acid Stomach, Gastric Distress, Headache, and Nausea.
First use June 25, 1957.

SN 34,140. Irwin, Neisler and Co., Decatur, Ill. Filed July 22, 1957.

MORPHATAN

For Analgesic Tablet Containing Morphine Tannate.
First use June 25, 1957.

SN 34,167. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 22, 1957.

TERRAFORTE

For Antibiotic Preparation.
First use Nov. 19, 1956.

SN 34,169. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 22, 1957.

MAXIPEN

For Antibiotic Preparation.
First use Mar. 14, 1957.

SN 34,372. Dr. Salisbury's Laboratories, Charles City, Iowa. Filed July 25, 1957.

TRISTAT

For Veterinary Remedy in the Treatment of Fowl Typhoid, Paratyphoid, and Pullorum in Chickens and Turkeys.
First use May 24, 1957.

SN 34,420. Gray Pharmaceutical Co., Inc., Newton, Mass. Filed July 26, 1957.

ARGLUMATE

For Therapeutic Glutamic Acid Preparation.
First use July 19, 1957.

SN 34,478. U. S. Vitamin Corporation, New York, N. Y. Filed July 26, 1957.

LUFA

For Pharmaceutical Preparation—Namely, a Brand of Lipotropics With Unsaturated Fatty Acids.
First use June 11, 1957.

SN 34,515. Norman L. Cummings, d. b. a. Vera Distributors, Dana Point, Calif. Filed July 29, 1957.

NORMAVITE

For Vitamin and Mineral Dietary Food Supplement.
First use July 17, 1957.

SN 34,082. Fife Pharmaceuticals, Inc., Elberton, Ga. Filed July 31, 1957.

ORAGESIC

For Medicinal Preparations Used for Treating and Relieving Pains Caused by Toothaches, Neuralgia, and Muscle Aches and Pains Caused by Colds.
First use Oct. 15, 1956.

SN 34,683. Fife Pharmaceuticals, Inc., Elberton, Ga. Filed July 31, 1957.

CHLOROBUCAINE

For Medicinal Preparations for Treating Dental Conditions, Such as Dry Socket and the Like.
First use June 3, 1956.

SN 34,905. Bell-Mack Laboratories, Inc., Sparta, N. J. Filed Aug. 5, 1957.

KORVON

For Ointment or Medication To Relieve the Itching and General Discomfort of Psoriasis.
First use in May 1956.

CLASS 21**ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES**

SN 10,053. Daniel Woodhead Company, Chicago, Ill. Filed June 11, 1956.

SAFETY YELLOW

For Electric Outlet Boxes.
First use May 29, 1956.

SN 17,446. Essex Wire Corporation, Fort Wayne, Ind. Filed Oct. 15, 1956.

CIPCO

For Electrical Wire and Cable.
First use on or about Aug. 28, 1945.

SN 18,320. Hodges Research and Development Company, New York, N. Y. Filed Oct. 29, 1956.

FRANKMASTER

For Electrical Appliances Used in the Heating of Frankfurters by Electricity.
First use on or about Sept. 10, 1956.

SN 18,321. Hodges Research and Development Company, New York, N. Y. Filed Oct. 29, 1956.

Frank-A-Minute

For Electrical Appliances Used in the Heating of Frankfurters by Electricity.
First use on or about Sept. 10, 1956.

SN 18,322. Hodges Research and Development Company, New York, N. Y. Filed Oct. 29, 1956.

MINIT-FRANK

For Electrical Appliances Used in the Heating of Frankfurters by Electricity.
First use on or about Sept. 10, 1956.

SN 20,104. Heidenreich & Harbeck, Hamburg, Germany. Filed Nov. 29, 1956.

POLYCOP

Owner of German Reg. No. 683,852, dated Nov. 8, 1955; and U. S. Reg. Nos. 399,299 and 601,840.

For Accessories and Spare Parts for Machine Tools for Duplicating and Copying—Namely, Switchboards, Control Panels, Tracing Controls, and Pattern Scanning Devices Having a Sensitive Tracer Scanning a Template With the Deviations of the Tracer as Effected by the Form of the Template Being Transmitted by a Combined Electronic, Electrical, Hydraulic Apparatus to a Servo-Motor To Control the Movement of a Tool.

SN 21,165. JFD Manufacturing Co., Inc., Brooklyn, N. Y. Filed Dec. 17, 1956.

Magic Genie

For Television Antennas.
First use Nov. 30, 1956.

SN 27,478. Westinghouse Electric Corporation, Pittsburgh, Pa. Filed Apr. 3, 1957.

SYNCHRO GLIDE

For Elevator Landing Controls.
First use in or about June 1950.

SN 28,861. Isopad Limited, Hertfordshire, England. Filed Apr. 25, 1957.

ISOTAPE

Owner of British Reg. No. 693,564, dated Nov. 3, 1950.
For Flexible Electric Heating Apparatus in the Form of a Flexible Electrically Insulated Base To Which an Electric Heating Element Is Fitted.
First use in November 1950; in commerce late in 1950.

SN 31,515. Sprague Electric Company, North Adams, Mass. Filed June 6, 1957.

FILMISTOR

For Electrical Resistors.
First use May 10, 1957.

SN 31,527. Waters Manufacturing, Inc., South Sudbury, Mass. Filed June 6, 1957.



For Electrical and Electronic Components—Namely, Inductors and Mounting Means for Variable Resistors.
First use May 10, 1957.

SN 31,792. Reeves Soundcraft Corp., New York, N. Y. Filed June 11, 1957.

PLUS 100

Owner of Reg. No. 622,987.
For Magnetic Recording Tape.
First use Sept. 26, 1955.

CLASS 22**GAMES, TOYS, AND SPORTING GOODS**

SN 3,623. Metaltex, Inc., Brooklyn, N. Y. Filed Feb. 20, 1956.



The lining on the drawing indicates red, white, and blue coloring.

For Unbreakable, Washable, Non-Toxic, Sterile Nursery Toys—Namely, Rattles, Dolls, Blocks, Animals, and Toy Vehicles.

First use December 1955.

SN 25,029. The Porta Company, Inc., Canton, Mass. Filed Feb. 25, 1957.

OZARK

For Camping Equipment—Namely, Tents, Tent Poles, Tent Pegs, and Sand Pegs Therefor, Mosquito Bars Adapted for Attachment to Tents, and Forked Stick Sets for Use With Camp Fires.

First use Jan. 13, 1956.

SN 27,551. Howard C. Miller, d. b. a. Miller Game Company, Grand Saline, Tex. Filed Apr. 5, 1957.

V T G

For Game Consisting of a Playing Board and Playing Pieces Identified as V-Men, T-Men, and G-Men Which Are Played by Opponent Players According to Certain Prescribed Rules.

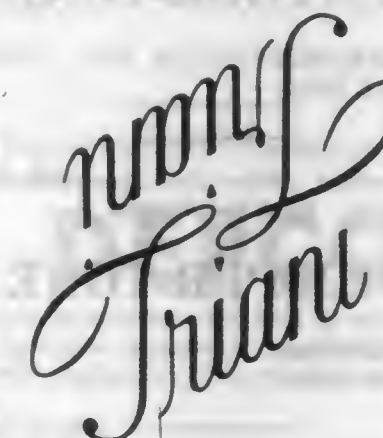
First use Jan. 11, 1956.

SN 30,256. MacGregor Sport Products, Inc., Cincinnati, Ohio. Filed May 17, 1957.

PRO-PEL ACTION

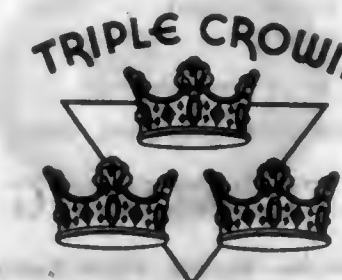
For Golf Clubs.
First use Aug. 1, 1956.

SN 31,402. L. J. S. Sales and Mfg. Company, Greenville, Ohio. Filed June 5, 1957.



For Game Board.
First use Apr. 1, 1957.

SN 31,708. Tober Baseball Manufacturing Co., Inc., Manchester, Conn. Filed June 10, 1957.



For Baseballs and Soft Balls.
First use Feb. 6, 1957.



For Electrical Operators for Electrically Operated Overhead Doors.

First use Mar. 10, 1957.

SN 31,870. W. H. Sanders (Electronics) Limited, London, England. Filed June 12, 1957.

GRAMECK

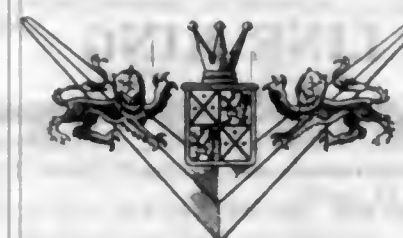
Owner of British Reg. No. 756,957, dated Aug. 24, 1956.
For Sound Recording and Sound Reproducing Apparatus and Instruments, Magnetic Tape for Use as Sound Recording and Reproducing Media, and Parts of These Goods.

SN 32,157. Yardney Electric Corporation, New York, N. Y. Filed June 17, 1957.

SILVERCEL

Owner of Reg. Nos. 540,240, 551,583, and 605,078.
For Electric Batteries, Accessories, and Parts Thereof.
First use Jan. 1, 1949.

SN 32,296. Allen B. Du Mont Laboratories, Inc., Clifton, N. J. Filed June 20, 1957.



For Television Receivers, Radio Receivers, Phonographs, Sound Reproducing Systems and Combinations Thereof.
First use September 1955.

SN 32,325. Mallory Electric Corporation, Detroit, Mich. Filed June 20, 1957.



Owner of Reg. No. 533,982.
For Spark Plugs Used in Internal Combustion Engines.
First use Apr. 2, 1957.

TM 726 O. G.—6

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

SN 1,004. Nixdorf-Krein Mfg. Co., St. Louis, Mo. Filed Jan. 18, 1956.

LONGTONG

For Barbecue Implements.
First use Dec. 23, 1955.

SN 22,724. Ames Crosta Mills and Company, Limited, Heywood, England. Filed Jan. 17, 1957.

HI-CONE

For Aerators for the Treatment of Sewage and Other Materials.
First use Aug. 24, 1956; in commerce Aug. 24, 1956.

SN 23,089. Ramset Fasteners, Inc., Cleveland, Ohio, to Olin Mathieson Chemical Corporation. Filed Jan. 23, 1957.

DUO-JOBMASTER

Assignee owner of Reg. No. 617,175.
For Power Actuated Tools Designed for Firing Pins, Bolts, Studs, Screws, Rivets, and Plugs Into or Through Metal, Concrete, Masonry and the Like.
First use about Oct. 19, 1955.

SN 23,863. Standard Automotive Manufacturing Company, Los Angeles, Calif. Filed Feb. 5, 1957.

FEATHER-TONE

For Automobile Mufflers.
First use Oct. 24, 1956.

SN 23,864. Standard Automotive Manufacturing Company, Los Angeles, Calif. Filed Feb. 5, 1957.

WHISPER-TONE

For Automobile Mufflers.
First use Oct. 24, 1956.

SN 28,722. National & Transcontinental Trading Corp., New York, N. Y. Filed Apr. 23, 1957.

NATIONAL-JIFFY-PEELER

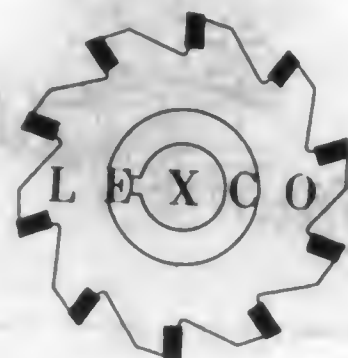
For Automatic Potato Peelers.
First use Apr. 3, 1957.

SN 28,935. Genoa Mower Company, Genoa, Ill. Filed Apr. 26, 1957.

FLEETWING

For Lawn Mowers—Namely, Hand Lawn Mowers, Power Lawn Mowers Such as Electric Lawn Mowers and Gasoline Lawn Mowers, and Parts and Accessories Therefor.
First use Jan. 28, 1957.

SN 28,950. Lee S. Pasino, d. b. a. Lexington Cutter & Repair Co., Island Park, N. Y. Filed Apr. 26, 1957.



For Machine and Cutting Tools.
First use Apr. 1, 1955.

SN 32,080. Hydro-Chemie Aktiengesellschaft, Zurich, Switzerland. Filed June 17, 1957.

AIRSLIP

For Machines and Parts Thereof for Forming Thermoplastic Sheets, Films, and Rods.
First use June 30, 1956; in commerce May 6, 1957.

SN 32,298. Emhart Manufacturing Company, Hartford, Conn. Filed June 20, 1957.

LAMP KING

For Power-Operated Mobile Boom Structures Having at Their Outer Ends a Worker's Support, for Carrying Workmen Aloft for the Installation and Maintenance of Overhead Street Lamps and Like Illuminating Devices.
First use May 28, 1957.

SN 32,300. Emhart Manufacturing Company, Hartford, Conn. Filed June 20, 1957.

LINE KING

For Power-Operated Mobile Boom Structures Having at Their Outer Ends a Worker's Support, for Carrying Workmen Aloft for the Maintenance of Overhead Power Lines.
First use June 15, 1957.

SN 32,529. The Porter-Cable Machine Company, Syracuse, N. Y. Filed June 24, 1957.

Porter-Cable

Yardmaster

Owner of Reg. Nos. 618,619 and 640,651.
For Power Operated Tools—Namely, Hedge Shears, Grass Trimmers, Power Operated Hand Manipulated Cultivator Devices and Chain Saws.
First use June 7, 1954.

SN 33,165. Markt & Hammacher Company, New York, N. Y. Filed July 3, 1957.

HERO

Owner of Reg. Nos. 83,503, 559,073, and others.
For Automotive Parts—Namely, Automotive Timing Chains and Carburetor Parts.
First use Aug. 1, 1954.

SN 33,654. Textile Marking Machine Co., Inc., Syracuse, N. Y. Filed July 12, 1957.

TAG-O-MATIC

Applicant disclaims the word "Tag" aside from use in the mark "Tag-O-Matic."
For Machines for Printing and Cutting Off Tags From Tape, Which Tags Are Used To Identify Articles To Be Laundered or Dry Cleaned.
First use May 1, 1949.

SN 34,747. Taccone Pneumatic Foundry Equipment Corporation, North East, Pa. Filed July 31, 1957.

ARCADE

For Foundry Molding Machinery—Namely, Molding Machines (Hand and Power), Jolt Squeezers, Jolt Strippers, Plaston Machines, Roll-Over Machines, Jolters, Vibrators, Flasks, Jackets, Bands, and Component Parts Thereof.
First use in 1924.

SN 34,756. Ald, Inc., Chicago, Ill. Filed July 29, 1957.

ALDVEND

Owner of Reg. Nos. 539,267, 643,241, and others.
For Merchandise Vending Machines.
First use Sept. 1, 1956.

SN 35,893. Wendell Wilkins and Vincent J. Gore, d. b. a. Wilgo Manufacturing Company, Ponca City, Okla. Filed Aug. 20, 1957.

WILGO

For Press Wheels for Grain Drills and the Like.
First use Mar. 11, 1957.

SN 36,415. Aerojet-General Corporation, Azusa, Calif. Filed Aug. 29, 1957.

Aerojet-General

Owner of Reg. Nos. 409,006, 426,781, and 633,546.
For Thrust Reversers for Turbojet Engines.
First use in or about April 1957.

SN 36,416. Aerojet-General Corporation, Azusa, Calif. Filed Aug. 29, 1957.

AeroBRAKE

For Thrust Reversers for Turbojet Engines.
First use in or about April 1957.

SN 36,518. Imperial Knife Associated Companies, Inc., Providence, R. I. Filed Aug. 30, 1957.

NEWFIELD

For Stainless Steel Flatware—Namely, Knives, Forks, and Spoons.
First use Aug. 8, 1957.

SN 36,542. Toledo Scale Company, Toledo, Ohio. Filed Aug. 30, 1957. Sec. 2(f).

TOLEDO

Owner of Reg. Nos. 528,182, 540,633, and 593,567.
For Machines for Wrapping and Sealing Packages of Food: Parts for Such Machines; and Shelves, Racks, Trays, and Tables Associated With Such Machines for Holding Packaging Materials and Packages.
First use May 9, 1957.

SN 36,668. Nicholson File Company, Providence, R. I. Filed Sept. 4, 1957.

MAGICUT

For Files.
First use July 9, 1957.

SN 36,669. Eugene M. Noel, d. b. a. The E. M. Noel Company, Cambridge, Mass. Filed Sept. 4, 1957.

NOEL

Owner of Reg. No. 563,492.
For Machinery and Equipment for Processing and Handling Food, Drug, Cosmetic, and Chemical Materials—Namely, Mixers, Moulders, Sifters, Dividers, Slicers, Granulating Machines, Shredding Machines, Grinding Machines, Wrapping and Packaging Machines, Dough Rollers and Sheeters, Proofers, Continuous Proofers and Griddles, Muffin Elevators, Muffin Coolers, Continuous "Turn-Over" and "Fried Pie" Machines, Metering Devices for Liquid and Dry Materials, and Weighing Scales.
First use in October 1946.

SN 36,895. M. Beelman Kemp, Sr., d. b. a. Standard Safety Products Company, Lansing, Mich. Filed Sept. 9, 1957.

FIRE BOY

For Fire Extinguishers.
First use Oct. 19, 1955.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

SN 579. The Dayton Electronic Products Co., Dayton, Ohio. Filed Jan. 12, 1956.

DEPCO

For Electronic Measuring and Test Equipment—Namely, Oscilloscopes, Spectrum Analyzers, Analyzing Consoles, Pulse Generators, Speed Indicators, Electronic Counters, and Sonic Depth Finders.
First use May 3, 1955.

SN 19,483. Micro-Test, Inc., Los Angeles, Calif. Filed Nov. 19, 1956.



The drawing is lined for blue.
For Weldably Mountable Resistance Wire Strain Gages and Component Parts Therefor.
First use Sept. 1, 1956.

SN 20,468. Edward F. Kirby, d. b. a. E. F. Kirby Co., North Hollywood, Calif., to Hi-Temp Safety Control Inc., Glendale, Calif. Filed Dec. 5, 1956.

HI-TEMP

For Over-Temperature Controls for Water Heaters.
First use Nov. 29, 1956.

SN 21,696. Ken-Pak Corporation, d. b. a. Ken-Pak Corp., Forest Lake, Minn. Filed Dec. 27, 1956.

LEV-L-LINE

For Guide Devices for Use in Laying Blocks.
First use on or about July 10, 1955.

SN 22,368. Ernst Leitz, G. m. b. H., Wetzlar (Lahn), Germany. Filed Jan. 10, 1957.

Summaron

Owner of German Reg. No. 525,168, dated Oct. 3, 1940.
For Photographic Enlargers, Light Meters, Optical Film Viewers, Development Tanks, Objectives for Photography, Projectors, Microscopy and Telescopes, and Binoculars.

SN 22,369. Ernst Leitz, G. m. b. H., Wetzlar (Lahn), Germany. Filed Jan. 10, 1957.

Summarit

Owner of German Reg. No. 600,301, dated July 12, 1950.
For Photographic Enlargers, Light Meters, Optical Film Viewers, Development Tanks, Objectives for Photography, Projectors, Microscopy and Telescopes, and Binoculars.

SN 22,370. Ernst Leitz, G. m. b. H., Wetzlar (Lahn), Germany. Filed Jan. 10, 1957.

Summarex

Owner of German Reg. No. 523,797, dated Aug. 7, 1940.
For Photographic Enlargers, Light Meters, Optical Film Viewers, Development Tanks, Objectives for Photography, Projectors, Microscopy and Telescopes, and Binoculars.

SN 22,371. Ernst Leitz, G. m. b. H., Wetzlar (Lahn), Germany. Filed Jan. 10, 1957.

Hektor

Owner of German Reg. No. 444,490, dated Apr. 25, 1932.
For Microscopic and Photographic and Projection-Objectives.

SN 25,638. Propper Manufacturing Company, Inc., Long Island City, N. Y. Filed Mar. 6, 1957.

TIMECARD

For Indicators for Steam Pressure Sterilizers.
First use during March 1956.

SN 26,766. Bourns Laboratories, Inc., Riverside, Calif. Filed Mar. 25, 1957.

PINPOT

For Potentiometers.
First use June 1, 1956.

SN 28,057. Monroe Calculating Machine Company, Orange, N. J. Filed Apr. 12, 1957.

President

For Calculating Machines, Listing-Adding Machines, and Accounting Machines.
First use Mar. 11, 1957.

SN 28,066. Erick O. Schonstedt, d. b. a. Schonstedt Engineering Company, Silver Spring, Md. Filed Apr. 12, 1957.

HELIFLUX

For Magnetic Field Measuring and Detecting Equipment.
First use Apr. 11, 1956.

SN 28,086. Westinghouse Electric Corporation, Pittsburgh, Pa. Filed Apr. 12, 1957.

UNI-THERM

For Thermostats.
First use in or about July 1946.

SN 28,087. Westinghouse Electric Corporation, Pittsburgh, Pa. Filed Apr. 12, 1957.

WATCHMAN

Owner of Reg. No. 380,858.
For Thermostats.
First use in or about July 1946.

SN 28,090. Zylite Products Co. Inc., New York, N. Y. Filed Apr. 12, 1957.

HIS NIBS

For Eyeglass Frames.
First use Mar. 13, 1957.

SN 29,004. Bell & Gossett Company, Morton Grove, Ill. Filed Apr. 29, 1957.

B & G

Owner of Reg. Nos. 623,045, 631,692, and others.
For Flow Meters Including a Thermometer and Balancing Valve for Fluid Systems and Flow Regulating Valves for Maintaining Constant Flow Independent of Pressure.
First use Mar. 2, 1936.

SN 29,089. Minneapolis-Honeywell Regulator Company, Minneapolis, Minn. Filed Apr. 29, 1957.

VAPO-LATOR

For Humidity Sensing Control Device.
First use June 22, 1956.

SN 29,242. The Univis Lens Company, Dayton, Ohio. Filed Mar. 1, 1957.

GAY BROW

For Eyeglass Frames and Parts Thereof.
First use on or about Apr. 18, 1957.

SN 29,474. R. J. Pagliuso, d. b. a. Pagliuso Engineering Company, Glendale, Calif. Filed May 6, 1957.

ACADEMY

For Tripods for Cameras.
First use Apr. 18, 1957.

SN 29,502. Texas Instruments Incorporated, Dallas Tex. Filed May 6, 1957.

seisMAC

For Seismic Magnetic Automatic Computer, a Special Purpose Computer for Making Both Constant and Variable Time Corrections in Seismic Data Played Back From a Magnetic Recorder.
First use Feb. 17, 1956.

CLASS 27

HOROLOGICAL INSTRUMENTS

SN 684,992. Abercrombie & Fitch Company, New York, N. Y. Filed Apr. 6, 1955.

DEEP 17

The numeral "17" is disclaimed apart from the mark as shown.
For Watches.
First use Jan. 21, 1955.

SN 12,201. S. Leese & Sons, Inc., Philadelphia, Pa. Filed July 16, 1956.



For Watches.
First use July 9, 1956.

SN 26,402. Aaron Stern, Inc., New York, N. Y. Filed Mar. 18, 1957.



The drawing is lined for red.
For Watches.
First use Mar. 1, 1954.

CLASS 28

JEWELRY AND PRECIOUS-METAL WARE

SN 828. A. H. Pond Co., Inc., Syracuse, N. Y. Filed Jan. 16, 1956.

Starfire

For Finger Rings, Specifically Diamond Rings and Plain and Patterned Wedding Rings.
First use Oct. 13, 1955.

SN 14,624. Demco Sales Co., Inc., El Monte, Calif. Filed Aug. 27, 1956.

teen trader MINIATURES

For Photographic Charm Bracelets.
First use Aug. 16, 1956.

SN 23,717. Kramer Jewelry Creations, Inc., New York, N. Y. Filed Feb. 4, 1957. Sec. 2(f).

KRAMER

For Necklaces, Bracelets, Finger Rings, Earrings, Jewelry Clips, Brooches, Locketts, Charms, Charm Bracelets, Fobs.
First use 1943.

SN 33,213. Coro, Inc., New York, N. Y. Filed July 5, 1957.

Corochrome

Owner of Reg. No. 511,089.
For Necklaces, Bracelets, Earrings, Jewelry Clips, Brooches, Locketts, Finger Rings, Charm Bracelets, Charms and the Following Goods Made in Whole or in Part of Precious Metals or Plated With the Same: Beads, Pins and Jewelry Initials.
First use May 14, 1957.

CLASS 30

CROCKERY, EARTHENWARE, AND PORCELAIN

SN 11,474. Ebeling & Reuss Co., Philadelphia, Pa. Filed July 3, 1956.



The lining represents gold. Color, however, is not claimed as a material feature.
For Chinaware and Earthenware Articles—Namely, Dinnerware, Figurines, Vases, Bowls, Ashtrays, Pitchers, Cigarette Boxes, Candy Boxes, Bonbon Dishes, and Other Articles of Utilitarian or Artistic Character Made of Chinaware or Earthenware.
First use Sept. 12, 1955.

CLASS 31

FILTERS AND REFRIGERATORS

SN 23,504. Palmer Excelsior Inc., Phoenix, Ariz. Filed Jan. 30, 1957.

IC-PAK

For Wood Fiber Cooler Pads for Evaporative Coolers.
First use May 15, 1956.

SN 30,955. The Standard Motor Company Limited, Coventry, Warwickshire, England. Filed May 28, 1957.

STANPART

Owner of British Reg. Nos. 751,304 and 751,305, dated Feb. 25, 1956.
For Cooling Apparatus and Parts, Filters, All for Use in Automobiles.

SN 32,948. General Filter Company, Ames, Iowa. Filed July 1, 1957.



For Water Filtration Equipment.
First use May 31, 1957.

SN 34,901. Alsop Engineering Corporation, Milldale, Conn. Filed Aug. 5, 1957.

DEHYDRAVAC

For Transformer Dielectric Oil Filters.
First use about Oct. 1, 1956.

SN 36,486. Tricolorator Manufacturing Company, Newark, N. J. Filed Aug. 29, 1957.



For Formed Filter Sheets Made of Fibrous Material.
First use in July 1956.

SN 36,805. Multi-Metal Wire Cloth Co., Inc., New York, N. Y. Filed Sept. 6, 1957.



For Filtering Units for Leaf-Type Filters.
First use Aug. 29, 1957.

CLASS 32

FURNITURE AND UPHOLSTERY

SN 798. The Illinois Shade Cloth Corporation, Chicago Heights, Ill. Filed Jan. 16, 1956. Sec. 2(f).



For Window Shades.
First use Jan. 2, 1920.

SN 9,256. Farrington Manufacturing Company, Needham Heights, Mass. Filed May 29, 1956.

FARRINGTON

For Picture Frames.
First use Apr. 25, 1956.

SN 36,404. Vallone Manufacturing Inc., Buffalo, N. Y. Filed Aug. 28, 1957.

SLEEP-A-PEDIC

For Mattresses and Box Springs.
First use May 3, 1956.

SN 36,516. Ruth R. Hopkins, d. b. a. Richard D. Hopkins Co., San Francisco, Calif. Filed Aug. 30, 1957.

PRIMA-DONNA

For Headboards for Beds.
First use May 14, 1957.

CLASS 37

PAPER AND STATIONERY

SN 31,899. Central Tablet Manufacturing Company, Columbus, Ohio. Filed June 13, 1957.

MURALTEX

For All Purpose Art Paper in Both Rolls and Sheets.
First use Jan. 1, 1950.

CLASS 38

PRINTS AND PUBLICATIONS

SN 689,817. Dill, Clitherow & Co., Arlington Heights, Ill. Filed June 20, 1955.

SMS

For Industrial Engineering Handbooks Revised and Supplemented From Time to Time.
First use on or about Apr. 23, 1953.

SN 10,039. Trianon Hotel Company, d. b. a. Hotel Muehlebach, Kansas City, Mo. Filed June 11, 1956.



For Publication in the Nature of Booklets Issued From Time to Time and Used in the Advertising of Hotel Facilities.
First use 1915.

SN 23,119. Armour and Company, Chicago, Ill. Filed Jan. 24, 1957.

IDEAS IN DEVELOPMENT

For Periodical Directed to Chemical Researchers.
First use Jan. 7, 1957.

SN 27,941. Direct Mail Envelope Co. Inc., New York, N. Y. Filed Apr. 11, 1957.

MAIL-O-MATIC

For Prepared Advertising, Sold as Such.
First use Mar. 1, 1954.

SN 27,942. Direct Mail Envelope Co. Inc., New York, N. Y. Filed Apr. 11, 1957.

CARD-VERTISER

Owner of Reg. No. 618,683.
For Prepared Advertising, Sold as Such.
First use Mar. 1, 1954.

SN 31,176. Allied Decals, Inc., Cleveland, Ohio. Filed June 3, 1957.

Aluma-cal

For Decalcomanias.
First use July 30, 1955.

SN 31,177. Allied Decals, Inc., Cleveland, Ohio. Filed June 3, 1957.

Vinyl-cal

For Decalcomanias.
First use July 30, 1955.

SN 31,181. Avery Adhesive Label Corporation, Monrovia, Calif. Filed June 3, 1957.

KUM-KLEEN

Owner of Reg. Nos. 346,036 and 533,163.
For Printed Labels.
First use on or about July 1, 1935.

SN 31,457. Leon A. Beroth, d. b. a. L. A. Beroth Features Service, Thompson Falls, Mont. Filed June 6, 1957.

KITTEN KAYE

For Comic Strip Published in Newspapers From Time to Time.
First use in or about January 1957.

SN 33,473. Paul Giambarba, d. b. a. Giam Barba, Boston, Mass. Filed July 10, 1957.

ANGELINO

For Comic Strip.
First use Mar. 29, 1957.

CLASS 39

CLOTHING

SN 10,360. Toyo Rayon Co., Ltd., Chuo-ku, Tokyo, Japan. Filed June 15, 1956.

NYLEX

Owner of Japanese Reg. No. 456,940, dated Dec. 14, 1954.
For Shorts, T-Shirts, Undershirts, Dress Shirts, Suits, Jackets, Trousers, Ties, Swimming Trunks, Bermuda Shorts, Cabana Sets for Men and Boys; Foundation Garments, Nightgowns, Slips, Stockings, Brassieres, Panties, Bathing Suits, Jeans, Pedal Pushers, Aprons, Petticoats, Halters, Long and Short Tapered Slacks, Dresses for Women and Girls; Pajamas, Shoes, Beach Robes, Sweaters, Scarves, Socks, Sport Shirts, Hats, Scarves for Men, Women, and Children.

SN 12,135. Bain Corporation, Cambridge, Mass. Filed July 16, 1956.

BAINFLEX

For Clothing—Namely, for Insoles, Midsoles, Blocked Soles, Counters and Box Toes, for Shoes, and the Sheet Materials of Which the Same are Made.
First use July 2, 1951, on inner soles.

SN 12,228. Steinberg Bros., New York, N. Y. Filed July 16, 1956.

AM

For Rubber Gloves.
First use on or about July 10, 1955.

SN 14,722. W. Barratt & Company Limited, Northampton, England. Filed Aug. 28, 1956.

SOFT SPOT

Owner of British Reg. No. 685,653, dated Jan. 18, 1950.
For Boots and Shoes.

SN 18,360. Strathmore Shoe Co., Inc., Brockton, Mass. Filed Oct. 29, 1956.



The name "Filippo Verde" is the Italian for "Phillip Green," a living individual, who signed the application as president and treasurer.

For Men's Leather Shoes.
First use Sept. 1, 1956.

SN 21,038. United States Knitwear Co., New York, N. Y. Filed Dec. 13, 1956.



For Women's Swim Suits.
First use Nov. 1, 1956.

SN 23,278. Frederick Atkins, Inc., New York, N. Y. Filed Jan. 28, 1957. SN 31,456. Austin Knitting Mills, Inc., Albermarle, N. C. Filed June 6, 1957.

FRED FAI

For Fur Garments, Including Coats, Jackets, Stoles and Scarves.
First use Sept. 19, 1956.

SN 28,084. Weltra Trading Company Limited, London, England. Filed Apr. 12, 1957.

LAMMUIR

Owner of British Reg. No. 749,950, dated Jan. 16, 1956.
For Garments and Articles of Clothing for Men, Women, and Children—Namely, Sweaters, Pullovers, Cardigans, Sleeveless Slipovers, T-Shirts, Sport Shirts, Trousers, Coats, Caps, Raincoats, Pajamas, Scarves, Boots, Shoes, and Slip-pers.

SN 28,933. Exquisite Form Brassiere, Inc., New York, N. Y. Filed Apr. 26, 1957.

CO★STAR

For Brassieres.
First use Apr. 24, 1956.

SN 29,587. Isabel Baer, New York, N. Y. Filed May 8, 1957.

MISS ISABEL

For Women's Sweaters; Skirts; Dresses; and Ensembles, Consisting of Skirt and Blouse, Skirt and Top, Skirt and Sweater, and Skirt and Cardigan.
First use Jan. 2, 1947.

SN 29,761. Summit Sportwear Co., Boston, Mass. Filed May 9, 1957.

ORIGINAL
Imperial
walker

The word "Original" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 569,806, 643,650, and others.
For Ladies' and Misses' Sportswear Including Skirts and Shorts.
First use on or before Apr. 1, 1957.

SN 29,803. Kline Brothers Company, New York, N. Y. Filed May 10, 1957.

LAURIE KNIT

For Ladies', Misses', and Children's Sweaters.
First use Feb. 6, 1956.

SN 30,224. Bobbie Brooks Incorporated, Cleveland, Ohio. Filed May 17, 1957.

Lorrie Lester

For Ladies' and Misses' Dresses, Suits, Skirts, Jackets, Sweaters, Blouses, Skirts, Shorts, Slacks and Play-Suits.
First use Mar. 4, 1957.

Carolina Girl

For Ladies' Sweaters.
First use May 21, 1957.

SN 31,566. Independent Supply Company, Marlon, Ind. Filed June 7, 1957.

DermagluV

For Rubber Gloves.
First use May 29, 1957.

SN 31,838. Gay Sprites, Inc., New York, N. Y. Filed June 12, 1957.

GAY SPRITES

For Children's Shirts, Jumpers, Blouses, Jackets, Skirts, Hats, Shorts, Pedal Pushers, Halters, Coats, Slacks, Overalls.
First use May 21, 1957.

SN 31,846. Knipe Bros., Incorporated, Ward Hill, Mass. Filed June 12, 1957.

PERFO-FLEX

Owner of Reg. No. 352,630.
For Men's Shoes.
First use June 18, 1937.

SN 31,875. Smartee Inc., New York, N. Y. Filed June 12, 1957.

SMARTEE

For Women's Blouses, Sweaters, Slacks, Shorts, T-Shirts, Jackets, Skirts.
First use Mar. 9, 1950.

SN 31,892. S. Augstein & Co., Inc., College Point, N. Y. Filed June 13, 1957.

COLLEGE POINTERS

Owner of Reg. No. 357,534.
For Men's, Women's, and Children's Ski Suits, Snow Suits, Caps, Hats, Socks, Stockings, Gloves Made of Fabrics, Jackets, Blouses, Sweaters, Dresses, Suits, Outer Skirts, Coats, Bathing Suits, Slacks, Polo Shirts, Playsuits and Capes, Beach Hats Made of Fabric or Straw.
First use on or about Dec. 8, 1937.

SN 31,911. Eagle Clothes, Inc., Brooklyn, N. Y. Filed June 13, 1957.

Golden Eagle

Owner of Reg. Nos. 66,879, 154,504, and 623,125.
For Men's Overcoats, Topcoats, and Suits.
First use Mar. 5, 1957; September 1912 as to the word "Eagle."

SN 31,912. Eagle Clothes, Inc., Brooklyn, N. Y. Filed June 13, 1957. SN 32,610. Mercer Glass Works, Inc., New York, N. Y. Filed June 25, 1957.



Owner of Reg. Nos. 549,205 and 550,708.
For Men's Overcoats, Topcoats, and Suits.
First use May 28, 1957.

SN 31,914. Eagle Clothes, Inc., Brooklyn, N. Y. Filed June 13, 1957.



Owner of Reg. Nos. 66,879, 154,504, and 623,125.
For Men's Overcoats, Topcoats, and Suits.
First use Mar. 26, 1937; in June 1883 as to the picture of the eagle; and in September 1912 as to the word "Eagle."

CLASS 44**DENTAL, MEDICAL, AND SURGICAL APPLIANCES**

SN 28,821. Charles Walton & Son, Inc., Needham Heights, Mass. Filed Apr. 24, 1957. Sec. 2(f).

WALTON

For Elastic Hosiery.
First use during February 1922.

SN 31,517. The Stangor Company, Chicago, Ill. Filed June 6, 1957.

DUTEX

For Vaginal Syringe.
First use Nov. 29, 1956.

SN 31,599. Surgical Appliance Industries, Inc., Cincinnati, Ohio. Filed June 7, 1957.

OCTOPUS

For Knee Braces.
First use Jan. 15, 1957.

SN 32,539. Will Ross, Inc., Milwaukee, Wis. Filed June 24, 1957.

Kenwood

Owner of Reg. Nos. 577,948 and 582,747.
For Intravenous Administration Sets, Flexible Disposable Tubes—Namely, Feeding Tubes, Urinary Drainage Tubes, Stomach Tubes, Rectal Tubes, Oxygen Tubes, and Extension Tubes of All Types.
First use Apr. 1, 1957.

Verity

For Hypodermic Syringes.
First use June 4, 1957.

SN 33,665. Niagara Manufacturing and Distributing Corporation, Adamsville, Pa. Filed July 16, 1957.

CYCLOID-ACTION

Owner of Reg. Nos. 646,178 and 646,179.
For Motor Operated Massage Devices in the Form of Units Adapted to be Held in the Hand and Applied to the Body; Motor Operated Massage Cushions and Pads Adapted to be Applied to the Body; Motor Operated Massage Mattresses, Tables, Chairs and Seats Adapted to Support the Body; and Motor Operated Massage Devices Incorporated Into Playthings Used to Support or be Handled by Children.
First use on or about Oct. 14, 1955.

SN 33,712. The Hospital Specialty Company, Cleveland, Ohio. Filed July 15, 1957.

NEPs

Owner of Reg. No. 407,605.
For Sanitary Napkins.
First use Mar. 9, 1934.

SN 33,810. Albert K. Gilbert, Jr., Columbus, Ga. Filed July 16, 1957.

CONDAIRE

For Dental Aerating Syringe Tip.
First use Apr. 11, 1957.

SN 34,083. Rexall Drug Company, Los Angeles, Calif. Filed July 19, 1957.

Little Warrior

For Adhesive Plasters.
First use May 21, 1957.

CLASS 46**FOODS AND INGREDIENTS OF FOODS**

SN 697,819. National Biscuit Company, New York, N. Y. Filed Nov. 7, 1955.



The drawing is lined for red, but no claim is made to color.
Owner of Reg. Nos. 37,299, 405,277, and others.
For Dry Bakery Products.
First use on or about June 14, 1951.

SN 5,086. Distelfink, Inc., Harrisburg, Pa. Filed Mar. 23, 1956.
 SN 22,429. Fisons Milk Products Limited, Coleraine, Northern Ireland. Filed Jan. 11, 1957.



The word "Distelfink" is the name of a bird known in ornithology called the "Gold Finch."
 For Ice Creams.
 First use Mar. 1, 1956.

SN 11,761. William N. Graber, d. b. a. Old Ranchers Company and Home Style Foods, Upland, Calif. Filed July 9, 1956.

OLD RANCHERS

Owner of Reg. No. 395,299.
 For Canned Fruits, Canned Vegetables, Canned Olives, and Canned Vegetable Juices.
 First use Dec. 5, 1941, on canned olives.

SN 15,973. H. J. Mayer & Sons Co., Inc., Chicago, Ill. Filed Sept. 19, 1956. Sec. 2(f).

NEVERFAIL

For Compounds or Preparations for Curing Meats, Such as Corned Beef, Pork, Ham, Bacon, Sausage, Luncheon Meat, and Meat Seasonings.
 First use about Dec. 20, 1925.

SN 17,077. Delaware Food Products, Inc., Wilmington, Del. Filed Oct. 8, 1956.

VINSTANT

For Food Product, a Dry Synthetic Vinegar.
 First use Aug. 21, 1956.

SN 17,839. Scottville Cheese, Inc., Scottville, Mich. Filed Oct. 19, 1956.

MAMYTES

The English translation of the mark "Mamytes" is "Mother's."
 For Cheese.
 First use Aug. 30, 1956.

SN 21,959. Strohmeier & Arpe Company, New York, N. Y. Filed Dec. 31, 1956.



For Edible Olive Oil.
 First use Mar. 19, 1954.

SN 22,004. Harrison & Jarboe, Sherwood, Md. Filed Jan. 2, 1957.

BELLA MARIA

For Canned Italian-Style Tomatoes.
 First use Aug. 27, 1956.

COCKADE

Owner of British Reg. No. 726,023, dated Jan. 22, 1954.
 For Dried Milk, Fresh Cream and Butter, Milk Powders Used in the Manufacture of Cheese and Known as "Cheese Starters," and Animal Fats.

SN 23,461. Charles Graziano, d. b. a. Ace Pecan Company and County Fair Nut Company, Chicago, Ill. Filed Jan. 30, 1957.

COUNTY FAIR

The drawing is lined for red.
 For Edible Nut Meats.
 First use Oct. 1, 1955.
 Subj. to Intf. with SN 26,301.

SN 23,589. Fradellis of Beverly Hills, d. b. a. Fradellis Frozen Food Corporation, Los Angeles, Calif. Filed Jan. 31, 1957.

TOASTEMS

For Frozen Meats, Frozen Fish, and Frozen Shellfish.
 First use Jan. 3, 1957.

SN 24,465. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed Feb. 14, 1957.

D - 7

Owner of Reg. No. 563,071.
 For Free-Flowing Powder Consisting of Milk Solids, Sorbitan Monostearate, Polyoxyethylene Sorbitan Monostearate and Sugar, Principal Use as a Whipping Agent and Emulsifier in Dry Cake Mixes.
 First use Sept. 30, 1955.

SN 24,466. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed Feb. 14, 1957.

DM - 30

Owner of Reg. Nos. 563,671 and 601,425.
 For Free-Flowing Powder Consisting of Milk Solids, Mono and Diglycerides of Fat-Forming Fatty Acids, Principal Uses as an Emulsifier and Softener in Dry Sweet Yeast Raised Bakery Product Mixes and Dry Cake Mixes.
 First use Aug. 20, 1954.

SN 24,734. The Steffen Dairy Foods Company, Inc., Wichita, Kans. Filed Feb. 19, 1957.

TRIM

Owner of Reg. Nos. 550,505, 568,268, and 586,746.
 For Chocolate Covered Ice Cream Center Dairy Bars and for Cottage Cheese.
 First use Dec. 12, 1951, on dairy bars.

SN 26,120. Rochester Dairy Cooperative, d. b. a. Rochester Dairy, Rochester, Minn. Filed Mar. 13, 1957.
 SN 32,558. U. S. Coffee Co., Inc., Oakland, Calif. Filed June 24, 1957.

lynn-dee

For Dairy Products—Namely, Ice Cream and Fluid Homogenized Milk.
 First use Mar. 1, 1957.

SN 26,391. S. & S. Cone Corporation, New York, N. Y. Filed Mar. 18, 1957.
 SN 32,748. Fruit Products Corporation, New York, N. Y. Filed June 27, 1957.

COUNTY FAIR

For Candy.
 First use Sept. 11, 1956.
 Subj. to Intf. with SN 23,461.

SN 26,709. Kerns Industrial Corporation, d. b. a. Kerns Farms, Fort Lauderdale, Fla. Filed Mar. 22, 1957.



For Fresh Produce—Namely, Fresh Tomatoes.
 First use Jan. 10, 1957.

SN 29,870. Cal-Compac Foods, Inc., Santa Ana, Calif. Filed May 13, 1957.

COLUMBIA GEM

For American Paprika in Bulk.
 First use July 10, 1956.

SN 30,200. Southern Fruit Distributors, Inc., Orlando, Fla. Filed May 16, 1957.

BLUEBIRD

Owner of Reg. Nos. 294,117, 627,126, and others.
 For Canned Tomato Juice.
 First use Mar. 27, 1957.

SN 30,254. Juliette Milling Company, Macon, Ga. Filed May 17, 1957.

JULIETTE

For Cornmeal and Corn Grits.
 First use 1958 on cornmeal.

SN 30,798. Magic-Mix Corp., Ridgewood, N. J. Filed May 27, 1957.

MAGIC-MIX

For Prepared Breading Mix and Mixes for Making Bakery Products.
 First use Oct. 30, 1956, on corn muffin mix.

SN 31,300. Anderson, Clayton & Co., Dallas, Tex. Filed June 4, 1957.

LOG CABIN

Owner of Reg. No. 118,783.
 For Vegetable Oil Shortening and Oleomargarine.
 First use Oct. 21, 1913.

CANAL STREET

For Coffee and Chicory.
 First use Nov. 3, 1955.

CHOCO-FROST

Owner of Reg. Nos. 357,323; 645,217, and others.
 For Frozen Confections on Sticks and a Coating Material for Such Frozen Confections.
 First use May 13, 1957.

SN 32,921. Continental Foods Co., Inc., Denver, Colo. Filed July 1, 1957.

cofco

For Canned Milk Products—Namely, Canned Whole Milk, Chocolate Flavored Drink With Skimmed Milk Base, Skimmed Milk, Ice Cream Mix, Blend of Milk and Cream.
 First use Dec. 11, 1956.

SN 33,454. Barton's Candy Corporation, Brooklyn, N. Y. Filed July 10, 1957.

WONDER MUNCH

For Candy.
 First use June 21, 1957.

SN 33,619. Hi-Land Foods, Inc., Arriba, Colo. Filed July 12, 1957.

Benétos

For Frozen Apple Fritter Mix.
 First use May 8, 1957.

SN 34,959. Klein Chocolate Company, Elizabethtown, Pa. Filed Aug. 5, 1957.

SPANGLES

For Candy.
 First use January 1931.

SN 35,334. Dante D. Di Bartolomeo, d. b. a. D. Di Bartolomeo Food Products Co., Buffalo, N. Y. Filed Aug. 12, 1957.

DINA

For Spaghetti Sauce.
 First use May 18, 1957.

SN 39,745. Oxo Limited, London, England. Filed Oct. 29, 1957.

BEEFEX

Owner of British Reg. No. 434,703, dated Feb. 24, 1923.
 For Canned Meats.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

SN 16,778. M. S. Walker, Inc., Boston, Mass. Filed Oct. 1, 1956.

SWANEE PRIDE

For Liqueur.
First use Jan. 2, 1944.

SN 22,237. The Rum Company (Jamaica) Ltd., d. b. a. Sugar Mills Ltd., Kingston, Jamaica, British West Indies. Filed Dec. 20, 1956.

SUGAR MILL

For Rum.
First use June 1940; in commerce June 1940.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

SN 32,359. Western Tool and Die Company, San Bernardino, Calif. Filed June 20, 1957.

PETTI-PRESSER

For Petticoat Hanger.
First use Feb. 4, 1957.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

SN 505. Marlo Manufacturing Corp., Evansville, Ind. Filed Jan. 11, 1956.

MARLO

For Perfumes, and Cosmetic and Toilet Preparations—Namely, Cleansing Cream, Night Cream, Cold Cream, Skin Freshener, Skin Pack, Eye Cream, Pore Cream, Throat Cream, Powder Base, Hand Lotion, Liquid Make-Up, Face Powder, Rouge, Lipstick, Cologne.
First use Dec. 15, 1919.

SN 29,568. Union Pharmaceutical Co., Inc., Bloomfield, N. J. Filed May 7, 1957.

CREME DE MINQUE

For Cosmetic Skin Cream.
First use Mar. 7, 1957.

SN 32,367. Avon Products, Inc., New York, N. Y. Filed June 21, 1957.

SATIN COOL

For Cosmetic Skin Lotion.
First use June 17, 1957.

SN 32,675. Fuller Products Company, d. b. a. J. E. McBrady, Chicago, Ill. Filed June 26, 1957.

PERFECT NIGHT

For Perfume and Cologne.
First use Oct. 12, 1946.

CLASS 52

DETERGENTS AND SOAPS

SN 24,623. Albert W. Pendergast, d. b. a. Albert W. Pendergast Safety Equipment Co., Philadelphia, Pa. Filed Feb. 18, 1957.

ALPENCO

For Sterilizer and Deodorizer for Goggles, Respirators, Etc.
First use Oct. 22, 1956.

SN 25,129. The Stephan Chemical Company, Chicago, Ill. Filed Feb. 26, 1957.

MAKON

For Non-Ionic Detergent Compounds.
First use August 1954.

SN 29,528. The Du Bois Co., Inc., Cincinnati, Ohio. Filed May 7, 1957.

ADVANCE

For Dishwashing Compound.
First use Feb. 1, 1957.

SN 31,782. Parfumerie L. T. Piver S. A., d. b. a. L. T. Piver, Paris, France. Filed June 11, 1957.

Inclination

For Soaps.
First use in October 1952; in commerce in March 1953.

SN 32,895. Armour and Company, Chicago, Ill. Filed July 1, 1957.

KLENEG

For Sanitizing Detergent.
First use May 23, 1947.

SN 33,640. SavOil, Inc., d. b. a. NuWay Foods Co., Atlanta, Ga. Filed July 12, 1957.

NFC

For Cleaner for Cooking Utensils.
First use May 1, 1957.

SN 39,849. John J. O'Connor, Inc., New York, N. Y. Filed Oct. 8, 1957.

MIRAMIDE

Owner of Reg. No. 508,565.
For All-Purpose Cleaner.
First use Sept. 9, 1946.

SERVICE MARKS

CLASS 100

MISCELLANEOUS

SN 696,750. United Geophysical Corporation, Pasadena, Calif. Filed Oct. 19, 1955.

UNITED

For (1) Geophysical Exploration Services Employing Seismographs, Gravimeters, Magnetometers, and Computers; (2) Services Involving the Analysis and Interpretation of Data Respecting the Physical Properties of the Earth; (3) Services in Logging Wells by Means of Seismic Waves, Resistivity Measurements, and Radiation Intensity Measurements; (4) Services Especially Performed for Others Involving the Design and Testing of Various Kinds of Instruments and Other Devices Having Electrical, Electronic, Hydraulic, Mechanical, Optical, and Pneumatic Components; (5) Services Especially Performed for Others Involving the Development of Reliable Techniques for Environmental Testing of Such Instruments, Devices, and Components; (6) Engineering Services in Connection With the Installation of Electrical and Mechanical Equipment Manufactured by Others; (7) Technical Services in Studying and Evaluating Electrical and Electronic Equipment Manufactured by Others, and in Preparing Reports Thereon; (8) Technical Services in Studying and Evaluating Methods of Manufacturing Electrical and Electronic Equipment Manufactured and Sold by Others, and in Preparing Reports Thereon; (9) Technical Services in Maintaining for Others Equipment Manufactured and Sold by Others.

First use April 1936 as to geophysical exploration services employing seismographs.

SN 13,620. Tidelands Exploration Co., Houston, Tex. Filed Aug. 8, 1956.

Tidelands

For Seismic and Gravity Survey on Land and Sea, Density Locations, Magnetic Survey, Radio Activity Survey, and Core Drilling.
First use Mar. 10, 1947.

SN 23,920. Independent Exploration Company, Houston, Tex. Filed Feb. 6, 1957.



For Geophysical Survey Services.
First use Feb. 1, 1936.

SN 24,071. Parsons Corporation, Traverse City, Mich. Filed Feb. 8, 1957. Sec. 2(f).

PARSONS

Owner of Reg. No. 560,274.
For Electronic Engineering and Testing of Aircraft Components for Others, and the Devising of Electronic Systems Therefor.
First use Oct. 2, 1946.

SN 24,072. Parsons Corporation, Traverse City, Mich. Filed Feb. 8, 1957. Sec. 2(f).

PARSONS

Owner of Reg. No. 560,274.
For Engineering Services—Namely, the Designing of Helicopter Rotors for Others.
First use Feb. 28, 1946.

SN 34,960. Kopper Kettle Restaurants, Inc., Kansas City, Mo. Filed Aug. 5, 1957.

KOPPER KETTLE

For Restaurant Services.
First use Sept. 1, 1953.

CLASS 101

ADVERTISING AND BUSINESS

SN 4,902. Cleo D. Keller, Kennewick, Wash. Filed Mar. 20, 1956.

SKORE SKILLO

For Sales Promotion Services—Namely, Advising Merchants How to Increase the Sales of Their Goods or Services Primarily by Means of a Game or Contest Whereby Applicant Instructs His Customers in the Proper Manner of Conducting Such Game or Contest.
First use Feb. 16, 1956.

SN 16,203. Arnold J. Fuchs, Duluth, Minn. Filed Sept. 24, 1956.

Handy Bankway

For Advertising and Promoting Banking Services of Others Through Newspaper, Outdoor Posters, Television, and Radio Mediums.
First use June 21, 1956.

SN 30,477. Bertram H. Claster, Baltimore, Md. Filed May 22, 1957.

IN THE MONEY

For Title of a Television Program for Advertising the Goods and Services of Others, Consisting of An Audience Participation Quiz.
First use Apr. 4, 1955.

CLASS 102

INSURANCE AND FINANCIAL

SN 9,488. Provident Indemnity Life Insurance Co., Norristown, Pa. Filed June 1, 1956.

EMPLOYEE PROVIDER

For Underwriting Group Insurance Policies With the Following Types of Coverage: Life, Sickness, and Accident.
First use Nov. 1, 1955.

SN 9,489. Provident Indemnity Life Insurance Co., Norristown, Pa. Filed June 1, 1956.

FAMILY PROVIDER

For Underwriting of Life Insurance.
First use Sept. 22, 1955.

SN 28,984. American Foundation Life Insurance Company, Little Rock, Ark. Filed Apr. 29, 1957.



For Underwriting Life Insurance.
First use June 1, 1956.

SN 29,206. Fireman's Fund Insurance Company, San Francisco, Calif. Filed May 1, 1957.



The words "Insurance Companies" are disclaimed apart from the mark.
For Writing of All Forms of Insurance Except Life, Title and Mortgage Insurance.
First use on or about Apr. 1, 1957.

SN 29,485. Provident Life and Accident Insurance Co., Chattanooga, Tenn. Filed May 6, 1957.



For Underwriting Disability Insurance Providing for Accident, Sickness and Hospitalization.
First use Dec. 28, 1956.

CLASS 103

CONSTRUCTION AND REPAIR

SN 692,788. George Koslow, d. b. a. Machine Electronics Co., New York, N. Y. Filed Aug. 10, 1955.

MACHINE ELECTRONICS

For Engineering, Design-Development, Custom Building and Manufacturing Services With Respect to Electro-Mechanical, Electronic-Optical and Photoelectric Equipment.
First use July 23, 1955.

SN 698,678. Arlen, Inc., Portland, Ore. Filed Nov. 22, 1955.



The words "I'll Oil It for You; I'll Adjust It for You; I'll Clean It for You" are disclaimed apart from their use with the mark.

For Repairing, Servicing and Maintaining Electric Shavers and Hair Clippers.
First use May 1, 1951.

SN 16,993. Bell Bottom Foundation Company, Houston, Tex. Filed Oct. 5, 1956.

BELL BOTTOM

For Excavation for Foundation Piers or Caissons and incidental Steel and Concrete Foundation Construction.
First use in the year 1940.

SN 29,219. Knowlton Construction Company, Bellefontaine, Ohio. Filed May 1, 1957.



The drawing is lined for grey and orange.
For Building Construction.
First use on or about Jan. 1, 1952.

CLASS 105

TRANSPORTATION AND STORAGE

SN 30,042. Slick Airways, Inc., Dallas, Tex. Filed May 14, 1957.



No exclusive claim is made to the words "Coordinated Surface" and "Air Transport" apart from the mark as shown.
For Coordinated Transportation of Freight, Via Truck and Airplane.
First use on or about Apr. 29, 1957.

SN 33,739. Pan-Atlantic Steamship Corporation, Mobile, Ala. Filed July 15, 1957.



For Transportation of Freight and Passengers as a Common Carrier by Water.
First use Apr. 1, 1956.

CLASS 106

MATERIAL TREATMENT

SN 700,198. Custom Fur Service, Inc., Troy, N. Y. Filed Dec. 19, 1955.

CUSTOMIZING

For Cleaning Fur Garments Owned by Others.
First use Sept. 27, 1948.

COLLECTIVE MEMBERSHIP MARKS

CLASS 200

SN 29,184. Wheel Clubs International, Inc., Miami, Fla. Filed Apr. 30, 1957.

WHEEL CLUBS INTERNATIONAL

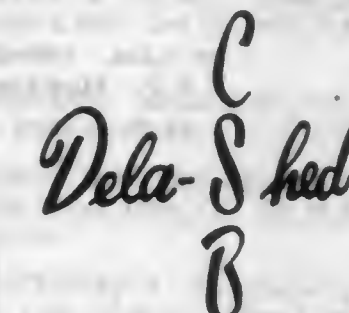
For Indicating Membership in a High School Civic Organization.
First use Oct. 15, 1956.

SN 700,313. D. B. Fuller & Co., Inc., New York, N. Y. Filed Dec. 20, 1955.

FULLERIZED

Owner of Reg. Nos. 524,045, 619,687, and others.
For Applying a Crease, Wrinkle, Soil and Perspiration Resistant Finish to Textile Fabrics of Others.
First use Mar. 3, 1947.

SN 21,426. Cold Spring Bleachery, Yardley, Pa. Filed Dec. 21, 1956.



Owner of Reg. Nos. 608,127, 579,203, and 575,284.
For Finishing Service for Cotton or Synthetic Cotton Blends to Provide Crease Resistance, Minimum Care, and a Residual Shrinkage.
First use Feb. 24, 1956.

SN 25,879. The North American Mogul Products Company, Cleveland, Ohio. Filed Mar. 11, 1957.

MOGUL-IZE

Owner of Reg. Nos. 573,440 and 590,419.
For Servicing of Boilers, Compressors, Ice Machines and All Other Equipment Utilizing Water and Fuel, and the Testing and Chemical Treatment of Water and Fuels.
First use Feb. 27, 1957.

CLASS 107

EDUCATION AND ENTERTAINMENT

SN 6,548. Conway R. Patterson, d. b. a. Pat Patterson, Charlotte, N. C. Filed Apr. 17, 1956.

THE HARVESTERS

For Live and Recorded Entertainment Service in the Nature of a Choral Group Performing Through the Medium of Radio and Television.
First use Jan. 11, 1955.



For Indicating Membership in a High School Civic Organization.
First use Oct. 15, 1956.

CERTIFICATION MARKS

CLASS B SERVICES

SN 3,026. Professional Laundry Foundation, Inc., Newark, N. J. Filed Feb. 20, 1956.



The certification mark is used by persons authorized by applicant to certify quality and that the work in the performance of the services was performed by members of applicant. For Laundry and Dry Cleaning Services. First use May 31, 1955.

TM 66

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

CLASS 1

RAW OR PARTLY PREPARED MATERIALS

- 656,953. PERMELITE. Melamine Plastics Corporation. SN 690,478. Pub. 10-16-56. Filed 6-29-55.
656,954. ACELLA. J. H. Benecke. SN 3,073. Pub. 8-27-57. Filed 2-21-58.
656,955. MICA-RAMIC. Spruce Pine Mica Company. SN 20,063. Pub. 10-29-57. Filed 11-28-56.
656,956. HY-PEAT FLORIDA-MUK ETC. AND DESIGN. Cook Enterprises, d. b. a. Cook Farms. SN 20,251. Pub. 10-29-57. Filed 12-3-56.
656,957. ALFANURE. L. Teweles Seed Co. SN 21,589. Pub. 10-29-57. Filed 12-24-56.
656,958. DRILLOIL. National Lead Company. SN 24,713. Pub. 9-24-57. Filed 2-19-57.
656,959. UNIFAB. Ferro Corporation. SN 26,078. Pub. 10-29-57. Filed 3-13-57.
656,960. EASTEX. East Texas Pulp & Paper Company. SN 27,677. Pub. 10-29-57. Filed 4-8-57.
656,961. EASTEX, ET AND DESIGN. East Texas Pulp & Paper Company. SN 27,678. Pub. 10-29-57. Filed 4-8-57.
656,962. ET AND DESIGN. East Texas Pulp & Paper Company. SN 27,679. Pub. 10-29-57. Filed 4-8-57.

CLASS 2

RECEPTACLES

- 656,963. SEAL LABEL AND DESIGN. Ames Harris Neville Co. SN 25,937. Pub. 10-29-57. Filed 3-12-57.
656,964. BRANCHELL. Hellmich Manufacturing Company, d. b. a. The Branchell Company. CONSOLIDATED CERTIFICATE. SN 27,309, pub. 8-13-57, filed 4-1-57, Cl. 2; SN 27,310, pub. 10-8-57, filed 4-1-57, Cl. 23.

CLASS 5

ADHESIVES

- 656,965. DYOX. Henkel & Cie., G. m. b. H. SN 6,721. Pub. 10-29-57. Filed 4-19-56.
656,966. VELVERAY. Volveray Corporation. SN 19,547. Pub. 10-29-57. Filed 11-19-56.
656,967. HIDUX. Ciba Limited. SN 26,774. Pub. 10-29-57. Filed 3-25-57.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

- 656,968. ALAMAC. General Mills, Inc. SN 693,372. Pub. 4-10-56. Filed 8-19-55.
656,969. ALAMINE. General Mills, Inc. SN 693,373. Pub. 4-10-56. Filed 8-19-55.
656,970. ALAMIDE. General Mills, Inc. SN 693,374. Pub. 4-10-56. Filed 8-19-55.
656,971. ALIQUAT. General Mills, Inc. SN 693,376. Pub. 4-10-56. Filed 8-19-55.

- 656,972. GASFAZE. Homemakers' Products Corporation. SN 6,723. Pub. 10-29-57. Filed 4-19-56.

- 656,973. SILI-SPRAY. R. E. Ellis, d. b. a. California Flameproofing & Processing Company. SN 17,269. Pub. 10-29-57. Filed 10-11-56.

- 656,974. SMART & FINAL. Fitzsimmons Stores, Ltd., d. b. a. Smart & Final Iris Co. SN 17,898. Pub. 10-29-57. Filed 10-22-56.

- 656,975. MERCATE. Merck & Co., Inc. SN 18,011. Pub. 10-29-57. Filed 10-23-56.

- 656,976. SUNNY SOL AND DESIGN. John Wiley Jones, d. b. a. John Wiley Jones Co. SN 18,328. Pub. 10-29-57. Filed 10-29-56.

- 656,977. HAWTHORN H. Hawthorn Chemical Corporation. SN 23,145. Pub. 10-29-57. Filed 1-24-57.

- 656,978. LIQUIPHENE. Vineland Chemical Co. SN 24,011. Pub. 10-29-57. Filed 2-7-57.

- 656,979. NOPCOSIZE. Nopco Chemical Company. SN 24,066. Pub. 10-29-57. Filed 2-8-57.

- 656,980. POLYOX. Union Carbide and Carbon Corporation, now by change of name to Union Carbide Corporation. SN 26,131. Pub. 8-6-57. Filed 3-13-57.

- 656,981. BUTACIDE. Food Machinery and Chemical Corporation. SN 27,681. Pub. 10-29-57. Filed 4-8-57.

- 656,982. TELONE. The Dow Chemical Company. SN 28,037. Pub. 10-29-57. Filed 4-12-57.

CLASS 7

CORDAGE

- 656,983. DESIGN OF SEAL. Irish Ropes Limited. SN 21,377. Pub. 10-29-57. Filed 12-20-56.

CLASS 10

FERTILIZERS

- 656,984. MAGIC GROW. Faessy & Beathoff, Inc. SN 27,198. Pub. 10-29-57. Filed 3-29-57.

CLASS 11

INKS AND INKING MATERIALS

- 656,985. CADYLOX-X. Central Compounding Company. SN 20,595. Pub. 10-29-57. Filed 12-7-56.

CLASS 12

CONSTRUCTION MATERIALS

- 656,986. WEDGE LOCK AND DESIGN. Clay Sewer Pipe Association, Inc. SN 696,121. COLLECTIVE MARK. Pub. 10-29-57. Filed 10-10-55.

- 656,987. PATTI PORT. Perma-Side Company. SN 698,905. Pub. 10-29-57. Filed 11-25-55.

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CLASS 13

HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES

- 656,988. GERBER AND FIGURE OF BABY. Gerber Products Company. SN 7,497. Pub. 10-29-57. Filed 5-2-56.
- 656,989. NEVER-STAIN. Nichols Wire & Aluminum Co. SN 10,459. Pub. 10-29-57. Filed 6-18-56.
- 656,990. FRIGIDAL. Vereinigte Deutsche Nickel-Werke Aktien-Gesellschaft vormals Westfälisches Nickelwalzwerk Flettmann, Witte & Co. SN 11,636. Pub. 10-29-57. Filed 7-5-56.
- 656,991. REACH GRAB BAR AND DESIGN. Alfred B. Cerf, d. b. a. National Steel Products Co. SN 11,745. Pub. 10-29-57. Filed 7-9-56.
- 656,992. W AND DESIGN OF FIG. T. D. Williamson, Inc. SN 15,928. Pub. 9-10-57. Filed 9-18-56.
- 656,993. PLEXACRAFT. Walter S. Scott, d. b. a. Plexacraft Products. SN 18,786. Pub. 10-29-57. Filed 11-5-56.
- 656,994. LIQUIMECH. Graver Tank & Mfg. Co., Inc. SN 18,950. Pub. 10-29-57. Filed 11-8-56.
- 656,995. SANITAP. Modern Engineering Company, Inc. SN 19,901. Pub. 10-29-57. Filed 11-26-56.
- 656,996. SPIRAFLEX. Caldwell Manufacturing Co. SN 25,589. Pub. 10-29-57. Filed 3-6-57.
- 656,997. FLOMASTER. Michigan Brass Company. SN 27,706. Pub. 10-8-57. Filed 4-8-57.

CLASS 15

OILS AND GREASES

- 657,012. AMOCO. The American Oil Company. SN 28,745. Pub. 10-29-57. Filed 4-24-57.
- 657,013. AMOCO AND DESIGN. The American Oil Company. SN 28,746. Pub. 10-29-57. Filed 4-24-57.
- 657,014. MIKROVAN. Esso Standard Oil Company. SN 30,978. Pub. 10-29-57. Filed 6-3-57.
- 657,015. KNIGHT AND DESIGN. Knight Oil Company, Inc. SN 33,855. Pub. 10-29-57. Filed 7-23-57.

CLASS 16

PROTECTIVE AND DECORATIVE COATINGS

- 656,998. PERMA-TECTION FLOOR CARE. Consolidated Chemical Laboratories, Inc., d. b. a. Worrell-Consolidated Laboratories. SN 17,877. Pub. 10-29-57. Filed 10-22-56.
- 656,999. ACRYTONE. Sundure Paint Corporation. SN 19,337. Pub. 10-29-57. Filed 11-15-56.
- 657,000. PRESCRIPTION PAINTS. Lester Kendall, d. b. a. Florida Paint Mfg. Co. SN 20,467. Pub. 10-29-57. Filed 12-5-56.
- 657,001. NETSET. The Linen Thread Co., Inc. SN 25,010. Pub. 10-29-57. Filed 2-25-57.
- 657,002. TUFFY. Cook & Dunn Paint Corporation. SN 26,246. Pub. 10-29-57. Filed 3-13-57.
- 657,003. DIOTHANE. Permagile Corporation of America. SN 26,382. Pub. 8-20-57. Filed 3-18-57.
- 657,004. EXCELINE. General Coating Company. SN 28,702. Pub. 10-29-57. Filed 4-23-57.
- 657,005. BLAKE BONE DRY IN 15 MIN! AND DESIGN. Blake Paint Corporation. SN 28,832. Pub. 10-29-57. Filed 4-25-57.

- 657,006. PENTAGUM AND DESIGN. Christian H. Momberger. SN 29,685. Pub. 10-29-57. Filed 5-6-57.
- 657,007. THE FINISHING TOUCH BY BLAKE AND DESIGN. Blake Products, Inc. SN 29,693. Pub. 10-29-57. Filed 5-9-57.
- 657,008. DIMETCOTE. Amercoat Corporation. SN 29,991. Pub. 10-29-57. Filed 5-14-57.
- 657,009. RUVIAL. The Wilbur & Williams Company. SN 31,296. Pub. 10-29-57. Filed 6-3-57.
- 657,010. ARIDTONE AND DESIGN. Anti-Hydro Waterproofing Company. SN 31,538. Pub. 10-29-57. Filed 6-7-57.

CLASS 17

TOBACCO PRODUCTS

- 657,011. ABEL TASMAN. Rembrandt Tobacco Corporation (Overseas) Limited. SN 26,119. Pub. 10-29-57. Filed 3-13-57.
- 657,012. (See Class 15 for this trademark.)
- 657,013. (See Class 15 for this trademark.)
- 657,014. (See Class 15 for this trademark.)
- 657,015. (See Class 15 for this trademark.)

CLASS 18

MEDICINES AND PHARMACEUTICAL PREPARATIONS

- 657,016. ST. JACOBS OIL AND DESIGN. Jacinto Sosa, d. b. a. St. Jacobs Remedies. SN 2,455. Pub. 10-29-57. Filed 2-10-56.
- 657,017. ALBA-PENICILLIN. The Upjohn Company. SN 12,317. Pub. 10-29-57. Filed 7-17-56.
- 657,018. TRILIPEX. Spicer-Gerhart Company. SN 24,460. Pub. 10-29-57. Filed 2-14-57.
- 657,019. MATURON. American Home Products Corporation, d. b. a. Ayerst Laboratories. SN 26,752. Pub. 10-29-57. Filed 3-25-57.
- 657,020. LEDERCORT. American Cyanamid Company. SN 27,072. Pub. 10-29-57. Filed 3-28-57.
- 657,021. SECERGAN. Aktiebolaget Astra, Apotekarnes Kemiska Fabriker. SN 27,412. Pub. 10-29-57. Filed 4-3-57.
- 657,022. MEDROL. The Upjohn Company. SN 27,547. Pub. 10-29-57. Filed 4-4-57.
- 657,023. WORMETTES. R. E. Ashwander, d. b. a. R. E. Ashwander & Company. SN 27,925. Pub. 10-29-57. Filed 4-11-57.
- 657,024. BELAROPOL. J. V. Grogan & Son, Inc. SN 28,046. Pub. 10-29-57. Filed 4-12-57.
- 657,025. ESTANFORT. White Laboratories, Inc. SN 28,810. Pub. 10-29-57. Filed 4-16-57.
- 657,026. BIOLONE. The Upjohn Company. SN 28,894. Pub. 10-29-57. Filed 4-17-57.
- 657,027. BAMITE. First Texas Chemical Manufacturing Company. SN 28,441. Pub. 10-29-57. Filed 4-18-57.
- 657,028. DEMAZIN. Schering Corporation. SN 28,460. Pub. 10-29-57. Filed 4-18-57.
- 657,029. PROSPIRIN. Schering Corporation. SN 28,462. Pub. 10-29-57. Filed 4-18-57.
- 657,030. TENTONE. American Cyanamid Company. SN 28,744. Pub. 10-29-57. Filed 4-24-57.
- 657,031. TUNGOLIX. The Tungolin Co., Inc. SN 28,818. Pub. 10-29-57. Filed 4-24-57.
- 657,032. FOSFOCIN. The Upjohn Company. SN 28,896. Pub. 10-29-57. Filed 4-25-57.
- 657,033. ACTHAR GEL. Armour and Company. SN 28,916. Pub. 10-29-57. Filed 4-26-57.

CLASS 19

VEHICLES

- 657,034. MENTOR. Schminke-Werke, G. m. b. H. SN 17,036. Pub. 10-29-57. Filed 10-5-56.
- 657,035. ORION. Schminke-Werke, G. m. b. H. SN 17,037. Pub. 10-29-57. Filed 10-5-56.
- 657,036. MIDAS. Midas, Inc. SN 18,087. Pub. 10-29-57. Filed 10-24-56.
- 657,037. MIDAS. Midas, Inc. SN 18,092. Pub. 10-29-57. Filed 10-24-56.
- 657,038. AIRFLO. American Machine and Foundry Company. SN 20,882. Pub. 10-29-57. Filed 12-10-56.
- 657,039. SEABLUE. Paddock of Texas, Inc. SN 31,254. Pub. 10-29-57. Filed 6-3-57.
- 657,040. LOADMASTER. R & K Industrial Products Co. SN 31,262. Pub. 10-29-57. Filed 6-3-57.
- 657,041. TWINASSIST. Wolf Engineering Corp. SN 31,297. Pub. 10-29-57. Filed 6-3-57.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES

- 657,042. HATFIELD. Continental Copper & Steel Industries, Inc. SN 663,632. Pub. 10-29-57. Filed 3-31-54.
- 657,043. POLYLUX. Daimler Werke G. m. b. H. SN 679,520. Pub. 10-29-57. Filed 1-6-55.
- 657,044. DORMEYER. Dormeyer Corporation. SN 691,361. Pub. 10-29-57. Filed 7-15-55.
- 657,045. SONIC SERVANT. Sonic Specialties, Inc. SN 699,258. Pub. 10-29-57. Filed 12-1-55.
- 657,046. EASY-HEAT. Welcraft Products Co., Inc. SN 700,698. Pub. 10-29-57. Filed 12-27-55.
- 657,047. HY-BUTE 60 AND DESIGN. General Electric Company. SN 5,036. Pub. 10-29-57. Filed 3-22-56.
- 657,048. THYRA-LINE. Hanson-Gorrill-Brian, Inc. SN 15,124. Pub. 10-29-57. Filed 9-5-56.
- 657,049. THYRA-PULSE. Hanson-Gorrill-Brian, Inc. SN 15,125. Pub. 10-29-57. Filed 9-5-56.
- 657,050. ELECTRO-GROOM. Electric Cleaner Co., Inc. SN 17,445. Pub. 10-29-57. Filed 10-15-56.
- 657,051. MIDAS. Midas, Inc. SN 18,088. Pub. 10-29-57. Filed 10-24-56.
- 657,052. DESIGN OF AIRPLANE. J. D. Curtis Corporation. SN 18,685. Pub. 10-29-57. Filed 10-25-56.
- 657,053. THERM ON. Cresco Industries, Inc. SN 19,104. Pub. 10-29-57. Filed 11-13-56.
- 657,054. HURON. G & M Battery Company. SN 20,179. Pub. 10-29-57. Filed S. R. 11-30-56. Am. P. R. 8-5-57.
- 657,055. RAMBLER. Kingston Products Corporation. SN 24,858. Pub. 10-29-57. Filed 2-21-57.
- 657,056. EMCOTRONIC. Elevator Maintenance Co., Ltd. SN 24,942. Pub. 10-29-57. Filed 2-25-57.
- 657,057. CAROUSEL. Howard T. Hutchens, d. b. a. Carousel Sign Co. SN 25,666. Pub. 10-29-57. Filed 3-7-57.
- 657,058. TROMBOLITE. Amplex Corporation. SN 26,673. Pub. 10-29-57. Filed 3-22-57.
- 657,059. BELDSOL. Belden Manufacturing Company. SN 26,758. Pub. 10-29-57. Filed 3-25-57.
- 657,060. BELDBOND. Belden Manufacturing Company. SN 26,759. Pub. 10-29-57. Filed 3-25-57.
- 657,061. SHALLORAMA. Sunbeam Lighting Company. SN 26,891. Pub. 10-29-57. Filed 3-25-57.
- 657,062. A M AURORA MAID AND DESIGN. Harben Co. SN 26,939. Pub. 10-29-57. Filed 3-26-57.
- 657,063. POPLITE. Lester R. Hutt. SN 26,269. Pub. 10-29-57. Filed 3-15-57.
- 657,064. MAGOHM. Electric Regulator Corporation. SN 26,340. Pub. 10-29-57. Filed 3-18-57.

- 657,065. PARAWING. Day-Brite Lighting, Inc. SN 27,092. Pub. 10-29-57. Filed 3-28-57.
- 657,066. ROTO RED AND DESIGN. Arrow Engineering Company, Inc. SN 28,015. Pub. 10-29-57. Filed 4-12-57.
- 657,067. VERSITAP. Burndy Corporation. SN 29,786. Pub. 10-29-57. Filed 5-10-57.
- 657,068. MOBILE MAID. General Electric Company. SN 30,764. Pub. 10-29-57. Filed 5-27-57.
- 657,069. PQ. North American Philips Company, Inc. SN 30,813. Pub. 10-29-57. Filed 5-27-57.
- 657,070. SAN FERNANDO ELECTRIC MFG. CO. AND DESIGN. San Fernando Electric Manufacturing Co. SN 31,155. Pub. 10-29-57. Filed 5-31-57.

CLASS 22

GAMES, TOYS, AND SPORTING GOODS

- 657,071. FISHER PRICE FP. Fisher-Price Toys, Inc. SN 20,828. Pub. 10-29-57. Filed 12-11-56.
- 657,072. FP AND DESIGN. Fisher-Price Toys, Inc. SN 20,829. Pub. 10-29-57. Filed 12-11-56.
- 657,073. SEAL LABEL AND DESIGN. Ames Harris Neville Co. SN 25,934. Pub. 10-29-57. Filed 3-12-57.
- 657,074. JET HAWK. Midwest Industries, Inc. SN 26,478. Pub. 10-29-57. Filed 3-19-57.
- 657,075. CAPRI. Caprico International, Inc. SN 26,768. Pub. 10-29-57. Filed 3-25-57.
- 657,076. "CISSETTE." Alexander Doll Company, Inc. SN 26,911. Pub. 10-29-57. Filed 3-26-57.
- 657,077. LUCIFER. Lucifer S. A. SN 27,032. Pub. 10-29-57. Filed 3-27-57.
- 657,078. COBRA. Burke Golf Equipment Corporation. SN 27,083. Pub. 10-29-57. Filed 3-28-57.
- 657,079. PRINCESS. United States Rubber Company. SN 27,998. Pub. 10-29-57. Filed 4-11-57.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

- 656,964. CONSOLIDATED CERTIFICATE. See Class 2.
- 657,080. MAK'S AND DESIGN. The M and K Mfg. Company, Inc. SN 1,703. Pub. 10-29-57. Filed 1-30-56.
- 657,081. DESIGN OF A DIAMOND. Diamond Calk Horse Shoe Company. SN 15,024. Pub. 10-29-57. Filed 9-4-56.
- 657,082. PEDOMATIC. Thomas Ash & Company Limited. SN 15,936. Pub. 10-29-57. Filed 9-19-56.
- 657,083. MICRO-X. James W. Howden Company, Inc. SN 16,445. Pub. 10-29-57. Filed 9-26-56.
- 657,084. HAPPY BABY. Bowland-Jacobs Manufacturing Company. SN 19,093. Pub. 10-29-57. Filed 11-13-56.
- 657,085. SCULLTROL. Scully Signal Company. SN 19,192. Pub. 10-29-57. Filed 11-13-56.
- 657,086. LITTLE HUSTLER. May-Fran Engineering, Inc. SN 19,252. Pub. 10-29-57. Filed 11-14-56.
- 657,087. SECURITY. Dresser Operations, Inc. SN 21,250. Pub. 10-29-57. Filed 12-18-56.
- 657,088. ROBOT DESIGN. Goodride Tire Company. SN 21,370. Pub. 10-29-57. Filed 12-20-56.
- 657,089. GUIBERSON ETC. AND DESIGN. The Guiberson Corporation. SN 22,535. Pub. 10-29-57. Filed 1-14-57.
- 657,090. HAYLINER. Sperry Rand Corporation. SN 23,104. Pub. 10-29-57. Filed 1-23-57.
- 657,091. SEAL LABEL AND DESIGN. Ames Harris Neville Co. SN 25,947. Pub. 10-29-57. Filed 3-12-57.
- 657,092. TRIMMIT. The W. E. Bassett Company. SN 26,152. Pub. 10-29-57. Filed 3-14-57.

- 657,093. BURMEISTER PORTO PLANT. L. Burmeister Co., to Chain Belt Company. SN 27,084. Pub. 10-29-57. Filed 3-28-57.
- 657,094. CHAIN SAWS AND DESIGN. Buffalo-Eclipse Corporation, d. b. a. The Eclipse Lawn Mower Co. SN 28,240. Pub. 10-29-57. Filed 4-16-57.
- 657,095. COMOCAST. The Petersen Oven Company. SN 28,376. Pub. 10-29-57. Filed 4-17-57.
- 657,096. CRAGSTAN. Cragstan Corporation. SN 29,434. Pub. 10-29-57. Filed 5-6-57.
- 657,097. S SHERMAN PRODUCTS INC. Sherman Products, Inc. SN 29,753. Pub. 10-29-57. Filed 5-9-57.
- 657,098. SHERMAN. Sherman Products, Inc. SN 29,754. Pub. 10-29-57. Filed 5-9-57.
- 657,099. PAULA. Imperial Knife Associated Companies, Inc. SN 30,023. Pub. 10-29-57. Filed 5-14-57.
- 657,100. NORTH AMERICAN ALUMAG AND DESIGN. North American Products Corp. SN 30,353. Pub. 10-29-57. Filed 5-20-57.
- 657,101. GENERAL RESEARCH & SUPPLY CO. AND DESIGN. General Research and Supply Co. SN 30,425. Pub. 10-29-57. Filed 5-21-57.
- 657,102. GENERAL. General Research and Supply Co. SN 30,426. Pub. 10-29-57. Filed 5-21-57.
- 657,103. PFE AND DESIGN. Pacific Fire Extinguisher Company. SN 30,597. Pub. 10-29-57. Filed 5-23-57.
- 657,104. SIMS. Sims Pump Valve Company, Inc. SN 30,694. Pub. 10-29-57. Filed 5-24-57.
- 657,105. AMERICAN. American-Lincoln Corporation. SN 30,710. Pub. 10-29-57. Filed 5-27-57.
- 657,106. CHIP-A-SAW. Cenatron Industries. SN 30,725. Pub. 10-29-57. Filed 5-27-57.
- 657,107. VARIAX. Giddings & Lewis Machine Tool Company. SN 30,767. Pub. 10-29-57. Filed 5-27-57.
- 657,108. POWER FLOW. LeTourneau-Westinghouse Company. SN 30,797. Pub. 10-29-57. Filed 5-27-57.
- 657,109. MORLA. Wallace Silversmiths, Inc. SN 30,970. Pub. 10-29-57. Filed 5-28-57.
- 657,110. LAWNMAKER. Joseph F. McDonald, d. b. a. Lawn-maker Company. SN 31,675. Pub. 10-29-57. Filed 6-10-57.
- 657,111. FUEL-A-MATIC. Scott-Atwater Manufacturing Company. SN 31,695. Pub. 10-29-57. Filed 6-10-57.
- 657,112. Z. Manufacturers Supplies Co. SN 32,104. Pub. 10-29-57. Filed 6-17-57.
- 657,113. TRIANGLE CROSS-WRAP AND DESIGN. Triangle Package Machinery Company. SN 32,268. Pub. 10-29-57. Filed 6-19-57.

CLASS 26

MEASURING AND SCIENTIFIC APPLIANCES

- 657,114. PYRO-SCANNER. Illinois Testing Laboratories, Inc. SN 5,726. Pub. 10-29-57. Filed 4-3-56.
- 657,115. THERMO-SCANNER. Illinois Testing Laboratories, Inc. SN 5,727. Pub. 10-29-57. Filed 4-3-56.
- 657,116. RIVIERA. Riviera Trading Corp. SN 11,294. Pub. 10-29-57. Filed 6-29-56.
- 657,117. OMNIHOMER. Lear, Incorporated. SN 15,377. Pub. 10-29-57. Filed 9-10-56.
- 657,118. MAGNETOR. J. Constant van Rijn, d. b. a. Far-a-Field Company. SN 23,110. Pub. 10-29-57. Filed 1-23-57.
- 657,119. SOFT-LITE. Bausch & Lomb Optical Company. SN 23,444. Pub. 10-29-57. Filed 1-30-57.

CLASS 27

HOROLOGICAL INSTRUMENTS

- 657,120. DREAM-TONE. Fabrique d'Horlogerie de Saint-Blaise S. A. SN 21,141. Pub. 10-29-57. Filed 12-17-56.

CLASS 29

BROOMS, BRUSHES, AND DUSTERS

- 657,121. NIAGARA. General Mills, Inc., d. b. a. Niagara Sponge. SN 27,025. Pub. 10-29-57. Filed 3-27-57.
- 657,122. MASTER-MATIC. Master Manufacturing Company, to Master Mfg. Co., Inc. SN 27,330. Pub. 10-29-57. Filed 6-12-57.

CLASS 31

FILTERS AND REFRIGERATORS

- 657,123. IDEAL AND DESIGN. Ideal Dispenser Co. SN 643,907. Pub. 7-20-54. Filed 3-19-53.
- 657,124. IDEAL AND DESIGN. Ideal Cooler Corporation. SN 657,436. Pub. 7-20-54. Filed 12-4-53.
- 657,125. TUNED-CONDUIT. Houdaille Industries, Inc., to Purolator Products, Inc. SN 25,859. Pub. 8-13-57. Filed 3-11-57.
- 657,126. SEAL LABEL AND DESIGN. Ames Harris Neville Co. SN 25,946. Pub. 10-29-57. Filed 3-12-57.
- 657,127. ARCTIC ZONE. Bally Case and Cooler Company. SN 27,172. Pub. 10-29-57. Filed 3-29-57.
- 657,128. MIDAS. Midas, Inc. SN 31,578. Pub. 10-29-57. Filed 6-7-57.
- 657,129. MYERS AND DESIGN. The F. E. Myers & Bro. Company. SN 32,111. Pub. 10-29-57. Filed 6-17-57.

CLASS 32

FURNITURE AND UPHOLSTERY

- 657,130. LAZY-CHAIR AND DESIGN. J. Martin Spielhofer, d. b. a. Super Garni S. A. SN 674,014. Pub. 10-29-57. Filed 9-29-54.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

- 657,131. MVCO AND DESIGN. Master Vibrator Company. SN 19,476. Pub. 10-29-57. Filed 11-19-56.
- 657,132. I. C. I. Imperial Chemical Industries Limited. SN 20,389. Pub. 10-29-57. Filed 12-4-56.
- 657,133. ME UNIVERSAL AND DESIGN. McIntyre Engineering Co. Inc. SN 28,620. Pub. 10-29-57. Filed 4-22-57.
- 657,134. JUNKERS AND DESIGN. Junkers & Co. Gesellschaft mit beschränkter Haftung. SN 28,709. Pub. 10-29-57. Filed 4-23-57.
- 657,135. JUNKERS. Junkers & Co. Gesellschaft mit beschränkter Haftung. SN 28,710. Pub. 10-29-57. Filed 4-23-57.

CLASS 35

BELTING, HOSE, MACHINERY PACKING, AND NONMETALLIC TIRES

- 657,136. COG-BELT. The Dayton Rubber Company. SN 24,129. Pub. 10-29-57. Filed 2-11-57.
- 657,137. SEABLUE. Paddock of Texas, Inc. SN 31,251. Pub. 10-29-57. Filed 6-3-57.

- 657,138. BOSTON BALANCED BELT CONSTRUCTION BBC. Boston Woven Hose and Rubber Company, to American Biltrite Rubber Co., Inc. SN 31,379. Pub. 10-29-57. Filed 6-5-57.

CLASS 36

MUSICAL INSTRUMENTS AND SUPPLIES

- 657,139. ELECTONE. Electronic Pianos, Inc. SN 698,023. Pub. 10-29-57. Filed 11-10-55.
- 657,140. CHAMBER MUSIC SOCIETY AND DESIGN. Concert Hall Society, Inc., to C-C Clubs, Inc. SN 10,139. Pub. 5-7-57. Filed 6-13-56.
- 657,141. VANGUARD. Vanguard Recording Society, Inc. SN 22,284. Pub. 10-29-57. Filed 1-8-57.
- 657,142. COLONIAL. Standard Phone Corp. SN 26,127. Pub. 10-29-57. Filed 3-13-57.
- 657,143. COMBINETTE. P. A. Starek Piano Company. SN 26,303. Pub. 10-29-57. Filed 3-15-57.

CLASS 37

PAPER AND STATIONERY

- 657,144. ROLLAFAX. Melville E. Foster, d. b. a. Rollafax Co. SN 19,763. Pub. 10-29-57. Filed 11-23-56.
- 657,145. ADMASTER. Blenfang Paper Company, Inc. SN 20,696. Pub. 10-29-57. Filed 12-10-56.
- 657,146. TIARA TETON. Lee Paper Company. SN 25,705. Pub. 10-29-57. Filed 3-7-57.
- 657,147. ECONOFORMS. Management Forms, Inc. SN 26,842. Pub. 10-29-57. Filed 3-25-57.

CLASS 39

CLOTHING

- 657,148. JIM CLINTON. Samson, Crane Co., d. b. a. Clinton Clothing Mfg. Company. SN 617,265. CONCURRENT USE. Pub. 1-25-55. Filed 8-2-51.
- 657,149. CINDERELLA. Ben Touster, d. b. a. Cinderella Hat Co., to Cinderella Hat Co., Inc. SN 681,814. Pub. 3-27-56. Filed 2-16-55.
- 657,150. AMBASSADRESS. Chester H. Roth Co., Inc. SN 19,187. Pub. 10-29-57. Filed 11-13-56.
- 657,151. WEEJUNS. G. H. Bass & Co. SN 23,583. Pub. 6-11-57. Filed 1-31-57.
- 657,152. SNO LITE. Cambridge Rubber Company. SN 23,537. Pub. 10-29-57. Filed 1-31-57.
- 657,153. CENTURY TRENDS. Century Glove Corporation. SN 24,493. Pub. 10-29-57. Filed 2-15-57.
- 657,154. SUPPLETAN. Appalachian Tanning Co. SN 24,556. Pub. 10-29-57. Filed 2-18-57.
- 657,155. THE PLAYERS. Pennshire Shirt Co., Inc. SN 25,456. Pub. 10-29-57. Filed 3-4-57.
- 657,156. FUN-SHUS. International Shoe Company. SN 25,542. Pub. 10-29-57. Filed 3-5-57.
- 657,157. DEBBI DAY. Isaac Ginsberg & Bros. Inc. SN 26,623. Pub. 10-29-57. Filed 3-21-57.
- 657,158. STORY BOOK FASHIONS AND DESIGN. Joseph Love, Inc. SN 26,840. Pub. 10-29-57. Filed 3-25-57.
- 657,159. BOPITS. The Lyntone Company. SN 26,000. Pub. 10-29-57. Filed 3-12-57.
- 657,160. BOBBY HALL. Robert Hall Clothes, Inc. SN 26,093. Pub. 10-29-57. Filed 3-13-57.
- 657,161. CONTESSA. The Jo-An Shoe Manufacturing Co. Inc. SN 26,103. Pub. 10-29-57. Filed 3-13-57.

- 657,162. KORASET. Koret of California, Inc. SN 26,468. Pub. 10-29-57. Filed 3-19-57.
- 657,163. PETTI-TOES. Chn. Zimmermann & Son Co. SN 27,070. Pub. 10-29-57. Filed 3-27-57.
- 657,164. GIAVANNI'S. Palizzio, Inc. SN 27,113. Pub. 10-29-57. Filed 3-28-57.
- 657,165. FORBES STREETERS AND DESIGN. Little's Shoe Store. SN 27,213. Pub. 10-29-57. Filed 3-29-57.
- 657,166. SYL-O-MADE. M. C. Schrank Company. SN 27,531. Pub. 10-29-57. Filed 4-4-57.
- 657,167. VEST-EEZ. Regal Shirt Corporation. SN 27,979. Pub. 10-29-57. Filed 4-11-57.
- 657,168. BALCORT. Balcort Shirt Co., Inc. SN 28,094. Pub. 10-29-57. Filed 4-15-57.
- 657,169. KINDER-GRAD. The C. E. Ward Company. SN 28,740. Pub. 10-29-57. Filed 4-23-57.
- 657,170. KINDERGARB. The C. E. Ward Company. SN 28,741. Pub. 10-29-57. Filed 4-28-57.
- 657,171. POM-POM. F. W. Woolworth Co. SN 28,914. Pub. 10-29-57. Filed 4-28-57.
- 657,172. WIND-VIEW. United Mills Corporation, d. b. a. Garcrest, Realcraft and Glead. SN 28,980. Pub. 10-29-57. Filed 4-26-57.

CLASS 40

FANCY GOODS, FURNISHINGS, AND NOTIONS

- 657,173. ACRIGLO. Empire Button Mfg. Co., Inc. SN 26,342. Pub. 10-29-57. Filed 3-18-57.
- 657,174. CASHEEN. Empire Button Mfg. Co., Inc. SN 26,343. Pub. 10-29-57. Filed 3-18-57.

CLASS 42

KNITTED, NETTED, AND TEXTILE FABRICS, AND SUBSTITUTES THEREFOR

- 657,175. INSIST ON THE ROYAL LINE AND DESIGN. Royal Plastics Company, Inc. SN 19,523. Pub. 10-29-57. Filed 11-19-56.
- 657,176. SUPERFINE AND DESIGN. John Emsley (U. S. A.) Ltd. SN 20,738. Pub. 10-29-57. Filed 12-10-56.
- 657,177. CHARMED. Crompton Company. SN 24,243. Pub. 10-29-57. Filed 2-12-57.
- 657,178. TARPOON. Burlington Industries, Inc. SN 24,419. Pub. 10-29-57. Filed 2-14-57.
- 657,179. CRASHMERE. Everfast Fabrics, Inc. SN 24,430. Pub. 10-29-57. Filed 2-14-57.
- 657,180. CAVALITE. E. I. du Pont de Nemours and Company. SN 24,576. Pub. 10-29-57. Filed 2-18-57.
- 657,181. CRESTON. Pacific Mills. SN 26,636. Pub. 10-29-57. Filed 3-21-57.
- 657,182. KNIT-CALE. Chicopee Mills, Inc. SN 26,918. Pub. 10-29-57. Filed 3-26-57.
- 657,183. TRAVIS. Travis Fabrics, Inc. SN 26,026. Pub. 10-29-57. Filed 3-12-57.
- 657,184. EIDERLON. Industrial Rayon Corporation. SN 26,358. Pub. 10-29-57. Filed 3-18-57.
- 657,185. GAUNTLITE. The Landers Corporation. SN 26,556. Pub. 10-29-57. Filed 3-20-57.
- 657,186. DOGWOOD FABRICS. Hunter & Company. SN 27,437. Pub. 10-29-57. Filed 4-3-57.
- 657,187. NAPELLO. Continental Mills, Inc. SN 27,492. Pub. 10-29-57. Filed 4-4-57.
- 657,188. PEERLESS NATURALLY. Burlington Industries, Inc. SN 27,570. Pub. 10-29-57. Filed 4-5-57.
- 657,189. BRITELLA. William Hollins & Company Limited. SN 27,604. Pub. 10-29-57. Filed 4-5-57.

- 657,190. CUSH-N-TRED. Smith Manufacturing Company Limited. SN 27,747. Pub. 10-29-57. Filed 4-8-57.
657,191. WARM-GLO. Chicopee Mills, Inc. SN 27,832. Pub. 10-29-57. Filed 4-5-57.

CLASS 43

THREAD AND YARN

- 657,192. THERMOVYL. Societe Rhovyl. SN 26,023. Pub. 10-29-57. Filed 3-12-57.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL APPLIANCES

- 657,193. SEELER UNIVERSAL. Globe Industries, Inc. SN 589. Pub. 10-29-57. Filed 1-12-56.
657,194. SANDALSTONE. Roycemore, Inc. SN 13,780. Pub. 10-29-57. Filed 8-10-56.
657,195. COGG'S. E. Owen Coggeshall. SN 16,588. Pub. 10-29-57. Filed 9-28-56.
657,196. LYTPORT. E & J Manufacturing Company. SN 16,680. Pub. 10-29-57. Filed 10-1-56.
657,197. GLOW. Sears, Roebuck and Co. SN 18,593. Pub. 10-29-57. Filed 11-1-56.
657,198. MOLDPAC. The Motloid Co. SN 19,690. Pub. 10-29-57. Filed 11-21-56.
657,199. BLICKMAN-BUILT. S. Blickman, Inc. SN 25,230. Pub. 10-29-57. Filed 2-28-57.
657,200. VAPOR-MASTER. Hankcraft Company. SN 27,306. Pub. 10-29-57. Filed 4-1-57.
657,201. ZENITH. Zenith Radio Corporation. SN 27,481. Pub. 10-29-57. Filed 4-3-57.
657,202. MEDICAL CENTER. Becton, Dickinson and Company. SN 28,999. Pub. 10-29-57. Filed 4-29-57.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

- 657,203. DARI. Consolidated Dairy Products Company. SN 646,365. Pub. 9-24-57. Filed 5-4-53.
657,204. SEACHEST. Liberty Fish Co. SN 661,643. Pub. 4-19-55. Filed 2-25-54.
657,205. SEACHEST AND DESIGN. Liberty Fish Co. SN 661,644. Pub. 9-6-55. Filed 2-25-54.
657,206. KRISPY DELITES. Krispy Kake Kone Company, Inc. SN 678,542. Pub. 10-4-55. Filed 12-17-54.
657,207. FROSTI-KOOLER. H. L. Dickinson. SN 686,283. Pub. 6-26-56. Filed 4-26-55.
657,208. COACH HOUSE. Coach House Candy Corp., d. b. a. The Coach House, to Hebert Candy Distributors, Inc. SN 691,608. Pub. 3-6-56. Filed 7-20-55.
657,209. CAVQURD. Land O' Lakes Creameries, Inc. SN 692,242. Pub. 10-29-57. Filed 8-1-55.
657,210. NUMADE. Safeway Stores, Incorporated. SN 1,629. Pub. 10-8-57. Filed 1-27-56.
657,211. KLEIN'S. Klein Chocolate Company. SN 2,993. Pub. 10-29-57. Filed 2-20-56.
657,212. MR. CANDY DANDY AND DESIGN. Brock Candy Company. SN 4,173. Pub. 10-29-57. Filed 3-9-56.
657,213. POW-WOW. Wyandot Popcorn Company. SN 10,058. Pub. 10-29-57. Filed 6-11-56.
657,214. PROFIT MAKER. Southern States Cooperative, Incorporated. SN 10,199. Pub. 10-29-57. Filed 6-13-56.
657,215. CAPRICE. Just Born Incorporated; d. b. a. Caprice Confections Company. SN 11,858. Pub. 10-29-57. Filed 7-10-56.

- 657,216. ROAMERS. Klein Chocolate Company. SN 11,933. Pub. 10-29-57. Filed 7-11-56.
657,217. FROSTY. Twin Trees Gardens, Inc. SN 13,259. Pub. 10-29-57. Filed 8-1-56.
657,218. TOM SAWYER TWAIN-PAK. Tom Sawyer Foods, to Tom Sawyer Foods, Inc. SN 15,065. Pub. 6-4-57. Filed 9-4-56.
657,219. GARDEN GOLD. Sun Gold Canning Company, Inc. SN 17,320. Pub. 10-29-57. Filed 10-11-56.
657,220. MR. CARROT. J. L. Mapes, d. b. a. Mapes Produce Company. SN 17,826. Pub. 10-29-57. Filed 10-19-56.
657,221. FIGURETTE. Langendorf United Bakeries, Inc., d. b. a. California Holsum Baking Co. SN 18,171. Pub. 10-29-57. Filed 10-25-56.
657,222. BOUCHON DE CHAMPAGNE. G. Edouard Herve. SN 18,979. Pub. 10-29-57. Filed 6-22-56.
657,223. VIRGILIO. B. M. Reeves Company, Inc. SN 20,304. Pub. 10-29-57. Filed 12-3-56.
657,224. JIM-BO'S. Atco Food Company. SN 22,408. Pub. 10-29-57. Filed 1-11-57.
657,225. MILK HUMPS. Schuler Chocolates, Inc. SN 23,255. Pub. 10-29-57. Filed 1-25-57.
657,226. RES-Q DIET. Allied Mills, Inc. SN 23,440. Pub. 10-29-57. Filed 1-30-57.
657,227. CHEFS BEST AND DESIGN. Oconomowoc Canning Company. SN 24,619. Pub. 10-29-57. Filed 2-18-57.
657,228. SNAC-SUB. Charles K. Kiefer, d. b. a. C. K. Kiefer. SN 24,857. Pub. 10-29-57. Filed 2-21-57.
657,229. VACO. Farmers Produce, Inc. SN 24,951. Pub. 10-29-57. Filed 2-25-57.
657,230. SURERAISE. General Mills, Inc. SN 26,805. Pub. 10-29-57. Filed 3-25-57.
657,231. GULF BREEZE. Bessonet Bee Company. SN 28,483. Pub. 10-29-57. Filed 4-19-57.
657,232. TOP SIDE. Sun Best Fruit Distributors. SN 28,656. Pub. 10-29-57. Filed 4-22-57.
657,233. H. E. B. H. E. Butt Grocery Company, d. b. a. H. E. Butt Grocery Co. SN 28,681. Pub. 10-29-57. Filed 4-23-57.
657,234. MISSLE. Fruit Products Corporation. SN 30,014. Pub. 10-29-57. Filed 5-14-57.
657,235. LITTLE AMBASSADORS. Russell Stover Candies of Kansas City, Russell Stover Candies of Lincoln, Russell Stover Candies of Denver. SN 30,118. Pub. 10-29-57. Filed 5-15-57.
657,236. LIDO. Pepperidge Farm Incorporated. SN 30,263. Pub. 10-29-57. Filed 5-17-57.
657,237. A BUTTERNUT VARIETY BREAD AND DESIGN. Interstate Bakeries Corporation. SN 30,495. Pub. 10-29-57. Filed 5-22-57.
657,238. GOOD AS GOLD. Associated Date Growers & Packers. SN 30,550. Pub. 10-29-57. Filed 5-23-57.
657,239. DESERT MAID. Associated Date Growers & Packers. SN 30,551. Pub. 10-29-57. Filed 5-23-57.

CLASS 47

WINES

- 657,240. ALTA. Alta Vineyards Company. SN 20,677. Pub. 10-29-57. Filed 12-10-56.
657,241. BRIO. Schenley Import Corporation, d. b. a. American Wine Company. SN 26,877. Pub. 10-29-57. Filed 3-25-57.
657,242. INVERLIDO. Schenley Industries, Inc., d. b. a. Weston Winery. SN 29,394. Pub. 10-29-57. Filed 5-3-57.

CLASS 50

MERCHANDISE NOT OTHERWISE CLASSIFIED

- 657,243. KIVA KRAFT AND DESIGN. Helen V. Armstrong. SN 674,214. Pub. 10-29-57. Filed 10-4-54.

- 657,244. XACTA-MATIC. Farrington Manufacturing Company. SN 21,056. Pub. 10-29-57. Filed 12-14-56.
657,245. RIVESTIMENTO DALMINE. Dalmine S. p. A. SN 23,880. Pub. 10-29-57. Filed 1-14-57.
657,246. POLY-MULCH. Chester Packaging Products Corp. SN 25,755. Pub. 10-29-57. Filed 3-8-57.
657,247. TABLE CHARM. H. J. Stotter, Inc. SN 26,982. Pub. 10-29-57. Filed 3-26-57.
657,248. SPLENDO-MAT. Thermwell Products Co., Inc. SN 28,074. Pub. 10-29-57. Filed 4-12-57.
657,249. ELECTROPLASTIC. Printing Plates Research, Inc. SN 29,301. Pub. 10-29-57. Filed 5-2-57.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

- 657,250. MASKODERM AND DESIGN. Societe Anonyme Laboratoires du Dr N. G. Payot. SN 687,821. Pub. 10-29-57. Filed 5-18-55.
657,251. REGE-O-DERM AND DESIGN. Societe Anonyme Laboratoires du Dr N. G. Payot. SN 687,822. Pub. 10-29-57. Filed 5-18-55.
657,252. DERMUD. Natural Minerals Co., to Lan-Lay Inc. SN 10,008. Pub. 10-29-57. Filed 6-11-56.
657,253. STRIPE. Lever Brothers Company. SN 13,854. Pub. 2-26-57. Filed 8-13-56.
657,254. THUNDERBIRD. M'Lady, Incorporated. SN 14,306. Pub. 10-29-57. Filed 8-16-56.
657,255. BEAUTY SET. Bymart-Tintair, Inc. SN 15,680. Pub. 10-29-57. Filed 9-14-56.
657,256. GLITTER-GLO. Richard Hudnut. SN 15,965. Pub. 10-29-57. Filed 9-19-56.
657,257. LILIAL. Glvandan-Delawanna, Inc. SN 16,212. Pub. 10-29-57. Filed 9-24-56.
657,258. JERGENS AND TEARDROP DESIGN. The Andrew Jergens Company. SN 16,812. Pub. 10-29-57. Filed 10-2-56.
657,259. MME. HUNTINGFORD. W. Kenneth Koehler, d. b. a. Mme. Huntingford Manufacturing Laboratories. SN 17,289. Pub. 10-29-57. Filed 10-11-56.
657,260. JANDARY INTENSO. Germaine-Henriette Betschart-Fresneau. SN 18,508. Pub. 10-29-57. Filed 10-31-56.
657,261. DENT-OKARE. Drugmaster, Inc. SN 21,302. Pub. 10-29-57. Filed 12-19-56.
657,262. HIDE-X. Lehman Bros. SN 22,019. Pub. 10-29-57. Filed 1-2-57.
657,263. HIGH NOON AND DESIGN. Noxzema Chemical Co. SN 23,078. Pub. 10-29-57. Filed 1-23-57.
657,264. LADY CHESELINE. Chesebrough-Pond's, Inc. SN 23,214. Pub. 10-29-57. Filed 1-25-57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

CLASS 6

CHEMICALS AND CHEMICAL COMPOSITIONS

- 657,280. R. T. Vanderbilt Company, Inc., New York, N. Y. SN 18,875. Filed P. R. 10-29-56. Am. S. R. 10-28-57.

Fomout

For Defoamer.
First use Oct. 18, 1956.

- 657,265. LORD CHESELINE. Chesebrough-Pond's, Inc. SN 23,215. Pub. 10-29-57. Filed 1-25-57.
657,266. ALCO-DAH AND DESIGN. Muriel Hall, d. b. a. "Alcodah Laboratories." SN 23,657. Pub. 10-29-57. Filed 2-4-57.
657,267. CELESTOLIDE. Polak & Schwarz's N. V. Essence-fabrieken. SN 24,706. Pub. 10-29-57. Filed 2-19-57.
657,268. TIZ-MAGIC. M. Pier Company, Inc., d. b. a. M. Pier Company. SN 25,026. Pub. 10-29-57. Filed 2-25-57.
657,269. B-DRY. Helena Rubinstein, Inc. SN 27,983. Pub. 10-29-57. Filed 4-11-57.
657,270. LUBRI-SHAVE. Colgate-Palmolive Company. SN 28,330. Pub. 10-29-57. Filed 4-17-57.
657,271. ANDALUSIA. Avon Products, Inc. SN 28,675. Pub. 10-29-57. Filed 4-23-57.

CLASS 52

DETERGENTS AND SOAPS

- 657,272. KOLOR-TREET. Duart Manufacturing Co. Ltd. SN 656,064. Pub. 8-3-54. Filed 11-9-53.
657,273. PERMA GLAZE. Perma Glaze Chemical Corp. SN 24,376. Pub. 10-29-57. Filed 2-13-57.
657,274. CHEM-THERM. Chem-Therm Mfg. Co., Inc. SN 24,563. Pub. 10-29-57. Filed 2-18-57.
657,275. GREASEFOE. Harry F. Hepfinger, Inc. SN 26,353. Pub. 10-29-57. Filed 3-18-57.
657,276. ANGELIQUE. Angellique and Company, Inc. SN 27,559. Pub. 10-29-57. Filed 4-5-57.
657,277. TRU-ART. Helene Curtis Industries, Inc. SN 29,705. Pub. 10-29-57. Filed 5-9-57.

Service Mark

CLASS 106

MATERIAL TREATMENT

- 657,278. CRANBOW. Cranston Print Works Company. SN 28,768. Pub. 10-29-57. Filed 4-24-57.

Collective Membership Mark

CLASS 200

- 657,279. IGA AND DESIGN. Independent Grocers' Alliance Distributing Co. SN 18,566. Pub. 10-29-57. Filed 11-1-56.

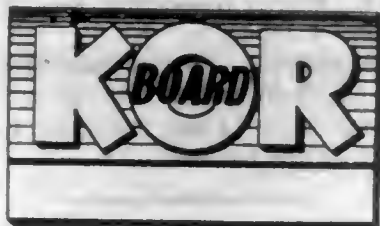
WEEDAWAY

For Herbicides.
First use 1948.

CLASS 12

CONSTRUCTION MATERIALS

657,282. The New England Industries, Inc., New York, N. Y.
SN 10,458. Filed P. R. 6-18-56. Am. S. R. 10-7-57.



For Uniform Composition Building Board Made Entirely
of Wood Chips and Resin for Use in the Construction of Walls,
Ceilings, Partitions, Furniture and the Like.
First use June 1, 1956.

657,283. Spun Rock Wools Limited, Throld, Ontario, Canada.
SN 12,982. Filed P. R. 7-27-56. Am. S. R. 11-8-57.



Owner of Canadian Reg. No. N. S. 60/15,975, dated July
14, 1941.

For Insulating Material Manufactured From Rock and in
Loose, Sheet or Pad Form.

CLASS 13

HARDWARE AND PLUMBING AND STEAM-
FITTING SUPPLIES

657,284. Chemex Corporation, New York, N. Y. SN 20,888.
Filed P. R. 12-12-56. Am. S. R. 11-18-57.



For Coffeemakers.
First use May 24, 1942.

CLASS 18

MEDICINES AND PHARMACEUTICAL
PREPARATIONS

657,285. J. R. Chemical Company, Dallas, Tex. SN 17,471.
Filed P. R. 10-15-56. Am. S. R. 9-16-57.

DOKTORS

For Nose Drops.
First use Aug. 20, 1956.

CLASS 21

ELECTRICAL APPARATUS, MACHINES, AND
SUPPLIES

657,286. Swiveller Company Incorporated, Brooklyn, N. Y.
SN 8,809. Filed P. R. 5-22-56. Am. S. R. 11-22-57.

PLUG-RACK

For Wall Receptacle for Lighting Fixtures.
First use May 8, 1956.

657,287. Square D Company, Detroit, Mich. SN 32,022.
Filed 6-14-57.

Quik Stop

For Controllers for Electric Motors.
First use Mar. 12, 1956.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND
PARTS THEREOF

657,288. Ralph Joseph Tettis and Walter P. Murphy Trust,
Ridgway, Pa. SN 23,867. Filed P. R. 2-5-57. Am. S. R.
11-18-57.



For Cutting Comb and Fulcrum Support Therefor.
First use Oct. 5, 1956.

JANUARY 14, 1958

U. S. PATENT OFFICE

TM 75

CLASS 32

FURNITURE AND UPHOLSTERY

657,289. Lee L. Woodard Sons, Owosso, Mich. SN 11,049.
Filed P. R. 6-26-56. Am. S. R. 11-4-57.

DRAIN DRI

For Self-Drying Chair and Seat Cushions for Outdoors Use.
First use Mar. 13, 1956.

657,290. Flexible Products, Incorporated, Brooklyn, N. Y.
SN 21,143. Filed P. R. 12-17-56. Am. S. R. 11-15-57.

SNUG-FIT

For Mattress Handles.
First use Nov. 9, 1956.

CLASS 37

PAPER AND STATIONERY

657,291. Crown Zellerbach Corporation, San Francisco, Calif.
SN 24,249. Filed P. R. 2-12-57. Am. S. R. 10-23-57.

koldsak

For Paper Bags.
First use Oct. 5, 1956.

CLASS 44

DENTAL, MEDICAL, AND SURGICAL
APPLIANCES

657,292. Raymond's, Inc., Boston, Mass. SN 6,190. Filed
4-11-56.

**A FAMOUS BRAND
IN DISGUISE**

For Elastic Stockings.
First use May 4, 1953.

657,293. Winchester Mills, Inc., New York, N. Y. SN 32,222.
Filed 6-18-57.

OWENS

For Bandages for Wounds That Provide Marked Clinical
Advantages and Greater Patient Comfort.
First use Sept. 13, 1946.

CLASS 46

FOODS AND INGREDIENTS OF FOODS

657,294. The Atlantic Packing Company, Detroit, Mich. SN
4,690. Filed P. R. 3-16-56. Am. S. R. 10-25-57.

**HICKORY'N
HONEY**

For Cured Hams.
First use May 24, 1955.
TM 726 O. G.—7

657,295. Nicholas C. Sogas, d. b. a. Kansas City Stuffed Date
Company, Kansas City, Mo. SN 4,996. Filed P. R. 3-21-56.
Am. S. R. 8-19-57.

MEL-OH-GOOD

For Foods—Namely, Dates.
First use Apr. 7, 1954.

657,296. Ernest W. Turner, Jr., Cheriton, Va. SN 9,412.
Filed P. R. 5-31-56. Am. S. R. 8-5-57.



**Cherry Stone
VEGETABLES**

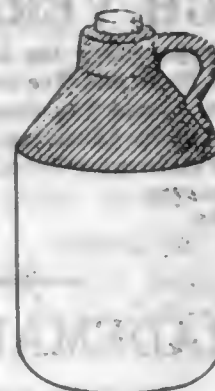
"PAC-RITE PROCESS"
ERNEST W. TURNER, JR.
CHERITON, VIRGINIA

For Fresh Vegetables.
First use June 1955.

CLASS 49

DISTILLED ALCOHOLIC LIQUORS

657,297. McCormick Distilling Company, Weston, Mo. SN
678,655. Filed P. R. 12-20-54. Am. S. R. 7-22-55.



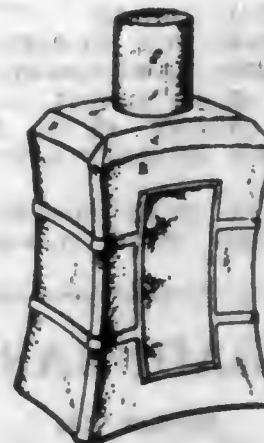
The upper portion of the container is dark brown and the
lower portion tan or light brown.

For Whiskey.
First use Apr. 22, 1954.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

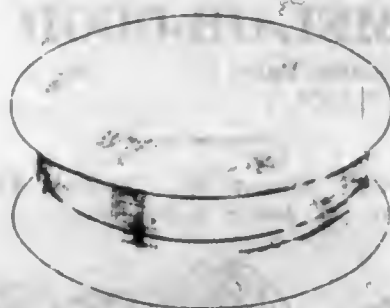
657,298. Société Anonyme Laboratoires du Dr N. G. Payot,
d. b. a. Dr N. G. Payot, Paris, France. SN 687,825. Filed
5-18-55.



For Cosmetics and Toilet Preparations—Namely, Beauty
Lotions, Sun Oils, Toilet Waters, Perfumes, Hair Tonics, Hair
Oils, Nail Polishes, and Eau de Cologne.

First use July 1945; in commerce Nov. 7, 1951.

657,299. Société Anonyme Laboratoires du Dr N. G. Payot, d. b. a. Dr N. G. Payot, Paris, France. SN 687,826. Filed 5-18-55.



The mark consists of the form of the container. For Cosmetics and Toilet Preparations—Namely, Beauty Creams, Rouges, and Powders for the Face. First use August 1944; in commerce Nov. 7, 1951.

657,300. Mary Sherman, Inc., St. Louis, Mo. SN 18,089. Filed P. R. 8-9-56. Am. S. R. 11-14-57.

TRAVEL-BATH

For Perfumed Additive for Bath Water. First use June 15, 1956.

657,301. Juliette Marglen, Inc., Ridgely, N. J., now by change of name to Juliette Marglen, Inc. SN 23,929. Filed 2-6-57.

VAN GOGH VERMILION

For Lipsticks and Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Base Coating Materials, Liquid Top Coating or Sealer, Clear and Colored Enamels, Liquid Adhesives for Mending and Repairing Broken Nails, Thinners for Same, Removers for Same, and Liquid Cuticle Removers. First use July 16, 1955.

TRADEMARK REGISTRATIONS RENEWED

119,796. PLAYALLS. Cl. 39. 12-11-17.
120,466. DESIGN OF LIGHTNING FLASH. Cl. 16. 2-5-18.
121,102. DE PARADIS. Cl. 51. 4-2-18.
121,352. NEVER SAY "DYE"—SAY "RIT." Cl. 6. 4-23-18.
343,936. THE VOICE OF ASTROLOGY. Cl. 38. 3-9-37.
344,452. KEY OAK AND DESIGN. Cl. 1. 3-23-37.
347,311. LIFE GUARDS SILVER AND DESIGN. Cl. 4. 6-22-37.
349,854. HIS 'N' HER. Cl. 51. 9-7-37.
350,017. ACTIVE MODERNS. Cl. 39. 9-14-37.
350,294. PAINT BOX. Cl. 42. 9-21-37.
350,445. TODDY. Cl. 51. 9-28-37.
351,185. NATION'S GARDEN. Cl. 46. 10-19-37.
351,507. NEVILLAC. Cl. 1. 11-2-37.
351,508. NEVILLITE. Cl. 1. 11-2-37.
351,509. NEVOLL. Cl. 6. 11-2-37.
351,510. NUBA. Cl. 1. 11-2-37.
351,515. NEVINDENE. Cl. 1. 11-2-37.
351,557. HERCOSETT. Cl. 6. 11-2-37.
351,572. SANFOR. Cl. 39. 11-2-37.
351,665. FRENCH CANCAN. Cl. 51. 11-2-37.
351,750. TOMLINSON QUALITY AND DESIGN. Cl. 32. 11-9-37.
351,787. DRESINATE. Cl. 52. 11-9-37.
351,852. SURF QUEEN. Cl. 39. 11-9-37.

TRADEMARK REGISTRATIONS CANCELED

Section 7(d)

425,498. RAYVE CREME SHAMPOO. Cl. 6. 11-26-46.
434,378. HEADY. Cl. 6. 11-18-47.
501,017. RAYVE. Cl. 6. 7-13-48.
515,661. HEDY WAVE. Cl. 44. 9-27-49.

Service Marks

CLASS 100

MISCELLANEOUS

657,302. Holiday Inns of America, Inc., Memphis, Tenn. SN 21,542. Filed P. R. 12-24-56. Am. S. R. 10-28-57.

YOUR HOST FROM COAST TO COAST

For Motel Services—Namely, Providing Lodgings and Meals in Motels. First use July 31, 1953.

CLASS 106

MATERIAL TREATMENT

657,303. Metallurgical Associates, Inc., New York, N. Y. SN 692,854. Filed P. R. 8-11-55. Am. S. R. 11-22-57.

DUCTALUMINUM

For Consultation and Instruction to Foundries in the Ways and Means of Improving the Production of Castings From Aluminum Alloys. First use May 16, 1955.

351,910. PROTECTO-LITE AND DESIGN. Cl. 2. 11-16-37.
351,961. 2-50-W. Cl. 52. 11-16-37.
352,172. NEVINOL. Cl. 6. 11-23-37.
352,179. SHADE-TONE AND DESIGN. Cl. 11. 11-23-37.
352,333. DOW MIKE SULFUR AND DESIGN. Cl. 6. 11-30-37.
353,183. VIBRAFRAM. Cl. 12. 12-28-37.
353,393. SPEEDLINE. Cl. 23. 1-4-38.
353,399. STUDIES IN HARMONY. Cl. 37. 1-4-38.
353,996. TRUHLIGHT FLAT. Cl. 16. 1-25-38.
354,435. NAUGAHYDE. Cl. 50. 2-15-38.
354,916. HOMOHIDE. Cl. 35. 3-1-38.
354,933. PERFECTOCOLL. Cl. 44. 3-1-38.
354,948. DELSEY. Cl. 37. 3-1-38.
355,049. STATE-O-MAINE AND DESIGN. Cl. 46. 3-8-38.
355,161. MIDSOLE. Cl. 50. 3-8-38.
355,229. VIGRAN. Cl. 18. 3-8-38.
355,513. WELCH'S. Cl. 46. 3-22-38.
355,660. RAM'S HORN. Cl. 39. 3-22-38.
355,664. INSTITUTIONS. Cl. 38. 3-22-38.
355,859. REVELATION. Cl. 23. 4-5-38.
356,232. ALBEMARLE AND DESIGN. Cl. 37. 4-19-38.
356,322. SANTOCEL. Cl. 6. 4-26-38.
356,457. GALEX. Cl. 1. 4-26-38.

535,610. RAYVE. Cl. 26. 1-2-51.
599,842. FAS-TY. Cl. 7. 12-28-54.

Section 8

35,404. PALMIACOL. Cl. 18. 11-13-1900.
255,788. SMITHCRAFT. Cl. 32. 4-30-29.

285,430. USCO. Cl. 39. 7-28-31.
285,467. OLD COLONY. Cl. 43. 7-28-31.
288,196. JO-LO ETC. AND DESIGN. Cl. 46. 10-20-31.
377,979. EYELO. Cl. 50. 5-21-40.
547,824. PRY. Cl. 52. 9-11-51.
549,338. VEGEMEAT. Cl. 46. 10-9-51.
549,339. VEGEMEAT STEAKS. Cl. 46. 10-9-51.
550,006. TRAF. Cl. 6. 10-23-51.

The following registrations issued Nov. 27, 1951

551,182. GLENDORA HOME. Cl. 46.
551,188. HANNA. Cl. 34.
551,192. SUMERSETT. Cl. 46.
551,193. RUSSIAN BLOSSOM. Cl. 46.
551,198. VITE-O-ZEST. Cl. 46.
551,201. MAGIC GARDEN. Cl. 2.
551,205. SMILIN SPUDS AND DESIGN. Cl. 46.
551,214. PURITAN. Cl. 46.
551,219. CORDAY. Cl. 39.
551,220. SOLVAY. Cl. 34.
551,223. PLASTIPAC. Cl. 2.
551,225. TRAVL-SEAL AND DESIGN. Cl. 23.
551,229. CAXTON SHUR-FIT AND DESIGN. Cl. 39.
551,231. INSURAMATIC. Cl. 23.
551,232. ULTRA-MATIC. Cl. 26.
551,233. PALLET-PRINT. Cl. 42.
551,234. DFC REVERB-O-MELTER. Cl. 34.
551,240. DREAMIST. Cl. 43.
551,242. MISS DIXIE. Cl. 46.
551,245. XMASKIT. Cl. 26.
551,255. PIE-MAN. Cl. 46.
551,259. KAROMAT. Cl. 26.
551,273. QUAYCO (KEECO). Cl. 29.
551,274. TIL. Cl. 46.
551,275. EVA-SHAPE. Cl. 39.
551,276. NICK BLOOM. Cl. 39.
551,277. NICK BLOOM ETC. AND DESIGN. Cl. 39.
551,278. TUR-B-LIZER. Cl. 23.
551,286. AQUALURE. Cl. 39.
551,288. ALNESIUM. Cl. 2.
551,289. FIXX. Cl. 14.
551,294. THE TALKING TEE-SHIRTS. Cl. 39.
551,295. SNACKIT. Cl. 34.
551,297. TOMMIES JABBER-JACKET. Cl. 39.

551,298. BRAGI. Cl. 39.
551,299. CRESTA AND DESIGN. Cl. 39.
551,312. HORMONETTES. Cl. 46.
551,314. GRIP-A-KAP. Cl. 39.
551,315. CROXLEY AND DESIGN. Cl. 39.
551,319. POCH AND DESIGN. Cl. 23.
551,320. DITOLITH. Cl. 26.
551,323. PINSTER. Cl. 39.
551,326. CHAMP-WELD. Cl. 2.
551,330. GET HEP. Cl. 46.
551,331. BULU AND DESIGN. Cl. 39.
551,339. JUMPARON. Cl. 39.
551,346. JACKMILL. Cl. 23.
551,351. ROLL-AWAY. Cl. 39.
551,354. SNAKE EYES. Cl. 42.
551,357. CHARME. Cl. 22.
551,358. FAIRLAWN. Cl. 22.
551,372. NU-BERRI. Cl. 45.
551,374. TRUGRAPE. Cl. 45.
551,376. DEODER-MIST. Cl. 6.
551,377. SPINNE REEL. Cl. 22.
551,381. SPEEDI-SCORE. Cl. 50.
551,382. LEAD-R-PAK AND DESIGN. Cl. 22.
551,384. TRAV-L-VUE. Cl. 26.
551,385. FERRY'S SEEDS. Cl. 1.
551,386. FLORFELT. Cl. 12.
551,388. NIBROC TOWELS GET YOU BONE DRY AND DESIGN. Cl. 37.
551,390. SUPER-FINE. Cl. 42.
551,391. PEEL-KLEEN. Cl. 16.
551,392. BUTTER KWIK. Cl. 33.
551,393. ELECTRO QUILT E AND DESIGN. Cl. 42.
551,395. CHINOTTO RECOARO ETC. Cl. 45.
551,396. BACK-BEAUTY. Cl. 39.
551,397. BEAUTY-BACK. Cl. 39.
551,399. GOLDEN BAGUETTE. Cl. 28.
551,402. ODORID. Cl. 18.
551,404. "PRES-2-RYT." Cl. 37.
551,408. RE-CLEAN AND DESIGN. Cl. 52.
551,410. MAYFIELD. Cl. 39.
551,414. COASTALINER. Cl. 105.

Section 18

423,383. LIPSMOOTH. Cl. 6. 8-27-46.
544,903. COLORAL. Cl. 51. 7-10-51.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

508,073. DESIGN OF A DOG HEAD. Cl. 46. 3-29-49. Doyle Packing Company, Los Angeles, Calif. Corrected: In lines 1 and 4 of the second paragraph of the statement, "July 1929" should be July 1932.
554,217. H & G. Cl. 29. 1-29-52. Hanlon & Goodman Co., Belleville, N. J. Corrected: In line 3 of the certificate (second occurrence), and in lines 2 and 3 of the statement, "New Jersey" should be New York.
570,840. NU-SET. Cl. 29. 2-17-53. Hanlon & Goodman Co., Belleville, N. J. Corrected: In line 3 of the certificate, and in lines 2 and 3 of the statement, "New Jersey" should be New York.

635,565. H & G GOLD CREST ETC. AND DESIGN. Cl. 29. 10-9-56. Hanlon & Goodman Co., Belleville, N. J. Corrected: In line 1, "New Jersey" should be New York.
654,309. TANOLIN "T." Cl. 6. 11-12-57. Diamond Alkali Company, Cleveland, Ohio. Corrected: In line 1, "Ohio" should be Delaware.
654,310. TANOLIN "S." Cl. 6. 11-12-57. Diamond Alkali Company, Cleveland, Ohio. Corrected: In line 1, "Ohio" should be Delaware.
655,174. ZERELL. Cl. 18. 12-3-57. Samuel Belber, doing business as Zerell Drug Company, Philadelphia, Pa. Corrected: In column 2, line 1, "hematitine" should be hematitic.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

361,469. HOUSE & HOME MAGAZINE AND DESIGN. Cl. 38. Eugene Nelson Beard. 10-18-38. New Cert. Sec. 7(c), to Time, Incorporated, New York, N. Y., 1-14-58.
617,945. CHEFBURGER. Cl. 46. John A. Eisenegger, doing business as Chefburger. 12-20-56. New Cert. Sec. 7(c), to Chefburger, Incorporated, Cincinnati, Ohio, 1-14-58.
536,068. SO-HEARD. Cl. 13. The Southington Hdwe. Mfg. Company. 1-9-51. New Cert. Sec. 7(c), to Pittsburgh Screw and Bolt Corporation, Pittsburgh, Pa., 1-14-58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

CLASS 23

CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF

414,728. June 26, 1945. Judson Mfg. Co., Philadelphia, Pa. Pub. by Judson Mfg. Co., Inc., Cornwells Heights, Pa.

JUDCO

For Internal Combustion Engines, Parts Thereof, and Car-buretors.

CLASS 34

HEATING, LIGHTING, AND VENTILATING APPARATUS

25,550. Nov. 20, 1894. The Babcock & Wilcox Company, New York, N. Y. Pub. by registrant.

BABCOCK & WILCOX

For Steam Boilers.

CLASS 38

PRINTS AND PUBLICATIONS

399,316. Dec. 29, 1942. Chicago Molded Products Corporation, Chicago, Ill. Pub. by registrant.

Plastics Progress

For House Organ Periodical Publication.

CLASS 39

CLOTHING

116,902. June 5, 1917. S. H. Kress and Company, New York, N. Y. Pub. by registrant.

KIDDIES

For Hosiery.
TM 78

CLASS 46

FOODS AND INGREDIENTS OF FOODS

365,675. Mar. 14, 1939. R. A. Nemanick, Salinas, Calif. Pub. by Robert Alameda, d. b. a. Robert Alameda Co., Salinas, Calif.

ANGEL FOOD

For Fresh Vegetables and Fresh Deciduous Fruits.

392,591. Jan. 6, 1942. Hershey Creamery Company, Harrisburg, Pa. Pub. by registrant.

Prontolac

For Powdered Whole Milk.

396,034. June 23, 1942. Hershey Creamery Company, Harrisburg, Pa. Pub. by registrant.

BANJO

For Ice Cream and Frozen Confections.

CLASS 51

COSMETICS AND TOILET PREPARATIONS

363,134. Dec. 13, 1938. Raymond S. Spinelli, d. b. a. Glov-Kote Co., Chicago, Ill. Pub. by Richard Strong, Cleveland, Ohio.

GLOV-KOTE

For Hand and Skin Protective Creams.

INDEX OF REGISTRANTS

JANUARY 14, 1958

(Registered; Renewed; Canceled; Amended; Disclaimed; Corrected, etc.; New Certificates; 12c Publications.)

Adam Hat Stores, Inc., New York, N. Y. 551,275, can. Cl. 39.
Agla Camera Werk Muchen: See—
Alfa Photo Corp.
Ahmco Products, Inc., Cambridge, Mass. 551,294, can. Cl. 39.
Aktiebolaget Astra, Apotekarna Kemiska Fabriker, Sodertalje, Sweden. 657,021, pub. 10-29-57. Cl. 18.
Alameda, Robert: See—
Nemanick, R. A.
Alameda, Robert Co.: See—
Nemanick, R. A.
Albatross-Franz Mayer Corp., Long Island City, N. Y. 551,286, can. Cl. 39.
Albemarle Paper Mfg. Co., The, Richmond, Va. 356,232, ren. 4-19-58. Cl. 37.
"Alcodah Laboratories": See—
Hall, Muriel.
Alexander Doll Co., Inc., d. b. a. Madame Alexander, New York, N. Y. 657,076, pub. 10-29-57. Cl. 22.
Alexander, Madame: See—
Alexander Doll Co., Inc.
Alfa Photo Corp., New York, N. Y., to Agla Camera Werk Muchen, Munich, Germany, a corp. under United States administration. 551,259, can. Cl. 26.
Allied Chemical & Dye Corp., New York, N. Y. 551,220, can. Cl. 34.
Allied Mills, Inc., Chicago, Ill. 657,226, pub. 10-29-57. Cl. 46.
Alta Vineyards Co., Fresno, Calif. 657,240, pub. 10-29-57. Cl. 47.
Amercoat Corp., South Gate, Calif. 657,008, pub. 10-29-57. Cl. 16.
American Biltrite Rubber Co., Inc.: See—
Boston Woven Hose and Rubber Co.
American Cyanamid Co., New York, N. Y. 657,020, pub. 10-29-57. Cl. 18.
American Cyanamid Co., New York, N. Y. 657,030, pub. 10-29-57. Cl. 18.
American Home Products Corp., d. b. a. Ayerst Laboratories, New York, N. Y. 657,019, pub. 10-29-57. Cl. 18.
American-Lincoln Corp., Toledo, Ohio. 657,105, pub. 10-29-57. Cl. 23.
American Machine and Foundry Co., New York, N. Y. 657,038, pub. 10-29-57. Cl. 19.
American Oil Co., The, New York, N. Y. 657,012-13, pub. 10-29-57. Cl. 15.
American Wine Co.: See—
Schenley Import Corp.
Ames Harris Neville Co., San Francisco, Calif. 656,963, pub. 10-29-57. Cl. 2.
Ames Harris Neville Co., San Francisco, Calif. 657,073, pub. 10-29-57. Cl. 22.
Ames Harris Neville Co., San Francisco, Calif. 657,091, pub. 10-29-57. Cl. 23.
Ames Harris Neville Co., San Francisco, Calif. 657,126, pub. 10-29-57. Cl. 31.
Amplex Corp., Brooklyn, N. Y. 657,058, pub. 10-29-57. Cl. 21.
Angelique and Co., Inc., Wilton, Conn. 657,276, pub. 10-29-57. Cl. 52.
Anti-Hydro Waterproofing Co., Newark, N. J. 657,010, pub. 10-29-57. Cl. 16.
Appalachian Tanning Co., Tullahoma, Tenn. 657,154, pub. 10-29-57. Cl. 39.
Arkwright, Inc., New York, N. Y. 351,852, ren. 11-9-57. Cl. 39.
Armour and Co., Chicago, Ill. 657,033, pub. 10-29-57. Cl. 18.
Armstrong, Helen V., Denver, Colo. 657,243, pub. 10-29-57. Cl. 50.
Arrow Engineering Co., Inc., Indianapolis, Ind. 657,066, pub. 10-29-57. Cl. 21.
Ash, Thomas & Co. Ltd., Birmingham, England. 657,082, pub. 10-29-57. Cl. 23.
Ashwander, R. E., d. b. a. R. E. Ashwander & Co., McAllen, Tex. 657,023, pub. 10-29-57. Cl. 18.
Ashwander, R. E. & Co.: See—
Ashwander, R. E.
Associated Date Growers & Packers, Indio, Calif. 657,238-9, pub. 10-29-57. Cl. 46.
Associated Merchandising Corp., The, New York, N. Y. 551,219, can. Cl. 39.
Atco Food Co., Dallas, Tex. 657,224, pub. 10-29-57. Cl. 46.
Atlantic Packing Co., The, Detroit, Mich. 657,294, Cl. 46.
Avon Products, Inc., New York, N. Y. 657,271, pub. 10-29-57. Cl. 51.
Ayerst Laboratories: See—
American Home Products Corp.
Babcock & Wilcox Co., The, New York, N. Y. 25,550, 12(c) pub. 1-14-58. Cl. 34.
Bagby, Robert, Inc., New York, N. Y. 551,384, can. Cl. 26.
Baker & Co., Inc., Newark, N. J. 354,933, ren. 3-1-58. Cl. 44.
Balch Flavor Co.: See—
Balch, Gerald G.
Balch, Gerald G., d. b. a. Balch Flavor Co., Pittsburgh, Pa. 551,372, can. Cl. 45.
Balcort Shirt Co., Inc., New York, N. Y. 657,168, pub. 10-29-57. Cl. 39.
Bally Case and Cooler Co., Bally, Pa. 657,127, pub. 10-29-57. Cl. 31.
Barclays: See—
Werner, J. Harold, Inc.
Bartz, Frederick H., Chicago, Ill. 551,295, can. Cl. 34.
Bass, G. H., & Co., Wilton, Maine. 657,151, pub. 6-11-57. Cl. 39.
Basse, Albert, Associates, Inc., Boston, Mass. 551,381, can. Cl. 50.
Bassett, W. E., Co., The, Derby, Conn. 657,092, pub. 10-29-57. Cl. 23.
Bausch & Lomb Optical Co., Rochester, N. Y. 657,119, pub. 10-29-57. Cl. 26.
Beard, Eugene N., to Time, Inc., New York, N. Y. 361,469, new cert. Cl. 38.
Becton, Dickinson and Co., Rutherford, N. J. 657,202, pub. 10-29-57. Cl. 44.
Belber, Samuel, d. b. a. Zerell Drug Co., Philadelphia, Pa. 655,174, cor. Cl. 18.
Belden Mfg. Co., Chicago, Ill. 657,039-60, pub. 10-22-57. Cl. 21.
Benecke, J. H., Hannover-Vinnhorst, Germany. 656,954, pub. 8-27-57. Cl. 1.
Beesonet Bee Co., Donaldsonville, La. 657,231, pub. 10-29-57. Cl. 46.
Best Foods, Inc., The: See—
Sunbeam Chemical Co.
Blenfang Paper Co., Inc., Metuchen, N. J. 657,145, pub. 10-29-57. Cl. 37.
Blake Paint Corp., Orlando, Fla. 657,005, pub. 10-29-57. Cl. 16.
Blake Products, Inc., Orlando, Fla. 657,007, pub. 10-29-57. Cl. 16.
Blickman, S., Inc., Weehawken, N. J. 657,199, pub. 10-29-57. Cl. 44.
Bloom, Nick: See—
Bloom, Nick, Inc.
Bloom, Nick, Inc., Baltimore, Md., and Washington, D. C., by change of name from The Eutaw Tailoring Co., also d. b. a. Nick Bloom. 551,276, can. Cl. 39.
Bloom, Nick, Inc., Baltimore, Md., and Washington, D. C., by change of name from The Eutaw Tailoring Co., also d. b. a. Nick Bloom. 551,277, can. Cl. 39.
Boston Woven Hose and Rubber Co., Cambridge, to American Biltrite Rubber Co., Inc., Chelsea, Mass. 657,138, pub. 10-29-57. Cl. 35.
Bowland-Jacobs Mfg. Co., Spring Valley, Ill. 657,084, pub. 10-29-57. Cl. 23.
Branchell Co., The: See—
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Brittany Hat Co., Inc., The, New York, N. Y. 551,314, can. Cl. 39.
Brock Candy Co., Chattanooga, Tenn. 657,212, pub. 10-29-57. Cl. 46.
Brown Co., Portland, Maine. 551,388, can. Cl. 37.
Buffalo-Eclipse Corp., d. b. a. The Eclipse Lawn Mower Co., Prophetstown, Ill. 657,094, pub. 10-29-57. Cl. 23.
Burke Golf Equipment Corp., Newark, Ohio. 657,078, pub. 10-29-57. Cl. 22.
Burlington Industries, Inc., Greensboro, N. C. 657,178, pub. 10-29-57. Cl. 42.
Burlington Industries, Inc., Greensboro, N. C. 657,188, pub. 10-29-57. Cl. 42.
Burmeister, L. Co., to Chain Belt Co., Milwaukee, Wis. 657,093, pub. 10-29-57. Cl. 23.
Burndy Corp., Norwalk, Conn. 657,067, pub. 10-29-57. Cl. 21.
Butt, H. E., Grocery Co., d. b. a. H. E. Butt Grocery Co., Corpus Christi, Tex. 657,283, pub. 10-29-57. Cl. 46.
Bymart-Tintair, Inc., New York, N. Y. 657,255, pub. 10-29-57. Cl. 51.
C-C Clubs, Inc.: See—
Concert Hall Society, Inc.
Caldwell Mfg. Co., Rochester, N. Y. 656,996, pub. 10-29-57. Cl. 13.
California Flameproofing & Processing Co.: See—
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California Hoisum Baking Co.: See—
Langedorf United Bakeries, Inc.
Cambridge Rubber Co., Cambridge, Mass. 657,152, pub. 10-29-57. Cl. 39.
Caprice Confections Co.: See—
Just Born Inc.
Caprico International, Inc., New York, N. Y. 657,075, pub. 10-29-57. Cl. 22.
Caron Corp.: See—
Daltroff, E., & Co.
Caron Corp. of New York, N. Y.: See—
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Hutchens, Howard T.
Celotex Corp., The, Chicago, Ill. 353,183, ren. 12-28-57. Cl. 12.
Cenatron Industries, Fresno, Calif. 657,106, pub. 10-29-57. Cl. 23.

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- Central Compounding Co., Chicago, Ill. 656,985, pub. 10-29-57. Cl. 11.
 Century Glove Corp., Newark, N. J. 657,153, pub. 10-29-57. Cl. 39.
 Cerf, Alfred B., d. b. a. National Steel Products Co., Los Angeles, Calif. 656,991, pub. 10-29-57. Cl. 13.
 Cerruti, Inc., New York, N. Y. 551,298, can. Cl. 39.
 Cerruti, Inc., New York, N. Y. 551,299, can. Cl. 39.
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 Burmeister, L. Co.
 Champion Bag Co., Chicago, Ill. 551,326, can. Cl. 2.
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 Elsenegger, John A.
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 Elsenegger, John A.
 Chemex Corp., New York, N. Y. 657,284, Cl. 13.
 Chem-Therm Mfg. Co., Inc., Monrovia, Calif. 657,274, pub. 10-29-57. Cl. 52.
 Chesebrough-Pond's, Inc., New York, N. Y. 657,264-5, pub. 10-29-57. Cl. 51.
 Chester Packaging Products, Yonkers, N. Y. 657,246, pub. 10-29-57. Cl. 50.
 Chicago Molded Products Corp., Chicago, Ill. 399,316, 12(c) pub. 1-14-58. Cl. 38.
 Chicopee Mfg. Corp., New Brunswick, N. J., to Chicopee Mills, Inc., New York, N. Y. 377,979, can. Cl. 50.
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 Chicopee Mills, Inc., New York, N. Y. 657,191, pub. 10-29-57. Cl. 42.
 Ciba Ltd., Basle, Switzerland. 656,967, pub. 10-29-57. Cl. 5.
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 Clay Sewer Pipe Association, Inc., Columbus, Ohio. 656,986, pub. 10-29-57. Cl. 12.
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 Consolidated Chemical Laboratories, Inc., d. b. a. Worrell-Consolidated Laboratories, St. Louis, Mo. 656,998, pub. 10-29-57. Cl. 10.
 Consolidated Cosmetics, Chicago, Ill. 434,378, can. Cl. 6.
 Consolidated Dairy Products Co., Seattle, Wash. 657,203, pub. 8-24-57. Cl. 46.
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 Continental Mills, Inc., Philadelphia, Pa. 657,187, pub. 10-29-57. Cl. 42.
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 Dalmont Werke G. m. b. H., Berlin-Reinickendorf, Germany. 657,043, pub. 10-29-57. Cl. 21.
 Dalmone S. p. A., Milano, Italy. 657,245, pub. 10-29-57. Cl. 50.
 Daltroff, E., & Cie., d. b. a. Parfumerie Caron, to Caron Corp. of New York, N. Y., Paris, France, to Caron Corp., New York, N. Y. 351,065, ren. 11-2-57. Cl. 51.
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 Wilde, T. E., & Son, Inc., Sacramento, Calif. 551,205, can. Cl. 46.
 Williamson, T. D., Inc., Tulsa, Okla. 656,992, pub. 9-10-57. Cl. 13.
 Winchester Mills, Inc., New York, N. Y. 657,293, Cl. 44.
 Winston, Luis, Co., New York, N. Y. 551,391, can. Cl. 16.
 Wolf Engineering Corp., Dallas, Tex. 657,041, pub. 10-29-57. Cl. 19.
 Woodard, Lee L. Sons, Owosso, Mich. 657,289, Cl. 32.
 Woolworth, F. W., Co., New York, N. Y. 657,171, pub. 10-29-57. Cl. 39.
 Worrell-Consolidated Laboratories: See—
 Consolidated Chemical Laboratories, Inc.
 Wortendyke Mfg. Co., Richmond, Va. 551,390, can. Cl. 42.
 Wright, William H., to Schenectady Varnish Co., Inc., Schenectady, N. Y. 120,466, ren. 2-5-58. Cl. 16.
 Wyandot Popcorn Co., Marion, Ohio. 657,213, pub. 10-29-57. Cl. 46.
 Zenith Radio Corp., Chicago, Ill. 657,201, pub. 10-29-57. Cl. 44.
 Zerell Drug Co.: See—
 Belber, Samuel.
 Zimmermann, Chn., & Son Co., New York, N. Y. 657,163, pub. 10-29-57. Cl. 39.

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PATENTS

NOTICES

Errata

On pages 106 and 108-1 of the revision pages for the Manual of Patent Examining Procedure (2nd Edition), recently distributed, the following corrections should be made:

Section 804.01. In subsection B, change "805.05(a)" to "806.04". After "apparatus" (last occurrence), insert "etc.,". Cancel all of subsection C.

Section 806.04(h): Transfer the last paragraph to make it the first paragraph.

M. C. ROSA,
Director, Patent Examining Operation.

Disclaimer

2,792,233.—Wells Stackhouse, Havertown, Pa. BARGE TRUCK. Patent dated May 14, 1957. Disclaimer filed Dec. 16, 1957, by the assignee, American Locker Company, Inc.

Hereby enters this disclaimer to claim 1 of said patent.

New Applications Received During November 1957

Patents	6,063
Designs	425
Plant Patents	4
Reissues	19
Total	6,511

Issue

Patents	743—No. 2,820,223 to No. 2,820,965, incl.
Designs	34—No. 181,918 to No. 181,951, incl.
Plant Patents	1—No. 1,675
Reissues	2—No. 24,418 to No. 24,419, incl.
Total	780

CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of pending applications (excluding Designs)	212,792
Total number of pending Design applications	6,640
Total number of applications awaiting action (excluding Designs)	95,704
Total number of Design applications awaiting action	3,114
Date of oldest new application	Aug. 27, 1956
Date of oldest amended application	July 5, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 55, 59, 60, 63, 64
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 60, 70
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES	7, 11, 17, 27, 34, 35, 39, 53, 62
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 9, 10, 18, 22, 23, 28, 45, 47
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE	3, 15, 19, 25, 30, 32, 49, 55, 67
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS	I, II, III, IV, V

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	2-28-57	12-8-56
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	2-19-57	10-20-56
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	4-17-57	2-6-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	3-18-57	11-29-56
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	2-25-57	11-27-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	3-20-57	3-8-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. O., acting), Optics, Photographic Apparatus	3-4-57	12-3-56
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles	4-8-57	1-16-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	3-5-57	11-16-56
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	3-15-57	1-28-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	4-22-57	2-26-57
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	3-4-57	12-11-56
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	4-2-57	1-28-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	4-3-57	2-20-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	3-13-57	12-3-56
16. (II) ROSE, R. H., (acting), Telephony; Recorders (part)	8-27-56	8-1-56
17. (IV) LEOHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	2-25-57	10-3-56
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	3-1-57	1-2-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating	3-4-57	12-26-56
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	1-28-57	11-6-56
21. (III) MADER, R. C., Textiles	12-18-56	10-1-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	3-4-57	12-4-56
23. (VI) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education	12-31-56	7-16-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	4-12-57	1-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	6-6-57	1-25-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms	5-1-57	2-6-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	3-21-57	2-28-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	3-25-57	11-3-56
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	1-23-57	11-23-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	2-6-57	7-12-56

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)		Oldest Application	
		New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils		12-14-56	11-2-56
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers		4-1-57	2-13-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering, Roads and Pavements		3-5-57	12-5-56
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements		2-25-57	10-1-56
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding		4-25-57	4-17-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales		12-28-56	11-30-56
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits		2-5-57	2-7-57
38. (I) MARTELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols		5-7-57	5-16-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)		4-9-57	3-14-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages		6-3-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television		10-16-56	7-13-56
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)		12-3-56	11-16-56
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles		5-27-57	5-24-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes		11-28-56	9-28-56
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)		4-1-57	11-20-56
46. (I) WILES, W. O., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)		3-11-57	12-13-56
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles		5-29-57	4-1-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers		3-4-57	9-19-56
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring		3-14-57	12-10-56
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber		5-6-57	5-6-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices		3-7-57	2-19-57
52. (V) NEFF, P. R., Supports and Racks		4-1-57	10-31-56
53. (IV) NINAB, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators		4-22-57	4-8-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications		1-9-57	3-4-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators		10-8-56	8-14-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry		5-20-57	3-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending		4-3-57	3-6-57
58. (III) BRONAUUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spitoons; Boring and Drilling; Paper Manufactures; Packaging (part)		2-11-57	8-8-56
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating		2-25-57	11-14-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products		3-7-57	12-5-56
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths		3-5-57	9-24-56
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination		7-1-57	7-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds		2-20-57	12-3-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions		3-4-57	11-15-56
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures		2-6-57	7-23-56
66. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification		12-27-56	7-5-56
67. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators		2-26-57	11-13-56
70. (II) BREWRINK, J. L., Security Laws Administration		1-3-57	9-6-56
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics		3-5-57	11-8-56
II—LADY, J. E., Oscillators; Amplifiers		2-18-57	9-4-56
III—WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres		3-20-57	12-26-56
IV—BERLOWITZ, W., Harrows and Diggers; Plows		3-4-57	3-4-57
V—ANGEL, C. D., Refrigeration; Roofs		4-1-57	1-10-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)		5-2-57	6-10-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts		5-1-57	5-1-57
B—GRAY, M. A., Household, Personal and Fine Arts			

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents.....Numbers 2,223,338 to 2,227,417, inclusive
Plant Patents.....Numbers 434 to 436, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

U. S. Court of Customs and Patent Appeals

IN RE MOTION OF ELLSWORTH H. MOSHER

Decided October 17, 1957

[— CCPA —; — F.2d —; — USPQ —]

1. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—PUBLIC ACCESS TO JUDICIAL RECORDS—PERSON HAVING NO INTEREST IN APPEAL MAY OBTAIN COPY OF DECISION OF BOARD OF APPEALS FROM TRANSCRIPT OF RECORD.

Held that a motion, by a petitioner not alleging any special interest in a patent appeal pending before the court, for an order directing the clerk of the court to provide copies of the decision or decisions of the Patent Office Board of Appeals, as set forth in the Transcript of Record that was filed in the appeal, must be granted.

2. JUDICIAL RECORDS—PUBLIC ACCESS ALLOWED AT COMMON LAW—REASON MAY APPEAR FOR INVOCATION OF SECRECY ORDER IN ISOLATED CASES.

Held that "at common law, no special interest had to be shown for a member of the public to gain access to judicial records, at least as far as a majority of the courts were concerned," access to such records being an unqualified matter of right, but "in isolated cases, reason may appear for the invocation of a secrecy order."

3. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—RULES OF THE COURT—CONSTRUED AS STATUTES ARE CONSTRUED.

Held that, in view of the fact that the rules of the United States Court of Customs and Patent Appeals have the force and effect of law, certain rules of construction of statutes should apply to the rules of the court with equal force as they do to statutes.

4. SAME—SAME—RULE 1(3), "ANY APPLICANT" MEANS ANY MEMBER OF PUBLIC WHO APPLIES.

In regard to Rule 1(3) of the Rules of the United States Court of Customs and Patent Appeals, which recites that "The clerk shall furnish to any applicant a copy of any paper on file in any case on payment of the legal fees therefor," Held that "the words 'any applicant' . . . refer to any member of the public who applies to the clerk, viz: they are equivalent to 'any person.'"

DECISION ON MOTION.

MOTION GRANTED.

Ellsworth H. Mosher *Pro Se.*

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY, RICH and JACKSON (retired), Associate Judges

PER CURIAM:

Petitioner has moved the "full court" under Rule 12 for an order directing the clerk of the court to provide photostatic or other copies of the decision or decisions of the Patent Office Board of Appeals as set forth in the Transcript of Record that was filed in a patent appeal before this court. The motion is in proper form and is accompanied by the fee required by the rules of this court for the making of the copies.

The appeal in question is presently pending before this court and has not yet been heard. Petitioner is not a party to the appeal nor has he alleged any special interest therein.

Petitioner originally informally requested of the clerk the copies herein sought, but was refused.

The Solicitor of the Patent Office has been advised of the instant motion but has presented no comments for our consideration.

Rule 1(1) of this court provides in part:

• • • The parties interested in any matter pending before the court may have full access to the records in such matters in the office of the clerk and may take copies of all papers filed therein: . . . [Emphasis added.]

Rule 1(3) of this court provides:

The clerk shall furnish to any applicant a copy of any paper on file in any case on payment of the legal fees therefor. [Emphasis added.]

Petitioner urges that unless the words "any applicant" in Rule 1(3) be construed to have a meaning broader and different from the words "the parties," it would follow that Rule 1(3) is completely superfluous, a result repugnant to basic principles of the rules of construction. In further support of his position, petitioner cites and discusses, amongst others, the cases of *Ex parte Drawbaugh*, 2 App. D. C. 404 (1894) and *In re Sackett*, 30 CCPA (Patents) 1214, 136 F.2d 248, 57 USPQ 541.

[1] After careful consideration of the authorities and the arguments advanced by petitioner, we are of the opinion that his motion must be granted.

Rules 1(1) and 1(3), when read together (as we feel they must be read), are unfortunately not free from ambiguity. No doubt many plausible contrary arguments might be advanced as to the intended meanings of the words "the parties interested" [Rule 1(1)] and "any applicant" [Rule 1(3)]. We are constrained to admit that we have had difficulty reconciling the two rules and avoiding interpretations which render the wording of one or the other superfluous. We have attempted, however, to arrive at the interpretation closest to what we feel was the result intended by the framers of the rules.

Rule 1 of the Rules of the Court of Customs Appeals (the predecessor of this court in customs jurisdiction), as amended on December 2, 1916, and as corrected to July 1, 1923, contained a provision identical to the portion of Rule 1(1) of the current rules of this court quoted supra. No provision equivalent to Rule 1(3) appeared in the former. It was not until February 28, 1931, when rules governing the then recently constituted Court of Customs and Patent Appeals were promulgated, that Rule 1(3) appeared, in words identical to those now used. This rule is a substantial duplicate of a similar rule (Rule XIX, par. 5) in force at the time of the Drawbaugh case, supra, in the Court of Appeals of the District of Columbia, the predecessor of this court in patent jurisdiction. The only significant change made by this court in adopting this rule was that, while the rule as it existed in the Court of Appeals applied exclusively to patent appeals, the rule of this court applies to both customs and patent appeals.

In the Drawbaugh case, the Court of Appeals denied a motion, filed by the appellant therein before decision on the merits of the case (as in the instant case), requesting that the files in the appeal be preserved in secrecy and that the clerk be directed not to permit the files or any part thereof to be inspected or copied.

The court stated in part as follows:

The transcript is brought here to obtain a review of a judgment already rendered by a public tribunal, and the transcript of the record of appeal and the papers and documents pertaining thereto, upon being filed with the clerk, become public judicial records of this court and must be so treated.

Such claims of right [to inspect and make copies] and contests over them are not the ordinary incidents of judicial proceeding, and any attempt to maintain secrecy over the

records of the court would seem to be inconsistent with the common understanding of what belongs to a public court of record, to which all persons have the right of access, and to its records, according to long-established usage and practice. [Emphasis added.]

It will be noted that, while the question of whether or not it was necessary that the party seeking access to the court records have a direct or substantial interest in the records was not at issue in the case, the court used language indicating the negative of this question. The court was clearly of the opinion that all persons, regardless of a showing of special interest, had access thereto. The fact that the italicized portion of its opinion so closely resembles the wording of a case cited by the court (*Brewer v. Watson*, 71 Ala. 299 (1881), in which it was stated that no interest need be shown where it is desired to obtain access to judicial records) is confirmatory of this conclusion. The reasoning of the Drawbaugh case was subsequently adopted in the Sackett case, supra, decided by this court on a set of facts similar to those in the Drawbaugh case except that the motion to seal the record was made after the court's decision on the merits had been rendered.

In the Sackett case, this court stated:

Distinction has long been made between the requirements of secrecy relating to judicial records and those which are merely official records. Distinction has also been made in some cases between the right to inspect judicial records before trial and the right to inspect the record of the court after trial. We know of no authority which would warrant a court such as this one in making an order denying public inspection of its records in a case like the one at bar. [Emphasis added.]

While the language quoted above is not as broad as that used in the Drawbaugh case, it certainly is inconsistent with a narrow interpretation of the words "any applicant."

Thus in two cases, one decided by this court and the other by the predecessor of this court in patent jurisdiction, in each of which a substantially identical rule was involved, the courts ascribed a broad meaning to the phrase "any applicant."

Such an interpretation is consistent with what we feel to be the majority and better rule at common law in regard to judicial records. In *Ex parte Commission of Citronelle v. State ex. rel. Skinner*, 60 So. 812, the Supreme Court of Alabama distinguished between records other than judicial, in which no absolute right of inspection or access existed, and judicial records. Of the latter, the court said:

An inspection of the records of judicial proceedings, kept in the courts of the country, is held to be the right of any citizen. . . .

See also *Brewer v. Watson*, 61 Ala. 310. In *Brewer v. Watson*, 71 Ala. 299, the court stated:

• • • And the individual who claims access to public records and documents (not judicial records, of which, by statute and unvarying usage, the custodian, upon payment of the fee allowed by law, is bound to furnish copies) can properly be required to show that he has an interest in the document which is sought and that the inspection is for a legitimate purpose. . . . [Emphasis added.]

And see *Matter of Stenstrom v. Harnett*, 226 N. Y. S. 338, 131 Misc. 75, aff'd 230 N. Y. S. 23, 224 App. Div. 127, aff'd 164 N. E. 602, 249 N. Y. 606. But see contra *Re McLean*, 8 Rep. 813.

Thus it is clear that [2] at common law, no special interest had to be shown for a member of the public to gain access to judicial records, at least as far as a majority of the courts were concerned. Access to

such records was held to be an unqualified matter of right.¹

In view of the interpretation made by the courts in the Drawbaugh and Sackett cases, supra, and in view of the well established rule that while statutes in derogation of the common law right of inspection should be strictly construed, *Mulford v. Davey*, 186 P. 2d 360, 64 Nev. 506, statutes conferring the right to inspect or use public records should be liberally construed in favor of inspection, *Sosa v. Lincoln Hospital of the City of New York*, 74 N. Y. S. 2d 184, 190 Misc. 448, aff'd 77 N. Y. S. 2d 138, 273 App. Div. 852; *Birenbaum v. Carey*, 22 N. Y. S. 2d 722, 175 Misc. 351, ([3] in view of the fact that the rules of this court have the force and effect of law, we are of the opinion that the foregoing rules of construction should apply to them with equal force as they do to statutes) we are of the opinion that [4] the words "any applicant" in Rule 1(3) refer to any member of the public who applies to the clerk, viz: they are equivalent to "any person."

The reasoning in the Drawbaugh case, supra, makes it evident that it is immaterial to the decision of a case such as this that the case has not yet been heard by the court.

As aforesaid, Rule 1(3) must be read in the light of Rule 1(1). Any reasonable interpretation of Rule 1(1) would hold it to be coextensive with Rule 1(3), for it would be somewhat ludicrous to hold, under the former, that only actual parties litigant to the suit (or, at best, parties showing some special interest in the records) may have access to any copy of the records whereas any person might apply to the clerk to have him take positive action to furnish a copy of any desired paper on file in a given case.

For the foregoing reasons, the motion of petitioner is granted. He will be assessed in accordance with the provisions of Rule 5.

MOTION GRANTED.

U. S. Court of Customs and Patent Appeals

IN RE GILMONT

No. 6292, Decided November 22, 1957

[— CCPA —; — F.2d —; — USPQ —]

1. PATENTABILITY—PARTICULAR SUBJECT MATTER—LIQUID-DISPENSING BOTTLE.

Claims to a liquid-dispensing bottle held properly rejected as unpatentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 197,667.

AFFIRMED.

A. A. Orlinger for Gilmont.

Clarence W. Moore (Arthur H. Behrens of counsel) for the Commissioner of Patents.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY, RICH and JACKSON (retired), Associate Judges

JOHNSON, Chief Judge, delivered the opinion of the court.

This is an appeal from a decision of the Patent Office Board of Appeals, rejecting claims 2 to 9 inclusive as unpatentable over the prior art, in appellant's

¹ We are not unmindful of the fact that in isolated cases, reason may appear for the invocation of a secrecy order, such as in an atomic energy case decided by the District Court of the District of Columbia, discussed in a news article in the *Washington Post* for Saturday, April 20, 1957, at page 8. However, no such reason appears in this case.

application No. 197,667, filed November 27, 1950, for "Dispensing Device." No claims stand allowed.

Claims 2 and 9 are representative of the appealed claims and read as follows:

2. A bottle as claimed in claim 9, wherein the entire wall of the body of the bottle is resiliently deformable and compressible and the diameter of the vent in the delivery tube is between about two and one-half one-thousandths and about one one-hundredth of an inch.

9. A liquid-dispensing bottle operable entirely by the one hand in which it is held and comprising a resiliently deformable, hollow body to hold the liquid to be dispensed and adapted to permit transmitting pressure on the liquid merely from pressure applied by the hand by which the body of the bottle is held, a one-piece liquid-delivery tube, with part protruding from, and the rest extending through fluid-tight connection with, said body of the bottle to a point in its interior below the surface of the liquid to be held in it, and a small vent hole in the delivery tube connecting its hollow with the gas space in the bottle above the surface of the liquid to be held in it, said vent hole being of such size as to retain liquid in it while operating pressure is being applied to the bottle and to release liquid when the pressure is released, and through which vent the pressure over the liquid held in the bottle equalizes with that of the atmosphere outside of the bottle as any difference develops between them when no liquid is being dispensed from the bottle, the bottle body being otherwise completely closed and having its interior inaccessible to the atmosphere, said bottle being thus adapted to deliver a non-pulsating and non-spattering stream of liquid when pressure is applied to the bottle by the hand in which the bottle is held.

The invention relates to a dispensing device whose body is in the shape of an ordinary bottle and which is constructed of a resiliently deformable material such as polyethylene. A cap closes the bottle and running through said cap, in close-fitting relationship therewith, is a tube extending inside the bottle to the bottom thereof, whose outer end is in contact with the atmosphere. The tube is provided with a small aperture at a point high enough on that portion of the tube which is inside the bottle so that it will communicate with the air space in the bottle above the level of the liquid which is to be placed therein. As set forth by appellant, the size of this aperture is large enough to permit the passage of air therethrough (when the device is not in operation) for the purpose of equalizing the pressure on the outside of the bottle with the pressure on the interior of the bottle (to prevent seepage of liquid through the tube) and yet small enough to prevent the ingress of air therethrough when the device is operated. Appellant claims that by virtue of the latter characteristic, the liquid running up through the tube, by virtue of its surface tension, actually seals the aperture (viz: the aperture retains liquid therein) and precludes the possibility of obtaining a spattering stream of fluid from the nozzle of the tube which would result from the ingress of air were the aperture not sealed. Appellant describes his stream as "non-pulsating" and "non-spattering." Various modifications appear in several of the claims which will be discussed at a later point in this opinion.

The references relied upon are:

Starkey, 7,276, April 9, 1850.

Elias, 879,951, February 25, 1908.

Saugman, 1,715,429, June 4, 1929.

Schopmeyer, 2,531,745, November 28, 1950.

The Saugman patent, which is the principal reference relied upon, discloses a dispensing device consisting of an attachment for a glass jug or bottle such as is commonly used in distributing beverages and syrups and fruit juices for the making of beverages. The attachment comprises a cap (which is to be screwed onto the neck of the bottle or jug), a deformable bulb attached to the top of the cap, the interior of which communicates with the air space above the

surface of the liquid in the bottle through a port in the cap, and a conduit in said cap consisting of two communicating pipe-like elements, one of said elements projecting horizontally out from the cap and the other projecting downwardly from the cap, the latter being of such length that in use it will project down almost to the bottom of the bottle. A small aperture is located in the conduit at approximately the same point relative to the cap and the bottle as in appellant's device. Saugman describes the purpose of this aperture as follows:

"... I provide a small opening 45 near the upper end of the feed pipe 18 which opening allows passage of air between the interior of the pipe 18 and the interior of the container 10 above the liquid therein but does not allow any substantial amount of liquid to escape when the device is operated. This small hole 45 is a very important feature of the device, for if it were not for this opening or hole, pressure developing in the bulb and in the container above the liquid due to heat or any other cause would cause the liquid to rise in the tube 18 and possibly discharge through the spout 19 when not desired.

The patent to Starkey, insofar as pertinent, discloses an oil can comprising a bottle having a flexible body and a cap which is designed to receive a tube which extends into the can at one end and is exposed to the atmosphere at the other.

The patent to Elias, insofar as pertinent, discloses a device similar to that shown by Saugman except that the liquid conduit at its outer end is bent through approximately 130°. Near the small aperture in the conduit within the bottle and slidably mounted on the conduit is a sleeve designed to be movable over the aperture when desired. When the sleeve is not covering the aperture and the device is used, air is forced through the aperture and, mixing with the fluid rising through the conduit, forms a spray at the nozzle. When the sleeve covers the aperture, a "single jet" or solid stream of liquid is obtained when the device is in use.

The patent to Schopmeyer, insofar as pertinent, discloses a spray atomizer comprising a flexible squeeze bottle made of polyethylene.

The Board rejected claims 2, 3, 5, 6 and 9 as unpatentable over Saugman in view of Starkey, holding that there would be no invention in dispensing with the bulb of Saugman and making the body of the bottle of compressible material as taught by Starkey. As to the aperture in Saugman's conduit, the Board said: "... The purpose of the aperture disclosed in Saugman appears to be substantially the same as that of appellant and, if the particular size specified by appellant in claim 2, for example, is necessary to accomplish the result sought by both appellant and Saugman, it must be presupposed that the aperture 45 of Saugman will at least approximate the size specified in claim 2. Any difference in the size of the aperture 17 of appellant and the aperture 45 of Saugman would only be a matter of degree."

Notwithstanding appellant's argument to the contrary, we are of the opinion that the Board's rejection as to claims 2, 3, 5, 6 and 9 must be affirmed. Saugman shows a device unquestionably similar to appellant's. Though Saugman's bottle is constructed of a non-resilient material, we agree with the Board that it would not involve invention to modify Saugman by constructing the bottle of a resilient material as suggested by Starkey. With such modification, the flexible bulb of Saugman would obviously be an unnecessary appendage to the device and would be dispensed with. We are not swayed by appellant's argument that Saugman contemplated using his device in connection with bottles and jugs "commonly found at soda fountains" and that since "such jugs are commonly of a size to

hold at least a gallon of syrup or beverage" they would be too bulky to be compressed by the hand of the operator (as would be necessary were the compressible bulb of Saugman to be dispensed with and replaced by a resilient bottle). While Saugman appears to have been specifically concerned with such an environment, the general teachings discussed above are not so limited. Nor are the problems with which Starkey and Saugman are concerned so different, at least with respect to the flexible means by which pressure is applied, that a combination of the teachings thereof would be improper.

Appellant's main contention, however, relates to the alleged criticality of the size of the aperture in his device. He urges that in addition to its being large enough to permit pressure equalization when the device is not in use, it must be small enough to retain liquid in it when operating pressure is applied to the bottle (so that no air will pass through it); that Saugman contains no comparable teaching (which deficiency is not supplied by Starkey); that Saugman, in fact, teaches the converse of this inasmuch as Saugman states that the aperture in his device "... allows passage of air between the interior of the pipe 18 and the interior of the container 10 above the liquid therein but does not allow any substantial amount of liquid to escape when the device is operated. ... " [Emphasis added.] As to the latter point, appellant is apparently of the opinion that the italicized portion of Saugman was intended by the patentee to modify all of the quoted portion preceding it, viz: that air will pass through the aperture "when the device is operated."

We do not agree with appellant's construction of the limiting effect of the words "when the device is operated," for we are of the opinion that Saugman's disclosure, when taken as a whole, makes obvious the fact that the quoted phrase was intended to modify only the words "but does not allow any substantial amount of liquid to escape," and not those words immediately preceding said words. It is true, however, as appellant asserts, that the patent to Saugman cannot be so construed as to positively embrace the two problems with which appellant was faced, viz: providing an aperture large enough to allow pressure equalization and yet small enough to retain liquid in it and thus prevent the passage of air through it when operating pressure is exerted on the bottle. At best, Saugman was concerned only with the former problem. We are of the opinion, however, that having the Saugman reference before him, it would be obvious to the skilled artisan to do what appellant did.

It has long been known to those skilled in the art that when pressure is applied to a body of liquid in a system such as that disclosed by Saugman (pressure at the same time being exerted directly through the aperture) some air will pass through the aperture. Whether the air is drawn through the aperture by virtue of what is commonly known as an aspirating effect or is forced through by virtue of the positive pressure exerted directly at the aperture it is not

¹ The Solicitor's contention that the aforementioned statement in Saugman that his aperture "does not allow any substantial amount of liquid to escape" is fully equivalent to appellant's provision for an aperture small enough to "retain liquid in it" is not well taken. Even in the Elias patent, where the vent is open and air rushes into the conduit to cause a spray, no liquid will escape.

necessary to decide. It was clear, however, that if the hole were large enough, the air passing through such opening would tend to cause the liquid to form a spray when passing out of a nozzle at the end of the conduit. The Elias disclosure is testimony of this fact. It is evident, therefore, that one desiring to obtain the benefits of the Saugman disclosure (viz: to provide an aperture to equalize pressures) and yet, at the same time, to obtain a relatively non-pulsating stream, would experiment by progressively decreasing the size of a given aperture (to decrease the amount of air that would be sucked through it during operation of the dispensing device) until such point was reached that the hole was no longer larger than would be necessary to allow pressure equalization when the device was not in operation.

Nor is it sufficient to argue that the invention resides in the mental or creative concept leading to the instant dispensing device. While it is true that, in some cases, the concept of doing a thing must be considered along with the actual steps of doing it in considering the presence or absence of invention, *In re Bisley*, 39 CCPA (Patents) 982, 197 F.2d 355, 94 USPQ 80; *In re McKenna, et al.*, 40 CCPA (Patents) 937, 203 F.2d 717, 97 USPQ 348; *In re Pennington*, 44 CCPA (Patents) 789, 241 F.2d 750, 113 USPQ 81, this rule does not aid appellant in the instant case. At best, appellant recognized that, while it would be desirable to provide an aperture for the purpose of equalizing pressures, one could not obtain a non-pulsating stream due to the ingress of air through the aperture when the device was in operation. This much, however, was obvious to the skilled artisan, as has been heretofore pointed out. It is clear, therefore, that invention resided neither in appellant's conception nor in his devised means for reducing said conception to practical use.

Nor does the Elias disclosure teach away from the conclusion we have reached. Though Elias discloses only two conditions, one with the aperture open and one with the aperture completely closed (the former providing a spray, the latter a steady stream), this is not a teaching in the prior art that a steady, non-pulsating stream could not be obtained with the aperture "partially" open. Elias was not concerned with equalization of pressures when his device was not in operation. For this reason, if a steady stream was desired, there was no reason to have any portion of his aperture exposed.

For the foregoing reasons, the Board's rejection of claims 2, 3, 5, 6 and 9 is affirmed.

Claim 4 recites that the portion of the tube protruding from the cap extends substantially radially and parallel to the bottom of the bottle and was rejected by the Board as unpatentable over Saugman in view of Starkey and Elias. The latter patent was used merely to show the expedient recited in this claim. The Board noted, as well, that Saugman disclosed this feature. We agree that this claim does not patentably define over the references cited.

Claim 7 recites that the bottle, the cap and the delivery tube are of polyethylene and was rejected by the Board as unpatentable over Saugman in view of Starkey and Schopmeyer, the latter patent having been used to show the polyethylene construction. We

agree with the Board that no invention would reside in constructing the bottle of Saugman out of polyethylene as taught by Schopmeyer.

Claim 8 depends upon claim 9 and adds thereto the feature that the end of the delivery tube is sealed. This claim also recites that a liquid solution is contained in the sealed bottle. The Board rejected this claim as unpatentable for the reasons and over the references applied against claim 9 adding thereto the observation that it would be obvious to seal the delivery tube of either Saugman or Starkey if one so desired. With this view we agree. It is therefore unnecessary to consider the additional rejection of claim 8 as being indefinite.

For the foregoing reasons, the decision of the Board of Appeals is affirmed.

AFFIRMED.

JACKSON, J., retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

IN RE ROWAN

No. 6291. Decided November 22, 1957

[—CCPA—; —F.2d—; —USPQ—]

1. PATENTABILITY—PARTICULAR SUBJECT MATTER—HOT WATER HEATER CABINET.

Claims to a hot water heater cabinet held properly rejected as unpatentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 143,931.

AFFIRMED.

L. Aubrey Goodson, Jr. and Fisher & Christen for Rowan.

Clarence W. Moore for the Commissioner of Patents.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY, RICH and JACKSON (retired), Associate Judges

O'CONNELL, J., delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the rejection by the Primary Examiner of claims 8, 9 and 11, which are the only remaining claims in appellant's application No. 143,931 for a patent on a hot water heater cabinet.

Claims 8 and 11, which are representative of the appealed claims, read as follows:

8. A cabinet for a hot water heater, comprising front and side walls and a back wall, said back wall comprising a pair of parallel spaced apart panels in the same plane, and a middle, inwardly inset panel positioned between the two side panels, said three panels cooperating to define an inset recess, extending for substantially the full height of the cabinet, for accommodating vertically extending pipes adapted to be connected to the top of a heater adapted to be housed in said cabinet, the depth of said recess being sufficient to accommodate said pipes so as to permit the two parallel back panels to rest flush against a wall, the upper part of said middle panel being formed to accommodate horizontally extending pipes adapted to be connected to a heater adapted to be housed in said cabinet, and a detachable cover cooperating with the upper edges of the side walls of the cabinet.

11. A cabinet and tank assembly comprising a cabinet, a tank in said cabinet, tank pipes leading from said tank to positions within the cabinet adjacent the top thereof, means at the ends of said pipes for forming a part of connections with said service pipes at said positions, said cabinet comprising front and side walls and a back wall, said back wall comprising a pair of parallel spaced apart panels in the same plane, and a middle, inwardly inset panel positioned between the two side panels, said three panels cooperating to define an inset recess, extending for substantially the full height of the cabinet, for accommodating vertically extending service pipes adapted to be connected with said tank pipes, the depth of said recess being sufficient to accommodate said pipes so as to permit the two parallel back panels to rest flush against a wall, the upper part of said middle panel being formed to accommodate horizontally extending portions of the service pipes adapted to be connected to said tank pipes, and a cover cooperating with the upper edges of the side walls of the

cabinet, said cover being provided with guide means slidably engaging the upper edges of the side walls of the cabinet.

The references relied on are:

Quinn, 1,202,222, October 24, 1916.
Kraemer, 1,582,881, April 27, 1926.
Midnight, 1,946,029, February 6, 1934.
Hazeltime, 2,043,540, June 9, 1936.
Groeniger, 2,240,904, May 6, 1941.
Craig, 2,243,249, May 27, 1941.

Appellant's application discloses a water heater enclosed in a cabinet which includes flat front and side walls and a rear wall comprising two spaced panels and an intermediate panel which is set inwardly to provide a recess opening toward the rear so that the cabinet may be placed flush against a wall with the service pipes, which supply water to and remove it from the heater, being received in the recess. As shown, the ends of those pipes project horizontally into the cabinet above the heater and are connected there with the heater pipes. The cabinet is provided with a slidable cover which may be removed when the heater pipes are to be coupled to or uncoupled from the outer pipes.

The Board of Appeals found the patents to Kraemer, Midnight and Groeniger to be merely cumulative and placed no reliance upon them. Accordingly those patents need not be considered here.

The patent to Craig, which is the basic reference relied on by the Examiner and the Board, shows a water heater enclosed in a cabinet having flat front, rear and side walls, and a removable cover. The heater pipes extend horizontally above the top of the heater and through the rear wall, where they are adapted to be connected to the outside pipes. The cover of the cabinet is provided with a marginal flange arranged to overlap the upper portions of the outer sides of the vertical walls.

The patents to Quinn and Hazeltime disclose, respectively, a sink and a shower cabinet provided with recessed rear walls, so that they may be placed flush against a vertical wall, with the supply pipes being received in the recesses.

It was the position of the Examiner and the Board that it would not require invention, in view of Quinn or Hazeltime, to provide a pipe-receiving recess in the rear wall of the Craig cabinet. We are in agreement with that position. The problem of providing space for receiving supply pipes is the same regardless of the specific use of the device with which they are associated. The Quinn and Hazeltime patents clearly recognize the desirability of providing a pipe-receiving recess to permit the wall of such a device to be placed flush against a wall of a building, and it would be obvious to a skilled worker that the Craig cabinet could be provided with a recess in its rear wall for that purpose. No new or unexpected result would be produced by such an arrangement.

The provision of a vertical recess of the kind just described in the rear wall of the Craig heater would produce a structure satisfying all the requirements of appealed claim 8, and it follows that that claim was properly rejected.

Claim 9 adds to the combination of claim 8 the statement that the cover of the cabinet is provided with guide flanges slidably engaging with the upper edges of the side walls of the cabinet. As above noted, Craig

provides such a structure in the form of a marginal flange on his cover and accordingly claim 9 also fails to distinguish over the Craig structure when modified as above suggested.

Claim 11 differs from claims 8 and 9 in that it is drawn to the combination of a tank and cabinet and, in addition to the cabinet structure of the former two claims, it recites that the tank pipes terminate at positions within the cabinet and are connected with the service pipes at such positions. The drawing of the Craig patent shows the tank (heater) pipes extending to positions outside the cabinet, where they are connected to the service pipes, but the specification states that "the arrangement of the connections may be otherwise than as above described, the latter being merely one of the designs applicable to the use of the invention." Moreover, as noted in the Examiner's statement, Craig states that one object of his invention is to provide a unit in which all connections "will be completely concealed within the cabinet," which indicates the possibility of connecting the tank and service pipes at points inside the cabinet. We are of the opinion that the provision of such connections in the Craig device would be nothing more than an obvious expedient and that claim 11, as well as claims 8 and 9, was properly rejected on the references relied on by the Board.

The decision of the Board of Appeals is affirmed.

AFFIRMED.

JACKSON, J., retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

IN RE AGGER

No. 6308. Decided November 22, 1957

[—CCPA—; —F.2d—; —USPQ—]

1. PATENTABILITY—INVENTION—MAKING RUBBER GASKETS LARGER THAN SPACE IS OBVIOUS.

"When using rubber gaskets it is about as obvious an expedient as can be imagined to achieve a tight fit by making the rubber a little bigger than the space, as a cork is made bigger than the neck of a bottle and for the same reason."

2. SAME—RECITAL OF INHERENT PROPERTY OR RESULT FLOWING FROM STRUCTURE ALREADY FOUND UNPATENTABLE.

"Appellant has built up an argument . . . based on the fact that when his seal is placed in position and his gasket is consequently squeezed, the rubber is forced axially outwardly and is adapted for endwise sealing engagement with the confronting face of an associated bearing race or other insert in the bore." . . . All it means is that the seal, in position, has an annular rubber surface which could abut a shoulder or the like. We see such rubber surfaces in all three of the references though they fail to mention their obvious presence. Insofar as this function is mentioned in the claims it is as a mere recital of an inherent property or result flowing from the use of a structure we have already found to be unpatentable. It avails applicant nothing."

3. SAME—PARTICULAR SUBJECT MATTER—OIL SEAL FOR USE BETWEEN BORE AND SHAFT.

Claims to an oil seal to be used between a housing bore and a rotating shaft held properly rejected as unpatentable over the cited prior art.

APPEAL from the Patent Office. Serial No. 148,709.

AFFIRMED.

Cromieell, Greist & Warden (Raymond L. Greist of counsel) for Agger.

Clarence W. Moore (George C. Roeming of counsel) for the Commissioner of Patents.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY,

RICH, and JACKSON (retired), Associate Judges

RICH, J., delivered the opinion of the court.

This is an appeal from the decision of the Patent Office Board of Appeals affirming the Examiner's final rejection of claims 5 through 8 of appellant's application Serial No. 148,709, filed March 9, 1950, directed to oil seals. No claims have been allowed.

Claim 5 is illustrative of the appealed claims:

5. In a seal of the character described for press-fit installation, a centrally apertured sheet metal cup for metal-to-metal press-fit insertion in a bore about a shaft, said cup containing an annular packing member for coaction with the shaft, and said cup having its rim inwardly offset a substantial distance at one end for a portion only of its length, and a thick annular gasketing member of substantially non-compressible but resiliently deformable solid rubber-like material, which gasketing member is of slightly larger outside diameter than the large diameter press-fit portion of the rim of the cup, said gasketing member being bonded along its inner periphery to the small diameter portion of the rim in rigidly backed association with the latter and in endwise abutment at one of its ends with the large diameter end of the rim, and said gasketing member terminating at its other end substantially flush with the corresponding end of the small diameter portion of the rim and being unconfined substantially throughout its thickness at its said other end for free endwise deformation in that direction. [Emphasis ours.]

The references relied on were:

Victor, 2,208,482, July 16, 1940.

Moxon (British), 569,821, June 11, 1945.

Clayton-Wright, 2,434,686, January 20, 1948.

The alleged invention is directed to oil seals to be used between a housing bore and a relatively rotating shaft passing therethrough.

Applicant alleges in his specification that it was formerly the practice to provide such seals with cylindrical metal casings for installation with a press fit into the situs of use which had certain disadvantages, particularly oil leakage between the metal-to-metal contact surfaces. This, he said, was a problem others attempted to solve by using metal shells smaller than the housing bore and provided with a rubber-like rim to seal against the bore wall. This in turn is said to have had the disadvantage of loosening with time. He proposes a construction which allegedly retains the advantages and eliminates the disadvantages of each of the acknowledged prior art constructions.

The disclosed structure has the same sleeve-type shaft seal, for which no novelty is claimed, enclosed in a casing structure which differs in having a shorter than usual cylindrical metal portion for insertion in a bore with a press fit, adjacent which is a stepped down or smaller diameter cylindrical portion on which an annular sealing gasket is mounted. A radial web portion joins the large and small cylindrical casing sections and the gasket rests on the small one abutting the web, being bonded to the adjacent metal surfaces. The only structural feature on which patentability is seriously predicated is the making of the gasket (to use the italicized language of claim 5 quoted above) "of slightly larger outside diameter than the large diameter press-fit portion of the rim of the cup." Both parts are inserted, in use, into the same bore.

It seems very clear to us that if an annular gasket is to be used to create a fluid seal in an annular space, the gasket must perform fit tightly in the space. [1] When using rubber gaskets it is about as obvious an expedient as can be imagined to achieve a tight fit by making the rubber a little bigger than the space, as a cork is made bigger than the neck of a bottle and for the same reasons. This is what applicant did.

When the seal unit is press-fitted in a bore the annular gasket member is placed under pressure and the resulting distortion produces a slight axial projection of its outer periphery or free end beyond the plane of the end of the small diameter portion. The excess rubber, which is incompressible, must go somewhere and the free end of the gasket bulges out.

In the above structure, the press-fit of the sheet metal cup, or casing, has the function of keeping the unit as a whole in place while the rubber gasket member serves as a fluid sealing means and no doubt aids the securing function.

The Moxon British patent discloses an oil seal for use between a shaft and the bore of a housing. The seal consists of a sheet metal casing having two cylindrical portions of different diameters, a radial web joining them, and an annular rubber gasket member bonded to the exterior of the small diameter portion and to the web. Applicant's attorney admitted at oral argument (and he could not have done otherwise) that Moxon falls short of disclosing the claimed structure only in not having an explicit disclosure that his rubber gasket is of greater diameter than his metal shell. Even without this admission, we would hold that the Moxon reference meets every positive structural limitation of the claims except that requiring the diameter of the annular gasket member to be of a greater diameter than that of the cylindrical shell portion of larger diameter.

The Victor patent discloses a similar seal whose metal casing has two cylindrical portions of different diameters with an annular rubber member vulcanized to the exterior of the small diameter portion. It is a somewhat closer reference than Moxon in that it has some things to say (as Moxon does not) on the sealing effect of the rubber member, which we will assume, arguendo, is not disclosed to be of any greater diameter than the shell. For example:

The fact that the resilient material . . . is also slightly compressed on application and which, furthermore, acts as

a cork does when being positioned in a bottle, will eliminate and completely seal against any possible leaks which might occur between the adjacent metal portions.

With a teaching such as this, and there are others in the patent, we can see nothing unobvious in thickening the rubber gasket to make an even tighter seal if such should be desired.

But the question of unobviousness is put beyond a doubt in our minds by the Clayton-Wright patent disclosing a shaft seal comprising a metal plate having a press fit in a shaft housing and a rubber seal bonded to the plate having a greater diameter than the plate so that its periphery forms a sealing lip "to form a good sealing fit in the housing."

We are bound to conclude that applicant's claimed subject matter would have been obvious to a person having even less than "ordinary" skill in the relevant art and that it is not patentable. 35 U. S. C. 102, 103.

[2] Appellant has built up an argument with much bold face type based on the fact that when his seal is placed in position and his gasket is consequently squeezed, the rubber is forced axially outwardly "and is adapted for endwise sealing engagement with the confronting face of an associated bearing race or other insert in the bore." Such an effect is barely mentioned in the application as an incidental advantage and is not even illustrated but is now urged as a major feature incapable of production by the structures of the references. All it means is that the seal, in position, has an annular rubber surface which could abut a shoulder or the like. We see such rubber surfaces in all three of the references though they fail to mention their obvious presence. Insofar as this function is mentioned in the claims it is as a mere recital of an inherent property or result flowing from the use of a structure we have already found to be unpatentable. It avails applicant nothing.

[3] The Board of Appeals decision is affirmed.

AFFIRMED.

JACKSON, J., retired, recalled to participate.

REISSUES

JANUARY 21, 1958

Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,418

ELECTRIC WELDING MEDIUM CONTAINING MANGANESE OXIDE, TITANIA, AND SILICA
Clarence E. Jackson, Berkeley Heights, N. J., and Arthur E. Shrubbsall, Niagara Falls, N. Y., assignors to Union Carbide Corporation, a corporation of New York
No Drawing. Original No. 2,755,211, dated July 17, 1956, Serial No. 476,055, December 17, 1954. Application for reissue June 20, 1957, Serial No. 667,733.

2 Claims. (Cl. 148—26)

1. A granulated welding medium containing 15% to 28% silica; [20%] 17.74% to 35% titania; up to 7.5% alumina; up to about 7.5% in the aggregate of at least one oxide selected from the group consisting of iron oxide (FeO), lime (CaO) and magnesia (MgO); up to 1% vanadium pentoxide; up to 5% calcium fluoride; the remainder manganese oxide (MnO) and incidental impurities, the composition of the medium being so balanced that the manganese oxide content is 40% to 50%.

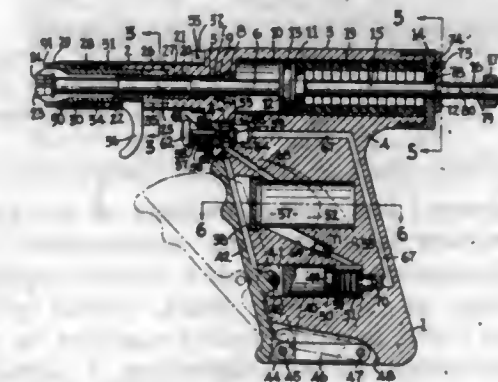
24,419

INOCULANT INJECTOR INSTRUMENT
Frank Zihnerl, Euclid, and Arthur S. Kish, Mayfield Heights, Ohio, assignors, by mesne assignments, to Geoffrey W. Walker, Frank Zihnerl, and Louis A. Zihnerl, Cleveland, Ohio
Original No. 2,687,724, dated August 31, 1954, Serial No. 147,166, March 2, 1950. Application for reissue August 8, 1955, Serial No. 527,186.

19 Claims. (Cl. 128—173)

1. In an injector instrument, the combination of a cylinder, a piston slidably mounted in said cylinder, a

fluid pump communicating with said cylinder and effective to cause displacement of said piston, a spring engaging said piston and energizable in response to said displacement of said piston, a plunger secured to said piston and movable therewith, an inoculant-charged body dis-



posed in the path of movement of said plunger, and valve means communicating with said cylinder and operable to recirculate the fluid from said cylinder to said pump and release the pressure in said cylinder whereby said plunger is displaced by the action of said spring.

PLANT PATENTS

GRANTED JANUARY 21, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,675

ROSE PLANT
Robert G. Jelly, Richmond, Ind., assignor to E. G. Hill Co., Inc., Richmond, Ind., a corporation of Indiana
Application May 20, 1957, Serial No. 660,434
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant of the poly-

antha class, substantially as herein shown and described, characterized particularly as to novelty by its vigorous and upright habit of plant growth, its attractive foliage, its reduced cluster habit, its clean, free buds of exceptionally good color, its dark and brilliant red blooms, and the excellent keeping quality of its blooms as cut flowers.

PATENTS

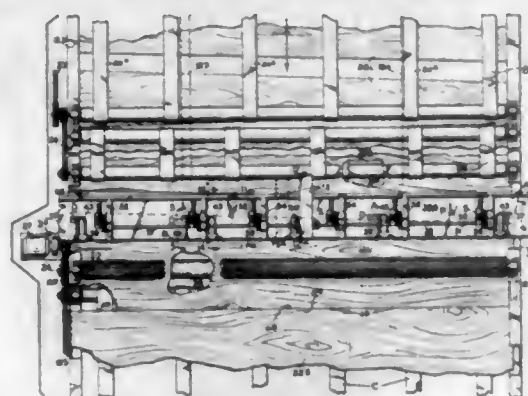
GRANTED JANUARY 21, 1958

GENERAL AND MECHANICAL

2,820,223

VEENER JOINING EDGE STAPLERS

Rudolph C. Rydberg and Emil A. Herman, Westfir, Oreg.
Application April 3, 1956, Serial No. 575,821
5 Claims. (Cl. 1-165)

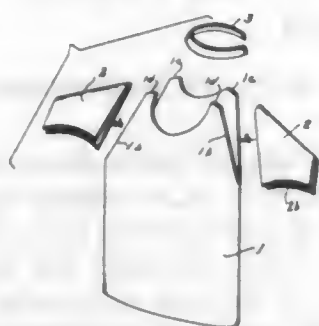


1. In a plywood laminating machine of the type including conveyors for conveying un laminated veneer panels to a laminating mechanism a veneer stapling device comprising an elongated beam, means pivotally mounting said beam in said stapling machine to extend generally transversely of said conveyors, a plurality of veneer staplers secured to said beam, means on said beam for contacting the leading edge of said veneer panel and pivotally adjusting said beam to align said beam with the joining edges of the veneer, and means actuated by the movement of veneer through said machine for operating said staplers.

2,820,224

T SHIRT SLEEVE CONSTRUCTION

Warren H. Pottelger, Temple, Pa., assignor to Lyons Knitwear Inc., Temple, Pa.
Application November 6, 1956, Serial No. 620,693
1 Claim. (Cl. 2-113)



A knit T undershirt comprising a one piece tubular knit body portion having arm and neck openings formed at one end thereof, a neckband secured to said neck opening, said tubular body portion having vertically extending ribs, the arm openings being angularly related to the axis of the body portion, the upper edge portions of the arm openings being spaced from the outer edge portion of the neck opening to form narrow shoulder covering portions, the front and back parts of the shoulder covering portions being connected together by a shoulder seam, short sleeve portions, each having ribs extending longitudinally of the axis of the sleeve and having an attaching edge disposed at an acute angle relative to the axis of the sleeve, the said attaching edge of each sleeve and the edge of each arm opening being secured together, the

446

ribs of each sleeve portion and the ribs of the body portion extending substantially at right angles to be transmitted directly to the neckband by the seams, since they are directly connected to the neckband.

2,820,225

ELBOW PATCH

Dorothy J. Spannagel, Forsyth, Mont.
Application December 27, 1954, Serial No. 477,663
1 Claim. (Cl. 2-122)

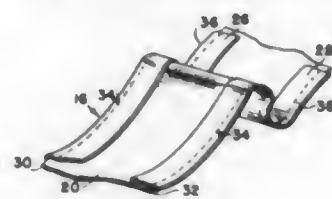


In a garment, a tubular sleeve, a cuff on the free end of the sleeve, said sleeve and cuff having an entrance opening extending inwardly from the free ends and provided with overlapping edges, fastening means on the cuff retaining the entrance opening in closed relation with the edges overlapped, an elbow patch attached to the outer surface of said sleeve with one end thereof secured to the free end of the sleeve with the other end stitched to the sleeve in spaced relation to the inner end of the entrance opening, said patch having an inwardly extending slit generally coextensive with the entrance opening in the sleeve, the edges of the entrance opening in the sleeve being continuous and reversely bent and overlying the edges of the slit in the patch, each of the edges of the entrance opening being formed by a piece of facing material stitched to an edge of an entrance slit in the tubular sleeve with the piece of material being disposed in reversely bent relation along a longitudinal axis by a single row of stitching for securing the edges of the slit in the patch between the sleeve and the outer layer of the reversely bent material forming said entrance opening edges, said single row of stitching being disposed at the free edge of the outer layer of the reversely bent material thereby forming seamless inner edges on said entrance opening and forming a smooth external surface on the sleeve.

2,820,226

SWEAT BANDS FOR HATS AND CAPS

Philip Topiel and Pincus Topiel, Bronx, N. Y.
Application February 11, 1955, Serial No. 487,606
2 Claims. (Cl. 2-181)



1. A composite band for use as a sweat band for hats and caps, said band comprising a strip of woven fabric material which is bias cut to make the same somewhat extensible, said strip being smooth and flat for comfortable direct contact with the head of the wearer, and a strip of flexible and resilient imperforate continuous sheet ma-

JANUARY 21, 1958

GENERAL AND MECHANICAL

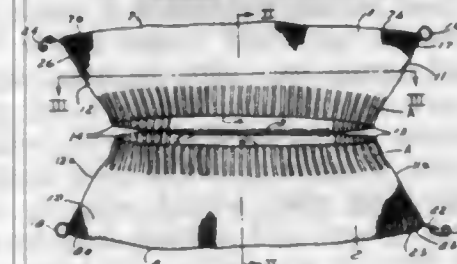
447

terial positioned on the fabric material in face-to-face relation, said imperforate strip being at least as wide as the composite band, said woven fabric material being wider than the composite band in order to provide marginal portions, said marginal portions being folded over the imperforate strip to provide the desired band width, the imperforate strip and the fabric material and the folded over marginal portions being secured together by lines of extensible stitching extending longitudinally of the band, adjacent the side edges thereof.

2,820,227

TURBAN

Sigmund Wiener, Lucerne, Switzerland
Application September 26, 1955, Serial No. 536,561
3 Claims. (Cl. 2-198)

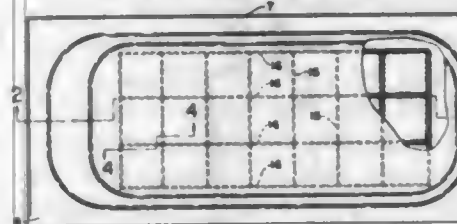


1. A headgear, comprising: a pair of similar panels formed from flexible and resilient material, each panel having a pair of substantially parallel longitudinal edges and being folded upon itself along a line substantially parallel with, and approximately midway between, its said longitudinal edges to form a pair of envelopes; means tending to contract said parallel edges in each said panel; means securing a portion of one of said pair of parallel edges of said one panel to a portion of an adjacent said parallel edge of said other panel; and inter-engageable fastening means secured to opposite ends of each said panel near the fold line therein.

2,820,228

BATHTUB WITH REINFORCING MEANS

Clarence J. Rodman, Alliance, Ohio
Application July 1, 1957, Serial No. 669,374
14 Claims. (Cl. 4-173)



12. A bath tub with a bell drawn from sheet metal, said bell being too thin to support the load it is intended to support, the exterior of the bell being porcelain-enamelled, and spaced reinforcement means on the exterior of the bell effective to reinforce the entire bottom of the bell, said reinforcement means being embedded in the porcelain enamel whereby the bell is capable of supporting the load it is intended to support, the tub being adapted to be supported by its rim with the bottom of the reinforcement of its bell above the floor.

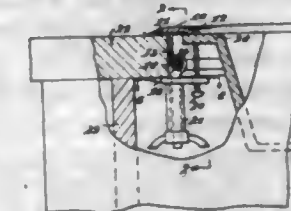
2,820,229

SINK RIM

John Homer Opstad, Austin, Minn.
Application August 2, 1955, Serial No. 525,866
1 Claim. (Cl. 4-187)

A sink rim comprising a strip of material arcuate in cross section having a depending web positioned intermediate of the edges and having a bead on the lower edge of the web, an elongated rod having a threaded lower end and having a finger for gripping the bead of the web of the rim on the upper end, said rod having

flat sides, a jaw having a rectangular shaped opening therethrough slidably mounted on the rod with the rod extended through the opening and said jaw being positioned to coact with one side of the rim for clamping the rim against the upper surfaces of a panel and a flange

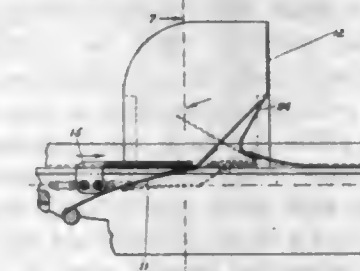


of a sink, a set screw threaded in the jaw and positioned to engage the under surface of the flange of the sink, an elongated spacing sleeve positioned on the rod, and a nut threaded on the lower end of the rod, said nut being positioned in a plane substantially corresponding with that of the bottom of the sink.

2,820,230

MACHINE FOR CASING-IN BOOKS

Thomas G. Maloney and Mathew J. Morris, Washington, D. C., and Louis J. Naecker, Silver Spring, Md.
Application January 27, 1956, Serial No. 561,959
3 Claims. (Cl. 11-4)
(Granted under Title 35, U. S. Code (1952), sec. 266)

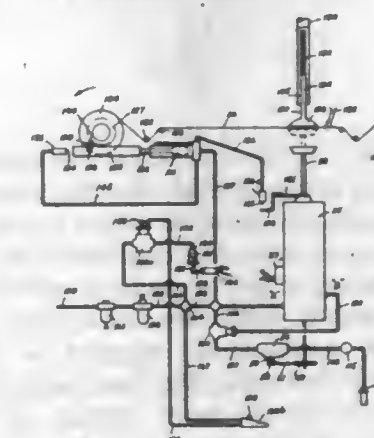


1. In a machine for casing-in books without a joint, comprising a runway, book cover feeder means for feeding book covers into said runway, pusher finger means mounted on an endless drive means for moving said covers along said runway, a paste station located on said runway and adapted to apply paste to the upper surface of said cover, a filler hopper for depositing book fillers, aligned with the trailing edge of said covers, cover turn-over means located in the path of the moving covers for turning over the leading edge of said cover onto the deposited fillers, and presser means for applying pressure to the covered book and for releasing said book as a completed, cased-in book.

2,820,231

MACHINE FOR WIPING AND POLISHING ARTICLES OF MANUFACTURE

Robert B. Way and Carl D. Hersey, Erie, Pa.
Application November 16, 1953, Serial No. 392,152
15 Claims. (Cl. 15-97)



1. A wiping machine for wiping and polishing articles of manufacture comprising a frame, a cloth supported

on said frame, an article carrying means on said frame below said cloth having an article receiving member on the upper portion thereof, a motor rotatably connected to said article carrying means and adapted to rotate an article about its axis, said article carrying means having means connected thereto moving an article supported in said carrying means upward into engagement with said cloth, the portion of said cloth adjacent said article carrying means being supported in generally flat relation and in a plane generally perpendicular to said axis, and means to index said cloth to bring a different section thereof into engagement with the article supported in said carrying means each time said article is brought into engagement with said cloth.

2,820,232

STRAND TYPE MOP WITH EXTRACTING MECHANISM

Peter S. Vosbikian and Thomas S. Vosbikian, Melrose, Pa.
Application March 29, 1955, Serial No. 497,529
8 Claims. (Cl. 15-119)

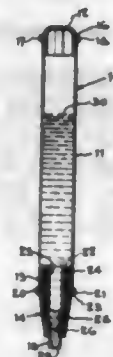


1. In a mop, a mop head, strand material carried by said head, a handle connected with the mop head, an extractor having a head with spaced extracting rolls, one of said rolls being sectional with the sections being in longitudinal alignment and with juxtaposed sections spaced from each other, a handle connected of one end with the extractor head, a guide in which said extractor handle is longitudinally slidable, links pivotally connected at their forward ends with said guide and at their rear ends with said mop handle, and a sleeve slidable on the mop handle and to which the extractor handle near its opposite end is pivoted, whereby, when the said opposite end portion of the extractor handle is pressed towards the sleeve, the guide and links move the extractor handle and extractor head outwardly so that the mop strands are out of the path of the extractor head during its rearward movement.

2,820,233

FOUNTAIN PAINT BRUSH

Albert M. Steiner, Cincinnati, Ohio, assignor to Bromo-Mint Company, a corporation of Ohio
Application September 14, 1953, Serial No. 379,987
1 Claim. (Cl. 15-136)



A fountain paint brush comprising an elongated cylindrical hollow tube made of thin, flexible, plastic material, an end cap permanently secured to the upper end of said tube to seal the same, said end cap made of substantially rigid plastic material, a sleeve made of substantially rigid plastic material seated within the lower end of said tube, said sleeve being permanently secured to said tube in sealing relationship therewith, the inner edge of said sleeve forming a shoulder on the inner surface of said tube, a wick holder made of resilient material, said wick holder having an inner end removably seated within said sleeve in liquid tight relationship, an annular shoulder on said

wick holder engageable with the outer end of said sleeve when the wick holder is seated therein, said wick holder having a convergent-divergent configuration inwardly of the annular shoulder thereof, the minimum diameter of said configuration being located at the shoulder formed by the inner edge of said sleeve to provide a pressure seal, a central bore extending through the center of said wick holder longitudinally thereof, said central bore having an outer portion which is substantially rectangular in cross section and an inner portion which is substantially cylindrical, said cylindrical inner portion of the central bore being substantially larger in diameter than the distance between opposite sides of the rectangular outer portion of said central bore to provide an internal shoulder where said inner and outer portions of the central bore meet, and an elongated wick which is substantially rectangular in cross section and which is made of liquid absorbent material, said wick seated within the outer portion of said central bore with the inner end of said wick above said internal shoulder and the outer end thereof extending to the outside of said wick holder, and the felt from which said wick is made being characterized by expanding when wetted, whereby the inner end of said wick above said internal shoulder swells to lock said wick firmly in place in the wick holder, whereby the engagement of the wick with said internal shoulder and the engagement of said wick holder with the shoulder formed by the inner edge of said sleeve seals said wick and said wick holder in said tube preventing dislodgement therefrom when pressure is applied to said tube to force fluid into said wick.

2,820,234

HAND WASHING TOOL FOR DISHES, MIRRORS AND THE LIKE

Robert M. Rigney, Long Beach, Calif.
Application September 13, 1954, Serial No. 455,723
4 Claims. (Cl. 15-136)



4. In a member for a washing tool: an elastic diaphragm adapted to be stretched taut over a disc-shaped head and maintained thereon in said taut condition, said diaphragm having a slack central portion when said diaphragm is in the taut condition on said head, said central portion having a normally closed slit therein through which fluid may be forced.

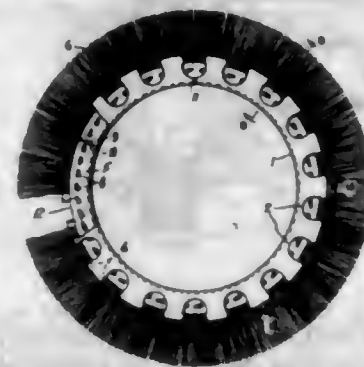
2,820,235

ANNULAR BRUSH ELEMENT

Brooks E. Nelson, Chagrin Falls, Ohio, assignor to The Osborn Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application May 21, 1954, Serial No. 431,483
10 Claims. (Cl. 15-181)

1. As a new article of manufacture, an annular brush element comprising a single circular turn of a length of brush strip having a continuous elongated channel back portion with brush material retained therein and extend-

ing generally radially outwardly of such turn, the two ends of such length of brush strip being directly opposed to each other; and a sheet metal annulus seating the inner periphery of said turn of brush strip, said annulus being of shallow channel form with the sides of such channel embracing the sides of said brush strip back por-

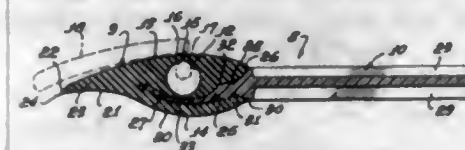


tion, circumferentially spaced extensions of said channel-form annulus extending radially beyond said back portion of said turn of brush strip, and inwardly directed teeth on said extensions penetrating said brush material and closely overlying and engaging the channel edge portions of said back portion of said brush strip.

2,820,236

STEEL WOOL PAD HOLDER

Harl L. Crowther, San Leandro, Calif.
Application August 22, 1955, Serial No. 529,844
7 Claims. (Cl. 15-209)



1. In a scouring pad holder, the combination of: a head of molded rubber forming a resilient backing for a scouring pad, there being a hole extending transversely through said head, said hole lying closer to one face of said head than to the opposite face, the rubber of said body between said hole and the closer of said faces being broken by a slot substantially coextensive with the length of said hole to form a pair of juxtaposed jaws between which a scouring pad may be gripped when said body is deformed to admit said pad between said jaws and then released, said head having a pocket formed therein when said head is molded, said pocket lying in a plane perpendicular to said hole and being curved about an axis parallel with said hole, said pocket extending between said hole and said opposite face of said head, and opening from an edge of said head parallel with said hole; a spring member having a shape similar to that of said pocket and adapted to be inserted in said pocket after said rubber head is molded for reinforcing said head when the latter is flexed to separate said jaws for the insertion of a scouring pad therebetween; and a handle, said spring member being connected directly to said handle and comprising a means for securing said handle to said head.

2,820,237

PAINT BRUSH GUARD

John Maslaney, Cadillac, Mich.
Application December 9, 1955, Serial No. 552,137
3 Claims. (Cl. 15-248)

1. A guard attachment for paint brushes comprising: a handle part adapted to slidably fit over a paint brush handle; a guard part adapted to slidably fit over one face of the bristles of said paint brush; an intermediate part connecting said handle and guard parts; said handle part having a rib forming a spring housing; an elongated helical

spring in said housing; means for securing said spring in said housing to said handle part; and means for securing



said spring to said brush handle whereby said guard part is biased to operative position over one face of said bristles.

2,820,238

WIPERS FOR WINDSHIELDS SEVERELY CURVED IN PART

Arthur C. Roth, deceased, late of Lebanon, Ind., by Laura E. Roth, administratrix, and John W. Merriott, Lebanon, and Earl Applegate, Frankfort, Ind.
Application March 23, 1955, Serial No. 496,206
3 Claims. (Cl. 15-255)



2. A windshield wiper including a wiper arm adapted for mounting on a spindle to be oscillated thereby, an elongated flat spring secured at one end to said arm near the end thereof with its flat side generally parallel to the length of the arm and with its length extending generally parallel to the spindle, wiper blade mounting means carried by the other end of said flat spring, and control means for applying force to said wiper blade mounting means offset from said flat spring and effective in a direction and location to provide a pivotal movement of said wiper blade mounting means by twisting said spring.

2,820,239

OVERHEAD DOOR SUPPORTING MECHANISM

Russel G. Johannsen, Detroit, Mich.
Application December 10, 1954, Serial No. 474,382
6 Claims. (Cl. 16-1)



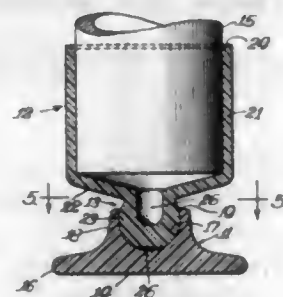
1. A supporting and operating mechanism for a door, a frame for the door, a vertically movable carriage at

each side of the frame, compression springs carried by said frame for urging said carriages upwardly, a roller mounted on said carriages engaging the inner side edges of the door, brackets on said door edges engaging said rollers when the door is in closed and forward positions, tracks at the top edges of the frame extending horizontally inwardly of the door opening, and wheels on the side edges of the door disposed in said tracks, the door being swung outwardly and upwardly into horizontal position as the carriages are moved upwardly by the springs and the wheels in the track move rearwardly to have the door supported on the wheels and the rollers on which the door may be moved rearwardly when in raised position.

2,820,240

FURNITURE GLIDE

Edwin J. Matys, Chicago, Ill., assignor to Tula Machine & Mfg. Co., Chicago, Ill., a partnership
Application May 17, 1956, Serial No. 585,574
3 Claims. (Cl. 16-42)



1. A furniture glide comprising a base member and a ferrule member both made of resilient molded plastic material, said base member having a substantially flat floor contacting bottom surface and a socket in its upper surface, said socket comprising a spherical zone bounded at its upper limit by a plane passing slightly above the center of the sphere to provide an opening slightly less in diameter than the maximum diameter of said socket, said ferrule member being adapted to support a leg of a piece of furniture or the like and comprising a thin walled substantially cylindrical body portion, said body portion being open at its upper end and having its lower end closed by a thin walled substantially conical diaphragm extending below said body portion and terminating in a ball extending from its apex, the lower end of said body portion when in relaxed condition having an inner circumference no greater than that of the leg to be accommodated therein, the flattening of said diaphragm causing the circumference of adjacent portions of said body portion to resiliently increase slightly in response to pressure against said ball to facilitate placing the ferrule on the leg, said ball being dimensioned to fit tightly in said socket and said ball being forced through said opening into said socket and forming therewith a ball and socket joint.

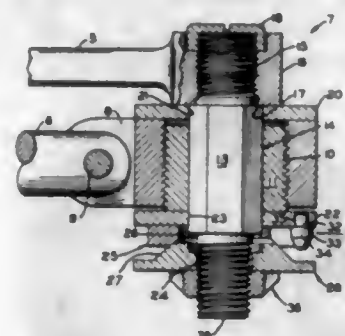
2,820,241

HOLD OPEN SAFETY DEVICE

Ernest L. Schlage, Burlingame, Calif., assignor to Schlage Lock Company, a corporation
Application November 1, 1954, Serial No. 466,126
4 Claims. (Cl. 16-49)

1. In a door closer hold open linkage joint having a pair of axially movable wedging elements, a safety washer split to permit expanding the same circumferentially and means for holding said washer in said expanded condition, said washer being formed to expand circumferentially upon the application of an axial load thereon and being operatively associated with said wedging elements to receive the load created by relative axial movement of said wedging elements, whereby wedging loads less than a pre-

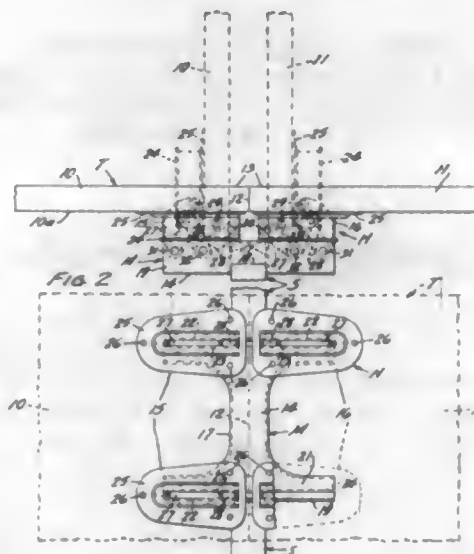
determined maximum cause no further expansion of said washer and loads in excess of said predetermined maxi-



2,820,242

FOLDING TABLE TOP HINGE

Reynold R. Erickson, Forest Lake, Minn.
Application July 30, 1953, Serial No. 371,295
2 Claims. (Cl. 16-164)

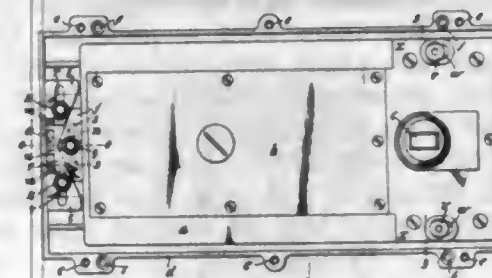


1. A hinge construction particularly designed for use with a panel section adapted to be swung from horizontal operative position into upstanding inoperative position, said hinge comprising an upper mounting member, a lower mounting member, at least one of said mounting members being provided with a pair of opposed closely spaced upright flange plates, a pair of generally flat connector links, of a thickness slightly less than the spacing between the flanges and of different lengths, pivotally interconnecting said mounting members, said links being interposed edgewise between said closely spaced flange plates in close face-to-face slidable relation therewith and lying generally in an upstanding plane defined between said plates, said plates engaging the side faces of said links and having sufficient vertical depth so as to engage in abutted weight supporting relation the other mounting member when in said operative position, the longer of said links being generally L-shaped with the offset portion thereof when in said inoperative position, being disposed above the upper pivotal connection of the shorter link to accommodate the upper end portion of said shorter link and permit the upper pivotal connection thereof to pass from one side to the other of the line of centers through the upper pivotal connection of the longer link and the lower pivotal connection of the shorter link to produce an overcenter self locking action when in said inoperative position.

2,820,243

FLOOR TYPE SPRING HINGES FOR DOORS

Paul E. Gibbons, Wolverhampton, England, assignor to James Gibbons Limited, Wolverhampton, England
Application April 15, 1955, Serial No. 501,692
1 Claim. (Cl. 16-185)

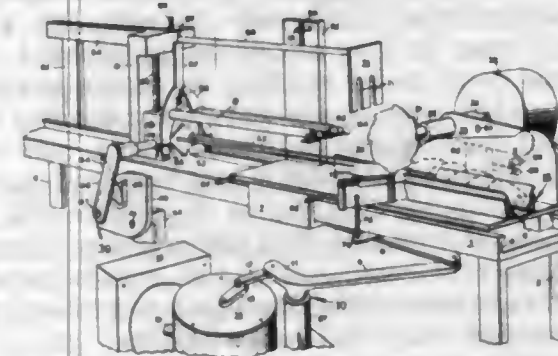


In a floor type spring hinge, an outer casing having a base, a pair of upstanding ridges on and extending longitudinally along said base of said outer casing, an inner casing having a base and longitudinally adjustable in said outer casing, a circular boss on and projecting downwards from said base of said inner casing and guidedly slidable and angularly adjustable between said longitudinal ridges, means for longitudinally adjusting said inner casing in said outer casing, and means for holding said inner casing in a longitudinally and angularly adjusted position.

2,820,244

SHRIMP MACHINE

Jack Young, Coral Gables, Fla., assignor, by direct and mesne assignments, to Clara E. Jones, doing business as Jones Boat Yard and Storage Basin
Application June 28, 1956, Serial No. 594,516
2 Claims. (Cl. 17-2)



1. A shrimp shell removing machine comprising a frame, impaling means mounted on said frame adapted to receive a shrimp, support means secured to the rear portion of said impaling means, power actuated means connected to said support means for movement of said impaling means, a pair of blades pivotally mounted in the path of movement of said impaling means, said blades having flange portions abutting each other and extending in the direction of said impaling means, means operatively associated with said blades and mounting said blades for movement transverse to the path of movement of said impaling means, and further means cooperatively connecting said impaling means and said last named means for substantially simultaneous movement of said blades upon movement of said impaling means.

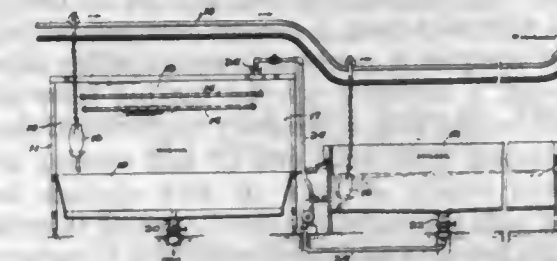
2,820,245

POULTRY PROCESSING APPARATUS

Herman B. Turner, Timberville, Va.
Application February 24, 1955, Serial No. 490,176
3 Claims. (Cl. 17-11.2)

1. Apparatus for treating freshly killed poultry comprising in combination a cleaning machine and a scalding adjacent each other, said cleaning machine having an inlet and an exit for the poultry to be treated and water spray nozzles between said inlet and exit, said scalding having a

water tank and being disposed on the exit side of the cleaning machine, means for withdrawing water from the

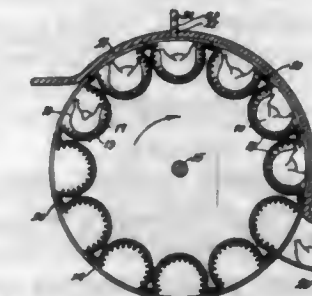


scalding tank and forcing it through said nozzles, and means for replenishing with fresh water the water thus withdrawn from the said tank.

2,820,246

DEHAIRING APPARATUS

Brice L. Thomas, Western Springs, Ill.
Original application February 25, 1955, Serial No. 490,613, now Patent No. 2,783,496, dated March 5, 1957. Divided and this application July 13, 1956, Serial No. 597,642
7 Claims. (Cl. 17-15)

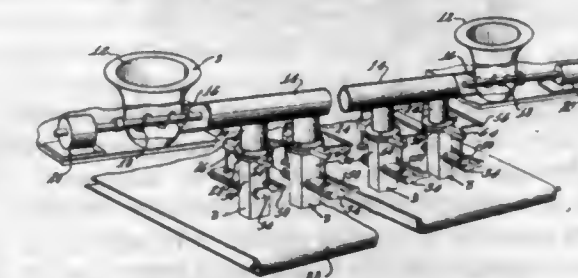


1. Apparatus for the treatment of animal carcasses comprising cylindrical means rotatable about its axis having a plurality of chambers each opening on the periphery of said cylindrical means, each of said chambers being adapted to hold an animal carcass; rotative means operatively engaged with said cylindrical means for rotating said cylindrical means about its axis; arcuate stationary means engaging a portion of the peripheral surface of said cylindrical means upon rotation thereof and sealing the chambers opening thereunder against loss of pressure; and means for producing a positive pressure within a chamber when sealed by said arcuate stationary means.

2,820,247

MULTIPLE PATTY FORMING MACHINE

Abner Michaud, Philadelphia, Pa.
Application July 19, 1956, Serial No. 598,886
1 Claim. (Cl. 17-32)



A multiple patty forming machine comprising a hopper, a horizontally disposed tubular duct communicating with said hopper, screw means rotatably supported in said hopper and partially extending into said duct whereby ground meat fed into said hopper will be extruded into said duct, a casing downwardly extending from said duct and in communication with the interior thereof, a mold drawer slidable within said casing, said mold drawer having a pair of axially spaced mold openings therein, one opening alternately in said drawer being adapted to com-

municate with the interior of said casing while the second opening extends externally thereto, a geared rack on said drawer at the side thereof, a pinion gear in intermeshing engagement with said rack, a second gear rotatably supported above said pinion gear and in intermeshing engagement therewith, a centrally pivoted rocking lever rotatable with said second gear, a vertically reciprocated ejector pivotally mounted upon each end of said rocking lever, the downward stroke of each of said ejectors being synchronized with the respective mold opening external to the casing, and solenoid means automatically reciprocating said drawer in said casing as each mold opening is filled with ground meat whereby a patty will be discharged alternately from each of the mold openings on either side of said casing.

2,820,248

APPARATUS FOR FLAKING MOLTEN MATERIAL
Cecil Troy Newland, Durango, Colo., assignor to Vanadium Corporation of America, New York, N. Y., a corporation of Delaware

Application April 17, 1953, Serial No. 349,515
4 Claims. (Cl. 18—1)



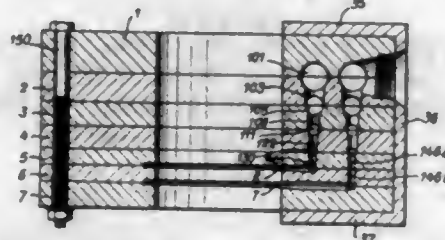
1. Apparatus for flaking molten material, which comprises an inclined trough having a bottom, means for passing a cooling fluid in indirect heat exchange relation to said bottom to cool molten material supplied to said trough, eccentric driving means connected to said trough adjacent one end thereof for shaking it, and supporting means connected to said trough adjacent the opposite end thereof allowing swinging movement of said trough.

2,820,249

APPARATUS FOR COATING ARTICLES WITH MULTI-LAYER LININGS

Roberto Colombo, Turin, Italy, assignor to S. A. S. Lavorazione Materie Plastiche (L. M. P.) di M. I. Colombo & C., Turin, Italy

Application October 6, 1953, Serial No. 384,479
Claims priority, application Italy October 8, 1952
7 Claims. (Cl. 18—13)

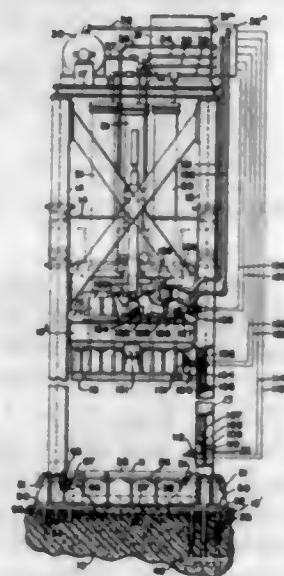


6. Apparatus for coating elongated articles such as pipes and tubes with a plastic material comprising a tubular body through which a tube may be advanced, said body defining a plurality of annular radially directed extrusion slots opening in axially spaced relationship on the inner tubular surface of the body, said body further defining an inlet opening for the material and a conduit system associated with each of the slots for supplying the material thereto, each said system comprising a set of pairs of conduits radially opening within the slot, a further peripheral set of pairs of conduits with the conduits of each pair branching to form each a pair of conduits of the said first named set, and at least one further set of conduits connecting the pairs of said second set to the said inlet opening, and wherein the conduits of any single set are of approximately the same length.

2,820,250
PRESS

Edgar H. Stratton, Cuyahoga Falls, Ohio, assignor to Adamson United Company, Summit County, Ohio, a corporation

Application June 16, 1954, Serial No. 437,153
2 Claims. (Cl. 18—16)



1. A press comprising a laterally extensive lower fixed platen, a foundation supporting the platen, a frame having columns spaced laterally from said platen and independently supported by the same foundation anchor means attaching said platen to said foundation, an upper platen slidably supported by said frame, and means on said frame for moving said upper platen toward and from said fixed platen, said foundation comprising a single deep body of concrete underlying said lower platen and said columns, anchor bolts in said body and extending vertically thereof from the base of said foundation and connected to said columns for resisting the tensile strain of said frame, anchor bolts in said body and extending vertically thereof for retaining said fixed platen, and reinforcing rods of metal embedded in said body and extending in such horizontal direction as to underlie the anchored portions of both said fixed platen and said frame, said reinforcing rods being arranged as mats of parallel spaced-apart rods located near the upper and lower faces of the foundation, each mat comprising two groups of parallel spaced-apart rods arranged with the rods of one group crossing the rods of another, and additional rods extending vertically of the concrete body and having hooks at their upper and lower ends for engaging about rods of said mats.

2,820,251

MOULDS FOR VULCANIZING RUBBER OR PLASTIC SOLES TO FOOTWEAR

Robert Martin Fraser, Buenos Aires, Argentina, assignor to Fabrica Argentina de Alpargatas S. A. I. C., Buenos Aires, Argentina, a corporation of the Argentine Republic

Application July 3, 1956, Serial No. 595,700
7 Claims. (Cl. 18—34)



1. In combination, a frame associated with a rubber sole vulcanizing mold, said frame comprising a pair of flat, elongated members hinged together at one end thereof, means for locking the members together at their other ends, said members comprising coplanar portions having inner edges having an outline substantially coincident with the edge contours of a rubber sole, a pair of flexible metal strips respectively associated with said mem-

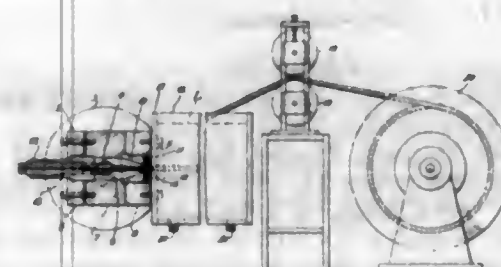
bers and located beneath the under surface thereof, said strips having inner edges with an outline similar to that of said members and projecting inwardly slightly beyond the inner edges of said members, elastic spacers between each of said members and the strip associated therewith, means for securing said members and the strip and spacer associated therewith at their outer edge portions, said spacers varying in thickness along the length thereof whereby the associated flexible strips are curved relative to the overlying members, and means along the inner edge portions of said members operatively related to the inner edge portions of said strips for varying the curvature of the inner edge portions of said strips relative to said members.

2,820,252

METHOD OF EXTRUSION

Robert B. Koch, Hyde Park, Pa., assignor to The Polymer Corporation, Reading, Pa., a corporation of Pennsylvania

Application October 18, 1954, Serial No. 462,647
7 Claims. (Cl. 18—55)



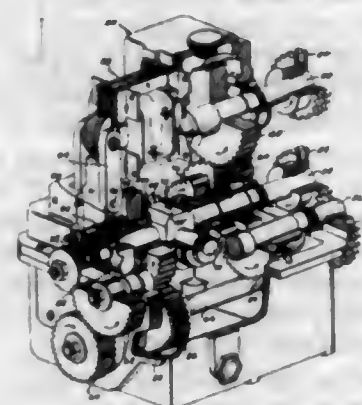
1. A method for forming elongated shapes from polyamides, which method comprises forcing molten polyamide through a die formed of polytetrafluoroethylene filled with silica directly into a water bath containing a wetting agent.

2,820,253

SLUBBING MECHANISM FOR SPINNING FRAMES

Albert E. Winslow, Greenville, S. C., and James H. McIlwain, Black Mountain, N. C., assignors to J. P. Stevens & Co., Inc., a corporation of Delaware

Application August 28, 1953, Serial No. 377,088
8 Claims. (Cl. 19—143.3)



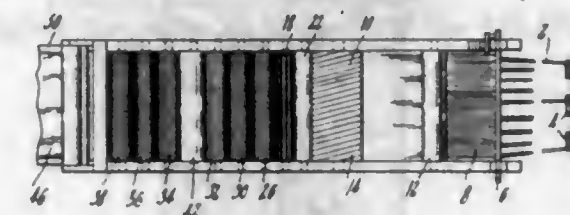
2. A slubbing mechanism for spinning frames, said mechanism comprising a drive shaft interposed in the drafting roll drive for said spinning frame, a cross shaft fixed to said drive shaft, a pair of differential spider gears rotatably disposed on said cross shaft, a pair of differential shroud gears rotatably disposed on said drive shaft to engage said spider gears, a directly geared drive means for rotating one of said shroud gears in one direction, a directly geared countershaft drive means including over-running means for causing the other of said shroud gears to rotate normally in the opposite direction at a different speed, and clutch means for selectively locking said other shroud gear against rotation.

2,820,254

METHOD AND APPARATUS FOR CONVERTING FILAMENT INTO SLIVER

Walter W. Ingenthron, Jr., Andover, Mass., assignor to Pacific Mills, Lawrence, Mass., a corporation of Massachusetts

Application May 16, 1956, Serial No. 585,278
10 Claims. (Cl. 19—150)



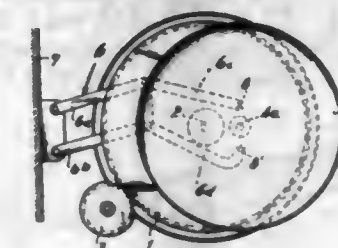
1. An apparatus for converting a web of filaments into a sliver of drafted staples comprising means for separating the filaments into staple lengths, means for drafting the web of staples, a traveling apron for supporting and advancing the web of drafted staples, a helically ribbed cylinder disposed at an inclination to the direction of advance of the apron and in proximity to the supporting surface of the apron for rolling the web into a sliver, and means engaging the staples adjacent the cylinder for compressing the staples against the apron and cylinder.

2,820,255

ACTUATING DEVICE FOR SLIVER CANS

Johann Kaiser, Waldshut, Baden, Germany, assignor to Chr. Mann, Maschinenfabrik, Waldshut, Baden, Germany

Application February 21, 1955, Serial No. 489,656
Claims priority, application Germany February 25, 1954
2 Claims. (Cl. 19—159)



1. A device for eccentrically moving a sliver can, which comprises in combination: a first rotatable member rotatable about its central axis, a second rotatable member pivotally connected to and supported by said first rotatable member and arranged to receive and support a sliver can, the pivotal connection of said first rotatable member with said second rotatable member being eccentrically arranged with regard to the axis of rotation of said first rotatable member, stationary means, and parallel guiding means having the ends thereof pivotally connected to said stationary means and said second rotatable member respectively for preventing said second rotatable member from rotating about its own axis.

2,820,256

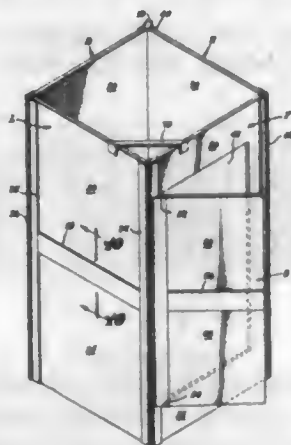
COLLAPSIBLE ENCLOSURE

James P. Dahl, Manhattan Beach, Calif.

Application February 4, 1955, Serial No. 486,048
2 Claims. (Cl. 20—2)

1. A collapsible enclosure of the type described having four upright side walls, each comprising a pair of wall sections on opposite sides of a central dividing line extending transversely around the enclosure, said four side walls being foldable relative to each other along their vertical edges and said wall sections being foldable along said transverse dividing line to form a compact stack of eight wall sections, two adjacent sections of two adjacent side walls respectively being at opposite sides of the stack.

and being interconnected by a double hinge of a width to extend across the thickness of the six intermediate wall sections of the stack, the two wall sections of the pair of wall sections of each of said two adjacent side walls be-



ing detached from each other, the remaining wall sections of each of the other two side walls of the enclosure being interconnected by transverse hinge means, said other two side walls being hingedly interconnected by vertical hinge means.

2,820,257

METAL CLAD SIDING PANELS

Leslie J. Newton, Baie d'Urfe, Quebec, Canada, assignor to Building Products Limited, Montreal, Quebec, Canada

Application September 19, 1955, Serial No. 535,208
12 Claims. (Cl. 20-5)



1. In a building siding in combination, a wall structure, a series of laterally extending insulating siding panels secured to said wall structure and in lapped engagement with each other in courses one above the other, said siding panels having longitudinal recesses facing each other within the lapped portion of the panels and located at the bottom edge of the lapped portions, and a sheet metal covering for each of said siding panels, said metal coverings having their lower horizontal edges hooked in the recesses at the bottoms of the panels to form upwardly projecting spring members and having their upper horizontal edges pressed into the recesses at the tops of the panels, the lower edge of one sheet metal covering forming a spring pressure weather seal with the upper portion of the sheet metal covering of the course immediately below when hooked into the recess in the lower edge of its panel.

2,820,258

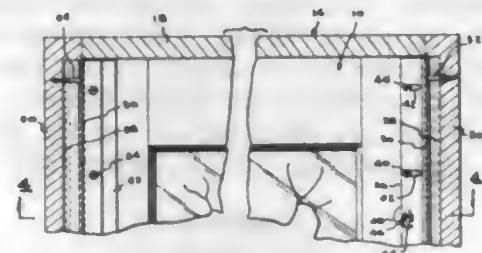
REMOVABLE DOUBLE-HUNG WINDOW SASHES

Harry W. Suleski, Milwaukee, Wis.

Application November 2, 1956, Serial No. 619,971
3 Claims. (Cl. 20-52.3)

1. In a double-hung window construction the combination, with a frame including side jambs having confronting grooves, of: means mounted in the grooves providing transversely spaced channels in each groove; a pair of

window sashes having confronting surfaces lying substantially in planes including the respective grooves; plates mounted on said surfaces of the sashes for slidable engagement in the channels, at least one plate of each sash being mounted for adjustment in a horizontal direction toward and away from its associated channel, to permit



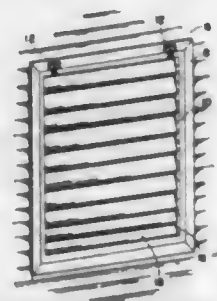
bodily removal of the sashes from the frame; and means on each of the sashes for adjusting said one plate in said direction, comprising pins mounted in the respective sashes to rotate about horizontal axes, said pins including eccentric lugs, said one plate of each sash having vertical cam slots receiving the lugs of the pins of the sash.

2,820,259

ADJUSTABLE LOUVER TYPE CLOSURE FOR OPENINGS IN BUILDINGS

Salvador Matheus Zvelbil, Sao Paulo, Brazil

Application September 21, 1953, Serial No. 381,453
4 Claims. (Cl. 20-62)



1. An exterior closure for building openings including spaced parallel frame members and a plurality of plate units carried thereby, the plates of which are arranged in parallel overlapping relationship at right angles to and between the spaced frame members and pivotally movable with respect thereto, each plate unit for the closure comprising one of said overlapping plates, a rod with its ends respectively attached to the spaced frame members extending longitudinally along one side of the plate and parallel to its edges, a plurality of spaced elongated supporting members to which the plate of the unit is attached, each supporting member being of block-C channel shape in cross-section, and supporting members being arranged at right angles to said rod and plate, a block fixed to the rod at the position of the supporting member, a block in the channel of the supporting member, and means for drawing the block in the supporting member toward the block fixed to the rod for clamping the edges of the supporting member between the blocks, said drawing means being readily releasable thereby permitting the lengthwise sliding of the supporting members for the plate and the simultaneous shifting of the plate therewith with respect to the rod.

2,820,260

CLIP FOR JALOUSIE WINDOWS

Morton Tucker, Coral Gables, Fla.

Application November 18, 1954, Serial No. 469,673
2 Claims. (Cl. 20-62)

1. A panel retaining end clip for use in pivotally supporting closure panels within an open frame having side jambs provided with opposed faces, the clip embodying a

base member, and opposite and opposed side flanges at right angle to the base for forming an open channel for the reception of one end portion of the panel, a headed stud pivotally supporting the base member upon a jamb face, the base member at one side being extended to provide an angularly disposed flat crank arm that is apertured adjacent its free end for pivotal connection with an operating bar whereby the clip may be shifted upon its headed stud, a spring device that is formed flat throughout its major area, the spring device over its major area being shaped to be co-extensive with and to



overlie the crank arm, the spring device being apertured at one end to underlie the pivotal means of the crank arm loosely whereby the spring device is substantially floating toward and from the crank arm, the spring device being extended to terminate within the open channel and in the path of movement of the end of a panel, and with the extended portion provided with oppositely extending spring arms that overlie the base member, the extended portion of the spring device provided with a relatively large aperture that engages over the headed stud when the spring is depressed by engagement with the end of the panel.

2,820,261

RETRACTABLE SEAL FOR A SLIDABLE CLOSURE MEMBER

Ernest M. Brown, Kansas City, Mo., assignor of one-half to Kenneth B. Thompson, Hickman Mills, Mo.

Application June 14, 1956, Serial No. 591,478
4 Claims. (Cl. 20-68)



1. A retractable weather seal for a slidable closure member having a horizontal sealing strip mounted in a channel to close against a sill or floor comprising; a pair of connection lugs secured to the top of the channel, a pair of levers, a rod, said rod slidably mounted in a vertical hole through the sealing strip and normally projecting thereabove and therebelow, said connection lugs spaced about said rod, each lever having one end thereof linked to a connection lug, each lever having the opposite end thereof linked with said rod, each of said levers being fulcrumed at a point between the ends thereof, each fulcrum being relatively positioned by the closure member, a transverse arm on each lever projected upwardly and having a hole therein, a tension spring, said tension spring having the ends thereof secured in the holes of said arms so as to pull said arms toward each other and cause said levers to tilt on their respective fulcrums moving the rod downwardly in the hole of the sealing strip and normally retracting the sealing strip above the bottom of the closure member, and said rod being projected sufficiently below the sealing strip so as the bottom end of the rod will first strike the sill

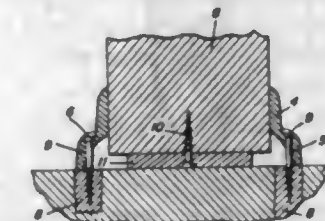
or floor below the closure member to actuate the levers and arms on the fulcrums thereof against the force of the tension spring and force the sealing strip against the sill or floor below the bottom of the closure member.

2,820,262

PORCH COLUMN BASE

John M. Dunn, Norman, Okla.

Application November 14, 1956, Serial No. 622,101
1 Claim. (Cl. 20-100)



A porch column support of the character described comprising: a substantially square open frame of cast aluminum adapted to be mounted on a porch floor, said frame for the reception of the lower end portion of the column, said frame having vertical openings therein, screws in said openings for securing the frame to the floor, and a substantially rectangular cast aluminum plate mounted diagonally beneath the lower end of the column and engageable with the floor for supporting the column in elevated position thereon.

2,820,263

DEVICE FOR ULTRASONIC TREATMENT OF MOLTEN METAL

Frank Fruengel, Hamburg-Rissen, Germany

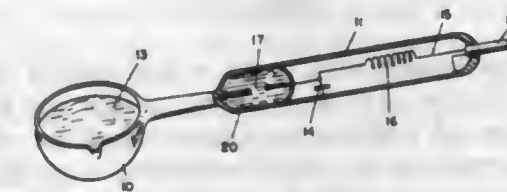
Application May 13, 1955, Serial No. 508,246

In Germany October 1, 1948

Public Law 619, August 23, 1954

Patent expires October 1, 1968

4 Claims. (Cl. 22-86)



1. A device for ultrasonic treatment of molten metal comprising in combination a metal pouring ladle having a long handle, electric means for producing vibration of ultrasonic frequency arranged in said handle, and connecting means for supplying electric energy in suitable form to said vibration producing means.

2,820,264

STRIPPER

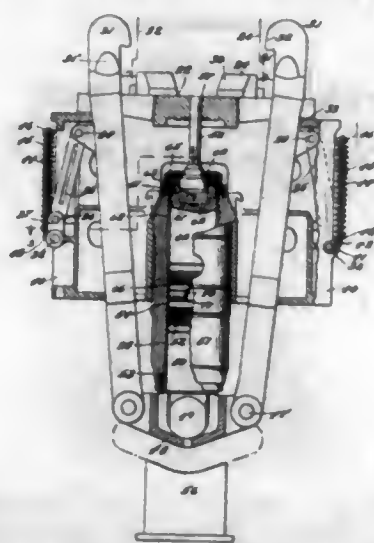
Edward C. Peterson, Reading, and Joseph Calabrese, Pottstown, Pa., assignors to Birdsboro Steel Foundry and Machine Company, Birdsboro, Pa., a corporation of Delaware

Application August 15, 1956, Serial No. 604,137

4 Claims. (Cl. 22-95)

1. In a stripper for removing an ingot from an ingot mold, including arms extending on either side of the ingot mold and adapted to grip the ingot mold, and a support connected to the arms at their ends remote from the ingot mold, the combination of links located outside the arms and extending generally longitudinally of the arms, a pivoted connection between the end of each link, adjacent the ingot mold and one of the arms, a pivot mounting for the other end of each link, lever means resiliently urged in one direction supporting the pivot mounting for the other ends of the links and yielding to allow the pivot mounting to move outward under load conditions,

a hydraulic cylinder extending vertically between the arms and between the ingot mold and the support, a first ram operating vertically in the bottom of the cylinder,



operatively connected to the support, a second ram operating vertically in the top of the cylinder, and pusher means extending vertically upward from the second ram and adapted to dislodge an ingot.

2,820,265

SHELL MOLD STRUCTURES

Everard F. Kohl, Lakewood, and Zenon Kazenas, East Cleveland, Ohio; said Kazenas assignor to Mercast Corporation, a corporation of Delaware
Application August 14, 1952, Serial No. 304,309
23 Claims. (Cl. 22—129)



1. In a destructible shell mold, a shell-shaped structure having a thickness of at most about $\frac{1}{4}$ inch and an inner cavity surface of a shape corresponding to an object to be cast, comprising as shell ingredients a predominant amount of refractory particle material and an inner cavity surface forming the mold cavity having refractory material of sufficiently fine particle size to provide a relatively smooth cavity surface, at least the outer shell layer of said shell mold containing as an inorganic raised-temperature binder an ammonium phosphate in the form of small particles — 150 mesh in size which constitute from .5% to 5% by weight of the shell ingredients and decomposes at intermediately high temperatures between about 150° and 600° C. to form phosphoric acid and which ammonium phosphate is present in an amount to provide at the decomposition of the ammonium phosphate a sufficient amount of phosphoric acid to react with and bind the refractory particles together at said intermediate temperatures, substantially all other shell layers of said shell mold also containing an inorganic raised temperature binder constituting .5% to 5% of the solid shell ingredients thereof and being effective and sufficient in amount to bind the refractory particles of said shell layers after heating to a raised temperature of at most 1200° C., at least the inner layer of said shell mold being free of phosphorus and phosphorous compounds, and an organic resinous binder for the refractory particles and the inorganic binder ingredients, which organic resinous binder has the property of causing the refractory particles to adhere to a frozen mercury pattern and of binding the refractory particles and the inorganic binder ingredients together into a self-supporting shell mold at temperatures

ranging from below the freezing temperature of mercury up to at least the temperature at which the ammonium phosphate particles decompose to form phosphoric acid, said organic resinous binder constituting .25% to 5% by weight of the structure ingredients and being present in an amount sufficient to bind the refractory and ammonium phosphate particles together over said temperature range and being capable of being modified at temperatures above that at which phosphoric acid is formed to provide vapors which exude through the shell mold structure to provide a porous mold.

2,820,266

SHELL MOLD STRUCTURE

Everard F. Kohl, Lakewood, Ohio
Application March 11, 1955, Serial No. 493,677
2 Claims. (Cl. 22—129)



1. A destructible shell mold in the form of a thin, porous shell layer having inner core walls and surrounding mold walls spaced therefrom and providing therewith a mold cavity for casting a hollow metal body having thin walls surrounding said core with the metal cast into the mold cavity contracting about said shell core during cooling, the walls of said shell mold being composed essentially of a predominant amount of refractory particles and the innermost stratum of the shell layers of said walls having refractory particles of fine particle size, an inorganic binder for the refractory particles constituting .25% to 7% of said solid ingredients and becoming effective and being sufficient in amount to bind said refractory particles into a self-supporting shell mold when heated to a raised temperature between 300° C. and 1250° C., an organic resinous binder for said refractory particles and said inorganic binder constituting .25% to 7% of said solid ingredients and being effective and being present in amount sufficient to bind said refractory particles and the inorganic binder into a self-supporting shell layer over temperatures from below the freezing temperature of a mercury pattern over which said shell mold has been formed up to temperatures at which said inorganic binder becomes effective in binding the refractory particles, the wall portions of said core around which cast metal contracts when cooling having a thickness at most $\frac{1}{4}$ inch and being sufficiently thin as to yield under the forces of the contracting cast molten metal solidifying around them but being sufficiently thick to resist the impact of the hot molten metal cast into said mold cavity, at least portions of the walls of the cast metal cast into said cavity and contracting about said core having a thickness which is at most of the order of a quarter of an inch.

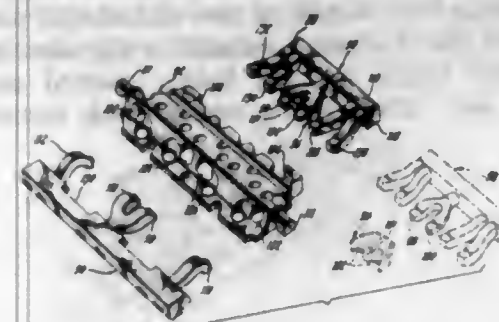
2,820,267

CYLINDER HEAD CORING

Clayton B. Leach, Pontiac, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 17, 1953, Serial No. 398,805
13 Claims. (Cl. 22—131)

1. A coring assembly for use in casting a cylinder head of an internal combustion engine, said assembly comprising a water jacket core having a plurality of openings in one side thereof and a plurality of recesses in another side thereof, an exhaust port core having a plu-

rality of generally laterally extending exhaust port-defining arm portions fitting in said openings, and an intake



port core having a plurality of generally laterally extending intake port-defining arms fitting in the recesses in the water jacket core.

2,820,268

METHOD OF MAKING SHELL MOLDS WITH THIN CORE

Everard F. Kohl, Lakewood, Ohio
Application September 16, 1955, Serial No. 534,667
4 Claims. (Cl. 22—193)



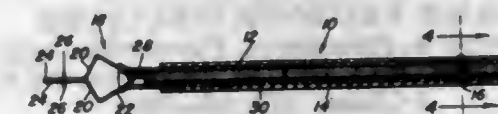
1. The method of preparing a porous self-supporting shell mold in the form of a porous thin shell layer formed over the exposed surfaces of a frozen mercury pattern of an object to be cast with metal of high melting temperature, which method comprises the procedure of providing a frozen mercury casting pattern having spaced pattern wall portions united by an intermediate pattern wall portion, preparing a liquid slurry-like investment composition which will adhere to said pattern surfaces when applied thereto as a coating stratum at very low temperatures below the freezing temperature of said pattern material which investment composition comprises refractory particle material constituting a predominant amount of the normally solid composition ingredients applied to form said shell layer, a low temperature synthetic organic resinous binder for the refractory material that is adherent to said pattern and which is effective in binding and is present in an amount sufficient to bind the refractory material together at temperatures ranging from said very low temperatures up to at least about 110° C., and a liquid carrier for the binder and the refractory material that is in the liquid state at said very low temperatures and has a boiling point below 20° C. and which is present in the composition in an amount to provide a slurry of sufficiently low viscosity to enable the composition to be applied to said pattern in the form of a shell layer, thereafter applying said composition to said pattern at said very low temperatures until there is formed a shell layer which adheres to said pattern and has a thickness of at most about $\frac{1}{4}$ inch, and is self-supporting after removing therefrom the liquefied mercury thereafter drying the shell layer adhering to said frozen pattern at said very low temperatures and below the boiling point of the liquid carrier to solidify said shell layer, thereafter liquefying the material of the pattern and removing the liquefied pattern material from the solidified shell layer to provide the shell mold, said pro-

cedure including also embodying in the solid ingredients forming the shell layer a raised temperature binder which constitutes about 0.1% to 5% by weight of said solid composition ingredients and which, after becoming effective, binds the refractory particles at temperatures in the range from said very low temperatures up to the high casting temperature of metals having a melting temperature of at least about 700° C., said procedure also further comprising heating the shell layer so formed and embodying said raised temperature binder to a high temperature to cause the raised temperature binder to become effective as a binder for the refractory particles and to modify said resinous binder to provide vapors which leave the shell layer and render it porous, at least the inner stratum of said shell layer being formed with an investment composition containing refractory particles of sufficiently fine size to give the inner cavity of the shell layer a relatively smooth cavity surface, the step of applying said composition over said intermediate pattern portions being carried on until the shell layer facing said intermediate pattern wall portions has a thickness which after making the raised temperature binder effective is great enough to resist the impact of molten metal cast into the mold cavity but thin enough to yield when the cast metal contracts about such portions of said shell layer during cooling.

2,820,269

TOWEL ADJUSTER

Charles H. Wolff, Norristown, Pa.
Application May 17, 1955, Serial No. 508,947
6 Claims. (Cl. 24—9)

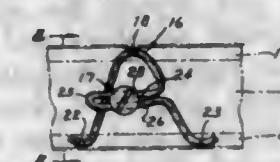


1. A towel adjuster comprising an elongated housing, an extensible flexible member carried by said housing and normally retained substantially in said housing, said flexible member having two ends only projecting from said housing with one of said ends being disposed adjacent each end of said housing, towel engaging clips carried by said flexible member at said two ends, and means anchoring said flexible member to a central part of said housing.

2,820,270

METAL FASTENER ASSEMBLIES

Robert E. Scott, Detroit, Mich., assignor to Gagnier Fibre Products Company, Detroit, Mich., a corporation of Michigan
Application August 10, 1951, Serial No. 241,179
8 Claims. (Cl. 24—73)

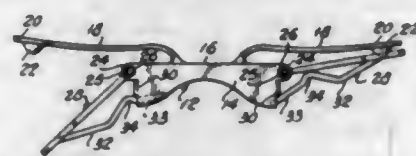


1. In a fastener assembly for mouldings and like articles, a generally flat head structure comprising a single piece of metal formed into a general inverted V-shape having an apex and diverging spring legs terminating in feet constituted by free ends of the metal piece, an elongated bolt receiving socket integrally formed with one of said legs having an open mouth at said one leg and projecting toward the other of said legs, and a bolt having a head and a threaded shank and an intermediate section between its head and shank clamped in said socket against both rotation and axial displacement with respect to said head structure.

2,820,271

BOW TIE CLIP

Frank B. Polachek, New York, N. Y., and Bernard L. Polkosnik, Fairfield, Conn.
Application July 29, 1954, Serial No. 446,432
13 Claims. (Cl. 24—81)

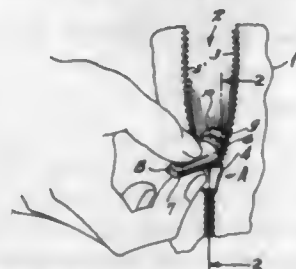


1. A bow tie clip of the type comprising a frame with backing members on opposite sides adapted to extend along one surface of the tabs of a collar, clamping arms pivoted on the frame to swing against and away from the backing members to clamp the collar tabs therebetween and to release them, and spring tongues on said arms extending from a point well out on each arm inward over an abutment on said frame near, but spaced from the pivot axis which is away from said backing members, said clip being characterized by each clamping arm and its spring tongue being of spring metal in sheet form, and said tongue being bent to a crooked form with its under surface being in part a cam face obliquely crossing and recrossing a circle centered on the pivot axis and internally tangent to said abutment, whereby said tongue acting on said abutment converts its spring force to press said arm either against its backing member or to hold it in a release position, respectively.

2,820,272

SLIDE FASTENER STRUCTURE

Francis A. Humphreys, Fayetteville, Ark.
Application June 27, 1952, Serial No. 296,027
1 Claim. (Cl. 24—205)



An elongated tool for insertion in a direction lengthwise of its axis between the spaced toothed edges of an open slide fastener of the type comprising interlocking teeth and a slider movable therealong to engage the teeth successively and having a pull tab, the device comprising a handle having a longitudinal axis, a neck of relatively restricted diameter extending axially of the handle from one end of the handle and a head at the outer end of the neck having a circular rim projecting transversely of the axis of the tool and beyond the sides of the handle throughout the handle periphery and provided with an exterior end surface having a spherical-segment-like outer contour, the handle and head forming flat circular shoulders facing towards each other and spaced axially of the handle from each other and from said outer contour to receive between them and to confine the opposing edges of a fastener to which the tool is applied as they are brought together by movement of the fastener slider.

2,820,273

OPERATOR FOR SLIDE FASTENER ON WOMEN'S DRESSES

Charles J. McColly and Loraine F. McColly,
Milwaukee, Wis.
Application August 10, 1955, Serial No. 527,486
1 Claim. (Cl. 24—205.15)

A device for actuating a slide fastener of the type having an apertured finger piece, comprising, an elongated

smooth surfaced flexible strap formed from a single length of material folded and secured to give a double layer to said strap, a loop handle at one end of said strap, a relatively stiff shield element secured to the other end of said strap, said shield element being inserted and secured between said strap layers, and a hook secured to said

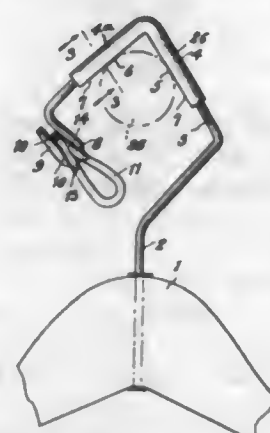


shield element adjacent the transverse center thereof and intermediate its longitudinal length, whereby the hook may engage the finger piece of said slide fastener to move the fastening element up and down without the necessity of manually grasping the finger piece, with the shield lying between the fastening elements and the undergarments of the wearer.

2,820,274

GARMENT HANGERS

George Kenney Ballentine, Ridgewood, N. J.
Application July 8, 1954, Serial No. 441,983
4 Claims. (Cl. 24—236)



1. A suspension hook for garment hangers comprising, a rigid suspension hook portion having a shank portion, said rigid hook portion constituting an extension of the shank portion, the hook being provided with a tip deformed into hook shape, a clip clamped into said hook-shaped tip end and in which a flexible, rubber, loop-shaped deformable element is gripped, said loop-shaped rubber member providing a deformable, flexible extension projecting from the extremity of the hook and serving to partly close the entrance to the hook, the loop-shaped element being capable of collapsing flexure to enable a supporting bar to pass it for location within the hook, said loop-shaped element also requiring collapsing distortion to enable the hook to be separated from the bar.

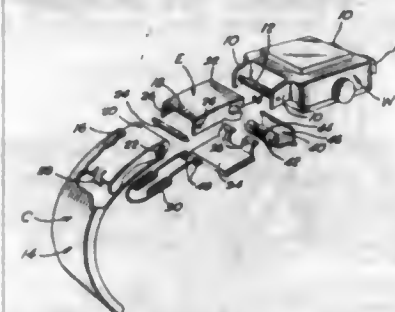
2,820,275

HINGED CLAW WATCH BRACELET

Ralph Lancaster, Westbury, Conn., assignor to Benrus Watch Company, Inc., New York, N. Y., a corporation of New York
Application April 20, 1955, Serial No. 502,542
12 Claims. (Cl. 24—265)

1. In a hinged claw bracelet for a bracelet watch, an end section including means adapted for detachably attaching to same to the pin bar of a watch, a claw section connected to the end section, the claw section having

a movement with reference to the end section about a pivot axis located at the outer surface of the connected end and claw sections, means for connecting and mounting the claw section to its end section for such movement, said means forming the structural elements for said pivot

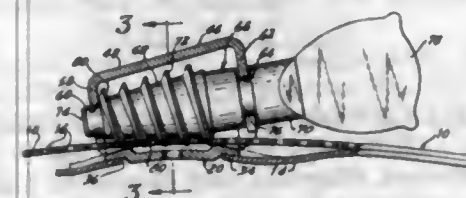


axis and comprising an arcuate cam track in one of said sections having its center of curvature in said pivot axis, a cam follower in the other of said sections constrained for movement in said cam track and a spring connecting the said sections active for biasing the claw section to contracted condition on the end section.

2,820,276

SPLIT BAND CLAMP

Jullus A. Claus, Jr., Southfield Township, Oakland County, and William J. Chorkey, Detroit, Mich., assignors to Jered Industries, Inc., Hazel Park, Mich., a corporation of Michigan
Application September 27, 1954, Serial No. 458,538
2 Claims. (Cl. 24—274)

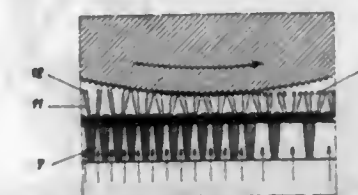


1. In a clamping band mechanism for use in applying a clamping force to a hollow flexible object of relatively large cross sectional dimensions, a metallic strap surrounding said flexible object, one end of said strap being threaded, a housing secured to the other end of said strap, said housing comprising a saddle portion disposed on the inner side of said strap and outwardly extending side portions positioned adjacent the edges of said strap, an outer housing portion attached to said side portions on the outer side of said strap, said outer housing portion being defined in part by two peripherally spaced walls, an opening formed in each wall at least equal in width to the width of said strap, the threaded end of said strap being received through said openings in overlapping relationship with respect to said other end, a screw member having a generally conical shape, said screw member being rotatably journaled in said walls and within said outer housing portion, external threads formed on said conical screw member, the portion of the threaded end of said strap within said housing being situated between said other strap end and said screw member in threaded engagement with the latter, the axis of said conical screw member forming an acute angle with tangent lines drawn through any point on said strap situated between the spaced walls of said outer housing member, and means for rotatably adjusting said screw member including an axial extension for accommodating a manual gripping of the same, the rotatable adjustment of said screw member being accompanied by a relative sliding movement of said strap ends within said housing and a clamping force on each strap end, the force applied to one strap end being substantially equal in magnitude and directly opposed to the force applied to the other strap end.

2,820,277

METHOD AND APPARATUS FOR MAKING A HOOKED PILE FABRIC

Karl Förster, Munich, Germany
Application October 25, 1955, Serial No. 542,620
Claims priority, application Germany October 26, 1954
6 Claims. (Cl. 26—2)

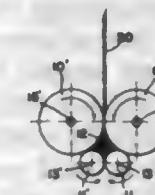


1. A method of making a hooked pile fabric suitable as fastening means, comprising providing a foundation fabric having a plurality of upright thermoplastic pile threads of substantially equal length, passing said fabric under a roll bending the tips of said pile threads in random directions to hooks, heating said tips during said passage to a plastic deformable state and simultaneously cooling the lower ends of said pile threads, and subsequently setting the bent tips of the pile threads in said hook shape.

2,820,278

CRIMPING MECHANISM

Giuseppe Mariani, Varedo, Luigi Notarbartolo, Milan, and Werner Münch, Cesano Maderno, Italy, assignors to Perfogit Società per Azioni, Milan, Italy, an Italian company
Application October 24, 1952, Serial No. 316,746
Claims priority, application Italy November 30, 1951
14 Claims. (Cl. 28—1)



1. Device for crimping textile filaments, yarn, bundles of filaments and like materials, comprising two propelling rollers for propelling the filaments, two subsidiary rollers, means for mounting said subsidiary rollers with their axes substantially parallel to those of said propelling rollers and displaceable perpendicularly thereto, one of said subsidiary rollers being positioned adjacent to one of said propelling rollers and the other subsidiary roller being positioned adjacent to the other propelling roller resilient means urging said subsidiary rollers against one another and each against the propelling roller adjacent thereto to define a crimping chamber extending longitudinally in a direction parallel to the axes of the rollers, and means for substantially sealing said crimping chamber at its two longitudinally opposed ends whereby said chamber is substantially completely closed when the device is in an inoperative position, the direction of rotation of said propelling rollers, when the device is in operation, being such that they force the filaments into said crimping chamber whereby a pressure is built up therein to cause the filaments to become crimped, said resilient means yielding to said pressure to allow the crimped filaments to be discharged from the crimping chamber.

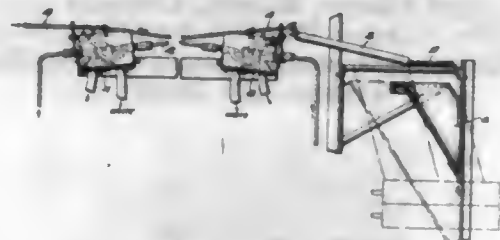
2,820,279

TUBE SPINNING

Ernest J. Griset, Jr., Asheville, N. C., assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application May 19, 1954, Serial No. 430,823
7 Claims. (Cl. 28—22)

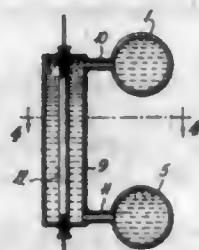
1. In tube spinning apparatus, a group of aftertreating tubes, means to propel a yarn through said group of tubes

in series under substantially tension free conditions, means for drawing off aftertreated yarn and means in-



cluding the last tube of the group for establishing a partly tortuous yarn path from said tube group to said drawing off means.

2,820,280
YARN HEATING SYSTEM
George F. Benn, Greensboro, N. C., assignor to J. P. Stevens & Co., Inc., New York, N. Y., a corporation of Delaware
Application November 20, 1956, Serial No. 623,462
5 Claims. (Cl. 28-62)



1. A heating system for treating yarns moving along straight parallel paths on a textile machine comprising, a header extending across and adjacent all of said paths, a return line parallel to and spaced from said header, a line interconnecting said header and return line and having a heater and pump serially connected therein, and a housing surrounding each of said yarn paths and having connections to said header and said return line.

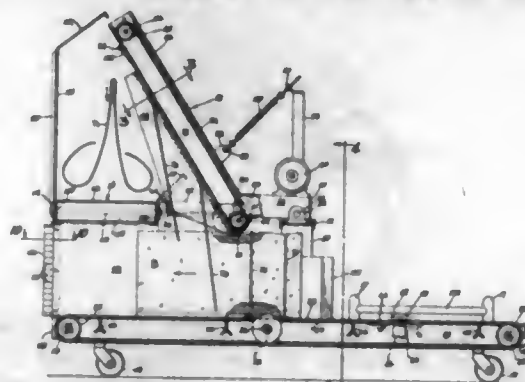
4. In a heating system as claimed in claim 1, said housing comprising a closed end cylinder and an open end tube positioned coaxially of said cylinder and extending completely through said cylinder.

2,820,281
ABRASIVE ARTICLE
Alfred W. Amsen, New Paltz, N. Y., assignor to Red Devil Tools, Union, N. J., a corporation
Application November 30, 1956, Serial No. 625,383
1 Claim. (Cl. 29-78)



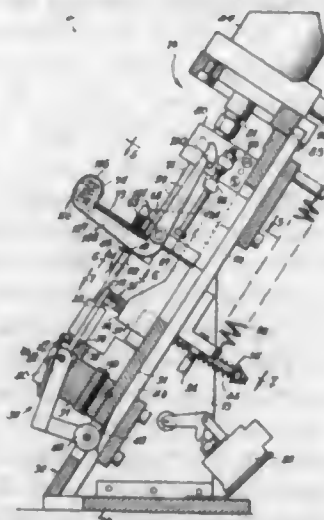
An abrasive article having an abrasive surface on one face thereof comprising, a sheet of relatively thin and flexible metal having relatively spaced groups of elongated point portions displaced upwardly relative to said one face providing holes within the points of the groups thereof, said point portions of the groups thereof curling upwardly and radially outwardly away from the sides of their respective holes in different directions and being disposed to lie over and spaced above and along portions of said one face around and outwardly of said holes, said point portions being provided with opposite elongated edges relatively converging outwardly and away from the sides of their respective holes cooperating to form said abrasive surface, said groups of point portions being arranged in non-straight horizontal and vertical rows whereby adjacent groups of points and their respective holes are misaligned horizontally and vertically.

2,820,282
APPARATUS FOR REMOVING TIES FROM PACKAGES
Edmund C. Schneider, Jr., Windom, Minn., assignor of one-fourth to Jack B. Tropp, Westport, Conn.
Application August 6, 1954, Serial No. 448,210
21 Claims. (Cl. 29-200)



8. A bale tie puller comprising in combination a conveying means for propelling a tie which is to be severed from a bale into engagement with a cutter, said cutter being positioned in cooperation with said conveyor for severing said tie, means for removing said severed tie comprising a tie engaging member adapted to penetrate between said tie and said bale as it is conveyed by said conveyor for initially distending said tie, an endless conveyor having a plurality of catch means at spaced intervals therearound positioned for cooperation with said engagement means whereby when said engagement means has engaged said tie, one of said catch means on said endless conveyor will pull said tie from said bale.

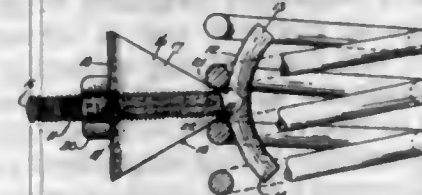
2,820,283
SPOOLHEAD COIL LEAD THREADING AND ASSEMBLING MACHINE
Paul E. Anderson, Hinsdale, and Harold G. Cahill, Riverside, Ill., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 30, 1954, Serial No. 419,882
10 Claims. (Cl. 29-203)



1. A device for assembling a spool head onto a core of a coil assembly comprising a stationary frame, a plurality of hooked needles fixedly mounted on said frame in parallel relation to each other for supporting the lead wires from said coil assembly, a pusher member slidably mounted on said frame for movement parallel to said needles and having means for supporting a spool head which has been threaded on the needles, a holder on said frame for supporting a coil assembly in the path of movement of said pusher member to receive the spool head carried by said pusher member, means for actuating said pusher member to a first position for receiving and supporting a spool head which has been threaded on the needles, means for actuating said pusher member to a

second position to effect the movement of the spool head off of the needles and into engagement with the end of the core of the coil assembly and to effect the threading of said lead wires through said spool head, and means mounted on said frame for moving the pusher member from said second position to a third position to push the spool head to a predetermined position on the core.

2,820,284
SPRING SPREADING TOOL
Elwyn O. Shreffler, Manteno, Ill.
Application September 22, 1954, Serial No. 457,645
3 Claims. (Cl. 29-227)



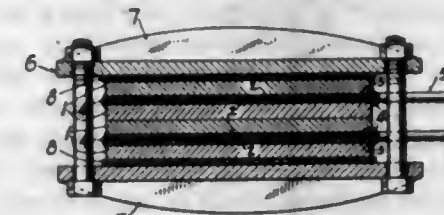
1. A tool for expanding the coils of a coil spring comprising a head, a shank connected to and extending below said head, a cam having a pair of flat triangular portions and a connecting portion spacing said triangular portions, said cam movably mounted on said shank, and a retaining member mounted on said shank below said cam and movable against said cam for moving said cam against the coils of a coiled spring for spreading them to permit the insertion of a stabilizer between the coils.

2,820,285
PULLER DEVICE
Frederick Neumeister, Jr., Indianapolis, Ind.
Application May 16, 1955, Serial No. 508,835
1 Claim. (Cl. 29-258)
(Granted under Title 35, U. S. Code (1952), sec. 266)



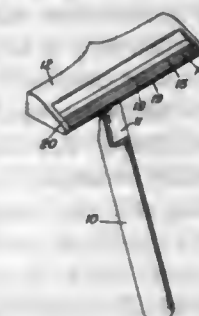
A mechanical puller device comprising; a U-shaped yoke member; a threaded shaft threaded through said yoke member substantially centrally and parallel to the leg portions of said yoke member and having a reduced diameter portion and a head means on the end within said yoke member; an L-shaped channel in the inner wall surface of each leg portion with the base of the L lying near the outer extremity of each leg portion and oriented in the same direction and with the vertical of the L lying longitudinally and substantially centrally of each leg portion; and a puller head member having a pair of laterally extending pin projections slidably in said L-shaped channels, having a blind shouldered channel in one face extending normal to a centerline through said pin projections and terminating substantially centrally thereof slidably over said reduced diameter portion between said head means and the end portion of said threaded shaft, and having threaded means adaptable for holding an element to be pulled against the other face, said puller head being slidably detachable from said yoke member and said threaded shaft in one extreme rotated position of said threaded shaft.

2,820,286
METHOD OF MAKING COMPOSITE PLATES
Orrin E. Andrus, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application September 1, 1951, Serial No. 244,850
3 Claims. (Cl. 29-471.5)



1. A method of manufacturing composite metal plates utilizing pressure, which comprises forming a pack of two contiguously disposed liner sheets and two base plates arranged outwardly of said liner sheets, sealing the peripheral edges of the pack to create a structure having a substantially fluid-tight chamber between the liner sheets and whereby said structure is capable of withstanding the pressure utilized, heating the pack to a temperature commensurate with the fusion bonding temperature of the metals involved, injecting fluid under pressure into said chamber while holding the base plates against outward movement and with said pressure being of an order to thereby force the respective liner sheets into continuous pressure contact with the corresponding base plates and thus effect strong and permanent bonds therebetween, and maintaining the pressure in said chamber until the pack has cooled below said bonding temperature.

2,820,287
DISPOSABLE SAFETY RAZOR
Clarence J. Hyatt, Redding, Calif.
Application October 5, 1955, Serial No. 538,612
2 Claims. (Cl. 30-32)

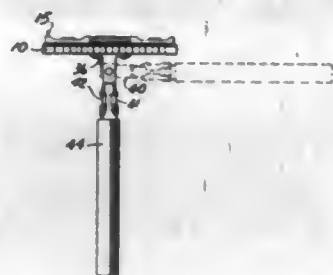


1. A disposable safety razor comprising: a plastic handle, a plastic head integral with said handle, said head having an elongated chamber extending thereinto from the bottom thereof and further having a slot therein communicating with the chamber and defining a guard bar, a blade mounted in the chamber and comprising a cutting edge projecting into the slot in spaced parallelism with the guard bar, rounded shields on the head at the ends of the slot for the adjacent portions of the blade, and means for securing said blade in the chamber.

2,820,288
SAFETY RAZOR WITH ANGULARLY ADJUSTABLE HANDLE
Michael Malecki, Brooklyn, N. Y.
Application November 18, 1954, Serial No. 469,660
5 Claims. (Cl. 30-67)

1. A safety razor construction comprising an inner guard plate having an outer blade engaging face with attaching projections thereof, an outer guard plate having openings for engaging said attaching projections and adapted to fit over the blade engaging surface and to retain a blade thereupon, a razor handle and means for connecting said handle to said inner guard to permit angu-

lar adjustment of the handle relative thereto, said adjustable connecting means including a bracket having inwardly extending legs spaced from one another, and an adapter member extending between the legs and pivotally connected thereto for adjustment to extend the handle



co-extensively with the inner guard member, said adapter in turn having separated portions, said handle disposed between said separated portions and pivotally connected to the adapter at an angle ninety degrees from the pivotal connection of the adapter to the bracket.

2,820,289 COMBINATION CAN OPENER AND DRINKING SPOUT

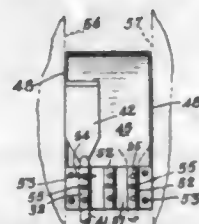
Robert J. Kleinstiver, Port Huron, Mich.
Application July 6, 1956, Serial No. 596,194
7 Claims. (Cl. 30-123)



1. In a combination can opener and drinking spout, a shank, an opener carried by one end of said shank, said opener having a finger adapted to engage the underside of a can rim and a claw for cutting an opening in the can top, said opener having a ridge formed adjacent said finger, a drinking spout carried by the other end of said shank, and means adjacent said spout co-operable with said ridge for mounting the combined spout and opener adjacent an opening in the can top with said opener remote from said opening and said ridge engaging the side of said can to properly position said combination can opener and drinking spout on said can, whereby liquid poured from said opening will be guided by said spout.

2,820,290 CEILING KIT

John D. Porter, Jr., Rockland, Mass.
Application August 28, 1956, Serial No. 606,611
1 Claim. (Cl. 30-136)

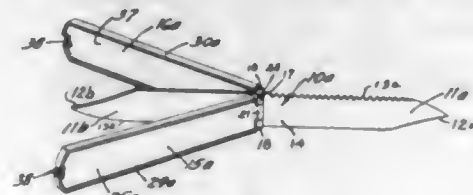


A device of the class described, comprising, in combination, a plurality of elongated handle segments, means releasably connecting the adjacent ends of said handle segments together to form a unitary handle of adjustable length for ceilings of various heights, scraper means, means for releasably connecting said scraper means to the uppermost one of said handle segments whereby to permit the scraping of the ceiling while standing on the floor, and collector means mounted directly below and being angularly related to said scraper means for collect-

ing the scrapings as they are removed from the ceiling and to prevent them from falling on the floor, said scraper means comprising a support handle, a substantially rectangular scraping blade secured to one end of said support handle, said releasable means for securing said scraper means to the uppermost of said elongated handle segments being located at the other end of said handle, said support handle having a plurality of longitudinally spaced mounting openings, said collector means comprising a tray having a forwardly and upwardly curved bottom wall, a substantially vertical rear end wall connected to said bottom wall, said walls connecting said end wall and bottom wall along the opposite longitudinal edges thereof, a rearwardly extending flange secured to the upper edge of said rear wall at substantially right angles thereto, said flange having a plurality of laterally spaced, longitudinally extending hollow mounting portions adapted to receive said handle therewithin, each of said mounting portions having longitudinally spaced, vertically aligned openings therethrough adapted to be aligned with said handle openings, and releasable fastening means for securing said handle within a selected one of said mounting members at a selected position therewithin whereby to permit the adjustment of said collector means laterally and longitudinally of the scraper blade and to permit the scraper blade to be used along walls and in corners at both the right and left hand sides.

2,820,291 TOOL AND SHEATHING HANDLE THEREFOR

Donald T. Phillpar, Sturgis, S. Dak.
Application October 9, 1953, Serial No. 385,104
2 Claims. (Cl. 30-153)



1. A tool comprising an elongated blade having a thin and wide portion intermediate the ends thereof, a hinge structure comprising two tubular elements rigidly disposed in opposed relation at each side of said thin and wide portion at substantially the center thereof, each having an axis disposed outwardly and transversely of the general plane of said blade, the respective axes lying in parallel relationship, a pair of handle halves each having a generally flat and elongated configuration hingedly secured at its inner end to said hinge structure, a raised peripheral margin formed about each of said handle halves, said margin extending uninterruptedly from the hinge structure along the sides and end of each handle half and off-set to both sides of the general plane thereof, to form a shell-like recess at each side thereof, each of the handle halves being swingable inwardly toward said blade and toward the other handle half with said peripheral margins continuously closed in abutting relation outwardly of the periphery of said blade whereby to encompass and sheath one end portion of said blade with respect to the hinge structures while exposing the other portion of said blade.

2,820,292 CUTTING PLIER

Cornelis Jan Bouten and Hendrik Johannes de Jong, Hilversum, Netherlands, assignors, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 25, 1955, Serial No. 524,101
Claims priority, application Netherlands August 23, 1954
1 Claim. (Cl. 30-182)

Cutting pliers for use with relay contacts mounted on supports comprising a pair of pivotally connected handles,

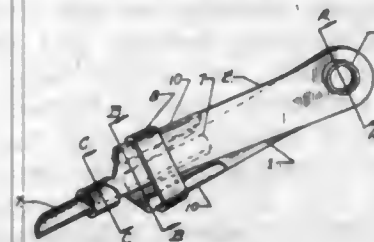
one of said handles being provided with an extension having a guide groove therein extending co-planar with said handles and which has a dimension extending transverse to said handles corresponding to the dimension of each of said relay contact supports transverse to the lon-



gitudinal axis thereof, said relay contact supports fitting snugly and slidably guided in said guide groove, a blade operatively connected to each of said handles whereby the direction of movement of said blades relative to each other and a selected relay contact is substantially at right angles to the direction of movement of said handles.

2,820,293 KNIFE HANDLE WITH RENEWABLE BLADES

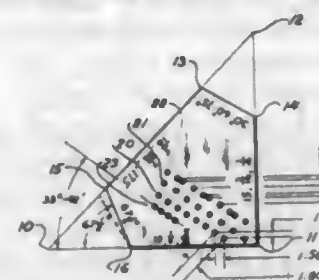
George E. Seldon, Kirkwood, Mo.
Application March 24, 1954, Serial No. 418,353
1 Claim. (Cl. 30-331)



In a knife provided with a removable blade having a handle comprising a pair of opposite sheet metal arms, a pivot joining said arms at one end, the ends of said arms opposite their pivot being provided with tabs bent to provide U-shaped blade clutching means, the tabs being of such length that when bent into U-shape their ends will be in firm engagement with a blade inserted therebetween, the sheet metal arms provided on their outside edges with track surfaces, and a slider encircling said arms and movable to a position opposite said pivot, said bent ends of the tabs on the front ends of the arms holding the blade causing the arms to be held in diverse relationship whereby upon movement of the slider to the ends opposite the pivot causes the slider to wedgingly engage the arms and firmly hold the blade in position.

2,820,294 DRAWING INSTRUMENT

Gregory S. Dolgorukov, Ferndale, Mich.
Continuation of application Serial No. 117,815, September 26, 1949. This application November 24, 1953, Serial No. 394,137
3 Claims. (Cl. 33-104)

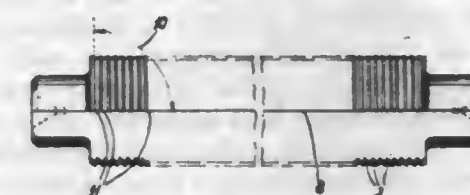


2. A drafting template comprising a flat piece of transparent plastic material having the shape of a five sided

polygon, with its five included angles being equal to and arranged in the order of 90°, 120°, 105°, 112½°, 112½°; with the two sides forming between them the 90° angle, and the side opposite to said 90° angle, if continued to their theoretical intersection, forming a right isosceles triangle with its equal sides having lengths of approximately three and a half inches, with the lengths of said actual equal sides being approximately two thirds of said sides continued to their theoretical intersection, said template being provided with at least three rows of pencil point receiving holes having not less than eight holes in each row, said rows being arranged parallel to one another and extending generally from the 90° angle toward the hypotenuse of the theoretical triangle to form an angle of approximately 33½ degrees with one of the sides forming said 90 degree angle, with all of said holes being useable for drawing lines when the template is used on any of its said three triangle-forming sides without causing the pencil to rotate the template around its corners.

2,820,295 APPARATUS FOR MEASURING LINEAR DIMENSIONS

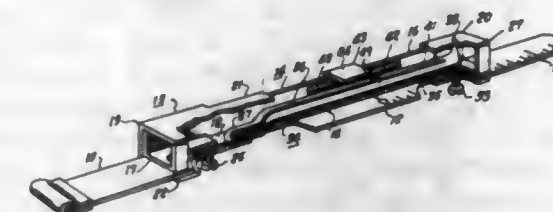
Ronald William Fenimore, Coulsdon, Colin Roderick Borley, Hildenborough, and Morgan Jellis, Coventry, England, assignors to The Mullard Radio Valve Company Limited, London, England
Application July 13, 1954, Serial No. 442,992
Claims priority, application Great Britain July 13, 1953
6 Claims. (Cl. 33-107)



2. An apparatus for measuring linear dimensions comprising an element provided with a longitudinal groove and having screw threads, each of said screw threads being provided with side surfaces and an outer cylindrical surface, one of said side surfaces being formed as an accurate reference surface, a longitudinal measuring face on one side of said groove intersecting said screw threads and generated by motion of a substantially straight line parallel to the axis of said screw threads, the intersections of the reference surfaces of said screw threads and said longitudinal measuring face providing the scale divisions for said apparatus.

2,820,296 TEMPERATURE COMPENSATING ATTACHMENT FOR LINEAL MEASURES

Clifford L. Fabian, McAllen, Tex.
Application May 31, 1956, Serial No. 588,434
9 Claims. (Cl. 33-137)



1. A temperature compensating device for a lineal measure subject to thermal expansion and contraction including thermometer means proportioned in accordance with the length of the lineal measure and its coefficient of expansion and including a tube sealed at one end with a reservoir at its opposite end, and means for mounting the thermometer means on one end of the measure with its reservoir in heat exchange relation to the measure and

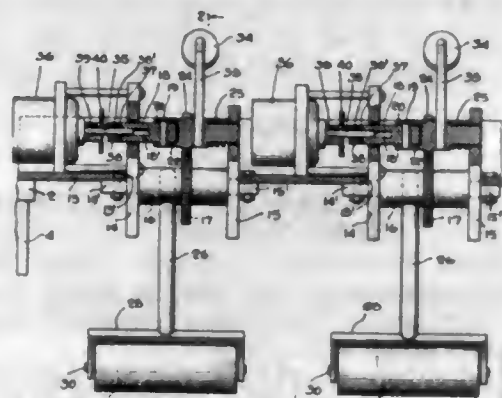
with its tube extending longitudinally of the measure and toward its opposite end, said thermometer means having a liquid column in its tube with the end of the column coinciding with the terminal indicia of the measure at a predetermined standard temperature whereby said liquid column end remains a constant distance from the opposite end of the measure and indicates the correct measurement.

2,820,297

LAP ROLL ANALYZER

Wilmer C. Anderson, Greenwich, Conn., assignor to Deering Milliken Research Trust, Pendleton, S. C., a trust of Maine

Application February 14, 1952, Serial No. 271,471
13 Claims. (Cl. 33—148)



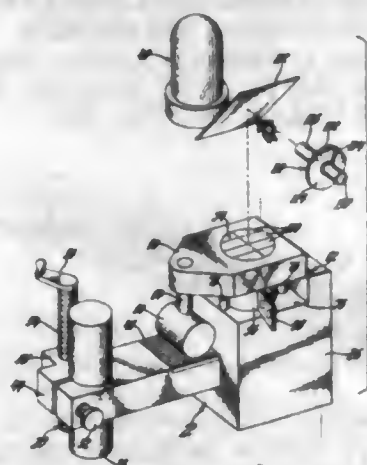
1. A device for detecting variations in thickness of a textile lap traveling over a roll in the direction of its length which comprises a plurality of members positioned to contact the lap while traveling over said roll, said members being laterally spaced with respect to the width of the lap, means biasing said members into engagement with the lap, and mechanico-electrical transducing means associated with said members and continuously responsive to displacements thereof in a direction having a component normal to the surface of the lap for creating an instantaneous electrical signal indicative of the instantaneous average thickness of the lap across the width thereof, said transducing means including a common electrical output summing loop operatively electro-mechanically connected to and interconnecting each of said members.

2,820,298

OPTICAL COMPARATOR

Philip J. Bendt, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 2, 1953, Serial No. 334,533
20 Claims. (Cl. 33—149)



1. In an optical comparator the combination of a member having a substantially optically flat surface thereon, and a second member having a substantially optically flat surface thereon which is in juxtaposition to said first optically flat surface, pivot means supporting said second

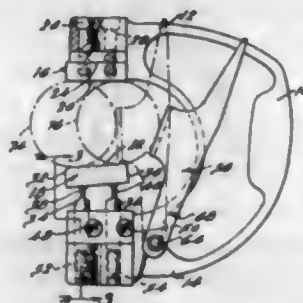
member for movement about an axis of rotation, said axis being disposed obliquely to at least one of said optically flat surfaces.

2,820,299

ADJUSTABLE SNAP GAGE

George Hohwart, Farmington Township, Oakland County, and Ernest F. Hohwart, Detroit, Mich.

Application July 10, 1953, Serial No. 367,246
6 Claims. (Cl. 33—163)



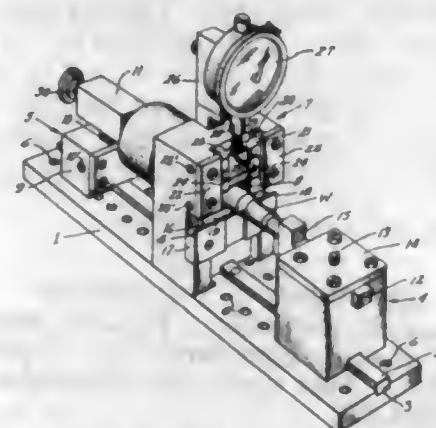
3. A snap gage comprising a generally C-shaped body having spaced end portions, aligned gage blocks having confronting work-engaging surfaces disposed in acute angular relation and adapted to engage opposite sides of a workpiece inserted therebetween, mountings fastening said gage blocks on respective end portions of the body including flexible reeds carrying one of said blocks, and individually adjustable to vary the angular relation between said blocks and a visual indicator for registering the extent to which a workpiece can be inserted between said blocks, said indicator including an arm pivoted on one arm of the body extending between said arms in proximity to said gage blocks, said pointer being directly engageable by a workpiece inserted between said gage blocks, and a scale having "go" and "no go" limits on the body and extending within the limits of pivotal movement of said arm, said arm being actuatable across said scale by a workpiece inserted between and in contact with said gage blocks and co-operating with said arm to give a visual reading of the inserted position of said workpiece.

2,820,300

CHECK GAUGE FOR TAPERED OBJECTS

Walter Gadomski, Thompsonville, Conn.

Application March 4, 1954, Serial No. 414,168
4 Claims. (Cl. 33—174)



1. A gauge device to check the dimensional accuracy of a tapered cylindrical object with reference to a datum line diameter which comprises a base, end supports and an intermediate support mounted directly on said base, each support having means independently anchoring the same to the base in fixed relation thereto, said intermediate support having an opening for admitting a tapered cylindrical workpiece disposed between the end supports and for resting said cylinder in supported relationship at the location of said intermediate support, and spaced parallel abutment members at opposite sides of said opening lying in a plane at right angles to the base

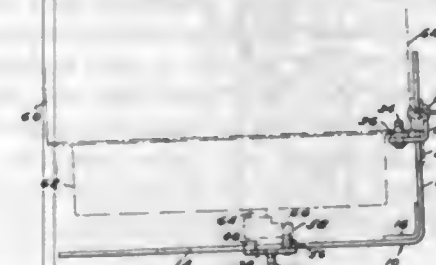
to engage a tapered portion of a workpiece extending through said opening, at least one of said abutment members being adjustable to position the abutments in predetermined spaced relation, one end support having centering means with mechanism to adjust the spacing thereof from said base and having means for carrying the cylindrical workpiece in end supporting relationship with the axis thereof mounted between said spaced abutment members in a plane parallel to said base, said centering means normally urging said cylinder towards the other end support, said other end support having a third abutment member adjustable to position the same in predetermined spaced relation to the plane of said abutment members of the intermediate support and for engaging the other end of said cylinder with a simple bearing contact, one of said adjustable abutment members being freely movable and having a comparator gauge device associated therewith responsive to the movement of said member for indicating any variation from the said predetermined spaced relation thereof.

2,820,301

THROTTLE LEVER CHECKING GAUGE

Richard B. White, Munith, Mich., assignor to Kent-Moore Organization, Inc., Detroit, Mich., a corporation of Michigan

Application April 20, 1956, Serial No. 579,495
9 Claims. (Cl. 33—181)



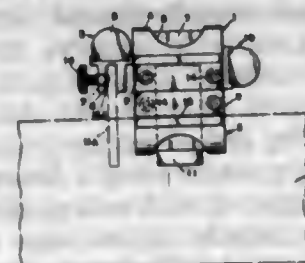
1. A gauging device for determining transmission throttle lever position on a transmission having a housing and a throttle lever comprising: a linearly extending arm adapted to be positioned to extend alongside the transmission housing adjacent the throttle lever, means connected to said arm and extending upwardly therefrom and adapted to be coupled to the transmission housing for positioning the arm as aforesaid, a gauging carriage mounted on the arm for shiftable movement therealong and for coupling with the throttle lever, means mounted on the carriage for fixedly positioning it longitudinally of the arm, and means for indicating determined positions of the carriage along the arm.

2,820,302

MULTIPLE SPIRIT LEVEL

Jhon D. Mitchell, Portland, Oreg.

Application June 21, 1956, Serial No. 592,964
1 Claim. (Cl. 33—207)



A composite spirit level for handling as a unit comprising a horizontally disposed spirit level having a downwardly opening slotted base, a horizontally disposed spirit level secured to each end of the first mentioned spirit level and arranged at right angles thereto, another horizontally disposed spirit level having an upwardly opening slotted base identical with and abutting said slotted base of the

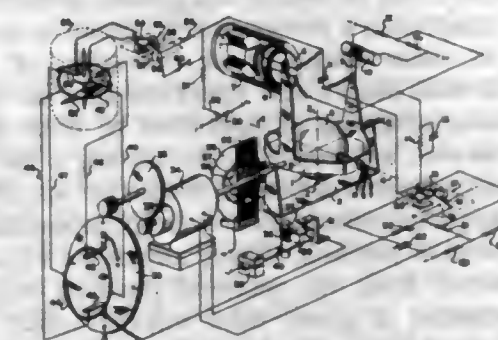
first mentioned spirit level, a clamping plate having fastening elements extending therethrough near both of its ends and adapted for attachment to both of said bases, and a permanent magnet disposed between said fastening elements and clamped to both of said bases by the clamping plate, said magnet extending below said clamping plate whereby a shoulder is provided by the bottom edge of the clamping plate intermediate its ends for positioning all of said spirit levels parallel to a straight edge of a workpiece when applied and attached thereto by said magnet, and one of the spirit levels at one end of the first mentioned spirit level having a downwardly opening slotted base provided with fastening elements through one side thereof and thereby adapted for engagement with a permanent magnet independent of the first mentioned magnet, whereby the bottom of the last mentioned base on both sides of said slot provides a shoulder for positioning all of said spirit levels transversely of and parallel to a straight edge of a workpiece.

2,820,303

INTEGRATING TURN INDICATOR

Hans Jurgen Dudenhausen, Stuttgart, Germany, assignor to Intavex, Inc., New York, N. Y., a corporation of New York

Application February 4, 1954, Serial No. 408,133
9 Claims. (Cl. 33—222)



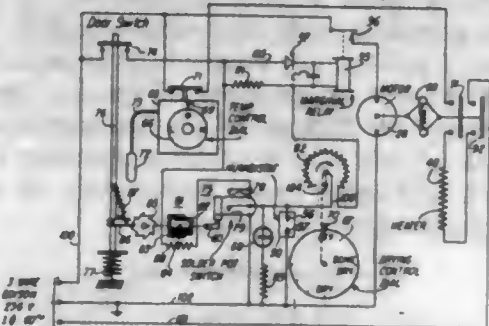
9. An integrating turn indicator for a vehicle comprising a support, a frame mounted on said support for rotation with respect thereto about a first axis, a rotor mounted on said frame for rotation with respect thereto about a second axis perpendicular to said first axis, a winding fixed with respect to said frame for motion with said frame in a magnetic field, means coupled to said frame for deriving from a direct current potential difference a voltage varying in sign and magnitude with departures of said frame from a zero position about said first axis, a condenser, means to apply said voltage to a series circuit including said winding and condenser, a reversible motor, means coupling said motor to said frame for rotation of the latter about said first axis, said coupling means transmitting a torque proportional to motor speed, means to drive said motor at a speed substantially proportional to departures of said frame from said zero position, a first closed circular potentiometer, a pair of first brushes engaging said first potentiometer at points 180° apart thereon, means driven by said motor effecting rotation of said first brushes on said first potentiometer at a rate related to the speed of said motor by the same factor as that relating rotation of said support about a turn axis of said vehicle perpendicular to said first axis to the speed of said motor, a compass, a second closed circular potentiometer, a pair of second brushes engaging said second potentiometer at points 180° apart thereon, means to move said second brushes over said second potentiometer at the same rate as the rate of change of bearing of said compass with respect to vehicle heading upon change of vehicle heading about said turn axis, connections between said first and second potentiometers at points thereof 90° apart, means to apply a potential difference between said first brushes, and means energized by voltage appearing

between said second brushes to energize said winding with a voltage of polarity dependent on the polarity of the voltage between said second brushes.

2,820,304

CLOTHES DRYING MACHINES

Stanley Horecky, Oak Park, Ill., assignor to General Electric Company, a corporation of New York
Application December 17, 1954, Serial No. 476,011
10 Claims. (Cl. 34-45)

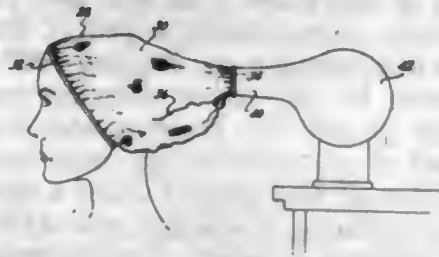


1. In a clothes drying machine including a drum mounted for rotation about a substantially horizontal axis and adapted to receive the clothes to be dried, a heater operative to heat said drum in order to evaporate moisture from the clothes therein, and a motor operative to rotate said drum in order to tumble the clothes therein; the combination comprising a power switch operative into a closed position to cause initiating of operation of both said motor and said heater and operative into an open position to cause arresting of operation of both said motor and said heater, a control switch having a normal position and an operated position, manually operable means for actuating said control switch from its normal position into its operated position, timing means for returning said control switch from its operated position back into its normal position a given time interval after actuation thereof, a humidistat governed in accordance with the amount of moisture carried by the clothes in said drum and operative into a control condition when the clothes in said drum are in a predetermined state-of-dryness, and means responsive to the actuation of said control switch into its operated position for operating said power switch into its closed position and responsive jointly to the return of said control switch into its normal position and to the operation of said humidistat into its control condition for operating said power switch into its open position.

2,820,305

HAIR DRYING BAG

Ethel C. Brown, Mission, Kans.
Application March 15, 1954, Serial No. 416,135
1 Claim. (Cl. 34-99)



As an article of manufacture, a hair drying bag comprising an initially flat, elongated, flexible, porous panel having a rectangular portion including a pair of end edges and a pair of longitudinally extending sides, there being a plurality of trapezoidally configured tabs extending outwardly from said portion along the entire longitudinal length of one side thereof, said tabs presenting a plurality of identical, equally spaced, V-shaped notches defined by respective, outwardly diverging side edges of the tabs, said

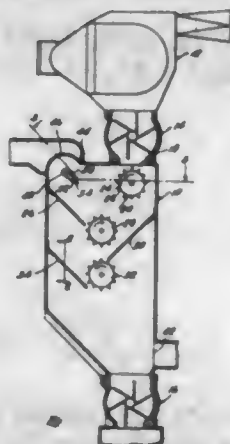
notches terminating in equally spaced, apex ends disposed in substantial alignment along said one side of the portion, the end edges of the rectangular portion being slightly overlapped, and adjacent side edges of the tabs being disposed in respective slightly overlapping relationship; lines of stitching joining each of said overlapped edges respectively to present a hollow, ovate-oblong body having a head-receiving opening formed by the opposite side of the portion and a second opening formed by the outermost edges of the tabs, said second opening being appreciably smaller than the head-receiving opening; a continuous, elastic band secured to said opposite side of the portion forming the head-receiving opening; and a second continuous, elastic band secured to the outermost edges of the tabs forming said second opening, said bands constricting their respective openings to a designated size.

2,820,306

COTTON DRIER

Algernon L. Smith, Birmingham, Ala., assignor to Continental Gin Company, Birmingham, Ala., a corporation of Delaware

Application June 16, 1954, Serial No. 437,152
7 Claims. (Cl. 34-168)



1. A tower drier comprising a casing, a separator mounted on said casing, a cotton inlet opening in said casing, a vacuum dropper mounted below said separator and being operable to receive cotton from said separator and drop the cotton into said casing through said inlet opening, a picker roller mounted in said casing directly below said dropper to receive cotton therefrom, said picker roller being rotatable to move its upper surface toward one side of said casing, a foraminous baffle supported adjacent said one side of said casing said baffle being positioned entirely to one side of said roller, said baffle projecting inwardly and downwardly in said casing and having an end terminating adjacent the center of said casing, said baffle being adapted to support cotton received from said dropper but being pervious to air, a second picker roller positioned adjacent said end of said baffle to receive cotton therefrom, said second picker roller being mounted centrally in said casing, said second picker roller being rotatable to move its upper surface toward an opposite side of said casing, a second foraminous baffle supported adjacent the side opposite said one side of said casing and projecting inwardly and downwardly in said casing, and having a lower end terminating adjacent the center of said casing, said second baffle being substantially entirely to one side of said second picker roller, said second baffle being adapted to support cotton but being pervious to air, said second baffle being positioned to receive cotton from said second roller a third picker roller positioned adjacent the lower end of said second baffle to receive cotton therefrom, said third picker roller being positioned centrally of said casing, said third picker roller being rotatable to move its upper surface toward an opposite side of said casing, means positioned at the bottom of said casing operable to drop

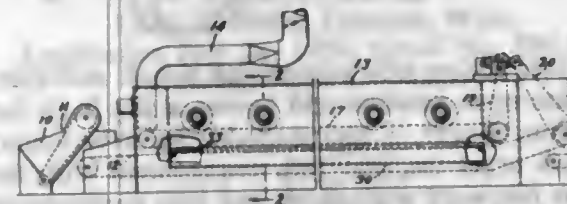
cotton out of said casing, a hot-air inlet in said casing above the last named means and below the baffles, an air outlet above said baffles, a foraminous screen positioned across said air outlet and wiper means for wiping cotton off said screen, said air outlet being spaced from said cotton inlet opening.

2,820,307

CONVEYING AND TREATING SYSTEM FOR LOOSE MATERIALS

Stanislaus Bogaty, Philadelphia, Pa., assignor to Proctor and Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application November 12, 1954, Serial No. 468,390
10 Claims. (Cl. 34-223)



1. In an apparatus for conveying loose material between opposed conveyor sections, the combination comprising a pair of conveyors having aligned vertically spaced runs between which material is adapted to be confined and conveyed, side guard plates secured to said conveyors and extending vertically toward each other with a narrow vertical space between their adjacent edges in said aligned runs, a flexible and resilient sealing strip, and means for mounting said strip for rubbing contact with said adjacent edges of the side guard plates of both of said conveyors along the longitudinal extent of said runs, whereby to provide a confining and sealed travelling chamber between said aligned conveyor runs.

2,820,308

ARTICLE OF FOOTWEAR

Preston E. Hiestand, Princeton, Wis., assignor to Handcraft Company, Inc., Princeton, Wis., a corporation of Wisconsin

Application June 10, 1952, Serial No. 292,707
1 Claim. (Cl. 36-9)



An upper for an article of footwear, comprising: two pairs of flexible members with one pair superimposed on the other, each of said members having an identical size and configuration with respect to each of the others of said members, each of said members having a narrow portion extending rearwardly from an end thereof for approximately one-half the length of said member and serving as a side wall for the forward portion of the foot, each of said members also having a relatively wide portion at its other end constituting the remainder of said member, said narrow and wide portions merging together in a section having a concavely curved upper edge, said wide portions serving as a side wall for a heel and ankle embracing section, an evaginated seam securing together the wide ends of the members of each pair with the evaginated portions of one pair in contacting relation to the corresponding evaginated portions of the other pair, each member of each pair also having an evaginated upper marginal portion disposed in contacting relation to the

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contiguous member of the other pair; an evaginated seam securing together said upper marginal portions of said members in said contacting relationship, the stitches of said last-mentioned seam extending through and holding the upper extremities of the vertical marginal portions of said wide ends in said evaginated position; and an evaginated seam securing the narrow ends of the members of each pair together in evaginated relation with the portions of one pair in contacting relation to the corresponding portions of the other pair, said last-mentioned stitching extending through and holding the extremities of the evaginated ends of said upper marginal portions at said narrow ends in evaginated relation.

2,820,309

RECORD IDENTIFICATION MEANS

Stuart E. Egan, Detroit, Mich.
Application August 10, 1955, Serial No. 527,622
6 Claims. (Cl. 40-2)



1. An identification device for disc phonograph records comprising a tab member of sufficient size to receive record identifying information thereon, said tab member being formed with a narrow width groove adjacent the edge thereof to loosely receive a small portion of the peripheral edge of the record so that the tab member projects outwardly therefrom, and flexible attachment means secured to said tab member and engageable with the center hole in the record to maintain the edge of the record in said groove, said attachment means being releasable from the center hole in the record when said tab member groove has been disengaged from the peripheral edge of the record.

2,820,310

PICTURE FRAMES

Frederick W. John, Lombard, Ill., assignor to Turner Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application March 31, 1955, Serial No. 498,287
2 Claims. (Cl. 40-152)



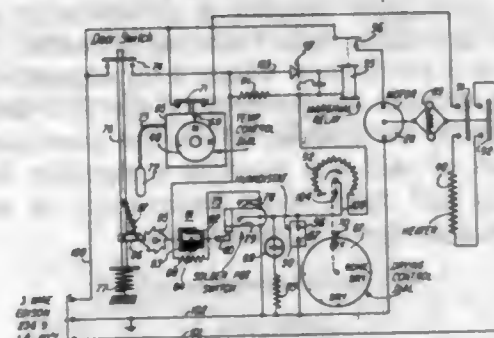
1. A picture frame composed of top, bottom and side moldings defining a rectangular sight opening, top, bottom and a pair of side rails in spaced relation to the defining edges of said sight opening projecting rearwardly of said moldings and normal to the plane of the sight opening forming a rectangular seat for a glass panel, said top and side rails being of substantially equal height and substantially twice that of the thickness of the glass panel

between said second brushes to energize said winding with a voltage of polarity dependent on the polarity of the voltage between said second brushes.

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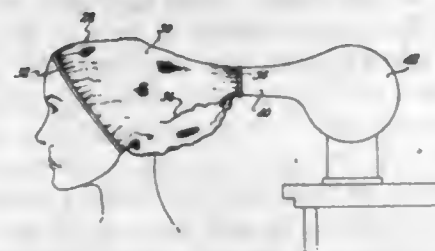


1. In a clothes drying machine including a drum mounted for rotation about a substantially horizontal axis and adapted to receive the clothes to be dried, a heater operative to heat said drum in order to evaporate moisture from the clothes therein, and a motor operative to rotate said drum in order to tumble the clothes therein; the combination comprising a power switch operative into a closed position to cause initiating of operation of both said motor and said heater and operative into an open position to cause arresting of operation of both said motor and said heater, a control switch having a normal position and an operated position, manually operable means for actuating said control switch from its normal position into its operated position, timing means for returning said control switch from its operated position back into its normal position a given time interval after actuation thereof, a humidistat governed in accordance with the amount of moisture carried by the clothes in said drum and operative into a control condition when the clothes in said drum are in a predetermined state-of-dryness, and means responsive to the actuation of said control switch into its operated position for operating said power switch into its closed position and responsive jointly to the return of said control switch into its normal position and to the operation of said humidistat into its control condition for operating said power switch into its open position.

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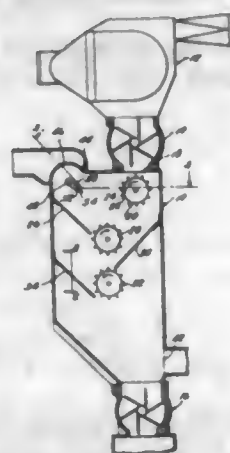
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notches terminating in equally spaced, apex ends disposed in substantial alignment along said one side of the portion, the end edges of the rectangular portion being slightly overlapped, and adjacent side edges of the tabs being disposed in respective slightly overlapping relationship; lines of stitching joining each of said overlapped edges respectively to present a hollow, ovate-oblong body having a head-receiving opening formed by the opposite side of the portion and a second opening formed by the outermost edges of the tabs, said second opening being appreciably smaller than the head-receiving opening; a continuous, elastic band secured to said opposite side of the portion forming the head-receiving opening; and a second continuous, elastic band secured to the outermost edges of the tabs forming said second opening, said bands constricting their respective openings to a designated size.

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cotton out of said casing, a hot-air inlet in said casing above the last named means and below the baffles, an air outlet above said baffles, a foraminous screen positioned across said air outlet and wiper means for wiping cotton off said screen, said air outlet being spaced from said cotton inlet opening.

2,820,307

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contiguous member of the other pair; an evaginated seam securing together said upper marginal portions of said members in said contacting relationship, the stitches of said last-mentioned seam extending through and holding the upper extremities of the vertical marginal portions of said wide ends in said evaginated position; and an evaginated seam securing the narrow ends of the members of each pair together in evaginated relation with the portions of one pair in contacting relation to the corresponding portions of the other pair, said last-mentioned stitching extending through and holding the extremities of the evaginated ends of said upper marginal portions at said narrow ends in evaginated relation.

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6 Claims. (Cl. 40-2)



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2,820,310

PICTURE FRAMES

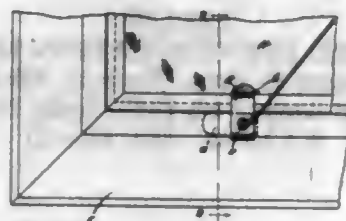
Frederick W. John, Lombard, Ill., assignor to Turner Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application March 31, 1955, Serial No. 498,287
2 Claims. (Cl. 40-152)



1. A picture frame composed of top, bottom and side moldings defining a rectangular sight opening, top, bottom and a pair of side rails in spaced relation to the defining edges of said sight opening projecting rearwardly of said moldings and normal to the plane of the sight opening forming a rectangular seat for a glass panel, said top and side rails being of substantially equal height and substantially twice that of the thickness of the glass panel

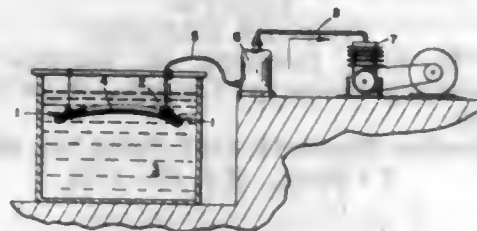
to be received, said bottom rail being of a height substantially that of the thickness of said glass panel, and a backing member secured to said top and side rails and projecting over said bottom rail in spaced relationship thereto forming a downwardly opening pocket, said glass panel being receivable for seating in said frame through said pocket downward opening.

2,820,311
PICTURE FRAME SECURING BRACKET
Ela E. Hamlin, Monahans, Tex.
Application September 29, 1953, Serial No. 382,980
1 Claim. (Cl. 40—156)



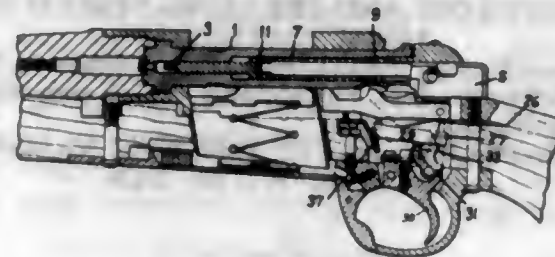
A device for securing a picture and its stretcher frame in a picture frame, comprising a spring clip formed of a U-shaped resilient strip including a long leg and a short leg, said legs being spaced apart and having aligned openings therein spaced from the bight of the U-shaped clip, for the reception of a screw adapted to engage in said picture frame, the short leg resting flat on said picture frame, a laterally and inwardly curved end portion on said long leg adapted to engage over said stretcher frame, the spacing of said arms and opening leaving a space between said arms and the bight of said clip through which said screw extends, providing a means for securing an end of a picture supporting wire to said screw.

2,820,312
ETCHING TEMPLATE
Leland I. Coontz, Jr., Long Beach, Calif., assignor to North American Aviation, Inc.
Application December 23, 1954, Serial No. 477,260
3 Claims. (Cl. 41—9)



1. An etching template for masking a predetermined area of at least one side of a workpiece to be immersed in an etching bath comprising a first masking means having an outer peripheral edge and an inner peripheral edge formed in a predetermined pattern, a gasket continuously sealed to one surface of said member at said inner edge thereof, said gasket being of relatively limited width having an inner edge corresponding to said pattern and an outer edge spaced from the outer edge of said masking means, second masking means including at least a resilient outer edge portion substantially coextensive with the outer edge of said first masking means and sealingly engaged therewith, a discontinuous spacing strip secured to said one surface and spaced from said gasket, said strip being substantially coextensive with said gasket, said second masking means having a body portion spaced from said one surface, said strip and said gasket for receiving a workpiece therebetween, and means in fluid communication with the space between said first and second masking means for evacuating said space.

2,820,313
BOLT-ACTION RIFLE AND FIRING MECHANISM THEREFOR
Claude Alfred Perry, Olton, Birmingham, and Roger David Wackrow, Handsworth, England, assignors to The Birmingham Small Arms Company Limited, Small Heath, Birmingham, England
Application February 19, 1954, Serial No. 411,525
3 Claims. (Cl. 42—16)



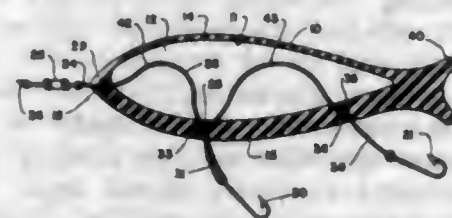
1. A bolt action rifle comprising a bolt movable rearwardly into open position and having a slot in its forward end portion, a sear, a spring-loaded lever to actuate the sear which urges the sear into engagement with the bolt during its rearward movement and into engagement with said slot when the bolt is at its normal limit of rearward movement to prevent removal of the bolt, a spring-loaded catch member engageable with said lever, a trigger pivoted on the rifle, and means operative by depression of the trigger to hold the lever in a depressed position by the catch member to thereby prevent the sear from engaging with said slot during rearward movement of the bolt and while the trigger is held depressed and thereby allow the bolt to be removed.

2,820,314
FISHING LURE CONSTRUCTION
Delmer D. Scott, Encino, Calif., assignor to Jack B. Nethercutt, Los Angeles, Calif.
Application January 25, 1954, Serial No. 405,774
1 Claim. (Cl. 43—42.1)



A fishing lure of the character described including, a fish hook adapted to be secured to a fish line, a body in the form of a live bait yielding covering the hook and formed of interconnected cellular material, and a water repellent silicone coating normally stopping flow of water into and out of the cellular body, the body being manually compressible to selectively draw in and/or exchange water through said coating.

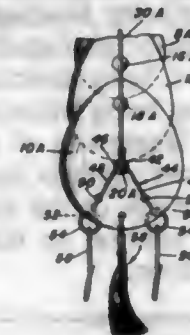
2,820,315
FISH LURE
Helen M. Lowe, Roberts Creek, British Columbia, Canada
Application August 31, 1953, Serial No. 377,563
1 Claim. (Cl. 43—42.04)



A fish lure comprising an elongated flexible hollow body formed of resilient material which on being stretched snaps back to its normal shape, said body being adapted to attract fish as it is being drawn through water, securing means at one end of the body by means of which a line may be connected thereto, attaching means embedded in

a wall portion of the body, a line extending from the securing means within the body toward the opposite end thereof, said line being connected to said attaching means at points spaced from each other and from the securing means, one of said points being adjacent the end of the body opposite the end with the securing means and the line extending outwardly of the body from the latter point, a hook connected to said extended line and spaced from the body, and a hook outside the body connected to the line and at another point, said body stretching when pulled by a fish caught on the hook or gripping the body and snapping back and tending to embed one or both hooks in the fish.

2,820,316
FISHING LURE
Louis E. Wille, Laramie, Wyo.
Application July 24, 1956, Serial No. 599,786
1 Claim. (Cl. 43—42.36)



An artificial fishing lure embodying a body comprising several spoons having adjacent portions overlapping one another and fixed together, the convex sides of said spoons facing downwardly when the lure is in use, there being a leading spoon, a trailing spoon and a central spoon interposed between said leading and trailing spoons, said spoons increasing in size from the forward end toward the rearward end of said body, whereby the leading spoon is the smallest, the central spoon slightly larger than the leading spoon and the trailing spoon is the largest, said leading spoon having a flange at its front end with a centrally located hole therein, said trailing spoon having a pair of spaced holes therein forwardly of its rear end, a linearly straight wire passing through said first-named hole, overlying the leading and central spoons and terminating at its rear end in an eye situated above the central portion of the trailing spoon, and a V-shaped wire yoke located substantially above said trailing spoon and having its vertex portion connected with said eye and its outwardly and rearwardly diverging limbs passing through the respective holes of said pair of spaced holes and terminating in eyes which are adapted to carry fishhooks.

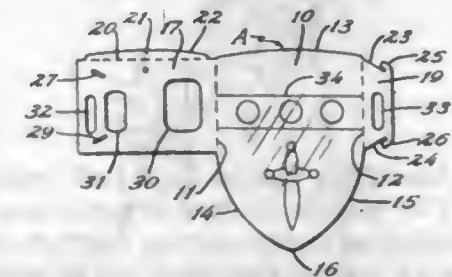
2,820,317
FISHING FLOAT
Harry Basil Irwin, Dayton, Ohio, assignor to Dayton Bait Co., Dayton, Ohio, a corporation of Ohio
Application May 3, 1954, Serial No. 427,181
2 Claims. (Cl. 43—43.14)



1. In a fishing float including a pair of hollow semi-spherical members provided with marginal flange portions and adapted to telescope together to form a substantially spherical housing, said marginal flange portions cooperating to form a watertight joint between said semi-spherical

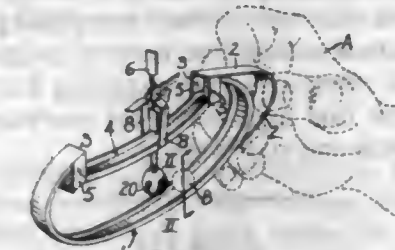
members, each of said semi-spherical members having an inwardly projecting tubular member, said tubular members engaging one another to form a hollow tube extending substantially diametrically within said housing, and yielding means disposed within said hollow tube for drawing said semi-spherical members together, the improvement wherein one of said tubular members has a diameter smaller than that of the other tubular member so as to telescope within said other tubular member, the larger of said tubular members having an internally projecting annular abutment portion therein providing a seat for the end of the smaller of said tubular members whereby a watertight seal is formed between said tubular members, there being a substantially watertight cavity thus formed between said spherical housing and said internal hollow tube, and wherein said marginal flanges are provided with alignable notches forming openings for ingress and egress of fluid to and from said cavity, said semi-spherical members being rotatable one relative to the other so as to selectively align and misalign said notches to selectively open and close said openings.

2,820,318
TOY SHIELD
Reynolds Guyer, St. Paul, Minn., assignor to Waldorf Paper Products Company, Ramsey County, Minn., a corporation of Minnesota
Application June 28, 1954, Serial No. 439,787
4 Claims. (Cl. 46—1)



1. A shield comprising a paperboard sheet including a shield body having near the upper end thereof substantially parallel edge portions, a pair of rear panel members one of which is foldably secured to each of said edge portions, said members overlapping, interlocking means on said members holding the same connected, said members when connected, being narrower than the width of the shield body and holding said shield body outwardly bowed away from said members while said members remain flat, the rear panel members having an arm opening therein and a pair of hand openings in spaced relation to each other, and laterally spaced from said arm opening.

2,820,319
BALL AND RACE TOY
Isaac Marinsky, Providence, R. I., assignor of one-half to Jacob Marinsky, Culver City, Calif.
Application June 10, 1955, Serial No. 514,530
6 Claims. (Cl. 46—42)

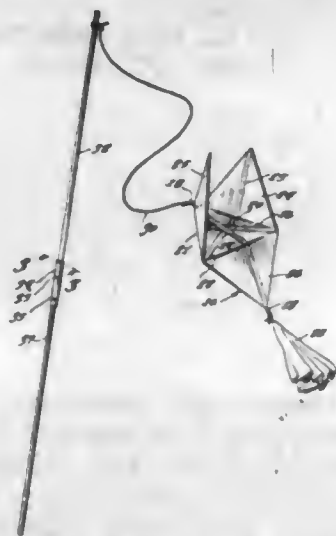


1. A toy, cooperable with a ball to allow a user to impart entertaining and cyclic motion thereto over a cyclic ball path, comprising: ball race means partially constraining the motion of said ball over portions of said cyclic ball path; said ball race means including longitudinal arcuate ball-guiding channel means, said channel means being inwardly open and cooperable to receive, guide,

and constrain said ball to move along the inside of the arcuate curvature thereof; a handle member, attached to said channel means, suited to be manually grasped to allow ball-actuating motion to be given to the toy; said cyclic ball path being completed through an action region, through which said ball is movable; said ball race means also including outwardly open action-channel means cooperable to receive, guide, and constrain said ball to move along the outside of said action-channel means through said action region, said ball race means having a ball exit region and a ball reception region connecting the inwardly open ball-guiding channel means and the outwardly open action-channel means at each end of said action-channel means, said action region being positioned between said ball exit region and said ball reception region along the outside of the outwardly open action-channel means; signal-operating means mounted adjacent said ball race means at least partially in said ball path to be movable by impact with said ball; and signal means actuated by said signal-operating means.

2,820,320

GLIDING KITE MOUNTED ON A STICK
Robert Levicy, White Plains, N. Y.
Application December 18, 1956, Serial No. 629,030
2 Claims. (Cl. 46-77)



1. A dynamic kite comprising, in combination, an equilateral triangular sheet of flexible material, a stay strip extending from each corner of said triangular sheet to the middle of the opposite side thereof, all of said stay strips intersecting at a common point at the center of said sheet and each comprising a strip of flexible sheet material and a centrally disposed longitudinally extending pliable wire adapted to be distorted to a predetermined shape, one of said stay strips comprising a central longitudinal strip having a stabilizer connected at the rear end adjacent to one corner of said sheet and having a flexible cable connected at the opposite front end adjacent to the middle of the side opposite said corner, the other of said corners being at opposite sides of said stay strip and extending upwardly from the plane of said sheet, and said one rear corner comprising a tail folded downwardly about a fold line normal to said longitudinal strip, and said other corners comprising kite wings folded upwardly about fold lines diverging rearwardly from said front end of said one stay strip.

2,820,321

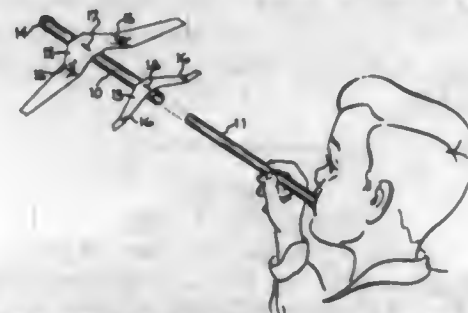
TOY AIRPLANE

James O. Kuhn, Cincinnati, Ohio, assignor to Bromo-Mint Company, Inc., Cincinnati, Ohio, a corporation of Ohio

Application November 23, 1955, Serial No. 548,608
1 Claim. (Cl. 46-81)

A light-weight, plastic airplane toy adapted to be projected into the air by air pressure, said toy comprising

a thin walled tubular fuselage made of semi-flexible plastic material, a tubular blowpipe of semi-plastic material which is substantially longer than said tubular fuselage and which is of a diameter to fit freely inside of the tubular fuselage, a cap enclosing the front end of said tubular fuselage, a wing, a horizontal stabilizer, said wing and horizontal stabilizer being made of thin, flexible, plastic sheet material which is sufficiently rigid to support the weight of the airplane toy in flight without

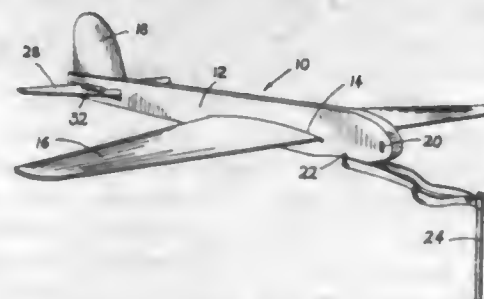


a substantial amount of bending, said wing and stabilizer being fastened to the tubular fuselage by means of wire staples which are initially U-shaped, said wire staples piercing the fuselage and being doubled over at the inside thereof, and said staples being oriented so that they and their parts are aligned lengthwise of the fuselage to provide a plurality of spaced contacts between the inside of the fuselage and the outside of the blowpipe to hold the airplane in an upright position on the blowpipe prior to its being projected therefrom.

2,820,322

TOY AIRPLANE GLIDER

Frank H. White, Rome, N. Y.
Application May 25, 1956, Serial No. 587,389
3 Claims. (Cl. 46-81)



1. A toy airplane glider of the type adapted to be launched by slingshot and the like comprising a fuselage portion, a wing mounted in a slot therein, a non-pivotable rudder mounted in the tail of said fuselage, a notch adjacent the nose of said fuselage for launching said glider, an eccentric slot in the tail of said fuselage, a stabilizer pivotally mounted about a pivot point in said slot, a small closed tube mounted on said stabilizer at approximately said pivot point, and a small ball weight positioned in said tube whereby when said glider is in an ascending attitude said stabilizer will be in normal position and when in descending attitude in an elevating position.

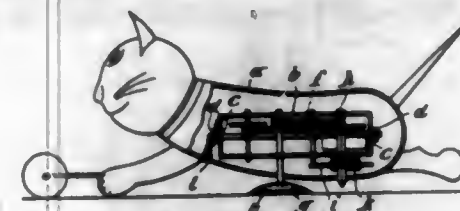
2,820,323

FORWARD RUNNING INTERMITTENTLY SWINGING TOY FIGURE

Rudolf Relser, Nurnberg, Germany
Application September 9, 1955, Serial No. 533,435
2 Claims. (Cl. 46-104)

1. In a toy figure of the type described, a spring driving mechanism provided with a winding axle and a normally vertically disposed and surface-contacting rotary disk for imparting rotation to the toy figure, bracket and axle means oscillatably suspending said spring driving mechanism and rotary disk on an inside wall of the body of the toy figure, and a cam on the winding axle of the driving mechanism which is adapted to intermittently con-

tact an abutment provided on an inside wall of the body of the toy figure so that the driving mechanism together with the rotary disk will swing laterally and the disk will



contact the surface on which the toy figure rests only with its edge portion, whereby the body of the toy figure will have a rocking lateral movement imparted thereto as well as a subsequent forward running movement.

2,820,324

DOLL WALKER

Matilda W. Echelmeyer, Los Angeles, Calif.
Application August 20, 1956, Serial No. 604,975
1 Claim. (Cl. 46-106)



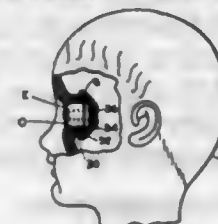
A doll walker, including: a base comprising an intermediate plate of relatively heavy metal, an upper plate secured to the upper side of the intermediate plate, and a lower plate secured to the lower side of the intermediate plate and projecting forwardly therefrom; a hanger bearing bracket secured to and extending transversely of the lower side of the intermediate plate at the rear portion thereof; an axle journaled in said bracket; rear wheels on the ends of the axle; a pair of front caster wheels mounted on the underside of the lower plate where it projects forwardly from the intermediate plate; an upright secured on the rear portion of the upper plate at a point midway between the rear wheels; and means on the upright for securing a doll in upright position thereon.

2,820,325

DOLL EYE

Robert I. Prupis, West Orange, N. J., assignor to Margon Corporation, Bayonne, N. J., a corporation of New Jersey

Application April 28, 1955, Serial No. 504,612
4 Claims. (Cl. 46-165)



1. A stationary doll's eye for use in a flexible, rubber-like head having individual substantially enclosed eye sockets within the head, said sockets having eye openings at the front of the head, said eye being integrally molded of transparent, plastic material and comprising a hollow, elongated cylindrical portion having a diameter at least as great as the diameter of the iris portion of the eye, the front of said cylindrical portion being convex, the surface

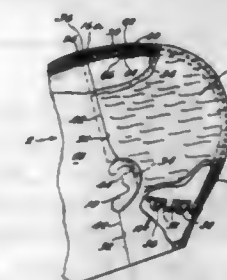
of the front inside the cylindrical portion being frusto-conical in shape, serrated to provide iris lines and tapering down to a substantially cylindrical stud to provide the pupil portion, said stud extending rearwardly to the back of the eye, and a forwardly facing flange extending outwardly from said cylindrical portion and located at least at the rear half of the eye, the rear face of said flange sloping inwardly toward the back of the eye and terminating in an annular base having a diameter less than an eye opening to facilitate insertion of the eye in a socket, said annular base having an inner peripheral edge of a diameter substantially corresponding to the iris diameter so as to provide a darkened periphery therearound when a dark color is applied to the stud and base.

2,820,326

WIGGED DOLL HEAD

David Cohn, Brooklyn, and Herbert R. Beebe, Richmond Hill, N. Y., assignors to American Character Doll Company, Inc., New York, N. Y., a corporation of New York

Application July 23, 1954, Serial No. 445,269
8 Claims. (Cl. 46-172)



5. A hollow doll head having a recessed portion substantially over the area thereof adapted to be covered by "hair," said recessed portion having a peripheral configuration defined at the front part thereof by a first surface extending from the recessed to the non-recessed head portions and at the rear part of said recessed portion by a second surface extending from the recessed to the non-recessed head portions, said second surface having an aperture extending through said head to the hollow interior thereof, and an insert secured in and substantially filling said recessed portion, said insert being formed of resiliently flexible plastic material and having a peripheral edge adapted to substantially abut said first and second head surfaces, and "hair" carried by said insert, said first head surface and the corresponding surface of said insert having interfitting portions which fix the relative positions of said insert and said head both longitudinally and vertically, said insert having a projection received within said aperture in said head and extending into the hollow interior of said head said projection extending from said insert a sufficient distance so that when said interfitting portions of said first head surface and said insert are engaged said insert must be deformed to permit said projection to enter said aperture, the return of said insert to its normal condition conforming to said recessed portion causing said projection to move further into said aperture.

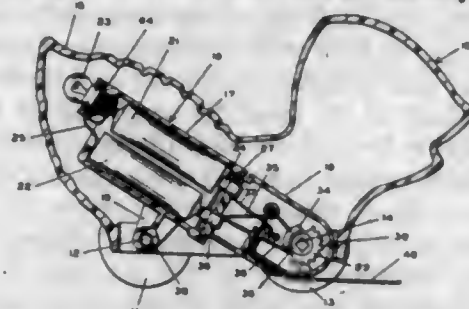
2,820,327

FLASHING LIGHT WHEELED TOY

Robert A. Charvat, Bay Village, Ohio
Application August 15, 1956, Serial No. 604,121
2 Claims. (Cl. 46-230)

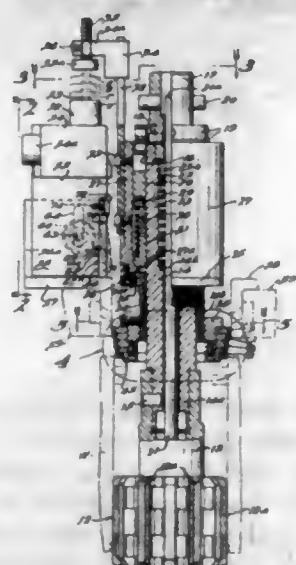
1. A toy in the form of a vehicle comprising a body having wheels for supporting it for movement along a surface, pulling means connected to the body for pulling it along the surface, a light bulb carried by the body, a source of power for the light bulb carried by the body, a switch carried by the body and connected in a circuit with said power source and said light bulb, said switch

comprising a pair of contacts movable toward and away from each other, the first of said contacts being connected to said pulling means for movement thereby toward the



other contact, and means for moving the second of said contacts toward and away from the first contact upon rotation of said wheels.

2,820,328
SIZING DEVICE FOR HONING APPARATUS
Glen M. Calvert, Detroit, Mich.
Application July 11, 1956, Serial No. 597,179
13 Claims. (Cl. 51-34)

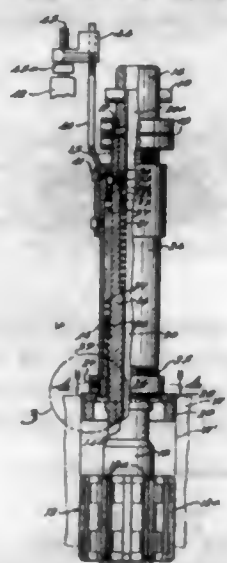


1. In a honing apparatus for honing the bore of a tubular workpiece having reciprocable and rotatable spindle means and honing means mounted adjacent one end thereof, a reciprocable annular plug gage unit encircling said spindle means and operative at the end of the workpiece bore through which the honing means enters to hone said bore, said gage unit comprising a series of juxtaposed gage rings having annularly spaced radially projecting gaging portions increasing in effective diameter in the direction away from the honing means, and means effective to initiate cessation of the honing operation upon predetermined operative entry into the workpiece bore of the gaging portions of any one of said gage rings.

2,820,329
HONING TOOL SIZING DEVICE
Glen M. Calvert, Detroit, Mich.
Application December 17, 1956, Serial No. 628,830
18 Claims. (Cl. 51-34)

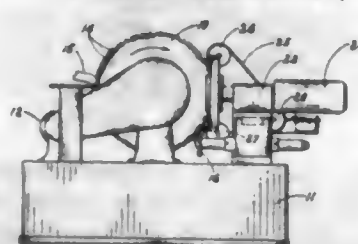
6. In a honing apparatus for honing the bore of a tubular workpiece having reciprocable and rotatable spindle means and honing means mounted adjacent one end thereof, a reciprocable annular plug gage unit encircling said spindle means and operative at the end of the workpiece bore through which the honing means enters to hone said bore, said gage unit comprising gage ring means having a taper leading end adapted to initially enter the bore and also having beyond said leading end a plurality of successive diametrical gage portions progressively increasing in effective diameter in a direction away from said leading end, control means operative preparatory to initiating cessation of the honing operation, actuating means movable in unison with said gage unit for

actuating said control means, and means for varying actuation of said control means by said actuating means to



correspond to operative entry into the workpiece bore of any pre-selected diametrical gage portion of said gage unit.

2,820,330
MACHINE TOOL
Raymond A. Mahlmeister, Dayton, Ohio, assignor, by mesne assignments, to The Sheffield Corporation, a corporation of Delaware
Application June 29, 1955, Serial No. 518,877
4 Claims. (Cl. 51-89)

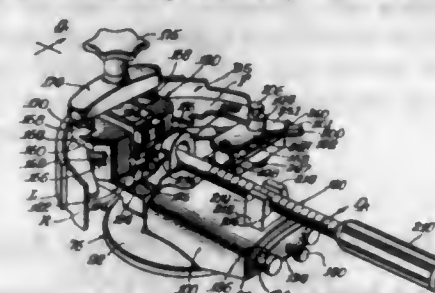


1. A grinding apparatus comprising a base, feeding means including a wheel rotatably mounted on said base having a series of spaced article receivers along its periphery, a grinding wheel, drive means connected to the grinding wheel, means carrying said grinding wheel and its drive means from said base with the grinding wheel periphery disposed adjacent one side of said wheel for grinding engagement with the articles as they pass through a grinding zone at the grinding wheel periphery, the amount of material removed being determined by the disposition of the grinding wheel relative to the feeding means, dressing means carried by said feeding means for movement through the grinding zone, said dressing means having a dressing profile corresponding to that to be ground into the article and extending from the feeding means for engagement with the grinding wheel periphery during continued rotation of the feeding wheel and means in the carrying means for the grinding wheel for moving the grinding wheel inward toward the feeding wheel a predetermined amount following the grinding of the article immediately preceding the dressing means and into position for engagement with the said dressing means, whereby the grinding wheel form is maintained and the possibility of excessive grinding is eliminated.

2,820,331
GRINDING DEVICE
Henry Robert Billeter, Deerfield, Ill., assignor to Amoco Tools, Inc., North Chicago, Ill., a corporation of Illinois
Application February 13, 1956, Serial No. 565,141
21 Claims. (Cl. 51-96)

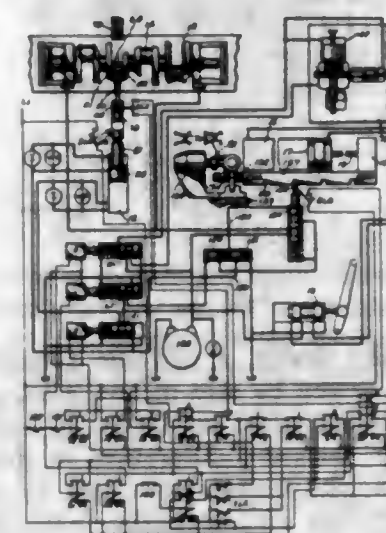
1. A workpiece holder for a grinder of the type having a base, a grinding element supported on the base, a

carriage mounted on the base for sliding movement toward and away from the grinding element, and a turntable rotatably mounted on the carriage, said workpiece holder comprising a holder base rigidly mounted on the turntable, an arm extending laterally from said holder



base, an anchor pin on said arm, a workpiece chuck slidably mounted on said holder base for arcuate movement relative thereto about said anchor pin toward and away from the grinding element, and a pivot arm connecting said chuck and said anchor pin.

2,820,332
LOCATOR
Glenn M. Snyder, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa.
Application May 12, 1955, Serial No. 507,772
4 Claims. (Cl. 51-105)

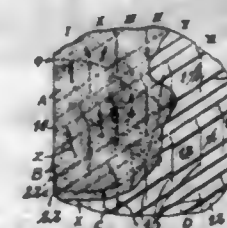


4. In a grinding machine for grinding a cylindrical portion of a workpiece having opposed shoulders or flanged portions, a wheel support, a grinding wheel rotatably mounted thereon, a longitudinally movable work support and means for moving said work support, means for rotatably supporting a workpiece thereon, means to effect an initial positioning movement of said work supporting means to move said shoulders out of alignment with said grinding wheel in a predetermined direction, a device for locating a workpiece, said device having means adapted for cooperating with said shoulder portions, and including control means operable in response to said out of line position of said work to actuate said moving means to cause relative longitudinal movement between said grinding wheel and said workpiece in the opposite direction from said initial positioning movement, and means for stopping said moving means when said workpiece and said grinding wheel are in alignment.

2,820,333
CONTACT WHEEL WITH GROOVES AND SLITS
William J. Cosmos, Mundelein, Ill.
Application July 25, 1955, Serial No. 524,033
3 Claims. (Cl. 51-141)

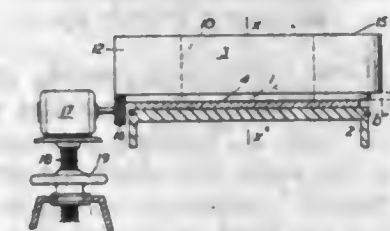
1. In a contact wheel for driving and cushioning an abrasive belt, an elastic tire having a generally cylindrical peripheral surface extending between parallel side planes,

said surface comprising a system of islands separated relative to each other by two intersecting series of deep parallel separations; one of said series comprising parallel grooves extending obliquely and continuously between said side planes to fully separate the islands from one another in a peripheral direction; and the other of said series comprising parallel slits extending continuously between said side planes and lying in planes parallel with



one another and with said side planes said slits constituting lines of contiguous material separation between adjacent islands, the opposed edge surfaces defined between adjacent islands by said slits being normally in displaceable surface contact with one another; whereby each island can flex freely and individually in a peripheral direction and groups of adjacent islands can flex relatively freely both in and across said peripheral direction.

2,820,334
GRINDING TOOLS USED FOR GRINDING FLAT GLASS AND OTHER MATERIALS
Robert Touvy, Paris, France, assignor to Societe Anonyme des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny & Crey, Paris, France, a French company
Application May 2, 1956, Serial No. 582,270
Claims priority, application France May 3, 1955
5 Claims. (Cl. 51-209)

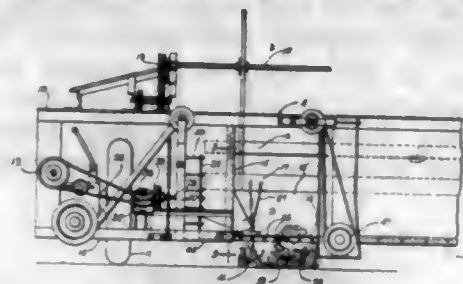


1. A rotary grinding runner of the kind comprising a central aperture into which is fed abrasive in suspension in water and an annular grinding surface surrounding the central aperture, the grinding surface being intersected by abrasive distributing channels the inner ends of which open into the said central aperture and the outer ends (the closed ends) terminate near the peripheral wall of the runner, characterized in that the peripheral wall of the runner is formed to provide a regulated outlet, for the abrasive fluid from the closed end of each distributing channel to the outside of the runner, the cross-sectional area of the outlet being such as to assure the intended pressure on the abrasive fluid in the channels being maintained during rotation of the runner and a suitable inflow of the abrasive fluid.

2,820,335
AIR BLOWER FOR A GRAIN WINDROWER
Henry O. Backstrom, Lake Bronson, Minn.
Application August 27, 1954, Serial No. 452,541
3 Claims. (Cl. 56-192)

1. In a power driven windrower including a platform movable in a horizontal plane, a plurality of spaced windrow fingers arranged inwardly of and in substantially the same horizontal plane as said platform, and an upstanding grain stalk-directing shield positioned inwardly of said fingers and having the lower end adjacent to and spaced above the portion of the fingers

adjacent thereto to form a throat, the improvement consisting in a pneumatic means including a discharge out-



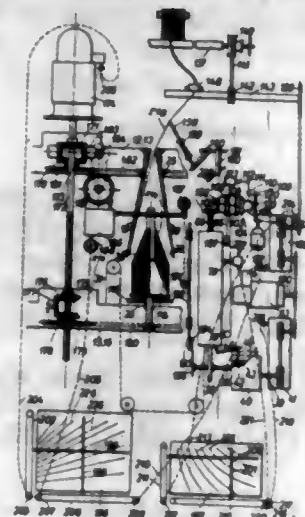
let positioned so that the discharge outlet is directed toward said throat.

2,820,336

SPINNING MACHINES

Georges Emile Marie Sagehomme, Heusy-Verviers, Belgium

Application November 16, 1954, Serial No. 469,270
Claims priority, application Netherlands May 29, 1951
28 Claims. (Cl. 57-94)



1. Spinning frame comprising rotating spindles, rotating thread guides, a feed roller doubling as a delivery roller, a driving shaft, a "building motion," the driving shaft driving at the same time both the feed roller and the "building motion," members on which the thread is wound and which are fixed on the spindles, a differential gear, two planet gears mounted within the differential gear, a crown gear being provided within the differential gear, one of the planet gears driving positively the spindles, that is the spindles and said members on which the thread is wound, have a speed always proportional to that of one of the planet gears, the other planet gear driving positively the thread guides, that is said guides have a speed always proportional to that of the second planet gear, a motor driving the crown gear of the differential gear, a device for automatic speed control of said motor, two conditioning elements provided in said device, one of said elements being tied to the position of the "building motion," a speed control device controlling said driving shaft and the position of which determines that of the second conditioning element, and a variable speed gear arranged between said driving shaft and the feed roller, the instantaneous speed of the latter roller being selected in such a way that the winding speed on said members is greater than the delivery speed of said feed roller.

2,820,337

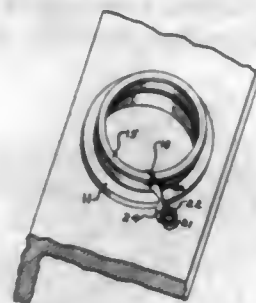
TRAVELER CLEANER

George C. Warren, Jr., Alexander City, Ala., assignor to The Russell Manufacturing Company, Incorporated, a corporation of Alabama

Application April 17, 1957, Serial No. 653,399
4 Claims. (Cl. 57-119)

1. In a traveler cleaner for spinning frames, twisting frames and the like having a ring around which the

traveler revolves, a base member adapted to be adjustably supported outwardly of said ring, and a relatively flat vertically extending member connected to said base



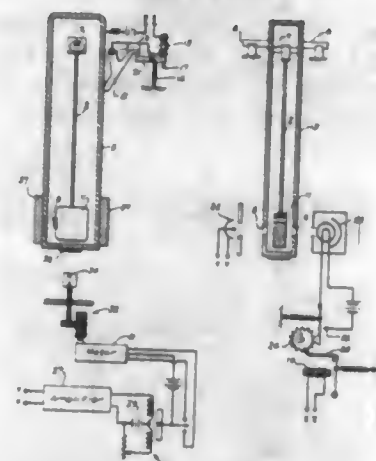
member and having a concave inner surface adapted to be positioned adjacent and outwardly of said ring a distance to permit passage of the traveler.

2,820,338

CONSTANT PERIODIC MOTION DEVICE

Jacob Rabinow, Takoma Park, Md.

Application May 25, 1955, Serial No. 510,941
9 Claims. (Cl. 58-29)



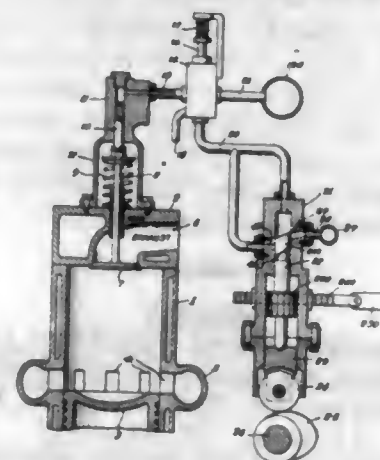
6. In a timing device, a periodic actuating means, a first pendulum driven by said means, a second pendulum supported for independent oscillation by said first pendulum, means for detecting differences in motion between said pendulums, and means controlled by said detecting means for affecting said periodic actuating means to maintain a constant phase relationship between said pendulums.

2,820,339

TURBO-CHARGED INTERNAL COMBUSTION ENGINES AND METHODS OF STARTING AND OPERATING THEM

Emil Grieshaber and Paul S. Shirley, Milwaukee, Wis., assignors to Nordberg Manufacturing Co., Milwaukee, Wis., a corporation of Wisconsin

Application March 31, 1952, Serial No. 279,524
11 Claims. (Cl. 60-13)



3. In an internal combustion engine having exhaust and inlet ports and means for opening and closing them, a

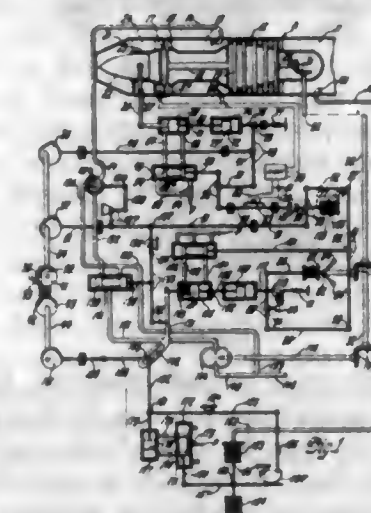
turbo-charger connected to receive exhaust gas from the engine and to supply scavenging and supercharging air to the engine, means responsive to load conditions for advancing the time of opening of the exhaust port as load decreases, and means for increasing the supply of fuel to the engine responsive to load conditions to compensate for the energy subtracted from the power stroke and supplied to the turbine of the turbo-charger as a result of the earlier opening of the exhaust port.

2,820,340

TURBOJET ENGINE FUEL AND NOZZLE CONTROL SYSTEM

John Dolza, Davisburg, Mich., and Otakar P. Prachar and John B. Wheatley, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 30, 1952, Serial No. 328,696
9 Claims. (Cl. 60-35.6)



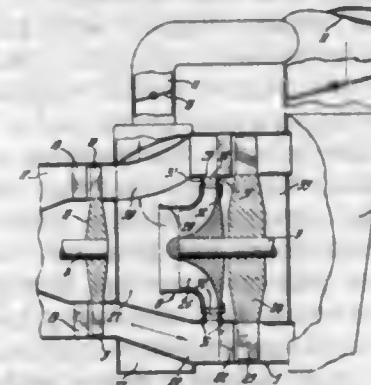
1. A fuel control system for a gas turbine engine comprising, in combination, means responsive to the rotational speed of the engine for governing the fuel supplied to the engine under normal operating conditions to maintain a desired operating speed, means responsive to an ambient air condition indicative of engine idling fuel requirements for governing the fuel supplied to the engine under idling conditions of operation, manual control means operating independently of the speed responsive means for controlling the supply of fuel to the engine under emergency conditions, and means actuated by the said ambient air condition responsive means for modifying the operation of the manual fuel supply control means to vary the fuel rate coordinately with the effect of the ambient air condition on fuel requirements.

2,820,341

BRAKING AND REVERSE TURBINE FOR GAS TURBINE ENGINES

Charles A. Amann, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 28, 1954, Serial No. 465,237
5 Claims. (Cl. 60-39.15)



1. A power plant comprising a gas generator furnishing motive fluid, an axial flow forward turbine driven

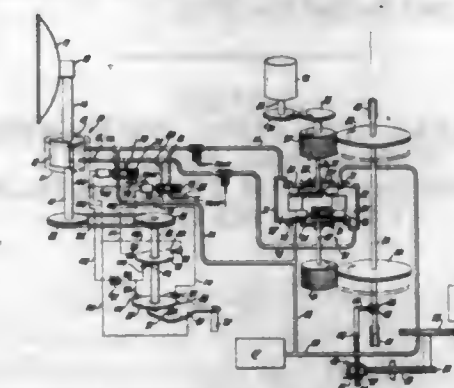
by said motive fluid, an annulus conveying motive fluid from said gas generator to said forward turbine, a radial inflow reverse turbine mechanically coupled to said forward turbine and extending within the opening of said annulus, passage means extending from said annulus to said reverse turbine conveying motive fluid to drive said reverse turbine, an exhaust duct receiving motive fluid from said forward turbine and said reverse turbine, and valve means controlling the flow of motive fluid from said turbines to said duct.

2,820,342

HYDRAULIC MECHANISM

Ralph M. Heintz, Los Gatos, Calif., assignor, by mesne assignments, to Textron Inc., Providence, R. I., a corporation of Rhode Island

Application October 18, 1954, Serial No. 462,684
10 Claims. (Cl. 60-52)



1. A mechanism of the class described comprising a device mounted for oscillatory movement, a reversible hydraulic motor connected to the device for oscillating the same to either side of a central axis of oscillation, means for causing periodic reversing operation of the motor comprising a hydraulic circuit including the motor and two pairs of single-acting pumps, means connecting one pump of each pair to one side of said motor, means connecting the other pump of each pair to the other side of said motor, said pairs of pumps being opposed in phase, the phase relationship between the pairs of pumps being adjustable, and means to vary the phase relation between the pairs of pumps to vary the combined output of said pumps connected to one side of said motor and the pumps connected to the other side of said motor and hence the extent of the path of travel of said motor and the device connected thereto, and means to increase the volume of fluid between one side of said pumps and said motor and simultaneously decrease the volume of fluid between the other side of said pumps and said motor to shift the central axis of oscillation of said motor and the device connected thereto without varying the extent of said path of travel.

2,820,343

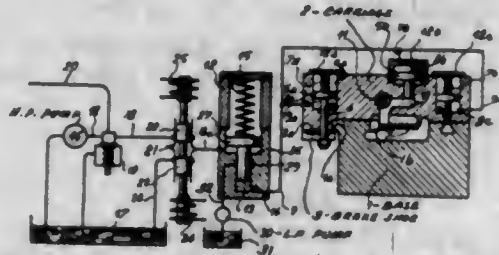
LOCKING SYSTEM

Frederick Charles Gilbert Berthiez, Lamorlaye, France, assignor to Societe Anonyme des Anciens Etablissements Charles Berthiez, Paris, France

Application December 9, 1955, Serial No. 552,194
Claims priority, application France July 20, 1955
14 Claims. (Cl. 60-54.5)

1. In a machine having relatively movable parts, locking means comprising a cylinder connected with one part, a piston movable in the cylinder between two positions, brake means connected with said piston and adapted to engage said parts to prevent relative motion between the parts in a given position of said piston and to permit such relative motion in the other position of said piston, a high-pressure hydraulic circuit including a fluid line connected with said cylinder and adapted when a predetermined high pressure is present in said circuit to move the

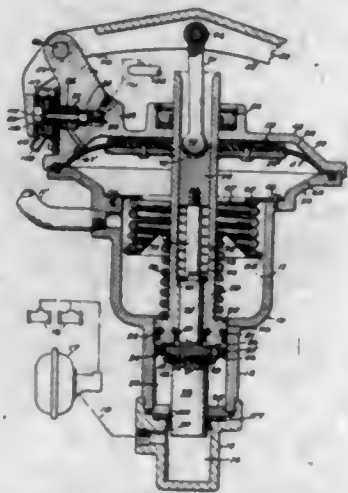
piston to its given position, means in said circuit defining a chamber provided with a movable wall, force means normally exerting pressure on said wall to maintain said predetermined high pressure in said chamber and in said circuit, a further hydraulic circuit including a further



fluid line connected to said means defining said chamber for applying to said movable wall hydraulic pressure in a direction reverse from the pressure of said force means, and means for selectively applying and releasing pressure to and from said further fluid line.

2,820,344 BRAKE OPERATING MECHANISM

William Stelzer, Summit, N. J.
Application December 14, 1953, Serial No. 397,851
9 Claims. (Cl. 60-54.6)



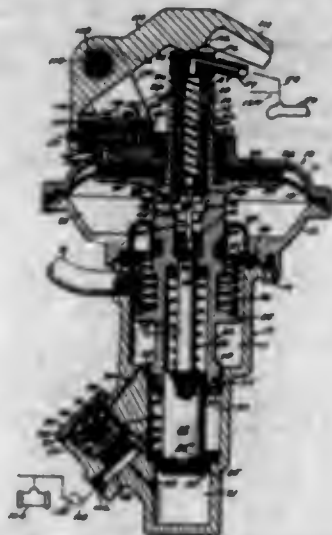
1. A booster brake mechanism comprising a pair of axially aligned communicable cylinders, a first fluid displacing plunger movable into one of said cylinders to displace fluid therefrom, a second plunger movable axially relative to the first plunger into the other cylinder to displace fluid therefrom, spring means connected to the second plunger normally biasing said second plunger to displace fluid from said second cylinder, a motor, control means connected to said motor and to a power source for energizing said motor, said motor being operatively connected to said second plunger to oppose said spring means and restrain said second plunger against movement into its respective cylinder, manually operable means connected to said first plunger to move the same and displace fluid from said one cylinder and also actuate said control means to a position to disconnect said motor from said power source and to permit said spring means to effect fluid displacing movement of said second plunger, and a piston in said other cylinder connected to said first plunger and dividing said other cylinder into a pair of chambers, said piston having a restricted passage affording constant limited communication between the chambers of said pair.

2,820,345 BOOSTER BRAKE MECHANISM

William Stelzer, Summit, N. J.
Application December 14, 1953, Serial No. 397,852
15 Claims. (Cl. 60-54.6)

3. A booster brake mechanism comprising a master cylinder having a chamber with an outlet for communi-

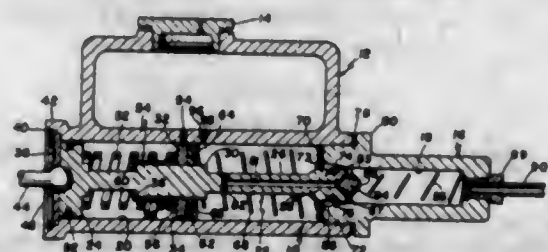
cation with vehicle wheel cylinders, a high pressure fluid displacing member including a portion movable into said chamber and effective to displace a small volume of fluid to the wheel cylinders, pedal operable means operatively connected to said member for moving said fluid displacing member, a second hydraulic fluid chamber, a low pressure fluid displacing member including a portion movable into said second fluid chamber and effective to displace a large volume of fluid to said wheel cylinders, said second chamber including means communicable with said first mentioned chamber and effective for permitting transmission of pressurized hydraulic fluid to the wheel



cylinders through said second chamber, biasing means normally engaging said low pressure fluid displacing member and tending to urge the same from a normal off position to displace fluid from said second fluid chamber, power means connected to said low pressure fluid displacing member and controlled by said pedal operable means and normally acting in opposition to said biasing means and rendering the biasing means inoperative, and control means operatively connected to and actuated by said pedal operable means for de-energizing said power means upon movement of said pedal operable means from said normal off position.

2,820,346 TWO-STAGE MASTER BRAKE CYLINDER

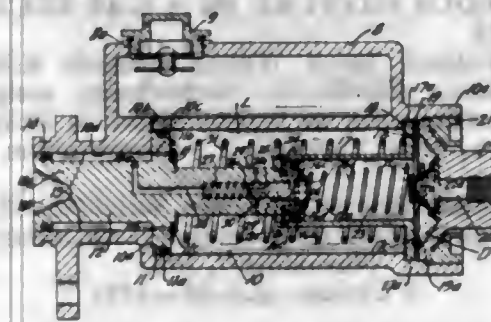
Eugene F. Cook, San Diego, Calif.
Application December 21, 1953, Serial No. 399,246
8 Claims. (Cl. 60-54.6)



1. A two-stage master brake cylinder comprising a housing having therein a low pressure cylinder for connection with a fluid reservoir by means of ports, a high pressure cylinder axially aligned with and threadedly secured to said low pressure cylinder, a piston assembly consisting of a high pressure piston reciprocable in said high pressure cylinder, a seal piston and a low pressure piston reciprocable in said low pressure cylinder, said low pressure piston being mounted for axially sliding movement on said piston assembly, a pretensioned compression spring interposed between said seal piston and said low pressure piston, a passage through a portion of said piston assembly and connecting said high pressure cylinder to said low pressure cylinder, and a valve carried by said high pressure piston and closing said passage when the pistons are advanced during the pressure stroke thereof.

2,820,347 TWO-STAGE MASTER CYLINDER FOR HYDRAULIC SYSTEMS

Olaf Highland, Long Lake, and Leon A. Chelmo,
Minneapolis, Minn.
Application January 27, 1954, Serial No. 406,399
3 Claims. (Cl. 60-54.6)

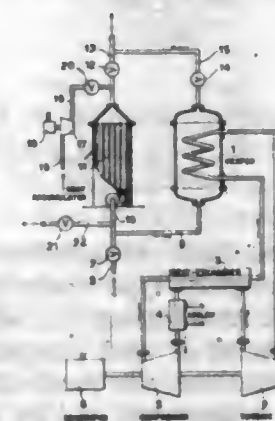


1. A multiple-stage, master cylinder unit for hydraulic brake systems, comprising a chamber-defining body having forward and rear ends and having a low pressure cylinder and a fluid reservoir above the cylinder and communicating therewith intermediate the ends thereof, a reciprocable piston-carrying member in the cylinder and having a low pressure piston thereon normally disposed intermediate the ends of the cylinder and projectable rearwardly therefrom, a second fluid-retaining piston on said member and disposed at the forward end of the cylinder and movable rearwardly therefrom, a high pressure cylinder-defining sleeve within the rear end of the low pressure cylinder and having a diameter substantially less than the diameter of the low pressure cylinder, the high pressure cylinder having a radial flange at its rear end and with spaced flow passages in the flange, a closure at the rear end of the low pressure cylinder defining a discharge chamber, means sealing a marginal portion of the flange to the low pressure cylinder wall, check valve means permitting flow through the passages in the flange from the low pressure cylinder to the discharge chamber, a high pressure piston in the sleeve to move fluid at high pressure rearwardly through the sleeve and discharge chamber, a reduced diameter portion at the rear end portion of the piston carrying member, said high pressure piston being slidably mounted on the said reduced rear end portion of the piston-carrying member, means in said high pressure piston defining a restricted flow passage between the high and low pressure cylinder, means limiting movement of the high pressure piston on the piston carrying member and including closure means on the forward side of the high pressure piston and preventing forward flow from the high pressure cylinder when pressure therein exceeds pressure in the low pressure cylinder, the rear end portion of the piston-carrying member having a longitudinally extending staging valve-mounting bore in fluid flow communication with the high pressure cylinder and also having a transverse aperture behind the high pressure piston and communicating with the bore and with the low pressure cylinder, said piston-carrying member also having a flow passage communicating with the forward end of the bore and forward side of the low pressure piston, a slidable staging valve-forming piston in said bore, the bore wall having a rearwardly facing annular shoulder surface, the valve-forming piston having an annular surface portion opposed to said shoulder surface and engageable therewith for limiting forward shifting of the piston in the bore, abutment means in the rearward end of the bore and limiting rearward shifting of the valve-forming piston, said valve-forming piston having a passage through the periphery thereof and through the forward end thereof and located to be aligned with the transverse aperture in the piston-carrying member when the valve-forming piston is shifted to its forward limit of movement in the bore, and spring means in the bore and bearing against the valve-forming piston whereby to

urge the piston rearwardly and permit forward shifting thereof in response to predetermined fluid pressure within the high pressure sleeve.

2,820,348 UTILIZING INTERMITTENTLY PRODUCED WASTE HEAT

Josef Sauter, Zurich, Switzerland, assignor to Aktien-gesellschaft fuer Technische Studien, Zurich, Switzerland, a corporation of Switzerland
Application July 28, 1954, Serial No. 446,226
Claims priority, application Switzerland August 11, 1953
3 Claims. (Cl. 60-59)



1. The combination of a closed-circuit thermal power-plant in which a gaseous working-medium circulates, said plant including a surface heat exchanger through which the plant receives heat energy, said plant serving to convert said energy into useful work, said exchanger having a heat delivery path for the circulation of a heating medium; an intermittent source of hot gas; means for propelling a gaseous secondary heat convactor; a heat accumulator comprising a heat storing mass and means defining a heat recovery flow path for gaseous medium in heat exchange relation with said mass; a first flow connection between one end of said heat recovery flow path and one end of the heat delivery path through said heat exchanger; a second flow connection between said source of hot gas and said first flow connection; a third flow connection between the delivery of said propelling means and the other end of said heat recovery flow path; discharge connections, one associated with said other end of the heat recovery flow path and another associated with the other end of the heat delivery path; first valve means controlling the flow of hot gas through said second flow connection; and second valve means for the control of discharge from said other end of the heat recovery flow path.

2,820,349 WALL ELEMENTS

Alva N. Cooper, Los Angeles, Calif.
Application September 14, 1953, Serial No. 380,037
6 Claims. (Cl. 61-47)

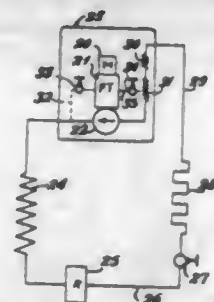


1. As an article of manufacture a wall element or header having a body portion extending from a front end to a rear end, a reduced projecting lug at the front end, a down turned spacing portion at the rear end of the body portion, and a reinforcing element longitudinally of the body portion interiorly thereof and provided with a U-shaped bend at its front end providing a second reinforcing element extending from said header body portion front end to a point inwardly of the reduced pro-

jecting lug, and said reinforcing element having a down turned portion extending into the down turned and spacing rear end of the header.

2,820,350 REFRIGERATION APPARATUS

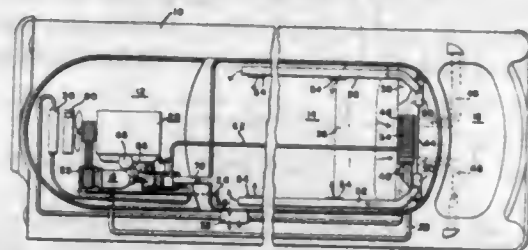
Herman E. Sheets, Akron, Ohio
Application November 29, 1952, Serial No. 323,207
11 Claims. (Cl. 62-115)



1. A closed circuit fluid refrigeration apparatus comprising a turbo-machinery type compressor including a fluid transmission; circuit means including a condenser connected to the outlet of said compressor; a receiver connected to said condenser for receiving and storing refrigerant liquid; an evaporator, and an expansion device connecting said receiver to said evaporator for expansion of refrigerant therein; said fluid transmission having refrigerant fluid therein; means connecting the outlet of said evaporator to the inlet of said compressor for refrigerant flow therebetween; and flow control means normally closed at static load conditions operatively connecting said fluid transmission in parallel with part of said circuit means but with all refrigerant fluid passing through said compressor, said flow control means being independently operable to control flow of refrigerant fluid both to and from said fluid transmission to control the fluid density therein.

2,820,351 REFRIGERATING APPARATUS FOR AN AUTOMOBILE

John Dolza, Davisburg, and Ronald C. Willson, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 8, 1954, Serial No. 402,902
4 Claims. (Cl. 62-117.1)

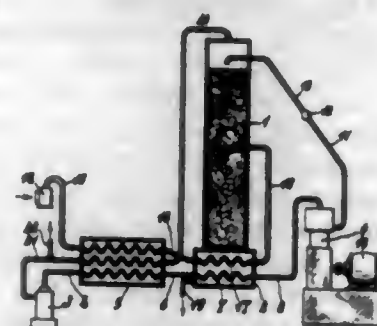


1. In combination with an automobile having a passenger compartment; air conditioning apparatus for said passenger compartment comprising a compressor, an evaporator, and condensing means; refrigerant flow connections between said compressor, evaporator, and condensing means; means for circulating air for said passenger compartment in thermal exchange relationship with said evaporator; means for exhausting air from said passenger compartment; said condensing means including a condensing element in thermal exchange with the air thus exhausted; means for collecting condensate water which drains from the surface of said evaporator; means for vaporizing said condensate water in thermal exchange relationship with a portion of said condensing means; said automobile having an engine; torque transmitting means between said engine and said compressor; said engine having a suction manifold; and means for connecting the

2,820,352 METHOD OF SEPARATING THE FRACTIONS OF A GASEOUS MIXTURE IN A GAS RECTIFYING SYSTEM

Herman Fokker, Jacob Willem Laurens Köhler, and Herre Rinia, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 8, 1954, Serial No. 467,558
Claims priority, application Netherlands
November 7, 1953
5 Claims. (Cl. 62-123)



1. A method of separating the fractions of a gaseous mixture in a gas rectifying system by thermal contact with a medium supplied to a gas rectifying column having a boiling vessel associated therewith comprising compressing said mixture, cooling said mixture, introducing said cooled mixture into said gas rectifying column at a point intermediate the ends thereof, compressing said medium, adding heat to the higher boiling fraction in said boiling vessel, expanding said medium, and cooling said medium at approximately the temperature of the higher boiling fraction after compression of the medium prior to expansion of the medium, the heat being withdrawn from at least part of said medium at approximately the temperature of the higher boiling fraction of said mixture by a cold gas refrigerator comprising a cylinder, two pistons operating in said cylinder with a constant phase difference and defining two chambers in which a closed thermodynamic cycle is performed by a gaseous medium of invariable chemical composition in one and the same state of aggregation, the volume of gaseous medium in said chambers varying continuously while one of said chambers has a low temperature and the other chamber has a higher temperature, the chambers being connected with one another through a cooler, regenerator and freezer, said cycle being performed independently of said fractionation process.

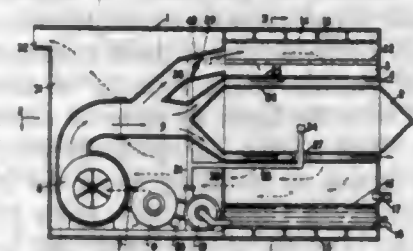
2,820,353 HUMIDITY AND TEMPERATURE REGULATING AIR CONDITIONER

Charles Ashley Vincent Priest, Tennant Creek, Northern Territory, Australia, assignor of one-half to Leonard James Kittle, Tennant Creek, Northern Territory, Australia

Application September 19, 1955, Serial No. 535,213
4 Claims. (Cl. 62-139)

1. A humidity and temperature regulating air conditioner comprising an air pre-cooler duct and an evaporation chamber and a heat exchange duct all arranged consecutively around a heat exchange chamber, a blower with its intake end connected with said air pre-cooler duct and its outlet end connected with said heat exchange duct, an air bleed channel between the outlet of said blower and said evaporation chamber, air flow control means in said air bleed duct, a humid air chamber connected with said

evaporation chamber to receive the air therefrom, air flow control valve means between said humid air chamber



ber and the inlet of said blower, and spray means in said evaporation chamber and said heat exchange chamber.

2,820,354 CIRCULAR KNITTING MACHINES OF THE SUPERIMPOSED NEEDLE CYLINDER TYPE

Alfred P. Saunders, Leicester, England, assignor to Wildt and Company Limited, Leicester, England, a British company

Application July 23, 1956, Serial No. 599,501
Claims priority, application Great Britain July 27, 1955
16 Claims. (Cl. 66-14)

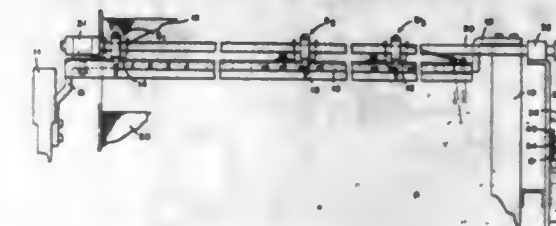


1. A circular knitting machine comprising, in combination, a bottom needle cylinder having longitudinally extending tricks therein, a superimposed top needle cylinder having therein similar tricks which are axially aligned with the corresponding tricks in the said bottom needle cylinder, a circular set of double-ended latch needles operating in said cylinders, a corresponding set of needle actuating sliders furnished with operating butts and located in the tricks of each cylinder, each slider having at its operative end a clutch and an adjoining leading extension the tip of which is chisel-shaped, and the back of the tail portion of each slider being relieved to provide a fulcrum point about which the slider can be rocked outwardly; bottom and top cam boxes surrounding the bottom and top needle cylinders respectively, cam systems in said boxes incorporating cams for operating the sliders whereby the needles can be transferred from one cylinder to the other, rocker cams in the cam boxes for action on the tails of the sliders to rock the latter outwardly when they are being released from needles during a needle transferring action, and, in conjunction with the top and bottom cam systems, control elements which are formed and arranged for action upon the leading extensions of the sliders, during needle transferring actions, suchwise as to hold sliders firmly in their tricks and so facilitate opening of relevant needle latches by the chisel-shaped tips of those sliders which are to receive into their clutches the needles being transferred, and to control the outward and inward rocking movements of the same sliders during such reception of the needles thereby.

2,820,355 MARKER FOR WARP KNITTING MACHINES AND METHOD OF MARKING

Walter Hadfield, Sr., Marcus Hook, Robert D. Hefflinger, Lansdowne, and Ralph L. Stimmel, Swarthmore, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application October 28, 1955, Serial No. 543,398
10 Claims. (Cl. 66-86)



1. The method of permanently recording the relative feed of warp threads in a tricot warp knitting machine which comprises the steps of feeding a plurality of knitting threads to a first marking station, simultaneously marking each thread at said first station, feeding each of said threads to second and third marking stations at different speeds, said second and third marking stations being spaced from said first marking station predetermined distances different in length, and simultaneously marking alternate threads at said second and third stations.

2,820,356 ILLUMINATORS FOR KNITTING MACHINES

Carl Otto Meiners, Stuttgart, Germany, and Heinz Walter Lessing and Walter Benno Lessing, London, England, assignors to Meiners Optical Devices Limited, London, England

Application July 2, 1956, Serial No. 595,415
Claims priority, application Great Britain July 7, 1955
5 Claims. (Cl. 66-86)



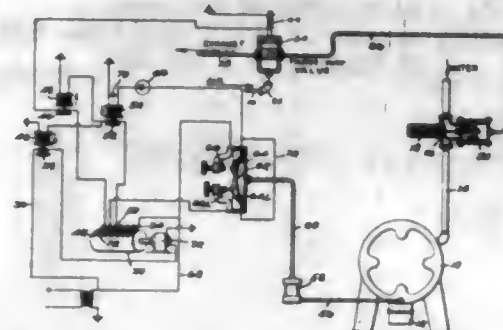
1. In a flat bar knitting machine, rows of needles along the length of the machine for knitting fabric and an illuminator mounted at the side of the machine comprising a housing for a lamp which emits light of short wave length lying not substantially beyond the blue and blue-green range of the spectrum and a lens system within said housing, the said lens system being adapted to receive light from the said lamp and direct it as a substantially parallel beam along the lines of the needle ends, whereby to illuminate the needles and the fabric knitted thereby.

2,820,357 LIQUID LEVEL CONTROL FOR LAUNDRY WHEELS AND THE LIKE

Fritz W. A. Henrici, Milton, Mass.
Application March 8, 1954, Serial No. 414,710
4 Claims. (Cl. 68-12)

1. A control mechanism for establishing a predetermined level for a body of agitated liquid in a container comprising a liquid supply pipe leading to the container, a valve for controlling the flow of liquid to the pipe, means for operating the valve including an electric motor device operable by direct current which when energized effects the opening of the valve, a control element mov-

ing responsively to the pressure exerted by the body of liquid in the container, an electric switch operated by said member when the latter reaches a predetermined position, a direct current circuit through the motor device energized by the closing of the switch, there being a



condenser in the circuit bridged about the motor device to delay de-energization of the device, whereby chattering of the switch due to pulsations caused by agitation of the body of liquid does not affect the operation of the valve.

2,820,358

APPARATUS FOR APPLYING A TREATING SOLUTION TO REELS AND THE LIKE

Thomas S. Mayner, Russell Township, Geauga County, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware
Application August 20, 1954, Serial No. 451,207
2 Claims. (Cl. 68-200)

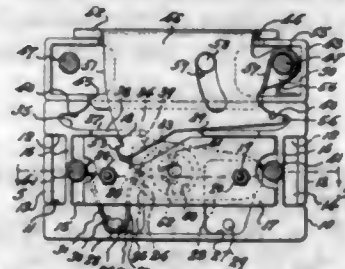


1. In combination with a rotating thread-advancing, thread-storage reel over which a single layer of thread is adapted to be advanced through a plurality of consecutively spaced turns as a helix; a stationary, generally V-shaped, flexible walled, treating liquid applicator positioned with its narrow end in brushing contact with the said reel; a liquid supply conduit supporting said applicator and being positioned in the broader section of said applicator; and said narrow end applying a treating liquid across a consecutive portion of advancing thread turns of said helix.

2,820,359

LATCHING AND LOCKING MEANS FOR LUGGAGE CASES AND LIKE RECEPTACLES

Abraham Levine, Elizabeth, N. J.
Application September 27, 1954, Serial No. 458,432
4 Claims. (Cl. 70-69)



1. A latching device for a luggage case or like receptacle having a cover hinged to the body thereof comprising an upwardly open lower casing adapted to be mounted on the front wall of the receptacle body and a downwardly and upwardly open upper casing adapted to be mounted on the front wall of the receptacle cover in the plane of

and in opposition to the lower casing, the outer face wall of the lower casing being indented by an outwardly and endwise open transverse guideway, a manipulatable external slide plate longitudinally movable in said guideway, a longitudinally movable catch plate disposed within the lower casing in parallel plane relation to said slide plate and connected with the latter so as to be actuatable thereby, said catch plate having an upwardly projecting catch nosing, spring means to yieldably move the catch plate to its latching position, a manipulatable latch plate disposed in parallel plane relation to the lower and upper casings and pivotally connected by an end thereof to and within the upper casing for vertical swinging movements through the latter into and out of the lower casing in the plane of the catch plate of the same, said latch plate having a latch nosing at its lower free end portion for latching engagement with the catch nosing of the catch plate, and spring means to yieldably upswing said latch plate to withdraw the same from the lower casing to its non-latching position.

2,820,360

LOCK SHELL AND PLUG ASSEMBLY

Harry E. Sorel and Daniel J. Foote, Milwaukee, Wis., assignors to Master Lock Company, Milwaukee, Wis., a corporation of Wisconsin
Application August 6, 1954, Serial No. 448,248
1 Claim. (Cl. 70-367)



In a padlock assembly having a cylindrical shell with a cylindrical opening extending axially therethrough and a cylindrical plug rotatably mounted within the shell with its cylindrical portion projecting beyond one end thereof, the projecting cylindrical end portion of the plug being formed with a groove and having a stepped mutilated lock mechanism operating extension, means for preventing axial displacement of the plug relative to the shell consisting of a collar integral with and forming an extension of the end of the shell through which the plug projects, the bore of the major portion of the collar coinciding with and forming an extension of the bore of the shell but the outside diameter of the collar being less than the outside diameter of the shell, and spaced projections on the inner side of the collar entering the plug groove beyond the main body portion of the shell and permitting relative rotation of the plug and shell.

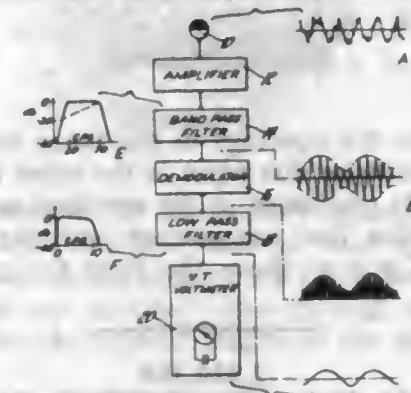
2,820,361

TIRE THUMP MEASURING APPARATUS

David C. Apps, Milford, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 10, 1955, Serial No. 507,314
3 Claims. (Cl. 73-67)

1. Apparatus for obtaining an objective measure of the subjective response of the normal human ear to the intensity of tire thump vibrations resulting from the beating of successive higher order vibrations which are produced by the tires of a vehicle and are harmonically related to the rotational speed of the wheels thereof, said apparatus comprising, in combination, transducer means for sensing and converting the vibrations produced by said vehicle into electrical waves representative thereof, first filter means connected to said transducer means for separating from said electrical waves components thereof lying within a frequency band corresponding to the range over which said higher order vibrations are excited and produce said tire thump vibrations, detector

means connected to said first filter means for detecting the amplitude of said tire thump vibrations appearing as the modulation envelope of the beat wave occurring between said higher order vibrations, second filter means connected to said detector means effective to pass frequencies in the range over which tire thump vibrations are encountered, and indicating means connected to said second filter means, said first filter means having a response characteristic that rises with increasing frequency in accordance with the response characteristic of the normal human ear over the pass band of said first filter and said second filter means having a response characteristic

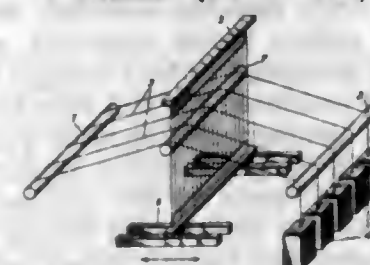


that falls with increasing frequency in accordance with the response characteristic of the normal human ear over the range of tire thump vibrations, said detector means having a demodulation response characteristic that varies approximately linearly with the amplitude of said modulation envelope when components of said beat wave are of substantially equal amplitude to correspond to the response of the normal human ear to amplitude change of the equal amplitude components and that varies non-linearly when said components are of different amplitudes to correspond to the response of the normal human ear to amplitude change of said components of different amplitudes.

2,820,362

APPARATUS FOR TESTING YARNS

Menachem Levin, Jerusalem, Josef Friedlander, Haifa, and Shmuel Horowitz, Tel Aviv, Israel, assignors to The Ministry of Agriculture (The Institute for Fibres and Forest Products), Jerusalem, Israel, and to said Menachem Levin, Josef Friedlander, and Shmuel Horowitz, jointly
Application October 31, 1955, Serial No. 543,902
Claims priority, application Israel November 12, 1954
3 Claims. (Cl. 73-160)



1. A yarn tester comprising supports adapted for the stretching between them of a plurality of parallel yarns under controllable tension, and a deflector disposed transversely to the stretching direction of the yarns and adapted to move back and forth; said deflector including a reed which comprises dents in combination with a transverse bar, all of them adapted to rub along the yarns during the back and forth movement of the deflector.

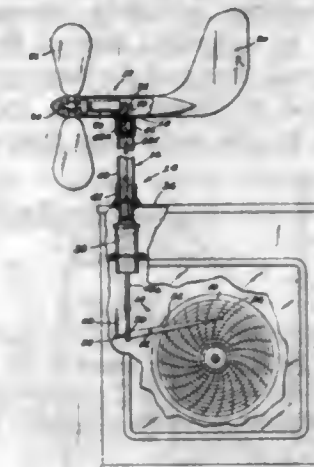
2,820,363

WIND FLOW RECORDER

Thomas H. McConica III, Clare, Mich.
Application May 9, 1956, Serial No. 583,864
5 Claims. (Cl. 73-189)

1. Wind flow measuring apparatus comprising a fuselage section containing a vane axially aligned there-

with, a rotatable propeller, a gear reduction unit having an input shaft and an output shaft, and a cam, said gear reduction unit being disposed in said fuselage section, said propeller being coupled to said input shaft and said cam

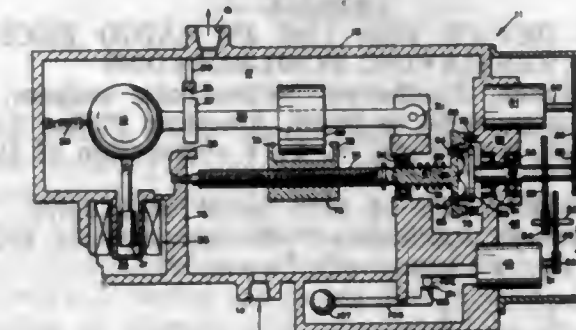


being coupled to said output shaft, said cam having a peripheral surface, wiper means engaging said peripheral surface and adapted to move axially, and means for recording as a function of time axial movement of said wiper means as said cam rotates.

2,820,364

FLUID FLOW MEASURING APPARATUS

James E. Bevins, Ramsey, and Edward J. Hazen, Westwood, N. J., assignors to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application January 31, 1952, Serial No. 269,262
14 Claims. (Cl. 73-210)



8. Apparatus for measuring the varying rates of flow of a fluid through a restricted orifice, comprising a flow-opposing member mounted for movement relative to said orifice without closing said orifice to vary the effective area thereof and vary the pressure drop across said orifice, yieldable means responsive to a change in pressure across said orifice resulting from a change in fluid flow, means connected to said flow-opposing member for moving said flow-opposing member relative to said orifice, means operated by said yieldable means for selectively communicating the fluid pressures on each side of said orifice with said connected means so that said last-mentioned means produces actuation of said connected means with changes in fluid flow through said orifice to position said flow-opposing member to maintain the pressure drop across said orifice substantially constant with changes in fluid flow, and signal generating means operable by said connected means for developing a signal corresponding to the rate of fluid flow through said orifice.

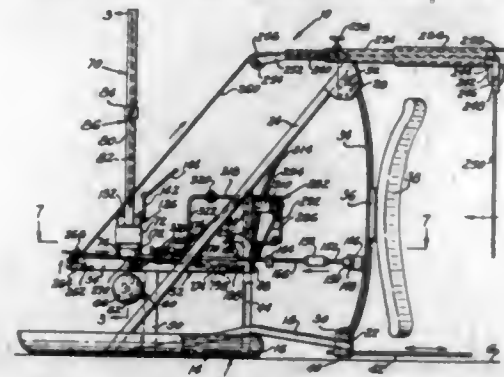
2,820,365

FOOTBALL TRAINING APPARATUS

Arthur F. Detzel, Beaver Falls, Pa.
Application November 27, 1956, Serial No. 624,638
8 Claims. (Cl. 73-380)

1. Athletic training apparatus for developing reflexes of football players comprising a support member including a horizontally-displaceable spring-supported impact

member, a timing assembly on the support member including means for actuating the same and signal means activated after a predetermined increment of elapsed time, first force-transmitting means operatively connected to the impact member including means permitting the signal means to be activated during the predetermined increment of elapsed time and preventing activation thereof after the period of elapsed time, lock means operatively connected to the actuating means of the timing

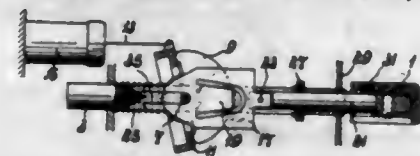


assembly and said first force-transmitting means for permitting activation of said signal means during movement of the first force-transmitting means during the increment of elapsed time and preventing activation due to early engagement of the football player with the impact member prior to actuation of the timing assembly, and second force-transmitting means on the support member operatively connected to said lock means for engagement by a football player prior to engagement of the impact member permitting activation of the signal means.

2,820,366 TUNING DEVICE FOR USE IN RADIO RECEIVERS HAVING PUSH-BUTTONS

Geert Spakman, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 14, 1955, Serial No. 515,495
Claims priority, application Netherlands June 13, 1954
4 Claims. (Cl. 74-10.33)



1. A tuning device for radio receivers comprising a pushbutton provided with a shaft, a tuning member, at least one substantially semi-circular disc seated on the shaft of said pushbutton, the adjustment of said radio receiver to selective predetermined positions of said tuning member being made by means of said semi-circular disc, a clamping device seated on said shaft for releasably locking said disc in a plurality of positions on said shaft, said clamping device including a displaceable plate element having a struck-out portion whereby when said pushbutton is depressed a portion of said disc is clamped between said struck-out portion and the adjacent wall portion of the pushbutton shaft, and when said pushbutton is pulled out said clamping device is unlocked.

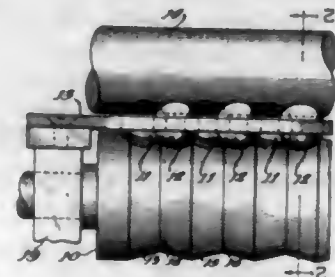
2,820,367 DEVICE FOR CONVEYING AND ROTATING OBJECTS

Charles E. Frantz, Richland, Wash., and John Roslund, Hayward, Calif., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application January 23, 1956, Serial No. 560,913
3 Claims. (Cl. 74-22)

1. Apparatus for conveying a cylinder in the direction of its axis while rotating it about its axis, said apparatus comprising a roller composed of conical sections tapering alternately in one direction and the opposite direction, a guide plate positioned over the roller and having two parallel lines of openings, the openings in one line being over the conical sections that taper in

one direction, the openings in the other line being over the conical sections that taper in the other direction, and spherical balls positioned in the openings so as to extend below the plate into engagement with the conical sections and to project above the plate for supporting the cylinder.

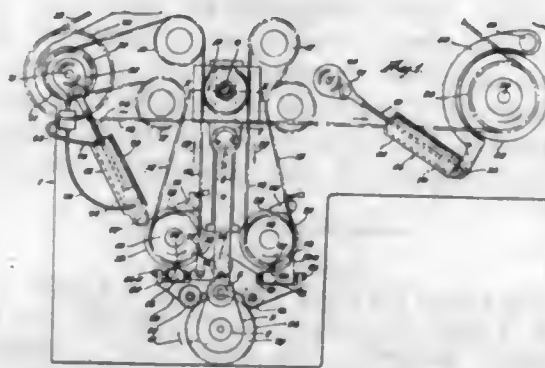


one direction, the openings in the other line being over the conical sections that taper in the other direction, and spherical balls positioned in the openings so as to extend below the plate into engagement with the conical sections and to project above the plate for supporting the cylinder.

2,820,368 MECHANISM FOR CONVERTING CONTINUOUS INTO INTERMITTENT MOTION

William Frank Golding, Bristol, England
Application November 6, 1956, Serial No. 620,692
Claims priority, application Great Britain November 7, 1955

11 Claims. (Cl. 74-37)



1. A mechanism for converting continuous into intermittent motion comprising an input shaft, a slide supported for rectilinear motion in a guide, means for converting continuous rotary motion of said shaft into reciprocating motion of the slide along said guide, a freely rotatable chain drive sprocket mounted on said slide, first and second endless chains supported on sprockets, said chains being positioned to have straight runs parallel to said guide and positioned for said runs to engage said drive sprocket at diametrically opposite points thereof, locking means for locking said chains against travel, said locking means being timed to act alternately on said chains to lock said first chain whilst freeing said second chain and vice versa, the locking means being timed to lock or free the chains when the slide stands still; whereby, on movement of the slide, the drive sprocket rolls on the locked chain and imparts movement to the free chain and continuous rotary motion of said input shaft is translated into uni-directional intermittent motion of said chains.

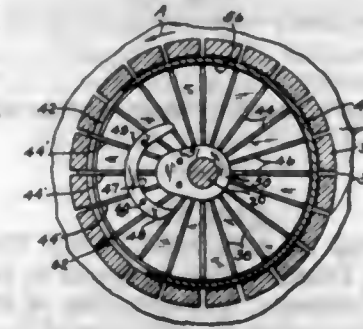
2,820,369 INTERSHAFT DRIVE

Willis A. Ingalls, Syracuse, N. Y., assignor to Tompkins Bros. Company, Syracuse, N. Y., a corporation of New York

Application August 30, 1955, Serial No. 531,472
13 Claims. (Cl. 74-63)

5. Rotation transmitting mechanism for providing a drive between coaxial shafts, separated by a barrier, comprising a barrier, a shaft supported for rotation with re-

spect to the barrier on one side thereof, a second shaft supported for rotation coaxial in respect to said first shaft on the other side of said barrier, an aperture in the barrier disposed on an arc coaxial with the shafts, slidable keys carried by one of said shafts, and a plurality of key slots carried by the other, and means responsive to rotation of

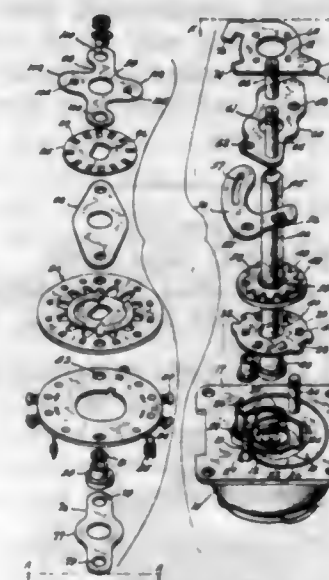


one of the members for sequentially projecting and retracting said keys into and through said aperture into engagement with the key slots of the other member, while the keys of said one member rotate through an angle less than and within the angular length of the arcuate aperture.

2,820,370 ROTARY SOLENOID MECHANISM

James A. Dolesh, Chicago, and Edward J. Mastney, Berwyn, Ill., assignors to Oak Mfg. Co.

Application June 4, 1953, Serial No. 359,502
3 Claims. (Cl. 74-126)



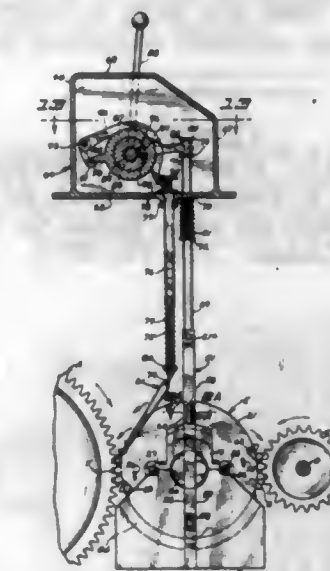
1. In combination, an electric motor of the type having an armature movable over a limited angular travel range, said armature having means to bias the same to the starting end of its travel range from which position said armature moves toward the other end of its range upon motor energization, a load adapted to be stepped by said motor, and anti-overshoot means connecting said load and armature, said anti-overshoot means comprising the following: a coupling plate rigidly attached to said armature, said plate having fingers extending in a direction parallel to the axis around which said armature moves, a driving ratchet plate disposed in parallel relation to said coupling plate, said ratchet plate having two notches in the edge for accommodating the coupling plate fingers, said ratchet plate having ratchet teeth formed in its body disposed in a circular pattern, a shaft coaxial with but separate from the armature, a ratchet assembly rigidly coupled to said shaft, said ratchet assembly having a disc with driven ratchet teeth on the side and ratchet gear teeth on the other side disposed in a circular pattern, means for urging said ratchet plate against said ratchet disc, said ratchet disc having the driven teeth cooperating with the teeth on said ratchet plate, a bell crank type of pawl cam movable about a stationary pivot eccentric

of said shaft, said cam having a pawl lug cooperating with said ratchet gear teeth, said pawl cam also having a slotted arm for receiving a finger from the coupling plate, said pawl cam being adapted to have said one finger from the coupling plate, in the normal position of the armature, maintain said pawl cam so that the lug is normally clear of said ratchet gear teeth but on energization of said motor, said finger moves said pawl cam so that the pawl lug engages a ratchet gear tooth, the motor having a range of angular travel which is greater than the permissible travel of said anti-overshoot means.

2,820,371 CHANGE SPEED TRANSMISSION

Elmer D. Weerts, Bancroft, S. Dak.

Application December 24, 1956, Serial No. 630,366
7 Claims. (Cl. 74-349)



1. A change speed transmission of the character described including spaced apart driving and driven gears, a stationary base member and a gear carrier journaled thereon between but clearing said driving and driven gears, intermediate gears journaled in meshing relation upon said gear carrier and having their toothed peripheries projecting at diametrically opposed points beyond the carrier to mesh with the driving and driven gears and transmit torque therebetween, means for rotating the gear carrier substantially a quarter turn at a time to bring the intermediate gears into and out of mesh with the driving and driven gears, a pair of locking pins on the gear carrier and means on the base member cooperating with said pins to releasably lock the carrier in either of two positions with the intermediate gears out of mesh with the driving and driven gears, and another pair of locking pins and means on the base member cooperating with these pins to lock the carrier in either of two positions with the intermediate gears in mesh with the driving and driven gears.

2,820,372 CONTROL VALVE FOR FLUID PRESSURE REMOTE CONTROL SYSTEMS

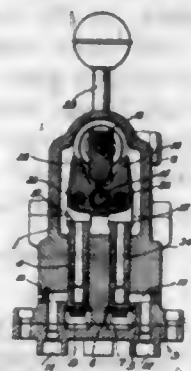
Stanley H. Edge and Harold Jeffery, Lincoln, England, assignors to Clayton Dewandre Company Limited, Lincoln, England, a British company

Application February 2, 1955, Serial No. 485,636
Claims priority, application Great Britain February 2, 1954

4 Claims. (Cl. 74-471)

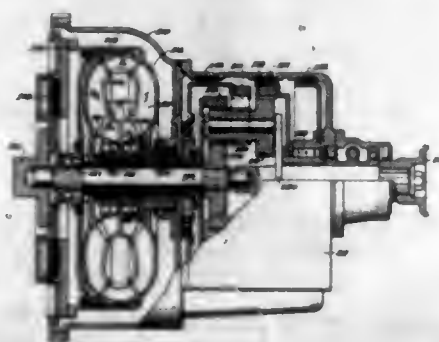
1. Control means for selectively actuating reciprocable valve elements comprising a plurality of beams mounted to rock about a common axis and each having a pair of said elements pivotally connected thereto one at each side of said axis, each beam being formed with two projections one at each side of said axis, and a manually-

operable control member carrying a cam and mounted for movement along an axis parallel to the axis of said beams to bring said cam selectively into the plane of movement of any one of said beams, said control mem-



ber being angularly movable to rotate said cam against one or the other of the projections on the respective beam and thereby rock the latter to reciprocate in opposite directions the elements connected thereto.

2,820,373
HYDRAULIC TORQUE CONVERTER
Adel Y. Dodge, Rockford, Ill.
Application May 21, 1953, Serial No. 356,436
8 Claims. (Cl. 74-677)

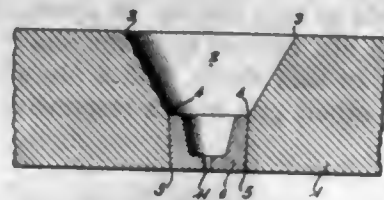


1. A hydraulic torque converter comprising a vaned driving rotor, a main vaned driven rotor, an auxiliary vaned rotor between the outlet of the driving rotor and the inlet of the driven rotor, a stator between the outlet of the driven rotor and the inlet of the driving rotor, a one way brake to hold the stator against reverse rotation, a differential gear set including a plurality of relatively rotatable elements interconnected with each other through gearing, a connection between the auxiliary rotor and one of the elements, a connection between the driven rotor and a second of the elements, an output shaft connected to a third of the elements, and brake means to hold a fourth of the elements against rotation in a reverse direction, the first named connection including a one way clutch through which the auxiliary rotor drives said one of the elements in a forward direction, and a clutch to connect the driving rotor to said one of the elements.

2,820,374
PROCESS FOR MAKING SPINNERETS FOR MELT SPINNING
Willem De Wolf, Arnhem, Netherlands, assignor, by mesne assignments, to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application July 10, 1952, Serial No. 298,042
Claims priority, application Netherlands November 23, 1949
4 Claims. (Cl. 76-107)

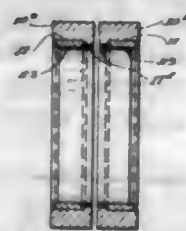
1. A process for manufacturing spinnerets for the high pressure melt-spinning of high-polymeric substances comprising cutting a plurality of pieces from a cylindrical wire of precious metal, pressing the pieces into cup-shaped inlays having outer surfaces conforming to that of a truncated cone and having a closed bottom end, setting

the inlays into complementary holes formed in a steel spinneret plate having a thickness of at least 3 mm. and



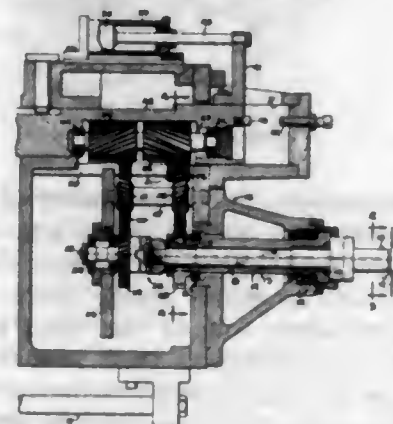
thereafter forming a spinning hole in the bottom end of each inlay.

2,820,375
FORMING GLASS MOLDING TOOLS
Paul W. Brower, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application December 22, 1954, Serial No. 477,064
7 Claims. (Cl. 76-107)



1. The method of forming a glass shaping tool which comprises the steps of forming a circular metal blank, providing a metal holding surface on the inner areas of said blank, upsetting said surface, deforming the circularity of said blank, coating said upset surface with a hard material, subjecting said blank and material to a temperature sufficient to join them into an integral member, splitting said blank and forming a glass shaping contour in said hard material.

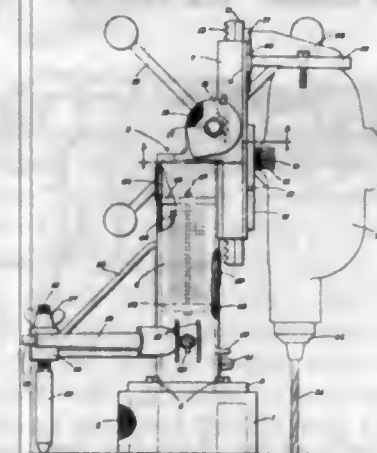
2,820,376
BORING MACHINE
Joel A. Jannenga and Donald E. Hawkins, Rockford, Ill., assignors to Greenlee Bros. & Co., Rockford, Ill., a corporation of Illinois
Application July 1, 1954, Serial No. 440,752
14 Claims. (Cl. 77-3)



1. A machine tool comprising a base, a support journaled on said base to turn about a first predetermined axis, a member adapted to carry a cutting tool and mounted on said support to turn bodily therewith and to turn relative to the support about a second axis parallel to and spaced from said first axis, a first pair of helical gears mounted on said base in axial alignment and with their teeth inclined in opposite directions, a carriage supported by said base for movement relative thereto in a direction axially of said gears, a second pair of helical gears mounted on said carriage and meshing respectively with the gears of said first pair, drive means operable to turn the gears of said second pair, mechanism connecting the gears of said first pair with said support and said member respectively and normally operable to turn the

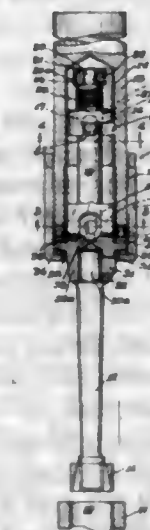
support and the member at the same angular speed about their respective axes, and means for shifting said carriage to retard said support and speed up said member thereby to change the radial position of said tool.

2,820,377
PORTABLE MAGNETIC DRILL PRESS
Eugene W. Buck, Campbell, Calif., assignor to Buck Mfg. Co., a corporation of California
Application June 1, 1954, Serial No. 433,582
10 Claims. (Cl. 77-7)



1. In an electro-magnetic drill press which includes an electro-magnetic foot, and a mount upstanding from the foot adapted to support an initially separate portable drill for up and down motion parallel to the major axis of said mount; said mount comprising a post, a vertical guideway rigid with the post above the foot, a slide in the guideway, means to impart motion to the slide in said guideway, an attachment arm projecting outwardly from the slide, the arm having a lengthwise elongated slot therethrough from top to bottom, a headed screw extending through the slot, an extension bracket depending from the attachment arm, said screw securing the extension bracket to the attachment arm, and means connecting the extension bracket to the upper end of the drill, the connection of said attachment arm and said extension bracket to each other and to the drill providing for overlapping thrust absorbing relation from the attachment arm to the upper end of the drill, the slide being secured to the adjacent side of the drill below said attachment arm and extension bracket.

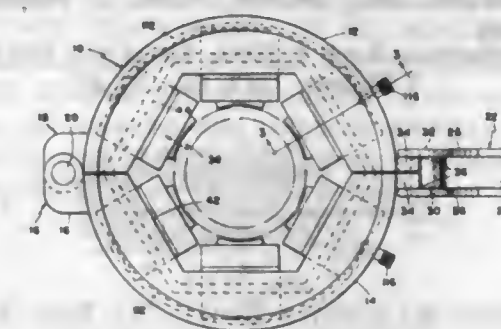
2,820,378
SELF-ALIGNING TOOL HOLDER
Guy S. Randles and William Denver Reynolds, Alpena, Mich.
Application June 14, 1954, Serial No. 436,476
5 Claims. (Cl. 77-55)



1. In a tool holder for supporting a tool during the machining of a bore of a rotating workpiece, a hollow,

substantially cylindrical body member, a bearing fixed within said body member interjacent its ends, an axially disposed stem rotatably mounted in said bearing, and extending therethrough, a laterally disposed stop pin on said stem outward of said bearing but in engagement therewith to prevent axial movement of the stem inwardly, a pair of diametrically opposed segmental stops on said bearing disposed in the angular path of travel of said pin on either side thereof and defining the extent of angular travel of said pin therethrough, a torsion spring on the inner end of said stem connected between the inner end of said stem and said bearing biased to urge said stem in a direction opposite to the rotation of said workpiece into engagement with one of said stops, a tool supporting shank extending outwardly of said body member, means universally connecting said shank to the outer end of said stem for lateral movement of said shank perpendicular to the axis of said stem, and means on said cylindrical body member preventing axial movement of said shank with respect thereto.

2,820,379
PNEUMATIC SOIL PIPE CALKER
Glenn P. Napierkie, Grossmont, Calif.
Application December 3, 1952, Serial No. 323,893
4 Claims. (Cl. 78-47)

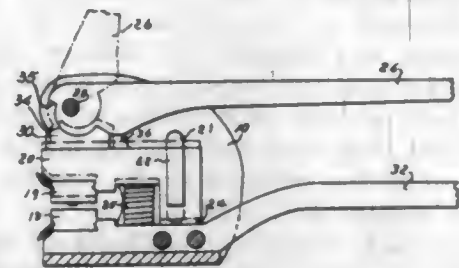


1. In a pneumatic calking tool for calking a soil pipe bell and spigot joint having a bell portion, said tool comprising: a housing having a central opening and divided diametrically of said opening into two half housings, hinge means connecting said half housings, locking means for locking said half housings together in surrounding relationship with a soil pipe joint, said half housings having inwardly projecting flange-like lips for abutting engagement of the bell portion of a soil pipe joint to prohibit axial movement of the housing in one direction while allowing the housing to be shifted rotatively about its axis, a plurality of reciprocating pneumatic hammer units operatively mounted within said housing and including hammer elements having a power stroke directed substantially axially of the housing, means for supplying compressed air to said pneumatic hammer units, said housing having at one end a lip for frictional engagement of the bell of a soil pipe joint when the tool is placed thereon, said lip constituting means to prohibit movement of the housing in the direction opposite to the direction of said power stroke.

2,820,380
COMPRESSION SHEET TOOL
William A. Barnes, Utica, N. Y., assignor to Utica Drop Forge & Tool Corporation, a corporation of New York
Application March 18, 1953, Serial No. 343,162
1 Claim. (Cl. 78-82)

In a hand press having a bed member and a ram member wherein the ram member is guided to move through a rectilinear path toward and away from the bed member, the improvement in the ram driving structure which comprises, the provision of a slidable shoe bearing on said ram member, said shoe and ram having a surface area contact, said ram member having such bearing sur-

face disposed to provide the movement of said shoe along a path transverse to the direction of ram movement, said shoe having a concave curved bearing surface on the side thereof opposite said ram, said press having a drive lever pivotally mounted at a fixed location, said drive lever having a convex curved cam surface rotatably seated in

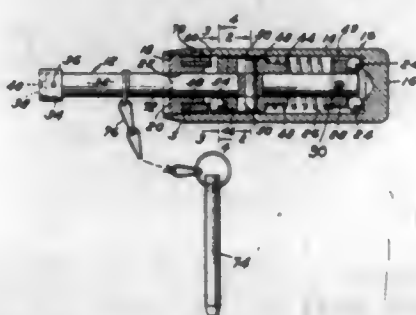


said concave bearing surface, said convex cam surface having a camming effect upon said shoe of moving the shoe in the direction of said ram along the ram bearing surface, whereby rotary movement of the said press drive lever is translated into rectilinear drive through an area contact bearing.

2,820,381

REVERSIBLE, TORQUE-LIMITING WRENCH
Richard B. White, Munith, Mich., assignor to Kent-Moore Organization, Inc., Detroit, Mich., a corporation of Michigan

Application April 4, 1956, Serial No. 576,000
7 Claims. (Cl. 81-52.4)



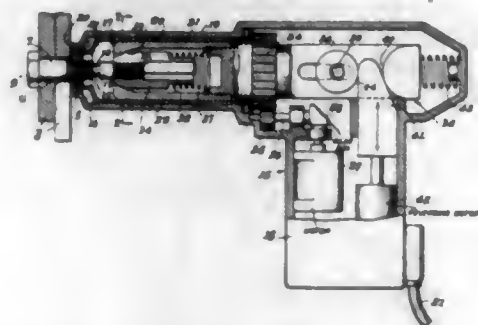
1. A torque wrench comprising: a hollow cylindrical driving element having opposed end wall members; an elongate driven element having an inner end received through one of said end wall members and having an outer end adapted to engage a device to be torqued; bearing means supporting the inner end of the driven element in coaxial alignment with the driving element and in rotatable engagement with that end wall member opposite the end wall member through which the driven element extends; a carriage member mounted on the driven element adjacent that end wall member through which the driven element extends with one end face of the carriage member and the inner face of the adjacent end wall member opposed to each other; the opposed face of one of the members defining a plurality of annularly arranged roller-receiving seats and the opposed face of the other member defining an equal number of complementally arranged camming surfaces; a roller received in each seat and adapted to bear against a complementary camming surface; means coupling the driven element to the carriage for rotation therewith and for freely shiftable movement of the carriage axially of the driven element; a compression spring disposed between said bearing means and carriage member and tensioning the carriage against the rollers to yieldingly hold the rollers against the camming surfaces in opposition to opposed torquing faces between the driving element and carriage member; whereby upon the opposed torquing forces between the driven element and driving assembly exceeding the spring tensioning of the rollers against the camming surfaces, the rollers will ride up the camming surfaces shifting the carriage axially on the

driven element in a direction separating said opposed faces thereby permitting the rollers to pass annularly from one camming surface to the next camming surface with an accompanying relative rotation between the driving and driven elements.

2,820,382

TENSION-APPLYING NUT AND BOLT, AND METHOD AND MEANS OF APPLYING SAME

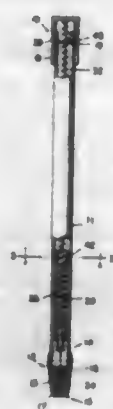
Charles E. Smith, Los Angeles, Calif.
Application July 12, 1956, Serial No. 597,417
6 Claims. (Cl. 81-54)



5. In a mechanism of the character described, a housing for a set of collet jaws which are adapted to engage with a rupturable bolt extension, means mounting the housing for longitudinal movement between jaw-contracting and jaw-releasing positions, and wedge cam means to slide said housing between the mentioned positions.

2,820,383

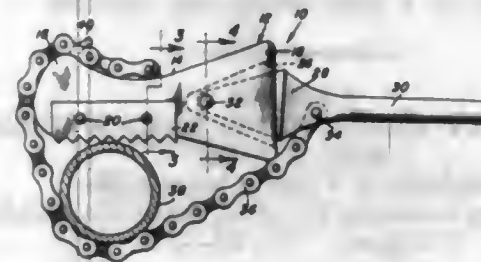
NUT STARTERS AND DISPENSER
Calvin Jackson Red, Jr., Washington, D. C.
Application February 11, 1955, Serial No. 487,559
8 Claims. (Cl. 81-64)



1. A nut dispenser comprising, an elongate tube adapted to receive a supply of stacked nuts therein, an elastic dispenser head presenting a passageway beyond one end of the tube of smaller diameter than the inner diameter of the tube, whereby to normally prevent release of nuts through said one end of the tube, said dispenser head being expandable to permit dispensing of an individual nut, means within the tube for urging a supply of nuts toward said dispenser head, said means including a removable cap for the other end of the tube, an aligning rod fixed to said cap and extending centrally within said tube, a feed block slidably disposed on said rod and normally spring urged toward the free end thereof, and latch means for removably fixing the feed block to said cap to expose the major portion of said rod for ready reception of a supply of nuts thereon.

2,820,384

CHAIN TONG WRENCH
Eugene D. Erickson, Casper, Wyo.
Application May 4, 1956, Serial No. 582,884
1 Claim. (Cl. 81-69)

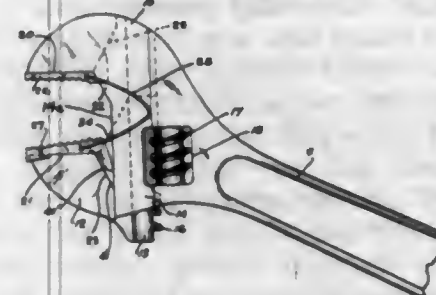


A chain tong wrench comprising a head, a handle, a pivot pivotally connecting said handle to said head, a jaw on said head, a chain having one end secured to said handle, means on said head for adjustably retaining an opposite end of said chain whereby pivoting of said handle serves to selectively loosen and tighten said chain, said head having a socket formed by a pair of outwardly diverging walls and a pair of parallel walls, said handle having one end seated in said socket with the pivot secured to said parallel walls whereby pivotal movement of said handle is limited and said handle may be used as a hammer to loosen said jaw from the work.

2,820,385

REMOVABLE JAW FACES FOR A SLIDABLE JAW WRENCH

Fred M. Schulze, Port Colborne, Ontario, Canada
Application September 4, 1956, Serial No. 607,808
3 Claims. (Cl. 81-180)



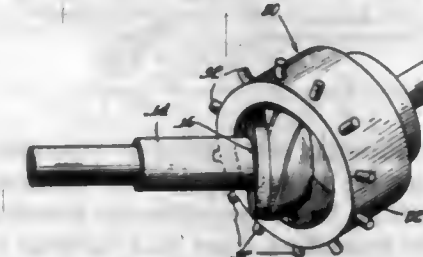
1. An adapter structure for use with a wrench of the type having a pair of jaws which are relatively movable towards and away from each other, a pair of strengthening webs on one jaw conforming with recesses in the other jaw and a strengthening web on said other jaw conforming with a central recess in said one jaw, comprising an adapter member for said one jaw having an adapter jaw face and an anchorage portion fitting between said pair of strengthening webs and extending into said central recess, an adapter member for said other jaw having an adapter jaw face and a pair of anchorage portions engaging each side of said strengthening web and extending into said recesses, one of said adapter jaw faces being angularly inclined to the jaw face of the corresponding jaw of the wrench to convert the wrench between a standard wrench and a pipe wrench and resilient means extending between said adapter members and pressing said adapter members against the jaws of the wrench.

2,820,386

APPARATUS FOR CUTTING HELICAL GROOVES
Swan O. Bjornberg, Park Ridge, Ill., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application July 1, 1954, Serial No. 440,616
3 Claims. (Cl. 82-20)

1. An apparatus for forming a plurality of spaced helical grooves having a predetermined lead angle in a substantially spherical surface of a workpiece comprising a rotatable member, a plurality of groove forming

elements spaced circumferentially around said rotatable member, the spacing being equal to the desired spacing of the helical grooves, said elements extending substantially radially of said rotatable member and including free end cutting edges tangent to and disposed in a common plane with a circle concentric with said rotatable member, means supporting said rotatable member, means for supporting a workpiece for rotation, the axes of rotation of said rotatable member and the workpiece being disposed at an angle with respect to each other substantially equal to said predetermined lead angle and with the plane of said

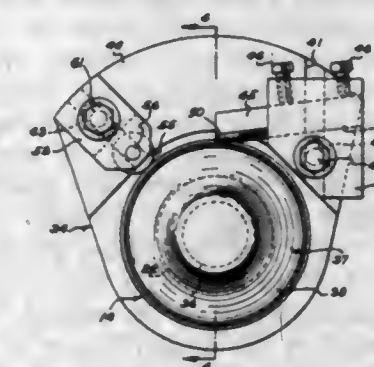


circle including a line perpendicular to said axes and with a spherical surface of the workpiece intersecting a portion of said circle, the number of said forming elements being such that a plurality of said elements engage said workpiece along said intersection so that upon rotation of said rotatable member and said workpiece a plurality of said edges will simultaneously cut the spherical surface and said cutting edges as a whole will be successively fed into contact with the spherical surface of the workpiece, and means for rotating said rotatable member and said workpiece at such differential speeds to effectuate the length and the helix of the groove desired.

2,820,387

DEVICE FOR CUTTING ANNULAR GROOVE IN ANNULAR ARTICLE

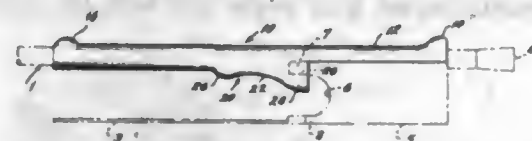
Frank W. Smerz, Riverside, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application October 8, 1953, Serial No. 385,020
1 Claim. (Cl. 82-35)



A device for cutting an annular groove in the end of an annular article between its inner and outer peripheries thereby forming a relatively thin annular outer wall thereon comprising a holder, a cylindrical member rotatably supported on said holder engageable with the inner periphery of said annular article for supporting said article for rotation about its axis and for movement relative thereto in an axial direction, a cutting tool carried by said holder in fixed relation to the article supporting member and engageable with the end of said annular article for cutting an annular groove therein between the inner and outer peripheries, said tool having an oblique cutting edge which deforms the annular outer wall portion of said article radially outwardly during the cutting of said groove, and a roller having a cylindrical periphery carried by said holder in fixed and angularly spaced relation to said tool and positioned in an axial direction in alignment with the cutting portion of the tool to engage the

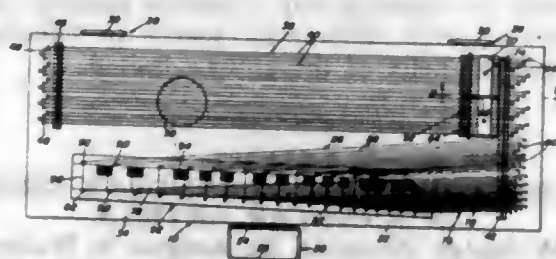
periphery of said outer wall portion of the article as the annular groove is being cut therein to progressively reform the successive portions of the wall deformed by the tool.

2,820,388
VIOLIN BOW ATTACHMENT
Paul Rolland, Urbana, Ill.
Application November 15, 1954, Serial No. 468,859
1 Claim. (Cl. 84-282)



A hand positioning device for a stringed instrument bow comprising an elongated tubular portion, a buttress extending laterally from said tubular portion, and a U-shaped portion extending from said buttress in alignment with said tubular portion, whereby the stick of a bow may be inserted through said tubular and U-shaped portions to provide finger engaging portions which will properly position the player's hand with respect to said bow.

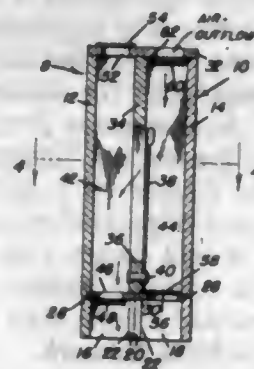
2,820,389
STRINGED MUSICAL INSTRUMENT
Charles H. Marx, New Troy, Mich.
Application August 3, 1955, Serial No. 526,109
3 Claims. (Cl. 84-285)



1. A stringed musical instrument comprising a portable body designed to be supported on a relatively stationary stand, table or the like, a first lengthwise bank of properly tuned accompaniment chord strings all of the same length and bridge-supported and regularly anchored atop said body, manually adjustable means cooperable with said chord strings and body top for changing the key of said strings at will; a second bank of melody strings likewise supported atop said body in a plane above the plane of said chord strings, said melody strings being each of a predetermined pitch length and the length of each string being different from that of the next string in proper progression and sequence, all of the melody strings being coplanar and tuned to the requirements of a diatonic scale and adapted to be set into vibration with a suitable mallet or, if preferred, by a violin bow in a well known manner; and a third bank of half-tone melody strings isolated from and situated in the area between the first and second banks of strings, correspondingly mounted on said body, coplanar with each other, each of required vibratory and pitch length and occupying a plane higher than that of the diatonic melody strings of said second bank of strings and likewise set into vibration; whereby the regular tones are singly produced by way of the strings of the second bank, the complementary chromatic and occasional tones are singly produced by the strings of the third bank, and the requisite complementary accompaniment chords are strummed by way of the strings of the first bank, and the combination of a hollow cover including a panel and lateral marginal flanges providing a complementary rim, links hingedly connected with one flange of said rim and an adjacent and corresponding longitudinal side of said body, said links being ample in

size to allow said cover to be swung from its normal string covering position through an arcuate path so that it is turned inside-out with said panel then opposed to and spaced from the bottom of said body, whereby said panel then functions as a sounding board and the space between serves as a tone amplifying chamber.

2,820,390
TWO-WAY RESPONDING SINGLE REED AND BLOCK
Nicholas J. Vento, Chicago, Ill.
Application February 23, 1954, Serial No. 411,894
2 Claims. (Cl. 84-377)

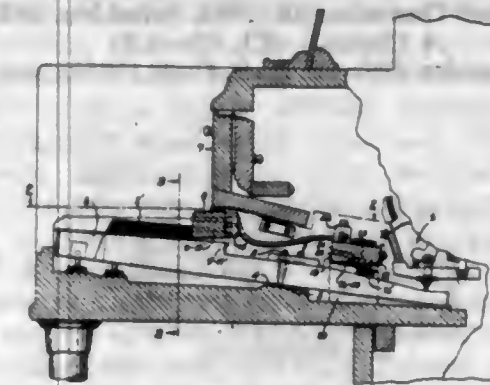


1. A reed block construction characterized by two-way responding single reeds and comprising, in combination, a reed block made up of complementary opposed coplanar half-sections having opposed parallel elongated perforate walls providing vertical front and back walls, the inner faces of said walls being provided with a plurality of longitudinally spaced right angularly disposed members having adjacent vertical abutting edges rabbeted to provide outstanding ribs, the portions at opposite sides of the ribs providing rabbets and said rabbets on the adjacent abutting members defining vertical channels for reed plates, the lower interior surfaces of the front and back walls, and adjacent and aligned lower end portions of the said vertical members having cooperating notches and grooves defining keyways, an insertable and removable bottom wall having its edge portions removably fitted into the notches and keyways and serving to hold itself in place and also assisting in stabilizing and joining the half-sections, said bottom wall being provided with valved holes aligned with the cells thus provided between the side-wall-forming members, a plurality of insertable and removable reed plates, said reed plates being fitted with their vertical edges into the vertical channels between the side walls, each reed plate having a slot therein and a cooperating single vibratory reed, the reed plates serving to divide the cells into separate chambers, and a top wall mounted atop the upper edges of the front and back walls and said members and provided with valved holes cooperatively registrable with the intended cells.

2,820,391
FINGERING INDICATOR FOR KEYBOARD MUSICAL INSTRUMENTS
Webster E. Janssen, Bronxville, N. Y., and Paul F. Murock, Clinton, Conn., assignors to Janssen Piano Co., Inc., New York, N. Y., a corporation of New York
Application July 11, 1955, Serial No. 521,276
19 Claims. (Cl. 84-485)

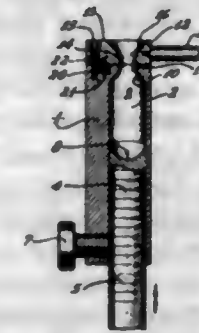
1. An instructive piano comprising a piano having a keyboard, visual indicating means in association and in indicating relationship with the keys of at least one bass octave of said keyboard, a switching mechanism in association with at least one treble octave of said keyboard, said switching mechanism being in electrical connection with said visual indicating means, whereby said visual

indicating means indicates the proper combination of keys to be struck in the base octave for producing a completed



bass chord when a melody key in the treble octave is struck.

2,820,392
POWDER MEASURES
Marvin M. Schmidt, Saugus, Calif.
Application July 6, 1953, Serial No. 366,245
3 Claims. (Cl. 86-33)



1. A powder measure comprising: a body, an axial bore through said body defining a powder chamber therein, a measuring plug extending into one end opening of said bore and longitudinally and slidably movable in said chamber to change the capacity thereof, the end of said plug in said chamber being concavely shaped with the edge thereof forming a sharp circular edge circumscribing said plug end and slidably contacting the wall of said chamber, a plurality of measuring marks along the length of said measuring plug alignable with the bottom edge of said body around the opening of said chamber to indicate the capacity of said chamber as determined by the longitudinal position of said plug therein, screw means in said body engageable with the periphery of said plug to fasten said plug in capacity determining position in said body, a shear block rotatably attached over the opening at the end of said measuring chamber opposite said measuring plug, said shear block having a block bore therethrough, and spring means mounted in said body and operable to retain said shear block in a position where said block bore is coaxially registered with said powder chamber, said block being movable against the force of said spring to a position where said block closes the open end of said measuring chamber to confine a predetermined measure of powder in said chamber between said plug and said shear block.

2,820,393
EYE TESTING INSTRUMENT
Max F. Wichers, Laredo, Tex., assignor of twenty-five percent each to Anton D. Wichers, Topeka, Kans., and Clara A. Bennett, Monticello, Iowa
Application April 14, 1955, Serial No. 501,353
1 Claim. (Cl. 88-20)

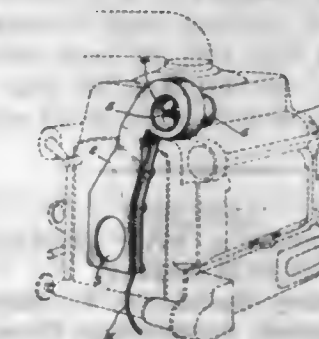
A device for testing the indirect field of vision of an eye comprising a frame adapted to be secured to a vertical supporting surface, a covering over said frame into which indicators can be removably inserted, and a

fixation member centrally located and removably appended to said covering, said covering being held by said frame to conform to the inner surface of a circular segment of a hollow sphere, said covering including an underlayer of wire mesh material and an outer layer of cloth, said outer layer of cloth having meridional and degree indicia sewn thereto, and a plurality of pins de-



tachably adjustably secured upon said covering, said pins extending through said outer layer of cloth and between the meshing of said wire mesh material, said frame including a circular outer frame member interconnected by a plurality of arcuate braces, said covering being secured to said braces and a plurality of stabilizing feet attached to said brace and having the portions thereof remote from said frame coplanar.

2,820,394
AIR-COOLED HEAT DEFLECTOR FOR PICTURE PROJECTOR ARC LAMP
Clarence S. Ashcraft, Manhasset, N. Y.
Application June 26, 1953, Serial No. 364,324
5 Claims. (Cl. 88-24)

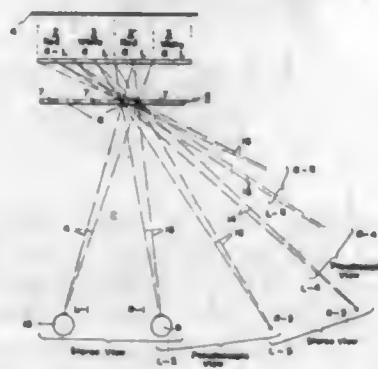


1. A motion picture projection lamp, a duct mounted thereon, an aperture in said duct, a heat-reflecting transparent glass plate within said aperture, means for mounting said heat-reflecting glass plate within said aperture at an angle to the light beam, a second aperture within said duct, and a motor driven fan within said aperture for drawing air into the duct and blowing it through the duct onto said heat-reflecting glass plate and at an angle to the said heat-reflecting glass plate which directs the air away from the projection lamp.

2,820,395
STEREOSCOPIC VIEW DETECTORS
Miles Parker Rehorn, Apple Creek, Ohio
Application June 22, 1954, Serial No. 438,481
6 Claims. (Cl. 88-29)

1. In a free vision stereoscopic viewing system, the combination of a first light filtering unit comprising a plurality of light transmitting elements, the said elements occupying a plane in the plane of an image plane where a pair of stereoscopically related pair of images appears in the form of right and left eye adjacent image elements, each of said light transmitting elements being twice the width of a given image element and coinciding vertically with a pair of adjacent image elements, alternating light

transmitting elements consisting of red transparent or translucent material, the light transmitting element intervening between said alternating transmitting elements consisting of transparent or translucent spaces through which white light may pass, a second light filtering unit positioned before said light transmitting elements and spaced therefrom the same distance as the viewing screen is positioned with respect to said image plane and comprising alternating opaque and transparent elements and occupying a plane including the plane of said viewing screen for viewing said image stereoscopically, the opaque elements of said second light filtering unit being three times the width of the elements of the viewing screen,

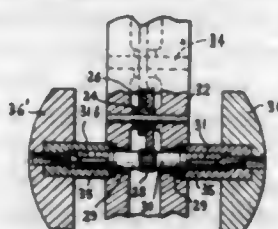


while the transparent elements are equal in width to the width of a given element of the viewing screen, and a light source for illuminating the said first light transmitting elements, the said light transmitting elements and opaque and transparent elements cooperating together to serve as a guide to the eyes of an observer to the true stereoscopic view and to its correct position, when the right eye of said observer is in a position to see the right eye stereoscopic view on said viewing screen and the left eye of said observer is in a position to see the left eye stereoscopic view on said viewing screen, and both the right and left eyes of said observer looking through the transparent elements of said second light filtering unit will see either all red or all white light.

2,820,396

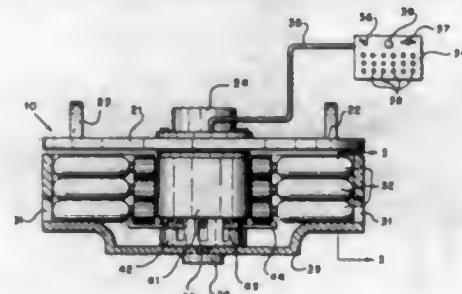
TENSION CONTROL FOR ADJUSTMENT MECHANISMS

Henry Emerson Pressey, Buffalo, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application June 7, 1955, Serial No. 513,724
4 Claims. (Cl. 88-39)



1. The combination in a microscope stand of adjustment mechanism therefor comprising an actuating shaft for said adjustment mechanism having a portion of said shaft projecting from each side thereof, a grip for manual rotation of said actuating shaft mounted on each of said projecting portions, braking means cooperating with said shaft and actuated by rotation of at least one of said grips relative to said shaft to increase and decrease the resistance to rotation of said shaft in response to differential torque imposed on said grips by the two hands of the operator, the projecting portion carrying said rotatable grip being split, and means for spreading said split projecting portion for holding said braking means under adjusted tension.

2,820,397
AIRBORNE MISSILE DISPENSER
Thomas F. Durkin, Roslyn, Pa.
Application December 15, 1953, Serial No. 398,447
4 Claims. (Cl. 89-1.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

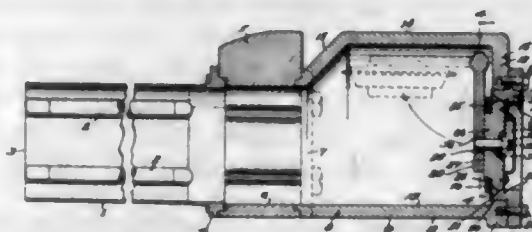


1. Apparatus for attachment to an aircraft comprising a centrifugal missile dispenser mechanism, said mechanism including a relatively fixed supporting frame, a container in which a plurality of missiles may be releaseably contained, supporting means arranged to support said container rotatably beneath said frame, driving means mounted upon said frame and operatively connected to said supporting means to produce rotation of said container and thereby generate substantial centrifugal force, a plurality of individual restraining means disposed within said container and arranged to restrain a corresponding plurality of missiles against discharge from said container in response to the centrifugal force applied thereto, and a remotely disposed control means operatively connected to said driving means and to said restraining means, arranged to selectively energize and de-energize said driving means and including first means for releasing said restraining means in sequential order and second means for releasing said restraining means simultaneously, selectively operable to discharge a plurality of missiles from said container by means of the centrifugal force applied thereto, either in sequential order by actuation of said first means or simultaneously by actuation of said second means.

2,820,398

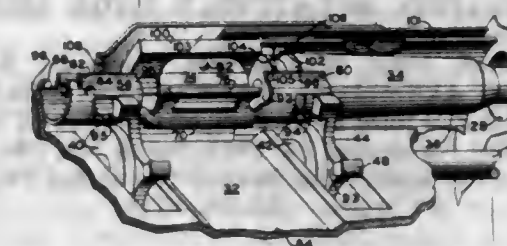
INWARDLY OPENING BREECH CLOSURE FOR ROCKET LAUNCHER

William E. Good, Riverton, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application April 21, 1952, Serial No. 283,383
4 Claims. (Cl. 89-1.7)



1. In a rocket launcher, an elongated cylindrical launcher tube having a circumferentially flanged rear end, a breech housing secured to said flanged end and comprising side, bottom and top walls defining a breech space, and a rear wall having an opening formed therein, a breech ring removably fixed to the outer surface of said rear wall about said opening and comprising an inwardly directed reduced portion peripherally engaging the wall of said opening with a tight fit, there being a breech opening formed in said reduced portion having an oblique wall defining a conical seat, an inwardly opening rearwardly stepped breech block swingable to close said breech opening, said breech block having a first inner portion having a conical peripheral surface to engage the inner portion of said conical seat with a tight fit, a middle portion of slightly reduced diameter, and an outer portion again reduced in diameter to provide

a recess, there being a metal obturator ring received in said recess having a resilient connection with said breech block, said obturator ring having a conical peripheral surface to engage the outermost portion of said conical seat, a toroidal resilient obturator pad surrounding said middle portion of slightly reduced diameter having inner and outer surfaces tightly abutting corresponding opposed surfaces of said breech block and obturator ring respectively, and having an outer peripheral surface adapted to tightly engage a middle portion of said conical seat to provide a gas tight seal, an operating arm mounted in said breech space for swinging said breech block open or closed, and comprising a flat bar having one end secured to the inner surface of said breech block and the other end provided with opposed pockets for receiving inwardly directed diametrically opposed trunnions mounted in the side wall of said breech housing, one of said trunnions forming a driving trunnion actuable by a toggle link mechanism for swinging said breech block, said link mechanism comprising a first link having one end secured to an end of said driving trunnion protruding from said side wall, a second link having one end pivoted on the outer surface of said side wall, a third link having one end connected to the free end of said first link, and the other end connected to the free end of said second link, and means engaging said second link adjacent said free end operable to actuate said mechanism to swing said door.

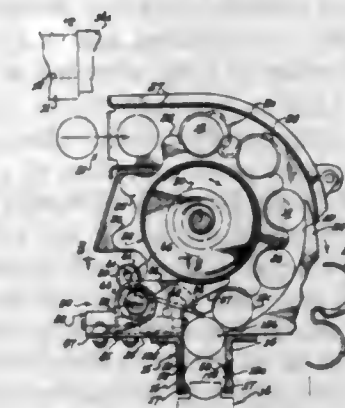


pairs of said teeth and tabs oppositely disposed on said body for projecting into the undercuts to secure said links to said feedwheel, said cams being disposed for guiding said links into and out of said engagement, and said links being constructed for mutual disengagement after said ramming to disintegrate said belt.

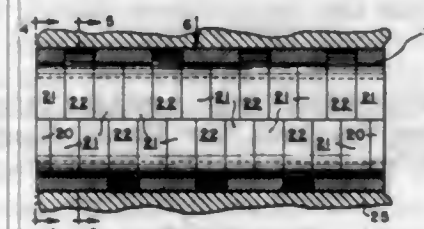
2,820,401

MACHINE GUN ANTI-JAMMING DEVICE

John Gerick, Los Angeles, Calif., assignor to Frank A. Pachmayr, Culver City, Calif.
Application May 17, 1954, Serial No. 430,159
10 Claims. (Cl. 89-33)

2,820,399
OFFSET HALF RING MOLYBDENUM GUN LINERS

George Comenetz, Pittsburgh, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 5, 1952, Serial No. 318,941
4 Claims. (Cl. 89-16)



1. A gun barrel comprising: a steel carrier having a bore therein, a steel liner shrink fitted within said bore, said liner having opposite rows of semi-circular axially spaced staggered slots extending through the wall thereof, a plurality of semi-circular liner members disposed within said sleeve with their outer surfaces in engagement with the inner surface of said sleeve, a plurality of liner members disposed in and filling said slots having portions extending inwardly of the inner surface of said sleeve engaging portions of certain of the first named members and adapted to prevent axial movement and rotation of the first named members within said sleeve, the inner surfaces of said liner members forming the projectile bore of the gun, said projectile bore being rifled, said liner members being of a metallic material having a coefficient of thermal expansion less than that of steel.

2,820,400

CARTRIDGE LINK AND FEEDWHEEL FOR A REVOLVER-TYPE GUN

John F. O'Brien, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application February 3, 1954, Serial No. 408,051
6 Claims. (Cl. 89-33)

(Granted under Title 35, U. S. Code (1952), sec. 266)
6. In combination, a cartridge belt comprising a plurality of serially connected links for resiliently securing

1. A machine gun comprising a gun barrel, a reciprocating bolt acting to successively engage a series of rounds of ammunition and displace them into said barrel for firing, a rotating ammunition advancing unit operable to progressively advance a series of rounds to a predetermined loading position in the path of said bolt for displacement thereby into the barrel, a movable anti-jamming member operable to engage one of said rounds which is near said loading position and urge said one round in a direction to advance a leading round to said position even though said advancing unit may be jammed, a spring yieldingly urging said anti-jamming member in ammunition advancing direction, and means for actuating said anti-jamming member in predetermined timed relation with said advancing unit in a direction to retract said anti-jamming member against the force of said spring out of the path of a round which is being advanced by said rotating unit into position for engagement by the anti-jamming member, said means being constructed to retract said anti-jamming member in timed relation to said rotating unit even though no round is present in the gun, said rotating unit including a rotating cam structure having cam projection means turning in accordance with the advancement of said rounds, said actuating means comprising a cam follower engaging and actuable by said cam projection means and acting to retract said anti-jamming member in accordance with the rotation of said cam structure, and means mounting said cam follower for deflection by said projection means transversely of the direction of movement of said projection means, and for limited movement in the same general direction

as said projection means to effect a timing advancement of the follower after it passes the peak of said projection means.

2,820,402 APPARATUS FOR SURFACE TREATMENT OF ELONGATED, RELATIVELY WIDE METAL STRIPS

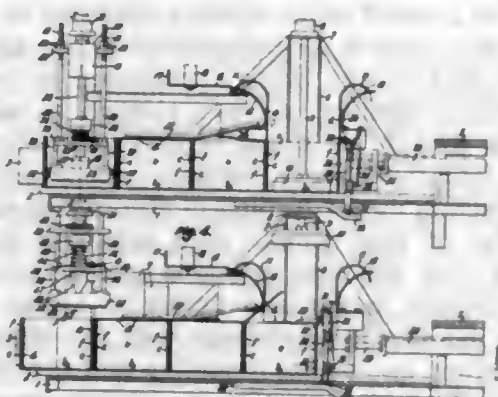
Torsten Göran Emil Waenerlund, Vasteras, Sweden, assignor to Aktiebolaget Svenska Metallverken, Vasteras, Sweden, a joint stock company limited of Sweden
Application November 24, 1953, Serial No. 394,153
Claims priority, application Sweden November 24, 1952
5 Claims. (Cl. 90—21)



2. Apparatus for successively treating opposite surfaces of an elongated strip of relatively flexible material, said apparatus comprising a first feeding means for said strip, a treating machine disposed in the path of movement of said strip and including horizontally disposed means for treating the lower surface only of said strip, a conveyor for receiving said strip from said treating machine, an inverting apparatus for said strip comprising a vertically disposed arcuate trackway having a plurality of rolls for engaging and guiding said strip through an arcuate path, a plurality of rolls disposed in spaced substantially parallel relation respectively to said first rolls and providing a substantially closed channel to retain said strip in said arcuate path, a portion of said trackway at the entrance end being pivotally mounted whereby the same may be selectively disposed in the path of movement of said strip emerging from said treating machine to guide said strip into said trackway or moved out of the way to permit movement of said strip onto said first mentioned conveyor, a reversible feeding means, a chute leading from the discharge end of said arcuate trackway to said reversible feeding means and a guide channel between said reversible feeding means and the entrance end of said treating machine whereby strips inverted by said arcuate trackway may be withdrawn from said chute by said reversible feeding means and upon reversal of said reversible feeding means said strips may be fed through said channel to said treating machine for treating the opposite surface of said strip.

2,820,403 CARTON MACHINE

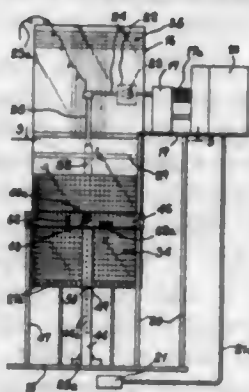
Edwin J. Plough, Wadsworth, and Gerald H. Steele, Leroy, Ohio, assignors to The Ohio Boxboard Company, Rittman, Ohio, a corporation of Ohio
Application April 14, 1954, Serial No. 423,066
8 Claims. (Cl. 93—51)



1. A machine for erecting a carton from a flat paper-board blank, such carton blank being provided with cuts

and folding scores to define a bottom and side and end wall members, with certain of said wall members provided with inwardly foldable portions to produce a double-wall formation, said machine comprising an elongated fixed horizontally extending platform member, means providing a primary forming station and a final forming station relatively spaced longitudinally of said platform member, said primary station including carton blank engaging elements forming a die cavity fixed with respect to said platform member and for which said platform member provides a bottom, and a reciprocable plunger for forcing the carton blank into said die cavity so that its wall members will be acted upon by said blank engaging elements and its bottom will ultimately engage and be supported by said platform member, said primary forming station thus serving for erecting the side and end wall members of the blank substantially normal to said bottom, guideway means extending longitudinally of said platform member for guiding thus partially erected cartons along said platform member from said primary station to said final station, means for imparting movement to such cartons to advance the same along said platform member from said primary station to said final station while supported by said platform member between said guideway means, means operable during such movement of the cartons along said platform member for automatically initially folding the inwardly foldable portions of their said wall members toward each other and substantially normal to the respective erected said wall members, said guideway means and platform member providing at said final forming station die cavity means for which said platform member provides a bottom, and a reciprocable plunger at said final forming station for engagement with and for in-folding the thus initially folded inwardly foldable portions into substantial juxtaposition with the inner faces of their respective walls while the carton bottom is supported by said platform member.

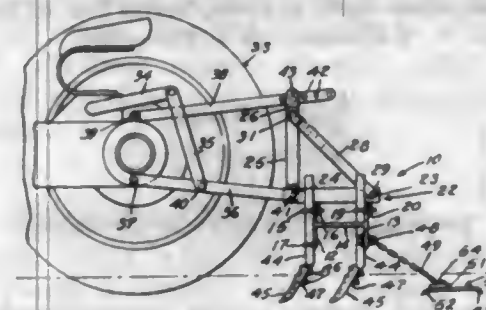
2,820,404 PHOTOPRINTING APPARATUS Chung Shu Kwel, New Haven, Conn. Application November 23, 1954, Serial No. 470,645 6 Claims. (Cl. 95—4.5)



1. In a photographic apparatus for composing printed matter and the like, the combination of a drum having at one portion of its periphery a negative provided with arcuate rows of characters to be photographed, the drum having at another portion of its periphery a table of characters corresponding to said first characters and arranged in arcuate rows similar to said first rows, a drum mount on which the drum is rotatable on its axis and movable longitudinally of said axis, a light source disposed at one side of the drum periphery, an exposure station mounted at the opposite side of the drum periphery in position to receive an image of one of said negative characters projected by the light source, the drum being axially and rotatably adjustable on its mount relative to said source and station to position a selected negative character for said projection, a stationary index mounted adjacent the drum periphery and coacting with said table to indicate

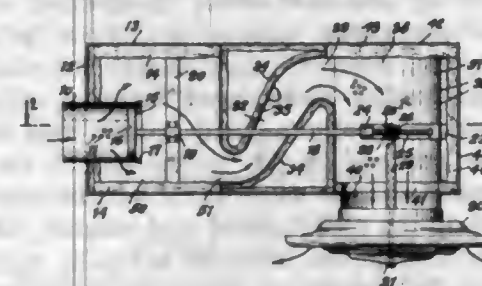
the character thereon corresponding to the negative character positioned for said projection, a stationary locking part disposed adjacent the drum periphery and having a plurality of holes spaced longitudinally of the drum and corresponding in number and spacing to the arcuate rows in said table, the drum having a locking part provided with a plurality of holes spaced circumferentially of the drum and corresponding in number and spacing to the characters in each arcuate row, and a releasable pin engageable simultaneously in two selected holes of the respective parts for interlocking said parts.

2,820,405 EARTH WORKING ATTACHMENT FOR TRACTOR Henry A. Puckett, Atlanta, Ga. Application June 22, 1955, Serial No. 517,128 2 Claims. (Cl. 97—9)



1. In combination with an earth working implement including an elongated frame supported by a rearwardly extending hydraulic lift system of a tractor behind and crosswise of the tractor and at different elevations, for positioning earth working members which are supported by and depend from the frame at different depths in the ground or in elevated positions above the ground; an elongated blade adapted to rest on the ground behind and substantially parallel to said frame, and flexible members having rear ends connected to end portions of said blade and forward ends connected to end portions of said frame for dragging the blade behind the frame, said blade having a sharpened downwardly flared leading edge adapted to penetrate the ground when the blade is drawn behind the frame, and said flexible members being connected to an upper side of the blade behind and adjacent said leading edge thereof.

2,820,406 NOISE REDUCTION MEANS FOR AIR OUTLET DEVICES Peter A. Argenti, Danbury, Conn., assignor to Connor Engineering Corporation, Danbury, Conn., a corporation of New York Application May 14, 1954, Serial No. 429,947 4 Claims. (Cl. 98—40)



1. A noise-reduction means for connection to the outlet of an air duct comprising, a housing lined with sound-absorbing material, said housing having an inlet chamber into which air enters, a sinuous passage leading from said chamber, a second chamber within the housing and spaced from the first chamber, the second chamber having side walls, end walls and top and bottom walls the sinuous passage being located in the space between the chambers and having its outlet end in communication

with the second chamber, the bottom of the second chamber being provided with an outlet opening, a curved, perforated baffle wall extending from one side wall to the opposite side wall and from the bottom wall to the top wall of the second chamber and arranged in the second chamber around the outlet opening, said wall being spaced from the outlet end of the sinuous passage, sound-absorbing material in the housing behind the perforated wall, a perforated cylinder leading into the first chamber, a disc slidable within said cylinder and serving as a throttle, a shaft attached to the disc, a rod extending vertically through the outlet opening in the second chamber and a coupling between said rod and the shaft whereby longitudinal movement of the shaft occurs when the rod is rotated to thereby shift the position of the disc within the cylinder, the sound-absorbent material behind the curved perforated baffle wall being spaced from said wall whereby a pocket is formed between said wall and said sound-absorbent material.

2,820,407 LOUVER TYPE VENTILATOR Lester L. Smith, Peoria, Ill. Application July 28, 1954, Serial No. 446,356 1 Claim. (Cl. 98—121)

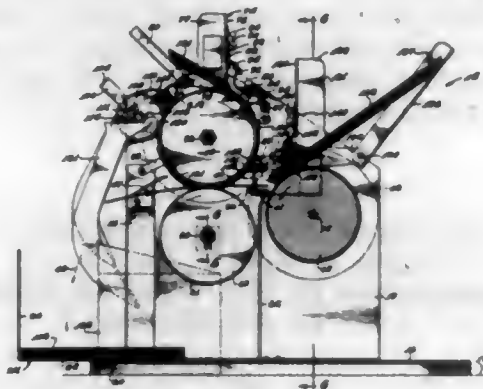


A louver type ventilator comprising, in combination, two metal sheets which each have integral louvers projecting in one direction from the general plane of the mid-portion thereof and opening in a direction extending along that general plane and toward one end of the sheet, the louvers of the two sheets being in inverted relationship to one another, one of said sheets having angularly disposed flanges on each side margin thereof which provide inner mounting flanges in angular relationship to the plane of said mid-portion and outer flanges in a plane spaced from the plane of the mid-portion and substantially parallel to said plane of the mid-portion thereof, the other sheet having marginal portions overlying said outer flanges of the said one of the sheets to provide therewith a second mounting flange, the mid-portions of the assembled sheets being in spaced relationship to one another with the louvers of the two sheets projecting in opposite directions therefrom, a screen interposed and secured between the mid-portions of the two sheets, and each of said sheets having a drain opening therein at a position closely adjacent and inward of the second mounting flange and only at the end thereof toward which the louvers open, whereby the drain openings are at opposite ends of the two sheets and open outwardly of the lower portion of the ventilator when either sheet is used exteriorly with the louvers opening downwardly.

2,820,408 ENVELOPE ADDRESSER Robert H. Williams, Santa Ana, Calif. Application August 16, 1954, Serial No. 450,142 5 Claims. (Cl. 101—132.5)

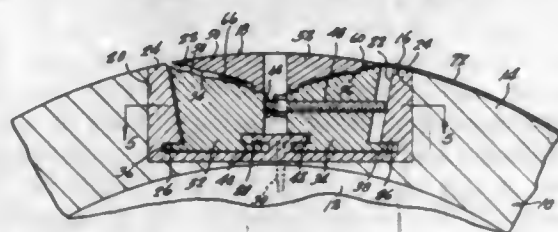
1. In an addressing machine the combination of: a cylindrical roller for feeding master address cards; a hopper disposed above said roller for containing said cards; friction means on said roller for feeding said cards one at a time from said hopper; frictional separating means mounted on said hopper and frictionally engaging said roller to prevent more than one of said cards to

be fed from said hopper at a time; a yieldable pressure roller mounted beneath said card roller in offset relation therewith and pressing upwardly thereagainst; guide means for guiding cards fed from said hopper about said card roller and between the latter and said pressure roller, said guide means lying opposite said card feeding roller but being offset from said pressure roller; a receptacle for said cards; means for inverting cards, discharged from between said card feed roller and said guide means, and delivering the same to said receptacle; a cylindrical roller for feeding flat articles to be addressed, said roller being positioned to feed said articles directly therefrom to the line of contact between the two aforesaid rollers; an article hopper disposed above said article feed roller for



containing said articles; friction means on said article feed roller for feeding said articles, one at a time, from said article hopper; frictional separating means mounted on said article hopper and frictionally engaging said article roller to prevent more than one of said articles to be fed from said article hopper at a time; drive means for driving said feed rollers in synchronous relation so that said cards and articles pass between said card feed roller and said pressure roller with each card in a given overlapping relation with one of said articles; moistening means for moistening each article with a quick-drying spirit as said article is fed from said article hopper; and a receptacle disposed to receive said articles as they are delivered from between said card feed roller and said pressure roller.

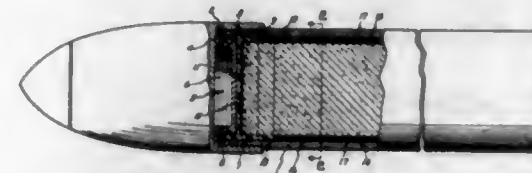
2,820,409
BACKING SHEET CLAMPING DEVICE FOR PRINTING CYLINDERS
Bethel W. Johnson, Joplin, Mo.
Application September 2, 1955, Serial No. 532,230
1 Claim. (Cl. 101—415.1)



In a clamping device for a die-supporting backing sheet the combination, with a printing cylinder having a longitudinal recess, of: a channeled mounting strip fixedly mounted in said recess, said strip including a tongue extending longitudinally and centrally thereof at the bottom of said channel, the strip having the side walls of the channel undercut at the bottom of the channel to define guide grooves opening into the channel at opposite sides of said tongue; a pair of tightening bars extending in laterally spaced relation within said channel, said tightening bars having longitudinal grooves formed in one side thereof receiving said tongue, and including laterally, outwardly extending longitudinal ribs at their other sides slidably engaged in the respective guide grooves, for mounting the tightening bars in the channel for sliding adjustment independently of one another transversely of

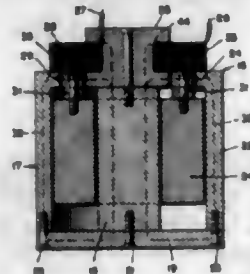
the strip and tightening bars, in the general direction of the circumference of the cylinder; and clamping bars overlying the respective tightening bars within said channel and connected to their associated tightening bars for adjustment approximately radially of the cylinder toward and away from the tightening bars, each of said clamping bars when adjusted toward the tightening bars co-operating therewith in gripping a backing sheet therebetween, said tightening bars when adjusted circumferentially of the cylinder being respectively adapted to tension the gripped sheet against the cylinder surface.

2,820,410
ROCKET PROPELLENT SUPPORT
Donald T. Tarr, Sierra Madre, Calif., assignor to the United States of America as represented by the Secretary of War
Application April 4, 1946, Serial No. 659,574
5 Claims. (Cl. 102—49)



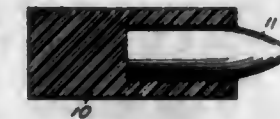
1. In a rocket motor, a tube screw-threaded into a head member, a cup shaped reinforcing base member having an integral flange adapted to be clamped between the forward end of said tube and said head member, a sealing member molded around said reinforcing base member and shaped to seal against the walls of said tube, a propellant grain adapted to fit within said motor tube and bonded to said sealing member.

2,820,411
INERTIA RESPONSIVE MAGNETO GENERATOR
Robert H. Park, Hartford, Conn.
Application October 7, 1948, Serial No. 53,321
3 Claims. (Cl. 102—70.2)
(Granted under Title 35, U. S. Code (1952), sec. 266)



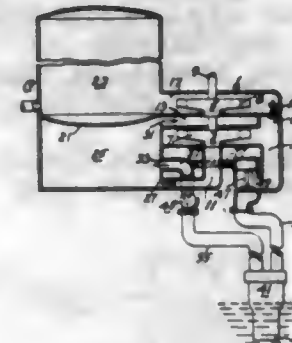
1. An inertia controlled magneto generator for the firing circuit of an ordnance device comprising, in combination, a ferromagnetic housing of hollow cylindrical formation one end thereof being closed the other end being open and having an inturned flange, a cylindrical permanent magnet axially aligned within said housing and secured at one end to the closed end of the housing, a flange spool-shaped member of ferromagnetic material mounted on the other end of said magnet, an armature ring of ferromagnetic material normally positioned between one of the flanges of the spool-shaped member and the inturned flange of the housing thereby to close the magnetic circuit from the magnet through the housing, an inertia ring of non-magnetic material secured to the armature ring and positioned for free movement within the housing axially of the magnet, and an induction coil arranged in said firing circuit and wound on the spool-shaped member whereby a firing voltage is induced in the firing circuit as the armature is suddenly moved out of the magnetic circuit upon impact of the ordnance device with its target.

2,820,412
PROJECTILE FOR FIREARMS
Reinier Beeuwkes, Jr., Newton, John P. McDonough, Boston, and Edward N. Hegge, Westwood, Mass.
Application October 20, 1948, Serial No. 55,524
4 Claims. (Cl. 102—93)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a projectile for firing from a rifled barrel, a metallic bullet having a maximum transverse dimension less than the bore of the barrel, and a generally cylindrical carrier of homogeneous acrylic resin of the type that is hard and tough at normal atmospheric temperatures, and having a diameter equal to the bore of the barrel, said bullet embedded in said carrier, there being a clearance in all directions radially of said carrier between the surface of said bullet and the outer cylindrical surface of said carrier.

2,820,413
DEEP WELL SELF-PRIMING SYSTEM AND PUMP UNIT ASSEMBLY THEREFOR
Candido Jacuzzi, Lafayette, Calif., assignor to Jacuzzi Bros., Incorporated, a corporation of California
Application February 14, 1955, Serial No. 487,953
7 Claims. (Cl. 103—5)

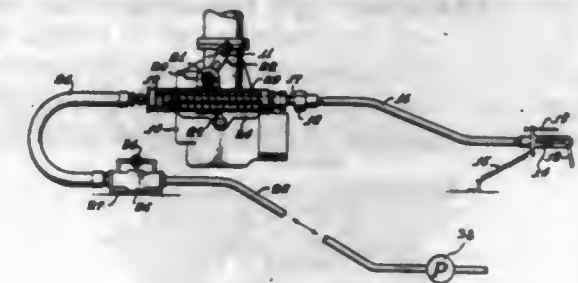


1. A multi-stage deep well self-priming pump system sub-combination for use with a pressure pipe and suction pipe of such a system, said sub-combination comprising a pump unit having at least a pair of stages, each stage having an input passage and a discharge passage, a tank providing an air separation chamber having a pair of openings, one elevated with respect to the other for connecting said chamber to said stages, means connecting the input passage of one of said stages to said air separation chamber at the lower of said connection openings, means connecting the input passage of said other stage to said air separation chamber at the upper of said connection openings, means for connecting the discharge passage of said first stage to the pressure pipe of a pump system, and means for retaining water in said air separation chamber for priming purposes.

2,820,414
PUMP GOVERNOR
Bayler J. Fejedelem, Los Angeles, Calif.
Application July 6, 1954, Serial No. 441,581
10 Claims. (Cl. 103—16)

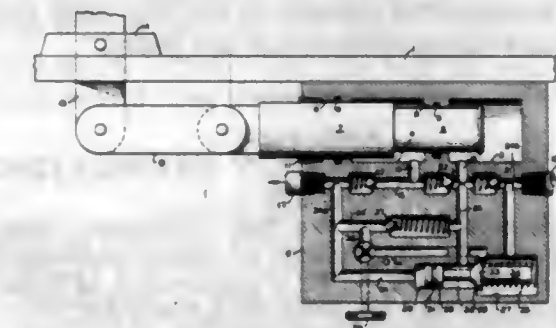
3. In a governor for regulating pump pressure in a fire engine including an internal combustion motor, at least one pump, a butterfly valve regulating air input to said motor; and a positionable throttle control; the combination of a link pivotally fixed to said motor and rotatable in a substantially vertical plane; a forked lever operating said butterfly valve; a shaft attached to the movable end of said link and engaging said forked lever; cylinder

suspension means attached to the moving end of said link; a cylinder suspended by said suspension means; a piston within said cylinder including fluid sealing means at the end thereof within said cylinder; a compression



spring urging said piston into said cylinder; a rod means connecting said piston and said positionable control; a flexible hose means connected to said cylinder; and a tubing means connecting said hose means to said pump.

2,820,415
LOW PRESSURE, HIGH VOLUME—HIGH PRESSURE, LOW VOLUME PUMP
Ray W. Born, El Monte, Calif.
Application March 12, 1956, Serial No. 570,935
3 Claims. (Cl. 103—37)

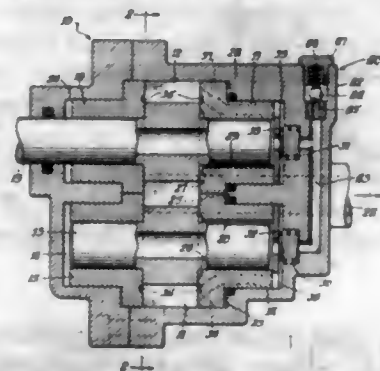


1. A pumping system comprising: a first high displacement piston pump operating in unison with a second low displacement piston pump; a first fluid line having upstream and downstream ends; a first conduit for connecting said first fluid line with said first pump; a second conduit for connecting said first fluid line with said second pump at a point downstream of said first conduit; a first check valve disposed in said first fluid line upstream of said first conduit; a second check valve disposed in said first fluid line between said first and second conduits; a third check valve disposed in said first fluid line downstream of said second conduit; a second fluid line connecting said first fluid line at a point upstream of said first check valve with said first fluid line at a point downstream of said third check valve; a third conduit connecting said first fluid line at a point intermediate said first and second check valves with said second fluid line intermediate the ends thereof; a spring biased piston slide valve disposed in said second fluid line at the juncture thereof with said third conduit normally serving to close off said second fluid line on both sides of said juncture, but to establish communication between said third conduit and the upstream side of said first fluid line in response to an increase in the fluid pressure of the downstream end of said first fluid line above the bias of the spring of said piston slide valve; a fourth conduit connecting said first fluid line at a point downstream of said third check valve with said second fluid line at a point intermediate the ends thereof; and an externally operable valve disposed in said fourth conduit, said first, second, and third check valves being spring biased and serving to prevent the upstream flow of fluid in said first fluid line.

2,820,416

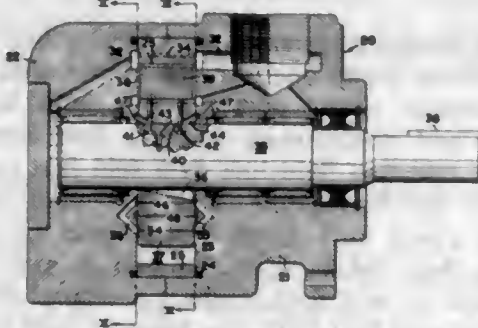
PRESSURE LOADED PUMP

James A. Compton, Euclid, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application December 24, 1952, Serial No. 327,792
10 Claims. (Cl. 103—126)

1. In an intermeshing gear pump, a housing having an inlet port and a discharge port formed therein, a pair of intermeshing pumping gears journaled in said housing and arranged to force liquid from said inlet out of said housing through said outlet, a pair of bushings associated with said gears and having faces adapted to engage the adjacent gear side faces in substantially sealing relationship, means for establishing a zone of intermediate pressure of less than discharge pressure but greater than inlet pressure, means in said bushings for communicating said intermediate pressure to the gear tooth pockets for filling same during operation of said pump.

2,820,417

FLUID PRESSURE ENERGY TRANSLATING DEVICECecil E. Adams and Yung Ho Sun, Columbus, Ohio, assignors, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application May 10, 1954, Serial No. 428,737
10 Claims. (Cl. 103—136)

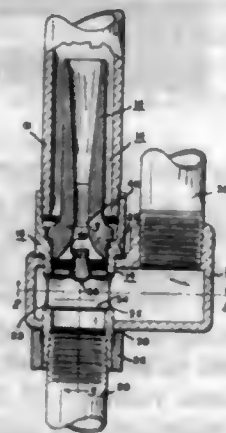
1. In a fluid pressure energy translating device of the type having a casing with a rotor chamber and inlet and outlet ports spaced circumferentially thereof, said casing forming a peripheral wall with ramp portions at the inlet and outlet ports; a rotor with vane slots and registering recesses journaled for rotation in said chamber; vane elements carried by said rotor for substantially radial reciprocation in said vane slots under the control of the ramp portions of said peripheral wall; and two independent piston type pumping elements actuated by said vane elements when traversing a predetermined ramp portion to force fluid under pressure from said recesses independently to the rotor chamber at the opposite sides of said rotor.

2,820,418

JET ASSEMBLY FOR PUMPSBernard G. Sullivan, Macedon, and Lyman H. Turner, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 2, 1954, Serial No. 420,624
5 Claims. (Cl. 103—260)

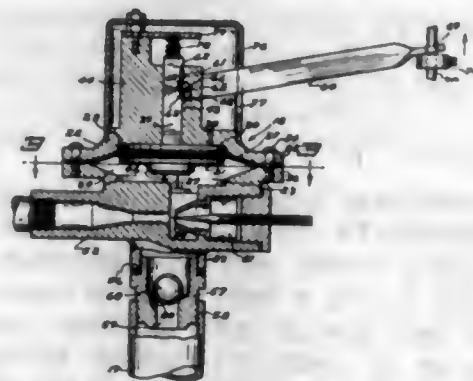
1. A jet assembly including, a coupling adapted for connection to a venturi intake pipe and a venturi dis-

charge pipe, a venturi attached to and coaxially disposed within said coupling, said coupling having a transverse opening therethrough, a nozzle assembly supported by said coupling and coaxially arranged with respect to said venturi, said nozzle assembly comprising a tubular member supported in the transverse opening of said coupling and having a sidewall opening, and a second member having



a substantially frusto conical passage therethrough communicating with the sidewall opening of said tubular member, the outlet of said second member terminating proximate the throat of said venturi, and a hollow adapter attached to said coupling, said adapter encompassing said coupling and communicating with said tubular member.

2,820,419

REGENERATING APPARATUS FOR WATER SOFTENERSLawrence E. Albertson, Minneapolis, Minn., assignor to The McKays Company, St. Paul, Minn., a corporation of Delaware
Application February 10, 1954, Serial No. 409,304
5 Claims. (Cl. 103—276)

1. A control valve including a base having a diaphragm chamber, an intake chamber and a nozzle compartment, a wall between said diaphragm chamber and said intake chamber, said wall having an opening therethrough, a diaphragm in sealing relationship to said diaphragm chamber, said diaphragm being movable toward a first upper position in response to introduction of a pressure in said diaphragm chamber of greater than atmospheric and movable toward a second downward position in response to a pressure of less than atmospheric in said diaphragm chamber, a first valve mounted to move with said diaphragm to come into sealing relationship with said wall opening when said diaphragm is in its second downward position, a second valve mounted to move with said diaphragm to come into sealing relationship with said wall opening when said diaphragm is in its first upward position, a supply pipe open to said nozzle compartment, a venturi nozzle adapted to discharge from said nozzle compartment into said diaphragm chamber, a venturi discharge pipe in operating alinement with said nozzle in said discharge chamber and open to the outside of said base, an intake pipe open to said intake chamber, a control arm, means for causing said control arm to be selectively

moved between upper and lower conditions, latch means operative to stop movement of said diaphragm toward said first upper position at a point where both valves are spaced from said wall opening when said control arm is in its upper condition and to permit further movement of said diaphragm toward said first upper position when said control arm is moved toward its lower condition, operative to stop movement of said diaphragm toward said second lower position at a point where both valves are spaced from said wall opening when said control arm is in its upper condition and to permit further movement of said diaphragm toward said second lower position when said control arm is moved toward its lower condition.

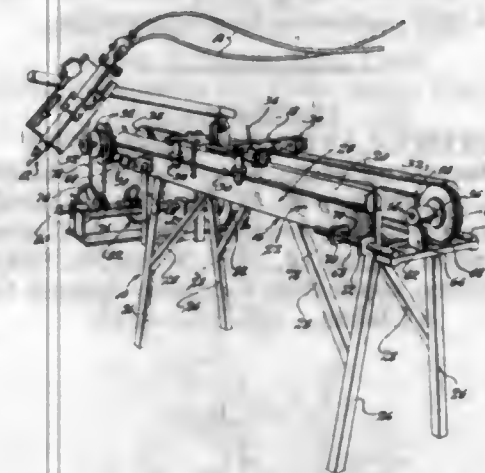
2,820,420

METAL WORKING APPARATUS

Stanley W. Hayes, Richmond, Ind., assignor to Hayes Track Appliance Company, Richmond, Ind., a corporation of Indiana

Application April 27, 1949, Serial No. 89,840, now Patent No. 2,660,128, dated November 24, 1953, which is a division of application Serial No. 515,937, December 28, 1943, now Patent No. 2,481,421, dated September 6, 1949. Divided and this application July 24, 1953, Serial No. 370,176.

2 Claims. (Cl. 104—196)



1. A metal working apparatus including in combination a longitudinally extending member having a pair of parallel spaced upright portions and a transverse portion interconnecting said upright portions below their upper ends, pulleys at the opposite ends of said member, a transversely extending plate positioned beyond one end of said longitudinally extending member and mounting one of said pulleys, a pair of aligned transversely projecting apertured lugs secured to the outer face of each of said uprights at the end of said member adjacent said one pulley, studs fixedly secured to said plate and projecting through said apertured lugs adjustably to mount said plate and said one pulley to said member, and nut means adjustably locking each of said studs to one lug of each of said pair of lugs.

2,820,421

REMOVABLE RAIL-MOUNTED CAR STOP

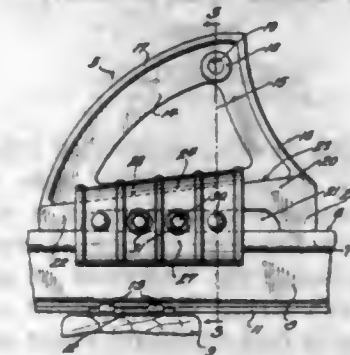
Glenn W. Merritt, Bowerston, Ohio, assignor to The Nolan Company, Bowerston, Ohio, a corporation of Ohio

Application June 15, 1955, Serial No. 515,601

2 Claims. (Cl. 104—259)

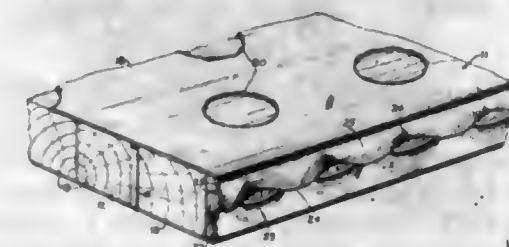
1. A track rail mounted car stop comprising: an integral body member formed to be seated in an upright position on the upper surface of the head of an associated track rail, said member including a forwardly disposed, arcuate, car wheel-engaging surface, the lower portion of said member being formed on opposite sides thereof with outwardly and laterally projecting, longitudinally extending flanges, the upper surfaces of said flanges being disposed in acute angular relation to the horizontal to cause

said flanges to decrease in height from the front of the body member to the rear thereof, the bottom of said member including a longitudinally extending recess, said flanges at the forward and rear ends thereof being formed with integral pad formations having flat horizontally arranged bottom surfaces adapted for seating engagement with the upper surface of the associated rail head; a pair of laterally and outwardly separable, longitudinally extending clamping plates disposed at each side of said body member and an adjoining rail head; each of said plates including a cen-



tral web terminating along the upper and lower portions thereof in inturned, longitudinally extending upper and lower ribs, each upper-rib of said plates having a lower face inclined to conform with the angular upper surface of a complementary body member flange, and the lower rib thereof formed for holding engagement with the adjoining under surface of the rail head; and fastening bolts passing transversely through openings formed in the webs of said plates between said ribs and the recessed bottom portion of said body member.

2,820,422

RAILWAY CAR FLOORWilliam H. Peterson, Homewood, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application February 7, 1952, Serial No. 270,444
10 Claims. (Cl. 105—422)

1. An armored plank for railway car floors and the like, comprising a non-metallic core, a pair of metal sheathing plates overlying opposite faces of the core in close contact therewith, and metal pins extending through the core with the ends thereof flush with the core faces and welded to the plates to hold the core and plates in assembly, each of the plates having flanges at its opposite sides spaced from the corresponding core side edges and extending substantially to the midplane of the core to abut the flanges of the other plate, each of the flanges being of sinusoidal form substantially throughout its length with adjacent portions of generally conoidal form alternately oppositely diverging from the edge of the plate inwardly and outwardly relative to the adjacent core side edge and having the terminal conoidal portions at opposite ends extending oppositely, the flanges of each plate each having the inwardly extending portions thereof disposed opposite the outwardly extending portions of the flange of the other plate at the same core side edge to locate the edges of the opposed flanges in abutting relationship to each other at points between the adjacent portions of each and to provide outwardly extending projections with abutment surfaces substantially at the midplane of the plank alternately facing oppositely, whereby the sides of the plank are of substantially the same flex-

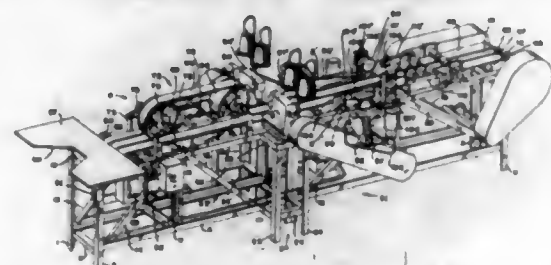
ibility as the remainder thereof to avoid concentration of bending stresses at the sides and are adapted for interlocking engagement of the plank with similar planks in load-transmitting relation.

2,820,423
FOOD MOLDING DEVICES
Carmino Catuccio, Waterbury, Conn.
Application July 12, 1956, Serial No. 597,424
1 Claim. (Cl. 107-47)



In a food molding device, an inverted cup-shaped body member having a flared peripheral side wall, a plate disposed within said body member in a plane substantially parallel with the top portion thereof, a flexible fabric lining embracing the underside of said plate and furnished with draw-string means above said plate for holding said lining in taut condition about said plate, said body member having a vertical handle concentrically secured to the top thereof, said handle being secured to said body member by a flat headed screw, the head of which engages the inner surface of said body member, the peripheral side wall of said body member being provided with a plurality of aligned inwardly-projecting detent portions cooperative with the peripheral edge portion of said plate to releasably retain said inner plate, together with its fabric lining, in said body member.

2,820,424
MACHINES FOR MAKING VACUUM CLEANER BAGS
Arthur P. Klasing, Webster Groves, Mo., assignor to Central States Paper & Bag Co., St. Louis, Mo., a corporation of Missouri
Application October 26, 1955, Serial No. 542,871
12 Claims. (Cl. 112-10)

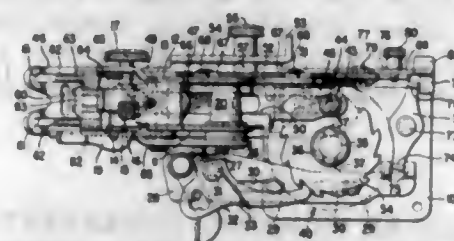


1. An automatic machine for making bags out of open-ended flat tubular bag-blanks; said machine comprising a relatively long straight line conveyor having a plurality of spaced pushers for engaging the longitudinal margins of the bag-blank, means for applying a cardboard patch to a side wall of the bag-blank, said means including a heated element located in the path of the conveyor so that the bag-blank will slide thereover and means for imposing pressure on the bag-blanks as they pass over the heated element, means for stitching the ends of the bag-blank to close same, means for applying covering strips of tape over the stitched ends of the bag-blank, and means for cutting the several bag-blanks apart.

2,820,425
WORK-JOGGING ATTACHMENTS FOR SEWING MACHINES
John P. Enos, Union, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application April 26, 1955, Serial No. 503,968
6 Claims. (Cl. 112-160)

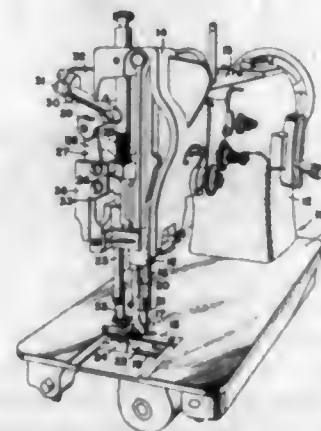
1. In a sewing machine work-jogging attachment an attachment frame adapted to be secured to the sewing

machine, a laterally movable work-jogging member carried by said attachment frame, a work-feeding member slidably confined for movement longitudinally on said work-jogging member, a pattern cam arranged to shift said work-jogging member, mechanism carried by said attachment frame and actuated by said sewing machine for turning said pattern cam, a separable driving connection between said pattern cam and said mechanism for turning said pattern cam, a cam follower carried by said



work-jogging member, complementary separable interengaging means on said pattern cam and on said cam follower being disposed relatively to said separable driving connection to accommodate bodily movement of said pattern cam into or out of operative engagement simultaneously with both said mechanism for turning said pattern cam and with said cam follower, and a member driven by said pattern cam actuating mechanism and operatively connected to shift said work-feeding member.

2,820,426
ARTICULATED PRESSER FOOT
Johannes Doerr and Hans Otto Menth, Kaiserslautern, Germany, assignors to G. M. Pfaff A. G., Konigsstrasse, West Germany, a corporation of West Germany
Application August 15, 1955, Serial No. 528,449
Claims priority, application Germany August 16, 1954
4 Claims. (Cl. 112-212)



1. In a sewing machine including means defining a work surface, a sewing head supported above said work surface, a presser bar slideably mounted in said head with one end projecting from said head toward said work surface, a needle bar slideably mounted in said head to the front of said presser bar with one end projecting toward said work surface, a needle attached to said end of said needle bar for passing thread through material being sewn, means for reciprocating said needle bar, means for reciprocating said presser bar, and means for oscillating said needle bar and presser bar from front to rear when said needle bar and presser bar are reciprocated toward said work surface, the improvement which comprises a presser foot attached to said end of said presser bar having a toe extending to the front of said needle for cooperating with said work surface to feed material being sewn beneath said head over said work surface, said presser foot further including an articulated heel cooperating with said work surface to move material being sewn and movably attached to said presser foot to the rear of said needle, and means for moving said heel to the rear rela-

tive to said toe as said toe moves from front to rear whereby said material is stretched at the point said needle penetrates the material as a stitch is taken.

2,820,427
WELDING BACK-UP ASSEMBLY
John J. Chyle and Michael W. Zimmermann, Milwaukee, Wis., assignors to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application October 1, 1953, Serial No. 383,664
10 Claims. (Cl. 113-111)



1. A welding back-up assembly adapted to be applied to the underside of a seam between adjacent edges of two metal articles which are to be welded together, which comprises a monolithic glass sheet adapted to be aligned beneath the seam between the adjacent edges of the articles to support the molten weld metal, and heat resistant pressure sensitive adhesive tape applied to the undersurface of the glass sheet and extending laterally from said sheet and adapted to be secured to the articles to hold said glass sheet in position beneath said seam.

2,820,428
QUICK CHANGE TROLLER
Harry J. Smith, Roy, Utah
Application November 30, 1956, Serial No. 625,455
3 Claims. (Cl. 115-18)



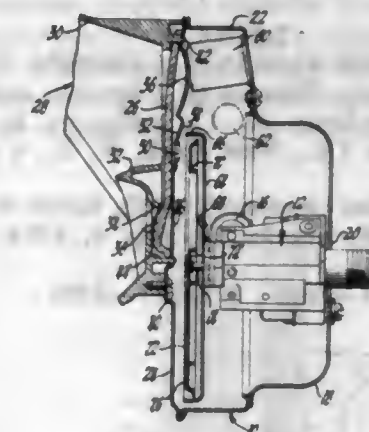
1. In combination with an outboard motor having a water driving unit including a propeller, a hub and a nut, said nut including a pair of flat surfaces each provided with a slot therein, said nut further including a rounded rear end, a trolling assembly releasably connected to said water driving unit and including a cylindrical housing adapted to fit over the rear end of said hub, said housing further including a back wall, a cup-shaped casing extending rearwardly from said back wall for receiving the rounded portion of said nut, there being a pair of diametrically opposed openings in said casing, a pair of opposed levers pivotally connected to the outer surface of said casing, a transverse finger extending inwardly from each of said levers and said fingers being mounted for movement through the openings in said casing and into engagement with the slots in said nut, coil springs arranged in engagement with said levers, a support portion extending rearwardly from said casing, a bracket extending rearwardly from said support portion, a cable detachably connected to said bracket, a disc secured to the outer surface of the back wall of said housing, and said disc being arranged contiguous to the propeller.

2,820,429
SPACE AND NUMERICAL INDICATING INSTRUMENT
Ralph O. Helgeby, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 29, 1954, Serial No. 446,596
1 Claim. (Cl. 116-57)

An instrument such as a speedometer for giving a measurement comprising a casing enclosing a light source,

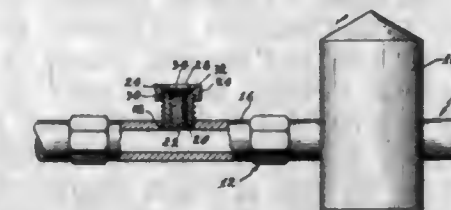
728 O. G.—34

a clear window in a wall of said casing, a shaft arranged to be rotated an extent in proportion to the magnitude of measurement, said shaft supported in said casing and being journaled with its axis at a blunt angle with said wall, an opaque cup fixed in position within said casing and including a flange, a disc fixed to said shaft for rotation



within said cup, an arcuate portion of said disc presenting a vivid substance thereon to view through said window, a fixed opaque shield interposed between said window and said flange, a surface on said shield for reflecting and directing light around said flange to said vivid substance, and an elongated arcuate slot in said shield through which said vivid substance may be observed.

2,820,430
FILTER AND OIL CHANGE INDICATOR FOR A LUBRICATING SYSTEM
Charles A. Pulaski, Port Washington, N. Y.
Application February 27, 1956, Serial No. 567,952
12 Claims. (Cl. 116-114)



1. A filter and oil change indicator for an oil circulating lubricating system including conduit portions, comprising an aperture formed in one of said conduit portions, a tubular housing open at each end engaged by one end in said opening, a plug of oil permeable material snugly fitted within said housing, an oil absorbent strip of material rendered translucent by absorbed oil and colored on one side disposed with its colored side against the outer end of said plug within said housing, and means within said housing for retaining said plug and said strip therewithin.

2,820,431
SUPPORT FOR RESONANT SOUNDING TUBES
George Wright Lescher, Hagerstown, Md.
Application November 23, 1956, Serial No. 623,859
9 Claims. (Cl. 116-169)



1. A support for a resonant sounding tube having two nodal points comprising a longitudinal support member

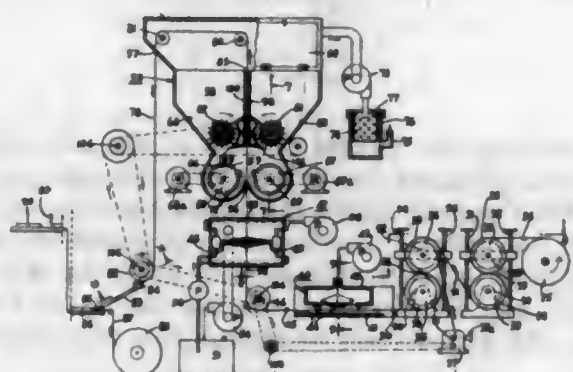
within said tube and extending from at least one end thereof, longitudinal restraining means on said support member resiliently engaging said tube at at least one of its nodal points and lateral restraining means on said support member resiliently engaging said tube at both said nodal points.

2,820,432

MACHINE FOR MAKING AEROSOL FILTERS
Edward J. Hackney, Charles D. Fancette, and Frederick R. Darkis, Durham, N. C., assignors to Liggett & Myers Tobacco Co., New York, N. Y., a corporation of New York

Original application October 7, 1953, Serial No. 384,684. Divided and this application July 6, 1954, Serial No. 444,883

2 Claims. (Cl. 118—309)



1. Apparatus for making aerosol filters comprising a hopper for containing a supply of finely-divided particles, two spaced walls defining an enclosed channel between them separating said hopper into two parts, a curved shoe secured to each of said walls, a rotary feeder mounted in the lower portion of each hopper and in proximity to one of said curved shoes, a chamber beneath said feeders to receive finely-divided material fed thereby and having an opening aligned with said channel, rollers to advance filamentary material through said chamber by passage thereof through said opening and said channel, and common means to drive said feeders and said rollers in synchronism whereby the rate at which finely-divided particles are fed to both sides of the advancing filamentary material is controlled in relation to the speed at which said filamentary material moves through said chamber.

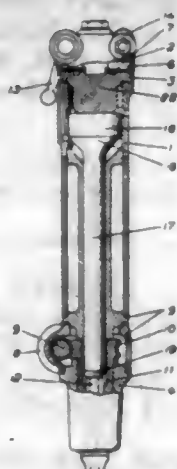
2,820,433

HAMMER PISTONS FOR PERCUSSION MACHINES AND TOOLS

Herman Theodor Pyk, Saltsjö-Duvnas, Sweden, assignor to Atlas Copco Aktiebolag, Nacka, Sweden, a corporation of Sweden

Application July 1, 1952, Serial No. 296,681. Claims priority, application Sweden July 2, 1951

4 Claims. (Cl. 121—31)



1. A free motion hammer piston for elastic pressure fluid actuated percussion devices comprising a first blow-

delivering portion consisting of material having high resistance to impact and a second portion providing the major part of the mass of the piston, said second portion consisting of a hardenable bronze capable, upon delivery of a blow to a blow-receiving element through said first portion of the piston, of elastic flexure materially greater than the elastic flexure resulting from an equivalent impact delivered by a solid cylindrical steel piston having the same weight and length.

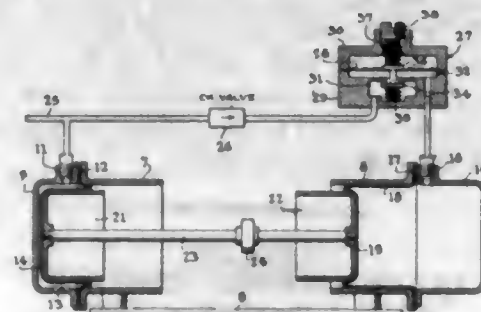
2,820,434

SINGLE-ACTING MOTOR WITH PNEUMATIC RETURN SPRING

Carl A. Otto, Milwaukee, Wis., assignor to Johnson Service Company, Milwaukee, Wis., a corporation of Wisconsin

Application July 18, 1955, Serial No. 522,710

6 Claims. (Cl. 121—38)



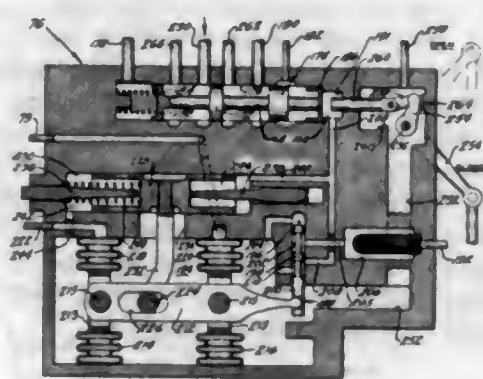
1. A damper motor comprising in combination, two relatively opposed single-acting expansible chamber units having each a cylinder and also having mechanically connected pistons reciprocable in respective cylinders, one unit having a connection for the supply and exhaust of pneumatic pressure fluid to cause the unit to function as a motor and the other being closed to cause it to function as a pneumatic spring opposing movements of said motor; and means rendered effective by leakage of fluid from the pneumatic spring and serving to supply make-up fluid to the spring from said motor.

2,820,435

PRESSURE RESPONSIVE CONTROL DEVICE
Richard J. Coar, West Hartford, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Original application November 18, 1950, Serial No. 196,424. Divided and this application November 29, 1952, Serial No. 323,208

15 Claims. (Cl. 121—46.5)



1. A device for directing a fluid pressure from one conduit to one of two other conduits, including an inlet conduit and a first outlet conduit and a second outlet conduit, a relay valve for connecting said inlet conduit to said first outlet conduit or said second outlet conduit, a fourth conduit connected at one end to a chamber at one end of said relay valve, a pilot valve connected to the other end of said fourth conduit for connecting said fourth conduit to

a drain conduit or to a pressure conduit, a spring biasing said relay valve in a direction towards said chamber, a walking beam attached to said pilot valve for moving it, said walking beam having a movable fulcrum, a shift piston mounted in a bore, said fulcrum being mounted on an arm fixed to said shift piston, a fifth conduit connecting said fourth conduit to a second chamber at one end of said shift piston, and a spring biasing said shift piston in a direction towards said second chamber.

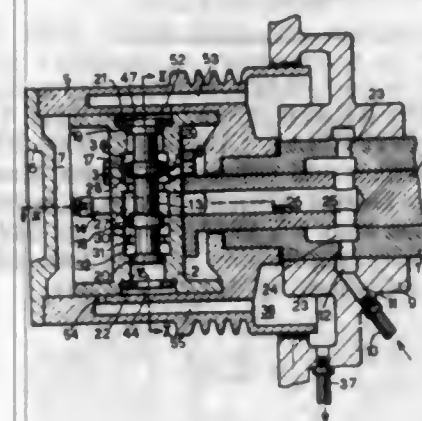
2,820,436

EFFECTING RELATIVE DISPLACEMENT BETWEEN PUSHER MEMBER AND SEPARATOR CAGE OF A PUSH-TYPE CENTRIFUGAL MACHINE

Ernst Ruegg, Kuesnacht, Switzerland, assignor to Escher Wyss Aktiengesellschaft, Zurich, Switzerland, a corporation of Switzerland

Application January 3, 1956, Serial No. 557,189. Claims priority, application Switzerland January 13, 1955

3 Claims. (Cl. 121—123)



1. The combination of two coaxial shafts, one encircled by the other and movable axially relatively thereto while rotating therewith; bearings in which the outer shaft is rotatable; an expansible chamber motor comprising a main cylinder closed at its ends and mounted coaxially on the encircling shaft and a double-acting main piston reciprocable in said main cylinder and connected with the encircled shaft to shift said shaft relatively to the encircling shaft; a combined distributing valve and valve-shifting piston means mounted in a combined ported valve seat and valve-motor cylinder extending diametrically within said main piston and substantially symmetrical with reference to the common axis of the shafts, there being a supply passage leading through the inner shaft to a supply port substantially at mid-length of said valve seat, there being exhaust ports leading from opposite end portions of the valve seat to and thence through coacting passages in the main piston and cylinder, and there being two motor ports intermediate said supply and exhaust ports and each leading through the main piston to a different working space in said main cylinder, said ports being controlled by said distributing valve to cause the main piston to shift reversely in response to reverse shifts of said distributing valve; and valve means rendered effective by arrival of the main piston at its opposite limits of motion to energize reversely said valve-shifting piston means.

2,820,437

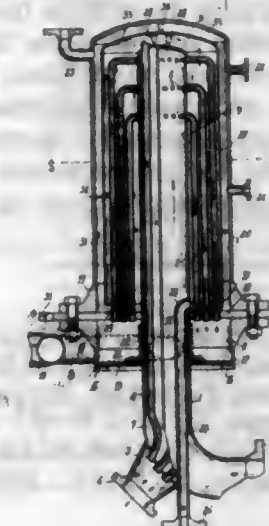
HEAT-EXCHANGE EVAPORATOR APPARATUS
Georges Ilune, Paris, France

Application November 24, 1953, Serial No. 394,121. Claims priority, application France November 24, 1952

5 Claims. (Cl. 122—33)

1. In liquid vaporizing apparatus, an outer vertical container having a sealed base and top, an inner vertical

container with walls spaced from the walls of the outer container and defining an annular space therewith, a tubular member extending through said base upwards into said inner container and having a top adjacent and spaced from the top of said inner container, means for connecting the lower end of said tubular member with a source of heater fluid, a plurality of tubes connecting with said tubular member adjacent the top thereof and extending downwardly in the inner container and through said base for discharging heater fluid out of said tubular member back to said source, inlet means for said liquid opening into a lowermost point of said inner container



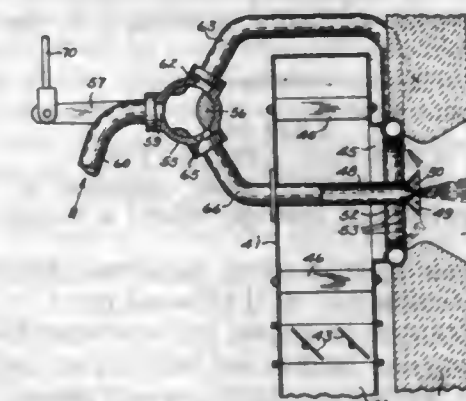
adjacent said tubes, aperture means in the inner container wall at the base thereof and at an intermediate level thereof for permitting a continuous circulation of said liquid up within the inner container and down through said annular space and back into the inner container, means for discharging vapour of said fluid from the top of said inner container said inner container comprising a bell member vertically movable within the outer container, and cooperating stop means on the top end wall of said bell member and on the top surfaces of said outer container and said tubular member for limiting the vertical displacements of said bell member to a predetermined limited amount.

2,820,438

METHOD OF CONTROLLING SUPERHEAT

L. V. Andrews and Ollison Craig, Worcester, Mass., assignors to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts. Original application December 1, 1948, Serial No. 62,854, now Patent No. 2,679,833, dated June 1, 1954. Divided and this application October 19, 1953, Serial No. 387,012

2 Claims. (Cl. 122—479)



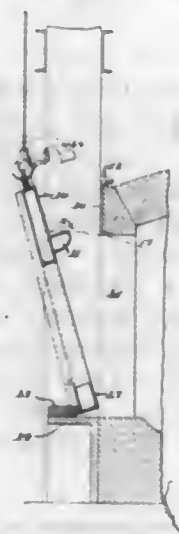
1. The method of controlling the temperature of vapor from a superheater which receives its heat mainly by convection from hot gases leaving a furnace, comprising the steps of introducing the substances of a com-

bustible gas and air into the furnace at closely adjacent points, one of such substances being introduced as two portions for combustion to produce a flame, directing one of the said portions in a first path, directing the other of said substances in a second path which surrounds and is parallel to the said first path to bring about relatively slow mixing of the substances to render the flame comparatively luminous, and directing the other portion of the said one of said substances in a path which is directed toward the other of the said substances at a substantial angle to bring about relatively rapid mixing of the substances to render the flame comparatively non-luminous, absorbing heat radiated by the flame out of the presence of the superheater, and changing the relative rates of flow in the said portions to increase and decrease the luminosity of the flame and the resultant rate of heat radiation therefrom as the vapor temperature increases or decreases, respectively, to thereby decrease or increase, respectively, the temperature of the hot gases reaching the superheater to maintain the vapor temperatures at a substantially fixed value.

2,820,439

FURNACE STRUCTURES

Oscar M. Fox, Pittsburgh, Pa., assignor, by mesne assignments, to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application December 23, 1949, Serial No. 134,692
15 Claims. (Cl. 122-499)



1. In combination, a furnace with an opening, a framing member above said opening, a furnace door-frame, suspending means extending vertically from the top of said doorframe, bearing means on the framing member of the furnace above the furnace opening, said bearing means having at least one inclined surface, and inclined engaging means between the suspending means and the inclined surface of the bearing means and movable with respect to the suspending means by gravity independently of the suspending means adjustably suspending the doorframe vertically positioned in the furnace opening.

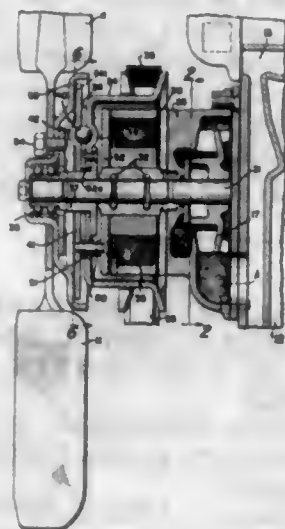
2,820,440

COOLING APPARATUS

James W. Jacobs, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 28, 1955, Serial No. 504,650
10 Claims. (Cl. 123-41.11)

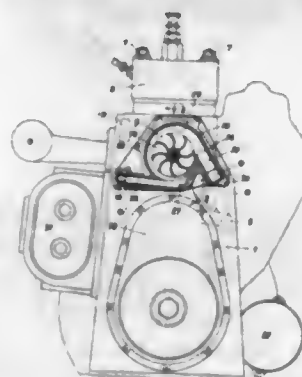
1. In combination: an engine for an automobile or the like; a water cooling system for said engine including a water pump; a water pump shaft on said pump; a pulley drivingly connected to said pump shaft; belting between said engine and pulley; a fan mounted rotationally free on said shaft and arranged for circulating air in thermal exchange relationship with water in said system; a clutch between said fan and pulley; a stationary electromagnet

coaxial with said shaft; means locking and unlocking said clutch when said electromagnet is deenergized and energized respectively; and means for energizing and deenergizing said electromagnet.



2,820,441

DESIGN AND ARRANGEMENT OF THE COOLANT PUMP OF INTERNAL COMBUSTION ENGINES
Andreas Schelterlein and Othmar Skatsche, Graz, Austria, assignors to Gustav Ospelt, Vaduz, Liechtenstein
Application May 27, 1955, Serial No. 511,727
Claims priority, application Austria June 12, 1954
4 Claims. (Cl. 123-41.46)



1. In a two-stroke internal combustion engine, the combination comprising a cylinder block having vertical cylinders arranged in a row, with reciprocating pistons, wet cylinder liners surrounded by a coolant chamber, piston-controlled exhaust ports, exhaust channels in the cylinder block surrounded by a separate coolant chamber, a coolant pump of the centrifugal type arranged at the front end of the cylinder block, with a pressure groove and two delivery channels, each of which is assigned to one of the coolant chambers, one of said channels feeding the coolant chamber around the cylinder liners being connected at one end of the pressure groove of the coolant pump, whereas the other channel feeding the coolant chamber surrounding the exhaust passages is connected at the other end of said pressure groove.

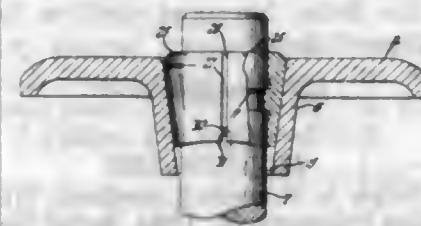
2,820,442

VALVE SPRING RETAINER OIL SEAL

Earl R. Wilson, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 23, 1952, Serial No. 289,518
8 Claims. (Cl. 123-90)

1. In an internal combustion engine having a poppet valve with a generally vertically guided stem, valve operating means including a return spring, retaining means for said spring at the upper end of the valve stem, said retaining means including a washer member having an opening substantially larger than the stem and a plurality

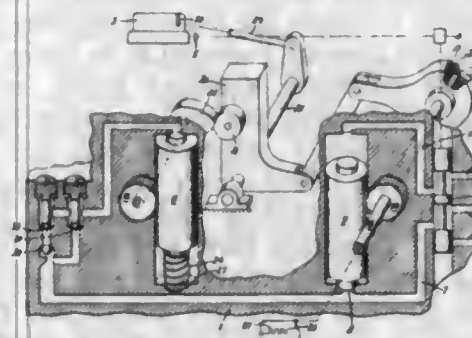
of segmental keys disposed within said opening and closely embracing the stem, said keys having at least two of their oppositely disposed end faces in spaced apart relation, one of said end faces being provided with a projection extending toward the oppositely disposed end face



of the adjacent key for at least partially blocking the passage of lubricant through said opening, said oppositely disposed end face of the adjacent key being substantially flat and extending uninterruptedly the full length and thickness of the key.

2,820,443
GOVERNOR

Eldon B. Heft, North East, Pa., assignor to General Electric Company, a corporation of New York
Application December 23, 1955, Serial No. 555,002
16 Claims. (Cl. 123-103)



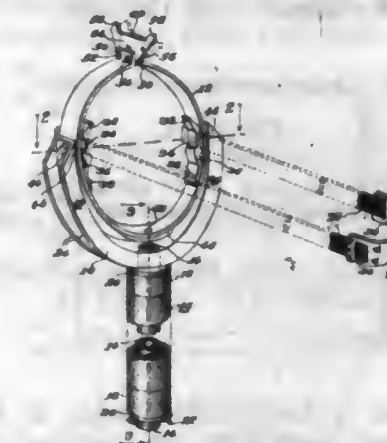
1. A governor for regulating the acceleration of an engine comprising a first relatively high speed hydraulic operating means, a second hydraulic operating means having a relatively low speed matching the acceleration of the engine, a common control valve for said operating means arranged for operation in response to a decrease in the speed of the engine to cause movement of said operating means, driving means including a movement storage spring for connecting said first operating means to a fuel supply means of the engine for operation to increase the supply of fuel to the engine, movable stop means cooperating with said driving means to limit the movement of said driving means and of said fuel supply means to a predetermined amount after which continued movement of said first operating means is stored in said spring, and a driving connection between said second operating means and said stop means for moving said stop means to provide for movement of said fuel supply means by said spring.

2,820,444
SLINGSHOT

Soren Pedersen, Riverton, Wyo.
Application March 21, 1956, Serial No. 572,847
1 Claim. (Cl. 124-20)

A slingshot comprising a primary frame, a handle means connected to said frame, a pivoted secondary frame, means pivoting said secondary frame to said primary frame, attaching means on opposite sides of said secondary frame, contractible spring means held by said attaching means to said secondary frame, a sling member held by said spring means, said secondary frame including a substantially circular part having counterweight means adjacent the lowermost side thereof for biasing said secondary

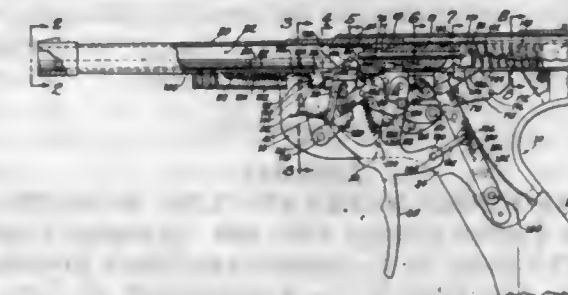
frame to a position in a vertical plane, said secondary frame circular part terminating in a pair of confronting



bent portions and an adjustable sight having means for clamping the same between said confronting portions.

2,820,445

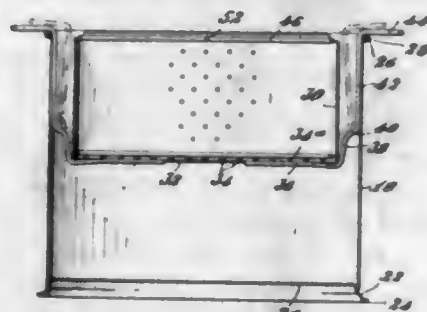
PISTOL ASSEMBLY FOR AMUSEMENT DEVICES
Walter A. Tratsch, Chicago, Ill.
Application March 24, 1955, Serial No. 496,434
4 Claims. (Cl. 124-27)



1. In a pistol assembly of the type described for shooting a spherical member and having an elongate barrel formed with a bore dimensioned in cross section to be greater than that of the spherical member and with a feed opening in the rearward end portion thereof for introducing the spherical members into the barrel and having a plunger shiftable axially in alignment with the barrel between cocked and uncocked positions for engagement with the spherical member in the rearward end portion of the barrel, a slide member separate and apart from the barrel and shiftable lengthwise within the barrel between a retracted and an extended position of adjustment and extending substantially throughout the length of the barrel, a slot extending continuously lengthwise through the upper surface of the slide member to provide a pair of laterally spaced apart edges extending continuously in parallel relation lengthwise through the barrel and spaced apart by a distance substantially less than the diameter of the spherical member to provide a pair of runway edges on which the spherical member is supported during travel through the barrel, a feed opening through the underside of the slide member in the rearward end portion thereof in alignment with the feed opening through the barrel when the slide member is in normal position of adjustment, means for displacing the slide runway member rearwardly to retracted position within the barrel responsive to displacement of the plunger to cocked position whereby the feed opening in the slide member is offset rearwardly from the feed opening in the barrel, and means for engaging the spherical member during displacement of the slide member from normal to retracted position whereby the spherical member is displaced forwardly on the slide member beyond the feed opening and onto the runway edges.

2,820,446
BROILER

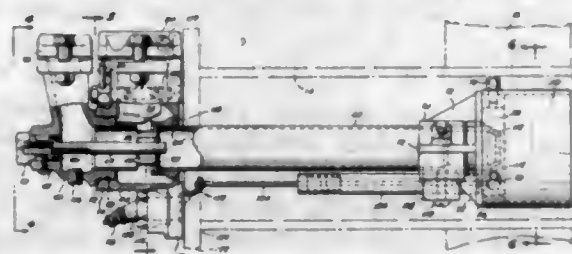
Deane M. Freeman, Cambridge, Mass.
Application July 7, 1954, Serial No. 441,911
6 Claims. (Cl. 126-25)



1. A container, a foraminous basket of lesser cross-sectional area and depth than the container, the bottom of which constitutes a grate and the top of which constitutes a grid, a pair of wire loops, each having a lower part fast to the basket, an upper looped part hooked over the rim of the container, and outwardly sprung intermediate portions rising upwardly through the annular space between the basket and container which intermediate portions frictionally engage the wall of the container and hold the basket suspended therein so that the container and basket may be lifted bodily for transportation by grasping the loops which constitute handles, said intermediate portions being inwardly displaceable by applying sufficient inward pressure to the handles to disengage them from the wall of the container thereby to permit the basket to be removed from the container.

2,820,447

GAS FIRED RADIANT TUBE BURNER
Melvin J. Parker, Garden City, and Alexander J. Turpin, Stewart Manor, N. Y., assignors to Hauck Manufacturing Co., Brooklyn, N. Y., a corporation of New York
Application January 16, 1956, Serial No. 559,217
18 Claims. (Cl. 126-91)

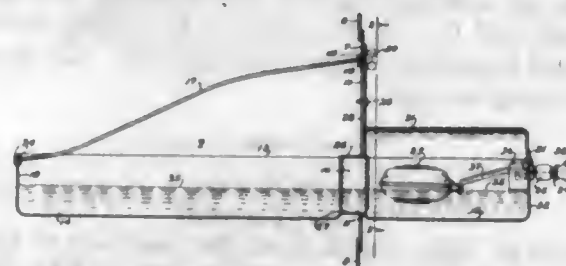


1. In combination, a heater tube which is very long compared to its diameter and which is non-insulated and adapted to be used as a heat exchanger for providing intentional transfer of heat through the tube wall, and a burner which is long compared to its diameter and which has forward and rear portions connected by a primary tube, most of said burner being smaller in diameter than the heater tube and being inserted longitudinally of the heater tube into one end of the heater tube, said heater tube terminating in an outlet at its other end, said primary tube terminating at its inner end in a burner tip and having its rear end portion projecting from the heater tube, an air supply body surrounding the rear end portion of the primary tube and connected to a source of air to supply secondary air to flow outside the primary tube in the space between the primary tube and the heater tube, a gas connection to the primary tube, ports in said primary tube within the air supply body to supply air to the primary tube for mixture with the gas in the primary tube, means in said air supply body to whirl the combustion air and cause it to assume a helical path as it moves forward around the outside of the primary tube, said primary tube being designed to afford a straight flow therethrough, a sleeve

valve slidable over the ports in said primary tube, external adjustment means for shifting said valve to vary the gas to air ratio in the primary tube, the forward end of said burner being designed to direct the flow thereof in axially forward direction, the combination serving to delay admixture of secondary air with the fuel in order to prolong the flame for more uniform heating of the heater tube along its length.

2,820,448**HUMIDIFIER**

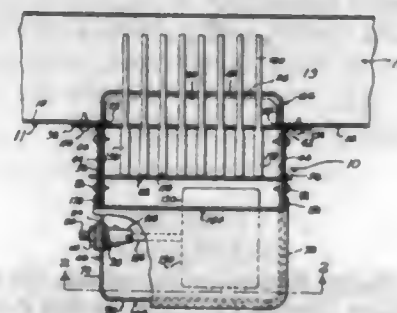
Ralph A. Hansen, Greenfield, Wis.
Application February 26, 1954, Serial No. 412,717
2 Claims. (Cl. 126-113)



1. A humidifier unit applicable to a hot air circulating chamber wall having an opening therein, and comprising, a mounting plate for the unit attachable to the chamber wall to provide a closure for the wall opening and having therein a smaller opening bounded at its lower portion by a downwardly extending V-shaped notch, an elongated approximately horizontal pan having a reduced V-shaped medial portion pivotally cooperable with said notch and being provided with liquid supply and evaporating basins adapted to extend outwardly and inwardly respectively relative to said mounting plate and the air chamber, a pan leveling tension rod above said pan having one end permanently attached to the free end of said evaporating pan basin and its opposite end adjustably attached to said plate, an inverted U-shaped gate having a top wall spanning and coacting with the upper edges of said reduced pan portion and also having depending side walls extending transversely of said V-shaped pan portion and coacting with the adjacent end walls of the basins, and a closure for said mounting plate opening detachably secured to the mounting plate and coacting with said gate to hold the latter in position.

2,820,449**HEATING SYSTEM HUMIDIFIER**

Roy P. Skerritt, Detroit, Mich.
Application February 14, 1955, Serial No. 488,037
2 Claims. (Cl. 126-113)

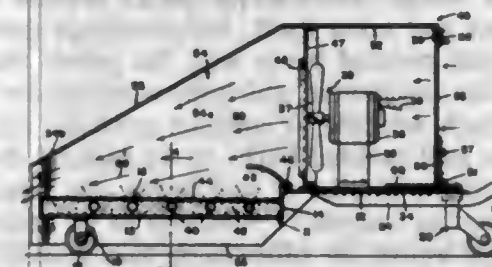


1. A humidifier comprising a mounting structure having an aperture therein, a water pan mounted on said structure in communication with the atmosphere, a water control valve having an outlet disposed adjacent said pan for the discharge of water therein and adapted to be connected to a water supply source, means responsive to the fall of water level in said pan for opening said valve, a partition closing said aperture and having a series of vertical slots therein, and evaporator plates of material possessing capillary attraction, one of said plates extending

through each of said slots with a portion disposed in said pan and extending from the bottom thereof and another portion projecting through the slot in the partition in snugly fitting substantially sealing engagement with the edges of said slot.

2,820,450**ICE AND SNOW REMOVING MACHINE**

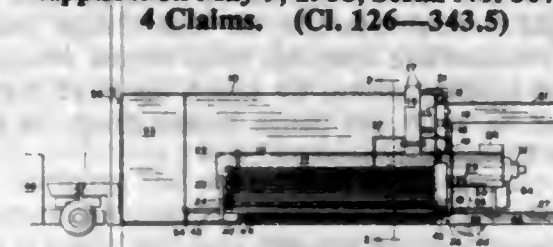
James J. Zimmerman, Kansas City, Mo.
Application June 22, 1955, Serial No. 517,149
5 Claims. (Cl. 126-271.2)



4. An ice and snow melting machine of the character described comprising an elongated frame having a forward end and a rear end, ground engaging supporting wheels connected to and disposed beneath the end portions of said frame, the forward portion of said frame defining an elongated upwardly opening burner pan extending the width of the frame and from the forward end thereof to near the rear end of the frame, means for supplying fuel by gravity to the burner, a blower supported on the rear portion of said frame for directing a blast of air forwardly over the burner, and a hood having an open bottom disposed over said frame and blower and including a downwardly and forwardly inclined top wall portion disposed over said burner and toward which the air is directed for deflecting the air supplied by the blower and heated by the burner downwardly and forwardly through the open bottom of the hood in advance of said burner, a baffle mounted on the rear frame portion between the burner and blower, said hood including an apertured rear wall, and hinge means hingedly connecting the lower end of said rear wall to the rear frame portion, rearwardly of said blower, said hood including a top portion disposed to rest on an upper portion of said baffle, and said hood being swingable upwardly and rearwardly for exposing the burner and blower.

2,820,451

HEATING UNIT FOR BITUMINOUS MATERIALS
James A. Brock and Doyle L. Spears, Chattanooga, Tenn.; said Spears assignor to Cobble Brothers Machinery Company, Inc., Chattanooga, Tenn., a corporation of Tennessee
Application May 9, 1955, Serial No. 507,016
4 Claims. (Cl. 126-343.5)

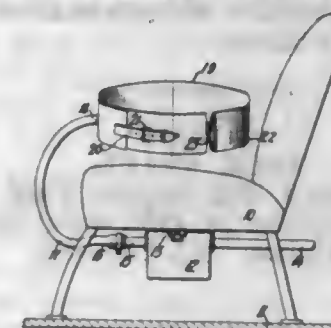


1. A heating apparatus comprising a tank containing material to be heated, a fire tube boiler containing a fluid to be heated extending substantially parallel to the bottom of said tank, the heat receiving end of said boiler extending through the rear end of said tank, a combustion chamber outside the tank and communicating with the receiving end of the boiler and means for firing said combustion chamber, a gas collecting header communicating with the gas discharge end of the boiler, a plurality of fire tubes within said boiler communicating said combustion chamber with said header, a plurality of flues extending along

the greater portion of the length of and within said tank, said flues being disposed outside of and subjacent to the boiler and substantially parallel to and near the bottom of said tank, said flues communicating with said header and terminating outside the rear end of the tank, and means for exhausting gas from said flues.

2,820,452**VALVE DEVICE**

David Gregg, Caldwell, N. J., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application September 28, 1942, Serial No. 460,007
23 Claims. (Cl. 128-1)



1. In combination with a chair, an inflatable girdle to be worn by the occupant of said chair, a pressure line for transmitting fluid pressure to said girdle, a valve member for regulating the fluid pressure in said girdle comprising a housing secured to said chair, a fluid passageway therethrough, a valve port in the wall of said passageway, a relief valve within said housing but externally of said passageway, spring means urging said valve to close said port, an arm projecting from said passageway, a link pivoted to said arm, said link having two ends, said spring means being seated at one end, and a weight located at the other end, whereby, upon acceleration of said chair in certain directions, said weight will move about the pivotal point of said arm to increase the pressure of said spring means against said relief valve to increase the pressure at which fluid in said passageway and said girdle will be relieved.

2,820,453**APPLICATION OF ELECTRIC IMPULSES TO THE BODY BY RECORDING MEANS**

Robert Mayne, Akron, Ohio
Application July 7, 1953, Serial No. 366,469
4 Claims. (Cl. 128-24.5)



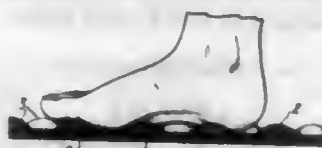
2. Apparatus for applying therapeutic shocks on the human body comprising a plurality of conductive members for application to spaced body portions, a record having a rhythmic pattern stored thereon, means for transforming the record of the rhythmic pattern to a corresponding electrical rhythm, and means for conducting the pattern to said conductive members and for commutating potential from one of said conductive members to another so that sensations experienced by the person are determined both by the pattern of rhythm and by the commutating of the conductor members.

2,820,454**FOOT KNEADING RUGS**

Leonard W. Wright, Everett, Wash.
Application April 4, 1955, Serial No. 498,821
2 Claims. (Cl. 128-25)

1. A foot kneading rug comprising a sponge rubber base pad, and individual buttons of material substantial-

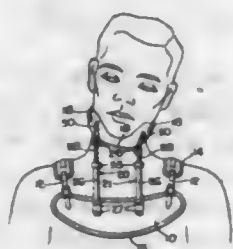
ly harder than said base pad, mounted on and distributed over said base pad and having rounded upper portions, the width of each button at its base being several times as great as its maximum thickness, the thickness of said



base pad being at least substantially as great as the maximum thickness of a button to support said buttons yieldingly and tiltably, and said buttons being spaced apart a distance at least a plurality of times as great as the maximum thickness of a button.

2,820,455 NECK BRACE

Newton J. Hall, Arcadia, Calif.
Application December 28, 1953, Serial No. 400,591
7 Claims. (Cl. 128—87)



1. A brace for use in healing fractures and correcting deformities in the neck of a subject, which comprises chest and back plates adapted to be mounted, respectively, on the chest and back of said subject and to be connected with each other by means of straps extending over the shoulders, chin and occiput pieces adapted to be associated, respectively, with the chin occipital regions of said subject, first and second posts extending generally parallel to each other and connected between said chest plate and said chin piece, third and fourth posts extending generally parallel to each other and connected between said back plate and occiput piece, said posts being independently extensible to permit variation in the spacing of said chest and back plates from said chin and occiput pieces, and a plurality of ball-and-socket joints provided one in each of said posts, said joints permitting said posts to be extended in varying amounts to effect tilting of said chin and occiput pieces relative to said chest and back plates.

2,820,456 SURGICAL BANDAGE

Sidney A. Peerless and Daniel Osber, Cincinnati, Ohio
Application March 21, 1955, Serial No. 495,428
6 Claims. (Cl. 128—171)



4. A wrap-around surgical bandage comprising an elongated strip of pliable bandage material adapted to be wrapped successively about an injured part of the body and upon itself, an attachment clip formed of substantially flat rigid material, said clip having a width substantially equal to the width of said strip, a plurality of tang elements residing in spaced row formation transversely across the attachment clip, each tang element having a shank portion rising upwardly substantially at right angles

to the plane of said clip and having a barb projecting from the upper end of said shank, each barb having a longitudinal axis extending longitudinally of the strip and having a pointed outer end, and means anchoring the attachment clip to an end portion of said strip with said barbs residing above the upper surface of the strip and with the pointed ends of the barbs projecting toward the opposite end of the strip, said attachment clip adapted to be placed adjacent an injured part of the body with the pointed barbs residing above the upper surface of the strip, the strip being sufficiently elastic to stretch lengthwise when wound successively under tension about the injured part and upon itself, said windings thereby passing over said pointed barbs with the points thereof projecting in the direction in which the windings are stretched, adapting each winding to contract partially and to draw itself upon said pointed barbs to be pierced thereby and anchored to the shanks of said barbs, the length of said shanks adapting successive windings to be anchored individually one above the other upon said shanks.

2,820,457 POSITIONING RETAINER FOR ORO-TRACHEAL TUBES

John W. Phillips, Olive View, Calif.
Application January 14, 1955, Serial No. 481,757
4 Claims. (Cl. 128—351)



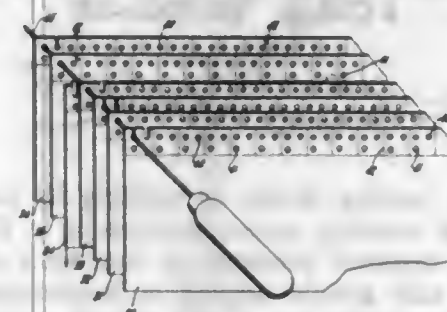
4. An oral access port member serving to protect the front of the oral cavity and medical apparatus introduced therein from mutual damage, comprising: mouth-abutting doubly curved flange means of shape virtually complementary to the facial structures adjacent to the lips, said flange means being comfortably placeable against the facial structures exterior to and nearby the mouth, said flange means defining a central aperture, a plurality of lateral aperture means to communicate with the mouth, and strap-holding means; an internal mouth-insertion member mounted on said flange means and shaped so as to be firmly retained by the relaxed jaws; and bore means defined by said mouth-insertion member to permit free communication between the oral cavity and said central aperture of said flange means, through a constant-size opening; strap means attachable to said strap-holding means, by which the head may be encompassed to hold said flange means firmly in position against the mouth.

2,820,458 RECORD CARD

George I. Koons, Athens, Ohio, assignor, by mesne assignments, to Royal McBee Corporation, a corporation of New York
Application May 12, 1952, Serial No. 287,301
5 Claims. (Cl. 129—16.1)

1. A device for coding, sorting and segregating record cards in accordance with a numerical classification comprising a plurality of record cards each having a plurality of coding fields defined along coding edges of the cards, a group of coding apertures in each field, each group consisting of three apertures arranged with two in an outer

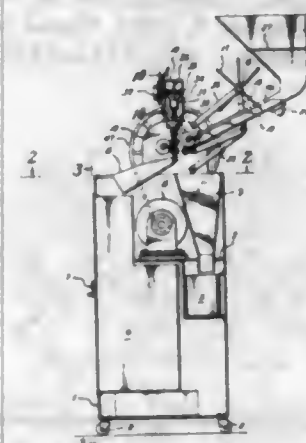
row in spaced parallel relation to the coding edge and one in an inner row aligned with one of the outer row apertures at right angles to the coding edges, and notches extending from the coding edge of each card to selected



apertures within selected fields for coding each card with respect to a desired classification, the width and the positioning of the notches being varied to indicate different classifications.

2,820,459 BEAN AND PEA SHELLER

Burrell B. Russell, Hearne, Tex.
Application September 9, 1955, Serial No. 533,319
8 Claims. (Cl. 130—30)



1. In a seed pod sheller, a support, a pair of oppositely rotatable seed expressing pressure rolls carried by the support, a feed tray leading toward said rolls and ending short thereof to provide a drop passage for expressed seeds, transversely spaced apart upstanding dividers on the upper face of said tray for guiding the seed pods in the direction of their longitudinal extent, a rotary shaft mounted by the support above said tray and provided with a series of outwardly extending pod engaging fingers of lengths to dip into the tray spaces below the upper edges of said dividers, drive means rotating said shaft for sweeping the tips of said fingers in a direction away from said rolls, a rotatable feed roll occupying a part of said drop passage and located at the discharge end of said feed tray and away from the pressure rolls a distance less than the length of seed pods, means to rotate said feed roll in a direction to propel pods across said drop space and between said pressure rolls, said feed roll being driven by said feed roll rotating means at substantially the same peripheral speed as that of the pressure rolls; a flexible bristle roll mounted by the support with the tips of the bristles in overlapping wiping relation with the feed roll and with the tray at the discharge end of the tray and a drive transmitting connection for rotating said bristle roll in counter direction to said feed roll, both to cooperate with the tray in pod reception between adjoining bristle tips for guiding the advance of the pods in the direction of their longitudinal extent and concurrently to brush said bristle tips against the feed roll surface.

726 O. G.—35

2,820,460 FILTER PLUGS FOR CIGARETTES

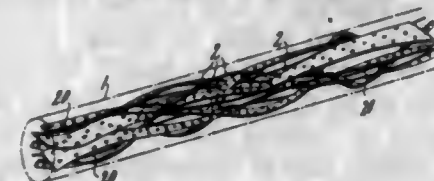
Hugo Bünzl and Paul Schechner, London, England, assignors to Cigarette Components Limited, London, England
Application December 28, 1953, Serial No. 400,622
Claims priority, application Great Britain
December 31, 1952
3 Claims. (Cl. 131—10)



1. A multiple filter plug unit adapted for division into individual filter plugs for cigarettes by cutting comprising filter material of cylindrical cross section constituting a core and a tubular wrapper surrounding the filter material, adhesive material extending only partially around the filter material and constituting a holding means for the core to connect the core to the tubular wrapper, said wrapper comprising an inner tube of relatively stout paper surrounding the core and having a longitudinal butt joint, an outer tube of thinner paper of the same length as the inner tube, surrounding the inner tube and having a longitudinal lapped joint, and a layer of heat-setting adhesive interposed between the said inner and outer tubes and extending over at least the greater part of the external surface of the inner tube and the internal surface of the outer tube for stiffening the wrapper against deformation by cutting.

2,820,461 TOBACCO FILTER, PARTICULARLY FOR CIGARETTES

Paul Adolf Müller, Herrliberg, Switzerland
Application April 18, 1955, Serial No. 502,085
Claims priority, application Switzerland February 11, 1955
4 Claims. (Cl. 131—10)



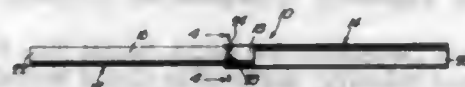
1. A filter for a tobacco smoking article, in particular for a cigarette; comprising a rod-shaped filter element provided with a plurality of strips, each strip being substantially coextensive in length with that of said rod-shaped filter element and being slightly twisted about its axis and about adjacent strips, said strips being haphazardly arranged in elongated bundle formation and consisting at least partly of flexible absorbent material, each of which possesses at least one substantially flattened surface and an opposite surface provided with irregularly shaped integral projections terminating in substantially frayed edges, said projections being struck out from said strips to provide perforations through said strip material at the respective bases of said projections, to thereby enlarge the filtering surface area, and hydrophilic cellulose fibers of relatively small dimensions interspersed between said strips in a random fashion to thereby provide a tortuous path for the smoke to follow when travelling through said filter element, said filter element having a sheath surrounding and maintaining said filter element in its rod-shaped form.

2,820,462 UNIT-PACKED CIGARETTE-AND-HOLDER OF CIGARETTE EXTENSIBLE TYPE

Elliot Fleischer, Hamden, Conn.
Application February 1, 1957, Serial No. 637,658
7 Claims. (Cl. 131—11)

1. A unit-packed smoking product, comprising a sleeve-like holder having a mouth end; a cigarette having a light

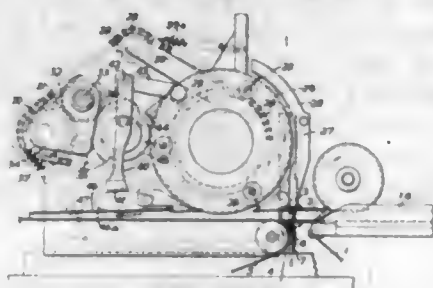
end and being received in said holder with a sliding fit, and adhesive films pressure-active to themselves only and so peripherally arranged externally and internally at the



other ends of said cigarette and holder, respectively, as to bind to each other on extension of a predetermined partial length, including said light end, of said cigarette from said other end of said holder.

2,820,463

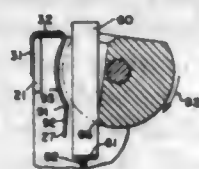
MANUFACTURE OF MOUTHPIECE CIGARETTES
Desmond Walter Molins, Felix Frederic Rnan, and Norman Walter Jackson, Deptford, London, England, assignors to Molins Machine Company Limited, London, England, a British company
Application November 14, 1955, Serial No. 546,642
Claims priority, application Great Britain
January 17, 1954
6 Claims. (Cl. 131-61)



1. In apparatus for manufacturing mouthpiece cigarettes, apparatus for forming a continuous composite rod, comprising means to feed lengths of unwrapped tobacco lengthwise on a paper web with spaces between their ends, stub-feeding means to feed a stub into one of said spaces in advance of the position it is to occupy in the rod, means to retard said stub, and means to engage tobacco in the leading end portion of a tobacco length immediately following said stub so as to control the tobacco so engaged and thereby limit or control the retardation of the said stub, said last named means comprising a tobacco-engaging element arranged to move into the path of tobacco and stubs so as to engage tobacco behind a stub and thereafter to move forwardly at substantially the speed of the paper web while engaging said tobacco.

2,820,464

CIGARETTE SNUFFER
Gerald B. Sweet, Sacramento, Calif.
Application July 12, 1957, Serial No. 671,656
4 Claims. (Cl. 131-237)

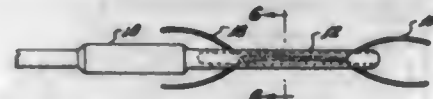


1. A cigarette snuffer comprising a housing, a leaf spring mounted on one end of said housing, a roller rotatably mounted in said housing, said roller having formed therein a throat facing said leaf spring, said throat terminating at its upper end in a beveled edge and at its lower end in a substantially right angled edge, means for urging said roller in one direction of rotation, means for limiting the extent of rotation of said roller in said one direction of rotation, means for positioning a cigarette disposed vertically in said throat at a predetermined location, and means for rotating said roller in the other direction of rotation against the urgency of said roller urging means.

2,820,465

HAIR CURLER

George L. McNeill, Hamilton County, Ohio, assignor to The Procter & Gamble Company, Cincinnati, Ohio, a corporation of Ohio
Application December 15, 1954, Serial No. 475,523
4 Claims. (Cl. 132-33)

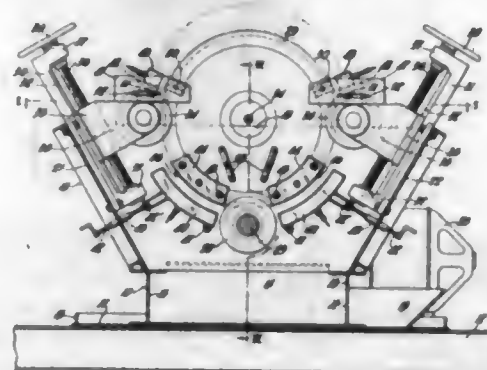


1. A hair curling device comprising in combination, an elongated winding means comprising a handle portion and a mandrel forming an extension of at least one end of said handle portion, a longitudinal slot extending substantially from said handle to the end of said mandrel and extending entirely through said mandrel so as to bifurcate it, a curling clip comprising an elongated central portion, removably positioned within said longitudinal slot and having extensions attached to said central portion lying outwardly from said slot from opposing sides of said mandrel at both ends and adapted to encircle a hair tress wound on said mandrel.

2,820,466

APPARATUS FOR QUENCHING STEEL RAILROAD WHEELS

Harold B. Wishart, Gary, Ind., assignor to United States Steel Corporation, a corporation of New Jersey
Application September 9, 1954, Serial No. 455,026
13 Claims. (Cl. 134-123)



1. Wheel-quenching apparatus comprising a frame, spaced opposed downwardly converging ways carried by said frame, opposed slides movable along said ways, respectively, a wheel-positioning roller journaled horizontally on each slide, a horizontal shaft journaled below and between said slides, a wheel-supporting roller mounted on the shaft in alignment with said positioning rollers and adapted to cooperate therewith in making three-point engagement with a wheel to hold it rotatably therebetween with its axis substantially horizontal, and a spray head between the supporting roller and at least one positioning roller.

2,820,467

ADAPTERS FOR FLUSHING GUNS AND THE LIKE

Stephen M. Mattich, Riverside, Ill.
Application May 15, 1952, Serial No. 287,956
2 Claims. (Cl. 134-168)

1. In combination with a pneumatic flushing gun comprising an outlet and an air reservoir in close proximity to said outlet to provide a high momentary discharge rate of air from said outlet, valve means included in said gun intermediate said reservoir and said outlet for discharging said gun and thereby causing an abrupt pressure increase at said outlet, coupling means for effecting a pressure tight connection from said outlet to an obstructed boiler drain in which an obstruction is located above said pressure tight connection, said coupling means including a straight continuous main passage between the gun outlet and a dis-

charge outlet, and a branch passage communicating convergently with said main passage and gun which passage is connected to said boiler drain to create a vacuum and

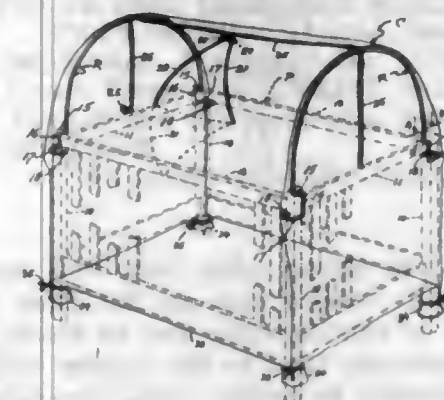


clear said obstructed drain, and valve means in said branch passage to prevent backflow from said main passage.

2,820,468

COVERS FOR PLAY PENS

Robert E. Park, Lakewood, Colo., and Flora E. Park and Margaret Park, Birmingham, Ala.
Application March 25, 1953, Serial No. 344,642
5 Claims. (Cl. 135-5)



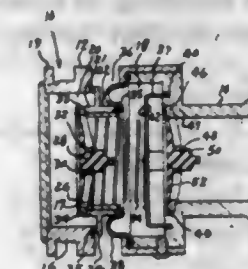
1. A cover for a play pen having sides and ends, comprising side and end walls adapted to enclose the sides and ends of a play pen and an enclosing top portion having sides and ends and extending above said play pen; means for supporting the top portion of said cover; a zipper extending longitudinally across the top of said top portion and centrally down each end of said top portion; and a pair of zippers in one side of the top portion, said pair of zippers meeting at their upper ends and diverging from each other downwardly, said pair of zippers when open freeing a triangular piece adapted to be folded down to provide an opening between the position of said zippers, at least a substantial portion of said cover being formed of fabric having a sufficiently close weave normally to exclude insects and the like and to shield an occupant of the play pen from the sun's rays but still permit movement of air therethrough.

2,820,469

COMBINED COMPENSATED INHALATION-EXHALATION VALVE FOR PRESSURE BREATHING MASK

Henry W. Seeler, Dayton, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force
Application November 29, 1955, Serial No. 549,892
7 Claims. (Cl. 137-64)

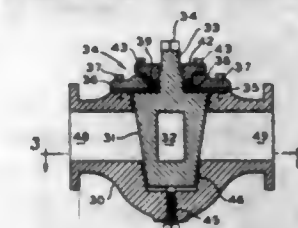
(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A compensated inhalation and exhalation valve assembly for pressure breathing in a high altitude mask comprising a housing, said housing having inhalation and exhalation chambers and a port connecting the exhalation



chamber with the ambient air, a dividing wall separating said inhalation and exhalation chambers, said dividing wall including an exhalation valve operating to open and close said port, biasing means connected to said exhalation

2,820,470

VALVE FOR USE IN A CONDUIT CONTAINING CARBON BLACK SUSPENDED IN A GAS
Jewel Thomas Sanders, Borger, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application June 1, 1954, Serial No. 433,557
4 Claims. (Cl. 137-237)



1. In a conduit containing carbon black suspended in a gas, a valve comprising, in combination, a valve body having an inlet port and an outlet port therein, said inlet port being in communication with the conduit containing the carbon black, said valve body having a central opening therein of generally frusto-conical configuration, said opening being in communication with said ports, a frusto-conical plug disposed within said opening, a valve stem extending from said plug to a region exterior of said valve body to enable said plug to be rotated within said valve body, packing means positioned between said valve stem and said valve body, said plug having a passage therethrough which communicates with said ports when said plug occupies a first position in said valve body, said plug substantially blocking the opening between said ports when said plug is rotated to a second position in said valve body, and means secured to said valve body and extending therein to engage said plug whereby said plug is positioned with respect to said valve body such that the sides of said plug are spaced from said valve body from 1/32 to 1/16 of an inch in said second position, the space between the sides of said plug and said valve body being filled with carbon black when said plug occupies said second position, said carbon black preventing leakage through said valve.

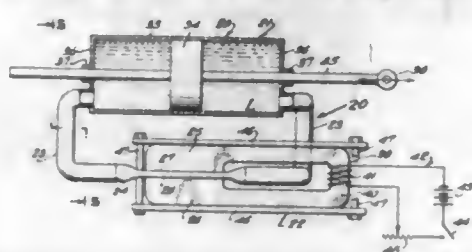
2,820,471

VALVE MECHANISMS FOR MAGNETIC FLUID CONDUITS AND DEVICES EMPLOYING THE SAME

Serge L. Crowell, Garden City, N. Y.
Application July 31, 1953, Serial No. 371,702
6 Claims. (Cl. 137-251)

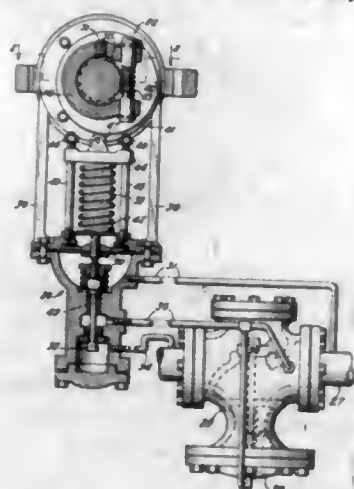
1. Valve mechanism for magnetic fluid conduits comprising, in combination, a conduit providing a fluid passage and having a duct section of diamagnetic material through which magnetic fluid medium is to flow, said duct section being flattened so as relatively closely to space

opposed side wall portions thereof with the cross-sectional area of the flow space between said opposed side wall portions being at least about as large as the cross-sectional area of the passage through the remainder of said conduit to avoid physical throttling of flow through said duct section, and an electro-magnet having opposed magnet



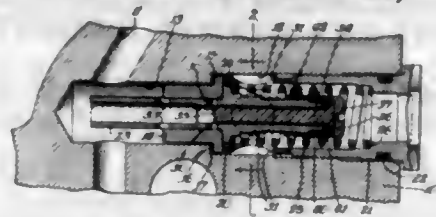
poles juxtaposed to said opposed side wall portions of said duct section on opposite sides of the latter for traverse of the path of flow defined by said duct section by flux lines substantially normal to this path, the length of flux line paths between the faces of said opposed poles being thereby minimized.

2,820,472
ADJUSTABLE VALVE-ACTUATING MEANS
Paulsen Spence, Baton Rouge, La.
Application February 8, 1955, Serial No. 486,892
1 Claim. (Cl. 137-413)



In combination, a tank, supply means for said tank and including a main valve and a pressure pilot valve in controlling relation with said main valve, said pilot valve having a pressure-responsive connection reflecting tank pressure, resilient loading means for said pressure pilot valve, float mechanism responsive to fluid level in said tank, means including a rotary stem connecting said float mechanism in variable biasing relation with said resilient loading means, said last-defined means including a cam on said rotary stem, and means for selectively adjusting the angular position of said cam on said stem.

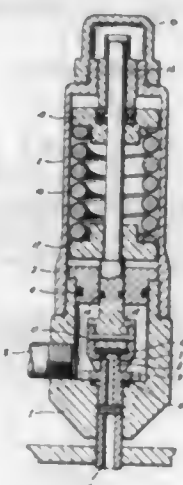
2,820,473
TEMPERATURE VARIABLE PRESSURE REGULATOR
Neville M. Reiners, Columbus, Ind., assignor to Cummins Engine Company, Inc., Columbus, Ind., a corporation of Indiana
Application October 13, 1953, Serial No. 385,840
12 Claims. (Cl. 137-468)



1. A pressure regulator for by-passing fuel from a fuel line, comprising a body member, a regulating member slid-

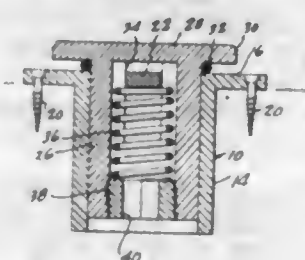
ably mounted in said body member, one of said members having a radial opening adapted to be opened and closed by movement of said regulating member relative to said body member, spring means engaging said regulating member and tending to move said regulating member in a direction to close said radial opening, and a compensating element extending adjacent said radial opening and having a coefficient of expansion different from that of said one member to vary the effective size of said radial opening upon variation in the temperature of the fuel to compensate for the variation in the viscosity of the fuel.

2,820,474
RELIEF VALVE WITH HIGH-PRESSURE SEAL
Marvin H. Greenwood and Walter C. Francis, Jr., Houston, Tex., assignors to Anderson, Greenwood & Company, Bellaire, Tex., a corporation of Texas
Application September 10, 1954, Serial No. 455,184
6 Claims. (Cl. 137-536)



5. In a pressure sealing valve, inner and outer members telescopically sleeved one on the other and one thereof having an annular valve seat, an elastic, deformable ring peripherally fitted to the interior wall surface of the other member to confine radial expansion of the ring and of tapered wall thickness throughout its length feathering toward annular line contact with said valve seat when the members are moved toward one another, and means to limit further relative movement of the members toward one another after an initial contact of the narrow edge of the tapered ring with its seat and thereby restrict axial compression force on the ring, said ring having the interior face of its tapered wall exposed to pressure of fluid sealed off upon contact with the seat of the narrow edge of the tapered ring for a pressure stiffening of the thin edge portion by axial flow of material of the tapered ring from its thicker portion to its thinner portion at the line of contact.

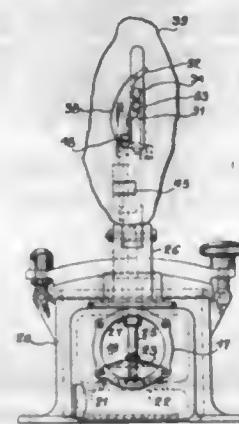
2,820,475
STORM DOOR RELEASE VALVE
Rodney C. Hobbs, Hammond, Ind.
Application January 28, 1955, Serial No. 484,739
3 Claims. (Cl. 137-541)



1. A release valve adapted for extension through a storm door with its ends opening upon the opposite surfaces of the door; comprising an open ended tubular cylinder.

der; a mounting flange extending outwardly from one of said ends, said flange being formed with diametrically opposite recesses, a cross bar extending diametrically of the outer cylinder and having its ends seating in said recesses, said cross bar being disposed in the plane of said flange and being provided with means for mounting the same; an inner cylinder slidably telescoped within the outer cylinder, said inner cylinder including an end wall closing one end thereof and being formed open at its other end; a flange extending outwardly from said end wall and overlying the outer cylinder flange; gasket means extending about the inner cylinder and interposed between the flanges to provide a seal between the cylinders on shifting of the inner cylinder in an axial direction inwardly in respect to the outer cylinder, the inner cylinder having a pair of diametrically opposite air vent openings formed in its side wall, said cross bar extending through the air vent openings, said air vent openings being covered in part by the gasket means and in part by the side wall of the outer cylinder when the inner cylinder is shifted in said direction, and being uncovered when the inner cylinder is shifted in an opposite direction, thus to permit air to pass through the cylinders from one to the other; and spring means resiliently and yieldably biasing the inner cylinder in said first named direction.

2,820,476
VALVE FOR LAUNDRY MACHINE
Carl S. Shields, Cleveland, Ohio
Original application September 20, 1950, Serial No. 185,711, now Patent No. 2,729,961, dated January 10, 1956. Divided and this application February 1, 1954, Serial No. 407,219
5 Claims. (Cl. 137-563)

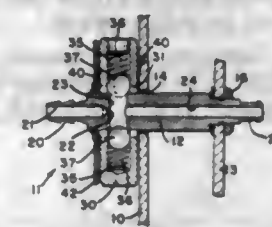


5. Valve means for use in dry cleaning apparatus and the like, comprising a valve body, valve closure means including a valve stem for regulating flow of solvent through the body, means for actuating the valve stem, a latch mechanism for locking engagement with the actuating means to maintain the stem in an open position and an adjustable support for the latch mechanism to regulate the open position of the stem, means for releasing the latch mechanism upon movement of the actuating means and a solenoid operatively associated with the valve stem and actuating means for moving the actuating means to release the latch mechanism.

2,820,477
GAS MIXING VALVE
John W. Dorsak, Lyndhurst, and Thomas F. Van Den Berg, Chagrin Falls, Ohio, assignors to The Gordon Armstrong Company, Inc., Cleveland, Ohio, a corporation of Ohio
Application March 5, 1956, Serial No. 569,632
7 Claims. (Cl. 137-604)

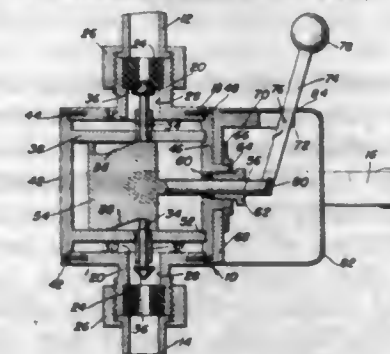
1. An aspirator type of valve for mixing a gas with air to provide a predetermined concentration of gas comprising an elongated valve body, a gas inlet on one end of said body and a gas outlet on the other end of body, a

pair of side openings located on opposite sides of said body for admitting air into the valve for mixture with the gas passing therethrough, a circular handle journaled on said valve body over said side openings for rotation about its central axis, means in said handle defining a pair of radially extending air ducts which are adapted to



register with said side openings in one position of said handle, a pair of elements carried by said handle arranged to register with said side openings in another position of said handle, and means for resiliently urging said elements inwardly toward said openings to close the same when said handle is in said other position.

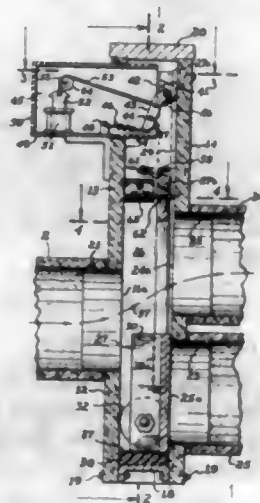
2,820,478
MIXING VALVE
Ralph A. Hendry, Windsor, Nova Scotia, Canada
Application August 24, 1954, Serial No. 451,739
2 Claims. (Cl. 137-607)



1. A mixing valve comprising a hollow mixing chamber having a pair of inlets and an outlet, one of said inlets connected to a hot water supply and the other inlet connected to a cold water supply, a valve seat of resilient material positioned in each of said inlets, a pair of valve guides mounted in said chamber in alignment with said valve seats, a pair of valves respectively and selectively engaging each of said seats, each of said valves having a stem slidably received in one of said valve guides, cam means slidably and rotatably mounted in said mixing chamber in contact with the inner ends of said valve stems for varying the relative positions of the valves and valve seats, said cam means including a body member having concentric cylindrical end portions, a cylindrical central portion having a longitudinal axis inclined in relation to the rotational axis of the end portions, and a pair of eccentric portions respectively interconnecting the ends of said cylindrical central portion and said cylindrical end portions, said cylindrical central portion and said eccentric portions engaging the inner ends of said valve stems for adjusting the position of said valves in relation to the seats during rotation and sliding movement of the cam means, and handle means connected with the cam means for rotating and sliding said cam means, each of said eccentric portions having a semi-cylindrical portion and a cam portion with the respective semi-cylindrical portions disposed at diametrically opposed points relative to the central cylindrical portion, the semi-cylindrical portions completely closing the respective valves when engaged with the valve stems with diametrically arranged ends of either semi-cylindrical portion closing both of said valves when engaged with the stems, the cam portions permitting opening of the respective valves when the stem is engaged therewith, the surface of the cylindrical central portion being cylindrical about

its longitudinal axis and inclined in relation to the rotational axis thereof thereby forming a cam surface between the eccentric portions for varying the positions of the valves in response to reciprocation of rotation thereof.

2,820,479
AUTOMATIC IRRIGATION SYSTEM AND APPARATUS
Isaac G. Jenkins, Jr., Phoenix, Ariz.
Application July 12, 1954, Serial No. 442,488
1 Claim. (Cl. 137—625.42)

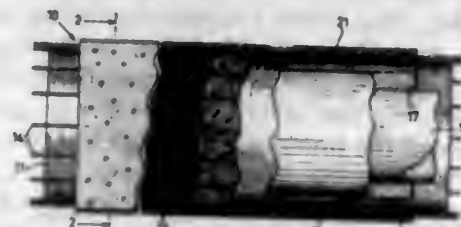


In an automatic irrigation system, a trip gate valve comprising, a pair of spaced, side members, a pair of spaced end members secured to said side members, a bottom secured to said side and end members, an input supply line including an input port located intermediate the top and bottom of one of said side members, a pair of discharge lines vertically positioned one above the other including discharge ports in the other of said side members equally vertically spaced one above and one below the axis of said input port, a valve gate having a plate portion vertically sliding adjacent the inner surface of said other side members to alternately close one or the other of said discharge ports, turned up side portions formed on the edges of said plate portions extending at right angles thereto and slidably engaging the inner faces of said end members, rollers journaled on horizontal axes on said turned up portions having diameters slightly less than the spacing between the inner surfaces of said side members and adapted to roll against said inner surfaces of said side members each side of said ports upon the vertical movement of said gate, a horizontal trip bar fixed to the upper end of said gate having a downwardly facing trip abutment surface, a trip lever mounted on one of said side frame members including a trip roller engaging said trip abutment surface, and means for yieldingly holding said lever in a position of engagement of said roller with said trip abutment surface, said lever being actuable to withdraw said roller from under said trip abutment surface to allow said gate to drop from a position of closure of said upper discharge port to a position of closure of said lower discharge port, said trip bar serving as the manual lifting handle to raise said gate to related position behind said trip lever roller.

2,820,480
ENCASEMENT FOR STEAM PIPES OR THE LIKE AND METHOD OF MAKING SAME
Innis O'Rourke, Jr., Upper Brookville, and George S. Pinter, New York, N. Y.
Application September 9, 1955, Serial No. 533,350
8 Claims. (Cl. 138—66)

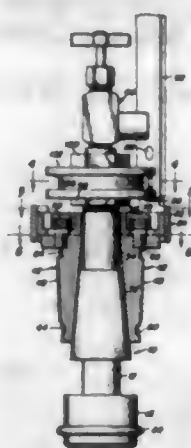
1. The method of jacketing an elongated conduit which comprises the steps of precasting a plurality of tubular concrete shells on respective tubular sheet supports in

such manner as to have each support project endwise beyond its shell, said supports having an inner diameter greater than the outer diameter of said conduit, axially prestressing each of said concrete shells, positioning said shells in spaced locations with clearance around said conduit, and interconnecting said shells by pouring tubular concrete links therebetween around said conduit.



8. An encasement for steam pipes and the like, comprising a tubular support, a concrete shell carried externally on said support, a tubular array of elongated prestressing means in said shell maintaining the concrete thereof under axial compression, untensioned reinforcement means extending helically around said prestressing means within said shell, and an anti-bonding, cushioning layer between said support and said shell.

2,820,481
LEVER ACTION PIPE PLUG
Bud Hix, Alice, Tex.
Application August 3, 1955, Serial No. 526,110
3 Claims. (Cl. 138—90)

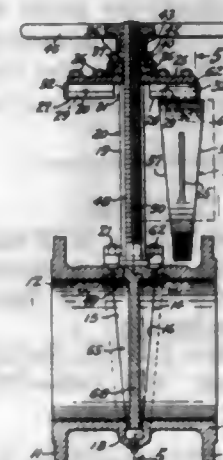


1. A conduit plug assembly comprising a pipe coupling attachable to one end of a conduit, a longitudinally bored and movable mandrel extending longitudinally through and out of said coupling and having a tapered intermediate portion within said coupling, a plurality of segmental elongated grips grouped around said intermediate portion and laterally movable outwardly thereby into engagement with said coupling in response to longitudinal movement of said mandrel in the direction of the taper of said tapered portion, an annular guide member for said grips surrounding said mandrel outwardly of said coupling and having corresponding ends of said grips slidably connected thereto for guided lateral movement of said grips, diametrically opposite lateral brackets on said guide member, a lever having a pair of leg portions pivoted on said brackets, a grooved collar fixed on said mandrel between the pivotal axis of said leg portions and said guide member, and pins on said leg portions engaging the groove of said collar whereby pivotal movement of said leg portions will move said mandrel.

2,820,482
LINE BLIND GATE VALVE
Dolphice H. Greenwood, Pasadena, Calif.
Application December 3, 1954, Serial No. 472,973
3 Claims. (Cl. 138—94.3)

1. A line blind valve for installation in a fluid line, said valve having a tubular body open at its opposite ends,

said body having a V-shaped notch opening through one side thereof and extending into a recess opening through the inner surface of said body opposite said side opening, the opposed edges of said opening and of said recess lying in slightly divergent planes and forming seating surfaces for a closure member, a U-shaped yoke overlying said side opening and supporting in the bight portion thereof threaded stem means movable toward and away



from said opening, means carried by said yoke for supporting a plurality of closures, said closures being selectively attachable to said threaded stem means and adapted to seat against said seating surfaces upon being firmly pressed into said V-shaped notch, and cooperating tongue and groove means on said body and closures for holding said closure centered between said seating surfaces as the closure is being moved into and out of said V-shaped notch.

2,820,483
WEAVING WITH EFFECT FROM ORIENTATION OF HIGH AND LOW PILE
Charles H. Masland, 2nd, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Application December 23, 1953, Serial No. 399,877
4 Claims. (Cl. 139—39)



1. The method of weaving a pile fabric, including binder warps, stuffer warps, pile warps and wefts, which comprises interweaving various warps and wefts into a fabric, raising pile warps over a first noncutting pile wire having a plurality of heights on its upper surface throughout the length which is in the fabric before withdrawal, next raising pile warps over a second noncutting pile wire which is straight on its upper surface throughout the length which is in the fabric before withdrawal, next raising pile warps over a third noncutting pile wire which is straight on its upper surface throughout the length which is in the fabric before withdrawal but is of a different height from the second pile wire, subsequently raising pile warps over a fourth noncutting pile wire having a plurality of different heights on its upper surface throughout the length which is in the fabric before withdrawal and having different heights at the same lateral position in the fabric from those on the second pile wire, at least some of the pile warps raised over the first pile wire also being raised over one of the second and third pile wires, and subsequently withdrawing the wires successively in the order named, whereby the withdrawal of the first pile wire converts the pile projection formed from one of the second and third pile wires into wavy pile projections

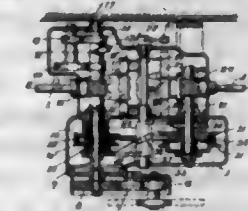
while the pile projections formed over the other of the second and third pile wires are not influenced by the withdrawal of the first pile wire.

2,820,484
WEAVING WITH EFFECT FROM ORIENTATION OF HIGH AND LOW PILE
Charles H. Masland 2nd, Carlisle, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Application December 23, 1953, Serial No. 399,878
3 Claims. (Cl. 139—39)



1. The method of weaving a pile fabric, including binder warps, stuffer warps, pile warps and wefts, which comprises interweaving the various warps and wefts into a fabric, raising pile warps over a first pile wire having a plurality of heights on its upper surface throughout the length which is in the fabric before withdrawal, subsequently raising pile warps over a second pile wire having a plurality of different heights on its upper surface throughout the length which is in the fabric before withdrawal, having different heights at the same lateral position in the fabric from those on the first pile wire, and having different maximum heights of pile wire on its upper surface throughout the length which is in the fabric before withdrawal from the maximum heights on the first pile wire, and subsequently withdrawing the pile wires successively in the order named.

2,820,485
LET-OFF AND TAKE-UP FOR LOOMS
Pedro Cerdans Sellés, Barcelona, Spain
Application October 22, 1952, Serial No. 316,145
2 Claims. (Cl. 139—99)



1. A let-off and take-up arrangement for a loom in which the winding movements of the woven cloth are synchronized with the letting-off of the warp and comprising, in combination, drive means; a take-up cloth roll driven by said drive means at constant speed for winding up cloth woven on the loom; a differential gear means including a sun gear fixedly connected to said cloth roll, planetary gear means meshing with said sun gear, and a rotatable spider rotatably supporting said planetary gear means; a warp let-off shaft coaxial with said cloth roll and being fixedly connected to said rotatable spider for rotation therewith; a sleeve turnably mounted on said warp let-off shaft; a control sun gear fixedly secured to said sleeve; control planetary gear means meshing with said control sun gear and being mounted on said spider and connected to said first-mentioned planetary gear means for rotation therewith; a variable transmission connecting said drive means with said sleeve for driving the latter and thereby said control sun gear at variable speeds; and control means connected to said variable transmission for varying the ratio of transmission of the same and for adjusting the rotary speed of said control sun gear whereby the speed of said planetary control gear means and the rotary speed of said spider is adjusted for

driving said warp let-off shaft at a variable adjustable speed so as to synchronize the letting-off of the warps from said let-off shaft with the winding of the woven cloth onto said cloth roll.

2,820,486

HOOKE FORMING ASSEMBLY FOR AUTOMATIC STEM AND MOUNT MAKING MACHINES
George D. P. Brent, Fairmount, W. Va., and Frederick W. Wacht, Roseland, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 28, 1954, Serial No. 406,834
5 Claims. (Cl. 140—71.5)

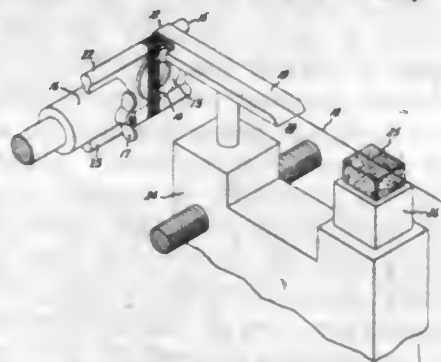


1. A hook forming assembly for an automatic stem and mount making machine having a frame, for forming hooks in the lead-in wires of an incandescent lamp stem and comprising support means on said frame, a mounting bracket oscillatable on said support means, a rocking mechanism on said frame for oscillating said mounting bracket, a former block resiliently reciprocable on said mounting bracket, rotatable hook forming dies on said former block, a hook forming drive mechanism reciprocable on said mounting bracket and carried by said frame for rotating said dies, a lead-in wire straightening and die unseating device connected to said former block and carried by said hook forming drive mechanism for moving said former block downwardly a predetermined amount with respect to said mounting bracket after the hook forming operation to straighten said lead-in wires and then upwardly to unseat said dies from the hooks after said straightening operation.

2,820,487

GRID FABRICATION METHOD
Edward L. Bahm, Ballston Lake, N. Y., assignor to General Electric Company, a corporation of New York
Continuation of application Serial No. 312,287, September 30, 1952. This application March 9, 1956, Serial No. 570,531

3 Claims. (Cl. 140—71.5)

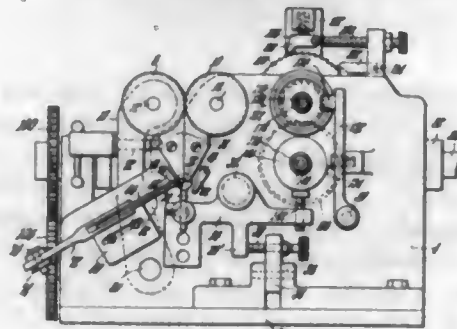


2. The method of fabricating a grid of refractory metal wire considerably less than 0.001 inch in diameter and

subject to variations in diameter with length of the wire, which method comprises passing the wire over a surface of a guide of a material less hard than the wire, forming a groove for the lateral constraint of the wire by the wearing away of the guide by the wire, winding the wire on a frame rotated about an axis in the plane of the frame, moving the guide relative to the frame in a direction parallel to the axis to space apart consecutive turns of the wire and changing the configuration of the groove by wearing away of the guide by the passage of the wire so that the groove continuously functions as a lateral constraint for the wire as the wire changes in diameter to wind the wire on the frame in parallel equally spaced turns.

2,820,488

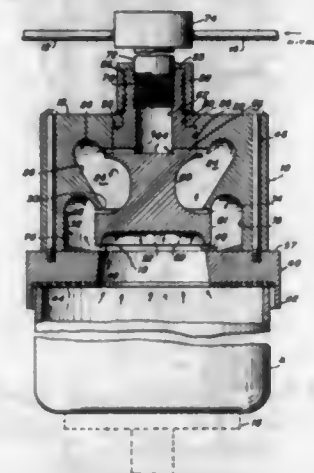
SPRING FORMING APPARATUS
Max J. Keltz, Springfield, Mass., assignor to Perkins Machine and Gear Company, West Springfield, Mass., a corporation of Massachusetts
Application November 2, 1953, Serial No. 389,749
4 Claims. (Cl. 140—78)



1. Apparatus for coiling wire in various pitches and diameters and for cutting off coil sections comprising in combination, a support, a feed roll shaft rotatable in said support having a first feed roll and a second feed roll rotatably mounted relative to said support cooperating with said first feed roll for feeding wire to be coiled, guide means for receiving wire from said rolls having a lower delivery end, a coiling lever having a coiling point to receive wire from said guide means and forming convolutions therein and being movable on said support to vary the distance between said coiling point and lower end of the guide means to vary the diameter of a coil, a pitch device movable in said support to engage convolutions and control and vary the pitch thereof, a drive shaft, cut-off mechanism to cut off coil sections and actuating means therefor from said drive shaft, means for driving said feed roll shaft operable from said drive shaft, a clutch member shiftable in opposite directions on the drive shaft and through which said actuating means of the cut-off mechanism and roll shaft driving means are alternately operably connected to said drive shaft, a coil pitch shaft rotatable in said support having a ratchet wheel, a shifter mounted on said support for swinging in opposite shifting directions and being operatively connected to said clutch, pawl means engageable with said ratchet wheel operable by said feed roll shaft to rotate said coil pitch shaft in step-by-step manner, an actuator device swingable on said coil pitch shaft arranged to engage and swing said shifter in one direction, said cut-off mechanism including a member arranged to engage and swing said shifter in an opposite direction, means yieldingly resisting swinging of said shifter, a spring diameter shaft rotatable in the support in parallelism with said pitch shaft and operative connections connecting said shafts, an adjustable pitch cam device on said pitch shaft, a pitch lever pivoted for swinging on said support and actuated by said pitch cam, operative connections between said lever and pitch device, and an adjustable diameter cam on said diameter shaft arranged to engage and actuate said coiling lever.

2,820,489

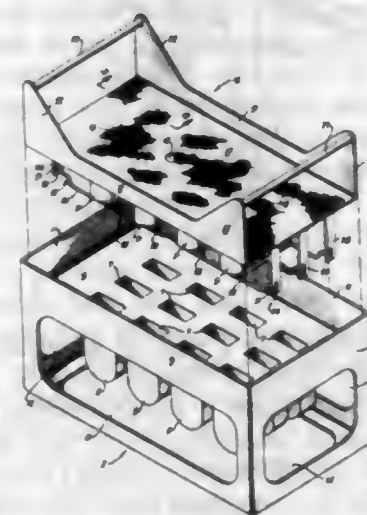
GASSING HEAD
Carl L. Day, Ransom C. Albrecht, and Frederick E. Fauth, Baltimore, Md., assignors to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application November 9, 1954, Serial No. 467,681
17 Claims. (Cl. 141—7)



1. A method of vacuumizing and gassing particulate material in a container comprising the steps of: evacuating the gas enveloping the particulate material in the container, rapidly expanding the gas being evacuated to cause a reduction in the velocity of the evacuating gas stream so that any particles of particulate material entrained in the gas stream will suddenly decelerate and leave the gas stream, and then introducing a treating gas under pressure into the container so as to envelope the particulate material therein.

2,820,490

FROZEN CONFECTION MOLD FILLER
Max Hughes, West Sacramento, Calif.
Application December 28, 1955, Serial No. 555,936
3 Claims. (Cl. 141—238)

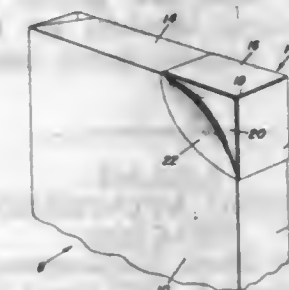


1. A fluid dispenser for use with a frozen confection mold having a horizontal panel and a depending mold form, said dispenser comprising a horizontal tray pierced by an opening in register with the mold form as said tray and the mold are moved into registering juxtaposition, a hollow barrel detachably mounted on the lower surface of said tray in coaxial alignment with said opening, the interior of said barrel forming a compartment of predetermined size, the bottom of said barrel having a vertical central aperture in communication with said compartment, the walls of said barrel being pierced by a horizontal passageway, a collar circumscribing said barrel adjacent said passageway and vertically adjustable to cover a predetermined fraction of the diameter of said passageway, a ball in said compartment adapted to seat against the margin of said aperture under urgency of gravity, and

means for unseating said ball as said tray is moved into registering juxtaposition and into contact with the confection mold.

2,820,491

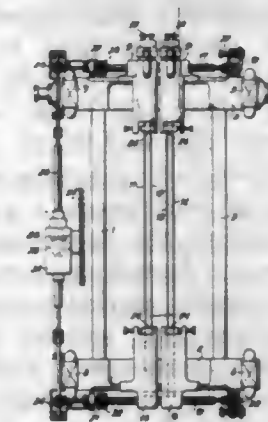
CARTON WITH ACCOMPANYING MEASURING CUP
Carl B. Kromsten, Brooklyn, N. Y.
Application February 15, 1956, Serial No. 565,579
3 Claims. (Cl. 141—381)



1. In combination, a commodity containing carton, a pasteboard soap powder box, for example, having connected cooperating walls forming the usual top and bottom corners, and a powder collecting and measuring cup generally V-shaped in side elevation and thus conformingly shaped and fitted accessibly and removably on one of said corners, said cup being capped over and having spaced parallel walls which are friction-held on said corner and interior surfaces of said walls being provided with graduated, visibly marked lines indicative of the varying amounts of powder which is susceptible of being contained in and measured by the lines on said cup.

2,820,492

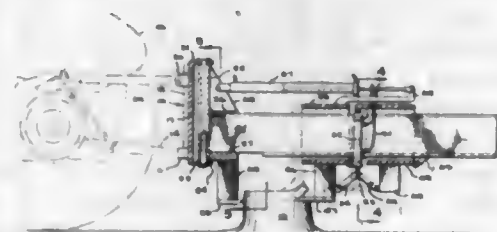
FRAME SAW WITH ADJUSTABLE BLADES
Josef Traben, Oberkirch, Germany
Application May 9, 1955, Serial No. 507,066
2 Claims. (Cl. 143—156)



1. A high speed frame saw for the cutting of sawed timber of varying thickness having saw blades adjustable while the saw is in operation, comprising an upper and a lower transverse member, at least two sliders on each transverse member for the suspension of the saw blades on the upper and the lower transverse members, opposite hand threaded spindles engaging and for the adjustment of the slides with worm gears fixed to the said spindles, a keyed shaft mounted on a vertical side member of said frame and slidable in a grooved bevel gear and bearing worms respectively engageable with said worm gears, a second bevel gear in engagement with said first bevel gear and connected to a drive shaft, said drive shaft being adjustable by hydraulic means, each said saw blade hanging at its upper end in a tongue means displaceable along the transverse member, said bearing resting against a plate via a link, which is displaceable in the tongue means and adjustable relative to the tongue means by means of

a screw, said plate being held on a head of said slide by bolts and guided displaceably thereon, springs being provided between said head of slide and said plate to push said head and said plate asunder, cheeks of said slide enclosing said transverse member being extended downwardly so as to engage the upper ends of the saw blades and being connected by cross strips, said cross strips running tightly at both wide faces of the saw blade end, said transverse members resting on very carefully machined guides only at the idle upward stroke, while at the downward stroke, when said springs are pressed together, said transverse members get loose from said guides, the formed pressure forces being taken up by special supports.

2,820,493
STUMP CUTTING ATTACHMENT FOR A TRACTOR
Herbert W. Davis, Hackettstown, N. J.
Application March 1, 1957, Serial No. 643,326
3 Claims. (Cl. 144—2)

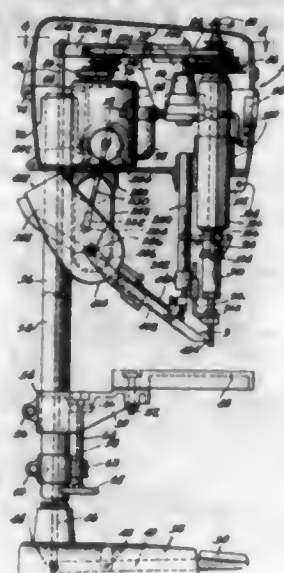


1. A stump cutting attachment comprising an upstanding frame adapted to be positioned so as to extend across the free ends of the lift arms of a tractor, means on one face of said frame for detachably securing the frame to the free ends of said lift arms, vertically spaced bearing members projecting from the other faces of said frame, a vertically disposed spindle rotatably supported in said bearing members, a horizontally disposed beam arranged on the side of said frame adjacent said bearing members and extending longitudinally with respect to said frame and having one end fixedly secured to said spindle, a vertically disposed rigid support fixedly carried by said beam and extending below said beam adjacent one end thereof, a horizontally disposed blade projecting transversely from the free end of said support and facing toward the other end of said beam, a carriage mounted on said beam intermediate the ends thereof for forward and backward movement therealong, a vertically disposed rigid second support fixedly carried by said carriage and extending below said carriage, another horizontally disposed blade projecting transversely from the free end of said second support and facing toward the first-named blade, and means operatively connected to said carriage for effecting the movement of said carriage.

2,820,494
POWER SCREWDRIVER
Alfred Henry Haberstump, Detroit, Mich., assignor to Illinois Tool Works, Chicago, Ill., a corporation of Illinois
Application July 19, 1955, Serial No. 523,042
21 Claims. (Cl. 144—32)

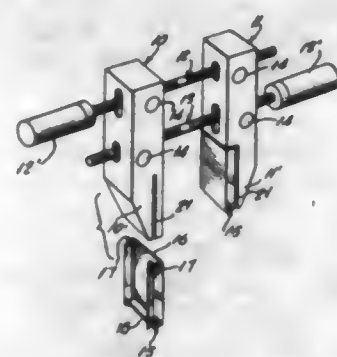
1. A power screwdriver comprising a housing, a quill mounted in said housing for reciprocatory movement relative to said housing, a drive shaft rotatably mounted in said quill and fixed for axial reciprocatory movement therewith, said drive shaft having driven and driving ends extending from opposite ends of said quill, means at one end of said housing for rotating said drive shaft relative to said housing, means on said quill forming a moving seal with said housing, means fixed relative to said housing and forming a moving seal with said quill, said seals, said

housing, and said quill forming a chamber, and means for introducing fluid under pressure into said chamber to



move said drive means axially in the direction of the driving end of the drive shaft relative to said housing to drive a screw or the like.

2,820,495
JAW FACES FOR WOODWORKING CLAMPS
Max E. Wetzler, Flushing, N. Y.; Hedwig Wetzler, executrix of said Max E. Wetzler, deceased
Application September 14, 1954, Serial No. 455,964
4 Claims. (Cl. 144—300)



3. A clamp comprising a pair of generally rectangular relatively movable jaws, a narrow slot in at least two opposite walls of each jaw, a cover member of relatively thin ductile material overlying each jaw and having a bottom and a pair of side walls, inwardly extending flanges on said side walls for engaging said slots and means for securing said flanges in engagement with said slots.

2,820,496
SEED-CELLING KNIFE
William L. Kelfer, Lyons, N. Y., assignor to Comstock Foods, Inc., Newark, N. Y., a corporation of New York
Application July 12, 1956, Serial No. 597,433
6 Claims. (Cl. 146—40)

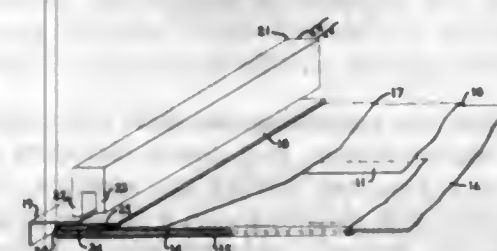
1. In a seed-celling and slicing machine for the removal of seed-cells and accompanying pulp from fruit, a rotary spindle adapted to receive cored fruit, a flattened cutting edge protruding from said spindle and adapted to cut a transverse swath in the seed-cell portion of said fruit on rotation of said spindle, means for holding the fruit approximately centered relative to said cutting edge, and secured to said spindle and spaced angularly behind said

cutting means in the direction of rotation of said spindle, an arcuate cutting knife adapted to sever the seed-cell por-



tion of the fruit from the remainder of said fruit upon rotation of said spindle.

2,820,497
ART OF FORMING BAG BOTTOMS
Kenneth A. Rusch, Milwaukee, Wis., assignor to Milprint, Inc., Milwaukee, Wis., a corporation of Delaware
Application April 23, 1956, Serial No. 580,050
9 Claims. (Cl. 150—5)



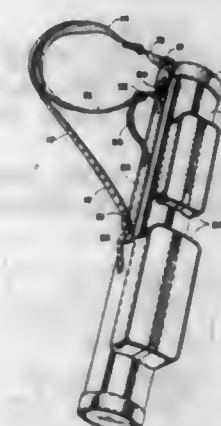
1. The method of producing commodity bags, which comprises, forming a flat tubular body from a sheet of heat sealable material, transversely folding an end of the body back upon one of its side walls, sealing the folded portion adjacent to the fold line through both thicknesses thereof to the adjacent body side wall by application of heat and pressure, and securing both thicknesses of the free end of the folded portion beyond the seal to each other by application of heat and pressure only to the free end of the folded portion.

9. A commodity bag comprising, a flat tubular body having an end portion thereof folded back upon itself along a transverse fold line, said folded end portion adjacent to said fold line being secured through both thicknesses thereof only to the adjacent side wall of said body by a heat seal extending transversely thereacross, and said folded end portion remote from said fold line and beyond said heat seal being free of attachment to the adjacent side wall with both thicknesses of said free portion being secured only to each other by a separate heat seal.

2,820,498
GOLF BAGS
Charles H. Endee, Weston, Mass.
Continuation of application Serial No. 259,453, December 1, 1951. This application May 10, 1955, Serial No. 507,293
8 Claims. (Cl. 150—1.5)

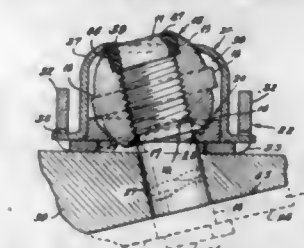
1. In a golf bag comprising an elongated hollow receptacle having its bottom end closed and its top end open and adapted to receive and hold golf clubs therein, a shoulder supporting means therefor, including a flexible strap having ends connected to the golf bag at points longitudinally spaced apart from each other at the upper portion of the bag, said strap forming a loop adapted to pass around the shoulder of the person carrying the golf bag, whereby said bag is held supported from the

shoulder, and a second strap connected to said first strap at its shoulder engaging portion, and connected to the golf bag adjacent its midportion, whereby said golf bag is held tilted by a three-point suspension at a predetermined



angle of inclination, a handle for manually carrying the bag, connected to the bag below the ends of the first strap, and a loop adjustably connecting the lower end of said first strap to said handle.

2,820,499
FLOATING, SWIVELLING ANCHOR NUT
Carl G. Schaaf, Kirkwood, Mo., assignor to McDonnell Aircraft Corporation, St. Louis, Mo., a corporation of Maryland
Application December 17, 1954, Serial No. 475,893
2 Claims. (Cl. 151—41.7)

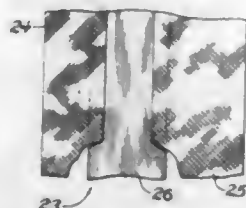


1. Anchor nut retaining means for mounting on an element having an opening for a screw formed therein; said retaining means comprising a mounting plate adapted to be secured to the element and having an opening registering with the opening in the element, upturned flanges on opposed sides of said mounting plate, and openings formed in said flanges; a retainer shell having substantially flat side walls defining a polygonal central cavity, a top portion of said shell having a central opening with a spherically formed surface, and detents formed on opposed side walls and positioned in the openings in said flanges of the mounting plate to provide lateral movement therebetween; a washer mounted in said retainer shell and positioned on said mounting plate, said washer having an opening formed to provide a spherically formed abutment surface, the plane of the opening in the washer being parallel with the plane of the opening in the retainer shell; and an anchor nut positioned in said retainer shell and having opposed ends with a threaded bore extending therebetween, a spherical crown formed on one end of the nut receivable in and having a working fit with the spherically formed surface of the opening in said retainer shell, a spherical seat formed on the other end and engageable with the abutment surface of the washer to transmit screw tightening forces therethrough to said element, and a flange intermediate said opposed ends and substantially perpendicular to the axis of said bore, said flange having substantially flat side walls of relatively narrow breadth and spaced from the side walls of said retainer shell to

permit relative rocking movement between said retainer shell and nut but adapted to contact the side walls of the retainer shell to permit only limited relative rotation of the nut and shell.

2,820,500 TUBELESS TIRE

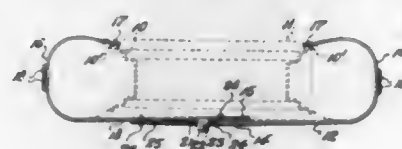
William N. Dickerson, Kent, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application October 17, 1956, Serial No. 616,562
18 Claims. (Cl. 152-362)



1. A non-wicking finishing strip for tubeless inflatable tires comprising a plurality of lengths of fabric extending longitudinally of the strip and united along adjacent longitudinal edge portions with the cords in the side portions of the strip discontinuous from and disposed at an angle with respect to the cords in the central portion of the strip.

2,820,501 TRACTION AID FOR AUTOMOBILE WHEELS

Fred Heuneman, Livingston, N. J.
Application March 15, 1956, Serial No. 571,764
5 Claims. (Cl. 152-218)



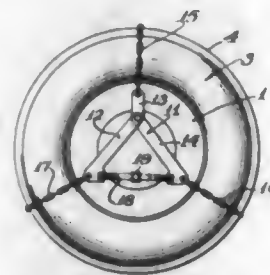
1. A traction aid device adapted to be detachably mounted in transverse relation to and across the rim and tire of an automobile wheel, said device comprising a pair of longitudinally aligned, oppositely extending sheet metal body members of substantial width, each terminating at its outer end in a curved outer end portion integral therewith and respectively adapted to be disposed across diametrically opposite portions of the wheel tire and having, across the inner faces of their free ends, inwardly offset transverse anchor elements to engage under an external flange of the wheel rim in holding relation thereto at the inner side thereof, inner end portions of said body members being adapted to lap one over the other, the lapped inner end portions of said body members being provided with cooperative manipulatable coupling means to releasably join the same together in relatively in-drawn relation, whereby to in-draw said outer end portions thereof in bound relation to the wheel tire across the tread surface thereof, and said curved outer end portions of the body members having externally projecting traction gripper elements thereon.

2,820,502 AUTOMOBILE ANTISKID DEVICE

Ralph Cushman Spencer, Lombard, Ill.
Application April 10, 1956, Serial No. 577,308
4 Claims. (Cl. 152-218)

1. An antiskid device for an automobile wheel having a tire which comprises, a rear chain-supporting bar, a plurality of arms permanently hinged to said bar and swingable at substantially right-angles to the plane of said bar, a front chain-supporting bar, a front arm pivotally se-

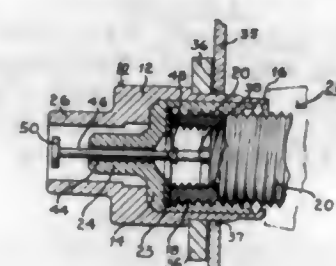
cured to said front bar and swingable in substantially plane-parallel relationship to said front bar, and flexible



chains connecting the front bar and front arm to the rear bar and rear arms.

2,820,503 HUB CAP LOCK

David B. Millat and Alfred E. Millat, Dayton, Ohio
Application May 21, 1956, Serial No. 586,148
4 Claims. (Cl. 152-431)



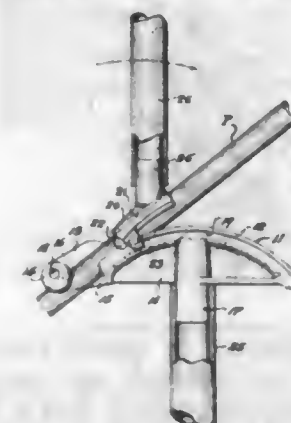
1. A device for preventing the theft and tampering of parts of a motor vehicle, said device including the combination of a hub cap having an aperture therein, a threaded valve stem provided with a valve pin, said valve stem projecting through said aperture, a hub cap lock comprising a substantially cylindrical housing having an internal cavity, said housing having an annular flange projecting therefrom, the diameter of the flange being greater than the diameter of the aperture in the hub cap to thereby prevent removal of the hub cap without removing the hub cap lock, a capping member rotatably retained within said housing, said capping member threadedly engaging the threaded valve stem and overlying the end thereof, a key engaging stud projecting from one end of said capping member, said housing having a tubular end portion encircling said stud and cooperating therewith to provide a key receiving slot, said stud having an aperture therein providing an air passage communicating with said valve stem, valve actuator means disposed in the aperture in said stud and engaging said valve pin providing for manual actuation of said valve pin, the tubular end portion of said housing providing a nozzle engaging portion for engaging a tire inflation nozzle, and a key member having an end portion adapted to slidably fit within said key receiving slot to engage said key engaging stud.

2,820,504 PIPE OR CONDUIT BENDERS

Robert Halsey Henderson, East Orange, N. J.
Application October 21, 1955, Serial No. 542,042
4 Claims. (Cl. 153-39)

1. A pipe or conduit bender comprising a stationary bending saddle having an arcuate top portion and provided with an upwardly and endwise open pipe or conduit receiving channel extending along said top portion, said channel being of semi-circular cross-section corresponding in width to the diameter of a pipe or conduit to be bent and in depth to the cross-sectional radius of said pipe or conduit, said bending saddle having an arm rearwardly extending from one side thereof, a transverse abutment member supported by said arm in offset relation to the rearward open end of the pipe or conduit receiving chan-

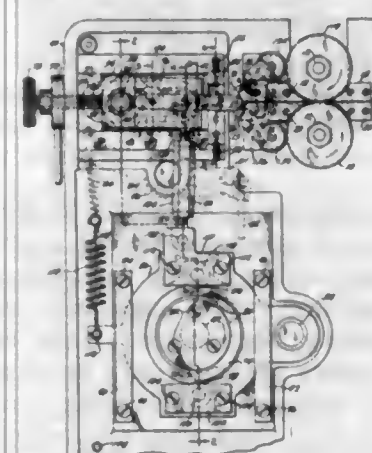
nel; said bending saddle having laterally projecting track means bordering the top portion thereof conformably to its curvature, a manipulatable bending jaw opposed to the arcuate top portion of the bending saddle and of substantially less length than said bending saddle, said bending jaw having a bottom curvature corresponding to that of said arcuate top portion of the bending saddle, said bending jaw having in its bottom a downwardly and end-



wise open pipe or conduit embracing channel corresponding in width to the diameter of the pipe or conduit to be bent and in depth to the cross-sectional radius of said pipe or conduit, and means to detachably pivotally engage the rearward end of said bending jaw with the track means of the bending saddle, said bending jaw and its pivoting means being shiftable along the bending saddle and its track flanges to successive pipe or conduit bending positions.

2,820,505 SPRING COILING MECHANISM HAVING A COILING ABUTMENT HOLDER OPERATED BY A CAM OPERATED YOKE

Edward E. Franks, Jr., Litchfield, and Gustave H. Froelich, Torrington, Conn., assignors to The Torrington Manufacturing Company, Torrington, Conn., a corporation of Connecticut
Application August 2, 1955, Serial No. 525,896
9 Claims. (Cl. 153-65)



1. In a cyclically operable spring coiling machine, the combination of means for longitudinally feeding wire to a predetermined extent during each cycle and for then interrupting feeding near the end of the cycle, a coiling arbor having a normal position adjacent the path of wire feeding, a coiling abutment having an inactive position vertically spaced from said path of wire feeding and having an active position in said path which last said position enables said abutment to serve for coiling the longitudinally fed wire around said arbor, a cam shaft rotatable about a fixed axis and making one rotation during each cycle, a yoke pivoted for oscillatory movement about an axis parallel to the cam shaft axis and at one side thereof, a roller on said yoke having its axis closely adjacent a vertical plane through the axis of said cam shaft, a link having a pivotal connec-

tion with said yoke at a position closely adjacent said vertical plane and having a pivotal connection with said coiling abutment to enable said yoke to move said abutment upwardly and downwardly, a spring for biasing said yoke in the direction to move said roller toward said shaft axis and to move said link and said abutment in the same direction, a cam carried by said shaft and engaging said roller for cooperation with said spring to oscillate said yoke and thereby move said coiling abutment to and from its active position, said cam being so shaped and so related to said wire feeding means that the coiling abutment is held in its said inactive position during the first portion of each cycle to form a first straight spring end and is held in its said active coiling position during the next following portion of each cycle to form a coil spring and is again held in its said inactive position during the final portion of each cycle to form a second straight spring end, and means operable at the end of each cycle and while feeding is interrupted for cutting said wire at the last said end thereof.

2,820,506 VEHICLE SEAT

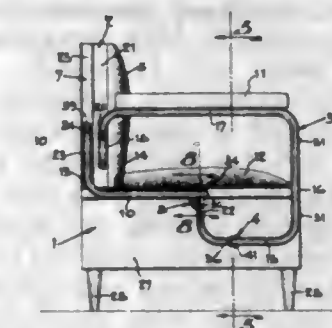
Stanley Duluk, Dearborn, Louis P. Garvey, Detroit, and Clyde H. Schamel, Royal Oak, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 26, 1956, Serial No. 561,477
8 Claims. (Cl. 155-14)



1. In a vehicle seat, a seat frame including a base portion and a back portion supported on the base portion for tilting movement relative thereto, linear guide means operatively secured to said seat frame for guiding linear movement thereof, fixed abutment means on said vehicle engageable by said back portion upon forward tilting movement thereof to move said seat frame to a temporary displaced position relative to said guide means, operating means for moving said seat linearly along said guide means, and linkage means interconnecting said operating means and said seat frame for linear movement thereof upon actuation of said operating means, said linkage means being movable to an inoperative position upon forward tilting movement of said seat back portion to allow movement of said seat frame to said temporary displaced position relative to said guide means.

2,820,507 CONVERTIBLE RECLINING CHAIR

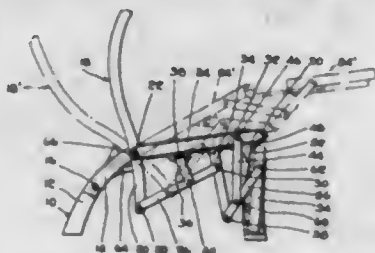
Roland L. Provencher, Norwood, Ohio
Application August 5, 1955, Serial No. 526,687
9 Claims. (Cl. 155-43)



5. A convertible reclining chair and chair-table unit comprising a chair seat structure, a sectional back rest

structure residing in a generally vertical plane at the rearward portion of the seat structure, the sectional back rest comprising a table section and a back rest section providing a reclining chair contour, a pair of arm rest frames disposed along opposite sides of the seat structure, each arm rest frame having a rearward portion secured to the said table section and having an opposite end portion pivotally connected to the seat structure, the said arm rest frames supporting said table section in said vertical plane and pivoting said table section for movement through an arc upwardly and forwardly to a horizontal position spaced above the forward edge of the seat structure, thereby converting the reclining chair to a chair-table unit, and respective link members secured to the opposite sides of said back rest section and pivotally connected to a swinging portion of the arm rest frames, said link members shifting the back rest forwardly along the seat structure in response to the swinging motion of the arm rest frames and supporting the back rest in a second position forwardly on the seat structure and creating an erect posture chair contour adjacent the table section.

2,820,508
ARTICLE OF REPOSE WITH COORDINATED SEAT, BACK-REST AND LEG-REST
Anton Lorenz, Ocean Ridge, Boynton Beach, Fla.
Application January 28, 1954, Serial No. 406,735
10 Claims. (Cl. 155-106)

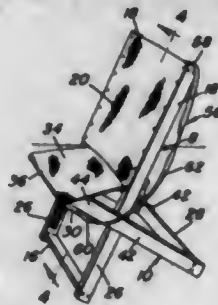


1. An article of repose for supporting the body of a person, comprising in combination: a support, a constrained linkage having stationary link-means and a plurality of movable links, said stationary link-means being included in said support, said movable links including a seat-member, a back-rest member, guiding means and a chain of links including a first link at one end of the chain and a first controlling link at the other end of the chain, said guiding means being connected to said support and engaged with at least one of said links of said chain, said first link being pivoted to said back-rest member, said first controlling link being pivoted to said seat-member, means pivotally connecting at least one of said back-rest and seat-members with said support, a second controlling link pivoted to said seat, an arm swingably mounted on said seat, a leg-rest slidably engaged with said arm, and a controlling bar pivoted at spaced points thereof to said first controlling link, to said second controlling link and to said leg-rest.

2,820,509
COLLAPSIBLE CAMP CHAIR
Robert E. Moreland, Houston, Tex.
Application November 22, 1955, Serial No. 548,338
3 Claims. (Cl. 155-143)

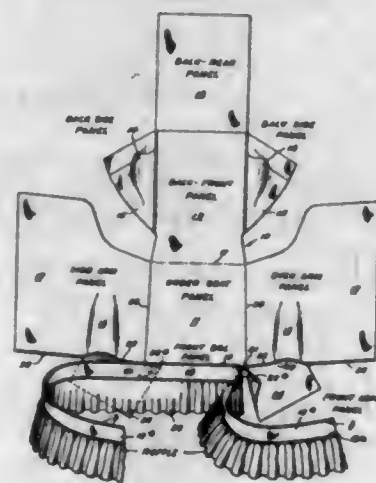
1. A portable and collapsible multipurpose chair for general out-of-doors and similar occasional use comprising a first frame having a backrest and paired legs, a second frame having paired legs with their intermediate portions overlapping and crossing the intermediate portions of said first mentioned legs with the latter legs serving as inner legs and the second mentioned legs serving as outer legs, said outer legs being longer than said inner legs, the opposed inward surfaces of each inner and outer leg having aligned contacting washers mounted thereon and providing axial bearings, and a journal pin bridging

said washers and mounted in said bearings and providing a substantially frictionless hinge for said legs, said last named inner and outer legs having inwardly opening sockets aligned with each other and said bearings, said journal pin comprising a hollow smooth-surfaced cylinder, the ends of which are fitted telescopically into their respective sockets, and washers serving also as spacers so



that said legs are disposed in spaced parallelism and so that freedom of action between the respective parts is assured and constantly maintained, and a flexible stretchless canvas sling having its upper end attached to an upper corner portion of the first frame and its lower end likewise attached to an upper corner portion of said second frame.

2,820,510
SLIP COVER
Mendel Sugarman, Malden, Mass.
Application January 19, 1955, Serial No. 482,807
2 Claims. (Cl. 155-182)

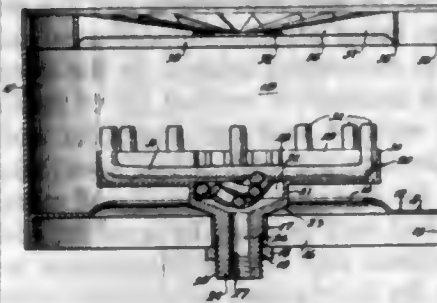


1. A one piece slip cover adaptable to arm chairs having variously shaped arms comprising a center portion, an over-arm panel secured along an edge of the center portion, said over-arm panel and said center portion having corresponding unconnected front edge portions allowing play between said over-arm panel and said center portion, said over-arm panel being arranged to extend over the top of a chair arm, and a front arm panel secured along an inside front edge of the over-arm panel, said front arm panel being arranged to be received under the remaining front edge of the over-arm panel and secured on the outside of the arm.

2,820,511
BURNER ASSEMBLY
John E. McCutchen, Wichita, Kans., assignor to The Coleman Company, Inc., Wichita, Kans., a corporation of Kansas
Application June 16, 1953, Serial No. 361,918
4 Claims. (Cl. 158-91)

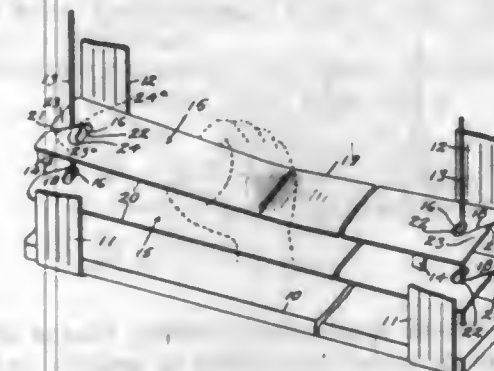
1. In a burner assembly adapted for use in the burning of relatively heavy fuel oils, a housing providing a fuel cup adapted to receive liquid fuel and providing also a plurality of troughs extending laterally of said cup, said troughs being open at their top side, a wick within each

of said troughs and communicating with said cup, said troughs having side walls extending above said wicks to provide passages above said wicks in open communica-



tion with said cup, whereby liquid fuel may flow directly from said cup into the spaces in said troughs above said wicks.

2,820,512
REMOVABLE VENETIAN BLIND SLAT
Robert S. Yeats, San Diego, Calif.
Application November 16, 1955, Serial No. 547,290
5 Claims. (Cl. 160-173)

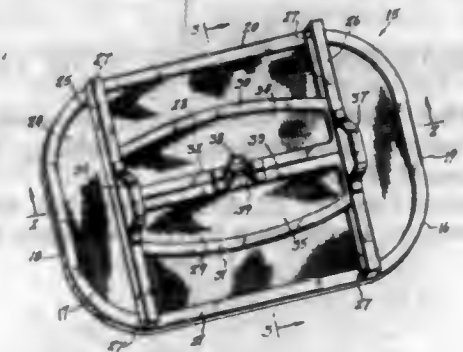


1. A removable and replaceable Venetian blind slat having a slot adjacent each end thereof elongated in a direction crosswise of the slat, and each slat end portion having a shear line extending into an end portion of the slot of said slat end portion and opening outwardly of the end of said slat, said shear line separating portions disposed on opposite sides thereof and which are capable of being flexed relative to one another away from substantially coplanar positions whereby normally abutting edges of said portions forming said shear line are displaced apart to define a gap therebetween through which an elevator cord of a Venetian blind is adapted to pass into or out of engagement with the slot of said slat end portion for connecting the slat end portion to the Venetian blind or for disconnecting it therefrom, the edges of said portions defining the shear line being normally disposed in abutting engagement for closing the slot thereof to prevent disengagement of each end portion of the slat from the elevator cord which extends through its slot, one of said shear line forming edges having a beveled inner end defining a flared throat opening into the slot and adapted to receive a portion of the cord to facilitate deflecting said slat portions in opposite directions out of coplanar positions to provide the gap through which the cord can be passed out of engagement with the slat, and each of the shear lines being disposed diagonally of the axis of the slat.

2,820,513
SCREEN COVERING FOR FRYING PANS AND THE LIKE
Aniela Drakoff, Hartford, Conn.
Application October 18, 1955, Serial No. 541,138
1 Claim. (Cl. 160-180)

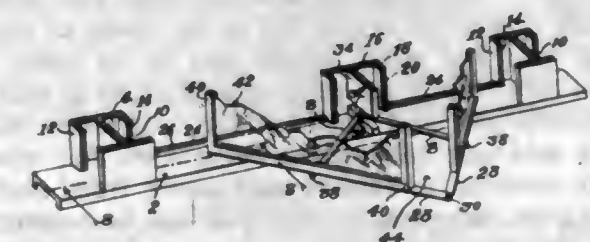
A portable screen cover for cooking pots and pans comprising a frame having a peripheral binding and inner bindings with fine mesh screen therebetween, a plurality

of like door members each with a peripheral binding, with fine mesh screen within the bindings, said frame having a central opening and said inner binding on the frame being around the central opening, a pair of spaced tracks U-shaped in cross-section mounted on the frame adjacent the central opening and at opposite ends of said opening, the ends of said door members being slidably mounted on the tracks, said frame being rectangular in



shape and said central opening being of like shape, said tracks being disposed crosswise of the frame at the ends of the central opening and said doors being of a width equal to the distance between the central opening and the sides of the frame, a pair of door handles pivotally mounted on the door members for sliding the door members together and apart over and from the central opening of the frame in the tracks on the frame, and a pair of handles on the tracks for manipulating the cover.

2,820,514
FOLDING FLUE WINDOW
John P. Travis, Dallas, Tex.
Application August 26, 1955, Serial No. 530,720
4 Claims. (Cl. 160-187)



1. A closure construction comprising a vertically disposed grid element, two rectangular openings of substantially equal size in said grid element, said openings being separated by a vertically arranged bar, disposed in the plane of said grid element, a closure for each opening, one side face of said grid element and said bar constituting jamb portions for said closures when in their closed positions, means to hinge one vertical edge of one closure to the adjacent vertical edge of the other closure, said hinge means comprising a hinge at both the top and the bottom of said closures, each hinge comprising a pair of bars pivoted together at one end and each having its other end secured to the adjacent horizontal edge of the adjacent closure, said hinge bars being disposed within the plane of said closures, the adjacent ends of said hinge bars each extending a substantial distance beyond the edge of the respective closure, the area enclosed by said vertical edges of said closures and the extended ends of said hinge bars providing a ventilating space between said closures when they are in their open positions, and means to pivotally support said closures comprising a pair of pivoted links at both the top and the bottom of said grid elements, said links being arranged in the same vertical plane as said hinge bars when said closures are in their closed positions, a single pivot connecting one end of each of the links of each pair to said vertically arranged bar, the other end of each of the links of each pair being pivotally connected to the adjacent horizontal

edge of one of said closures, the length of each link being substantially equal to the distance between the pivot which connects said link to the adjacent closure and said hinge means, said closure being supported solely by said links, and said ventilating space being closed by said vertically arranged bar when said closures are in their closed positions.

2,820,515

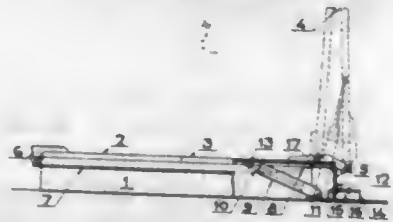
HOLD HATCHES OPERATED WITH THE AID OF A PRESSURE MEDIUM

Reinhardt Olaf Aarvold, Gothenburg, Sweden, assignor to Aktiebolaget Gotaverken, Gothenburg, Sweden, a corporation of Sweden

Application October 22, 1954, Serial No. 464,030

Claims priority, application Sweden October 29, 1953

1 Claim. (Cl. 160-188)



In a ship having a deck with a hatch opening therein, a coaming surrounding said hatch opening, and a sectional hatch cover adapted to rest on said coaming, a first section of said cover being pivotally connected to spaced hinges mounted on the outer surface of one side of said coaming and a second section of said cover being pivotally connected to said first section; a control apparatus for said hatch cover comprising a fluid pressure operated jack arranged within said coaming and extending over a substantial part of said hatch opening when the cover is positioned on said coaming, said jack being pivotally connected at one end to the center of the under side of said first cover section and at the other end to a pivot located in a centrally-located recess in said coaming intermediate said spaced hinges and lower than said hinges, said jack connections being such that when said jack is actuated to remove said cover from said hatch opening the upper end of said jack will be positioned between the first and second sections in their folded positions and the lower end of said jack will be positioned within said coaming recess unobstructedly free from said hatch opening.

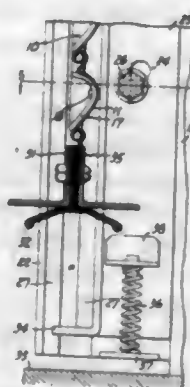
2,820,516

DOOR CONSTRUCTION

Harold W. Cookson, Jr., San Francisco, Edward H. Forestier, Jr., San Mateo, and Russell Wardlaw, San Francisco, Calif., assignors to Cookson Company, San Francisco, Calif., a partnership

Application May 15, 1953, Serial No. 355,303

2 Claims. (Cl. 160-209)



1. In a door construction, a door frame, a door slidable over said door frame and movable between open and closed positions, shoe means on the side edges of said door, vertical guide channels adapted to receive said shoe means

to guide said door in its movement between open and closed positions, each of said guide channels comprising first and second wall members, the first of said wall members being fixed to said door frame and the second of said wall members being slidably supported on said frame for limited lateral movement relative to the door frame and said first wall member, a vertical rib of resilient material mounted on each of said wall members and adapted to engage the shoes on the sides of said door, means operable by said door for moving said second wall member laterally towards the first wall member to press the resilient ribs of the wall members into sealing engagement with the shoe means when the door comes to a closed position to form a seal between the door and the door frame.

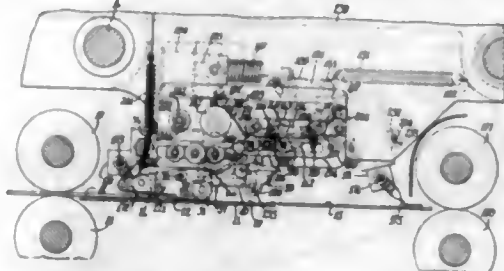
2,820,517

TAPE CUT-OFF MECHANISM

Paul W. Jacobsen, Kiel, Wis., assignor to H. G. Weber and Company, Inc., Kiel, Wis., a corporation of Wisconsin

Application August 9, 1954, Serial No. 448,573

1 Claim. (Cl. 164-43)



In a tape cut-off mechanism, cutting means disposed along the path of travel of a series of articles and movable toward and away from said path of movement of said articles for severing a portion of a length of tape applied to each article in succession, sensing means operatively connected to said cutting means for movement therewith and disposed closer to said path of movement of said articles than said cutting means, a tension spring having one end operatively connected with said cutting means and the sensing means for urging said cutting means and sensing means toward the path of said articles upon tensioning thereof, solenoid means connected with the opposite end of said spring, said solenoid means being operative upon energization thereof to tension said spring to press said sensing means against an article traveling thereby with the sensing means being operative during engagement with the article to prevent cutting of the tape by said cutting means, and said solenoid means and said tension spring being operative upon movement of the article past said sensing means to move the cutting means to cut the tape, and means for energizing said solenoid means a predetermined time period in advance of the article traveling past said sensing means whereby the solenoid means is always fully actuated to tension the spring before the article has travelled past the sensing means.

2,820,518

RECIPROCATING SHEAR OVERLOAD DEVICE

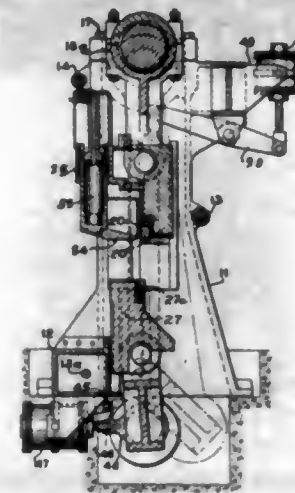
Charles S. Shumaker, Liberty, Pa., assignor to United Engineering and Foundry Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application January 6, 1955, Serial No. 480,203

11 Claims. (Cl. 164-47)

1. An overload release device for use in combination with a pair of work performing elements one of which is normally stationary and the other reciprocable relative thereto comprising yieldable means operably connected to said non-reciprocable element for maintaining said element in its normal working position and on the imposition of an overload upon said elements permitting

displacement of said normally stationary element at an increasing rate in the same direction and by the same additional distance as said reciprocable element moves thereby to relieve said elements of the overload condition.



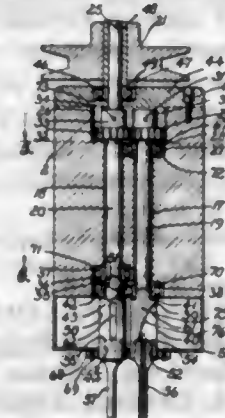
2,820,519

DOUBLE HOLE PAPER DRILLING DEVICE

David Kneeland, Hickman Mills, Mo., assignor to Hallmark Cards, Incorporated, Kansas City, Mo., a corporation of Missouri

Application August 11, 1954, Serial No. 449,184

3 Claims. (Cl. 164-90)



1. In combination with a boring head for drilling paper having a plurality of shafts in laterally close relation and in axial parallelism and gears on said shafts, said shafts having enlarged heads on their lower ends provided with longitudinal bores and having inserts having channel openings aligning with the bores in said shafts, drills secured in said heads, the channels in said inserts being curved and forming longitudinal openings in one side of said heads, the curved portions forming shoulders in the heads, said drills having longitudinal openings therethrough aligning with the channels in the inserts and said drill openings being smaller than the channel openings in the sides of the heads forming a bottom in the channels intersecting the openings in the drills, a tray for chips cut from said paper, and means for securing the tray to said heads on the shafts, whereby chips cut from the paper stock by the drills forming rolls will pass through the openings in the drills and through the curved channels contacting the shoulders in the channels of the inserts and cause them to be broken apart to pass to said tray.

2,820,520

MACHINE FOR CONVERTING TELEGRAPHIC CHARACTERS

Kaj Leo Jensen and Gunner Julius Johannes Rosendahl, Copenhagen, Denmark, assignors to Det Store Nordiske Telegraf-Selskab (Aktieselskab), Copenhagen, Denmark, a limited liability company of Denmark

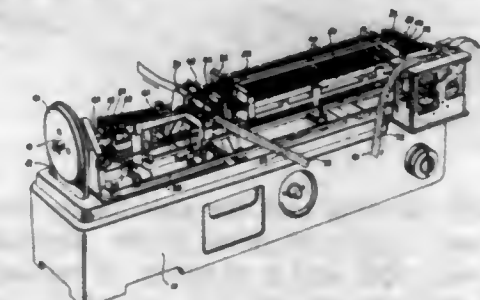
Application January 14, 1955, Serial No. 481,820

Claims priority, application Denmark January 30, 1954

4 Claims. (Cl. 164-114)

1. In a machine controlled by an incoming punched

tape and punching an outgoing tape with characters of a different type, means for intermittently feeding said incoming punched tape, means for sensing said incoming tape including a plurality of character-sensing fingers and an end-sensing finger positioned to engage an unpunched portion of the incoming tape, actuating means for moving said fingers in a direction away from the tape, said fingers being biased for movement toward the tape so that they reciprocate when not blocked by the tape, mechanism controlled by said character-sensing fingers to punch in said outgoing tape characters corresponding to those sensed on the incoming tape but of a different type, said punching mechanism having a passageway for said outgoing tape, means for intermittently feeding said outgoing tape through said passageway, power means driving



the machine to operate said incoming tape feed means, sensing means, punching mechanism and outgoing tape feed means cyclically in synchronism with one another, and means for stopping the machine comprising a rocking arm positioned to be rocked by the reciprocation of said end-sensing finger, such reciprocation being effected by said actuating means when no longer blocked by said incoming tape, a pawl carried by said rocking arm, a rotatable shaft, a ratchet wheel fixed on said shaft and positioned, to be racked by said pawl and means actuated by said shaft for stopping said machine when said ratchet wheel has been turned through a predetermined angle, said angle being selected to continue the operation of the machine until the last character punched on said outgoing tape has emerged from said passageway

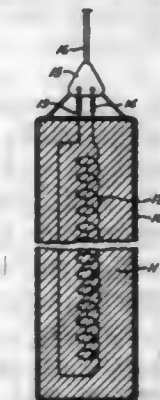
2,820,521

DEVICE FOR COMBATTING LOST CIRCULATION

Abraham J. Tepitz, Penn Township, Allegheny County, Pa., assignor to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

Application December 30, 1954, Serial No. 478,749

5 Claims. (Cl. 166-60)



1. An apparatus for plugging fractures in formations penetrated by a drilled borehole, the said apparatus consisting essentially of a solid elongated self-supporting monolithic mass having a width substantially less than that of the borehole, said monolithic mass consisting of a major part of discrete solid particles of a plugging material bound together by a binding material of low melting point; a cable attached to the solid mass for suspending the said solid, the cable being of sufficient length to lower the said solid from the ground surface to the fractured formation; a heating coil embedded in the said solid mass; a line for electrically connecting the coil to a source of power

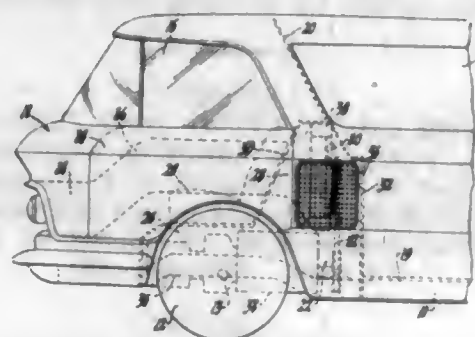
energy for energizing the heating coil; and a switch in the said connecting line operable from the ground surface to initiate the energizing of the heating coil, whereby the coil is heated, the solid mass is disintegrated, and the plugging material is delivered to the fracture.

2,820,522
PARAFFIN TOOL OR KNIFE
Lloyd E. Ray, Post, Tex., assignor to Don E. Martin,
Harlingen, Tex.
Application February 25, 1955, Serial No. 490,589
1 Claim. (Cl. 166-176)



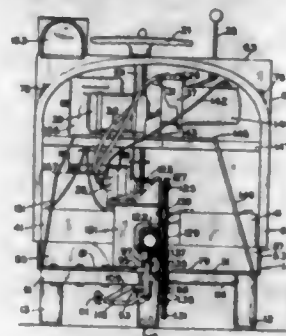
A paraffin cleaning tool for well tubing comprising a coupling stud, a pair of spiral blades dependently connected to said stud, and a plurality of vertically spaced knives integrally interconnecting said blades, said blades having a spiral twist of 180° for their entire length, said tool being of circular cross section, and said blades and knives having the inner faces of their edge portions inwardly beveled.

2,820,523
FRONT WHEEL DRIVE VEHICLE WITH CAB-OVER-ENGINE
Harley J. Earl, Grosse Point Farms, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 13, 1955, Serial No. 481,634
2 Claims. (Cl. 180-42)



1. In a motor vehicle of the cab over engine type, a chassis comprising a substantially horizontal frame, a front wheel axle mounted on said frame, an operator's compartment secured to said frame at the front end thereof, an engine compartment behind said operator's compartment and having a portion extending beneath said operator's compartment, a seat for the vehicle operator mounted in said operator's compartment directly above said front wheel axle, an engine mounted within said engine compartment on said frame rearwardly of said axle with the front portion of said engine extending under the rear portion of said seat, a transmission unit beneath said seat and extending forwardly of said engine and drivingly interconnecting said engine and said front wheel axle, a cooling radiator for said engine mounted within said engine compartment behind said seat and above the rear portion of said engine, plenum means for delivering air from the atmosphere without the vehicle to said cooling radiator, and a cargo carrying compartment defined in part by a forward upwardly extending wall adjacent said radiator and a floor secured to said frame and extending rearwardly of said wall.

2,820,524
TOW TRUCK
Clarence Bear, Portland, Oreg.
Application February 19, 1954, Serial No. 411,439
2 Claims. (Cl. 180-52)



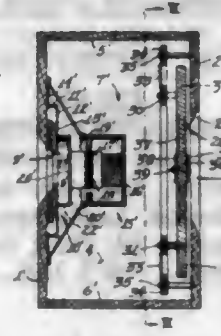
2. In a tow truck having a frame, wheel means supporting said frame including a dirigible wheel structure, said frame being formed with an opening accommodating said dirigible wheel structure, said dirigible wheel structure including a wheel mounting member and a wheel rotatably mounted on said mounting member for rotation about a horizontal axis, a cantilever supported arm on said frame projecting into said opening, a vertical kingpin connecting said arm and mounting member for turning movement of said mounting member and wheel relative to said frame about a vertical axis, motor means mounted on said mounting member to move therewith, flexible drive means located on the side of said wheel remote from said kingpin and being drivingly connected between said motor and said wheel, and steering means connected to said mounting member for steering said wheel.

2,820,525
ANNULAR DIFFUSION LOUDSPEAKER
Guy Rupert Fountain, Terence Brian Livingstone, and Ronald Hastings Rackham, London, England, assignors to Tannoy Limited, London, England, a British company
Application November 16, 1953, Serial No. 392,368
Claims priority, application Great Britain November 19, 1952
9 Claims. (Cl. 181-27)



1. A horn-type loudspeaker having an annular mouth formed in parallel sections spaced one above another on a vertical axis and adapted to radiate sound mainly in a generally horizontal plane, said loudspeaker comprising a source of sound power, means forming a plurality of co-axial throats extending from said sound source one to each section of said mouth, and means for extending the path length of sound along some only of said throats to give approximately equal path lengths for the sound reaching said mouth from said source.

2,820,526
SOUND PRODUCING SYSTEM
Ernest A. Tavares, North Hollywood, Calif.
Application July 10, 1952, Serial No. 298,107
14 Claims. (Cl. 181-31)



1. A sound producing system, comprising: a closed chamber; emission port means connecting the interior and the exterior of said chamber; oscillatory-motor-driven substantially planar diaphragm means effectively resiliently mounted in closed spaced substantially parallel position across the emission port means and effectively defining annular substantially parallel-edged flow restricting variable emission slit means communicating the interior of said chamber with said emission port means, said diaphragm means being cooperable to be directly vibrated by oscillatory motor means whereby to modulate air flow through the slit means.

2,820,527
TRANSDUCERS
Lloyd J. Bobb, Glenside, Pa., and Charles A. Perry, Cleveland, Ohio, assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application August 29, 1956, Serial No. 606,819
16 Claims. (Cl. 181-32)

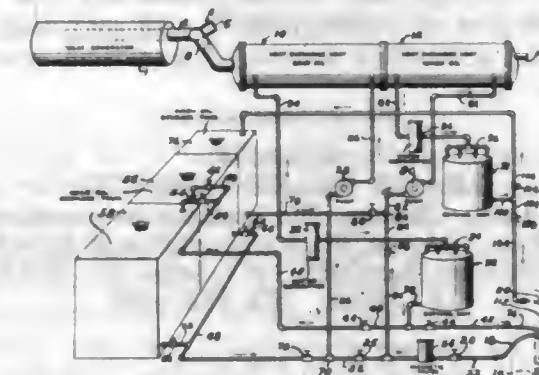


15. A sound reproducer diaphragm of narrow, elongated shape, no wider than about one to three inches, said diaphragm being formed by a pair of mutually merging, substantially cylindro-segmental surfaces, the axes of which intersect at a blunt angle.

2,820,528
APPARATUS FOR CLEANING GEAR CASES AND REFINING THE OIL CONTAINED THEREIN
Arthur N. Harper, Wichita Falls, Tex.
Application May 26, 1954, Serial No. 432,384
2 Claims. (Cl. 184-1.5)

1. In an apparatus for cleaning gear cases and the like and for refining contaminated oil therein, a motor vehicle having an internal combustion engine therein, an exhaust pipe connected to and leading from said internal combustion engine, a heat exchange unit, said exhaust pipe being connected to said heat exchange unit, said heat exchange unit having passages formed therein for passage of exhaust gases longitudinally therethrough, a second heat exchange unit having passages formed therein for passage of exhaust gases therethrough connected in end to end relation with said first named heat exchange unit so exhaust gases will pass through said second heat exchange unit, said second heat exchange

unit having an outlet port formed therein to exhaust the exhaust gases from said internal combustion engine, one of said heat exchange units being adapted to pass gear oil therethrough and the other of said heat exchange units being adapted to pass wash oil therethrough, a suction line adapted to be placed within said gear case for removing gear oil therefrom, a magnetic filter positioned within said suction line, a valve within said suction line intermediate the inlet thereof and said magnetic filter, a pair of pumps mounted on said motor vehicle for pumping gear oil and wash oil respectively, power means for driving said pumps, branch inlet conduits connecting the respective inlet sides of said pumps with said suction line, a valve in each branch inlet conduit intermediate said suction line and the respective pumps, a pair of water separators for passing gear oil and wash oil respectively, therethrough, a pair of oil refining units for passing gear oil and wash oil therethrough, respectively, at least two oil storage tanks, one for storing gear oil and one for storing wash oil, a conduit leading from the discharge side of said gear oil pump and connected to said gear oil heat exchange unit for passing gear oil thereto, a conduit leading from said gear oil heat exchange unit and connecting to said gear oil water separator for passing gear oil thereto, a further conduit leading from said gear oil water separator and connected with said gear oil refining unit for passing gear oil thereto, a conduit leading from said gear oil refining unit and connected to said gear oil storage tank for passing gear oil thereto, a valve within said conduit leading



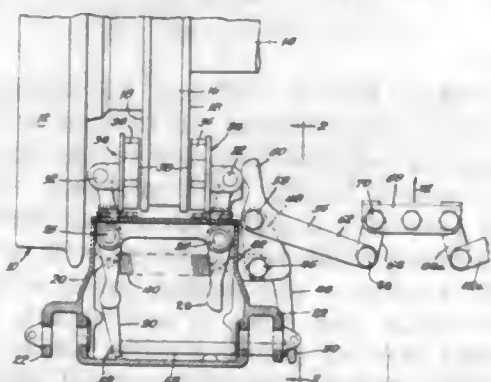
from said refining unit to said gear oil storage tank, a conduit leading from said gear oil refining unit for discharging gear oil into said gear case or the like, a valve within said conduit leading from said gear oil refining unit to said gear case, a discharge conduit leading from said gear oil storage tank and connected with said branch inlet conduit leading to said suction line of said gear oil pump intermediate said valve in said branch inlet conduit and said gear oil pump, a valve within said discharge conduit leading from said gear oil storage tank, said gear oil pump being adapted to withdraw gear oil from said gear case through said suction line, through one of said branch inlet conduits and to discharge said oil through said gear oil heat exchange unit, through said gear oil water separator, through said gear oil refining unit and with said valve in said gear oil discharge line leading to said gear case closed, the gear oil will be discharged from said gear oil refining unit into said gear oil storage tank, and with the valve within said branch inlet pipe leading from said suction line to said inlet side of said gear oil pump closed, and with the valve in said gear oil discharge line leading from said gear oil storage tank open, gear oil will be circulated within the system for the purification thereof, said wash oil pump having the discharge side thereof connected to said wash oil heat exchange unit for directing wash oil thereto, a conduit connected with the outlet side of said wash oil heat exchange unit for directing wash oil therefrom into said wash oil water separator, a conduit connected from the discharge side of said wash oil water

separator to said wash oil refining unit for directing wash oil into said wash oil refining unit, an outlet conduit leading from said wash oil refining unit to said wash oil storage tank, a valve within said outlet conduit leading from said wash oil refining unit to said wash oil storage tank, a second outlet line leading from said wash oil refining unit, said second outlet line being connected to a hose for directing wash oil into said gear case, a valve within said second outlet line, a nozzle on the discharge end of said hose, a conduit leading from said wash oil storage tank and connected with said branch inlet pipe leading to said wash oil pump intermediate said valve in said branch inlet line and said wash oil pump, so said wash oil may be drawn outward from said wash oil storage tank by said wash oil pump, then directed, under pressure by said pump, through said gear case and through said system in a continuous cycle, with the wash oil being discharged back into the gear case at high velocity through said nozzle, and with the discharge valve in said second outlet of said wash oil refining unit closed and with the valve in said first mentioned outlet conduit open, all wash oil is withdrawn through said suction line and forced through said wash oil purification system and discharged into said wash oil storage tank, and with the valve closed within said line leading from said gear oil refining unit to said gear oil storage tank, and with the valve in said second line leading from said gear oil refining unit to said gear case open, oil is withdrawn from said gear oil storage tank by said gear oil pump and discharged through said purification system out through said second mentioned line leading from said gear oil refining unit to said gear case, whereby purified gear oil is discharged from said system into said gear case.

2,820,529

HAND BRAKE LINKAGE

Carl E. Tack, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application March 29, 1955, Serial No. 497,596
8 Claims. (Cl. 188—59)



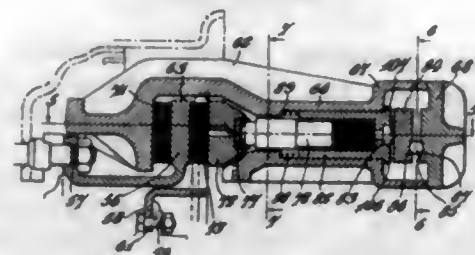
1. In a brake arrangement for a railway car having a truck structure spring-supported by a wheel and axle assembly having opposed brake surfaces rotatable with said wheel; a cylinder housing supported by said structure, a fluid responsive cylinder carried in said housing, a pair of brake levers fulcrumed on said housing and embracing said surfaces, said levers being operatively associated with said cylinder for actuation thereby, friction means carried by said levers and engageable with said surfaces, resilient means operatively connecting said levers and constantly urging said friction means out of engagement with said brake surfaces, a fulcrum bar pivotally connected intermediate its ends to said housing and disposed adjacent and substantially parallel to one of said levers, a live lever pivotally mounted on said bar at the end of the bar closer to said friction means than the other end of said bar, said live lever having an arm operatively engageable with said one lever to urge the friction means of said one lever into braking engagement with its associated brake surface when said live lever is actuated, a

push rod engageable with other end of said bar, said rod being slidably mounted in said housing and extending transversely therethrough to a point adjacent the other of said levers whereby the friction means of said other lever will be urged into engagement with its associated brake surface upon actuation of said live lever.

2,820,530

OPERATING MECHANISM FOR DISC BRAKES

Leslie Cyril Chouings and Eric Geoffrey Warnke, Leamington Spa, England, assignors to Automotive Products Company Limited, Leamington Spa, England
Application February 23, 1954, Serial No. 412,002
1 Claim. (Cl. 188—73)

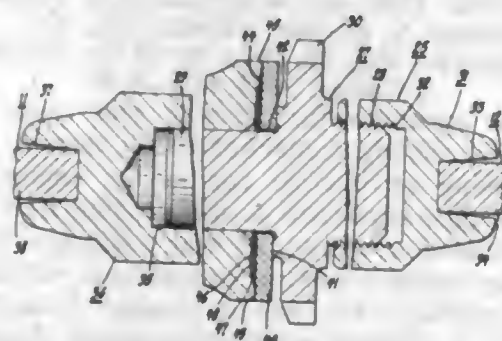


A disc brake comprising a disc mounted for rotation, a carrier member extending circumferentially over only a part of the disc and defining a channel into which the edge of the disc extends, means holding said carrier member against rotation, a first pad of friction material fixed to said carrier member on one side of said channel, a second pad of friction material, means supporting said second pad in said carrier member for sliding movement between the other side of said channel and said disc, a tube projecting outwardly from said other side of said channel parallel to the axis of the disc, a cam housing fixed to the end of the tube remote from said carrier member, a rod mounted for longitudinal movement in said tube and having thrust-transmitting engagement with said second pad, a sleeve, interengaging screw threads on said rod and sleeve, means to prevent rotation of said rod, cam means in said cam housing rotatable about the axis of said sleeve and operable to move said sleeve and rod towards said carrier member, ratchet teeth on said sleeve, and a pawl on said cam means engaging said ratchet teeth to produce uni-directional turning of said sleeve by movement of the cam means and thereby to increase the overall length of the rod and sleeve, said carrier being mounted for movement relative to said disc in the direction of the axis of the disc.

2,820,531

BRAKE ADJUSTING DEVICE

Jack T. Cornillaud, Dearborn, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 11, 1956, Serial No. 615,412
10 Claims. (Cl. 188—79.5)



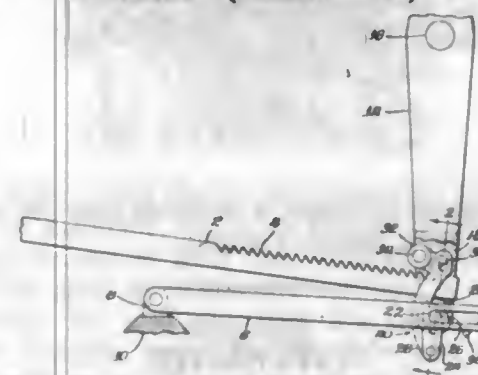
1. In a brake comprising a drum and shoes engageable therewith and having applying means at one end of the shoes and adjustable connecting means between opposite ends of the shoes with a variable rate spring in the connecting means resiliently transmitting brake applying

forces between the shoes to change the vibration frequency of the brake shoes as the brake applying forces increase.

2,820,532

SLACK ADJUSTER

Mehmet K. Coskun, Granite City, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey
Application August 28, 1953, Serial No. 377,151
8 Claims. (Cl. 188—196)

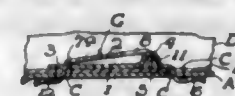


7. In an automatic slack adjusting device in a railed vehicle, a pull rod having ratchet teeth thereon, an actuating lever pivoted on the vehicle and having a swinging end disposed substantially normal to the pull rod, a roller carried by the lever adjacent the swinging end thereof and supporting the pull rod, a single pawl pivotally mounted on the lever and engageable with any of said ratchet teeth, and means for varying the relative positions of the pawl and ratchet teeth, said means including a positioning link having a connection to the vehicle and to the actuating lever, one of said connections being a pivotal connection and the other of said connections being a lost motion connection.

2,820,533

TWO-PIECE SNAP FASTENER

Edward H. Mount, Wellston, Ohio, assignor to The Frick-Gallagher Manufacturing Co., Wellston, Ohio, a corporation of Ohio
Application September 2, 1954, Serial No. 453,730
4 Claims. (Cl. 189—36)



2. A two-piece fastener for connecting juxtaposed perforated sheets together, comprising: a keeper body having an opening, an offset lug at one end of the body including a shank portion substantially at right angles to the body and a resilient terminal portion substantially parallel to the plane of the body, a keeper portion arched longitudinally of the body substantially adjacent the lug, said keeper portion having its marginal edges notched inwardly to provide a relatively narrow crown; and a locking member including a body having a resilient anchoring tail at one end and laterally spaced parallel spring arms at the other end, keys at the free ends of the arms offset therefrom in the same direction of the tail, and shoulders at the inner edges of the said keys for interlocking with the notched crown portion of the keeper member.

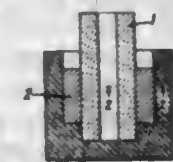
2,820,534

HERMETIC CERAMIC-METAL SEAL AND METHOD OF MAKING THE SAME

George W. Hume, Cohoes, N. Y., assignor to General Electric Company, a corporation of New York
Application April 22, 1954, Serial No. 424,900
11 Claims. (Cl. 189—36.5)

1. A hermetically sealed ceramic-metal structure comprising a ceramic, a layer thereon of an alloy of (1) a metal chosen from the group consisting of zirconium and

titanium and combinations and alloys thereof, and of (2) solder and a cast metal on said alloy layer, said cast

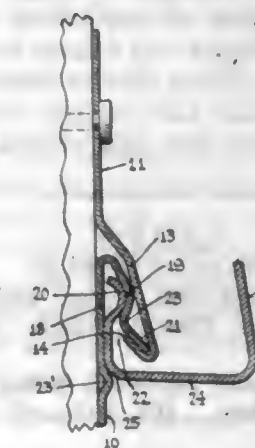


metal being chosen from the group consisting of aluminum and magnesium, and mixtures and alloys thereof.

2,820,535

SHEET METAL SIDING

James F. Hutchison, Houston, Tex., assignor to Consolidated Venetian Blind Co., Houston, Tex., a corporation of Texas
Application September 18, 1953, Serial No. 381,051
2 Claims. (Cl. 189—86)

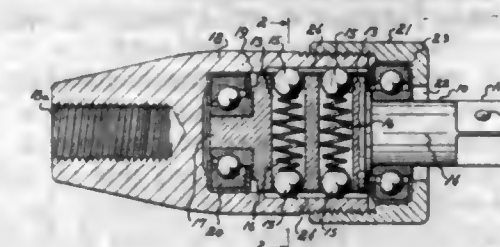


1. A siding for a building comprising a plurality of elongate resilient sheet metal strips with the longitudinal edges of adjacent strips being interlocked to form a continuous siding, each of said strips having one longitudinal edge having an outwardly and downwardly turned portion forming a spaced top flange, the other longitudinal edge of the strip being formed to provide an inwardly spaced upwardly extending bottom flange, the bottom flange having its end portion longitudinally bent and the top flange having a longitudinal bend along an intermediate portion with the bends forming cooperating rib and groove formations, whereby the bottom flange of an upper strip laying as laid in the space between the top flange and the body of a lower strip provides for interlocking between adjacent strips and the rib and groove formation causes resilient nesting of the interlocked flanges, the end portion of the top flange flaring outwardly and at least one hook fastened to the building for holding the siding thereto, each hook having a bent end portion engaged with the flaring end portion and terminating short of the rib and groove formation.

2,820,536

TOOL ADAPTER WITH ROTARY IMPACT

Daniel C. Boe, Minneapolis, Minn.
Application January 26, 1953, Serial No. 333,082
1 Claim. (Cl. 192—30.5)

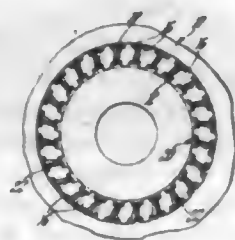


A tool adapter for imparting torque with vibrational impact, comprising a shaft terminating outwardly in an

axial tool holder, cylindrical chamber means formed laterally of the axis of and in said shaft, a casing with a longitudinal bore mounted for balanced rotation on the same axis with said shaft and interfitting in overlapping rotatable relation therewith, said casing terminating outwardly and oppositely to said tool holder in an axial fastener adapted to be rotatably secured to a drive member such as an electrically powered chuck, retaining means providing thrust bearing surfaces between said casing and said shaft for maintaining the same against relative axial shifting, a recess for each outwardly terminating end of the cylindrical chamber means in the inner circumference of said casing, said recesses being of fixed equal depth, an impact ball element disposed slidably within each outer terminus of said chamber means and normally aligned to enter and strike the walls of said recesses simultaneously and in balanced relation, and a compression spring means disposed within the cylindrical chamber means exerting outward balanced force upon each of said impact elements to urge them outwardly against said inner casing circumference and for exerting balanced outward pressure and impact force between said shaft and said casing during relative rotation thereof, said impact elements during said relative rotation having a lesser speed of rotation than that of said casing.

2,820,537 SPRAG CLUTCH

René E. Sauzedde, Terryville, Conn., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 18, 1954, Serial No. 412,758
12 Claims. (Cl. 192-45.1)



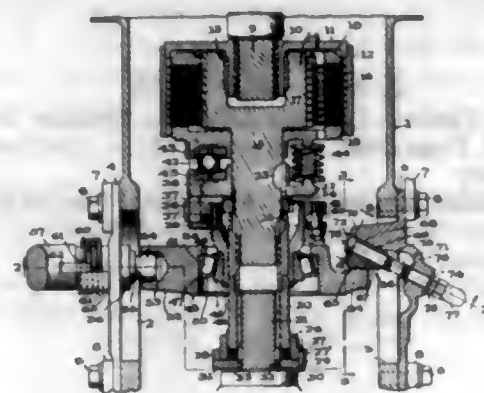
1. A one way clutch adapted to be disposed between a pair of coaxial cylindrical races, said clutch comprising a plurality of circumferentially spaced sprags, each of said sprags having a rigid body portion with cam surfaces on the ends thereof for engaging said races and shoulder means on said sprags between said cam surfaces, and a plurality of individual spring clips disposed between adjacent sprags, each spring clip engaging shoulders on adjacent sprags for biasing said cam surfaces against said races.

2,820,538 ADJUSTABLE CLUTCH RELEASE AND OPERATING MECHANISM

Dent Parrett, St. Joseph, Mich., assignor, by mesne assignments, to Lambert Brake Corporation, St. Joseph, Mich., a corporation of Michigan
Application February 4, 1954, Serial No. 408,165
6 Claims. (Cl. 192-93)

1. Clutch release and operating mechanism of the class described, comprising an axially shiftable member, a pivotal member, self-aligning bearing means intermediate said members, a support at one side of said pivotal member, mounting means on said support for pivotally mounting said pivotal member, a support at the other side of said pivotal member, operating means carried by the latter support for effecting pivotal movements of said pivotal member, and means for adjusting said mounting

means to align said operating means, said pivotal member and said mounting means relative to each other, said



mounting means including a shiftable cam on which said pivotal member is rockably seated.

2,820,539 TYPEWRITER

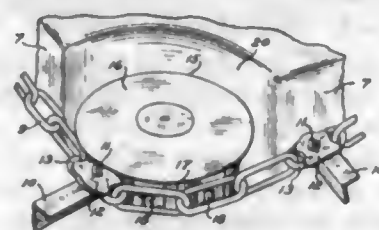
Bentley Raak, Roselle, N. J., assignor to Vari-Typer Corporation, Newark, N. J., a corporation of Delaware
Application August 22, 1955, Serial No. 529,840
12 Claims. (Cl. 197-135)



1. In a typewriter having means for selectively typing characters at a common printing point, a carriage traversed past the printing point and having a pair of closely spaced, longitudinally extending members adapted for receiving and supporting a card therebetween to be typed on, a pair of punches fixedly supported on one of the members and cooperating with a pair of holes in the other member for punching a card received between the members for typing, and means for actuating the punches to cause them to punch the card, enter the holes in said other member, and remain within the holes in the card and the other member.

2,820,540 GUIDE WHEEL FOR BARN FLIGHT CONVEYORS

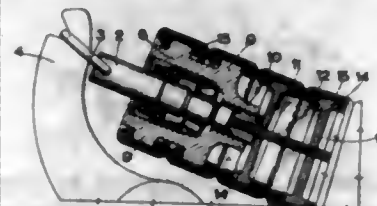
August F. Klnzing, St. Paul, Minn.
Application May 21, 1956, Serial No. 586,224
4 Claims. (Cl. 198-171)



1. For use in combination with a litter conveyor having a series of debris conveying flights successively movable along a gutter provided with angular corners, an endless chain having vertical and horizontal links for advancing the conveyor flights along the gutter and around the corners, and a guide wheel at each of said corners having a top flange for preventing lifting of said chain and also having an annular apron depending from said flange and provided with a continuous undulated outer surface formed with crests and intervening valleys coacting laterally with the inner side surfaces only of said vertical and horizontal chain links respectively.

2,820,541 IDLER ROLLERS FOR BELT CONVEYORS

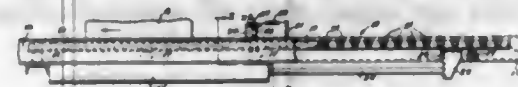
Leonard Sinclair Barnish and Leslie Baines, Wakefield, Ivor Johnson, Ossett, and Eric Bottomley, Mapplewell, England, assignors to Richard Sutcliffe Limited, Wakefield, England, a British company
Application January 10, 1955, Serial No. 480,932
3 Claims. (Cl. 198-192)



1. An idler roller for a belt conveyor comprising a plurality of members, the outer surface of each of which is cylindrical and at least the peripheral portion and a part of the ends of which are resilient, a flexible axle upon which the said members are mounted coaxially with one another and with the axle and so that the resilient portions of adjacent members are in contact with one another and in compression axially, two bearing housings attached one to each end of the axle and each having a resilient portion which bears against a resilient portion of the outermost member adjacent to it, two shafts rotatably mounted one in each of the bearing housings, and supporting means for said shafts.

2,820,542 LIVE CONVEYOR

Walter H. Oswald, St. Louis, Mo., assignor to Alvey Conveyor Manufacturing Company, St. Louis County, Mo., a corporation of Missouri
Application September 16, 1955, Serial No. 534,832
9 Claims. (Cl. 198-218)



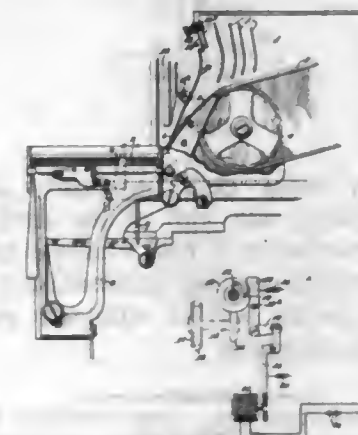
1. A live conveyor comprising a stationary and a movable conveyor bed; said stationary bed including marginal walls defining the edges thereof, a platform of rotatable elements journaled therebetween, and yieldable stop elements mounted on said marginal walls and normally biased transversely relative to said beds; said movable bed being positioned between said marginal walls on the stationary platform of rotatable elements and including a movable conveyor platform having marginal support members and rotatable elements adapted to rotate freely in opposite directions and journaled therebetween for supporting goods to be conveyed, and drive means operatively connected to said movable conveyor bed for movement thereof forwards and backwards relative to the stationary bed and for causing movement of the goods thereon in periodic steps along said beds and into engagement with said yieldable stop elements.

2,820,543 STOP MEANS FOR A TYPOGRAPHICAL COMPOSING MACHINE

Howard G. Elliott, Hot Springs, Ark., assignor to Mergenthaler Linotype Company, a corporation of New York
Application September 5, 1952, Serial No. 308,048
3 Claims. (Cl. 199-18)

1. In a typographical composing machine equipped with an automatic tape control unit for automatically releasing matrices from a storage magazine, the combination of an assembling elevator wherein the matrices are composed in line, in the order of their release, a continuously moving assembler belt for delivering the released matrices individually and successively to the assembling

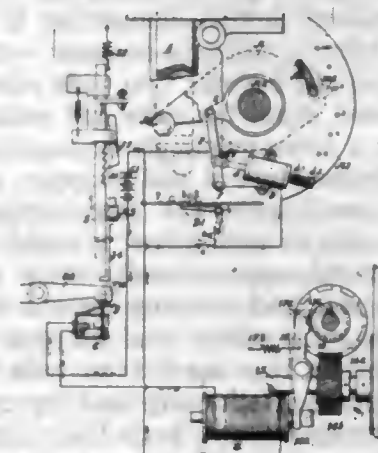
elevator, an assembler chute through which the matrices pass on their way to the assembling elevator, said chute comprising a lower fixed guide rail which directly engages the passing matrices at their lower side and an upper pivotal finger which directly engages the passing matrices at their upper side, said upper pivotal finger being mounted to partake of a limited variable normal pivotal movement sufficient in extent to accommodate and guide



matrices of different thicknesses under normal conditions and also mounted to partake of an abnormal pivotal movement caused by a pile up of matrices in the assembler chute under abnormal conditions during the composition of any given line, and means unaffected by a variable normal pivotal movement of the chute finger but activated by an abnormal pivotal movement thereof to arrest the operation of the tape control unit.

2,820,544 AUTOMATIC RECASTING MECHANISM

Paul Hilpman, Garden City, and George P. Kingsbury, Hollis, N. Y., assignors to Mergenthaler Linotype Company, a corporation of New York
Application December 29, 1954, Serial No. 478,259
22 Claims. (Cl. 199-47)



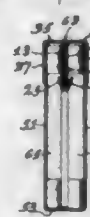
1. In or for a typographical composing and casting machine, the combination of an automatic control unit to automatically inaugurate a machine cycle of operation after a line is completely composed, adjustable selecting means for conditioning the machine to operate uninterruptedly for more than one cycle and also stop the operation of the control unit to prevent the composition of the next line prior to the last casting cycle, and means controlled by said unit for automatically effecting the adjustments of the selecting means.

2,820,545 CIGARETTE PACKAGES

Percy W. Bramhill, Mount Royal, Quebec, Canada
Application February 18, 1957, Serial No. 640,870
11 Claims. (Cl. 206-41)

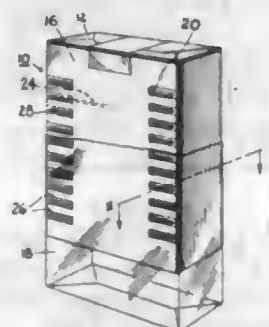
1. A cigarette package formed from a pair of blanks of sheet material including a first blank folded to provide

side, bottom and end walls of a shell for a double row of cigarettes and a second blank folded to provide a double ply partition intermediate the end walls and parallel to the side walls of said shell to separate one row of cigarettes from the other, each ply of said partition having a series of tooth-like projections extending from its lower



end, each tooth being bent outwardly and upwardly towards an opposing side wall of the shell intermediate two adjacent cigarettes of a row of same and in resilient engagement therewith against unintentional displacement of said two cigarettes and to similarly retain the one when the other is removed.

2,820,546
CIGARETTE PACKAGE
Louis Griceo, Rome, N. Y.
Application March 1, 1957, Serial No. 643,476
1 Claim. (Cl. 206-48)

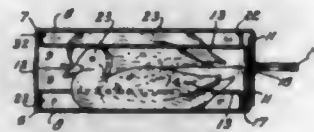


A cigarette package of the conventional "softpack" type having an integral supply of matches for lighting the cigarettes contained therein comprising in combination a rectangular tubular moisture-resistant wrapper having a rectangular top and bottom, two wide sides and two narrow sides disposed about the sides and ends of a plurality of cigarettes; a correspondingly rectangular tubular open end sleeve disposed about said wrapper; a plurality of digitally interspaced slots cut along opposite long edges of one wide side of said sleeve; a match card having a length and width approximately equal to that of said wrapper wide side and carrying thereon a plurality of digitally interspaced matches, said matches being arranged on said card in two equal rows with the heads in overlapping adjacent relationship and the ends thereof extending outwardly beyond each long edge of said card; a protective covering enclosing at least every other match head to prevent accidental lighting thereof upon lighting of an adjacent match; a match-striking strip disposed adjacent and parallel with each of the long edges of said card; at least one adhesive strip releasably securing said matches to said card; said match card being disposed between said wrapper and the slotted side of said sleeve with the ends of said matches extending through said slots; and an outer transparent cover enclosing said assembly.

2,820,547
DECOY CARRYING CASE
Arthur J. Nelson, Milwaukee, Wis., assignor to Pulp Reproduction Company, Milwaukee, Wis., a corporation of Wisconsin
Application April 5, 1954, Serial No. 420,876
2 Claims. (Cl. 206-65)

1. A decoy carrier comprising, a casing having complementary hingedly united sections each provided with

a bottom bounded by walls cooperable with the walls of the other section to form an enclosure, a partition spaced from the bottom and spanning the interior of each casing section, each of said partitions having a series of decoy positioning and confining openings therein and the openings in one partition being staggered relative to those in the other, and a set of duck decoys frictionally confined within the openings of each partition, said decoy sets be-



ing reversely disposed and staggered to correspond with the staggering of said confining openings and the heads of the confined decoys of one set being interposable between the bodies of those confined in the other section without interfering with the relative swinging of said casing sections, and said partitions being so located that with the carrier closed each partition will engage the tops of the decoys confined within the openings of the other partition.

2,820,548
SYPHON AND FILTERING MEANS FOR AN AQUARIUM
Joseph Marcus and Charles A. Marcus, Brooklyn, N. Y.
Application February 14, 1957, Serial No. 640,155
4 Claims. (Cl. 210-169)

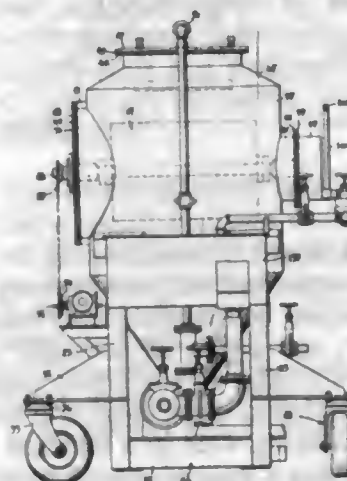


1. A combined syphon and filter for aquariums comprising a housing having a perforate bottom wall, means suspending said housing from a wall of the aquarium, a filter means in said housing, a tube extending downwardly from said housing, a second tube slidable in said first tube and terminating at its upper end in said housing above said first tube, the lower end of said second tube projecting below the lower end of said first tube, a dome-shaped intake member, a sleeve carried by said intake member engaging over the lower end of said second tube, and a flexible tubular air line secured at one end to said sleeve and adapted to be secured at the other end thereof to an air pressure means.

2,820,549
FILTERS
William E. Belke, Chicago, Ill., assignor to Belke Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application April 18, 1955, Serial No. 501,885
6 Claims. (Cl. 210-297)

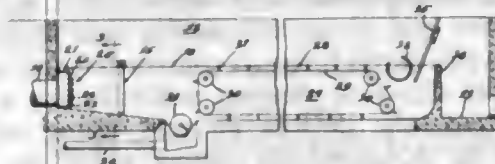
1. A continuous filter for electrolyte or the like comprising, a metal housing having a tapered bottom for receiving sediment, ending in a discharge opening provided with a valve, the said housing being provided at its top with an inlet for liquid, and means for distributing the liquid over the area of the housing at the top, a cylinder rotatably mounted in said housing and provided with a spiral peripheral groove, the side walls of which taper

inwardly, said groove having a plurality of apertures along its length extending to the interior of said cylinder, and a spirally wrapped, twisted, fibrous string in said spiral groove, secured at both ends and wedged tightly into said groove to prevent the passage of liquid between the edges of the string and the walls of the groove, the said cylinder having an outlet at one end for passing



filtered liquid and the solids remaining on the exterior of said cylinder and string, the said housing being provided with bearings and said cylinder being provided with trunnions in said bearings, one of said trunnions being hollow and having its end opening into a cap provided with a discharge opening, eliminating the necessity for packing a rotating bearing.

2,820,550
GRAVITY-TYPE WASTE WATER-OIL SEPARATORS
Leonard V. Sorg, Kansas City, Mo., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application June 29, 1955, Serial No. 518,756
7 Claims. (Cl. 210-519)



1. In an oil-water separator including an elongated separator box, an inlet tile discharging into said box, and a vertically slotted baffle extending across the entire width of the box providing a forebay into which said tile discharges, the improvement which comprises a horizontal slot baffle disposed across said inlet tile and in said forebay, said horizontal slot baffle consisting essentially of a plurality of vertically spaced bars, the height of the slots being about one-half the height of the bars, said baffle extending upwardly from the level of the bottom of the inlet tile.

2,820,551
CLIP FOR METAL SHELVING
Edward H. Mount, Wellston, Ohio, assignor to The Frick-Gallagher Manufacturing Co., Wellston, Ohio, a corporation of Ohio
Application September 2, 1954, Serial No. 453,729
1 Claim. (Cl. 211-136)

In combination with an upright having a series of vertically spaced openings and a pair of shelves having depending flanges, a clamp structure for securing said shelves to said upright, comprising, a pair of complementary clamp elements each including a body having a lower shank and an upper shelf clamping extension, the shank of one element having a plain hole and the other having a threaded hole, both of said holes adapted for registering with a related opening in the upright; said extension

on each clamp element having inner edge portions curved outwardly and downwardly and terminating in the zone of the upper end of the shank to provide a shelf flange receiving pocket in cooperation with the upright, whereby shelf flange receiving pockets are provided on both sides of said upright, each clamp element being formed with a pair of stiffening ribs each located adjacent the shelf flange-engaging marginal edge portions of the extension, said stiffening ribs being defined by longitudinally ex-



tending spaced embossments, said embossments diverging outwardly toward the free edge of the upper shelf clamping extension, whereby a surface is provided between said embossments, and a screw fastening freely passing through said plain hole and engaging the complementary threaded hole to adjustably mount both clip elements on the upright and secure the flanges of the shelves in selected position whereby said other clip adjustably engages said screw and simultaneously supports its associated shelf flange.

2,820,552
ADJUSTABLE SHELVING
Arnold Erisalu, Vancouver, British Columbia, Canada
Application June 24, 1954, Serial No. 438,936
3 Claims. (Cl. 211-147)

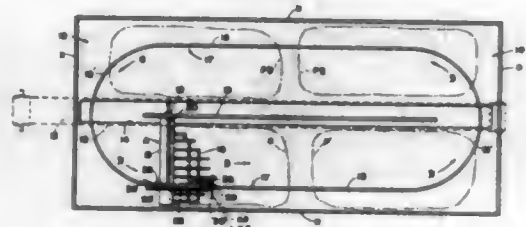


1. A shelving unit comprising pairs of legs spaced apart, a plurality of shelf supporting bars each connecting the legs of a pair together in spaced relation, shelves carried by the bars from one pair of legs to another, each leg of a pair having a plurality of pairs of holes spaced apart vertically and the holes of each pair entering the leg from opposite sides of the leg, said holes extending downwardly and inwardly into said leg, the supporting bars being bent at right angles at each end to form a pair of parallel dowels, each dowel of each bar being entered into a hole in each of a pair of legs.

2,820,553
ORE RECLAIMER AND METHOD THEREFOR
John H. V. Finney and Fred B. Maychark, Denver, Colo., assignors to Bunker Hill and Sullivan, Mining and Concentrating Company, San Francisco, Calif., a corporation of Delaware
Application April 8, 1953, Serial No. 347,484
1 Claim. (Cl. 214-10)

In an ore reclaimer system, the combination of an elongated ore storage floor, conveyor means extending longitudinally and substantially centrally of said storage floor below the level thereof and communicating therewith by a slot in said floor over said conveyor means providing a passage through which ore may be fed from said floor onto said conveyor means, and an ore feeding mechanism

for transferring ore from piles on said floor through said slot therein to said substantially centrally extending conveyor means including an endless overhead trolley rail structure extending substantially around the periphery of said floor and having straight side stretches and curved joining end stretches, an inner overhead trolley rail structure extending longitudinally of said floor and disposed centrally between and parallel to said straight side stretches of said endless trolley rail structure, trolley carriage means including means movably mounting said trolley carriage means on said rail structures and having swivel mounts thereon providing for turning of said trolley carriage means around the ends of said inner rail

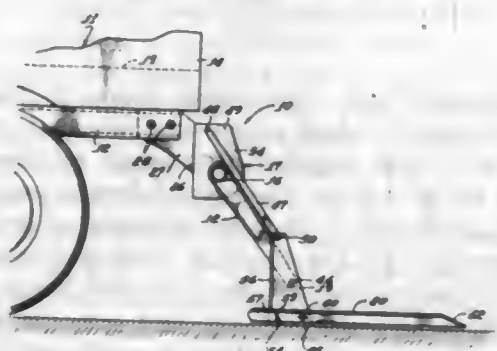


structure and for travel of said carriage means longitudinally of said floor in opposite directions on opposite sides of said inner rail structure, means suspended from said trolley carriage means for raking material from a pile of ore on said floor to the base thereof, an endless drag conveyor extending transversely of said floor from adjacent to an outer side thereof to the space over said slot in said floor and being mounted and arranged on said trolley carriage means for travel therewith over said floor closely spaced therefrom and operable for feeding ore from said floor to said first mentioned conveyor means through said slot, and means for driving said trolley carriage means around said rail structures.

2,820,554

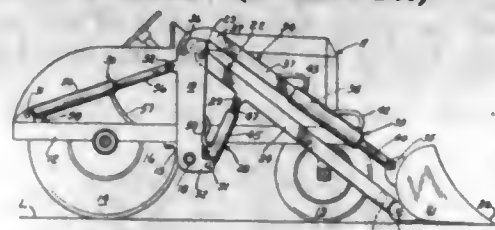
TAIL GATE LIFT FOR A VEHICLE

William K. Vogel and Milton C. Vogel, Los Angeles, Calif., assignors to The Ven Corporation, Los Angeles, Calif., a corporation of California
Application February 10, 1956, Serial No. 564,651
10 Claims. (Cl. 214-77)



1. In a power actuated tail gate for a vehicle body comprising in combination: a shaft provided with a helical surface for a portion of its length; means to mount the shaft transversely adjacent the end of the body and including a housing adapted to be secured to the body, said housing having a wall providing a rear bumper for the vehicle body; a tail gate provided with upstanding side members; lifting arms pivotally connected to said upstanding side members and fixedly connected to the shaft; link means pivotally interconnecting said housing and said upstanding side members on the tail gate; and means extending in the direction of the axis of the shaft within the housing operable to turn the shaft to selectively position the tail gate, said operable means including fluid operable means having an element slidable on said helical surface on the shaft and movable in a path parallel to the axis of the shaft.

2,820,555
POWER SHOVELS OR THE LIKE
Herbert Frederick Lessmann, Des Moines, Iowa
Application June 7, 1954, Serial No. 434,988
2 Claims. (Cl. 214-140)

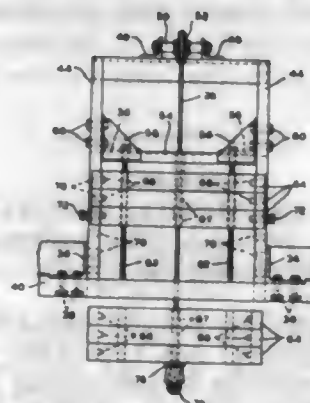


1. In a digging and loading mechanism for a power driven wheeled tractor having a frame, a unitary U-shaped oscillatory unit disposed transversely of the intermediate portion of the frame, said unit comprising a horizontal shaft under the frame and mounted for rotation in bearings on the latter, and a pair of normally upright levers disposed at opposite sides of the frame and having their lower ends rigidly fixed to the ends of said shaft, the upper ends of said levers being wide in a forward and rearward direction and carrying a pair of spaced forward and rearward pivots, a yoke straddling the front portion of the frame and including a pair of opposed lifting arms having their rear ends hung on said forward pivots, a tilting shovel with pivots therefore connecting its bottom portion to the front of said yoke, a pair of radius arms disposed above and in substantially parallel relation to said lifting arms, each of said radius arms including a double acting hydraulic device to vary its length, pivots connecting the forward ends of said radius arms to the upper rear portion of the shovel, the rear end portions of said radius arms extending laterally in a downward direction and being hung on said rearward pivots, double acting hydraulic devices connected between the upper portions of said levers and the rear portions of the frame to oscillate said levers in unison to either side of their perpendicular positions, and other hydraulic devices pivotally supported relative to the frame and connected to intermediate portions of said lifting arms, said radius arms, said lifting arms, and the said pivots connecting said arms to the levers and to the shovel being so constructed and arranged that when the shovel is elevated solely by the action of said other hydraulic devices on said lifting arms, the shovel will be automatically swung about its axis to prevent spilling of its contents.

2,820,556

REMOVABLE COUNTER-WEIGHT

George Davis, Benton Harbor, Mich.
Application October 5, 1954, Serial No. 464,658
9 Claims. (Cl. 214-142)



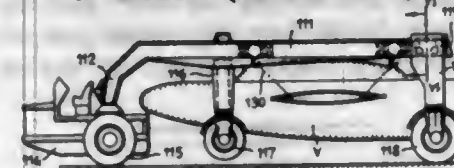
5. For use in a vehicle having a main frame, a turntable mounted thereon for rotation in a horizontal plane, a boom assembly mounted on the turntable, and power operated cable means carried by the turntable and releasably connected to the boom assembly for actuating the latter, the combination of counterweight mechanism comprising frame means secured to the turntable, a plu-

ality of counterweights adapted to be releasably connected with said power operated cable means, means carried by said frame means for connecting the power operated cable means with said counterweights whereby said power operated cable means is adapted to raise and lower said counterweights to and from said frame means, and selectively operable means for securing a selectable number of said counterweights to said frame means whereby the power operated cable means may be released from said counterweights and employed for actuating the boom assembly when not employed for raising or lowering said counterweights.

2,820,557

TRAVELLING CRANE

Roberto Emanuel, Turin, Italy, assignor to Emanuel Di Giuseppe E. Roberto Emanuel & C. Società in Accomandita Semplice, Turin, Italy
Application December 1, 1955, Serial No. 550,434
Claims priority, application Italy December 2, 1954
2 Claims. (Cl. 214-394)

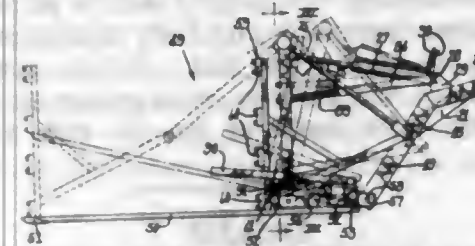


1. A traveling crane comprising a single-axled tractor vehicle having a pair of road wheels, an up-standing king-pin member on the tractor vehicle, a rigid-load-supporting structure including two substantially parallel beams to form the said rigid structure, a pivotal connection between the front ends of the said beams and the king-pin on the tractor vehicle, a road wheel supporting opposite ends of each beam from the ground, means including an upstanding leg connecting the wheel and the associated beam for a longitudinal movement with respect to the beam, a vertically extensible leg for each beam depending from an intermediate section of its associated beam, a wheel supported from a lower portion of the extensible leg, and a load lifting and supporting means supported from said rigid structure.

2,820,558

TRACTOR-MOUNTED LOADER

Elmer L. Miller, Sioux Falls, S. Dak.
Application June 15, 1954, Serial No. 436,815
3 Claims. (Cl. 214-510)

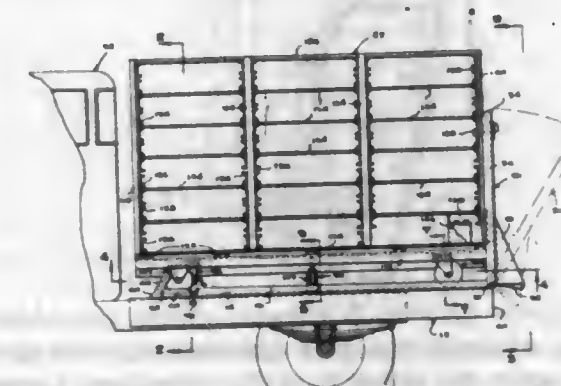


1. In a loader adapted for mounting on a tractor or the like, arm means arranged for connection to the tractor for raising and lowering movements, a sweep pivotally connected to said arm means, an upright frame having a lower end portion pivoted to said sweep, an arm pivoted to the upper end of said frame, push-off means connected to said arm, and actuating means between said arm and said arm means for both retracting said push-off means and controlling pivotal movement of said sweep.

2,820,559

AUXILIARY CARGO VEHICLE FOR TRUCKING VEHICLES

John H. Armitage, Lima, Ohio
Application November 30, 1956, Serial No. 625,402
7 Claims. (Cl. 214-515)

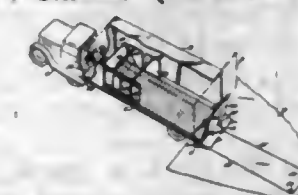


1. In combination, a trucking vehicle including a horizontal bed, track means on said bed, a pivotal ramp on said bed in alignment with the track means for disposition at one end on a loading dock facilitating the loading of said bed, an auxiliary power operated cargo vehicle removably received on the track means, lock means restraining the auxiliary cargo vehicle on said track means, said auxiliary vehicle including a rear end wall, and means on the end wall of said auxiliary vehicle detachably engaging the pivotal ramp retaining the ramp in vertically juxtaposed relation on the outer surface of the end wall for aiding and restraining the auxiliary cargo vehicle against longitudinal movement on said tracks.

2,820,560

LOAD HANDLING APPARATUS FOR TRUCKS

Ernest C. Davis, Elmhurst, Ill., assignor to Illinois Farm Supply Company, Chicago, Ill., a corporation of Illinois
Application September 13, 1956, Serial No. 609,648
8 Claims. (Cl. 214-517)



1. Load handling apparatus for trucks comprising a series of separate load receiving pallets, each independently supported on rollers, said pallets being hingedly connected along adjacent edges, and means for pulling said series of hingedly connected pallets completely onto and off of the floor of a truck, longitudinally thereof, the hinge connection between pallets being so constructed that the series of pallets may flex vertically, whereby said series can conform with and travel over irregular surfaces.

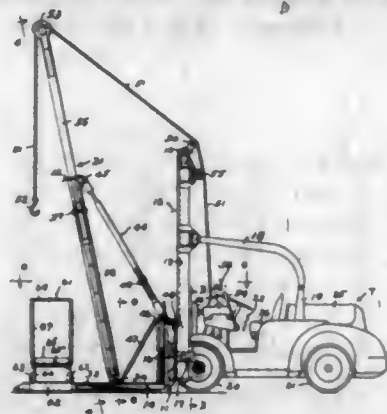
2,820,561

VEHICULAR HOIST UNIT

William G. Meagher, Oakland, Calif.
Application April 2, 1954, Serial No. 420,609
4 Claims. (Cl. 214-620)

1. In a vehicular hoist unit of the type described, a dirigible vehicle, a load-mounting elevator carriage supported by the vehicle at an end thereof for its upright adjustment and providing horizontally extending load supporting fork arms, means providing a boom base telescopically receiving said arms, a boom extending upwardly from said base and disposed in a fixed upright plane in-

cluding the longitudinal vehicle axis, a running hoist line supported by the boom and having a depending end thereof arranged for its fixing to a load element, a winch means on the vehicle operative to mechanically control said hoist

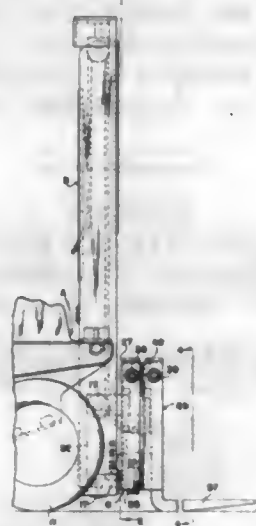


line, and a workman's staging dismountably and directly supported upon the boom base for movement therewith and disposable with the carriage to provide for the direct manual access by a workman thereon to a load element carried by the hoist line.

2,820,562

INDUSTRIAL TRUCK

Frank J. Schenkelberger, North Olmsted, Ohio, assignor to The Baker-Raulang Company, Cleveland, Ohio, a corporation of Delaware
Application April 21, 1955, Serial No. 502,817
3 Claims. (Cl. 214-730)



1. In an industrial lift truck, a chassis, a carriage including a frame structure having spaced generally vertical plates and a first generally horizontal bar-like member removably supported between the spaced plates, means supporting said carriage on said chassis for elevational movement with respect thereto, means for elevating said carriage, a load carrier frame including generally vertically spaced plates and a second generally horizontal bar-like member removably supported between the last-mentioned plates, means connecting said load carrier frame to said first generally horizontal bar-like member for movement therealong, a load engaging member, means adjustably and removably connecting said load engaging member to said second bar-like member, and double-acting power actuated means connected between said carriage and said load carrier frame for shifting the load carrier frame with respect to the carriage.

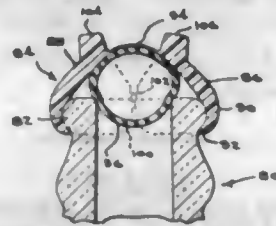
2,820,563

SEALING CAP FOR CONTAINERS

Albert J. Bronnmann, Lausanne, Switzerland
Application August 31, 1956, Serial No. 607,347
9 Claims. (Cl. 215-41)

1. For use on a container including an open top having an annular rib extending circumferentially about the

outer peripheral upper edge thereof; a sealing cap comprising a deformable annular body member including a top portion having a depending annular skirt terminating in an inwardly deformable edge for disposition in gripping relationship beneath the annular rib of a container upon which the sealing cap is mounted, a deformable ball element disposed beneath the top portion of said body member for sealingly engaging and providing pivot means on

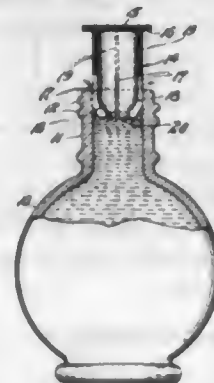


the open top of the container, said body member including a pressure deformable section, externally applied pressure on the top portion of said body member deforming the ball element outwardly toward the inner surface of the annular skirt and urging the skirt and the gripping edge portion outwardly from the outer periphery of the container permitting ready removal of the sealing cap therefrom.

2,820,564

BOTTLE NECK STOPPERS

John W. Solomon, New York, N. Y., assignor to Coty, Inc., New York, N. Y., a corporation of Delaware
Application June 11, 1956, Serial No. 590,664
2 Claims. (Cl. 215-47)



1. A bottle neck stopper comprising a hollow resilient body having angularly spaced lower slits formed through the wall thereof, the bottom of said body being formed with a central opening communicating with the hollow interior of the body, the upper end of the body being formed up to the top thereof with angularly spaced air vent grooves extending partially into the body wall and each communicating and aligned with a respective slit, and a shoulder formed on said body and adapted to rest against the lip of a bottle neck, said air vent grooves extending up to said shoulder, each groove being of substantially the same width as the slit with which it is aligned.

2,820,565

LOCKABLE BOTTLE OR LIKE CONTAINER

Richard Oberle, Brooklyn, N. Y., assignor to National Hardware Corporation, a corporation of New York
Application October 5, 1956, Serial No. 614,163
4 Claims. (Cl. 215-98)

1. In combination, a container having a neck portion, a closure cap applicable to said container neck portion, said container neck portion and cap having cooperative means operative by rotation of the latter relative to the former whereby to join said cap in closed relation to the container, and means to releasably secure the thus joined cap against unauthorized removal from the container comprising an axially movable bolt piece having bolt tongue means dependent therefrom, guide means for said bolt piece fixed within the cap, said guide means includ-

ing a bottom wall through which the bolt tongue means can be projected, said bolt piece having an upstanding cam member, a key actuatable lock comprising a housing affixed to the cap above said bolt piece, a key barrel rotatably supported by said housing, a bolt piece operating means connected with said key barrel to rotate therewith and including a radial thrust arm to operative-

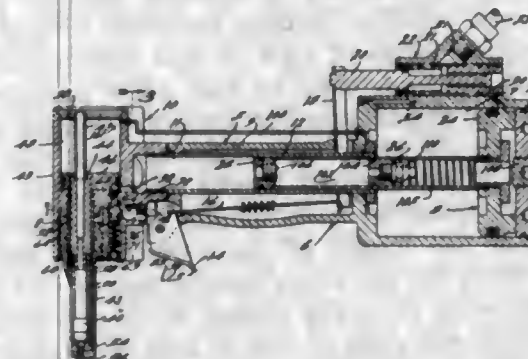


ly engage said cam member, spring means interposed between the guide means bottom wall and the bolt piece to urge the latter and its cam member toward said thrust arm for operative engagement thereby, and said container neck portion having means to receive the bolt tongue means when the bolt piece is downwardly moved to locking position.

2,820,566

PULL GUN

George J. Van Hecke, Detroit, Mich., assignor to Huck Manufacturing Company, Detroit, Mich., a corporation of Michigan
Application February 3, 1956, Serial No. 563,284
18 Claims. (Cl. 218-47)



1. In a fluid-actuated pull gun, the combination comprising a body defining first and second cylinders, a pair of pistons, one of said pistons mounted for reciprocation in each of the cylinders defined by said body, rod means fixed to one of said pistons, the longitudinal axis of said rod means being offset with respect to the longitudinal axis of the first cylinder, means for successively establishing fluid circuits to the first cylinder at opposite ends of said one piston to drive said one piston in opposite directions, and means responsive to a predetermined fluid pressure in the first cylinder for permitting relative movement between said second piston means and said body.

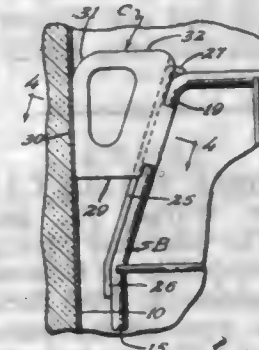
2,820,567

LOCKING WEDGE FOR FREEZER DIVIDERS

Edmund J. Buzicky, St. Paul, Minn., assignor, by mesne assignments, to Whirlpool Corporation, a corporation of Delaware
Application May 28, 1954, Serial No. 433,191
10 Claims. (Cl. 220-22)

9. A divider for chest type freezers including a frame designed to extend transversely of the freezer chest having the uppermost ends of its sides inclining upwardly and inwardly, a pair of inclined strips supported near the upper end of said divider, said strips inclining downwardly and outwardly toward opposite walls of the freezer chest in conformance with the inclination of said frame sides, a wedged shaped body overlying each of said strips and

having a wall with the angle of convergence similar to the angle of the said strip incline, and inclined flanges extending over said strips and supported upon said body for slidably supporting said body upon each said strip, where-

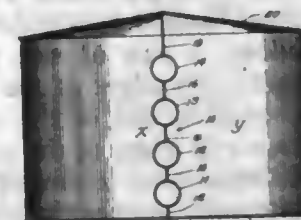


by downward sliding movement of each wedged shaped body upon its supporting strip acts to wedge said body between its said supporting strip and the adjacent freezer wall.

2,820,568

WALL STRUCTURE

Leonard P. Zick and Harry C. Boardman, Chicago, Ill., assignors to Chicago Bridge & Iron Company, a corporation of Illinois
Continuation of application Serial No. 237,396, July 18, 1951. This application October 14, 1954, Serial No. 462,165
2 Claims. (Cl. 220-22)

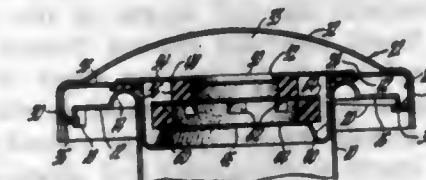


1. A metal cylindrical fluid storage tank capable of withstanding great loads having a metallic vertical cylindrical wall, a metallic bottom joined thereto, and a vertical partition wall within the tank connected at each end to said cylindrical wall and along its lower end to said tank bottom, said tank being free from additional bracing, said partition wall comprising a plurality of horizontally arranged elongated metal cylinders arranged and spaced in parallel relation, each cylinder being resistant to both axially and laterally applied loads and being connected to its adjacent cylinder by narrow webs edge-joined, the vertical spacing between the cylinders increasing in proportion to the distance of the cylinders from the bottom of the tank.

2,820,569

CAP FOR TANK FILLER PIPE

David W. Peterson, Hinsdale, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 31, 1955, Serial No. 511,878
8 Claims. (Cl. 220-44)



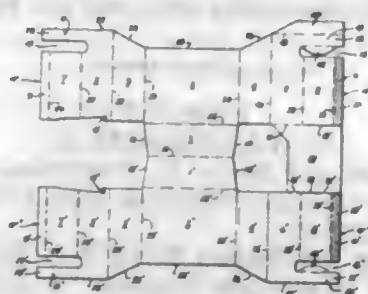
1. A cap comprising a cover with means for attaching the same in sealed relation to the end of a filler pipe, two members fixed to said cap and having opposed faces, one of said members having an opening, a large annulus of yieldable material contacting said one member

around said opening and having at least one oblique passage, the other of said members having two openings, a small annulus arranged in sealed relation with the other of said faces and around only one of said two openings, a flexible metallic plate interposed between and normally contacting said annuli, and said oblique passage normally extending from within said large annulus and terminating at said plate.

2,820,570

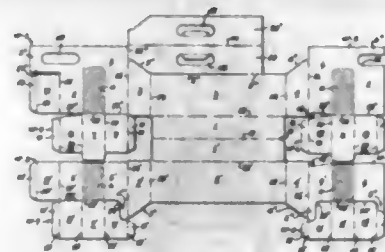
COLLAPSIBLE BOTTLE CARRIERS

William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application November 19, 1951, Serial No. 256,971
The portion of the term of the patent subsequent to December 14, 1971, has been disclaimed
10 Claims. (Cl. 220—113)



1. A collapsible six-celled twin compartmented bottle carrier formed from a single blank of sheet material having a bottom panel formed by a pair of foldably connected bottom sections, a pair of side panels integrally hinged to the opposite side edges of the bottom panel, a pair of end panels at each end of the carrier integrally hinged to the adjacent end edges of the side panels, a pair of end center partition sections arranged in back-to-back relationship and integrally hinged to each pair of end panels, a fifth center partition section integrally hinged to a lower end portion of one of said end center partition sections and upfolded in overlapping relation thereto and wherein four of said five center partition sections have a maximum width which closely corresponds with the transverse width of the respective end panels, said fifth center partition section and end center partition sections being adhesively joined to provide a unitary and continuous center partition structure extending medially of the carrier and substantially down to the erected bottom panel for the full length thereof and dividing said carrier into two compartments, a pair of cell defining cross partitions in each of said compartments having the lower edges thereof extending substantially down to the erected bottom panel, each of said cross partitions being integrally hinged to a separate center partition section and having a securing flap integrally hinged thereto and secured to the inside face of the adjacent side panel, an upper extension integral with one of said end center partition sections at one end of the carrier and a companion upper extension integral with one of said end center partition sections at the other end of the carrier, said upper extensions together providing a handle forming core projecting above the upper edges of the cross partitions and side panels and extending substantially the full length of the carrier and presenting a finger insertion cut-out therein positioned medially thereof and above the top edges of said cross partition sections and said fifth center partition section, and a pair of handle reinforcing flaps extending substantially the full length of the carrier and adhesively bonded to the exposed outer faces of said handle forming core and providing therewith a relatively rigid and unitary multiply handle part for the carrier, each of said handle reinforcing flaps having a finger insertion cut-out in aligned registry with the finger insertion cut-out in said handle forming core.

2,820,571
TWIN-COMPARTMENTED ARTICLE CARRIERS
William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application July 7, 1954, Serial No. 441,768
12 Claims. (Cl. 220—113)

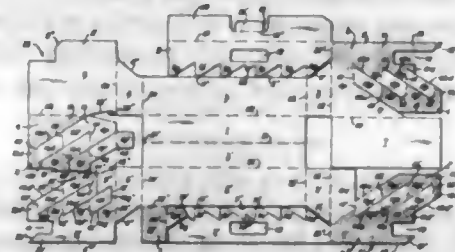


1. A multi-cell twin compartmented article carrier formed from a single blank of sheet material including a bottom panel, a pair of side panels integrally hinged to the opposite side edges of the bottom panel, a pair of end panel sections at each end of the carrier integrally hinged to the adjacent end edges of the side panels, an end center partition section integrally hinged to each of the four end panel sections and extending inwardly between said side panels, said end center partition sections being secured together to provide a composite center partition extending the full length of the carrier, an intermediate center partition section integrally hinged to the lower end of one of said end center partition sections and extending upwardly in adjacent relation thereto, a second intermediate center partition section integrally hinged to the upper edge of another end center partition section and extending downwardly in adjacent relation thereto, a pair of cross partition sections integrally hinged to the opposite vertical edges of each of said intermediate center partition sections, each of said cross partition sections having an attachment flap integrally hinged thereto and secured to the inside face of the adjacent side panel, and a pair of downfolded handle facing flaps having aligned finger insertion holes therein and extending substantially the full length of the carrier and integrally connected along the top edges thereof, one of said handle facing flaps being integrally hinged to an upwardly projecting vertical end edge of one of said end center partition sections.

2,820,572

MULTI-CELLED ARTICLE CARRIERS

William A. Ringler, Wayne, Pa., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application August 29, 1955, Serial No. 531,061
17 Claims. (Cl. 220—113)



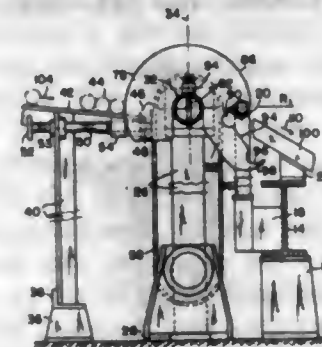
1. A collapsible multi-cell twin compartmented article carrier formed from a single blank of sheet material including, a bottom panel having a medial collapsing score extending longitudinally of the carrier, a pair of side panels integrally hinged to the opposite side edges of the bottom panel, a pair of end panel sections at each end of the carrier integrally hinged to the adjacent end edges of the side panels, a skeleton panel foldably connected to each of three of said end panel sections and extending inwardly and longitudinally of the carrier, a center partition panel foldably connected to the fourth end panel section, a

fourth skeleton panel foldably connected to a lower edge portion of said center partition panel and upfolded in overlying relation thereto, each of said four skeleton panels including a handle core section, a plurality of spaced hinging segments extending downwardly from the handle core section, a plurality of inclined cross partition straps each integrally hinged at the upper end thereof by a vertically extending score to the adjacent hinging segment, and means for foldably securing the lower ends of said cross partition straps to the inside face of the adjacent side panel, and a pair of outer handle forming sections extending substantially the full length of the carrier and secured in overlapping relation to the handle core sections of said skeleton panels.

2,820,573

PIPE HANDLING MECHANISM

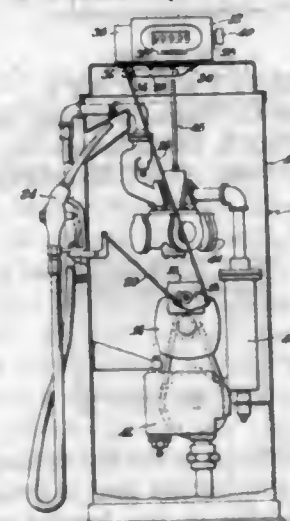
William M. McConnell, McKeesport, Pa., assignor to Taylor-Wilson Manufacturing Company, McKees Rocks, Pa., a corporation of Pennsylvania
Application September 19, 1955, Serial No. 535,081
13 Claims. (Cl. 221—238)



9. In combination, a member mounted for rocking movement about a generally horizontal axis, reversible torque developing means drivingly connected thereto, article transfer means carried by the member for lifting and transferring articles from one side of the vertical plane containing said axis to the opposite side, said article transfer means having an article receiving slot wherein each article bodily shifts from one end of the slot to the other during the transfer of the article, and saddle means located at said opposite side of said vertical plane against which the article is clamped at said one end of the slot under predetermined torque developed by said reversible means.

2,820,574

INTERLOCK FOR PUMP CONTROL AND REGISTER OF A LIQUID DISPENSING APPARATUS
Robert Russell Harr, Fruitland, Md., assignor to The Wayne Pump Company, Salisbury, Md., a corporation of Maryland
Application November 23, 1956, Serial No. 623,984
10 Claims. (Cl. 222—34)



1. An interlock for a liquid dispensing apparatus including a mechanical means for actuating a pump switch

and an indicating register including a shaft which is movable from its registering position in an axial direction to a resetting position where it is rotated to effect resetting, said interlock comprising a block secured to said shaft, an insert mounted to move within a recess in said block in said axial direction, said block and said insert including corresponding holes, resilient means reacting within said recess between said insert and said block in a direction to axially misalign said holes, a holding pin commonly insertable within said corresponding holes when said holes are axially aligned, a reciprocating plunger connected to said mechanical means for actuating said switch, said plunger being mounted adjacent said block to extend through said corresponding holes to lock said shaft in its registering position and to permit said plunger and mechanical means to move a distance sufficient to allow said pump to be started, said plunger driving said holding pin out of said insert when said pump is started whereupon said holding pin protrudes out of said block, an abutment which arrests said axial movement of said insert to align said corresponding holes when said shaft and block are moved axially to said resetting position, and a cam surface disposed adjacent said block to be contacted by said holding pin when said shaft is rotated during resetting to drive said pin into said insert to lock said insert and said block together.

2,820,575

TUBE CURLER

William C. F. Dietz, Cincinnati, Ohio
Application September 24, 1953, Serial No. 382,128
2 Claims. (Cl. 222—99)

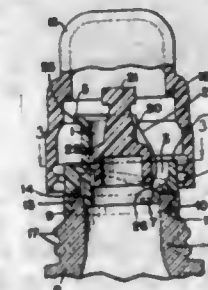


1. A device for curling a collapsible tube which comprises a thin-walled hollow tubular member formed from a rectangular sheet metal blank, there being a longitudinal slot therein between the spaced adjacent edges of said formed blank, a portion of said tubular member adjacent one end thereof being flattened, said flattened portion being folded upon itself along a line transversely of the axis of said tubular member to form a finger grip with the slot defining edges inside the folded portion, said finger grip portion supporting the slot defining edges against longitudinal displacement relative to each other, said tubular member being adapted to receive the end seal portion of a collapsible tube with an adjacent portion projecting outwardly through said longitudinal slot whereby said tubular member may be rotated to effect progressive collapsing of said tube for emptying same while simultaneously curling the emptied portion thereof about said tubular member.

2,820,576

FLOW-CONTROLLER

Jay G. Livingstone, Akron, Ohio
Application March 9, 1953, Serial No. 341,206
6 Claims. (Cl. 222—110)



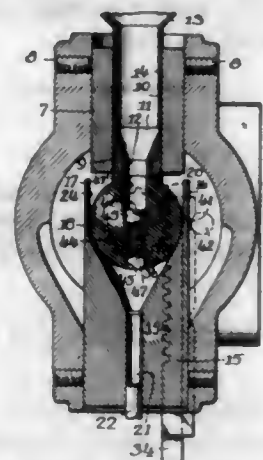
1. In the top of a container, a passageway which opens at the bottom into the interior of the container and at the top is open to the outer atmosphere and is adapted for the

pouring of liquid from the container therethrough, an opening through the wall of the passageway, and a flow-controller movable in the passageway to a position in which it substantially closes the opening, there being a small channel between the flow-controller and the wall of the passageway located away from the opening and extending throughout the entire effective height of the flow-controller, and no other opening between the flow-controller and the wall of the passageway, whereby when the flow-controller is in said position liquid may be poured dropwise from the container through the channel between the flow-controller and the wall of the passageway, the flow-controller being movable from said position to a position in which it does not substantially completely close the opening.

2,820,577

POWDER FEED MECHANISM

John D. Winters, Lake Bluff, and Arthur C. Nichols, Waukegan, Ill., assignors to Fansteel Metallurgical Corporation, a corporation of New York
Application December 3, 1953, Serial No. 395,891
9 Claims. (Cl. 222-306)

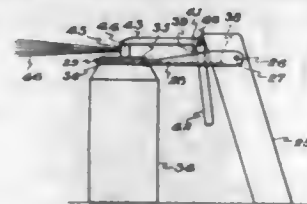


1. A powder feed mechanism comprising a hopper having an open bottom, an outlet member positioned below said open bottom, said outlet member being provided with upwardly extending arms at opposite edges thereof, one of said arms being provided with a vertically extending recess, a horizontally disposed shaft rotatably mounted between said arms with its periphery engaging the open bottom of said hopper to form a cutting edge, said shaft having a transversely extending cavity, and adjustable means closing one end of said cavity, said cavity being aligned with the open bottom of said hopper and said outlet member during rotation of the shaft, whereby powder is discharged from said hopper into said cavity and dumped from said cavity into said outlet member.

2,820,578

HOLDERS FOR PRESSURE-ACTUATED CANISTERS

Max Dickman, Philadelphia, Pa.
Application May 25, 1955, Serial No. 510,881
2 Claims. (Cl. 222-323)



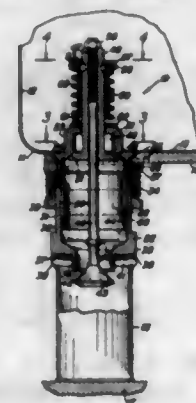
1. A manual holder for canisters containing fluids under pressure that have a closure top and also have a discharge orifice in said closure top controlled by a member that is normally yieldingly positioned, comprising a handle-grip, a plate fixedly secured to and forming a forward extension of said handle-grip, said closure top on

said canister forming with said canister an intervening annular groove said plate being provided with an elongated aperture of which one end portion is sufficiently large to pass the closure while its opposite end portion is adapted to at least one-half encircle the annular groove, and the intermediate portion of said aperture being sufficiently constricted to prevent the accidental escape of said closure from the smaller end of said aperture, and a lever having an intermediate portion pivotally secured to said handle-grip, while one of its ends extends in variably close proximity to said handle-grip to form a trigger, and the opposite end extends into operative relation with the orifice-controlling member of said canister, to release the contents when said trigger is shifted.

2,820,579

COMBINED VALVE AND MEASURING CHAMBER

William F. Roth, Rochester, N. Y., assignor to The Pfaudler Company, Rochester, N. Y., a corporation of New York
Application February 11, 1954, Serial No. 409,554
3 Claims. (Cl. 222-440)



1. A valve structure for use in connection with a receptacle for flowable material having an opening for the reception of the valve structure comprising, in combination, a valve body having a chamber therein, means for adjusting the volumetric capacity of said chamber to control the volume of material withdrawn from said chamber, said chamber body having an opening between the receptacle and the chamber adjacent the top of the chamber and an opening for the discharge of material from the chamber adjacent the bottom of the chamber, a valve for closing each of said openings, a valve stem upon which both of said valves are rigidly mounted in spaced relation for conjoint action, spring means for normally maintaining the discharge valve closed and the other valve open and means for closing said other valve prior to the opening of the discharge valve, the means for adjusting the volumetric capacity of said valve comprising means for varying the distance between said valves.

2,820,580

SAFETY BUCKET

Carroll C. Figge, Batavia, Ill.
Application May 9, 1956, Serial No. 583,785
17 Claims. (Cl. 222-509)

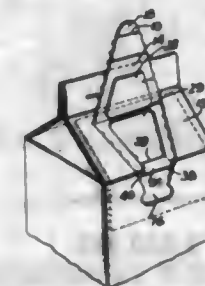


1. In a safety bucket, an inwardly extending anti-splash rim near the top of the bucket and a float fitting loosely at the edge and movable in the bucket upon the liquid therein, the float engaging at its upper side and substantially closing the interior of the bucket against the anti-splash rim.

2,820,581

CONTAINER AND BLANK WITH POURING MEANS

Francis E. Makuta, Hazleton, Pa., assignor to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan
Application November 18, 1952, Serial No. 321,217
2 Claims. (Cl. 222-528)

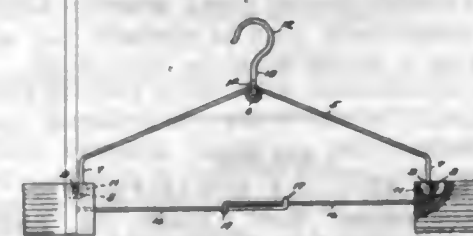


1. In a container of paperboard or the like having a top panel and an adjacent underlying side panel, the combination comprising a sanitarily protected ply having a pouring opening therein, said opening being situated in the top panel, an outer ply fixed to said sanitarily protected ply and having a lift tab initially overlying the pouring opening and the marginal areas of said sanitarily protected ply sealing the pouring opening, means defining a pouring lip integral with said sanitarily protected ply and situated adjacent the pouring opening and entirely within the perimeter of the top panel, said pouring lip having a dormant position coplanar with said sanitarily protected ply, severable ties yieldably retaining said pouring lip in said dormant position coplanar with said sanitarily protected ply, said pouring lip being manipulable by the user from said dormant position into a substantially reversely bent operative position overlying said sanitarily protected ply upon elevation of said lift tab, said pouring lip in said operative position having a free end overhanging beyond the plane of the side panel and projecting outside the perimeter of the top panel.

2,820,582

GARMENT HANGER

Frank E. Simmons, Bel Air, Md., assignor of forty percent to Leroy J. Hennessy and twenty-five percent to Eljay Corporation, Baltimore, Md.
Application February 8, 1955, Serial No. 486,843
1 Claim. (Cl. 223-88)



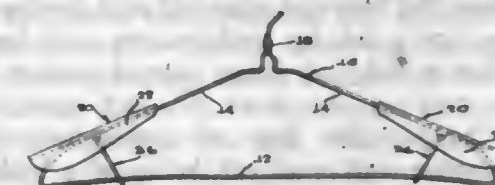
A trousers hanger comprising a supporting hook, a vertical shank extending from said hook, a pair of eyes at the lower end of said shank, pairs of downwardly divergent resilient arms, an eye at the angle formed between each pair of said downwardly divergent arms and engaging through one of said first named eyes, a vertical extension depending from the outer end of each arm, pairs of horizontally ribbed blocks each having a recess in the upper edge thereof, an eye carried by the lower end of each extension engaging in a recess, means extending across said recesses and through each of said latter named eyes for securing said blocks to said extensions, each of said blocks having the end of a horizontally extending rod secured thereto, the inner ends of said rods being in overlapping relation, and loops carried by the inner end of each rod loosely engaging the adjacent rod whereby said divergent arms may flex under weight of a garment.

726 O. G.—37

2,820,583

SHOULDER SHIELDS FOR CLOTHES HANGERS

Charles E. Mills, Nome, Territory of Alaska
Application January 6, 1956, Serial No. 557,706
2 Claims. (Cl. 223-88)

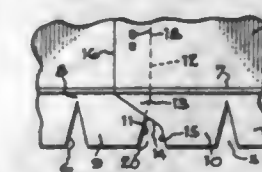


1. In a shoulder shield applicable to a declining shoulder bar of a clothes hanger having a straight lower bar, an elongated body having outer and inner ends and an underside, transversely spaced ears fixed on and depending from said underside, said body being arranged to be engaged on a shoulder bar with the shoulder bar between said ears, and a U-shaped loop having a narrow bight portion for frictionally embracing a lower bar and upwardly divergent legs having upper ends positioned at the laterally inward sides of said ears, and laterally outwardly extending pintles on the upper ends of said legs journaled through said ears.

2,820,584

PAPER-BOARD COLLAPSIBLE DRUM

Thomas A. Hendry, Mariemont, Ohio, assignor to The Excello Paper Products Company, Cincinnati, Ohio, a corporation of Ohio
Application March 13, 1957, Serial No. 645,744
12 Claims. (Cl. 229-5.5)

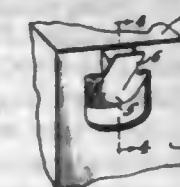


1. A tubular drum comprising a paper-board body bent into tubular form with its opposite side edges lapped and secured, forming a lapped joint lengthwise of said drum, a series of tabs, including terminal tabs on opposite side edges of said body, formed on one end of the body with intervening V-shaped notches, a score line formed along the end of the body and slightly spaced from the bottom of the notches, and an extension integral with one terminal tab and lying between said terminal tab and the score line having an inclined outside edge extending from the side end of the lapped body and merging with the adjacent edge of the tab at a substantial distance from its free end in order to preserve the symmetry of the free end of said tab with the other tabs and provide a notch between lapped terminal tabs which is of less depth than the other notches, said terminal tab and its extension providing a combined base width exceeding the base width of the opposite lapped terminal tab.

2,820,585

POURING OPENING FOR CONTAINERS

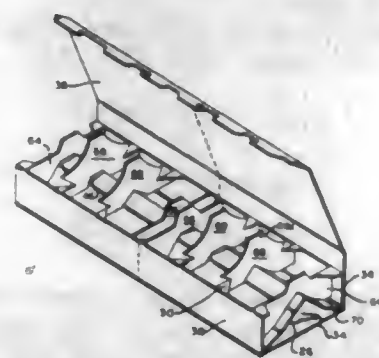
Robert W. Nerenberg and Alfred B. Kleingers, Jr., Middletown, Ohio, assignors to The Interstate Folding Box Company, Middletown, Ohio, a corporation of Ohio
Application July 1, 1954, Serial No. 440,716
4 Claims. (Cl. 229-17)



1. In a carton adapted to have a pouring opening formed therein, a single thickness body wall having a flap

formed therein and defined along three sides by a generally U-shaped line for severance, said flap being integrally connected to said body wall along its remaining side and foldable relative to said wall along a line extending between the free end edges of said U-shaped line for severance, and a tab for withdrawing said flap from within said carton, said tab being formed in part in said flap and in part in the wall of said carton lying immediately beyond the line of connection of said flap to said carton wall, said tab being of a width narrower than the width of said flap and defined on three sides by a generally U-shaped line of cut oppositely directed in relation to the line for severance defining said flap, with the base of said tab integrally connected to said flap along a line of connection centrally disposed within the said flap, whereby as said flap is deflected inwardly from the plane of said carton body wall, the portion of the tab lying beyond said flap will be automatically projected outwardly relative to said carton body wall so that the user may then grip the projecting end of the tab to withdraw the flap from within the carton.

2,820,586
CARTON FOR FRAGILE ARTICLES
Ray H. Fitz Gerald, Nashville, Tenn.
Application June 5, 1956, Serial No. 589,517
3 Claims. (Cl. 229-28)

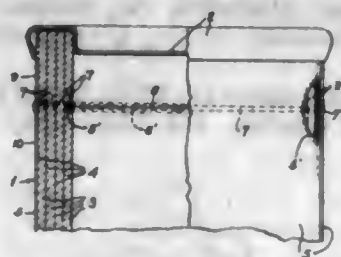


1. A collapsible egg carton formed from a single integral blank comprising adjacent panels delineated by parallel weakened lines and including successively a rear panel, a bottom panel, a front panel, a top panel and a lap panel secured to the inner face of the rear panel, said panels defining a carton having a rectangular cross section, said blank having a terminal cushion panel of inverted V-shape provided with a central hinge line at the apex of the V and provided with a free edge positioned in the front bottom corner of the carton, said top panel having transverse and longitudinal cut lines defining turnable partitions coacting with said V-shaped cushion to form cells, said carton being collapsible along a plane diagonal relative to said rectangular cross section of the carton, with said cushion panel lying flat in said plane.

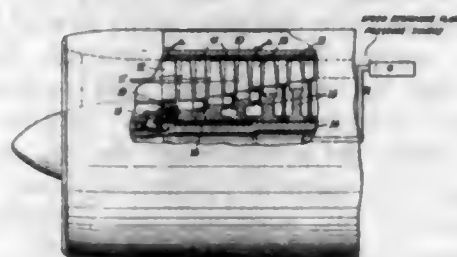
2,820,587
STRING-OPENING CONTAINER AND METHOD OF FABRICATING THE SAME
Maxwell B. Gold, Englewood, N. J., and Jack D. Roberts, Roslyn, N. Y., assignors to Harcord Manufacturing Company Incorporated, Jersey City, N. J., a corporation of New Jersey
Application January 13, 1956, Serial No. 558,919
6 Claims. (Cl. 229-51)

1. A container comprising a multi-ply wound container body having a severance line extending circumferentially thereof and dividing said body into sections in initially integral and separable relation along said line, the inner ply of said body being weakened along said severance line; a label covering the outer ply of said body along said line; and, a rip-cord running along said line between said label and the outer ply and between the remaining

plies from the outside to the inside of said body, for severing said label and plies so as to separate said sections along said line, said rip-cord being secured to said plies.



2,820,588
AXIAL FLOW COMPRESSORS
Alfred John Penn, Northwood, and Leslie Alan Nevard, Liverpool, England, assignors to D. Napier & Son Limited, London, England, a British company
Application December 11, 1953, Serial No. 397,728
Claims priority, application Great Britain December 15, 1952
5 Claims. (Cl. 230-114)

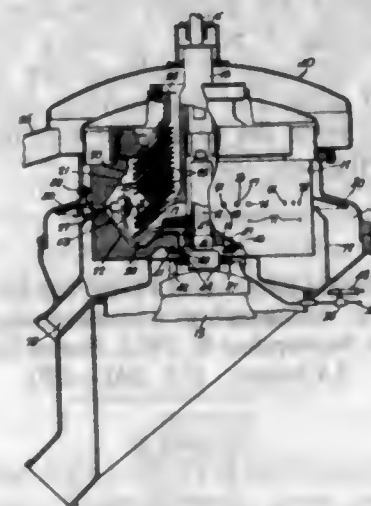


1. A multi-stage axial flow compressor for compressing a gaseous medium comprising a first rotor part, blades for the first compression part mounted on said first rotor part, a second rotor part, driving means for imparting rotation to said second rotor part, means supporting said first rotor part for rotation independently of said second rotor part and said driving means, blades for the later compression stages mounted on said second rotor part, passage means which convey all the gaseous medium passed through said first compression part to said later compression stages, disengageable coupling means between said second rotor part and said first rotor part which, when engaged, couple the said rotor parts for rotation together at the same speed, and speed responsive means for engaging said coupling means when said later stage attains a predetermined speed whereby windmilling of said first compression part is stopped and said first compression part is driven with the later stages.

2,820,589
CENTRIFUGAL SEPARATOR
Harold C. Fitzsimmons, West Chester, Pa., assignor to The Sharples Corporation, Philadelphia, Pa., a corporation of Delaware
Continuation of abandoned application Serial No. 315,725, October 20, 1952. This application March 23, 1956, Serial No. 573,385
6 Claims. (Cl. 233-20)

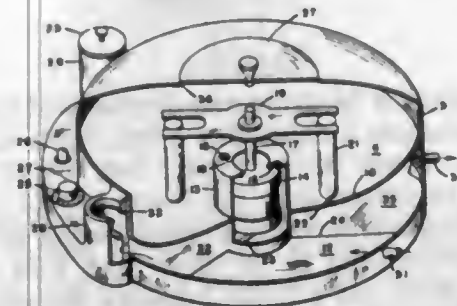
1. In a centrifuge having a rotor for effecting centrifugal sedimentation of solids from a mixture thereof with liquid, means defining a radial discharge passage through the wall of the rotor, a valve seat within said rotor at the inner end of said passage, a valve element of small mass movable coaxially of the valve seat and normally urged into closing engagement with said valve seat by centrifugal force acting thereon, a piston comparatively greater mass movable coaxially of the discharge passage to and from an outer limit position to which it normally is urged by centrifugal force acting thereon, means connecting the valve element to said piston providing axial movement of said valve element relative to the piston between predetermined fixed inner and outer limits, said valve element

when engaged upon said valve seat being spaced outwardly from the inner limit of its movement relative to the piston so that seating engagement of the valve element upon the



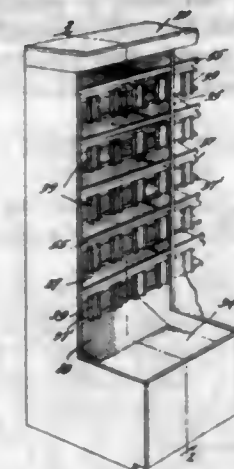
valve seat is effected independently of the piston by the centrifugal force acting solely on the small mass of said element.

2,820,590
CENTRIFUGE
Arthur L. Walker, Tulsa, Okla.
Application February 13, 1956, Serial No. 565,143
9 Claims. (Cl. 233-26)



9. A combination centrifuge and preheater comprising a housing, means to rotate a sample in the upper part of said housing, means in the bottom of said housing forming a reservoir for hot fluid, means to circulate said hot fluid in said reservoir, and a sample preheater in fluid communication with said reservoir.

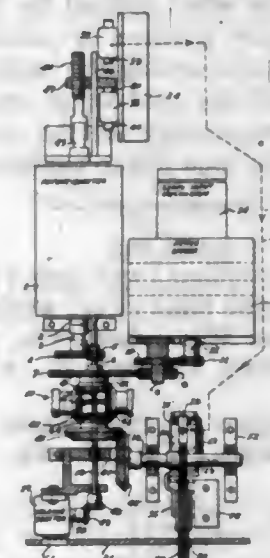
2,820,591
REGISTERING KEY FOR MECHANICAL STORES
Clarence Saunders, deceased, late of Memphis, Tenn., by Patricia Houston Saunders, administratrix, Memphis, Tenn., assignor to Patricia Houston Saunders
Application August 30, 1954, Serial No. 452,746
2 Claims. (Cl. 235-1)



1. A store for automatic dispensing of articles and registering the total cost of the articles, said store com-

prising guide channels mounted adjacent a dispenser for a supply of articles, said guide channels having actuating racks fixed therein for cooperation with a register key arranged to pass in one direction only through said guide channels, said register key including a housing having outwardly extended shoes for sliding in the guide channel, cooperating detent means on said guide channel and said key to limit movement of said key in one direction only therethrough, said register key means including indicator dials, gear teeth operatively connected to said dials and adapted to be exposed toward said channel guide member for engagement with said racks in said channel whereby movement of said key in said one direction will cause said dials to move in accordance with the arrangement of said racks, and article dispensing means controlled by said key in passing through said guide channel for dispensing a single article to a position accessible to the holder of the key.

2,820,592
DISTANCE MEASURING SYSTEM
Thomas J. McLaughlin, New Milford, N. J., assignor to Loral Electronics Corporation, a corporation of New York
Application August 19, 1953, Serial No. 375,287
6 Claims. (Cl. 235-92)



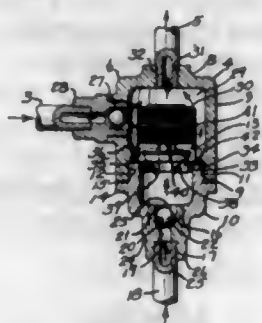
1. In a distance measuring system having a motor driven potentiometer, and an indicating element driven by said potentiometer, the improvement comprising: a differential having first and second motion input gears, and a pair of motion output gears driving said indicating element; means for manually adjusting said indicating element; said motor driven potentiometer being engaged with said first motion input gear; said manual adjusting means being engaged with said second motion input gear, said manual adjusting means including pawl means for locking said second motion input gear.

2,820,593
DEVICE FOR PREVENTING CONDENSATION OF MOISTURE ON THE EXTERIOR OF FLUSH TANKS

Royal Glen Goodbar, Coffeyville, Kans.
Application November 3, 1954, Serial No. 466,631
2 Claims. (Cl. 236-12)

1. A device for tempering water admitted to the flush tank of a toilet to prevent condensation of moisture on the exterior of the flush tank, said device including a casing having a main part comprising a surrounding wall and a closed end forming a chamber opening inwardly from the end opposite said closed end and having an internal annular shoulder within said open end, said closed end being provided with an outlet for tempered water, a valve seat ring seated on said internal shoulder, a bel-

lows support extending into the chamber and carried by said valve seat ring, a temperature responsive bellows in said chamber and having one end attached to said support and the opposite end movable to and from the valve seat ring, said bellows cooperating with the surrounding wall to provide an annular passageway about the bellows, said wall having a lateral cold water inlet at a side of the bellows for flow of cold water into direct encircling contact with the bellows, a valve carried by the movable end of the bellows to engage said seat ring



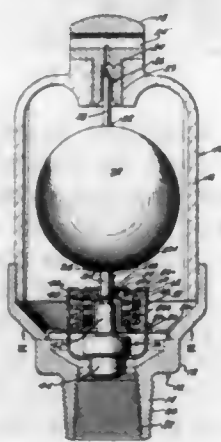
under one temperature condition of the cold water and to be unseated upon contraction of the bellows under a lower temperature condition of the cold water, and a closure part fixed to the open end of the main part of the casing to retain the valve seat ring and having a hot water inlet, said valve when opened by the bellows providing an annular flow passage in connection with the annular passageway surrounding the bellows to admit hot water for mixing with the cold water encircling the bellows to raise the temperature of the cold water when the cold water is under said lower temperature condition.

2,820,594

THERMALLY CONTROLLED AIR VENT VALVE FOR STEAM HEATING SYSTEM

Thomas M. S. Gibson, Milwaukee, Wis., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application November 10, 1955, Serial No. 546,138
3 Claims. (Cl. 236—62)



1. In an air vent valve for steam radiators and the like, a generally vertically extending body having a float chamber therein, an inlet into said body from the bottom thereof for attachment to a steam radiator, an axially extending outlet leading through the top of said chamber in axial alignment with said inlet, a spider mounted in said chamber adjacent the bottom thereof and having an axially extending guide in axial alignment with said inlet and said outlet, a float within said chamber between said spider and said outlet and having a guide rod depending therefrom and slidably guided in said guide and having a plunger extending upwardly therefrom in axial alignment with said guide rod and having a valve on the end thereof engageable with said outlet passageway to block the passage of steam there-through, said float engaging said valve with said outlet passageway upon the accumulation of water within said

chamber, and means for closing said valve independently of said float to block the passage of steam through said outlet comprising a thermal element yieldably carried in said spider for relative movement with respect thereto and having a power member extensible upon predetermined increases in temperature in axial alignment with said guide rod for moving said guide rod to close said valve upon the heating of said thermal element by steam entering said inlet.

2,820,595

BOTTLE BREAKER AND DISPOSAL SYSTEM

Hector J. Schumacher, Minneapolis, Minn.
Application September 8, 1954, Serial No. 454,765
3 Claims. (Cl. 241—99)



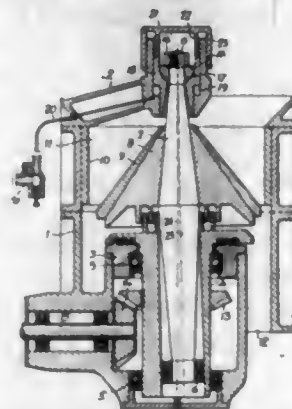
1. Apparatus for breaking and disposing of bottles having in combination a depending bottle chute having bottle-receiving means at its upper end, bottle breaking mechanism connected with the lower end of said chute and comprising a removable housing having substantially closed communication at its upper end with the lower end of said chute and a bottle breaking element supported within said housing, substantially coaxially of the lower end of said chute, said housing completely surrounding said bottle breaking element and having means at the lower edge thereof for support upon and intercommunication with the upper end of a collection receptacle said chute having an unrestricted lower end disposed a substantial distance above said bottle-breaking element and said bottle-breaking element being of convex semi-spherical shape and of greater diameter than said chute.

2,820,596

GYRATORY CRUSHERS

John Samuel Broman, Smedjebacken, Sweden, assignor to Morgardshammars Mek. Verkstads Aktiebolag, Morgardshammar, Sweden, a corporation of Sweden

Application April 27, 1953, Serial No. 351,306
Claims priority, application Sweden July 1, 1952
5 Claims. (Cl. 241—211)



5. In a gyratory crusher having an upright crusher shaft carrying a crusher head adapted to cooperate with

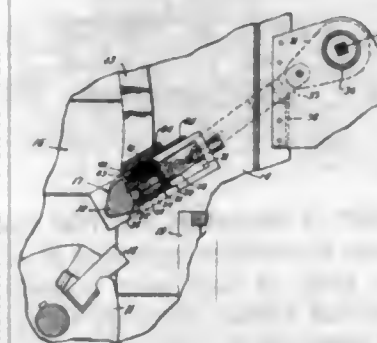
a shell surrounding the head for crushing material introduced into the shell and bearing means mounted below the head and guiding the crusher shaft for movement about a center of gyration located at the upper end of the crusher shaft, means providing a yielding suspension for the crusher shaft, said means comprising a bearing member attached to the crusher shaft, an axially movable plunger, said bearing member and plunger having interengaging spherical bearing surfaces defining the center of gyration, a cylinder receiving said plunger, an adjustable stop member above and limiting upward movement of said plunger and hence also of said crusher shaft, and yieldable means actuating said plunger upward so that the latter bears against stop member with a predetermined initial force.

2,820,597

HAMMER MILLS WITH RESILIENT SEAL

Albert B. Hanse, Cedar Rapids, Iowa, assignor to Pettibone Mulliken Corporation, Chicago, Ill., a corporation of Delaware

Application January 4, 1954, Serial No. 401,860
3 Claims. (Cl. 241—239)



1. A hammer mill including a hammer rotor having hammers thereon for smashing material dropped into the path of the hammers, a stationary receiving member for intercepting the flight of fragments from the hammer, a bar located between the receiving member and the hammer circle, means for yieldably mounting the bar to maintain it in position during normal operation of the hammer mill but permitting it to shift away from the hammer circle if an unbreakable object should be caught between the bar and a rotating hammer, and a seal of soft resilient material compressed between the receiving member and the bar carried by one of them and sliding on the other, to prevent the binding of the bar by the packing of minute fragments of crushed material between the receiving member and the bar; and member by which the resilient seal is carried including confining means extending approximately to the other member for confining the resilient seal and for shielding it from the crushed material, said confining means being spaced with clearance from the other member to avoid sliding engagement therewith.

2,820,598

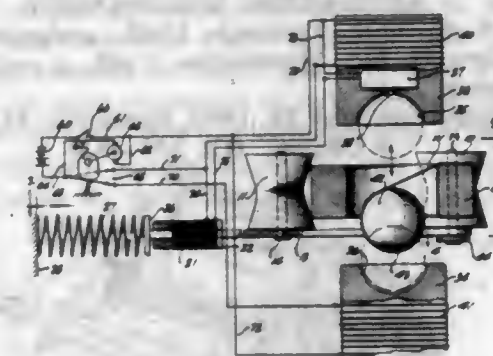
MAGNETIC TOROIDAL CORE WINDING MACHINE

Anthony Aveni, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application June 1, 1956, Serial No. 588,712
7 Claims. (Cl. 242—4)

1. A toroidal coil winding apparatus comprising, in combination: support means for a toroidal core; a wire carrying bobbin of permeable material; dual electromagnetic means positioned in spaced relationship with each other and on a common axis; electromagnetic means connected with said support means for laterally displacing said support means and said core relative to said axis of said dual electromagnetic means; and sequential con-

trol means for controlling operation of said electromagnetic means whereby to move said bobbin alternately



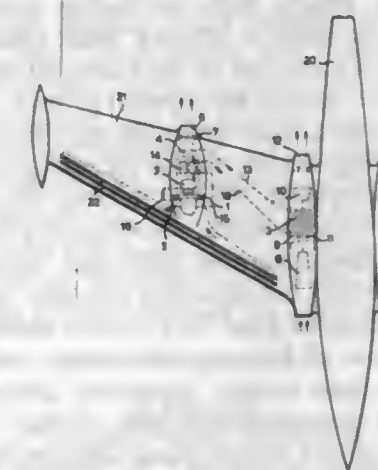
through a central aperture of said core and past an outer periphery thereof and wind said wire about said core.

2,820,599

DUAL UNIT JET PROPULSION PLANT FOR AIRCRAFT

Jakob Ackert and Curt Keller, Kunsnacht, Switzerland, assignors to Aktiengesellschaft fuer Technische Studien, Zurich, Switzerland, a corporation of Switzerland

Application February 3, 1955, Serial No. 485,965
7 Claims. (Cl. 244—15)

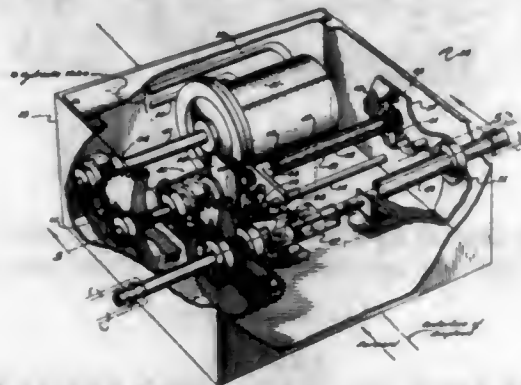


1. In an aircraft the combination of a turbo-jet power unit comprising compressing means; a combustion chamber to which compressed air is supplied by said compressing means; turbine means in driving relation with said compressing means; means for causing combustion in said combustion chamber; means for supplying hot compressed gas from said combustion chamber to said turbine means; and duct means in communication with the outlet of said turbine means, directing the exhaust of said turbine means as a propulsion jet; and a further jet propulsion unit comprising a turbine and a compressor whereby a gaseous working medium which circulates in a closed cycle is expanded in said turbine while doing work and re-compressed in said compressor; a jet-producing compressor in which ambient air is compressed, said jet-producing compressor and said compressor of the closed cycle being connected to be driven by said turbine of the closed cycle; duct means, in communication with the outlet of said jet-producing compressor, and directing the compressed air as a propulsion jet; a flow connection, including a cooler, leading the expanded working medium from the outlet of said turbine to the intake of said compressor of the closed cycle; a heating system arranged in the flow path of said hot compressed gas which is supplied to the turbine means of said turbo-jet power unit, in which heating system the re-compressed working medium is heated by heat given up by said hot compressed gas; and supply and discharge connections leading the re-compressed working medium from the outlet of the compressor of the closed cycle to said heating system and leading the heated re-compressed working medium from said heating system to said turbine of the closed cycle.

2,820,600

AIRCRAFT CONTROL SURFACE ASSEMBLY AND ACTUATING MECHANISM

Maxine S. Brunner, Torrance, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

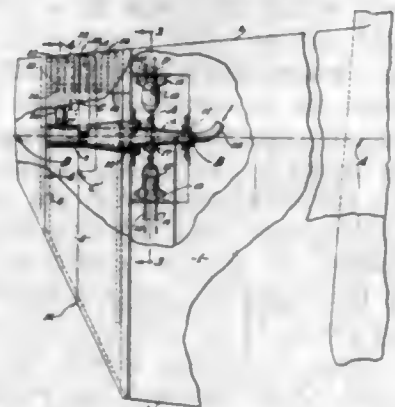
Application May 24, 1954, Serial No. 431,778
4 Claims. (Cl. 244—83)

1. In an aircraft having at least one control surface mounted thereon for pivotal movement between neutral and non-neutral positions, apparatus for actuating said control surface, comprising: a tubular member connected to said control surface so that rotary movement of said tubular member imparts pivotal movement to said control surface; a rotary type reversible hydraulic motor having an output shaft; a driving shaft spaced from said output shaft and mounted in said aircraft and being connected to impart rotary movement to said tubular member; a tubular type torque assembly mounted between said output and driving shafts; means on said output and driving shafts and torque absorbing member for imparting rotary movement therebetween; a source of pressurized fluid continuously communicating with said motor and being capable of imparting bidirectional rotation thereto according to the direction of fluid flow to said motor; means for reversing the flow of fluid to said motor; and stop means associated with said torque absorbing assembly adapted to arrest rotary movement of said driving shaft and relieve the latter of any torque loads originating in said motor after the driving shaft has rotated through a predetermined number of revolutions necessary to move said control surface between said neutral and non-neutral positions.

2,820,601

MOVABLE WING TIP

James E. Crawford, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application March 9, 1953, Serial No. 341,217
7 Claims. (Cl. 244—90)

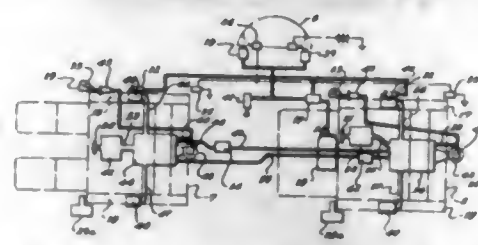
1. In an airplane adapted to fly at subsonic and supersonic speeds, the combination comprising: a wing assembly including a wing having inboard and outboard ends and in which the inboard end is fixedly attached to said airplane; said wing having an elastic axis about which said wing torsionally deflects at such times as varying aerodynamic forces act on said wing; said wing assembly in-

cluding a wing tip mounted on said wing at the outboard end thereof to provide a spanwise extension thereof; a shaft member fixedly secured to said wing tip and pivotally mounted in said wing; means mounted in said wing adapted to impart and arrest pivotal movement of said wing tip; the axis of said shaft member extending generally in the spanwise direction of said wing and coinciding at least at one point with said elastic axis within the confines of said wing; said wing tip being shaped in planiform to provide spaced predetermined centers of pressure located equal distances fore and aft of the axis of said shaft member at such times as said airplane is traveling at subsonic and supersonic speeds, respectively.

2,820,602

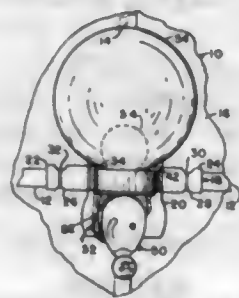
AUTOMATIC JETTISONING SYSTEM FOR AIRCRAFT SEATS

Edward V. Foster, Manhattan Beach, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application August 29, 1955, Serial No. 531,055
5 Claims. (Cl. 244—122)

1. In an aircraft, a personnel survival system comprising: a pair of seat assemblies mounted in said aircraft in spaced relation; each of said seat assemblies including a personnel seat and a fluid actuated catapult; container means defining a chamber for receiving a pressurized fluid; a pair of initial gas generating means located respectively adjacent each of said seat assemblies; and conduit means providing fluid communication between said initial generating means, said chamber, and said catapults whereby said catapults are actuated and function to eject said personnel seats from said aircraft at such time as said initial generating means are actuated.

2,820,603

KITE ACCESSORYGeorge T. Lee, Parrott, Ga.
Application June 10, 1953, Serial No. 360,693
9 Claims. (Cl. 244—155)

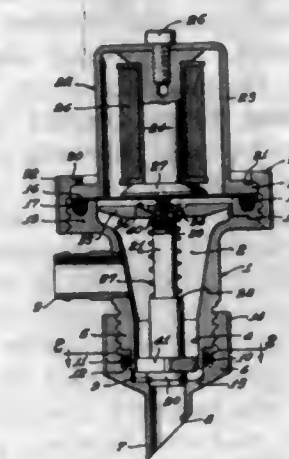
1. In a toy of the class described adapted for attachment on a kite or the like, a heavier-than-air object adapted to be positioned on a kite or the like to rise aloft therewith, parachute means associated with said object and being adapted to be nested with said object on the kite, retaining means adapted to be mounted on said kite, an enlarged contractile body attached to said object in a pre-selected degree of expansion and in selected enlarged condition being expandable to any one of a plurality of sizes and adapted to engage a portion of said retaining means thereby retaining said object on said kite, said sizes of said body being freely pre-selective to pre-determined the anticipated time delay before said body reaches the shrunken condition of release,

said enlarged body being adapted to shrink at a pre-selected rate during a passage of flight time depending upon the degree of original expansion and in shrunken condition becoming disengaged from said bracket, thereby permitting said object to drop free of the kite and to fall under the influence of gravity and said parachute.

2,820,604

VALVE WITH ADJUSTABLE OPENINGWilliam A. Ray, North Hollywood, Calif., assignor to General Controls Co., a corporation of California
Original application February 14, 1949, Serial No. 76,388, now Patent No. 2,697,581, dated December 21, 1954. Divided and this application April 12, 1954, Serial No. 422,507

1 Claim. (Cl. 251—129)



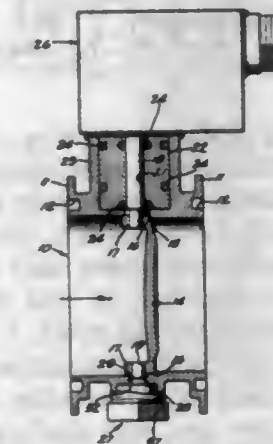
In a valve structure: a valve body having coaxial openings at opposite ends; said body having a cylindrical surface adjoining each of the body openings; a diaphragm covering one of the openings; a spout member having a discharge passage; means adjustably mounting the spout member on the body for movement substantially axially of the other body opening; the discharge passage registering with said other body opening; means forming a valve seat about the discharge passage, the valve seat being substantially aligned with said other body opening; a closure in the body engageable with the seat; an armature carried by the closure at that end thereof remote from said seat and engageable with the diaphragm; engagement of said armature with said diaphragm determining a limited position of the closure in the body; the length between the engaging surface of the armature and the engaging portion of the closure being fixed; resilient means interposed between the diaphragm and the closure for normally moving the closure into engagement with the seat and for normally moving the armature away from said diaphragm; said closure having a non-circular flange adjacent its seat engaging portion in guiding relationship with the cylindrical surface adjoining said other body opening and the periphery of said armature being in guiding relationship with the surface adjoining said one body opening for confining movement of said closure and said armature for movement in a direction normal to said diaphragm and normal to said seat; and an electromagnet mounted exteriorly of the body at the diaphragm for moving said closure.

2,820,605

ADJUSTABLE BUTTERFLY VALVE WITH SEQUENTIAL ROTATING AND TILTING MOVEMENTSRichard H. Dougherty, Tarzana, Calif.
Application June 30, 1955, Serial No. 519,161
11 Claims. (Cl. 251—163)

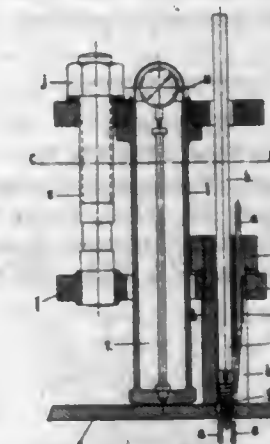
1. A butterfly valve, which comprises a valve casing having a fluid passage therein, a valve seat provided in said casing and encompassing said passage, a movable

valve element disposed in said passage and adapted to sealingly engage said valve seat, actuating means mounted at one side of said passage and connected to one edge portion of said movable valve element, said actuating means being adapted to rotate said movable valve element about an axis transverse to said passage and being also adapted to shift said one edge portion of said movable valve element longitudinally of said passage, pivot means mounted at the other side of said passage and



connected to the opposite edge portion of said movable valve element, said pivot means being adapted to permit both rotation of said movable valve element about said transverse axis and to also permit shifting of said opposite edge portion longitudinally of said passage as said one edge portion is shifted by said actuating means, and means to adjust the position of said pivot means relative to said valve seat to vary the position of said opposite edge portion of said valve element relative to said valve seat and the seating of said element on said seat.

2,820,606

TENSIONING SYSTEMRicardo Barredo de Valenzuela, Madrid, Spain
Application October 14, 1953, Serial No. 386,088
Claims priority, application Spain October 15, 1952
8 Claims. (Cl. 254—29)

1. A tensioning system for a two-stage tensioning of reinforcements of concrete structures comprising an anchor plate, three openings in said plate for the passage of three groups of reinforcing wires, said openings forming the vertices of an equilateral triangle, a wedge in each of said openings anchoring simultaneously all the wires of the respective group, individual wedges anchoring temporarily each of said wires for preliminary tensioning, means for imparting to each of said wires a preliminary tension, guides cooperating with said individual wedges during said preliminary tensioning, and final tensioning means supported in the axis of said equilateral triangle.

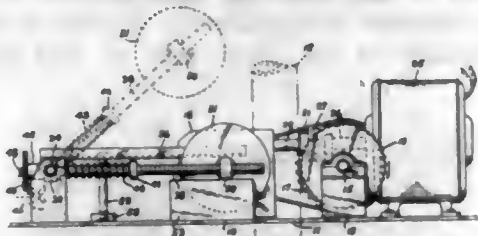
2,820,607

PIPE PULLING DEVICE

Cyril F. Dawes, Joplin, Mo.

Substituted for abandoned application Serial No. 294,101,
June 17, 1952. This application August 24, 1956,
Serial No. 605,991

3 Claims. (Cl. 254—30)



1. A pipe handling device comprising a flat base having a pipe receiving notch in one edge thereof, a shaft disposed above and extending transversely of said base adjacent one side of said notch, bearing blocks mounted on said base and rotatably supporting said shaft, a peripherally toothed wheel mounted on said shaft in position to engage a pipe received in said notch, a motor mounted on said base, means drivingly connecting said motor to said shaft and providing an irreversible driving connection between said motor and said shaft, a pair of spaced apart lugs mounted on said base at a location spaced from the side of said notch remote from said toothed wheel, a bar extending between and pivotally mounted at its ends in said lugs and having spaced apart apertures therein, screw shafts extending slidably one through each of said apertures and extending from said bar toward said notch in parallel relationship to each other, an axle having spaced apart and screw threaded apertures therein respectively receiving said screw shafts at a location spaced from said bar, a spool journaled on said axle between said screw shafts and having an annular groove therein, spring abutment means on said screw shafts intermediate the length thereof, spring means interposed between said bar and said spring abutment means resiliently urging said spool toward said toothed wheel, means interconnecting said screw shafts for simultaneous and coextensive rotation, abutment means mounted on said base adjacent said notch and receiving said axle to support said spool in engagement with a pipe disposed between said spool and said toothed wheel, and means releasably connected between said spool and said base holding said spool in operative position opposed to said toothed wheel.

2,820,608

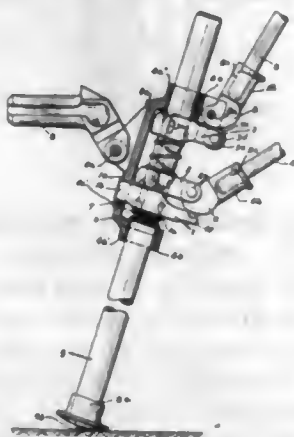
LIFTING DEVICE

Ferdinand Braselmann, Ennepetal-Oberhauer, Germany

Application January 23, 1956, Serial No. 560,638

Claims priority, application Germany September 26, 1952

8 Claims. (Cl. 254—107)



1. A jack comprising, in combination, an elongated shaft; a work member mounted on said shaft for sliding movement relative thereto in opposite directions; a first clamping member on said shaft and movable rela-

tive thereto between an unclamping position wherein said first clamping member is freely slidable relative to said shaft and a clamping position wherein said first clamping member wedgingly engages said shaft in such a manner that sliding movement of said first clamping member in one direction is prevented, said first clamping member cooperating with said work member in such a manner that when a force in said one direction is exerted on said work member, the same engages said first clamping member and tends to move the same in said one direction but also moves the same into and tends to maintain the same in its clamping position; a second clamping member on said shaft and movable relative thereto between an unclamping position wherein said second clamping member is freely slidable relative to said shaft and a clamping position wherein said second clamping member wedgingly engages said shaft in such a manner that sliding movement of said second clamping member in the opposite direction is prevented, said second clamping member having a tendency normally to occupy its unclamping position; first moving means adapted to be interposed between said first and second clamping members for first moving said second clamping member into its clamping position and for thereafter moving said first clamping member into its unclamping position against the effect of a force acting on said work member in said one direction and consequently acting on said first clamping member to move the same into and to maintain the same in its clamping position, thereby permitting the force to move said work member and said first clamping member relative to said shaft in said one direction a distance which is just short of sufficient to move said first clamping member out of engagement with said first moving means whereupon said first clamping member is again moved into and maintained in its clamping position by the force acting on said work member in said one direction, thereby preventing further movement of said work member relative to said shaft in said one direction; a third clamping member on said shaft and movable relative thereto between an unclamping position wherein said third clamping member is freely slidable relative to said shaft and a clamping position wherein said third clamping member wedgingly engages said shaft in such a manner that sliding movement of said third clamping member in said one direction is prevented, said third clamping member having a tendency normally to occupy its unclamping position; and second moving means adapted to be interposed between said third clamping member and said work member for first moving said third clamping member into its clamping position and for thereafter moving said work member relative to said shaft in said opposite direction against the effect of a force acting on said work member in said one direction.

2,820,609

WINCH STRUCTURE

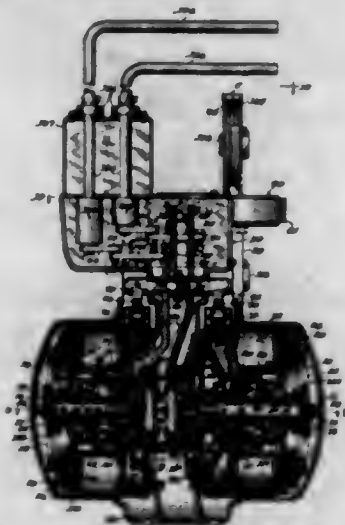
George E. Bock, Munster, and James H. Graas, Griffith, Ind., assignors to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application November 20, 1953, Serial No. 393,298

26 Claims. (Cl. 254—185)

1. A winch construction comprising a casing including a cover, a shaft mounted horizontally in cantilever fashion in the casing unsupported adjacent one end, a cable drum rotatable on the shaft with one side thereof inwardly of said unsupported shaft end having at said one side a cylindrical portion not substantially less in diameter than the drum providing a braking surface and at the other side a clutch mounting of a diameter not substantially greater than that of the cylindrical portion, brake means normally engageable with the cylindrical portion to prevent rotation of the drum in a direction opposite to that of the shaft while allowing rotation of the drum with the shaft, clutch means at said unsupported end of the shaft and said

other side of the drum for drivingly connecting the shaft and drum, said cover being disposed adjacent the unsupported shaft end and removable to expose the clutch means and drum for servicing of the clutch means and removal and replacement of the brake means axially past the drum and clutch means, operating means movable to effect engagement and disengagement of the clutch means, release means operable to disengage the brake means, and means for effecting selective operation of said clutch operating means and brake release means to engage the clutch means during engagement of the brake means and to disengage the brake means during disengagement of the clutch means.



2. A winch construction comprising a casing including covers at opposite ends thereof, a shaft mounted horizontally in cantilever fashion in the casing with its ends adjacent said covers and supported adjacent its central portion but unsupported adjacent its ends, a pair of cable drums rotatably mounted on the opposite shaft portions axially outward of its center each with an inner side thereof adjacent said central shaft portion and an outer side adjacent an end of the shaft and having at said inner side a cylindrical portion not substantially less in diameter than the drum providing a braking surface and at said outer side a clutch mounting of a diameter not substantially greater than that of the cylindrical portion, brake means for each drum each normally engageable with the cylindrical portion of one of the drums to prevent drum rotation in a direction opposite to that of the shaft while allowing rotation of the drum with the shaft, clutch means at the ends of the shaft and said outer side of each drum for selectively connecting the shaft in driving relation with each drum, each cover being removable to expose the clutch means of one of the drums for servicing of the clutch means and removal and replacement of the brake means of said one drum axially past the drum and clutch means, operating means selectively movable to effect engagement and disengagement of the clutch means of each drum, release means selectively operable to disengage the brake means of each drum, and means for effecting selective operation of the clutch operating means and brake release means of each drum to engage the clutch means during engagement of the brake means and to disengage the brake means during disengagement of the clutch means.

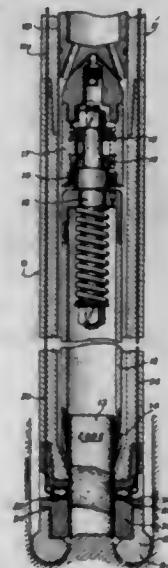
2,820,610

MULTIPLE MAGNETIZING DEVICE FOR WELL CORES

Joseph D. Martinez, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application August 3, 1955, Serial No. 526,219
8 Claims. (Cl. 255-1.4)

5. An apparatus for obtaining a magnetized core from a borehole comprising a drill string having a drill bit positioned on the lower end thereof, means in said drill

string for receiving said core, means in said drill string positioned above said drill bit for magnetizing said core, means in said drill string for energizing and de-energizing said magnetizing means, said core being movable past said magnetizing means whereby said core may be magne-

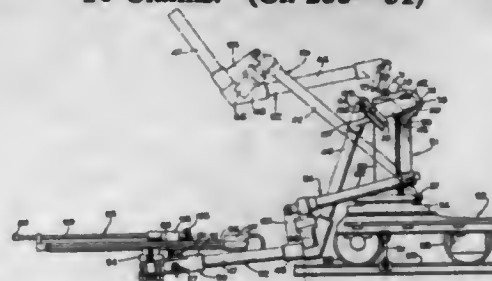


tized at selected portions of said core, and surveying means in said drill string for recording the azimuthal direction of said magnetizing means each time said core is magnetized whereby the azimuthal direction of each of the magnetizations may be ascertained.

2,820,611

DRILLING APPARATUS

George H. Fuehrer, Downey, Calif., assignor to Thor Power Tool Company, a corporation of Delaware
Application March 30, 1953, Serial No. 345,340
16 Claims. (Cl. 255-51)



1. In a rock drilling apparatus for use in mining and tunneling operations, a movable support, a pedestal having a hollow base immovably anchored on said support, said pedestal base having a relatively large upper surface, a column mounted on said pedestal for longitudinal and rotational movement relative thereto, said column having a base flange the lower surface of which is adapted to lock with said upper pedestal base surface, a drill supporting boom mounted at the upper end of said column and rotatable therewith to position laterally a rock drill relative to the tunnel face to be drilled, fluid operated means disposed in said pedestal base and operably connected to said column to effect downward movement thereof, and means to admit fluid pressure into said pedestal base to shift said fluid operated means, column and boom downwardly until said pedestal base surface and said lower surface of the base flange of the column are in locking engagement preventing rotation of said column and boom.

2,820,612

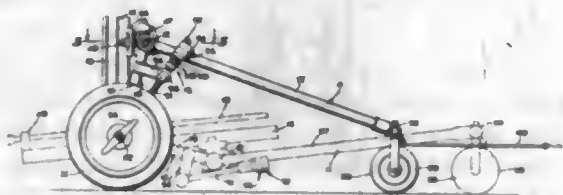
WAGON DRILL

George H. Fuehrer, Downey, Calif., assignor to Thor Power Tool Company, Aurora, Ill., a corporation of Delaware

Application January 11, 1954, Serial No. 403,339
3 Claims. (Cl. 255-51)

1. A wagon drill apparatus, comprising a front frame having a horizontal cross bar and a pair of wheeled

struts, a tail frame comprising a pair of angularly related components connected at their apex to a tail wheel, means to pivotally connect the ends of said tail frame components remote from said tail wheel to opposite end portions of said cross bar, a mast adjustably mounted on said cross bar and adapted to support a pneumatic rock drill, an internally threaded member pivotally mounted on one of said struts, a bearing pivotally mounted on the corresponding one of said tail frame components, a shaft journaled in said bearing and threaded through said internally threaded member, means to prevent longitudinal movement of said shaft relative to said bearing, a first pawl mounted on said shaft on the opposite side of said bearing from said internally threaded member, a first internally toothed ratchet ring mounted on said shaft outwardly of said first pawl, said first pawl and first ratchet ring being so constructed and



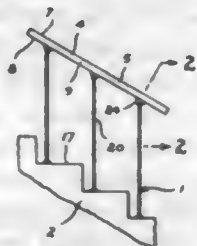
arranged that turning of said first ratchet ring in a first direction will cause said first pawl and first ratchet ring to lock with each other and effect turning of said shaft in said first direction, and turning of said first ratchet ring in a second and reverse direction will cause said first pawl and first ratchet ring to shift relative to each other, a second pawl mounted on said shaft adjacent said first pawl, and a second internally toothed ratchet ring mounted on said shaft outwardly of said second pawl, said second pawl and second ratchet ring being so constructed and arranged that turning of said second ratchet ring in said second direction will cause said second pawl and second ratchet ring to lock with each other and effect turning of said shaft in said second direction, and turning of said second ratchet ring in said first direction will cause said second pawl and second ratchet ring to shift relative to each other.

2,820,613

BALUSTRADES

Frederick A. Schilling, Vancouver, British Columbia, Canada

Application July 2, 1956, Serial No. 595,356
2 Claims. (Cl. 256—21)



1. A balustrade comprising a tubular handrail having a bottom wall, said bottom wall having a central slot defined by inwardly projecting flanges, said flanges having rebates formed at their lower edges, spaced balusters for supporting said handrail, a connector secured to the upper end of each baluster and adapted to be partly seated in said rebates, a cap bridging the upper edges of said flanges above each connector, and means extending between each connector and a cap for clamping the flanges between the cap and the connector, each connector being provided with a depending lug, said lug having a vertical slot, each of said balusters being secured to a connector by nut and bolt means extending through the said slots.

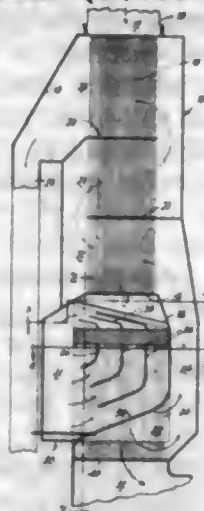
2,820,614

FLUID HEATER UNIT

Ralph Martin Hardgrove, North Canton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application October 20, 1954, Serial No. 463,388

6 Claims. (Cl. 257—224)



1. A heat exchanger comprising means forming first fluid inlet and outlet chambers, a plurality of heat transfer tubes connecting said chambers for fluid flow there-through, a casing enclosing said tubes to provide a second fluid passageway external of said tubes, and baffle means arranged within said passageway for directing the second fluid predominantly in a parallel-longitudinal concurrent flow heat transfer relationship with the fluid in a portion of said tubes and thence in counter and cross flow heat transfer relationship with the fluid in the remaining portion of said tubes.

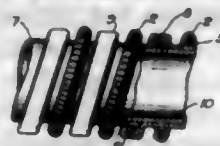
2,820,615

HEAT EXCHANGER

Melville F. Peters, Livingston, N. J.

Application January 18, 1955, Serial No. 482,472

2 Claims. (Cl. 257—241)



1. A heat exchanger assembly comprising a pipe, a flat, elongate strip of metallic material of a thickness to impart inherent flexibility thereto helically wrapped about said pipe, an elongate conduit element extending longitudinally and coextensively with said strip and rigidly fixed in intimate contact to the outer surface thereof, said conduit being corrugated in a direction extending generally transversely of said strip so as to be longitudinally expanded and to be flexed in the same direction as is the strip when the strip and conduit are wrapped as a unit about said pipe in conformity with the outer surface thereof and with the undersurface of the strip in substantially full face-to-face contact with said pipe.

2,820,616

PRESSURIZED ELECTRONIC CASE

Emerson E. Nabal, Lawrence, and William J. Steinmetz, Indianapolis, Ind., assignors to the United States of America as represented by the Secretary of the Navy

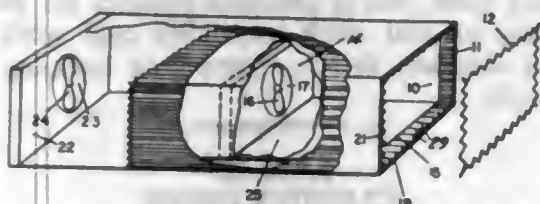
Application September 3, 1952, Serial No. 307,726

1 Claim. (Cl. 257—250)

(Granted under Title 35, U. S. Code (1952), sec. 266)

A pressurized case for supporting electrical components comprising; a first open ended rectangular inner shell; a partition dividing said inner shell into two compartments, said partition having an aperture therein; a rectangular intermediate shell of corrugated metal having tops and bottoms, said intermediate shell being greater in length and surrounding said inner shell with the bot-

toms of said intermediate shell being in good heat-conducting contact with said inner shell and forming longitudinal ducts between said inner and intermediate shells; hermetic closure means for the ends of said intermediate shell; a rectangular outer shell greater in length and extending beyond one end of said intermediate shell and surrounding said intermediate shell and forming longitudinal ducts between said outer shell and intermediate



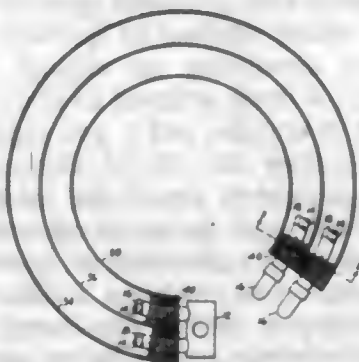
shell; an end member having an aperture therein for enclosing the end of said outer shell extending beyond said intermediate shell; a fluid enclosed within said inner and intermediate shells; means mounted within said inner shell for circulating said fluid through said inner shell and said ducts formed by said inner and intermediate shells; and circulating means mounted in said aperture of said end member for circulating air in said ducts formed by said intermediate and outer shells.

2,820,617

HEAT EXCHANGER

Albert O. Tadewald, La Crosse, Wis., assignor to The Trane Company, La Crosse, Wis., a corporation of Wisconsin

Application November 7, 1955, Serial No. 545,187
2 Claims. (Cl. 257—262.18)



1. A heat exchanger comprising a supply header and a discharge header, conduit extending in fluid communication with said supply header and said discharge header for conducting heat exchange fluid from said supply header to said discharge header, corrugated fins of sheet material having crests and troughs, recesses in the crests of said corrugations, said recesses being shaped to fit the outside surface of the conduit, a double course of fin material extending under each of said recesses from one side of said recess, a second double course of fin material extending under each of said recesses from the other side of said recess and means integrally joining said fins to said conduit at said recesses.

2,820,618

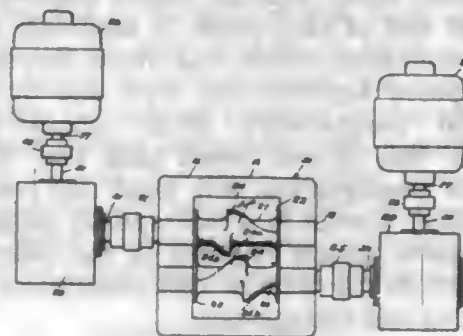
INTERCHANGEABLE ROTORS FOR A MASTIC MIXER

Stewart Bolling, Cleveland, Ohio, assignor to Stewart Bolling & Company Inc., Cleveland, Ohio

Application February 23, 1954, Serial No. 411,690
1 Claim. (Cl. 259—104)

A mixer comprising a housing, a pair of parallel rotors rotatably disposed in said housing, each rotor being formed of fragmentary helixes including a long helix and a short helix, the pitch of the helixes of one rotor being oppositely disposed with respect to the pitch of the helixes of the other rotor, and the helixes being arranged with the long helix of one rotor being disposed opposite the

short helix of the other rotor, the maximum diameter of the long and short helixes on each rotor being juxtaposed at an intermediate point in said housing, maximum diam-



eter ends of the long helix of one rotor overlapping a lesser diameter portion of the long helix of the opposite rotor.

2,820,619

POWDER BLENDING DEVICE

Lilly Daché, New York, N. Y., assignor to General Beauty Products, Inc., New York, N. Y., a corporation of New York

Application June 24, 1955, Serial No. 517,678

1 Claim. (Cl. 259—107)



In a powder blending device comprising a hollow receptacle adapted to receive a quantity of powder, a mixer disposed in said receptacle, said mixer comprising a plurality of rotatable beaters radially disposed within said receptacle, each of said beaters being formed with a horizontally extending outer loop whereby powder may be actuated by the sides of the loop and may sift through the center thereof, said loops being tilted at different angles, one of said loops being disposed in a horizontal plane, and another of said loops being disposed in a vertical plane and the remaining loops being disposed at varying and progressively graduating angles between the horizontal and vertical planes.

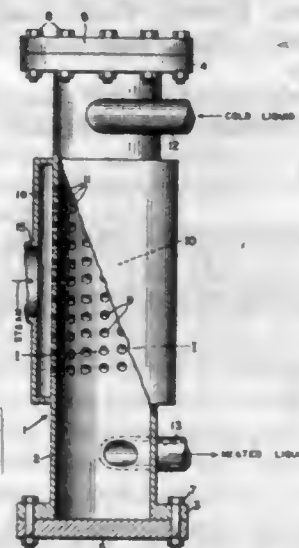
2,820,620

APPARATUS AND PROCESS FOR HEATING LIQUIDS

Arvid A. Anderson, Baton Rouge, La., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application July 22, 1954, Serial No. 445,107

10 Claims. (Cl. 261—124)



2. Apparatus comprising a closed substantially cylindrical vessel, containing a substantially unobstructed

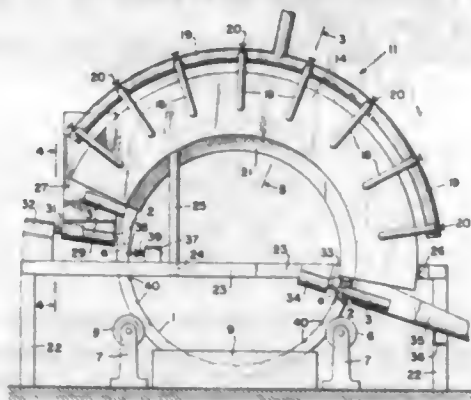
inner zone, the length of which is greater than its diameter, inlet conduit means disposed substantially tangential to the diametric periphery and relatively at one end of said vessel, outlet conduit means disposed relatively at the other end of said vessel, a multitude of passageways communicating within said vessel through the wall thereof disposed between said inlet and outlet conduit means, said passageways being angularly disposed through the wall of said vessel such that fluid passing through the passageways will enter the vessel at the inner periphery thereof in a substantially tangential manner, and header means disposed at the outer periphery of said vessel in the area of said passageways for commonly feeding said passageways.

2,820,621

ROD HEATING MACHINE

Frederic O. Hess, Philadelphia, Pa., assignor to Selas Corporation of America, a corporation of Pennsylvania

Application May 20, 1953, Serial No. 356,123
10 Claims. (Cl. 263—7)



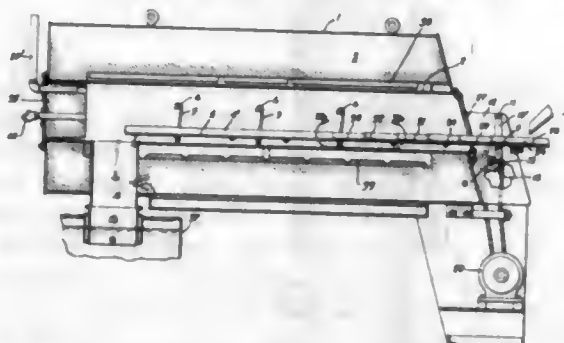
10. Apparatus for heating bars and the like comprising in combination, an annular carrier provided with a plurality of radially directed work holding means on its outer peripheral surface, means to mount said carrier on edge and rotate it around a horizontal axis, and an elongated arcuate furnace having a slot in the concave side thereof and at each end, means to mount said furnace in a fixed position over said carrier with the periphery of the carrier received in the slot of the furnace, means adjacent to one end of the furnace to move work to be heated in a radial direction into said holding means, and means adjacent to the exit of the furnace to move heated work in a radial direction from said holding means, the work projecting radially from said carrier moving through said end slots into and out of said furnace as said carrier is rotated.

2,820,622

HEAT TREATING FURNACE

Harold E. Mescher, Rivera, Calif., assignor to Pacific Scientific Company, San Francisco, Calif., a corporation of California

Application February 21, 1955, Serial No. 489,595
6 Claims. (Cl. 263—21)



1. A heat treating furnace comprising a muffle, a shaker hearth extending longitudinally within said muffle and being mounted for reciprocating movement there-

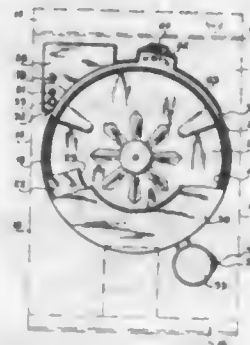
within, said shaker hearth comprising a main hearth web and a plurality of successive shingles carried by said main hearth web, each of said shingles being affixed at one end only to said main hearth web and overlapping an adjoining shingle at its other end for relative telescoping movement with said adjoining shingle, thereby to compensate for thermal expansion and contraction of the shingles without buckling thereof, the overlapping of said shingles providing consecutive dead air spaces between said main hearth and said shingles for preventing the chilling of said main hearth by cold work passing over said shingles, thereby preventing buckling of said main hearth.

2,820,623

CLOTHES DRIER

Eric Soffer, Cleveland, Ohio, assignor to White Sewing Machine Corporation, Lakewood, Ohio, a corporation of Delaware

Application April 20, 1956, Serial No. 579,691
1 Claim. (Cl. 263—33)



The combination with a clothes drier of the type having a rotatable drum adapted to contain articles to be dried, means for circulating air through the drum including a blower, a timer adapted to control drum rotation and blower operation, and a gas supply adapted to be ignited for heating the air, of electrical means for heating the air, a control circuit for selectively heating the air by gas flame and the electrical means, said control circuit comprising a plurality of manually operable switches each adapted to condition a different circuit including a thermostatic switch for energization by the timer, each thermostatic switch being adapted to open its associated circuit responsive to a pre-determined high temperature of heated air and to close said circuit upon a drop in heated air temperature to a pre-determined value, the timer being manually operable to energize a conditioned circuit and start the blower, energization of each different circuit being adapted to effect heating of air to a different temperature controlled by the associated thermostatic switch in the energized circuit, and the timer being adapted to automatically open an energized heating circuit after a pre-determined time interval and to stop blower operation.

2,820,624

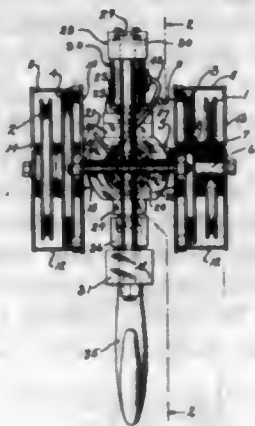
WEIGHING BOTTOM BLOCK

Herman L. Koegel, Greendale, Wis., assignor to Harnischfeger Corporation, Milwaukee, Wis., a corporation of Wisconsin

Application September 26, 1955, Serial No. 536,526
15 Claims. (Cl. 265—27)

1. In a weighing hook for cranes for indicating the load sustained by said hook the combination comprising a pivot member having a substantially horizontal pivot axis adapted to be engaged and sustained by a hoisting line, horizontal trunnions having a common axis transversely disposed and centrally located with reference to said pivot member and supported thereby, an adjustable intermediate member carried on said trunnions freely adjustable within a limited range about the axis thereof

and the said pivot axis, a hook, and an electrical resistance strain indicating element forming a load sustaining



connection between said hook and said intermediate member.

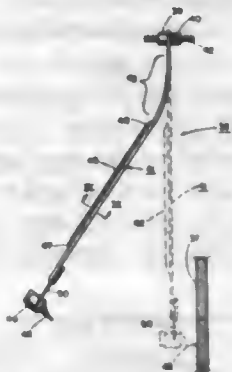
2,820,625

PRE-STRESSED INSTRUMENT ARM

Lincoln K. Davis, Brockton, Mass., assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts

Application November 20, 1953, Serial No. 393,325

3 Claims. (Cl. 267—1)



1. For use in an instrument of the type described, an instrument arm and mounting assembly comprising a movable mounting, an instrument arm connected to said mounting and moved thereby during operation along a path, said arm including a flexible strip portion near said mounting and a rigid portion spaced from said mounting, said rigid portion being connected to said mounting by said flexible strip portion, said flexible strip portion being relatively wide in the direction parallel to and relatively thin in the direction perpendicular to said path, and said flexible strip portion being compressively pre-stressed only in the central longitudinal region thereof so that both longitudinal edges are tensilely pre-stressed whereby said arm exhibits increased initial flexibility over a substantial arc of bending perpendicular to said path and exhibits increased torsional stiffness about its longitudinal axis, said pre-stressing being insufficient to produce snap-action in said flexible strip portion.

2,820,626

BRACE ROD

Bert G. Hedeon, St. Paul, Minn.

Application March 9, 1956, Serial No. 570,460

6 Claims. (Cl. 267—1)



1. In a device of the class described, cooperating inner and outer tubular telescoping sections, a shoe element axially slideably mounted in one of said sections, a non-movable crosshead element within the other of said sections, a rod secured fast to one of said elements and extending slideably through the other thereof, a coil spring

around said rod and interposed between said elements, a pair of opposed longitudinally spaced latch hooks mounted on said outer section, one of said latch hooks working through an opening in the wall of said outer section and engageable with said shoe element to limit axial movement thereof in an inward direction, the other of said latches working through an opening in the wall of said outer section and being engageable with a portion of the inner section to lock the inner section against axially outward movement with respect to the outer section, said spring being under compression when each of the latches is in an operative locking position and biasing said elements apart.

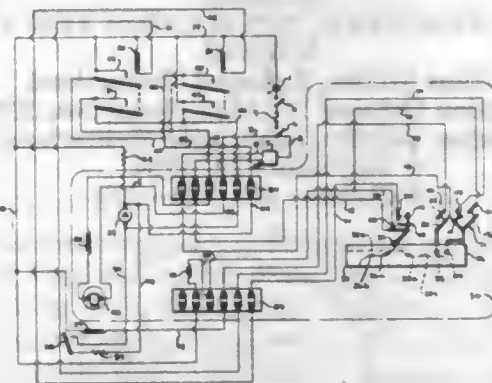
2,820,627

DOOR OPERATION AND CONTROL

Martin E. Karp, Norwalk, Conn., assignor to National Pneumatic Co., Inc., Boston, Mass., a corporation of Delaware

Continuation of application Serial No. 309,266, September 12, 1952. This application March 30, 1953, Serial No. 345,401

21 Claims. (Cl. 268—63)



1. In combination, a door movable between open and closed positions, an electric motor operatively connected to said door to open the latter, an electrically controlled brake operatively connected to said door to hold it in position, a source of electrical power, means connecting said source to said motor via a pair of contacts having a contact closing means so as, when closed, to operate said motor to open said door, a first manual switch which, when in door-opening position, connects said source with said contact closing means via a first door position-sensitive switch, said first door position-sensitive switch being closed until actuated by said door and opened when said door is fully open, and a second door position-sensitive switch connected between said first manual switch and said brake, said second door position-sensitive switch being open until actuated by said door to closed position when said door is fully open, whereby said motor is energized only when moving the door and said brake is energized only when said door is fully open.

2,820,628

WINDOW OPERATOR

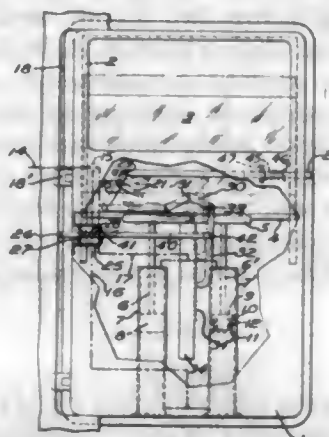
John R. Oishel, Buffalo, and William C. Riester, Eggertsville, N. Y., said Riester assignor to Trico Products Corporation, Buffalo, N. Y.

Application March 10, 1955, Serial No. 493,501

9 Claims. (Cl. 268—125)

1. A vehicle window closing mechanism comprising, in combination with a vehicle door mounted for movement between open and closed positions with respect to an adjacent vehicle body part and having a window member movable therein between open and closed positions, a ratchet member connected to said window member for movement therewith, a pawl member mounted for reciprocating movement in said door and adapted upon its stroke in one direction to engage said ratchet member and move said window member toward its closed position, an actuating lever pivotally mounted on said door,

means connecting said actuating lever to said pawl member for reciprocating the latter upon oscillating the former, means for holding said window member in adjusted

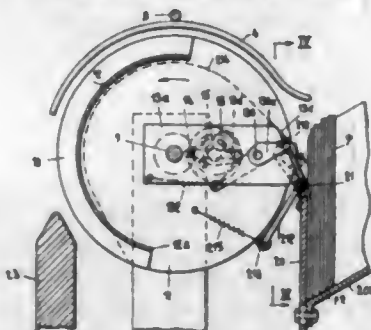


position, and means automatically disengaging said pawl member and said ratchet member whenever said door is in its closed position.

2,820,629

GRIPPER TRANSFER MECHANISM FOR FOLDED SHEETS

Hans Müller, Zofingen, Switzerland
Application October 11, 1955, Serial No. 539,889
Claims priority, application Switzerland
November 22, 1954
4 Claims. (Cl. 270-54)



1. An applying machine for the paper industry comprising in combination: a stacking chute for folded paper sheets, a motor-driven drum rotating at uniform velocity about a horizontal axis in front of the delivery end of the said chute and having a circumferential slot extending over part of its circumference, a gripper mechanism arranged in the said drum and partly projecting through the said slot, sinusoidally variable gearing coupling the said gripper mechanism to the said drum and driving the said mechanism at a velocity varying between zero and twice the velocity of the said drum so that the said mechanism performs one revolution for each revolution of the said drum and comes practically to a standstill in front of the said chute at each revolution, moving upwardly from there at an accelerated rate, a suction member arranged between the said chute and the said drum and co-operating with the said gripper mechanism at the phase of its standstill in gripping the foremost of the folded papers stacked in the said chute, and conveyer means moving adjacent the side of the said drum opposite the said chute in a direction parallel to the axis thereof, the said gripper mechanism depositing the said folded sheets individually in succession on the said conveyer means.

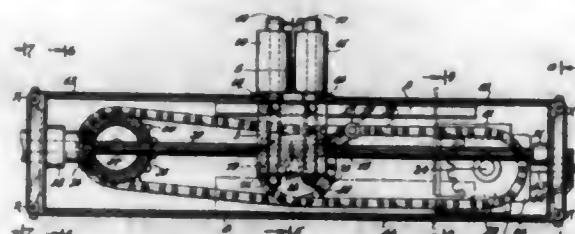
2,820,630

STRIP-FOLDING APPARATUS

Alexander Schwartz and Emile Fogelson, New York, N. Y., assignors to Leobard Corporation, New York, N. Y., a corporation of New York
Application January 12, 1954, Serial No. 403,495
2 Claims. (Cl. 270-79)

1. Strip-folding apparatus comprising a casing, a carriage within said casing, parallel trackways within said

casing and extending longitudinally thereof, means supporting said carriage for rectilinear reciprocating movement along said trackways, said casing having a slot on one side thereof extending substantially parallel to said trackways, a pair of substantially parallel shafts mounted on said carriage and extending through said slot, rollers mounted on the portions of said shafts which extend beyond the casing and extending perpendicular to the direction of travel of said carriage and to the direction of folding of the material, said rollers having their adjacent surfaces lying close to one another, said rollers constituting a feeding head to receive between them a strip of material to be folded, means rotatably mounting at least one of said shafts on said carriage, means for

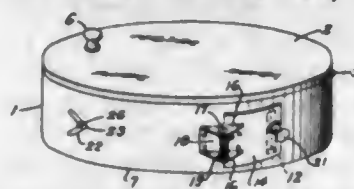


rotating at least said rotatably-mounted shaft and the roller carried thereby, means for imparting relative movement to said rollers in a direction to apply a yielding pressure on strip material between said rollers, and means for moving said carriage rectilinearly along said trackways including a pair of sprocket wheels, an endless chain passing around said sprocket wheels and a link connected at one end to the chain and at its other end to the carriage, means to permit adjustment of the chain drive to vary the distance traveled by the carriage in its rectilinear movement, whereby said feeding head may be caused to move back and forth in a rectilinear path to apply to a strip of material fed between said rollers a folded serpentine-like form.

2,820,631

TAPE DISPENSER

Miguel Henry Santos, Santa Rosa, Calif., assignor to Alice Santos, Santa Rosa, Calif.
Application April 8, 1954, Serial No. 421,870
1 Claim. (Cl. 270-86)



A tape dispensing device of the character described comprising a box adapted to rotatably hold a roll of tape therein, a dispensing slot on one side of said box arranged at an angle to accommodate the free end of said tape from the roll for dispensing the same, an adjustable cutting shield on the outside of said box engaging said tape at said slot, and resiliently yieldable means to hold said shield against said tape, and a generally V-shaped slot through the side of the box for creasing the end of the tape roll as it is dispensed there-through into a shape adapted to be applied to corners, said V-shaped slot being so spaced from the first slot circumferentially away from the dispensing end of said tape at a distance to permit the dispensing of the end of the tape from either of said slots without interference by the other slot.

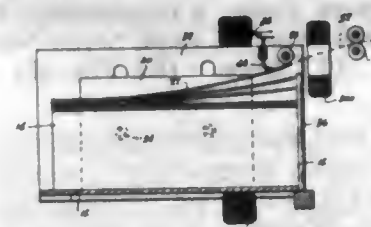
2,820,632

DE-MAGNETIZER FOR MAGNETIC FEED SYSTEM

Alexander Fowler, Stamford, Conn.
Application June 4, 1953, Serial No. 359,573
5 Claims. (Cl. 271-18)

1. In combination, a magnetic feed roller for feeding lengths of ferromagnetic material, a source of power

for exciting said magnetic feed roller, means to intermittently energize the feed roller for the successive feeding operations, de-magnetizing means for ridding the material of residual magnetism, said de-magnetizing means comprising a coil disposed with its axis in the approximate direction of motion of the material and large enough in diametral dimension to permit the material to pass through the coil in the course of the feed movement produced by said feed roller, and a source of alternating



current power connected to said coil, the level of energization of the coil during treatment of a length of the material being maintained substantially constant but the individual increments of the material being subjected to alternating magnetization which falls off or decays because of the travel of the increment through and away from the coil, exciter means to intermittently excite the de-magnetizing coil, and means to time said exciter means to make the de-magnetizing coil effective during the passage of a length of material therethrough.

2,820,633

STREAM SHEET DELIVERY SYSTEM

Joseph R. Caulfield, West Norwood, N. J., assignor to Champlain Company, Inc., Bloomfield, N. J., a corporation of New York
Application June 22, 1953, Serial No. 363,253
13 Claims. (Cl. 271-76)

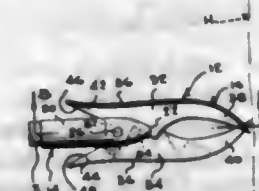


1. A sheet delivery system for sheets cut from a continuous web travelling at high speed, said system comprising high speed belts followed by positive grippers followed by slow speed belts, said high speed belts being collateral pairs of superposed belts for receiving the cut sheets between the superposed belts, means for driving the belts at a speed somewhat higher than the web speed, collateral chains carrying positive grippers which face rearwardly, means for driving said chains at a speed slower than the high speed belts, the slow speed belts being collateral pairs of superposed belts for receiving sheets from the grippers and slowing and bringing said sheets in overlapping relation, and means to drive said slow speed belts at a speed which is much slower than the chain speed.

2,820,634

ARROWHEAD ASSEMBLY

Walter Vance, Northfield, Ohio
Application April 12, 1957, Serial No. 652,440
3 Claims. (Cl. 273-106.5)



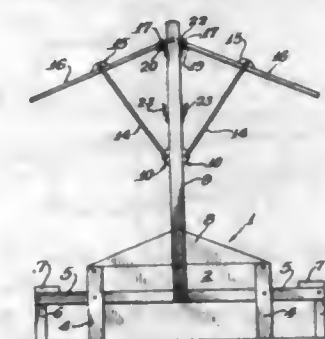
1. An arrowhead assembly comprising a support member including means for securing the same longitudinally of the terminal end of an arrow shaft, and a blade assembly on said support member, said blade assembly

comprising a pair of symmetrical elongated blade elements intermediately and freely pivoted on a common axis of rotation normal to the longitudinal axis of the support member, said blade elements including forward leading converging ends overlying each other and continuing therebeyond and trailing diverging ends, said blade elements including opposed sharpened longitudinal outer edges along the length thereof, the leading ends of the blade elements being pivotal across each other when engaging a target and the trailing ends being positionable adjacent each other to provide an increased span to the arrowhead assembly greater than the span thereof when the same is initially projected from a bow or the like.

2,820,635

CHILDREN'S SANDBOX

Shirley A. Herman, Flossmoor, Ill.
Application January 25, 1955, Serial No. 483,956
8 Claims. (Cl. 272-1)

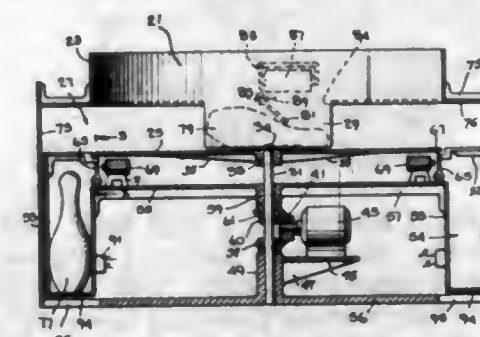


1. A sandbox for children's use which comprises, a container for sand having an open top, an upright member positioned on each side of said container and extending above said container, a canopy, struts pivotally connected to an intermediate edge portion of opposite edges of said canopy, means carried by an intermediate portion of each upright member on each side of said container pivotally connected to opposite ends of said struts whereby said canopy may be swung about said last-mentioned means to closure position with respect to said box, engagement means carried at the upper end portion of each upright member, companion engagement means carried by said canopy for removable engagement with the engagement means upon the upright members whereby said canopy may be held in overhanging spaced relationship to the open top of said container.

2,820,636

BOWLING PIN SETTING DEVICES

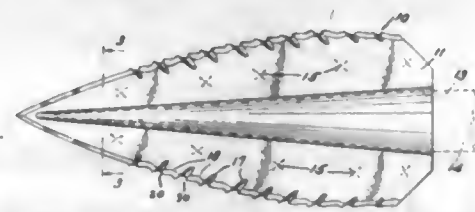
Harry E. Estabrook, Millburn, N. J.
Application October 5, 1955, Serial No. 538,553
11 Claims. (Cl. 273-43)



1. A bowling pin distributing device comprising a rotatable disk upon which bowling pins may be placed, a rotatable annular track concentric with and circumferential of the disk to receive bowling pins driven by centrifugal force from the disk, an outer wall circumferential of the track to prevent bowling pins from being driven outward off the track, an inner wall circumferential of the disk, said inner wall including an aperture therein to permit passage of a bowling pin from said rotatable

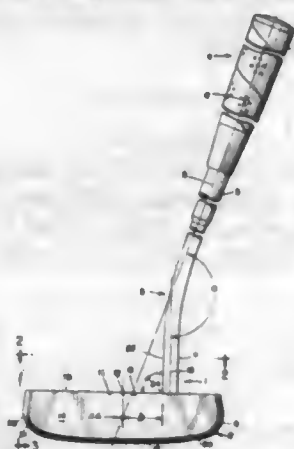
disk onto said annular track, means to rotate the disk in a first preselected direction, means to rotate the annular track in a second predetermined direction, said directions of rotation being opposite one another, a plurality of receiving pockets secured to and positioned under said annular track and each dimensioned to hold an upright bowling pin, a releasable trap door integral with and normally coplanar with said annular track and over each of said receiving pockets, and means adjacent said annular track and responsive to engagement therewith by a bowling pin on said annular track, to release a trap door under said bowling pin to deposit said bowling pin in an empty pocket.

2,820,637
ARROWHEAD
Wilford J. La Fond, Lapeer, Mich.
Application May 14, 1956, Serial No. 584,580
5 Claims. (Cl. 273—106.5)



1. An arrowhead comprising a pair of generally flat thin members having a generally triangular configuration, said members having the major portions thereof adjacent the edges in fact-to-face contact, said arrowhead being formed with a multiplicity of corrugations along each edge, the corrugations on one edge of one member being complementary to the corrugations on the edge of the other member, the corrugations of each member which fit within the corrugations of the other member being formed with a slit extending generally forwardly of the arrowhead and forming an acute angle with the axis of the arrowhead.

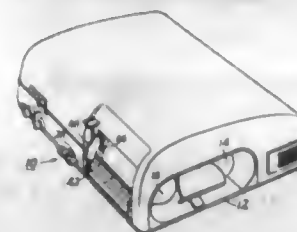
2,820,638
GOLF CLUB
Vaughn E. Morrison, Batavia, Ill.
Application March 1, 1954, Serial No. 413,310
4 Claims. (Cl. 273—164)



1. A golf putter comprising a club head, and a shaft connected thereto, said shaft having a relatively short shank portion extending upwardly from said club head and a relatively long portion extending upwardly and outwardly from the shank portion and including a gripping portion, the part of said shank portion facing the toe of the club head having a straight sighting portion in a plane forming a slight acute angle from the vertical in the direction of the toe of the club head when the putter assumes its natural lie on the sole of the club head, which sighting portion forms the hypotenuse of a right triangle between the eye of the golfer, a point in said plane adjacent the base of the shank portion and a point in a horizontal line with said first-named point substantially over

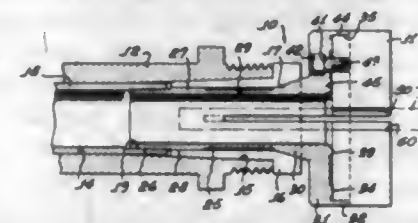
the center of gravity of the putter, said center of gravity lying between said first-named point and the toe of the club head, the longitudinal axis of said gripping portion being coincident with said center of gravity.

2,820,639
MONITORS FOR COMMERCIAL PHONOGRAPHS
Edward S. Gillette, Easton, and Frederick A. Pierini, Bridgeport, Conn., assignors to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York
Application June 10, 1954, Serial No. 435,802
10 Claims. (Cl. 274—1)



1. In apparatus of the character described, in combination, a frame, a movable carriage, a replaceable instruction-indication pad or sheet held in fixed relation to said frame, marking means comprising a single stylus movably mounted on and with said carriage and operable into two positions of marking relation to said indication sheet; and control means for said marking means comprising a bracket on said frame, an indicator control member associated with said bracket and movable to different instruction positions relatively to said bracket and means forming a continuous mechanical linkage operatively connecting said indicator member with said marking means in all positions of travel of said carriage.

2,820,640
MASTER COLLET WITH REPLACEABLE SOFT JAWS
Nell O. Regan, Glendale, Calif.
Application August 5, 1955, Serial No. 526,689
6 Claims. (Cl. 279—41)

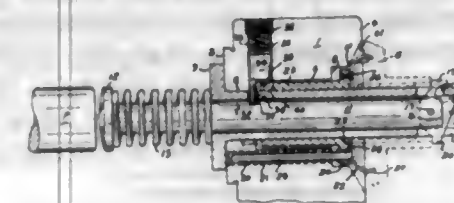


1. In a collet adapted for use with a lathe spindle having a bore with a tapered mouth, the combination of: a unitary collet body including a tubular sleeve terminating at its outer end in a heavy radial flange, a heavy tapered shoulder uniting said sleeve with said flange and being tapered to fit said mouth, said body having three equally spaced slots dividing said flange, said shoulder and a substantial portion of said sleeve into three equal segments; three work gripping jaws in the form of segments of a cylinder of approximately 120° each; and means for temporarily fastening said jaws to outer faces of the respective segments of said flange.

2,820,641
GEAR CHUCK
Ralph P. Garrison, James O. Garrison, and David D. Walker, Dayton, Ohio, assignors to Garrison Machine Works, Inc., Dayton, Ohio, a corporation of Ohio
Application July 19, 1956, Serial No. 598,962
12 Claims. (Cl. 279—106)

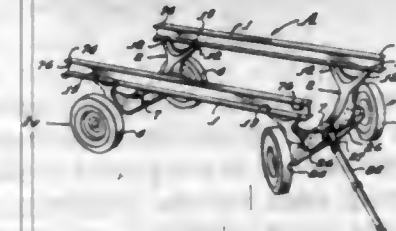
1. A chuck adapted for use with an automatic work feeder comprising, a chuck housing, bearing means mounted to said housing and projecting therefrom to receive

work as it is fed to said housing, timing means mounted to said housing to engage and time the work as it is directed to said chuck housing over said bearing means, and control means operatively connected to said housing and having lock means adjustably connected thereto and operatively



connected with said bearing means, said lock means being responsive to actuation of said control means to clear said bearing means automatically for delivery of work thereto and being responsive to release of said control means to engage with said bearing means to lock the work in its predetermined timed position to the chuck housing.

2,820,642
TRAILER FOR HANDLING AND TRANSPORTING AIRCRAFT ENGINES AND OTHER AIRCRAFT COMPONENTS
Morrie Harper, San Gabriel, Calif., assignor, by mesne assignments, to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application August 8, 1955, Serial No. 527,099
8 Claims. (Cl. 280—29)



1. A trailer for handling and transporting aircraft engines and other aircraft components comprising: a pair of rails arranged in opposed parallel relation and having upper plane surfaces for supporting an aircraft engine or other aircraft component; a pair of cross beams disposed below said rails; said beams being in the form of inverted arches having their upper ends fixed to said rails adjacent the rail ends; wheels supporting said beams; each of said beams being of channelled form in cross section and having a crown portion; leg portions extending upwardly and divergently from the crown portion; each beam having portions of increased channel depth at the junctures of said crown portion with said leg portions; the depth of the channels in said leg portion decreasing toward the upper ends of the leg portions; said leg portions increasing in width toward their upper ends; said upper ends being divided to form a pair of arms secured at longitudinally spaced points on said rails to position the upper plane surfaces in a common horizontal plane to provide two horizontal tracks.

2,820,643
HAND TRUCK AND DOLLY
Louis Israel Cohn, Philadelphia, Pa.
Application July 25, 1955, Serial No. 524,244
4 Claims. (Cl. 280—34)

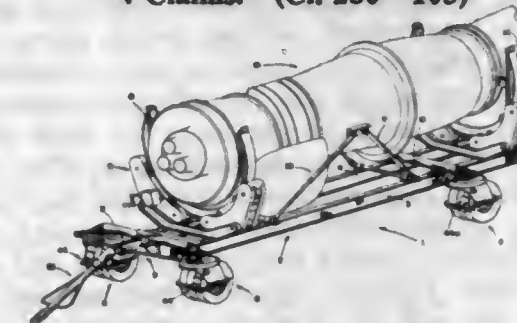
1. A hand truck comprising a substantially rectangular frame including a pair of spaced substantially parallel hollow rectangular side frame members having a pair of opposed top and bottom walls and a pair of opposed side walls, a longitudinally extending flange projecting laterally from each side wall of each of said frame members and aligned with said bottom wall, a longitudinally extending flange projecting laterally from each side wall of each of said frame members and aligned with said top wall, said

last named flanges terminating in arcuately shaped sides, a sheet of resilient material engaging over said top wall and overlapping said arcuate portions of said last mentioned flanges, a plurality of substantially rectangular cross-braces extending transversely of said frame and having their opposed ends fixedly secured to a confronting pair of said first flanges, each of said cross-braces being bowed and having a strip of resilient material fixedly secured thereto, means supporting a wheel on one end of each of said side frame members, a substantially rectangular member telescoped within each of said side frame members, means cooperating with said side frame members and said telescoped rectangular members for holding



said side frame members and said rectangular members in selected adjusted position, an end frame member fixedly secured to the outer end of said rectangular members, said end frame member having a pair of spaced parallel side frame members identical in cross-section to said first-named side frame members and connected by spaced parallel transverse cross braces having a cross-section identical to that of said first-named cross braces, a handle extending transversely of said end frame member and pivotally connected thereto, handle members fixedly secured to the outer end of said end frame member, and a transversely extending substantially L-shaped toe plate detachably secured to said one end of said side frame members.

2,820,644
ENGINE TRAILER STEERING MEANS
Mortimer P. Smith, Los Angeles, Calif., assignor to North American Aviation, Inc.
Application July 16, 1954, Serial No. 443,859
4 Claims. (Cl. 280—103)



1. An engine trailer comprising frame means; at least two rear wheel units; said rear wheel units being individually angularly positionable relative to said frame means, and including lock means for angularly fixing said units relative to said frame means; a front axle means connected to said frame means for transverse pivotal movement relative thereto; at least two front wheel units engaging said front axle means and angularly pivotal relative thereto; a steering assembly interconnecting said front wheel units for effecting angular positioning thereof, said front wheel units including lock means for angularly fixing said units relative to said front axle means; and brake means at each of said wheel units.

2,820,645

X-MEMBER VEHICLE FRAME

Arnold G. Schilberg, Milwaukee, Wis., assignor to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York

Application January 10, 1955, Serial No. 480,771
4 Claims. (Cl. 280-106)



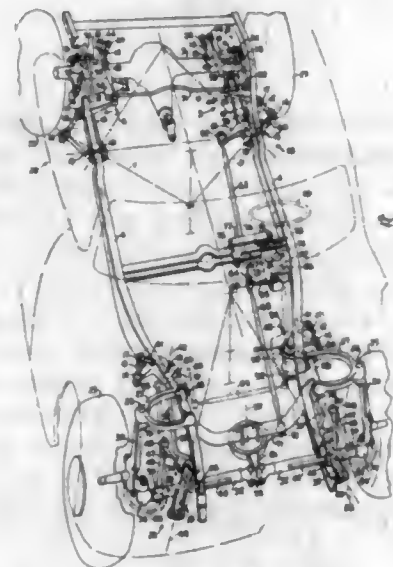
1. In an X-member of a vehicle frame of the I-beam type, upper and lower spaced parallel flanges of contoured longitudinal section, a plurality of independent web sections disposed in spaced end-to-end relationship and extending perpendicularly between said flanges, and welds securing said web sections to said flanges, said web sections conforming to the contour of said flanges.

2,820,646

DUAL TURN SHACKLES FOR BANKING AND NON-BANKING VEHICLES

Joachim Kolbe, Menomonee Falls, Wis.

Application July 12, 1956, Serial No. 597,474
26 Claims. (Cl. 280-112)



1. A vehicle comprising a superstructure adapted to roll bank on turns, resilient means stressed in torsion for the support of the superstructure, pairs of opposed effective roll banking arms comprising said resilient means and disposed to carry the superstructure, the arms of each pair being spaced laterally apart on opposite sides of the longitudinal vertical center plane of the vehicle, each effective roll banking arm extending between the superstructure and the effective road support therefor with the ends of the arms for each pair of effective roll banking arms embodying in effect a universally movable joint resiliently controlled in its movement at one corresponding end of each arm and a skew pivotally effective banking axis at the other end of the arm, said skew pivotally effective banking axes each constituting one axis of an effective universal joint comprising a support ball joint and a dual turn shackle operating in unison to form in effect said effective universal joint with one axis thereof extending substantially horizontally and the other axis extending substantially inclined to the road, and with both said axes extending inclined towards said center plane and intersecting said center plane at points located above the road and spaced farther away from the corresponding rigid axle than the center point of the corresponding universal joint, said effective universal joint being arranged to turn in unison with the superstructure about its longitudinally and horizontally extending center axis in opposition to said resilient means, said effective universally movable

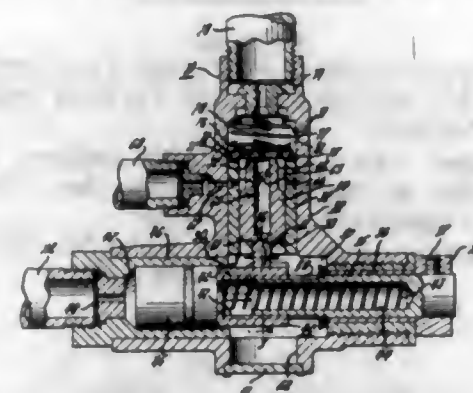
joints each comprising a support ball joint, a dual turn shackle and said resilient means operating in unison to establish said last named effective universally movable joint, whereby said resilient means for the pair of effective roll banking arms are increasingly torsionally stressed during upward move of the pair of wheels supporting the corresponding end of the superstructure and are further increasingly stressed on that side of the vehicle on which the corresponding wheel maintains its position relative to the superstructure while the other wheel of the pair moves downwardly relative to the superstructure.

2,820,647

CONTROL MECHANISM FOR REGULATING FLUID FLOW IN A VEHICLE SUSPENSION

George W. Jackson, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application August 30, 1955, Serial No. 531,375
9 Claims. (Cl. 280-124)



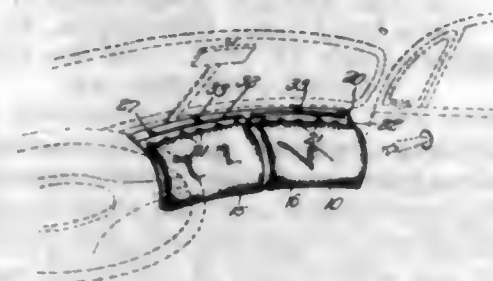
1. Control means adapted for regulation of the supply and exhaust of fluid to and from an expansible fluid spring for a motor vehicle to maintain a regulated height between the sprung mass and the unsprung mass of the vehicle, comprising, fluid control means having passage means therein for conducting fluid to and from a fluid spring and including valve means regulating fluid flow through the said passage means in either direction and further including operating means engaging the valve means adapted for actuation by relative movement between the sprung mass and the unsprung mass of a vehicle to effect regulated flow through said passage means in response to height changes between the sprung mass and the unsprung mass of a vehicle, said operating means including cam means having an operative position and an inoperative position and means actuated in response to advancement movement of the vehicle to shift said cam means from its operative to its inoperative position to render said operating means ineffective for operation of the valve means so long as advancement movement of the vehicle continues.

2,820,648

AUTOMOBILE CRASH PAD

Frederick W. Wanzenberg, Wilmette, Ill., assignor of one half to William Isaacs, Wilmette, Ill.

Application July 2, 1956, Serial No. 595,485
7 Claims. (Cl. 280-150)



1. A cushioning appliance for covering a portion of an instrument panel of a vehicle comprising a relatively

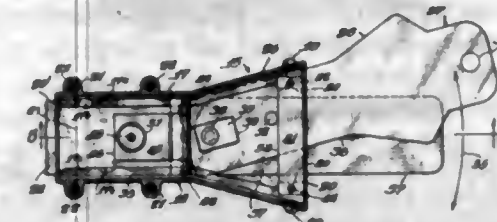
flexible cushioning pad adapted to conform to the surface of the instrument panel and a relatively narrow elongate supporting strip member therefor, said pad being detachably connected along the top edge to said supporting strip member, said strip member being provided along its opposite edge with a plurality of apertures and a fastening cord member threaded therethrough, and a plurality of attaching clips adapted to be secured in fixed relation adjacent the upper edge of the instrument panel and having a slidable connection with the cord member.

2,820,649

COUPLING FOR TRACTOR AND TRAILER VEHICLES

Frank Demarest, Dixon, Ill.

Application August 2, 1956, Serial No. 601,739
8 Claims. (Cl. 280-478)



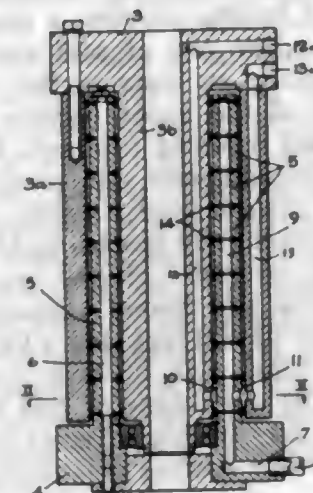
2. A tractor coupling or hitch, comprising a body, a cover secured to said body forming interior confines for the operating mechanism of said tractor coupling, extendable and retractable and radially adjustable tongue means mounted within said interior confines, latch locking means mounted on said tongue means, spring-urged latch means mounted within said interior confines and having an edge thereof in locking abutment with said latch locking means, and saddle means mounted pivotally to said tongue means and in intimate contact therewith so that substantial areas of their flat surfaces remain in facing contact at all times thus furnishing rigid support to said tongue means when in extended position.

2,820,650

MULTIPLE CONDUIT ROTARY UNION

Alfred-Rudolf Leopold, Hannover, Neustadt am Rubenberge, Germany, assignor to Westinghouse Bremsen-Gesellschaft, m. b. H., Hannover, Germany

Application August 24, 1953, Serial No. 376,203
Claims priority, application Germany September 4, 1952
4 Claims. (Cl. 285-134)



4. A rotary seal device comprising a first element having formed therein radially spaced apart coaxial cylindrical surfaces defining radialwise inner and outer walls of an annular cavity, and a pair of fluid pressure passages adapted for individual connection to respective external conduits and open through said inner and outer walls respectively; a hollow cylinder element having coaxial radially spaced apart cylindrical surfaces disposed coaxially within said cavity with radial clearance from its said inner

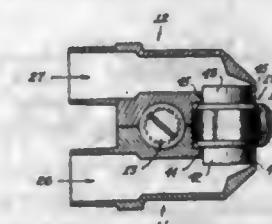
and outer walls and rotatably connected to said first element for relative turning movement therebetween about the axis common to said hollow cylinder element and to said cavity, said hollow cylinder element having a pair of fluid pressure passages individually connected to respective external conduits and open through its said radially spaced apart cylindrical surfaces, respectively; and rotary sealing means cooperable with said first element and with said hollow cylinder element to define, therebetween, the end walls of radially spaced apart fluid tight coaxial annular chambers via which the fluid pressure passages in said first element are in fluid pressure communication, respectively, with the fluid pressure passages in said hollow cylinder element.

2,820,651

COMPOUND SWIVEL ADAPTER

John W. Phillips, Olive View, Calif.

Application September 28, 1953, Serial No. 382,517
1 Claim. (Cl. 285-151)

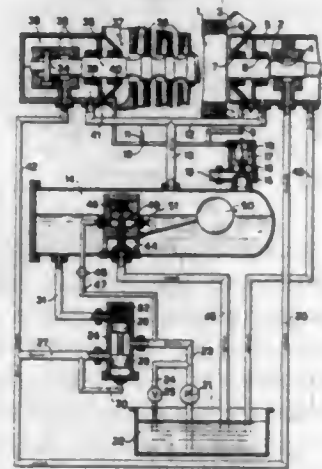


A compound swivel effectively cooperable to couple the single air passage of the human respiratory system to the double passage circulatory system of an anesthesia machine, comprising: two selectively separable longitudinal body members in side-by-side juxtaposition and including two substantially tubular and substantially completely hollow longitudinal passage means each having a similarly positioned first end and each having a second end longitudinally displaced from said first end and transversely directed with respect to said first end, said second ends being spatially opposed and each being provided with a similar cylindrical recess therein oppositely inwardly directed with respect to each other; said similar first ends being cooperable to be connected in communication with corresponding double passages of an anesthesia machine; rotary transverse cylinder means provided with transverse bore means extending therethrough and provided with opposed round cylinder ends selectively removably rotatably secured between said spatially opposed second ends of said two passage means and within said opposed inwardly directed similar cylindrical recesses, thus communicating said transverse bore means with each of said passage means; inwardly constricting screw means threadedly cooperable with the side-by-side juxtaposed portions of the two selectively separable longitudinal body members, said screw means being selectively threadedly downwardly advanceable with respect to said two body members in a direction similar to the plane of juxtaposition of said two body members and in a direction across and between the longitudinal direction of each of the longitudinal passage means to secure said two longitudinal body members in immovable side-by-side relationship with respect to each other; said screw means including a shaft having square threads and having a downwardly projecting concavely inclined annular lip, and said side-by-side juxtaposed portions of the two longitudinal body members being provided with opposing tangential recesses having continuously mating square threads cooperable for engagement with the threaded shaft and having an upwardly projecting convexly inclined annular lip cooperable to abut against said downwardly projecting concavely inclined annular lip in cooperative wedging engagement therewith inwardly constricting said two body members, whereby engagement of the threaded shaft and the threaded recesses of the two body members.

members will effectively prevent relative vertical movement of said shaft and said two body members with respect to each other and whereby the cooperable wedging constricting engagement of said inclined annular lips with respect to each other will effectively prevent transverse movement of said shaft and said two body members with respect to each other and will effectively immovably couple said two body members with respect to each other in side-by-side relationship; and lateral socket means in lateral communication with the transverse bore means and cooperable to receive and engage a tube nipple.

2,820,652 SHAFT SEALING ARRANGEMENT FOR TURBO-MACHINE

Konrad Oechslin, Zurich, Switzerland, assignor to Aktiengesellschaft fuer Technische Studien, Zurich, Switzerland, a corporation of Switzerland
Application June 8, 1955, Serial No. 514,026
Claims priority, application Switzerland June 19, 1954
2 Claims. (Cl. 286-9)



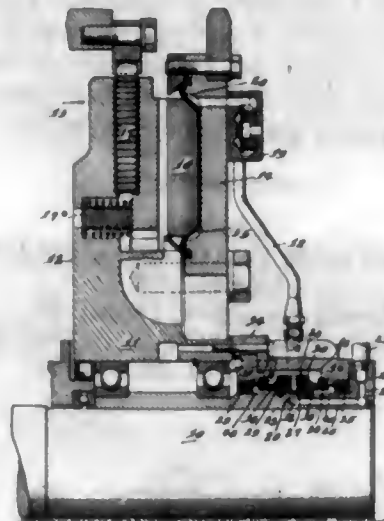
1. In a turbo-machine traversed by a gaseous medium at variable super-atmospheric operating pressure; at least one liquid seal for isolating a space within said machine from the atmosphere, which space contains gaseous medium at said variable super-atmospheric pressure; a pump for supplying liquid to said seal, and serving to bring the said liquid from atmospheric pressure to a fixed pressure which is higher than the highest value of said variable super-atmospheric pressure occurring in the course of operation of the turbo-machine; a flow connection between the delivery of said pump and said liquid seal; a pressure responsive throttling valve interposed in said flow connection, responsive to the variable super-atmospheric pressure prevailing in said isolated space and serving to reduce automatically the pressure of the sealing liquid supplied to said seal to a pressure which exceeds by a predetermined amount the pressure actually prevailing in the said isolated space; a separator for gas and liquid having a gas filled space in communication with said isolated space; means for releasing the separated liquid to the atmosphere; and differential pressure actuated valve means responsive to depression of said operating pressure below the pressure in said isolated space to vent said isolated space.

2,820,653 OIL COOLED SEAL

Edward C. Yokel, Racine, Wis., assignor to Twin Disc Clutch Company, Racine, Wis., a corporation of Wisconsin
Application March 9, 1955, Serial No. 493,125
6 Claims. (Cl. 286-19)

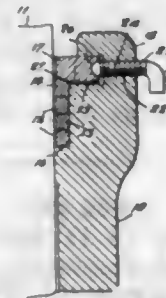
1. An annular seal in a main passage for supplying a gas to a rotating member comprising rotating and stationary components, the rotating component carrying a heat conducting ring having an annular sealing face and the stationary component including a generally transverse

portion of the main passage connectible with the member for supplying the gas thereto and having a sealing ring whose end face coacts within the sealing face of the heat conducting ring to seal the gas flow, an annular chamber defined and separated from said portion of the passage



for gas by parts of the stationary component, the sealing ring and the heat conducting ring, and means for flowing a cooling medium through the chamber and over the surface of the heat conducting ring exposed therein for heat transfer.

2,820,654
CYLINDER PACKING MEANS
Stewart Bolling, Cleveland, Ohio, assignor to Stewart Bolling & Company, Inc., Cleveland, Ohio
Application February 11, 1954, Serial No. 409,671
1 Claim. (Cl. 286-26)

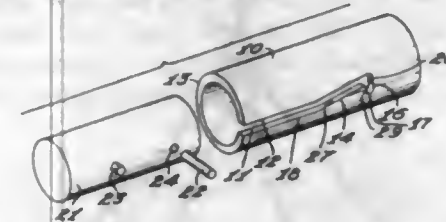


In a hydraulic cylinder and ram construction, a packing means comprising a pair of packing rings, an inner shoulder formed in said cylinder, a spacer ring, between said packing rings, said spacer ring and packing rings having correlated mating surfaces, a retaining ring bearing against the upper one of said packing rings, said retaining ring having an inner surface mating with the adjacent surface of the upper packing ring, a locking ring overlying said retaining ring, said locking ring having a concave shoulder and said retaining ring having a convex outer corner snugly seating in said concave shoulder, circumferentially spaced apart lugs carried by said locking ring, inverted L-shaped lugs carried by said cylinder having one side thereof extending inwardly and overlying said first named lugs, and a locking pin threaded through the other side of each L-shaped lug and bearing against the outer ends of said first named lugs, said first named lugs having a recess in the outer end thereof in which said locking pins engage.

2,820,655
TENACIOUS FASTENER
Dale L. Hileman, Burbank, Calif., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 18, 1953, Serial No. 398,930
3 Claims. (Cl. 287-53)

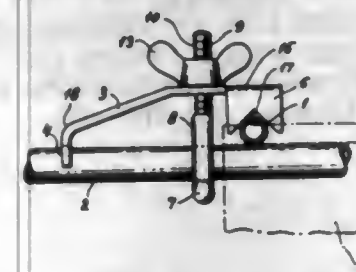
1. Fastening means between a shaft member received in a sleeve member comprising, said sleeve member

formed at the joined end with a deformed slot that has longitudinal, inclined and transverse portions, said slot portions respectively arranged from the edge of the joined end of said sleeve, the shaft member having an outside diameter slightly smaller than the inside diameter of said sleeve, a first pin radially projecting from the surface of said shaft and received in the transverse portion of said slot, a second pin radially projecting from the surface of said shaft and longitudinally aligned with said first pin



and spaced from said first pin by less than the length of the longitudinal portion of said deformed slot, and said second pin received in the longitudinal portion of the slot, whereby said shaft and sleeve members are coupled by longitudinally forcing the pins along the slot until said first pin drops into said transverse portion and are decoupled by disengaging the first pin from the transverse portion of the slot permitting sliding of said shaft member from within the sleeve.

2,820,656
DEVICE FOR THE CLAMPING TOGETHER OF TWO BARS OR TUBES AT AN ANGLE WITH ONE ANOTHER
Otto Christian Jensen, Gentofte, Denmark, assignor to H. Struers Chemiske Laboratorium, Copenhagen, Denmark
Application March 9, 1954, Serial No. 415,130
Claims priority, application Denmark July 14, 1953
3 Claims. (Cl. 287-54)



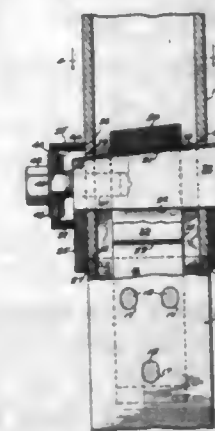
1. A clamp comprising a clamping member provided at one end with two mutually parallel and spaced lugs having aligned notches forming a seat to receive and support a rod from one side, and provided at its other end with a lug perpendicular to said first-mentioned lugs and having a notch forming a second seat to receive a second rod in a position perpendicular to said first-mentioned rod and to support said second-mentioned rod from the same side as that from which said first-mentioned rod is supported in said first-mentioned seat, a second clamping member having a counter seat located intermediate said seats of said first-mentioned clamping member and being substantially aligned with but inverted relative to said second-mentioned seat of said first-mentioned clamping member so as to be capable of supporting said second-mentioned rod from the other side, and means for clamping said two clamping members together.

2,820,657 CONNECTING MEANS FOR STRUCTURAL ELEMENTS

Emil A. Bender, Bakersfield, Calif.
Application June 26, 1952, Serial No. 295,759
14 Claims. (Cl. 287-103)

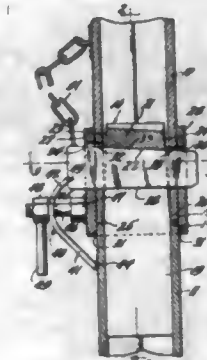
4. In combination with a pair of structural members adapted to be brought into end-to-end relation, having at the ends to be joined, corresponding cross sections, said

cross sections constituting a closed geometrical figure, a pair of guide plates carried by one of said structural members and projecting beyond the end thereof which is to be brought into engagement with the adjacent end of the other structural member, said plates being engageable with opposite outer face portions of said other structural member to guide said structural members laterally into engagement with each other, guide means carried by said



other structural member and projecting therefrom to engage said one structural member to guide the latter laterally at right angles to the guiding direction of said plates whereby said plates and said guiding means cooperate to position said structural members accurately in end-to-end relation, and connecting means engaged between said guide means and said one structural member for fixing said structural members in end-to-end relation.

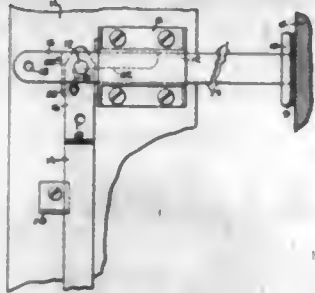
2,820,658
CONNECTING MEANS FOR STRUCTURAL ELEMENTS
Emil A. Bender, Bakersfield, Calif.
Application December 4, 1953, Serial No. 396,201
6 Claims. (Cl. 287-103)



1. Apparatus for guiding a pair of structural elements of corresponding closed cross section into end-to-end relation and for maintaining them in said end-to-end relation comprising a first guiding means carried by one of said structural members and having tapered portions engageable with the other structural member to guide the latter laterally in one direction relative to said one structural member, a second guiding means carried by said other structural member and having chamfered or beveled portions engageable with said one structural member to guide said other structural member laterally in a plurality of directions, a wedge member connected between said first guiding means and said other structural member for fixing said structural members in end-to-end relation, and resilient means engaging said wedge and resiliently urging same into clamping engagement with said first guiding means and said other structural member.

2,820,659

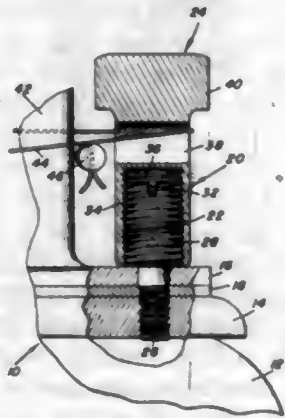
OPERATOR FOR SWINGING WINDOW SASHES
 Harold H. Ring, Rockford, Ill., assignor to Amerock Corporation, a corporation of Illinois
 Application September 1, 1955, Serial No. 531,888
 2 Claims. (Cl. 292-262)



1. In a window having a sash hinged to swing about a horizontal axis on the frame of the window, the combination of, a first bar connected at one end to the window sash and projecting outwardly from the sash, a second elongated bar having one end portion overlapping the other end of said first bar, a pivot connecting the overlapped end portions of said bars and permitting said second bar to be swung laterally out of alignment with said first bar, a guide secured to said frame and having a channel receiving said bars and guiding the bars when in alignment for sliding back and forth to swing the sash open and closed, a member rigid with said guide and providing a stop disposed behind and facing away from said channel, and a projection rigid with said second bar and operable when said bars slide in a direction to open said sash to engage said stop when said pivot is behind said channel and said sash is partially open, the engagement between said projection and said stop providing a signal that said second bar may be swung out of alignment with said first bar and in behind said guide and said two bars being yieldable to permit said projection to pass over said stop and allow continued endwise sliding of the bars.

2,820,660

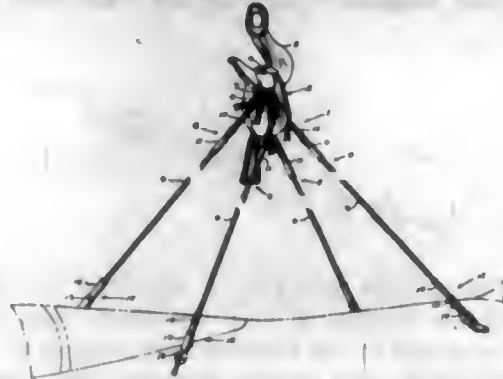
SCREW CONSTRUCTION
 Burton G. Almsworth, Bell Gardens, Calif.
 Application October 29, 1956, Serial No. 618,995
 3 Claims. (Cl. 292-327)



1. A fastener seal construction comprising a fastener and a cap, said fastener having a threaded shank and a head, said head having tool engaging means for facilitating the application and removal of said fastener, said cap being completely received over said head and rendering said tool engaging means inaccessible, a seal wire opening in said cap for preventing the removal of said cap without breaking a seal wire.

2,820,661

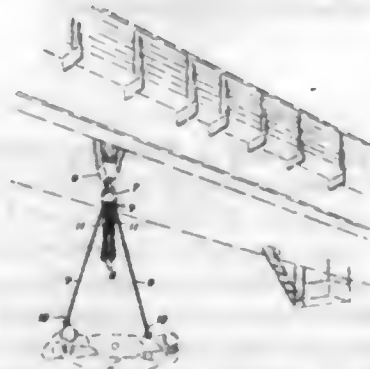
UNIVERSAL CRANE SLING
 Clarence J. Koons, Columbia, Pa., and Gerald D. Archdeacon, Fairborn, Ohio, assignors to the United States of America as represented by the Secretary of the Air Force
 Application April 19, 1956, Serial No. 579,414
 5 Claims. (Cl. 294-78)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



1. A universal sling comprising: a lift ring for suspension from a crane, said ring having a central opening with a plurality of slots extending outwardly from the side of said opening into said ring, and a retainer member movably mounted upon the side of said opening; a plurality of cables each provided with a length of chain at one end adjustably positioned in each of said slots, said retainer member movable to a predetermined position to retain each chain within one of said slots and movable to successively permit release, removal, and adjustment of said chains; and load fasteners interconnecting the opposite end of each of said cables and the load for lifting by said device.

2,820,662

CHAIN GUARD FOR OVERHEAD HOISTS
 Thomas Walker, Chester, Pa.
 Application October 4, 1956, Serial No. 613,992
 5 Claims. (Cl. 294-78)



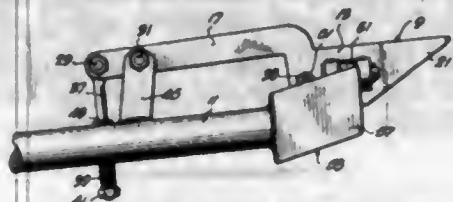
1. In combination, a movable support having the upper end of a free swinging chain permanently attached thereto with a hook at the free end of the chain of greater transverse dimension than said chain; of a sleeve swingingly engaged at its upper end with said support in depending relationship therewith and being of less length than the chain, a restricted neck portion at the lower end of said sleeve loosely enclosing said chain, said restricted portion of said sleeve being of less diameter than the transverse dimension of said hook.

2,820,663

MATERIAL ENGAGING HEAD FOR HOISTS OR THE LIKE
 Walter A. Reich, Kansas City, Mo., assignor to A. Reich & Sons, Inc., Kansas City, Mo., a corporation of Missouri
 Application August 15, 1955, Serial No. 528,384
 9 Claims. (Cl. 294-106)

1. In a head of the kind described, a support; a pair of spaced links; bolts mounting the links on one face of

the support for swinging movement on parallel axes normally inclined upwardly and outwardly from said face of the support; a pair of opposed, cooperable gripping jaws; means for each jaw respectively pivotally mounting the same on a corresponding link for swinging movement relative thereto on axes parallel with the axes of swinging movement of the links; means interlocking the jaws for maintaining the same in parallelism during swinging of the links; an outwardly flared, substantially triangular wing integral with the outermost end of each jaw respectively remote from said face of the support, presenting an entrance mouth; a plurality of elongated gripping ribs on the proximal, innermost faces of the jaws and the



wings, the ribs of one jaw being parallel with and offset relative to the ribs of the other jaw, the longitudinal axes of the ribs being normally inclined upwardly and outwardly from said face of the support at an angle greater than the angle of inclination of said axes of the links, said support having bolt-receiving slots clearing the bolts for movement toward and away from each other; a guide cage for said jaws on said face of the support; including a pair of spaced, parallel side flanges and a bottom flange, the innermost ends of the jaws extending into the cage; and a resilient bumper mounted on the support at the uppermost end of the cage within the path of travel of the jaws.

2,820,664

MULTIPLE SHELL GRAB

Fritz Mende, Kettwig, Germany

Application May 26, 1953, Serial No. 357,443

Claims priority, application Germany October 22, 1952

8 Claims. (Cl. 294-111)



1. A multiple shell grab comprising a head member, a base member in the form of a platform, a power cylinder pivoted to one of said members having a driven shaft pivoted to the other of said members with capacity to move said members toward and from one another, a plurality of more than two shells pivoted to said platform, means for swinging said shells about their pivots to open and close the shells in response to said relative movement of said head and base members, the pivotal connections between the cylinder, shaft, head member and base member including loose connecting means whereby the cylinder and shaft have capacity for limited rocking movement with respect to said head and base members at an angle to their pivotal movement.

2,820,665

CARRY CAR TRAILER TRACK STRUCTURE

Donald J. Blunden, Detroit, Mich., assignor to Whitehead & Kales Company, River Rouge, Mich., a corporation of Michigan

Application April 16, 1956, Serial No. 578,488

11 Claims. (Cl. 296-1)

1. A carry car vehicle having three permanently mounted track sections adapted when in a predetermined

position to provide lengthwise of the vehicle a continuous track onto which one or more cars may be loaded, two of said track sections being spaced apart lengthwise of the vehicle and mounted for movement independently of each other from an elevated position to a lowered position, one of said two track sections being long enough to carry thereon four wheels of a car, the third of said track sections being intermediate the two spaced track sections and being movable in one direction lengthwise



of the vehicle relative to said two spaced track sections to a position permitting a car on said one track section to move therewith without colliding with said third track section and movable in the opposite direction lengthwise of the vehicle relative to said two spaced track sections to a position forming an endwise extension of the other of said two track sections, whereby two wheels of a second car may be carried by said other track section and two wheels of said second car may be carried by said third track section.

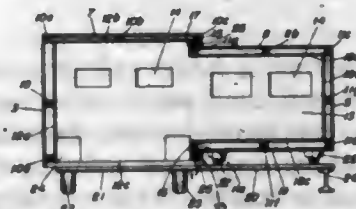
2,820,666

EXPANDABLE TRAILERS

Richard S. Grochmal, Indian Orchard, Springfield, Mass.

Application August 5, 1955, Serial No. 526,715

1 Claim. (Cl. 296-23)



An expandable trailer comprising: a fixed body portion and a movable drawer like body portion, an opening in one side of said fixed body portion, said movable drawer like body portion located and adapted to move in said opening, weather boards at the rear of said movable body portion forming a substantially rectangular pattern, a substantially rectangular shaped inflatable seal mounted proximate and in front of said weather boards, other weather boards extending from said fixed body portion about said opening, whereby when said movable body portion is without said fixed portion, an airtight weather seal is formed by said series of weather boards and said inflatable seal.

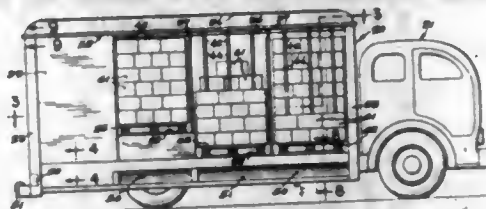
2,820,667

END AND SIDE LOADING DELIVERY TRUCK BODY

Jack A. Benaroya and Ralph Benaroya, Seattle, Wash.

Application August 14, 1956, Serial No. 603,989

2 Claims. (Cl. 296-24)



2. In a delivery truck body providing an interior loading space defined at the bottom by a floor and at the top by a roof, articulating trunk and branch stringers supported in the ceiling portion of said loading space with the trunk stringer extending along the longitudinal median

line of the loading space and the branch stringers extending laterally from the trunk stringer toward the side limits of the loading space in parallel spaced relation to one another, each of said branch stringers and each of the sections of said trunk stringer set apart by the articulation with the branch stringers having a respective plurality of depressed seats spaced along its length, and a plurality of vertical bars socketed at the bottom with said floor and having respective hooks at the top engaging said seats whereby each of said bars can be selectively raised to remove its hook from the related seat and free its bottom end from the floor such that the bar can then be shifted along the respective stringer, said bars dividing the loading space into two rows of cages, one row at one side and the other row at the other side of the longitudinal median line occupied by said trunk stringer, there being provided an outside opening in the body for each cage, and multiple closure means movably mounted on the body for selective movement into and out of positions closing said openings, the aforesaid shiftability of said bars along their related stringers providing selective access between adjoining cages.

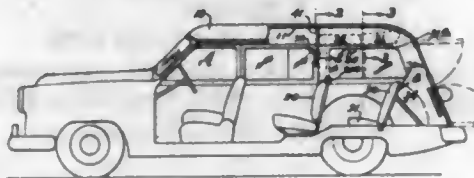
2,820,668

MULTIPLE PURPOSE VEHICLE SEATS

Brooks Walker, Piedmont, Calif.

Application March 18, 1953, Serial No. 343,109

3 Claims. (Cl. 296-69)



1. A vehicle having a body with a pair of posts on opposite sides thereof, each post having stationary latch means thereon; a first passenger seat in said body having a first seat back whose upper end is lower than said latch means and adjacent to and rearward of said posts, the rear side of said back being provided with a plurality of tongue-receiving means; and a second passenger seat in said body rearward of said first seat and having a removable seat back provided with a plurality of tongues corresponding in number to said tongue-receiving means and adapted, when said removable seat back is removed, to fit rockably thereinto so that said removable seat back rests on top of said first seat back as a head rest, said removable seat back also having at each end a perforated tape swivel-mounted to said removable seat back and provided with a plurality of perforations engageable with a said stationary latch means, so as to anchor said removable seat back in place on said first seat back at an angle determined by which of said series of perforations is engaged by said latch means.

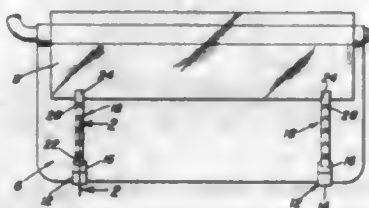
2,820,669

ANTI-GLARE SHIELDS AND ATTACHMENT MEANS THEREFOR

Robert L. Lowe, Detroit, Mich.

Application September 15, 1955, Serial No. 534,586

1 Claim. (Cl. 296-97)



An attachment for a vehicle sun visor comprising an anti-glare shield and means whereby it may be mounted

and suspended for operation on said sun visor, said means comprising at least one spring metal U-shaped clip which is adapted to be removably clasped on the usual free longitudinal edge portion of said visor, said clip having a bight portion to parallel said free edge and spaced parallel attaching and retaining limbs adapted to grip opposite sides of the visor at right angles to said edge, and a collapsible folding-type linkage device embodying a first flat link superimposed on and fixed to one of said limbs, a second flat link attached to an edge portion of said anti-glare shield in line with said first link, and a plurality of similar flat plate-like links, adjacent ends of all of said links having cooperating sets of companion connecting and hinging knuckles the turning axes of which are all the same and are parallel to the bight portion of said clip, and an assembling and hinging pintle arranged removably in the respective sets of hinging knuckles, each pintle comprising a friction-type coil spring.

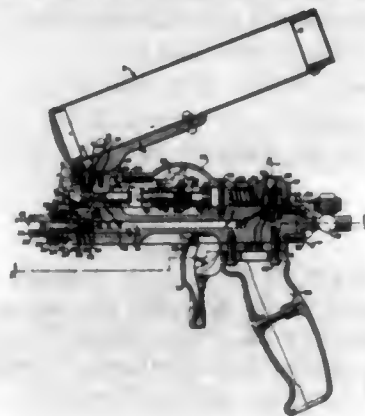
2,820,670

VALVE ARRANGEMENT FOR HEAT-FUSIBLE MATERIAL SPRAY GUNS

Herbert Charlop, Brooklyn, and Arthur P. Shepard, Flushing, N. Y., assignors to Metallizing Engineering Co. Inc., a corporation of New Jersey

Application April 13, 1956, Serial No. 578,136

14 Claims. (Cl. 299-28.7)



12. In a heat-fusible material spray gun having a gravity flow duct for gravity feeding finely divided heat-fusible material, a valve for interrupting the flow of material through said gravity flow duct comprising a flexible resilient tube forming a portion of said gravity flow duct, a valve chamber, the end of said tube extending into said valve chamber, and including a piston axially movable in said chamber between a position squeezing the end of said tube shut against the valve chamber wall and a position releasing said tube.

2,820,671

METHOD OF DISTRIBUTING SOIL TREATING MATERIAL

Gerald B. McFarland, McFarland, Calif., assignor to M. B. McFarland & Sons, McFarland, Calif., a partnership

Application October 3, 1955, Serial No. 538,108

2 Claims. (Cl. 299-83)



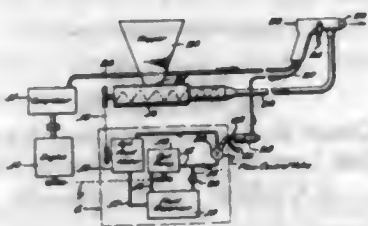
1. The method of distributing soil treating material which comprises providing a package of soil treating

material completely enclosed in a perforatable water impermeable impermeate container which has closed hose coupling means, opening said hose coupling means, coupling said container by said hose coupling means to a hose connected to a source of water, perforating said container, and effecting a flow of water through said hose to distribute said soil treating material contained in said container.

2,820,672

APPARATUS FOR CONTROLLABLY APPLYING SEMIFLUID AND PASTY MATERIALS

Lee Arce, William K. Vogel, and Milton C. Vogel,
Arcadia, Calif., assignors to Lee-Mart Mfg. Co.,
Arcadia, Calif., a corporation of California
Application July 17, 1956, Serial No. 598,433
18 Claims. (Cl. 299—86)



1. Apparatus for controllably conveying to and discharging from an independently movable applicator semi-fluid and pasty materials from a remote supply thereof, comprising: a frame provided with a material supply hopper having a bottom outlet port; a mud pump positioned beneath said outlet port and adapted to receive material therefrom; a variable speed, pressure-fluid-actuated motor for driving the mud pump; a closed hydraulic system connected to said fluid-actuated motor including a low-pressure fluid reservoir, a pressure fluid pump, means for conveying fluid from the fluid motor to said reservoir and fluid pump, conduit means for conveying pressure fluid from the fluid pump to said fluid-actuated motor and a throttle valve in the last-named conduit means, said valve being provided with an actuating mechanism; a compressor; a primary source of power operably connected to said pressure-fluid pump and compressor; a manually movable applicator including a material inlet port, a material discharge port and a trigger-operated, multiple position air valve; flexible conduit connecting the discharge outlet of the mud pump with the material inlet port of the applicator; flexible tubing connected to the compressor for supplying compressed air to the air valve of the applicator; and a flexible return air tubing from said applicator to the actuating mechanism of said throttle valve for conveying air as modulated by said trigger-operated multiple position air valve to said throttle valve to vary the rate at which material is supplied to the applicator by the mud pump.

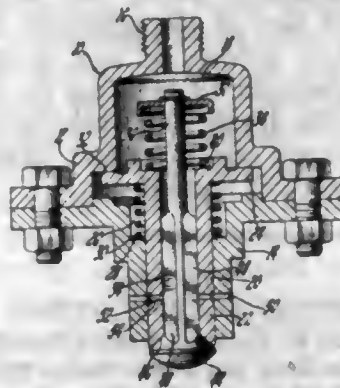
2,820,673

FUEL INJECTING VALVE

Joseph Zubaty, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 19, 1956, Serial No. 623,242
5 Claims. (Cl. 299—107.6)

1. A fuel injecting valve mechanism comprising a housing, an inlet and an outlet for said housing, a first valve slidably mounted in said housing, first means resiliently biasing said valve to close said outlet, fuel pressure being adapted to open said valve against the force of said resilient means, a second outlet, a second valve for closing said second outlet, said second valve supporting said first valve, said first resilient means connecting said first and second valves, and second means resiliently

biasing said second valve to open said second outlet, said second means being weaker than said first means whereby

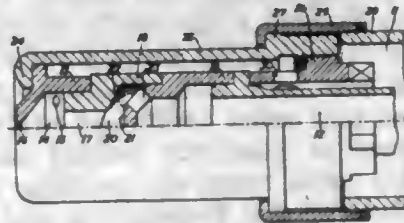


fuel pressure will close said second valve prior to opening said first valve.

2,820,674

FUEL ATOMISING NOZZLES

Harold C. Simmons, Cheltenham, England, assignor to Dowty Fuel Systems Limited, Cheltenham, England
Application October 11, 1956, Serial No. 615,290
Claims priority, application Great Britain
October 11, 1955
7 Claims. (Cl. 299—114)

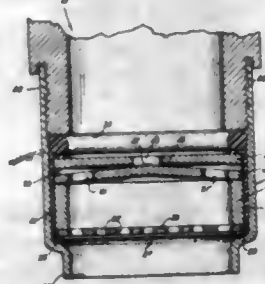


1. A spill spray nozzle for connection to supply and spill lines, respectively, said nozzle comprising a nozzle body chambered to define a circular-sectioned swirl chamber tangentially ported for communication with the supply line and having at one end a central spray orifice and at its opposite end a central spill orifice of larger diameter, said body being formed beyond the spill orifice from the spray orifice with two generally parallel side walls disposed in planes parallel to and at opposite sides of the axis of the body, a bottom wall directed transversely of that axis, and a top wall generally parallel to the bottom wall but pierced centrally by the spill orifice, said side, bottom and top walls defining a transverse passage opening centrally to and receiving liquid from the spill orifice, and extending radially outwardly thereof, and outlet ports formed in said body, opening at the ends of said passage radially outwardly of the spill orifice, for exit of the liquid from said passage to the spill line after traversing said passage.

2,820,675

NOZZLE CONSTRUCTION

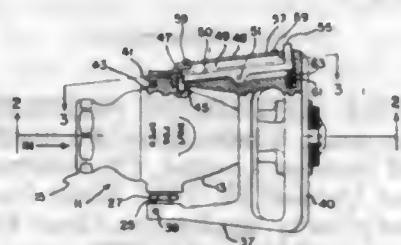
Carl S. Zilk, Portland, Oreg.
Application February 6, 1956, Serial No. 563,487
8 Claims. (Cl. 299—141)



3. A pressure reducing nozzle, comprising a tubular housing having inlet and outlet ends, an upstream disk arranged coaxially within said housing and having a port

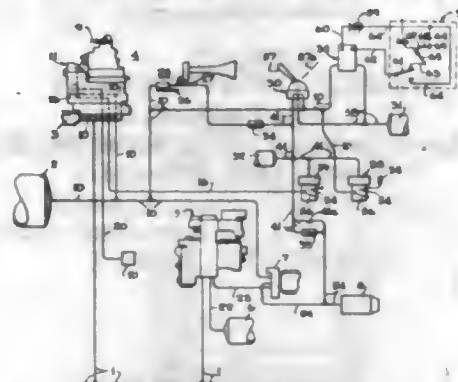
therethrough and grooves on the downstream face of said disk extending away from said port, a downstream disk arranged coaxially within said housing in contact with the grooved face of said upstream disk to close the open sides of said grooves at least partially therealong to provide fine passages for reducing the pressure of fluid passing through the nozzle, and a tubular elastomer casing snugly fitting around said disks and forming a seal with the peripheral surfaces thereof.

2,820,676
ALL PURPOSE FIREFIGHTING NOZZLE
Roydon F. Cleaves, Falls Church, Va.
Application July 16, 1954, Serial No. 443,979
5 Claims. (Cl. 299-144)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An all purpose firefighting nozzle comprising a body section having a water inlet passage and a plurality of outlet bores therein, a fog nozzle secured at the outlet end of one of said outlet bores, a rotary valve member located in said body section between said water inlet passage and said outlet bores, and adapted in various positions thereof to selectively connect said water inlet passage to said outlet bores, an operating handle means located exteriorly of said body section and mechanically connected to said rotary valve member, said handle means having a hand grip rod, a positive valve-positioning means comprising a pivoted lever having oppositely directed end portions, a first of said end portions comprising a key, said valve positioning means also comprising a plurality of spaced key-receiving opening means interposed between said operating handle means and said body section effective to selectively position said valve means, the second of said end portions comprising a separate finger-pressable means at said hand grip rod for releasing said key from an associated opening.

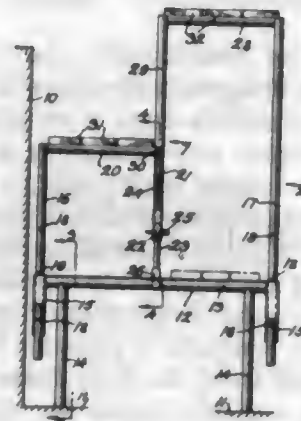
2,820,677
FLUID PRESSURE BRAKE APPARATUS WITH SAFETY CONTROL FEATURE
Walter T. Jados, Berwyn, Ill., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application January 26, 1954, Serial No. 406,145
10 Claims. (Cl. 303-19)



1. In a fluid pressure brake apparatus of the type comprising a safety control conduit normally charged with fluid under pressure and means operative upon venting of said conduit to effect a safety control brake application, the combination of a second conduit charged with fluid under pressure, a third conduit, means for bleeding fluid

from said third conduit at a controlled rate, a reservoir for storing fluid under pressure, an acknowledging valve device operable to one position and another position for opening said reservoir selectively to said second conduit and said third conduit, a warning device, and valve means controlled by pressure of fluid in said third conduit and operative upon a reduction in such pressure to a predetermined value to cause operation of said warning device and operative upon a further reduction in such pressure to a predetermined lower value to vent said safety control conduit to atmosphere, timing volume means of such capacity relative to the flow capacity of said bleeding means as to provide in said third conduit for a limited period of time while said acknowledging valve device is in its said one position fluid at a pressure exceeding said predetermined lower value, said valve means being operative when pressure in said third conduit is above said predetermined value to prevent operation of said warning device and ineffective to cause venting of said safety control conduit.

2,820,678
SCAFFOLDS
Oscar H. Huber, Collyer, Kans.
Application January 3, 1956, Serial No. 556,987
2 Claims. (Cl. 304-2)

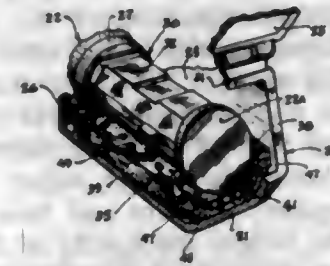


1. An adjustable scaffold comprising: a lower horizontal element having spaced pairs of legs depending therefrom supporting it in spaced relation above the ground, vertical front and rear tubular elements depending from the lower horizontal element in horizontally spaced parallel relation, front and rear upright elements mounted within the front and rear tubular elements respectively for vertical adjustment relative thereto, an intermediate upright element formed on three sections and arranged in spaced parallel relation between the front and rear upright elements, the lower section of the intermediate upright comprising a rod-like member detachably connected to the lower horizontal element between the ends thereof, the intermediate section comprising a tubular member mounted on the rod-like member for vertical adjustment relative thereto, and the upper section comprising a tubular element having a pin in the lower end thereof detachably connected into the upper end of the intermediate section, an intermediate horizontal element connected between the front upright and the intermediate section of the intermediate upright, and an upper horizontal element connected between the rear upright and the upper section of the intermediate upright.

2,820,679
JOURNAL BEARING LUBRICATORS
Llewellyn E. Hoyer, Wyckoff, and Edward R. Gorceya, Mahwah, N. J., assignors to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application August 9, 1954, Serial No. 448,556
6 Claims. (Cl. 308-91)

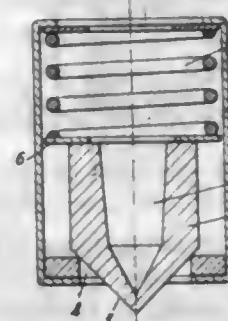
1. A lubricator for the journal of a railway car comprising a highly resilient sponge-like pad of oil-resistant

material adapted to be removably disposed in the journal box of the car under compression between the journal and the bottom wall of the box, a plurality of individual inserts of loose highly absorbent fast wicking fibrous material packed into spaced apart cells arranged throughout the pad to enable lubricant in the bottom of the box



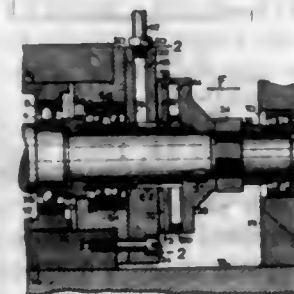
to be relayed by capillarity to the journal along substantially the entire length thereof, and a woven porous sleeve of low friction non-glazing material wrapped about said pad and about the exposed ends of said wicking material to enclose the wicking material and to prevent particles of wicking material from being drawn upwardly by the journal on to the journal bearing.

2,820,680
FOOTSTEP BEARING FOR VERTICAL REVOLVING SHAFTS OF HIGH SPEED
Juan Sapé Roch, Badalona, Spain
Application November 16, 1954, Serial No. 469,248
Claims priority, application Spain November 26, 1953
3 Claims. (Cl. 308-156)



1. A support assembly for high speed spinning spindles, comprising in combination a sleeve, both ends of said sleeve being bent inwardly to form a top flange and a bottom flange, a centering ring carried on said bottom flange, a footstep bearing ending in a cone seated in line contact on the upper edge of said ring, and a coil spring arranged between said top flange and said bearing and forcing said bearing against said edge, said sleeve encasing said bearing and spring and forming therewith a self-contained unit.

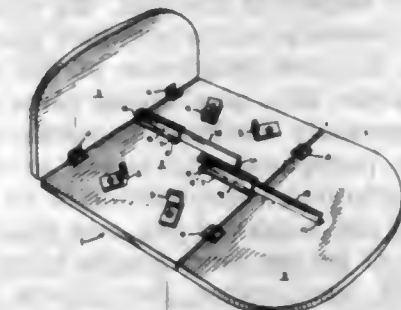
2,820,681
THRUST BEARING STRUCTURE
Pierre Audemar, Mulhouse, France, assignor to Societe Alsacienne de Constructions Mecaniques, Mulhouse, Haut-Rhin, France, a French company
Application April 8, 1955, Serial No. 500,229
Claims priority, application France April 14, 1954
5 Claims. (Cl. 308-160)



1. In a fluid thrust bearing, the combination with a rotary shaft capable of slight axial displacements within a limited path, of a stationary member freely surrounding

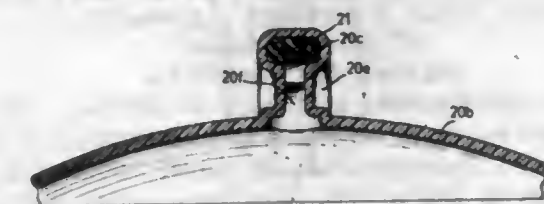
a part of said rotary shaft with an annular clearance and providing an annular surface substantially right-angled with the axis of the shaft, a rotor member adapted to rotate with said rotary shaft and having an annular portion surrounding said shaft with an annular clearance, said annular portion providing an annular surface facing said annular surface of the stationary member with a slight axial clearance variable within the limits of said path, an annular recess provided in at least one of said mutually facing annular surfaces to form a liquid pressure chamber, a plurality of radial liquid passages in said annular portion of the rotor member extending each from the inner periphery of said annular portion to a point near the outer periphery thereof, axial liquid passages in said annular portion of the rotor member to interconnect an outer region of said chamber and the outer ends of said radial passages, and means to conduct liquid to the inner ends of said radial passages through said annular clearance of said stationary member and of said rotor member, respectively, whereby centrifugal force will cause liquid in said radial passages to flow into said chamber through said axial passages.

2,820,682
SLIDE ASSEMBLY FOR DROP LEAF EXTENSION TABLES
Joseph Cooper, New York, N. Y.
Application March 13, 1956, Serial No. 571,323
1 Claim. (Cl. 311-41)



A slide assembly for a table having at least one drop-leaf extension hinged to the table top, which comprises a metal U-shaped housing member having laterally extended flanges formed with apertures for the passage of screws into the table top, said housing member having a front end and a back end, a plate permanently secured to the flanges of the housing member at the back end thereof and lying over the said flanges for direct contact with a table top substantially inwardly of the latter, whereby attachment of the housing to the table top permanently holds the housing inclined upwardly toward the front thereof, and a slide member slidable in said housing and adapted to be extended therefrom for support of a table drop-leaf, said plate bridging the flanges of the housing, and said slide member being U-shaped in cross section and being provided with an out-turned integral extension serving as a fingerpiece for operation thereof.

2,820,683
PLASTIC ARTICLE WITH RE-ENTRANT FORMATION
Foster Monaco, Little Neck, N. Y.
Application July 22, 1954, Serial No. 444,985
5 Claims. (Cl. 312-31.1)



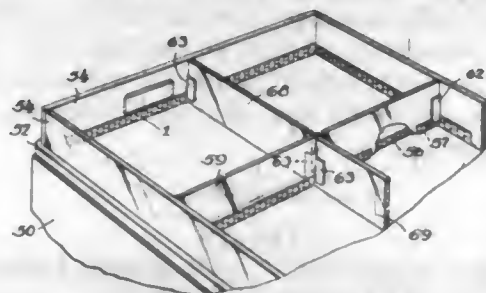
1. A cake cover comprising a hollow body of molded sheet material provided at its top with an integral project-

ing handle portion of arcuate configuration, said portion comprising a pair of at least roughly parallel walls defining between them a space communicating with the interior of said body, said walls being provided with opposite reentrant formations dividing said space into a constricted neck adjacent said interior and a widened peripheral channel encircling said neck and opening at its ends directly into said interior.

2,820,684

COUNTER PARTITION AND DISPLAY APPARATUS

Milton Zadek, Winnetka, and William Ralsch, West Chicago, Ill., assignors to Reflector-Hardware Corporation, Chicago, Ill., a corporation of Illinois
Application February 8, 1954, Serial No. 408,860
1 Claim. (Cl. 312-140.3)



Means for anchoring partition panels on a display counter, comprising a strip having three side by side sinuously bent lengths of material, the sinuous bends of each length comprising successive flats spaced from one another in a direction lengthwise of the strip and displaced on opposite sides of a median plane and joined by diagonals, oppositely inclined diagonals of successive lengths being juxtaposed and joined to constitute the successive lengths into a strip portion of an overall width is the sum of the widths of the said three lengths, the sinuous bends of the two outer lengths being in transverse alignment with one another, the sinuous bends of the center length being in transverse alignment and displaced from the corresponding bends of the outer lengths by an amount sufficient to bring each bent part of the central length midway between successive like bent parts of an outer length, thereby producing a number of successive tongue-receiving sockets for selectively receiving and supporting a tongue of apparatus used to facilitate displaying of merchandise, and thus supporting such apparatus in position at any socket in each of which sockets the center length overlies one side of a tongue that may be inserted into a socket and the end lengths overlie an opposite side of an inserted tongue, in adjacent sockets, the center length overlying the front of a tongue that may be inserted in one socket and the back of a tongue that may be inserted in an adjacent socket.

2,820,685

BROOM HEAD HOLDER AND COVER

Alice A. Bergholt, Addison, Ill.
Application February 19, 1954, Serial No. 411,454
1 Claim. (Cl. 312-207)



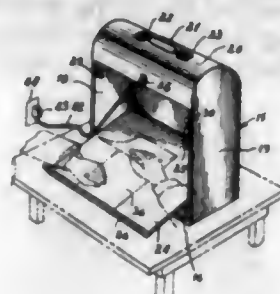
A broom head holder and cover made of smooth material for easy cleaning, comprising a body member of

broom head size having a front face and a rear face, connecting side walls and a bottom joined to said faces, said faces and side walls extending downwardly and inwardly to a curve at said bottom, said front face having a slot therethrough and said bottom having a curved hole communicating with said slot, said body member having an open top and being widest at its open top, said rear face having an integral extension of the same width at its top as the maximum width of the body member, said extension extending straight up above the open top of said body member and forming a splash plate of a size larger than the rear face of the body member to receive a soiled or wet broom head just before it is lowered into the body member, said slot and hole of said body member adapted to receive the handle of the broom and said open top permitting the broom head to be moved downwardly within the body member for removably housing the broom head therein, and spaced means for attaching said body member to a wall, said means being positioned below said splash plate, so as not to interfere with the broom head as it contacts said splash plate.

2,820,686

PORTABLE LECTERN

Rolland S. Snyder, Yonkers, N. Y.
Application July 28, 1955, Serial No. 525,002
3 Claims. (Cl. 312-282)



1. A speaker's lectern comprising a carrying case having a bottom, back wall, side walls and a top, the front of the carrying case having a vertically-extending opening and a lectern shelf operable in the opening to be located in closed, horizontal and inclined positions, means for controlling the movement of the lower edge of the lectern shelf comprising links hingeably connected to the carrying case removed from the bottom edge of the opening and to the inner edge of the shelf, said links having free ends and being of such length as to bring them to a stop at the bottom of the case and locate and retain the inner edge of the shelf at the bottom edge of the opening when the shelf is moved into closing position in the front of the carrying case, means for retaining the outer edge of the shelf at the top of the carrying case when in the closing position, said shelf in one open position being hingeable downwardly about the free ends of the links to extend horizontally from the lower edge of the opening, and inwardly-extending projections on the opposite side walls adapted, when the links and lower edge of the shelf have been hinged upwardly and rearwardly into the case, to support the shelf in another position.

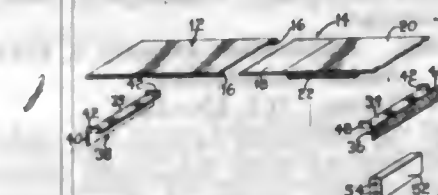
2,820,687

UTILITY SHELF

Roger L. Waring, Marion, Ohio
Application November 16, 1955, Serial No. 547,183
3 Claims. (Cl. 312-350)

3. In a dual utility shelf having an upper support surface and a lower support surface comprising a single rigid substantially rectangular sheet of material, the sheet of material having a first rectangular portion, the first rectangular portion being at one end thereof and of a given width, a second rectangular portion of the given width, the second rectangular portion being adjacent the other end of

the sheet, the said two rectangular portions being joined by a reduced portion of a lesser width, the sheet being bent along a transverse line forming a juncture between the first rectangular portion and the reduced portion, thus forming a rectangular downwardly extending section in the part of the reduced portion adjacent the first rectangular portion, the reduced portion having a right angle bend therein at the lower end of said rectangular downwardly extending section, the reduced portion thus having a horizontal area at a lower level than the first rectangular portion, the reduced portion having an upwardly extending section in spaced relation from the first rectangular portion



tion, there being a horizontal section of the reduced portion joining the upwardly extending section to the second said rectangular portion of the given width, the second said rectangular portion being in folded relation with the reduced portion and disposed above the reduced portion with part of the second said rectangular portion in juxtaposed parallel engagement with the last said horizontal section of the reduced portion, the end of the second said rectangular portion of the given width being vertical and having parts thereof embracing the rectangular downwardly extending section formed in the reduced portion adjacent the first rectangular portion of the given width.

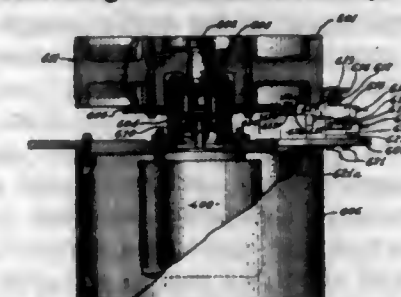
2,820,688

DIGITAL DIFFERENTIAL ANALYZER MAGNETIC DRUM

Everett D. Philbrick, Jr., Beverly Hills, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California
Application September 10, 1952, Serial No. 308,784
6 Claims. (Cl. 346-74)

1. In a computer having a mounting base and magnetic head assembly supported therefrom and positioned in cooperative relationship with a moving recording channel, a head support assembly comprising a plurality of superposed blocks each having spring-loaded adjustment screw means for moving one of its adjacent blocks in a respectively different relative path, said head support assembly

being attached as a support medium between said mounting base and said magnetic head assembly, whereby said

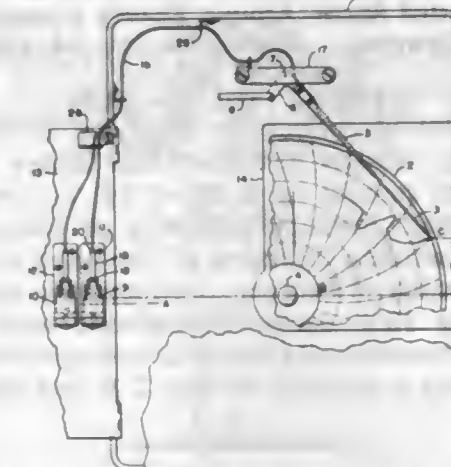


magnetic head assembly can be adjusted in all directions relative to said recording channel.

2,820,689

CAPILLARY PENS

Joseph J. Holloway, Shaker Heights, Ohio, assignor to Bailey Meter Company, a corporation of Delaware
Application March 18, 1954, Serial No. 417,087
6 Claims. (Cl. 346-140)



4. An ink supply system for use with capillary recording pens and comprising an elongated, pliable reservoir sac of synthetic plastic material of envelope shape and high resistance to inward diffusion of ambient atmospheric gases and outward diffusion of moisture, liquid recording pen ink partially filling said sac, and a capillary tube of synthetic plastic material extending from the liquid ink in the lower inner portion of said sac and through the upper edge portion of the sac in sealed relation, the outermost end of the capillary tube being integrally sealed for shipment.

CHEMICAL

2,820,690

PROCESS OF BLEACHING COTTON WITH HYDROGEN PEROXIDE BLEACH STABILIZED WITH CALCIUM OR MAGNESIUM ORTHOPHOSPHATE
Paul Feldmann, Danville, Va., assignor, by mesne assignments, to Becco Chemical Division, Food Machinery and Chemical Corporation, a corporation of Delaware
No Drawing. Application July 26, 1954
Serial No. 445,883
2 Claims. (Cl. 8-111)

1. In the process of continuously bleaching cotton fabric wherein said fabric is continuously moved from a supply station to a storage J box and removed and the moving fabric is first impregnated with a bleaching concentration of stabilized hydrogen peroxide and thereafter steamed in the J box until the fabric is bleached, that improvement which comprises stabilizing said peroxide with a stabilizing amount of at least 0.017 mole per liter of orthophosphate ions in the presence of a stabilizing amount of at least about 100 parts per million of alkaline earth metal ions selected from the group consisting of calcium ions and magnesium ions, said ions forming stabilizing amounts of

calcium and magnesium orthophosphate, the stabilized solution being buffered to from pH 9 to pH 11 with a buffering agent selected from the group consisting of alkali metal borates and alkali metal orthophosphates.

2,820,691

PROCESS OF HYDROLYZING CYANOETHYLATED COTTON TEXTILES WITH ALKALINE HYDROGEN PEROXIDE AND ACIDIC HYDROLYSIS
James R. Stephens and Lorence Rapoport, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application July 6, 1955
Serial No. 520,370
4 Claims. (Cl. 8-129)

1. As a process of producing carboxyethyl substituted cellulose products having a fibrous structure from cyanoethylated cotton textile fibers containing a plurality of cyanoethyl groups and from 3% to 6% of nitrogen, by weight, of said fibers, the nitrogen being nitrile nitrogen in the cyanoethyl groups thereof, the improved process

which comprises reacting said fibers with an alkaline aqueous solution of hydrogen peroxide and ammonium hydroxide until a part of the nitrile groups are converted into amide groups, washing the so-reacted fibers with water and dilute aqueous hydrochloric acid to remove excess reagents, reacting the so-treated fibers with an aqueous solution of 2 N hydrochloric acid until the amide groups are converted into carboxylic acid groups to produce a carboxyethyl substituted cellulose product having a fibrous structure and containing about 0.1 mol of carboxy group and about 0.2 mol of nitrogen per anhydroglucose unit thereof, the said aqueous alkaline and acidic treatments of said fibers being insufficient to destroy the fibrous structure thereof and insufficient to appreciably hydrolyze the glucosidic linkages thereof, and recovering the fibrous carboxyethyl substituted cellulose product so obtained.

2,820,692

PROCESS OF DISSOLVING ZIRCONIUM ALLOYS
Roberta S. Shor and Seymour Vogler, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application July 14, 1955
Serial No. 522,189

2 Claims. (Cl. 23-14.5)

1. A process of completely dissolving zirconium and uranium from massive zirconium-base alloys containing uranium in an amount up to about 2% by weight based on the zirconium content, consisting of contacting said alloys with a solution consisting of water and hydrofluoric acid in a quantity of between stoichiometric amount and approximately 10% excess hydrofluoric acid over the amount stoichiometrically required, said hydrofluoric acid solution having a molarity between 2 M and about 10 M.

2,820,693

PROCESS OF MAKING ALUMINA USING TIN, LEAD, OR GERMANIUM AS A CATALYST
George L. Hervert, Downers Grove, and Herman S. Bloch, Skokie, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application October 24, 1955
Serial No. 542,465

14 Claims. (Cl. 23-143)

1. A process for producing alumina which comprises commingling aluminum containing less than 100 parts per million (based on the aluminum) of a metal selected from the group consisting of tin, lead and germanium and an aqueous solution of an acid which is reactable with aluminum to form hydrogen, reacting said solution and said aluminum until at least 25% of the hydrogen which is stoichiometrically equivalent to the amount of acid initially present is evolved, subsequently adding aluminum containing from about 100 to about 10,000 parts per million (based on the aluminum) of a metal selected from the group consisting of tin, lead and germanium, effecting further reaction and recovering alumina from the reaction mixture.

2,820,694

PROCESS OF MAKING ALUMINA USING IRON AS A CATALYST
George L. Hervert, Downers Grove, and Herman S. Bloch, Skokie, Ill., assignors to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware
No Drawing. Application October 24, 1955
Serial No. 542,468

9 Claims. (Cl. 23-143)

1. A process for producing alumina which comprises commingling aluminum containing less than 100 parts per million of iron (based on the aluminum) and an aqueous solution of an acid which is reactable with aluminum to form hydrogen, reacting said solution and

said aluminum until at least 25% of the hydrogen which is stoichiometrically equivalent to the amount of acid initially present is evolved, subsequently adding aluminum containing from about 100 to about 2500 parts per million of iron (based on the aluminum), effecting further reaction, and recovering alumina from the reaction mixture.

2,820,695

STABILIZATION OF LIQUID SULFUR TRIOXIDE AND OLEUMS

Rudolph Pick, Elizabeth, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 3, 1956
Serial No. 556,816

8 Claims. (Cl. 23-167)

1. The method of stabilizing against SO_3 polymerization a compound selected from the group consisting of liquid sulfur trioxide and oleum of SO_3 strength such that SO_3 polymers tend to form comprising incorporating therein about 0.2 to 5% by weight based on SO_3 content of a material selected from the group consisting of silica and titania and then heating for several hours at a temperature in the range of 50°C . to 100°C .

2,820,696

STABILIZATION OF LIQUID SULFUR TRIOXIDE AND OLEUMS

Rudolph Pick, Elizabeth, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 3, 1956
Serial No. 556,814

8 Claims. (Cl. 23-174)

1. The method of stabilizing against SO_3 polymerization a compound selected from the group consisting of liquid sulfur trioxide and oleum of SO_3 strength such that SO_3 polymers tend to form comprising incorporating therein about 0.2 to 5% by weight based on SO_3 content of a binary silicon halide selected from a group consisting of silicon tetrahalides and disilicon hexahalides and then heating for several hours at a temperature in the range of 50°C . to 100°C .

2,820,697

STABILIZATION OF LIQUID SULFUR TRIOXIDE AND OLEUMS

George A. Peirce, Westfield, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 3, 1956
Serial No. 556,815

8 Claims. (Cl. 23-174)

1. The method of stabilizing against SO_3 polymerization a compound selected from the group consisting of liquid sulfur trioxide and oleum of SO_3 strength such that SO_3 polymers tend to form comprising incorporating therein about 0.2 to 5% by weight based on SO_3 content of dimethyl sulfoxide.

2,820,698

PROCESS FOR PURIFYING SILICON HALIDE

Ignace J. Krehma, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application June 25, 1954
Serial No. 439,451

5 Claims. (Cl. 23-205)

1. A process for purifying a silicon halide, containing only trace amounts of contaminating compounds, consisting essentially of adding to said halide from about 0.1 to 50 mols of water per 100 mols of silicon halide to be

purified, agitating the resulting mixture and separating therefrom the products resulting from the water addition and recovering a purified silicon halide.

2,820,699

ANTI-FOAMING MATERIAL
George M. Morris, Kansas City, Mo.
No Drawing. Application April 30, 1954
Serial No. 426,923

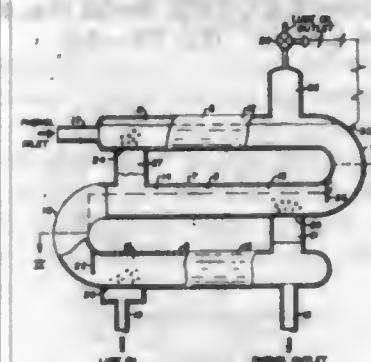
2 Claims. (Cl. 23-230)

1. A process of minimizing the production of foam in the Kjeldahl nitrogen determination comprising the step of adding thereto a polyethylene soluble in the Kjeldahl reagents.

2,820,700

FLUID CONTACTING APPARATUS
Arthur L. Saxton, Warren Township, Somerset County, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application September 24, 1954, Serial No. 458,248

4 Claims. (Cl. 23-270.5)



1. A multi-stage apparatus for contacting two incompletely miscible fluids of different specific gravities in a countercurrent relation between stages and in concurrent relation within each stage, wherein one of the fluids is present as a continuous phase and the other fluid as a discontinuous phase, which comprises, in combination: a plurality of vertically spaced substantially horizontal elongated tubular members, a plurality of return bend tubular conduits connecting adjacent horizontal tubular members sequentially at alternate ends thereof, thereby forming a continuous serpentine tubular passage through the plurality of said substantially horizontal tubular members and said return bend conduits, a plurality of substantially vertically disposed transfer conduits, each connecting a horizontal tubular member with an adjacent horizontal tubular member at points adjacent the ends thereof that are longitudinally opposite those ends of the same horizontal tubular members that are joined by a return bend conduit, each said transfer conduit terminating at the upper inside surface of the lower horizontal tubular member, and at the lower inside surface of the upper tubular member, to which that transfer conduit is attached, a first inlet conduit for introducing continuous phase fluid into a first horizontal tubular member at one end of the apparatus, a first outlet conduit for withdrawing continuous phase fluid from the last horizontal tubular member at the opposite end of the apparatus, a second inlet conduit for introducing discontinuous phase fluid into said last horizontal tubular member, a second outlet conduit for withdrawing discontinuous phase fluid from said first horizontal tubular member, and dispersion means associated with each transfer conduit and with said second inlet conduit, each of said horizontal tubular members being of sufficient length to permit separation of a dispersion of said fluid phases during longitudinal flow through said member, whereby when the inlet conduit for the lighter of the said phases is positioned in the lowermost horizontal tubular member

and the inlet conduit for the heavier phase is positioned in the uppermost horizontal tubular member, said continuous phase fluid will flow by gravity difference through said entire serpentine passage from said first inlet conduit to said first outlet conduit, and said discontinuous phase fluid will flow through said second inlet conduit and the dispersion means associated therewith into said last horizontal tubular member, be dispersed in continuous phase fluid in said last tubular member, be separated from continuous phase fluid during flow longitudinally through said last tubular member, collect as a separate phase adjacent that inner surface of said last tubular member that communicates with the transfer conduit connecting the last tubular member with the adjacent tubular member of the series, and pass sequentially through each transfer conduit and associated dispersing means, being alternately dispersed in the continuous phase fluid and separated therefrom in each of said horizontal tubular members in the manner aforesaid, and finally flowing from the first tubular member through said second outlet conduit.

2,820,701

APPARATUS FOR CHLORINATION
Donald J. Leslie, Pasadena, Calif.
Application June 28, 1954, Serial No. 439,531

1 Claim. (Cl. 23-271)



In apparatus of the character described: a container having a lower wall and side walls; a perforated plate peripherally fitting the side walls and supported above the bottom wall, and dividing the container into an upper space and a lower space; means closing the upper end of the container; conduit means for supplying liquid under pressure and projecting through the lower wall and the plate and terminating in the upper space; said conduit means having means located in said upper space providing laterally directed circularly arranged liquid outlets; said conduit being adjustable selectively to position its outlet means above the plate; means for securing the conduit means in adjusted position; and outlet forming in the lower space.

2,820,702

CATALYST-SUPPORTING DRAIN FOR CATALYTIC REACTANTS

Ralph James, Jr., Channelview, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
Application October 31, 1955, Serial No. 543,717

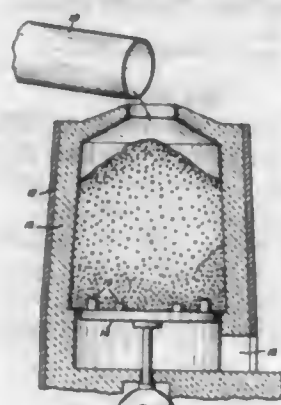
5 Claims. (Cl. 23-288)

1. A reactor for treating a fluent material with a finely divided solid comprising a vessel having walls defining a chamber wherein said fluent material and said solid may be brought into contact with each other, said chamber having an upper inlet opening and a lower outlet opening; said lower outlet opening having a diameter less than the maximum diameter of said chamber, a solids-supporting drain nested at the bottom thereof in said outlet opening and extending upwardly into said chamber, said drain comprising upstanding concentrically spaced wall members defining an annular drainage space and a drain port, said drain port being open to said chamber for the admis-

2400 to 2600° F comprising cooling these agglomerates from an initial temperature approximating that at which

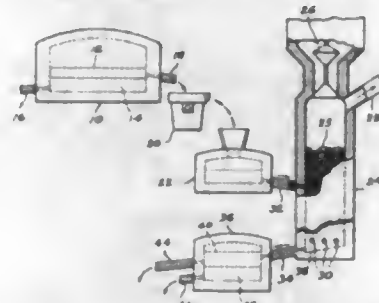


they are formed to about 300 to 600° F. over a 12 to 16 hour period.



John P. Warner, Vancouver, British Columbia, Canada
Application March 17, 1955, Serial No. 494,912

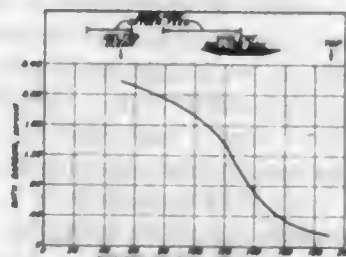
Application March 17, 1955, Serial No. 494,912
16 Claims. (Cl. 75—24)



1. A process for recovering metals less active than ferrous iron in the electromotive series from non-ferrous metallurgical slags containing reducible compounds of said metals, said process comprising: establishing a reduction zone containing a matrix comprising pieces of a reducing material for said compounds, maintaining in said zone a reducing condition indicated by an atmosphere containing carbon monoxide and carbon dioxide in such proportions that log. CO/CO_2 is from -4 to $+2$, maintaining in said zone a temperature of between the melting point of the slag and 1450°C. , passing the slag in the molten state through and in contact with the matrix in said zone for reduction of the reducible metal compounds present in the slag, withdrawing the treated molten slag from said zone after substantial reduction of said metal compounds has occurred, and separating the metal product from the withdrawn slag.

Bernard M. Larsen, Fairhaven, N. J., assignor to United States Steel Corporation, a corporation of New Jersey

Application July 26, 1955, Serial No. 524,416
8 Claims. (Cl. 75-52)



1. A method of making steel comprising melting down iron scrap and a flux of the group consisting of limestone, burnt lime and mixtures thereof and adding hot metal

Walter C. Allen, Belleville, and Thomas F. Berry, Union City, N. J., assignors to United States Steel Corporation, a corporation of New Jersey

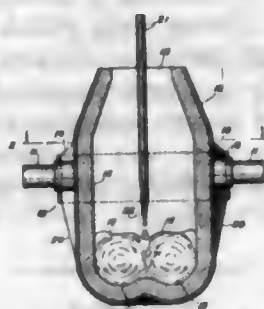
Application January 6, 1956, Serial No. 557,769

1. A method of improving the mechanical strength of partially fused iron oxide agglomerates formed at about

tion of raw meat in an amount by weight at least equal to said portion, slowly cooking said first portion with said added water to a temperature of between 200° F. and 210° F. to produce a cooked meat and broth, finely comminuting said first portion, coarsely comminuting a second portion of raw meat, searing said two portions together with at least some of said broth while preventing the escape of at least the majority of the vaporized fractions thereof, blending the two portions while searing, continuing said searing until the temperature of the product is between 120° F. and 200° F., and then discontinuing said searing.

John Walker, Walnut Creek, Calif., assignor to Henry J. Kaiser Company, Oakland, Calif., a corporation of Nevada

Application June 7, 1954, Serial No. 434,758
16 Claims. (Cl. 75-60)



1. The combination of a metal refining converter comprising a hollow vessel having an opening at the upper end thereof, a pair of substantially flat, confronting interior walls spaced apart in the lower part of said vessel, and a pipe adapted to emit a fluid in the space intermediate said walls, said pipe having an elongated discharge outlet, the major axis of said outlet being parallel to said walls.

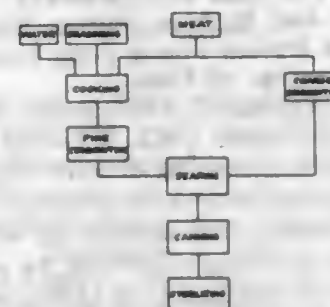
**James H. Waxweller, Middletown, Ohio, assignor to
Armco Steel Corporation, a corporation of Ohio
Application May 17, 1955. Serial No. 508,849**

12 Claims. (Cl. 75—128)

12. Heat-hardened austenitic chromium-nickel stainless steel cast articles essentially consisting of chromium 12.0% to 21.0%, nickel up to 11.5%, carbon up to .20%, manganese up to 5.0%, silicon up to 2.00%, nitrogen up to .20%, and remainder substantially all iron, the relative amounts of said chromium and silicon on the one hand and nickel, manganese, carbon and nitrogen on the other being substantially in accordance with the area A, B, C and D of the accompanying diagram; said articles having been transformed by heating at a temperature of 1200° to 1700° F. and cooling and then hardened by heat-treating at a temperature of 300° to 1150° F.

Warren R. Schack and Robert H. Maher, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

Application April 1, 1954, Serial No. 420,364
4 Claims. (Cl. 99—108)



3. The method of preparing meat preparatory to canning including the steps of adding water to a first por-

726 O. G.—39

Geoffrey R. Buckwalter, Philadelphia, and John P. Costello, Havertown, Pa., assignors to Fred'k H. Levey Company, Inc., New York, N. Y., a corporation of New York

No Drawing. Application December 1, 1953
Serial No. 395,584

8 Claims. (Cl. 106—26)

1. A printing ink comprising a coloring material dispersed in a vehicle consisting essentially of nitrocellulose of the alcohol-soluble type containing not more than 11.7% nitrogen, dissolved in an alkanediol from the group consisting of 1,2-propanediol, 2-methyl-1,2-propanediol, 1,5-pentandiol, 2-ethyl-1,3-hexandiol, 2-methyl-2,4-pentandiol and 2,3-butylene glycol, the proportion of nitrocellulose being within the range of from about 2% to 25%, based on the weight of the ink.

Myron W. Kiebler, Jr., Cleveland, and Richard Baukema, Lakewood, Ohio, and Albert Zier, Chicago, Ill., assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application June 22, 1953
Serial No. 363,396

12 Claims. (Cl. 106—34)

1. A partially-neutralized linseed oil- α,β unsaturated dicarboxylic acid condensation product resulting from (a) the chemical condensation of from 6 to 9 parts of an α,β unsaturated dicarboxylic acid selected from the group consisting of maleic acid, maleic anhydride, fumaric acid, and mixtures thereof, with a complementary amount of from 94 to 91 parts of a linseed oil product selected from the group consisting of raw linseed oil and alkali-refined linseed oil, and (b) the neutralization with ammonia of from 40 to 70 percent of the resulting acidity of said condensation product, said partially-neutralized condensation product being characterized: (A) by its ability to form a clear aqueous solution when one part by weight of the solids of said condensation product is mixed with about one-fourth part by weight of ethylene glycol monobutyl ether and with a total of about three-fourths part of water by weight, and (B) by its ability to form a dry, adherent, non-water-sensitive, protective film when a coating of an aqueous solution as defined in (A) above is applied to a non-porous surface and allowed to dry.

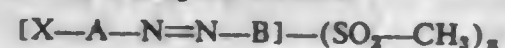
Paul A. Blachman, Reading, Pa., assignor to The Glidden Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application March 30, 1955

No Drawing. Application March 30, 1933
Serial No. 498,093

3 Claims. (Cl. 106—34)

1. As a novel composition, (I) an organic solvent so-

lution of at least one complex chromium compound of a monazo dyestuff having the formula



wherein

A represents a benzene nucleus

B represents the radical of a member selected from the group consisting of phenolic, naphtholic and enolic coupling components, and containing an OH group in o-position to the azo group

X represents a metallizable group selected from the group consisting of OH and COOH, in o-position to the azo group, and

n is one of the integers 1 and 2, the methyl sulfone group being otherwise free from carboxylic acid and sulfonic acid groups

and (II) a binder component composed essentially of lacquer-type film-forming materials.

2,820,713

MORTAR COMPOSITIONS

Herman B. Wagner, Perkaskie, Pa., assignor to Tile Council of America, Incorporated, a corporation of New York
No Drawing. Application March 2, 1956

Serial No. 568,992

11 Claims. (Cl. 106-93)

4. A composition capable of being mixed with water to form a mortar and comprising Portland cement as its principal ingredient and the following ingredients in percentages based on the weight of the cement: methyl cellulose having a viscosity between about 80 and 6,000 centipoise in 2% solution, about 0.25% to 2.2% and a mixture of a material selected from the class consisting of alkyl and aryl esters of an alkali metal thiosulfuric acid and an alkaline earth metal polysulfide about 2% to 10%, the ratio of said ester to polysulfide in said mixture being between about 1.8:1 and about 3:1.

2,820,714

GYPSUM PLASTER SET STABILIZATION

Henry James Schneller, Buffalo, N. Y., and Otto A. Oshida, Canon City, Colo., assignors to National Gypsum Company, Buffalo, N. Y., a corporation of Delaware

No Drawing. Application October 10, 1955

Serial No. 539,651

8 Claims. (Cl. 106-110)

5. A set stabilized gypsum plaster composition, comprising 100 parts of calcined gypsum, a minor portion of retarder, and from .1 to 1 part of pre-reacted stabilizer consisting of the dry product of the reaction of a mixture consisting essentially of 2 parts of a sulfate of the group consisting of aluminum, sodium acid and potassium aluminum in 1 to 4 parts lime in the presence of water.

2,820,715

MECHANICAL FINISHING OF TEXTILE FABRICS
Alfred Brookes, Dudley, and Arthur Raymond Smith, Kings Heath, Birmingham, England, assignors to British Industrial Plastics Limited, London, England, a company of Great Britain

No Drawing. Application December 6, 1954

Serial No. 473,436

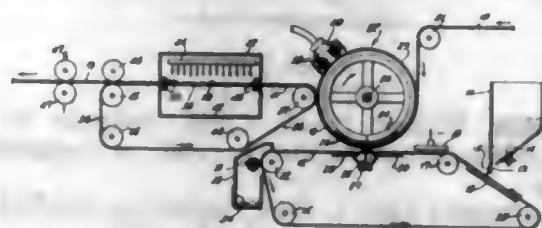
5 Claims. (Cl. 117-11)

1. A process for fixing mechanical effects on a textile fabric consisting substantially of regenerated cellulose, comprising impregnating said fabric with an aqueous solution containing a water soluble C_1-C_3 alkyl ether of dimethylol urea having a minimum etherification of 75% of all the methylol groups present and a curing agent therefor, expressing surplus solution from said impregnated fabric, at least partially drying said fabric, subjecting said fabric to the desired mechanical finishing treatment and heating said fabric to insolubilize the impregnant.

2,820,716

METHOD OF FORMING NONWOVEN FABRIC
Carlyle Harmon, Longmeadow, and Charles H. Plummer, Springfield, Mass., assignors to Chicopee Manufacturing Corporation, a corporation of Massachusetts
Application April 1, 1954, Serial No. 420,301

18 Claims. (Cl. 117-17.5)



1. The method of forming a nonwoven fabric from a loosely assembled fibrous web, which comprises distributing dry charged particles of an adhesive material throughout the web in a predetermined pattern by means of electric lines of force, softening the particles in the web to an adhesive state, and hardening said particles in adhesive contact with fibers in the web to bond them together and form a fabric.

2,820,717

MANIFOLD SHEET AND COMPOSITION THEREFOR

Douglas Alexander Newman, Glen Cove, and Allan T. Schlotzhauer, Locust Valley, N. Y., assignors to Columbia Ribbon & Carbon Manufacturing Company, Inc., Glen Cove, N. Y., a corporation of New York
No Drawing. Application August 17, 1953

Serial No. 374,814

3 Claims. (Cl. 117-36)

1. A pressure-transferable ink composition for pressure operative transfer media comprising, by weight, one part of vinyl chloride-vinyl acetate resin of about 87% vinyl chloride and 13% vinyl acetate content, about two and one-half parts of a non-volatile, non-drying oil, about four and one-half parts of a volatile solvent for said resin, and a quantity of coloring material.

2,820,718

REINFORCED ALKYLACRYLATE LATICES AND ELASTOMERIC RESINS OBTAINED THEREFROM
Paul Fram, Kensington, Carl A. Nielson, Takoma Park, and Fred Leonard, Silver Spring, Md.

Application February 4, 1954, Serial No. 408,314

25 Claims. (Cl. 117-37)

(Granted under Title 35, U. S. Code (1952), sec. 266)

4. A synthetic rubber-like sheet comprising a base polymer consisting of 90-10 butylacrylate-acrylonitrile copolymer and approximately 30 parts by weight of polyethylmethacrylate for 100 parts of the base polymer, the sheet having a pigmented coating on a reverse side thereof and being of a thickness adapted to permit visual perception of the pigmented coating when viewed through the entire thickness of the sheet from its anterior surface.

2,820,719

PROCESS FOR RENDERING FABRICS WATER REPELLENT

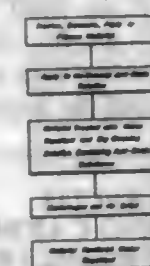
Ralf B. Trusler and Barbara Sutton, Dayton, Ohio, assignors to The Davies-Young Soap Company, Dayton, Ohio, a corporation of Ohio

Application August 27, 1952, Serial No. 306,724

5 Claims. (Cl. 117-55)

1. A process for rendering articles made from fibrous materials water-repellent, said process comprising the steps of first treating said articles so as to render the same conductive of static electricity by applying thereto a solution which is conductive of electricity, said solution comprising a quaternary ammonium compound which does not render the fibrous articles readily wettable by

water, dissolved in petroleum naphtha, and then applying to the thus treated fibrous material an organic solvent



solution containing a water-repellent, said water-repellent comprising resin, wax and petroleum solvent.

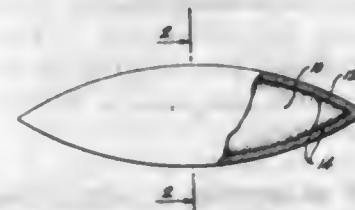
2,820,720

GLASS-BONDED FERRITE

Arthur H. Iversen, Santa Monica, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application September 15, 1954, Serial No. 456,187

6 Claims. (Cl. 117-65)



1. A glass-bonded ferrite structure comprising a ferrite body, a sintered substantially non-porous layer of a dielectric ferrite powder being less than 5 microns in particle size and disposed on the external surface of said ferrite body, and a soft glass fused over said sintered layer of ferrite powder.

2,820,721

COVER CLOTH

Walter C. Hitchcock, Summit, N. J., and George C. Holroyd, Hogansville, Ga., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application April 28, 1955, Serial No. 504,618

3 Claims. (Cl. 117-72)



1. An ironing and pressing cover cloth adapted to be used over a padded work support, comprising a felted mass of predominantly asbestos fibers forming a thin, flexible smooth surfaced non-woven fabric between .020" and .040" thick, said felted mass including a minor proportion of a carrier fiber, said fabric weighing between 12 and 18 ounces per square yard, a flexible, water insoluble synthetic resinous binder bonding the fibers in said felted mass together to form a permanent structure, and a heat and wear resistant surface coating on the said fabric laying the surface fibers to prevent linting and to form a wear resistant ironing and pressing surface.

2,820,722

METHOD OF PREPARING TITANIUM, ZIRCONIUM AND TANTALUM

Richard J. Fletcher, Montreal, Quebec, Canada
Application September 3, 1954, Serial No. 454,093

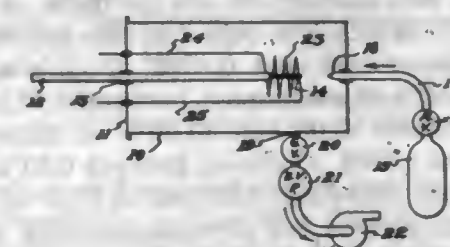
Claims priority, application Great Britain

September 4, 1953

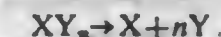
1 Claim. (Cl. 117-107)

A method for continuously preparing a metal selected from the group consisting of titanium, zirconium, and tantalum, which comprises removably mounting a small

body of the desired metal in a closed reaction vessel; reducing the pressure within said vessel to a value of at most 1 mm. of mercury; heating said body by positive ion bombardment while continuously directing a molecular beam of a halide of the metal through a jet orifice into said vessel and onto said heated body, the cross sectional area of said molecular beam at said heated body being within the surface of said heated body nearest said



jet orifice, said metal halide being selected from the group consisting of the chlorides, bromides, and iodides of the desired metal, and the body being heated to a temperature in excess of the dissociation temperature of the selected metal halide; continuously removing from said vessel free halogen formed in the region of said heated body by thermal dissociation of said metal halide in accordance with the equation



wherein:

X is selected from Ti, Zr and Ta,
Y is selected from I, Br and Cl, and

n is an integer corresponding to the valency of X

and periodically removing said body and replacing it with a fresh body when an appreciable quantity of new metal has been deposited on the first body by the thermal dissociation of the metal halide.

2,820,723

INHIBITION OF CORROSION OF PHOSPHATED METAL SURFACES

William M. Le Suer, Cleveland, Ohio, assignor to The Lubrizol Corporation, Wickliffe, Ohio, a corporation of Ohio

No Drawing. Application January 17, 1957

Serial No. 634,627

11 Claims. (Cl. 117-127)

1. The process of inhibiting corrosion of phosphated metal surfaces which comprises applying to said surfaces a film of a product prepared by the process which comprises the reaction of

- (a) a zinc salt of a phosphorodithioic acid with
- (b) an approximately equivalent amount of an organic epoxide containing at least 4 aliphatic carbon atoms.

2,820,724

TEXTILE TREATMENT

James K. Sneed, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 23, 1953

Serial No. 400,095

4 Claims. (Cl. 117-139.5)

1. A process for rendering a textile material less retentive to electrostatic charges without adversely affecting its handle comprising treating the textile material with a composition comprising an insolubilizable oxygen-containing polyamide, containing at least 4% oxygen by weight exclusive of carbonyl content, and a water dispersible polyether and an insolubilizing agent, insolubilizing the polyamide on the textile material and removing the polyether from the treated textile material.

2,820,725

WELDING ALLOYS AND FLUXES

Rene D. Wasserman, Stamford, Conn., and Joseph Quaas, Island Park, N. Y., assignors to Eutectic Welding Alloys Corporation, Flushing, N. Y., a corporation of New York

No Drawing. Application June 21, 1955

Serial No. 517,083

7 Claims. (Cl. 117-206)

6. A covered electrode having a conductive core and an overlying flux coating for use in metal arc welding applications in which the core has the following composition, between 0.02 and 0.49% of carbon, between 12.00 and 26.00% of manganese, between 0.10 and 4.00% of nickel, between 12.00 and 30.00% of chromium, between 0.50 and 2.00% of silicon, between 0.01 and 4.00% of molybdenum, between 0.05 and 0.35% of nitrogen, the balance being iron, all percentages being by weight, and the coating has the following composition, from 20 to 35 parts titanium dioxide, from 5 to 15 parts calcium fluoride, from 15 to 25 parts calcium carbonate, from 2 to 8 parts bentonite, from 5 to 15 parts iron oxide, from 2 to 12 parts manganese oxide, from 5 to 15 parts calcium metasilicate, from 0.5 to 10 parts aluminum oxide, and from 10 to 20 parts potassium titanate, all parts being by weight.

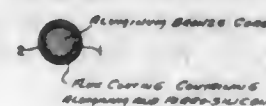
2,820,726

ALUMINUM BRONZE WELD ROD

Francis E. Garriott, Milwaukee, Wis., assignor to Ampco Metal, Inc., Milwaukee, Wis., a corporation of Wisconsin

Application February 3, 1955, Serial No. 485,977

8 Claims. (Cl. 117-207)



1. A weld rod comprising a cold drawable aluminum-bronze alloy core wire and a coating applied to the core and consisting of a fluoride fluxing material, carbonaceous material, a binding material, and an alloying material, said alloying material comprising from 0.5 to 15% by weight of the core and consisting of aluminum and ferro-silicon, said weld rod being characterized by the alloying of aluminum and ferro-silicon of the coating with the core wire during welding to produce a weld deposit having substantially greater hardness and tensile strength than the core wire.

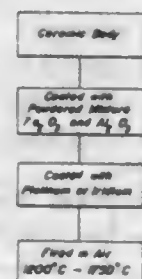
2,820,727

METHOD OF METALLIZING CERAMIC BODIES

Walter Grattidge, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application May 22, 1956, Serial No. 586,404

6 Claims. (Cl. 117-217)



1. The method of forming a metal surface on a refractory body having a high alumina content which comprises applying to said body one or more layers consisting essentially of a mixture of alumina and an oxide selected from the group consisting of Fe_2O_3 and Cr_2O_3 , the alumina constituting from 30% to 90% by weight of the mixture and then applying a layer of metal selected from the

group consisting of platinum and iridium and heating the coated body in an oxygen containing atmosphere to a temperature from 1200° C. to 1600° C. for platinum and from 1200° C. to 1750° C. for iridium to cause said oxide-alumina coating to react with said body and form a bond between said body and the applied layer of metal.

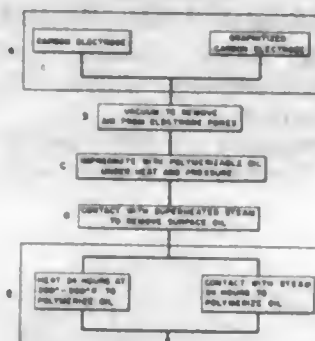
2,820,728

METHOD OF TREATING CARBON ELECTRODES WITH POLYMERIZABLE OIL

John C. Burns, Jr., Pasadena, Tex., assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

Application June 21, 1955, Serial No. 517,079

8 Claims. (Cl. 117-228)



1. The method of treating a carbon electrode which comprises contacting said electrode with a polymerizable oil and effecting polymerization of said oil in situ under substantially non-oxidative conditions with the aid of heat at an elevated temperature low enough to preclude disruption of polymerization bonds formed as the oil polymerizes.

2,820,729

REMOVAL OF SCALE FROM FERROUS METALS

Benjamin F. Davis, Jr., Houston, Tex., and Paul H. Cardwell, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 4, 1955

Serial No. 526,548

7 Claims. (Cl. 134-42)

1. A method for the removal of a scale, rich in oxides or hydroxides of ferrous metals, from the surface of a ferrous metal, which method comprises contacting the scale with a stream of a flowable liquid aqueous dispersion of a resin sulfonate, which aqueous dispersion has a pH value of from about 2 to about 7, and which resin sulfonate initially comprises an alkali metal salt of a resin sulfonic acid that is highly swellable by water to the form of a soft, fragile gel and is dispersible by stirring together with water and forms with water an aqueous dispersion that, when of 0.5 weight percent concentration, has a viscosity of from about 100 to about 4,000 centipoises at 25° C., whereby scale is removed from the metal and is dispersed in the liquid, and thereafter removing the ferrous metal and the aqueous resin sulfonate dispersion out of contact with one another.

2,820,730

PRIMARY BATTERY WITH CONTROLLABLE CATHODE POTENTIAL

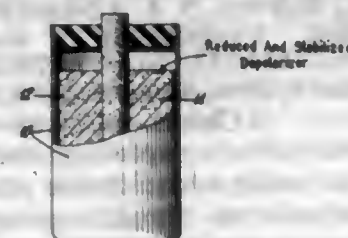
Carl A. Grulke, Berea, and Russell P. Fox, Fairview Park, Ohio, assignors to Union Carbide Corporation, a corporation of New York

Application April 30, 1954, Serial No. 426,853

5 Claims. (Cl. 136-139)

3. A process for controlling the voltage range of primary galvanic cells having manganese dioxide depolarizers comprising reducing the active surface of the manganese dioxide by subjecting it to a reducing atmosphere consisting of at least one gas selected from the group

consisting of methane, carbon monoxide, and hydrogen at a temperature range of 350° to 450° C., converting said



surface to Mn_2O_3 , and stabilizing it by pH control of the cell mix.

2,820,731

PHOSPHATE COATING COMPOSITION AND METHOD OF COATING METAL THEREWITH

Edward Heinzelman, Jr., Paltades Park, and Stanley C. Williamson, Belford, N. J., assignors to Oakite Products, Inc., New York, N. Y., a corporation of New York

No Drawing. Application March 21, 1955

Serial No. 495,819

10 Claims. (Cl. 148-6.15)

1. A phosphate coating bath consisting essentially of an aqueous solution containing, per gallon of water, at least about 0.06 ounce of at least one metal selected from the group consisting of zinc and manganese, said metal being present in the form of a compound at least about 0.07 ounce of at least one anion of an oxidizing compound, phosphoric acid in an amount at least 15% in excess of the amount necessary to react with such metal, and at least 0.0009 ounce of zirconium in the form of a compound in which the zirconium is present in basic form.

2,820,732

FLUX FOR HIGH NICKEL ALLOYS

Rene David Wasserman, Stamford, Conn., and Joseph Quaas, Island Park, N. Y., assignors to Eutectic Welding Alloys Corporation, Flushing, N. Y., a corporation of New York

No Drawing. Application August 10, 1954

Serial No. 448,996

8 Claims. (Cl. 148-23)

6. A composition of matter for use as a covering for arc welding electrodes consisting essentially of a whole mixture including a major portion ranging from 41-120 parts by weight and a minor portion ranging from 2-25 parts by weight; said major portion consisting essentially of calcium carbonate, cryolite, and a combined mixture of ferro-columbium and titanium dioxide in approximate relative proportions by weight respectively of 7, 5 and 3; and said minor portion consisting essentially in parts by weight of said whole mixture of 1-5 parts of bentonite, and between 1 and 10 parts by weight each of ferro-aluminum powder and ferro-molybdenum powder.

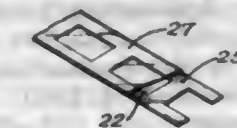
2,820,733

PRODUCTION OF STRETCHED LAMINATES

Frederick Sorel, Chicago, Ill., assignor to Arvey Corporation, Chicago, Ill., a corporation of Illinois

Application August 6, 1956, Serial No. 602,123

2 Claims. (Cl. 154-118)



1. A stable laminated product comprising a film of plasticized normally thermo-elastic rubber hydrochloride bonded in a from 230 to 245° F. heat softened and from at least 475% to about 800% stretched condition to a ply of flexible relatively nonextendable apertured felted fibrous sheet material.

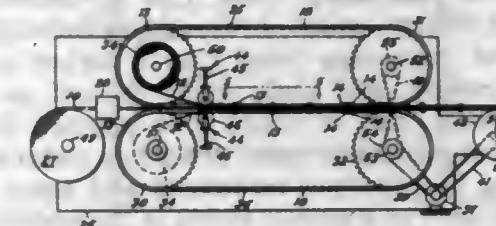
2,820,734

METHOD OF FORMING PRESSURE SENSITIVE TAPE

Dean E. Rueckert, Mokena, Ill., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

Application November 19, 1954, Serial No. 469,903

5 Claims. (Cl. 154-125)



1. A method of forming pressure sensitive tape which comprises: coating a surface of a flexible tape with adhesive, depositing cover tape on said surface, bunching said cover tape at spaced intervals during the depositing thereof, and thereafter dividing said cover tape at the bunched intervals into sections.

2,820,735

SEALING OF POLYMERIC LINEAR TEREPHTHALATE ESTER STRUCTURES

Leonard Edward Amborski, Buffalo, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 8, 1955

Serial No. 520,908

5 Claims. (Cl. 154-139)

1. A process for uniting polymeric linear terephthalate ester structures which comprises applying benzyl alcohol over the area of juncture of at least one of the two surfaces to be united, bringing said surfaces together, and thereafter applying pressure and heat at a temperature of at least 140° C. over the area of juncture.

2,820,736

HALOGENATED STEROIDS

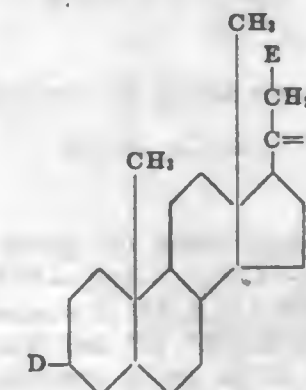
Gerald D. Laubach, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application May 16, 1955

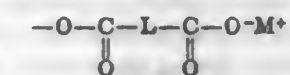
Serial No. 508,801

3 Claims. (Cl. 167-52)

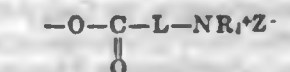
1. A compound having the formula



in which D is selected from the group consisting of ionic ester groups having the formula



and ionic ester groups having the formula



wherein L is chosen from the group consisting of $-(CH_2)_n-$, $-O-(CH_2)_n-$ and $-NH-(CH_2)_n-$, n being a number from 1 to 6, M^+ is a cation selected

from the class consisting of Na^+ , K^+ and NR_4^+ , each R represents a member of the group consisting of hydrogen and alkyl, hydroxyalkyl, hydrocarbon carboxyalkyl, aminoalkyl, aryl and aralkyl groups, each containing up to ten carbon atoms, and Z^- is a pharmacologically acceptable anion, hydroxyl and hydrocarbon carboxylic acid esters thereof containing from 1 to 8 carbon atoms in the added moiety, oxime, hydrocarbon carboxylic acid esters thereof containing from 1 to 8 carbon atoms in the added moiety, and ionic esters thereof as defined above, and keto, and in which E is selected from the group consisting of ionic ester groups as defined above, hydroxyl and hydrocarbon carboxylic acid esters thereof containing from 1 to 8 carbon atoms in the added moiety, and hydrogen, with at least one of D and E being an ionic ester group as defined above, and having from 1 to 2 halogen substituents chosen from the class consisting of chlorine and bromine at the 2-position when the 5-position is allo, chlorine and bromine at the 4-position when the 5-position is normal, chlorine and bromine at the 17-position, and bromine at the 21-position.

2,820,737

WATER SOLUBLE STEROIDS

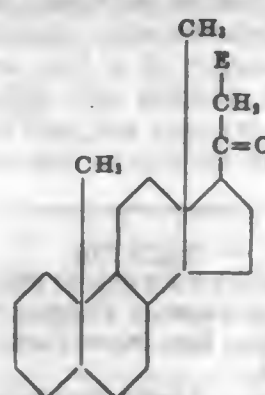
Gerald D. Laubach, Jackson Heights, N. Y., assignor to Chas. Pfizer & Co., Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application May 16, 1955

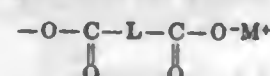
Serial No. 508,803

3 Claims. (Cl. 167—52)

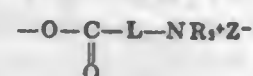
1. A compound having the formula



in which E is selected from the group consisting of ionic ester groups having the formula



and ionic ester groups having the formula



wherein L is chosen from the group consisting of $-(\text{CH}_2)_n-$, $-\text{O}-(\text{CH}_2)_n-$ and $-\text{NH}-(\text{CH}_2)_n-$, n being a number from 1 to 6, M^+ is a cation selected from the class consisting of Na^+ , K^+ and NR_4^+ , each R represents a member of the group consisting of hydrogen and alkyl, hydroxyalkyl, hydrocarbon carboxyalkyl, aminoalkyl, aryl and aralkyl groups, each containing up to ten carbon atoms, and Z^- is a pharmacologically acceptable anion.

2,820,738

SUBSTITUTED 2-PHENYL-INDAN-1,3-DIONE

Franz Litvan and Willy Stoll, Basel, Switzerland, assignors, by mesne assignments, to Geigy Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application March 22, 1954

Serial No. 417,933

Claims priority, application Switzerland April 30, 1953

3 Claims. (Cl. 167—65)

1. 2-(p-chlorophenyl)-indan-1,3-dione.

2,820,739

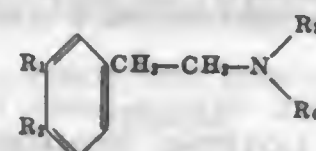
ANTITUSSIVE COMPOSITIONS

Horace D. Brown, Plainfield, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Continuation of abandoned application Serial No. 428,373, May 7, 1954. This application September 5, 1956, Serial No. 608,004

9 Claims. (Cl. 167—65)

1. An antitussive composition comprising in combination with an orally administrable pharmaceutical carrier, a substance selected from the group consisting of substituted β -aminoethyl benzene compounds of the formula



wherein the substituents R_1 and R_2 are selected from the group consisting of different monovalent hydroxy and lower alkoxy radicals and divalent radical selected from the group consisting of methylenedioxy and ethylenedioxy radicals, and wherein the substituents R_3 and R_4 are each selected from the group consisting of hydrogen and methyl radicals and acid salts thereof, said composition containing per dosage unit about 5 to 50 mg. of said substance.

2,820,740

THERAPEUTIC PREPARATIONS OF IRON

Eric London and George Daniel Twigg, Holmes Chapel, England, assignors to Bengel Laboratories Limited, Holmes Chapel, England, a British company

No Drawing. Application February 24, 1954

Serial No. 412,405

Claims priority, application Great Britain February 27, 1953

12 Claims. (Cl. 167—68)

1. A composition comprising a substantially nonionic complex of ferric hydroxide with a dextran having an average intrinsic viscosity at 25° C. of about 0.025 to about 0.25, said complex being stable in contact with water.

2,820,741

ALUMINUM ASPIRIN GRANULATION AND METHOD FOR MAKING

Clarence J. Endicott, Waukegan, Thomas A. Prickett, Waukegan Township, Lake County, and Albert A. Dal-lavis, Waukegan, Ill., assignors to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application April 29, 1954

Serial No. 426,582

2 Claims. (Cl. 167—82)

1. A dense granular product suitable for encapsulating which comprises, normally light and fluffy aluminum aspirin powder and about 2% by weight of polyvinylpyrrolidone, based on the weight of aspirin.

2,820,742

SYNTHESIS OF STRAINS OF MICRO-ORGANISMS

Guido Pelligrino Arrigo Pontecorvo and Joseph Alan Roper, Glasgow, Scotland, assignors to National Research Development Corporation, London, England, a corporation of Great Britain

No Drawing. Application October 24, 1952

Serial No. 316,794

Claims priority, application Great Britain October 24, 1951

6 Claims. (Cl. 195—79)

1. A process for the manufacture of new strains of micro-organisms, which comprises the selection of two strains of a micro-organism whose genetical factors it is desired to combine, and having genetical markers which enable the strains to be easily distinguished and complementary nutritional requirements or complementary sensitivity to poisons; inoculating the strains in a medium

deficient in the complementary nutrients or containing the complementary poisons of the strains as the case may be; growing the heterokaryon so formed, or its conidia, in at least a similar medium, thereby favoring multiplication of heterozygous nuclei in which the factors of the marked strains are combined; recognizing the cells carrying these heterozygous nuclei by means of the markers and establishing a strain thereof; and selecting from the latter strain a stable recombinant strain which is produced from the heterozygous strain and which combines in a desired manner the different genetical factors of the originally selected strains.

2,820,743

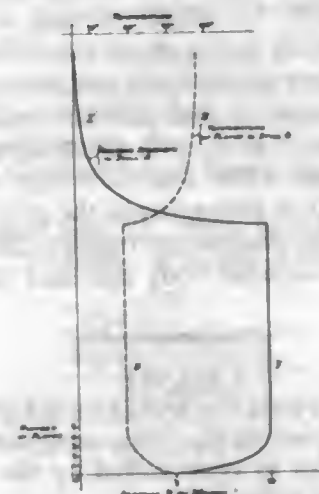
PROCESS OF PURIFYING ACETONE BY EXTRACTIVE DISTILLATION

Maurice Menton and Louis Alheritiere, Melle, Deux-Sevres, France, assignors to Les Usines de Melle (Societe Anonyme), Saint-Leger-les-Melle, France, a corporation of France

Application September 16, 1952, Serial No. 309,850

Claims priority, application France October 2, 1951

6 Claims. (Cl. 202—39.5)



1. A process which comprises feeding impure substantially acid-free acetone to the mid-section of a distilling column having a decanting plate adjacent the top of said column, said impure acetone containing a minor proportion of impurities boiling above 110° C. including higher alcohols and esters, while feeding water at approximately its boiling point to the column and flowing it on to said plate in an amount to keep the acetone concentration below the acetone feed-point at not over 15% by volume and between said feed-point and the top of the column at from 1% to 10% by volume, condensing the vapors from the top of the column, refluxing the condensate, and collecting impurities and water on the decanting plate said feed water passing into the column above said plate, discharging aqueous acetone in substantially pure form from the base of said column and removing a layer of impurities from said decanting plate.

2,820,744

FLOATING SOLAR STILL

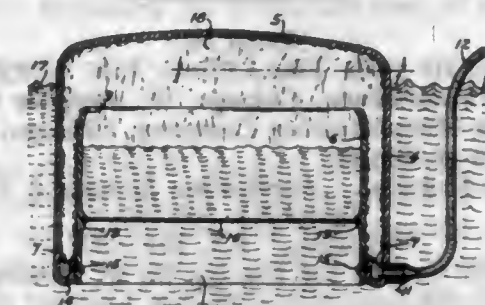
Stephen Lighter, Madison, Wis.

Application November 5, 1956, Serial No. 620,293

6 Claims. (Cl. 202—234)

4. In a solar still, an imperforate dome shaped buoyant outer casing having a continuous annular side wall spanned at its upper end by an upwardly convex top enclosure, a continuous inner annular wall within said casing side wall and coacting therewith to provide an upwardly open trough between said walls, said inner wall having an open lower end communicating with the ambient atmosphere and an open upper end spaced from said top enclosure to form a liquid sealed condensing

chamber communicating with said trough, a liquid pervious barrier spanning the interior of said inner wall, and



conduit means for conducting liquid from within said trough.

2,820,745

PROCESS FOR ELECTROWINNING TITANIUM OR ITS CONGENERS

Foord von Bichowsky, Wilmington, Del.

No Drawing. Application January 12, 1953

Serial No. 330,917

4 Claims. (Cl. 204—14)

1. Process for the electrolytic production of titanium which comprises passing an electrolyzing current from an anode through an anhydrous anolyte which consists essentially of a solution of $\text{CuCl}_2 \cdot \text{TiCl}_4$ complex dissolved in an organic solvent selected from the group consisting of ethylene glycol, propylene glycol, glycerine, methanol, ethanol, propanol, ethyl ether and glycolic acid, to a cathode through a catholyte consisting essentially of a solution of said complex and sufficient ammonium persulfate to maintain the titanium in the tetravalent state in one of said solvents.

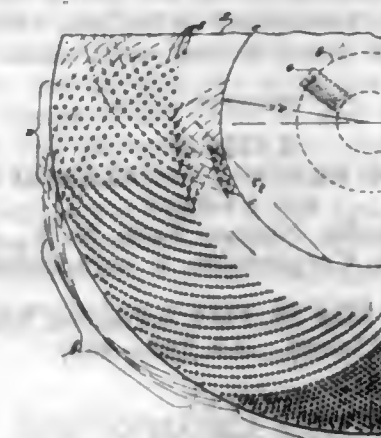
2,820,746

METHOD OF MAKING AN ABRASIVE TOOL

George F. Keeler, Dundee, Ill.

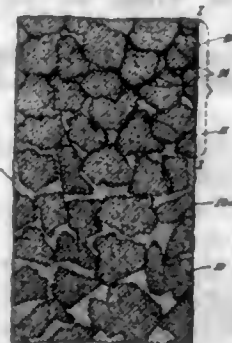
Application November 25, 1953, Serial No. 394,348

2 Claims. (Cl. 204—16)



1. In the process of making a metal-bonded abrasive tool having a precise determinate pattern of clusters of abrasive particles forming the working surface of the tool, the steps which include coating a tool blank with a thin layer of adhesive, placing a first pattern screen having slotted openings therein in close proximity to and not more than .005" from the tool blank, placing over the first pattern screen a second pattern screen having slotted openings arranged to cross the slotted openings of the first pattern screen thereby to establish a pattern of openings at the intersections of the slotted openings of the two pattern screens, then propelling abrasive particles by electrostatic means through the pattern of openings formed by the two pattern screens and onto the adhesive on the tool blank, then depositing metal onto the tool blank to

brane being conductively connected through a plurality of mutually contacting particles of the ion-exchange material disposed therebetween, said treating being selected from the group consisting of (a) sulfonating, (b) haloalkylating and aminating the haloalkylated product, and (c) nitrating and reducing the nitrated product, said treating being effective to penetrate the pores of the ion-exchange material and effective chemically to convert the recurring substituents of the portions of the polymerized resin that form the external surfaces of the bonding resin and that form the interfaces between the bonding resin and the ion-exchange material and that are contacted during said treating, to like functional groups selected from the group consisting of (a) sulfonic, (b) quaternary ammonium, and (c) substituted ammonium groups, said functional groups having associated therewith dissociable ions, having the same ionic sign as the dissociable ions of said ion-exchange material, and terminating said treating before the membrane has been substantially weakened thereby.

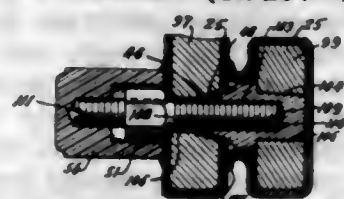


6. A heterogeneous ion-exchange membrane comprising a finely divided, water-insoluble porous cation-exchange material substantially uniformly distributed throughout a bonding matrix formed of a polymerized resin derived from a monomeric material having the formula $\text{CH}_2=\text{C}<$, the internal, non-interfacial portions of said resin being characterized substantially entirely by recurring, unsubstituted phenyl substituents, but a substantial proportion of the recurring substituent groups at the external surfaces of the membrane and at the interfaces between the cation-exchange material and the bonding resin being sulfonic groups, said recurring substituent groups of the external surficial and interfacial portions of the polymerized resin also having associated therewith dissociable ions having the same ionic sign as the dissociable ions of said cation-exchange material, said membrane having substantial thickness and physical strength, and the opposing external surfaces of said membrane being conductively connected through a plurality of mutually contacting particles of said cation-exchange material disposed therebetween, said membrane being further characterized by electrolytically conductive interfaces between the cation-exchange material and the bonding resin and also by visibly perceptible roughness of the external surfaces of the membrane.

2,820,757

PLATING RACKS AND METHODS OF RACKING ARTICLES FOR ELECTROPLATING

William E. Belke, Chicago, Ill., assignor to Belke Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application May 26, 1955, Serial No. 511,264
2 Claims. (Cl. 204-297)



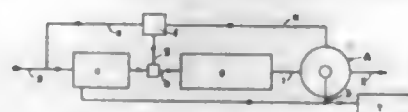
1. An electroplating rack, comprising a pair of vertically extending metal spines of flat bar shape, each

formed with a downwardly opened V-shaped hook at its upper end, and the under surface of said hooks being bare on the inside to engage a bus bar on the inside, each spine having a multiplicity of through bores for attachment of rack tips, and each spine having a pair of apertures at its upper end below its hook and another aperture at its lower end, a cross bar carried by the lower ends of the spines and having registering apertures, a U-shaped upper cross bar carried by the upper ends of said spines and having apertures registering with the upper pair of apertures in each spine, all the said cross bar apertures being threaded, a threaded bushing in each threaded cross bar aperture, said bushing having an annular shoulder engaging the cross bar in each case and having an enlarged cylindrical body with a tapered grooved end portion having converging sharp edges bordering its grooves, a threaded shank in said bushing, the bushing having a threaded bore for said shank, said shank passing through an aperture in a spine and having a tapered threaded member on the shank engaging the other side of the spine, a thick insulation covering over the spines and cross bars except in the apertures, and said cross bar insulation having an insulating collar surrounding each bushing and having a thin radial flange on each collar sealing against said spine insulation, and an insulating cap nut having a bore for rotatably enclosing said threaded member, and having a similar bore threaded to receive said shank end, to hold the cap in sealing engagement with the spine insulation, the threaded member drawing the sharp edges of the bushing into cutting contact with the metal in the spine apertures and also effecting a tight seal between the thin radial flange and the spine insulation.

2,820,758

TREATMENT OF SEWAGE IN LIQUID FORM AND SIMILAR MATERIALS

Renville S. Rankin, Stamford, Conn., assignor to Dorr-Oliver Incorporated, a corporation of Delaware
Application October 15, 1952, Serial No. 314,790
6 Claims. (Cl. 210-4)



1. In the treatment of liquids having polluting material therein wherein said liquid and polluting material are passed through a preliminary treatment station and are then circulated to a sedimentation tank through an inlet therein, the improved process comprising the steps of selectively withdrawing suspended solids in the sedimentation tank from a plurality of zones spaced at different distances from said tank inlet, and returning at least a portion of said withdrawn suspended solids to said preliminary treatment station.

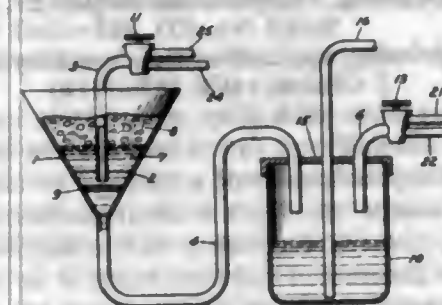
2,820,759

METHOD OF SEPARATING FROTHS FROM LIQUIDS

Gilbert P. Monet, Wilmington, Del., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application May 4, 1954, Serial No. 427,686
2 Claims. (Cl. 210-44)

1. A method of separating solids from liquids comprising the steps of introducing a flow of gas into the lower portion of a liquid bath to agitate it, adding a

surface active agent to the mixture, dispersing the gas as it passes up through the liquid of the bath to initiate frothing, passing the liquid through a liquid pervious



barrier to separate the froth from the liquid and lend support to the froth, and introducing a gas between the froth and the liquid to provide a gaseous seal for separating them.

2,820,760

FLUID COMPOSITIONS FOR USE IN SPIRIT DUPLICATION

Robert J. Klimkowski, Chicago, and Robert T. Florence, Park Ridge, Ill., assignors to A. B. Dick Company, Niles, Ill., a corporation of Illinois

No Drawing. Application August 13, 1952
Serial No. 304,208

3 Claims. (Cl. 252-1)

1. A composition for application to copy sheets in a spirit duplicating process to produce copy with diazo and coupler extracted from the imaged portion of a duplicating master, the fluid composition consisting essentially of 4-10 percent by weight of an amine base soluble in alcohol and water, 80-90 percent by weight alcohol selected from the group consisting of ethanol and methanol and up to 10 percent by weight water.

2,820,761

CARBON DIOXIDE COMPOSITION

Charles Anthony, Jr., East Orange, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey

No Drawing. Application September 25, 1953
Serial No. 382,445

8 Claims. (Cl. 252-8)

1. A fluid carbon dioxide composition stored under pressure consisting essentially of carbon dioxide and a material selected from the group consisting of trimethyl borate, triethyl borate, tributyl borate, triamyl borate, methyl carbonate, ethyl carbonate, propyl carbonate, diethyl oxalate, dibutyl oxalate, trimethyl phosphate, triethyl phosphate, tributyl phosphate, dimethyl phthalate, diethyl phthalate, dibutyl phthalate, diamyl phthalate, butyl benzyl phthalate, butyl phthalyl butyl glycolate, cresyl diphenyl phosphate, di (2-ethylhexyl) adipate, di (2-ethylhexyl) phthalate, di (2-ethylhexyl) tetrahydrophthalate, [2,2' (2-ethylhexamido) diethyl di (2-ethylhexoate), ethyl phthalyl ethyl glycolate, methyl phthalyl ethyl glycolate, triethylene glycol di (2-ethylbutyrate), triethylene glycol di (2-ethylhexoate), tri (2-ethylhexyl) phosphate and tricresyl phosphate which are miscible with liquid carbon dioxide, said material being present in an amount sufficient to suppress the generation of electrostatic charges upon discharge of the carbon dioxide under pressure conditions whereby the carbon dioxide will be partially converted into snow particles.

2,820,762

MIXED HYDROXY FATTY ACID-UNSATURATED FATTY ACID THICKENED GREASE COMPOSITIONS

Laurence F. King, Sarnia, Ontario, Canada, assignor to Esso Research and Engineering Company, a corporation of Delaware
Continuation of application Serial No. 279,831, April 1, 1952. This application June 14, 1954, Serial No. 436,354

18 Claims. (Cl. 252-18)

4. A lubricating grease composition consisting essentially of about 80-92% by weight of a mineral base lubricating oil having a high viscosity index of at least 80, and about 8 to 13% by weight, based on the total composition, of a soda-lime soap composed of about 65-85% by weight of 12-hydroxy stearic acid and about 15-35% by weight of oleic acid, said soap also containing about 0.5-4% by weight based on total soap of a sodium phosphate having at least 2 sodium atoms per molecule, and 0.2 to 0.9% of a hydroxy compound selected from the class which consists of glycerine and glycol.

2,820,763

THICKENED LUBRICANTS

Everett C. Hughes, Shaker Heights, and Ernest C. Milberger, Maple Heights, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application November 2, 1951
Serial No. 254,634

8 Claims. (Cl. 252-25)

1. A water-resistant thickened lubricant of good temperature susceptibility properties, consisting essentially of a mineral lubricating oil of lubricating viscosity, an inorganic gelling agent imparting a greaselike consistency to the oil upon addition thereto, 1-β-hydroxyethyl-2-heptadecenyl imidazoline, and a water-soluble amine having at least three carbon atoms and two polar groups and imparting high temperature stability.

2,820,764

THICKENED LUBRICANTS

Everett C. Hughes, Shaker Heights, and Ernest C. Milberger, Maple Heights, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application October 6, 1954
Serial No. 460,759

6 Claims. (Cl. 252-25)

1. A water-resistant thickened lubricant of good temperature susceptibility properties, consisting essentially of a mineral lubricating oil of lubricating viscosity, an inorganic gelling agent imparting a grease-like consistency to the oil upon addition thereto, 1-β-hydroxyethyl-2-heptadecenyl imidazoline imparting stability against deterioration by water, and a water-soluble polyhydric alcohol imparting high temperature stability.

2,820,765

THICKENED LUBRICANTS

Everett C. Hughes, Shaker Heights, and Ernest C. Milberger, Maple Heights, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application October 6, 1954
Serial No. 460,760

4 Claims. (Cl. 252-25)

1. A water-resistant thickened lubricant of good temperature susceptibility properties, consisting essentially of a mineral lubricating oil of lubricating viscosity, an inorganic water-sensitive gelling agent imparting a greaselike consistency to the oil upon addition thereto, 1-β-hydroxyethyl-2-heptadecenyl imidazoline imparting stability against deterioration by water, and a water-soluble ether having a boiling point of at least 150° C. at atmospheric pressure and having at least two polar groups and imparting

ing high temperature stability, at least one of which is an ether group, and one at most is selected from the group consisting of hydroxyl and amino groups.

2,820,766

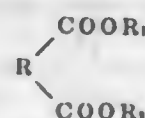
LUBRICATING COMPOSITIONS

John Scotchford Elliott and Eric Descamp Edwards, London, England, assignors to C. C. Wakefield & Company Limited, London, England, a British company
No Drawing. Application January 24, 1955
Serial No. 483,824

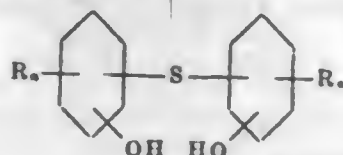
Claims priority, application Great Britain January 26, 1954

5 Claims. (Cl. 252—46.6)

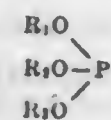
1. A lubricating composition comprising a major proportion of at least one ester of the general formula



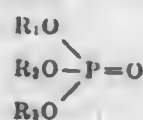
where R is a radical selected from the group consisting of aliphatic and cycloaliphatic hydrocarbon radicals having from two to eight carbon atoms, and R₁ and R₂ are radicals selected from the group consisting of branched-chain alkyl and alkyl-substituted cycloalkyl radicals having at least four carbon atoms, from 0.2% to 5.0% of a hydroxy-substituted diaryl thioether having the general formula



where R is a member of the group consisting of H and a CH₃ radical and n is an integer not exceeding 4, and from 0.25% to 5.0% of a neutral organic ester selected from the group having the general formulas



and



where R₁, R₂, and R₃ are radicals selected from the group consisting of alkyl, aryl, alkaryl and cycloalkyl radicals.

2,820,767

HYPOCHLORITE BLEACHING COMPOSITION AND METHOD OF MAKING

Homer L. Robson, Lewiston, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application February 21, 1955

Serial No. 489,729

14 Claims. (Cl. 252—95)

12. A composition of matter suitable for use in laundering consisting essentially of from 10 to 25 percent by weight of a material selected from the group consisting of sodium carboxymethylcellulose and sodium carboxymethylhydroxyethyl cellulose and from 90 to 75 percent by weight of sodium sulfate, said composition having been prepared by spray drying an aqueous mixture of from 2 to 10 percent by weight of said material and from 3 to 9 parts by weight of sodium sulfate per part by weight of said material to provide a spray dried product containing from 0.5 to 4 percent by weight of water and vacuum drying the spray dried product at a temperature up to about 150° C. to provide a vacuum dried product containing from about 0.1 to 0.3 percent by weight of water.

2,820,768
SOAPS AND THEIR METHODS OF PREPARATION

Louis Edmond Georges Hubert Fromont, Molenbeek St-Jean, Belgium

No Drawing. Application August 29, 1955

Serial No. 531,257

Claims priority, application Belgium May 13, 1952

3 Claims. (Cl. 252—118)

1. A transparent toilet soap composition in solid form, consisting essentially of (1) a transparent sodium soap prepared by saponification of a mixture of tallow, coconut oil and castor oil, (2) a triethanolammonium salt of stearic acid, and (3) a quantity of triethanolamine in excess over the theoretical and amounting to no less than one mol and no more than two mols per mol of soap-forming fatty acid, said transparent sodium soap (1) constituting about 35 to about 40% by weight of the composition and said triethanolammonium salt (2) constituting about 35 to about 40% by weight of the composition, said soap composition having a pH value of approximately 7.5 in 10% aqueous solution and having the ability to neutralize a substantial amount of an acid and of a base without its lathering potency and its pH being affected.

2,820,769

PROCESS FOR PREPARING HYDROGEN-NITROGEN MIXTURES FROM COKE OVEN GAS

Pieter J. Haringhuizen, Geleen, Netherlands, assignor to Stamicarbon N. V., Heerlen, Netherlands

Application April 6, 1956, Serial No. 576,648

Claims priority, application Great Britain April 7, 1955

10 Claims. (Cl. 252—374)



1. In a process for preparing hydrogen-nitrogen mixtures from coke oven gas by cooling said gas under pressure to condense low volatile constituents and thereafter washing the resulting cold gaseous residue under pressure by counter-currently contacting the same with liquid nitrogen to remove methane and carbon monoxide therefrom, the improvement which comprises initially washing said cold gaseous residue by passing same upwardly through a first washing zone wherein said residue is washed by counter-current contact with liquid nitrogen, then passing the thus treated gaseous residue upwardly through an intermediate condensing zone wherein said residue is indirectly cooled with boiling nitrogen under a constant pressure preferably slightly higher than atmospheric and a condensate of nitrogen is obtained from said residue, thereafter further washing said gaseous residue by passing same upwardly through a second washing zone in counter-current contact with liquid nitrogen, the height of said first washing zone being substantially less than that of said second washing zone, collecting liquid washing nitrogen contaminated with carbon monoxide from said second washing zone and utilizing the collected nitrogen and the condensate from said condensing zone as the liquid nitrogen for washing said gaseous residue in said first washing zone.

2,820,770

METHOD FOR THE PREPARATION OF POLYAMIDES

Seth R. Adams, Parma, Ohio, assignor to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application December 7, 1954

Serial No. 473,759

10 Claims. (Cl. 260—2.3)

1. A method for preparing a polyamide suitable for melt extrusion comprising the steps of heating between about 150° and 180° C. a mixture comprising substantially monomeric epsilon-caprolactam and a waste polyamide formed from a polyamide-forming material selected from the group consisting of epsilon-amino caproic acid and epsilon-caprolactam; and incorporating said heated mixture into quantities of monomeric epsilon-caprolactam undergoing polymerization.

2,820,771

SECONDARY-2-N-OCTYL PRIMARY-N-HEPTYL PHTHALATE AND SYNTHETIC PLASTICS CONTAINING SAME

André Henri Passedouet, Bezons, France, assignor to Consortium de Produits Chimiques et de Synthèse, Bezons, France

No Drawing. Application June 9, 1954

Serial No. 435,629

3 Claims. (Cl. 260—31.8)

3. As a new composition of matter, a synthetic plastic selected from the group consisting of polyvinyl chloride, polyvinylidene chloride, a copolymer of vinyl chloride and vinyl acetate, nitrocellulose and polystyrene plasticized with secondary-2-n-octyl primary n-heptyl phthalate.

2,820,772

HALOGENATED OLEFIN POLYMERS PLASTICIZED WITH A TELOMER CONTAINING PERFLUOROCHLOROOLEFIN MONOMER UNITS AND METHOD OF PREPARING SAME

William S. Barnhart, Cranford, N. J., assignor, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application December 30, 1953

Serial No. 401,380

24 Claims. (Cl. 260—33.8)

1. A novel composition which comprises a thermoplastic polymer of a halogenated olefin, said halogenated olefin containing at least one substituent from the group consisting of chlorine, bromine and fluorine, provided that no more than 3 fluorine atoms are present in each halogenated olefin used in forming the polymer and an open chain distillable telomer containing a plurality of perfluorochloroolefin monomer units and halogen terminal groups as a plasticizer.

2,820,773

METHOD OF PREPARING RUBBER-AND-RESIN COMPOSITIONS

Clifford W. Childers, Totowa, N. J., and Charles F. Fisk, Clifton, N. J., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application August 1, 1955

Serial No. 525,811

2 Claims. (Cl. 260—45.5)

1. The method of preparing a rubber-and-resin product having an impact strength at -40° C. of over 1 foot-pound per inch of 120d notch which comprises polymerizing in a latex of a synthetic rubber containing not less than 95% of polymerized butadiene-1,3 and not more than 5% of styrene copolymerized therewith, a mixture of styrene and acrylonitrile, the styrene content of said mixture being 25% to 90% of styrene and the acrylonitrile content being correspondingly 75% to 10%, maintaining the amount of dispersing agent in the latex at not more

than 5 parts per 100 parts of synthetic rubber and polymerized styrene-acrylonitrile contained therein until at least one-half of the styrene and acrylonitrile monomer mixture to be polymerized in admixture with the synthetic rubber has been converted to polymer, the amount of said resin being polymerized in the rubber latex being in the range from one-third to four parts of resin per part of synthetic rubber, and separating the thus formed rubber-resin product from the aqueous medium, said dispersing agent being alkali-metal soap.

2,820,774

VINYL CHLORIDE RESIN WITH LEAD SALT AND HINDERED PHENOL STABILIZERS

Clayton S. Myers, Fanwood, Joseph E. Wilson, New Brunswick, and Robert Bostwick, Somerville, N. J., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Continuation of application Serial No. 261,573, December 13, 1951. This application March 17, 1954, Serial No. 416,946

4 Claims. (Cl. 260—45.75)

1. A plastic composition stabilized against both chemical decomposition and the development of color and odor on heating which comprises a vinyl chloride resin, a lead salt stabilizer for the vinyl chloride resin, and an auxiliary stabilizer in an amount between 0.005 to 0.5% by weight of the vinyl chloride resin, said auxiliary stabilizer being a 2,4,6-trialkyl substituted phenol in which the alkyl substituents in the 2,6-position are tertiary butyl radicals, and the alkyl group in the 4-position contains up to four carbon atoms.

2,820,775

STABILIZED POLYETHYLENE COMPOSITIONS

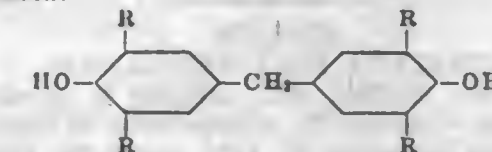
Malcolm Chamberlain, Raymond H. Rigterink, and Charles L. Stacy, Jr., Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 10, 1955

Serial No. 546,282

4 Claims. (Cl. 260—45.95)

1. A polyethylene composition stabilized to thermal oxidation which comprises polyethylene and between about 0.0005 and 2.0 percent by weight of an antioxidant material which is a member of the 4,4'-methylene-bis-(2,6-dialkyl phenol) class of compounds having the general formula:



wherein R is an alkyl radical that is selected from the group consisting of isopropyl and tertiarybutyl radicals.

2,820,776

CROSS-LINKING OF FLUORINE-CONTAINING ELASTOMERS

Lester E. Robb, Westfield, and Martin E. Conroy, Sea Girt, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application March 21, 1955

Serial No. 495,768

16 Claims. (Cl. 260—87.7)

1. A method of cross-linking a chain saturated aliphatic polymer composed substantially exclusively of carbon, hydrogen and halogen atoms, containing fluorine substituents at at least half of the possible positions for such substituents, and having at least 10% of the carbon atoms in the chain bonded solely to hydrogen atoms and other carbon chains, which comprises heating said polymer to a temperature from about 75° C. to about 200° C. in the presence of an organic peroxy compound which is stable

at temperatures below about 50° C. in the presence of a basic metal compound and in the presence of a compound containing ionic lead other than said basic metal compound.

2,820,777

PROCESS OF PREPARING POLYACRYLAMIDE
Tzeng Jueq Suen and Arthur M. Schiller, New Canaan, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application April 29, 1954
Serial No. 426,567

8 Claims. (Cl. 260—89.7)

1. A continuous process for the polymerization and hydrolysis of acrylamide and its alkyl alpha-substituted derivatives wherein the alkyl group contains from 1 to 2 carbon atoms which comprises reacting in an aqueous medium and at a temperature within the range of from about 50° C. to about 100° C. said acrylamide in the presence of a polymerization catalyst and of an alkali metal hydroxide wherein said hydroxide is present in an amount varying between about 0.01:1 to about 0.25:1 mols per mol of said acrylamide.

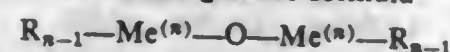
2,820,778

PRODUCTION OF POLYMERIZATION PRODUCTS FROM OLEFINICALLY UNSATURATED HYDROCARBONS

Hermann Spaenig, Ludwigshafen (Rhine), and Hans Ruprecht Hensel, Heidelberg, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
No Drawing. Application December 27, 1956
Serial No. 630,757

Claims priority, application Germany December 28, 1955
20 Claims. (Cl. 260—94.3)

1. A process for the production of polymerization products from olefinically unsaturated hydrocarbons, which comprises polymerizing these with the aid of a mixture of a halogen-containing compound of a metal of the 4th to 6th sub-groups of the periodic system of elements with a compound of the general formula

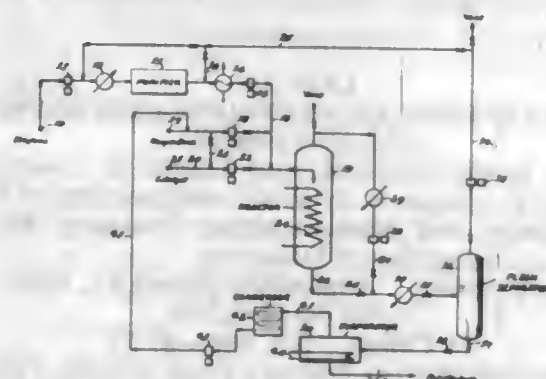


in which Me is a metal of the 4th main group of the periodic system of elements, R is a hydrocarbon radical, O is oxygen and n is a whole number which results from the valency of the metal.

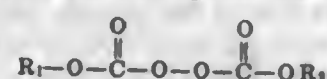
2,820,779

ETHYLENE POLYMERIZATION

Clark H. Dale, Griffith, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application November 27, 1953, Serial No. 394,542
18 Claims. (Cl. 260—94.9)



1. A process which comprises passing ethylene into contact with a catalyst having the formula



wherein R₁ and R₂ are alkyl radicals and polymerizing the ethylene to form a normally solid polymer in the presence of at least 10 percent by weight, based on the

ethylene charged, of a reaction medium consisting essentially of neopentane at a polymerization temperature between about 20° C. and 100° C. and at a pressure between about 500 and about 30,000 pounds per square inch gauge.

2,820,780

PROCESS FOR REDUCTION OF ORGANIC DISULPHIDES

Marcia Gutcho and Louis Laufer, Bronx, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
No Drawing. Application October 30, 1953
Serial No. 389,479

10 Claims. (Cl. 260—112)

1. The process for reducing disulfide groups in organic disulfide compounds of the class consisting of cystine, peptides of cystine, and proteins containing cystine, to the corresponding sulphydryl form, in an aqueous medium by treatment with hydrogen sulfide in the presence of a sulfide of a metal selected from the group consisting of mercury, bismuth and lead, at atmospheric pressure and at a temperature below 100° C.

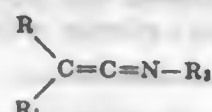
2,820,781

PROCESS FOR PRODUCING AMIDES

Calvin L. Stevens, Paris, France, assignor to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan
No Drawing. Application April 10, 1956
Serial No. 577,192

9 Claims. (Cl. 260—112)

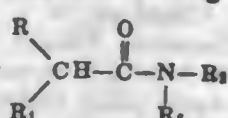
1. The method of producing amide compounds which comprises reacting a ketene imine having the formula,



with a carboxylic acid having the formula,



to obtain an imide compound having the formula,



and reacting said imide compound with an amine compound having an amino group capable of being acylated; where R, R₁ and R₂ represent members of the group consisting of lower alkyl, aryl and aralkyl groups and R₃ represents a monocarboxylic acid acyl group.

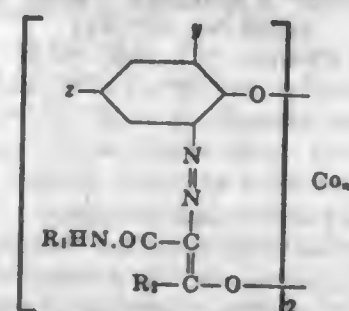
2,820,782

COBALT-CONTAINING AZO DYESTUFFS OF THE ACYLACETYLAMINOALKANE SERIES

Piero Maderni, Basel, and Walter Wehrli, Riehen, Switzerland, assignors to Sanil & Co., Newark, N. J., as Nominee of Fidelity Union Trust Company, Executive Trustee, under Sandoz Trust
No Drawing. Application May 6, 1954
Serial No. 428,132

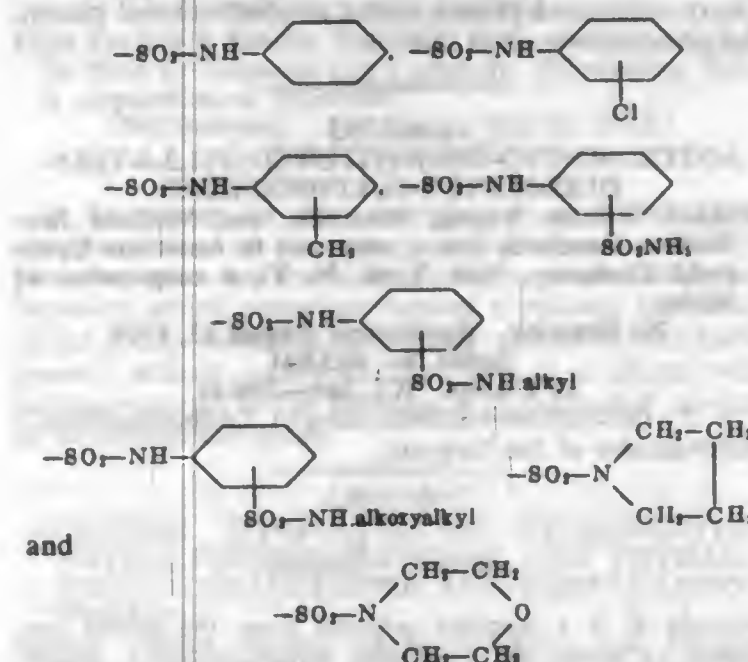
Claims priority, application Switzerland May 9, 1953
10 Claims. (Cl. 260—145)

1. A cobalt-containing dye comprising the azo dyestuff which corresponds to the formula



wherein n is less than 2, y is selected from the group consisting of H, CH₃ and —NHCOCH₃, z is selected from

the group consisting of —SO₂—alkyl, —SO₂NH₂, —SO₂—NH—alkyl, —SO₂—NH—alkoxyalkyl,



R₁ is an alkyl group with at least 6 and at most 18 carbon atoms, and R₂ is a member selected from the group consisting of lower alkyl and aryl.

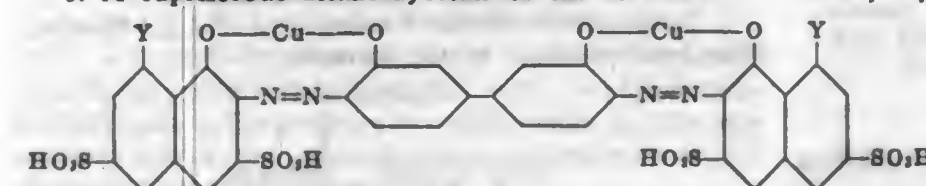
2,820,783

CUPRIFEROUS DISAZO-DYESTUFFS

Henri Riat, Arlesheim, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application June 7, 1954
Serial No. 435,094

Claims priority, application Switzerland June 12, 1953
10 Claims. (Cl. 260—148)

1. A cupriferoous disazo-dyestuff of the formula



in which Y represents an alkylamino group.

2,820,784

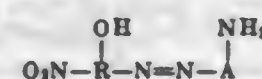
COBALTIFEROUS AZO-DYESTUFFS

Christian Zickendraht, Binningen, and Arthur Buehler, Rheinfelden, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application December 21, 1953
Serial No. 399,588

Claims priority, application Switzerland October 30, 1951

7 Claims. (Cl. 260—151)

1. A complex cobalt compound which comprises a cobalt atom bound in complex union with substantially two monoazo dyestuff molecules free from sulfonic and carboxylic acid groups and corresponding to the formula



wherein R represents a benzene radical bound to the azo linkage in ortho-position to the hydroxyl group and A represents a naphthalene radical bound to the azo linkage in a position vicinal to the NH₂-group, the dyestuff molecule containing a nuclear methyl sulfone group.

2,820,785

MONOAZO-DYESTUFFS

Heinrich Zollinger, Binningen, and Alfred Fasciati, Bottmingen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application August 9, 1954
Serial No. 448,738

Claims priority, application Switzerland August 19, 1953

10 Claims. (Cl. 260—153)

1. A monoazo dyestuff of the formula



in which R represents the radical of an aminonaphthalene monosulfonic acid bound to the azo linkage in a position vicinal to the amino group, R₁ represents the radical of a diazo component of the benzene series free from sulfonic and carboxylic acid groups, and X represents a triazine radical bound through a nitrogen bridge to R₁ and which contains an exchangeable chlorine atom and, as single heterocyclic ring, the ring of the said triazine radical.

2,820,786

THIAMINE 3-CARBOXY-5-HYDROXY-1-p-SULFOPHENYL-4-SULFOPHENYL-AZOPYRAZOLATE AND A METHOD FOR OBTAINING THE SAME

Ryuichi Yamamoto, Uchide, Ashiya-shi, Masao Harada, Otsu-shi, and Tetsuya Takahashi, Amagasaki-shi, Japan, assignors to Shionogi & Co., Ltd., Higashi-ku, Osaka, Japan
No Drawing. Application March 6, 1956
Serial No. 569,687

2 Claims. (Cl. 260—154)

1. The chemical compound, thiamine 3-carboxy-5-hydroxy-1-p-sulfophenyl-4-sulfophenylazopyrazolate.

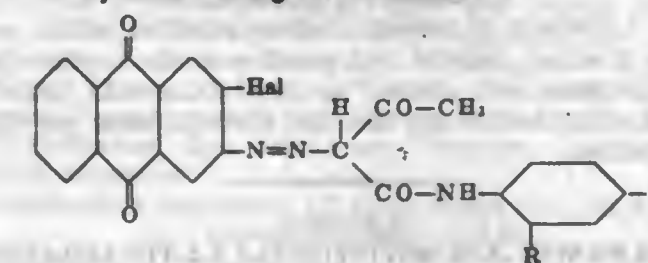
2,820,787

ANTHRAQUINONE AZO DYE

David I. Randall, Easton, and Nicholas W. Solonen, Ambler, Pa., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application August 4, 1954
Serial No. 447,887

2 Claims. (Cl. 260—193)

1. A dyestuff having the formula



wherein Hal represents halogen selected from the group consisting of chlorine and bromine and R represents lower alkyl.

2,820,788

PROCESS FOR PREPARING SODIUM SULFOMETHYLCELLULOSE

William F. Filbert and Mack F. Fuller, Woodbury, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application February 24, 1955
Serial No. 490,404

2 Claims. (Cl. 260—231)

1. A process for the preparation of sodium sulfomethylcellulose which comprises reacting cellulose with sodium

chloromethylsulfonate in the presence of sodium hydroxide and an inert organic diluent at a temperature in the range of about 100° C. to about 140° C.

2,820,789

DIBENZYLETHYLENEDIAMINE-PENICILLIN V
Richard Brunner, Kundl, Tirol, Hans Margreiter, Radfeld, Tirol, and Kurt Riedl, Kundl, Tirol, Austria, assignors to American Home Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 3, 1955

Serial No. 513,162

Claims priority, application Austria June 21, 1954

1 Claim. (Cl. 260—239.1)

As a new compound, the phenoxy-methyl penicillin salt of N,N'-dibenzylethylenediamine.

2,820,790

ACRIDINE VAT DYES

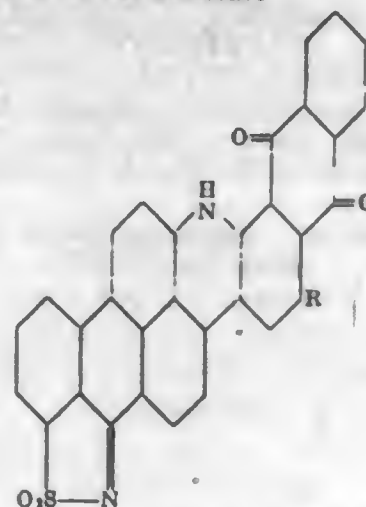
William Baptist Hardy, Bound Brook, N. J., and Oscar George Birsten, New York, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 17, 1956

Serial No. 628,496

5 Claims. (Cl. 260—274)

2. The dyestuff of the structure



in which R represents a member of the group consisting of hydrogen, CH_3O —, and NH_2 —.

2,820,791

CHEMICAL MANUFACTURE

David A. Shermer, East Haven, Conn., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application February 10, 1956

Serial No. 564,646

5 Claims. (Cl. 260—290)

1. A method of making 2-chloropyridine which comprises reacting chlorine and pyridine in vapor phase and in admixture with steam, at least about 0.25 mole of steam being introduced into the reaction zone per mole of pyridine.

2,820,792

5-SULFAMYL-3-SUBSTITUTED-1,3,4-THIADIAZOL-2-ONES

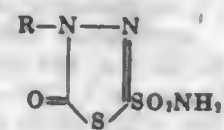
Richard William Young, Riverside, and Melinda Jane Muller, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 13, 1956

Serial No. 603,844

13 Claims. (Cl. 260—306.7)

1. 5-sulfamyl-3-substituted-1,3,4-thiadiazol-2-ones of the formula:



wherein R is a member selected from the group con-

sisting of lower alkyl, phenyl, halo-substituted phenyl, nitro-substituted phenyl, amido-substituted phenyl, lower alkoxy-substituted phenyl, lower alkyl-substituted phenyl, and phenyl-lower-alkyl radicals.

2,820,793

5-NITROSIMINO-4-SUBSTITUTED-Δ²-1,3,4-THIA-DIAZOLINE-2-SULFONAMIDES

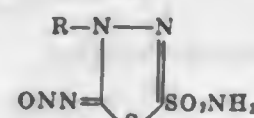
Richard William Young, Riverside, and Melinda Jane Muller, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 13, 1956

Serial No. 603,841

12 Claims. (Cl. 260—306.8)

1. 5-nitrosimino-4-substituted-Δ²-1,3,4-thiadiazoline-2-sulfonamides of the formula:



wherein R is a member selected from the group consisting of lower alkyl, phenyl, halo-substituted phenyl, nitro-substituted phenyl, amido-substituted phenyl, lower alkoxy-substituted phenyl, lower alkyl-substituted phenyl, and phenyl-lower-alkyl radicals.

2,820,794

5-THIOCARBAMYLIMINO-4-SUBSTITUTED-Δ²-1,3,4-THIADIAZOLINE-2-SULFONAMIDES

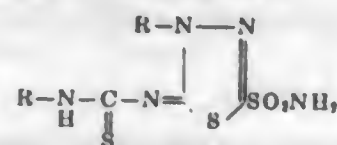
Richard William Young, Riverside, and Melinda Jane Muller, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 13, 1956

Serial No. 603,842

12 Claims. (Cl. 260—306.8)

1. 5-thiocarbamylimino-4-substituted-Δ²-1,3,4-thiadiazoline-2-sulfonamides of the formula:



wherein R is a member selected from the group of lower alkyl, phenyl, halo-substituted phenyl, nitro-substituted phenyl, amido-substituted phenyl, lower alkoxy-substituted phenyl, lower alkyl-substituted phenyl, and phenyl-lower-alkyl radicals.

2,820,795

5-SULFONYLIMINO-4-SUBSTITUTED-Δ²-1,3,4-THIADIAZOLINE-2-SULFONAMIDES

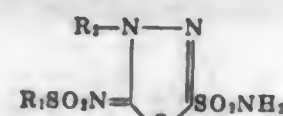
Richard William Young, Riverside, and Kathryn Helen Wood, Greenwich, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 13, 1956

Serial No. 603,843

12 Claims. (Cl. 260—306.8)

1. 5-sulfonylimino-4-substituted-Δ²-1,3,4-thiadiazoline-2-sulfonamides of the formula:



wherein R₁ is a member selected from the group consisting of phenyl, tolyl, p-acetylamino-phenyl, p-bromophenyl, p-chlorophenyl, 3,4-dichlorophenyl, and p-nitrophenyl radicals and R₂ is a member selected from the group consisting of lower alkyl, phenyl, halo-substituted phenyl, nitro-substituted phenyl, amido-substituted phenyl, lower alkoxy-substituted phenyl, lower alkyl-substituted phenyl, and phenyl-lower-alkyl radicals.

2,820,796

PRODUCTION OF METAL-FREE PHTHALOCYANINES

Felix Frederick Ehrlich, Westfield, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 23, 1954

Serial No. 445,473

8 Claims. (Cl. 260—314.5)

1. A process for the manufacture of a metal-free phthalocyanine of the group consisting of metal-free phthalocyanine and metal-free halogen-substituted phthalocyanine which comprises heating a phthalic anhydride of the group consisting of phthalic anhydride and halogenated phthalic anhydride, and urea in a diluent with antimony metal in the presence of a controlled amount of an ammonium halide.

2,820,797

ADDITION COMPOUND OF NITROPHENYL PHTHALIMIDOPROPANOLAL AND PHTHALIMIDOACETALDEHYDE AND PREPARATION THEREOF

Robert Michel Jacob, Ablon-sur-Seine, and Jacques Georges Robert, Paris, France, assignors, by mesne assignments, to Parke, Davis & Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application April 7, 1952

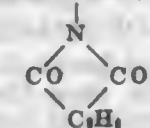
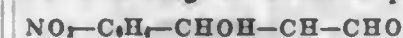
Serial No. 281,033

Claims priority, application France April 13, 1951

The portion of the term of the patent subsequent to February 17, 1970, has been disclaimed and dedicated to the public

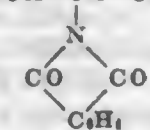
5 Claims. (Cl. 260—326)

1. Process for obtaining an addition product of the aldo



with α-phthalimidoacetaldehyde which comprises condensing p-nitrobenzaldehyde with α-phthalimidoacetaldehyde in the presence of caustic alkali and the temperature during the condensation is maintained not substantially above room temperature.

3. A composition consisting of an addition product with α-phthalimidoacetaldehyde of the aldo having the formula



2,820,798

COPOLYMERS OF ORGANIC SILICON COMPOUNDS AND N-VINYL PYRROLIDONE
Donald L. Bailey, Snyder, and Ronald M. Pike, Grand Island, N. Y., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application March 27, 1956

Serial No. 574,105

17 Claims. (Cl. 260—326.5)

1. A copolymer of N-vinyl pyrrolidone and trimethyl-siloxydimethylvinylsilane.

2,820,799

PROCESSES FOR PREPARING LIPOYL CHLORIDE
Arthur F. Wagner, Princeton, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application July 11, 1955

Serial No. 521,391

3 Claims. (Cl. 260—327)

1. The process which comprises reacting an alkali metal α-lipoate with oxalyl chloride in a substantially anhydrous hydrocarbon solvent thereby forming α-lipoyl chloride.

2,820,800

REACTION OF METHYLENEBIS ACRYLAMIDE AND A FURANE AMINE

Gustav J. Martin, Philadelphia, Soren Avakian, Orelan, and Robert K. Preston, Hatboro, Pa., assignors to The National Drug Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application November 23, 1954

Serial No. 470,810

3 Claims. (Cl. 260—347.7)

1. The process which comprises reacting at elevated temperature in the presence of a catalyst of the group consisting of sodium methoxide, sodium ethoxide, p-toluene sulfonic acid, copper acetate and copper sulfate, an N,N'-methylenebis acrylamide with at least one molecular equivalent of a furane-lower alkyl-amine.

2,820,801

PREPARATION OF AMIDES

Peter L. De Benneville and Charles L. Levesque, Philadelphia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application August 2, 1954

Serial No. 447,391

7 Claims. (Cl. 260—404)

1. A process for preparing carboxylic amides which comprises reacting together in a homogeneous system, a nitrile, water, and a primary amine, in which the carbon attached to nitrogen carries a hydrogen atom, in the presence of hydrogen sulfide as catalyst in an amount of 1 to 50 mole percent of the nitrile at a reacting temperature between about 85° C. and 175° C. at a pressure sufficient to maintain the liquid phase.

2,820,802

FATTY OIL ACID ESTER

Cornelius Austin Sprang and Richard W. Webster, Cincinnati, Ohio, assignors to Emery Industries, Inc., Ivorydale, Ohio, a corporation of Ohio

No Drawing. Application June 26, 1948

Serial No. 35,515

1 Claim. (Cl. 260—404.8)

A plasticizer for resins which is the esterification product of (a) 2 mols of a fatty acid containing from 6 to 18 carbon atoms and (b) from 4 to 8 mols of a dicarboxylic acid selected from the group consisting of adipic acid and azelaic acid, with (c) a substantially molecular equivalent amount of a glycol selected from the group consisting of propylene glycol and dipropylene glycol.

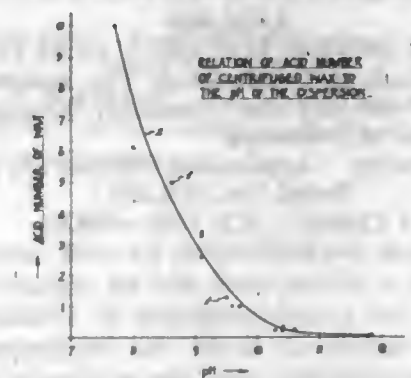
2,820,803

PROCESS FOR THE RECOVERY OF WOOL WAX FROM WOOL SCOUR LIQUOR FROTHS

Leslie Frank Evans, Hampton, Victoria, and Wilfred Ernest Ewers, McKinnon, Victoria, Australia, assignors to Commonwealth Scientific and Industrial Research Organization, East Melbourne, Victoria, Australia, a body corporate

Application September 18, 1953, Serial No. 381,029

11 Claims. (Cl. 260—412.5)

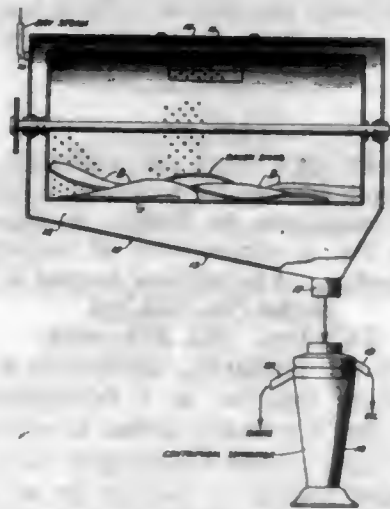


1. Process for the recovery of wool wax from froths produced from wool scour liquor, which comprises treat-

ing the froth with a dispersing agent selected from the group consisting of sodium phosphates and potassium phosphates, heating the dispersion to a temperature of at least about 85° C., and centrifuging the dispersion to separate the wool wax therefrom.

2,820,804

METHOD OF DEFATTING BACON SKINS
Roy C. Gordon, Jr., Oak Lawn, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
Application April 6, 1955, Serial No. 499,587
10 Claims. (Cl. 260-412.6)



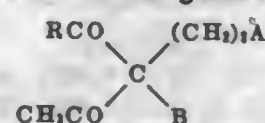
1. The method of defatting bacon skins characterized by the step of subjecting the bacon skins to mechanical agitation in an atmosphere of dry steam at a temperature of at least 100° C. to melt and expel the fat therein without converting the collagen to glue.

2,820,805

PROCESS OF PREPARING KETO ACIDS
Muus G. J. Beets and Wilhelmina Meerburg, Hilversum, Netherlands, assignors to N. V. Polak & Schwarz's Essencefabrieken, Hilversum, Netherlands
No Drawing. Application June 6, 1955
Serial No. 513,444

Claims priority, application Netherlands July 2, 1954
13 Claims. (Cl. 260-413)

8. A process for the preparation of delta keto acids of the general formula $R.CO(CH_2)_3.COOH$, comprising subjecting to alkaline solvolysis including alkaline hydrolysis a diacyl derivative of the general formula



wherein A and B are groups selected from the group consisting of ester, amide and cyan groups, and R is selected from the group consisting of substituted and non-substituted aliphatic hydrocarbon groups.

2,820,806

ESTER INTERCHANGE CATALYSTS
John Harris Haslam, Landenberg, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 26, 1956
Serial No. 618,451

9 Claims. (Cl. 260-448.8)

1. In a process for conducting an ester interchange reaction between a silicon ester and an organic compound selected from the group consisting of alcohols, phenols and esters of carboxylic acids, the improvement which comprises incorporating with the reactants a catalytic amount of a titanium ester having the structural formula $Ti(OR)_4$, where R is a hydrocarbon radical, and effecting the ester interchange reaction.

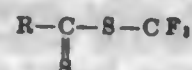
2,820,807

TRIFLUOROMETHYL THIOL ESTERS

Eugene H. Man, Brookside Park, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 5, 1955
Serial No. 538,778

5 Claims. (Cl. 260-455)

1. A trifluoromethyl ester of the formula



wherein R is selected from a group consisting of fluorine and trifluoromethylthio.

2,820,808

ORGANIC ESTERS OF SULFUROUS ACID

Walter D. Harris, Naugatuck, and John W. Zukel, Hamden, Conn., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application May 7, 1954
Serial No. 428,370

8 Claims. (Cl. 260-456)

1. A mixed sulfite diester of an aliphatic alcohol having 1 to 12 carbon atoms and a monoaromatic ether of a polyalkylene glycol in which the aromatic radical has 6 to 12 carbon atoms and in which the esterifying radical from the polyglycol contains 2 to 5 alkyleneoxide groups each having 2 to 4 carbon atoms.

2,820,809

PREPARATION OF HALOETHYL HALOFORMATES

Ludo K. Frevel and Leonard J. Kressley, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application August 16, 1956
Serial No. 604,307

3 Claims. (Cl. 260-463)

1. A process for preparing a 2-haloethyl haloformate which comprises reacting in the vapor phase a mixture of ethylene oxide with at least a molar equivalent of a carbonyl halide of the group consisting of phosgene and its halogen analogs containing no more than one fluoro substituent in the presence of a catalytic amount of at least one hydrogen halide of the group consisting of hydrogen chloride, hydrogen bromide and hydrogen iodide at temperatures between the boiling point and the decomposition temperature of ethylene oxide, condensing liquid reaction products and separating and recovering 2-haloethyl haloformate from the liquid condensate.

2,820,810

MANUFACTURE OF HALOALKYL HALOFORMATES

Ludo K. Frevel, Midland, and Leonard J. Kressley, Saginaw, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application August 16, 1956
Serial No. 604,308

5 Claims. (Cl. 260-463)

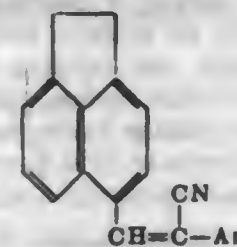
1. A liquid phase reaction process for preparing a haloalkyl haloformate which comprises reacting one molar proportion of a carbonyl halide of the group consisting of phosgene and its halogen analogs containing no more than one fluoro substituent with one molar proportion of a straight carbon chain alkylene oxide at temperatures between 0° and 65° C. in the presence of a catalytic amount of at least one hydrogen halide catalyst of the group consisting of hydrogen chloride, hydrogen bromide and hydrogen iodide.

2,820,811

β-(5-ACENAPHTHENYL)-ACRYLONITRILES
Paul E. Hoch, Niagara Falls, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application December 13, 1955
Serial No. 552,729

16 Claims. (Cl. 260-465)

1. Compounds of the following formula:



wherein Ar represents a carbocyclic aromatic radical.

2,820,812

MANUFACTURE OF ACRYLIC NITRILE

Robert Lichtenberger, Oullins, and Marcel Borrel and Bernard Chatellin, Pierre-Benite, France, assignors to Societe Industrielle des Derives de l'Acetylene (S. I. D. A.), Paris, France, a corporation of France
Application June 8, 1956, Serial No. 590,206

Claims priority, application France June 10, 1955
4 Claims. (Cl. 260-465.3)

1. In a method of making acrylic nitrile by reacting acetylene and hydrocyanic acid in the liquid phase in the presence of a catalyst constituted by a cuprous salt solution to form a mixture of acrylic nitrile, acetylene and impurities in the gaseous state, the improvement in removing said impurities which comprises contacting a mixture containing acrylic nitrile, acetylene and said impurities in the gaseous state with an aqueous solution of chlorine in which the chlorine content corresponds at most to a quantity only slightly greater than the content of said impurities, thereby converting said impurities into chlorinated products which are insoluble in water without substantial chlorination of said acetylene or of said acrylic nitrile, and removing said chlorinated products from said aqueous solution of chlorine.

2,820,813

PRODUCTION OF ESTERS OF HYDROXY COMPOUNDS

Curtis W. Smith, Berkeley, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
No Drawing. Application December 30, 1954
Serial No. 478,888

16 Claims. (Cl. 260-465.4)

1. A process for coupling an alpha-peroxy cyclic ether having 4 to 18 carbon atoms and not more than two oxygen atoms in the ring and an ethylenic compound which comprises contacting said alpha-peroxy cyclic ether with an ethylenic compound free from groups more reactive than the ethylenic unsaturation in the presence of a redox reducing agent.

2,820,814

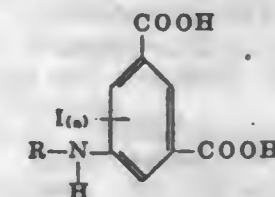
POLYIODINATED 5-AMINOISOPHTHALIC ACIDS, SALTS, AND ESTERS

Helen F. Ginsberg, Montclair, N. J., assignor to Schering Corporation, Bloomfield, N. J., a corporation of New Jersey
No Drawing. Application March 21, 1955
Serial No. 495,763

9 Claims. (Cl. 260-471)

1. A compound selected from the group consisting of

a 5-amino-polyiodo-isophthalic acid of the general formula:



wherein R is a member of the group consisting of hydrogen and lower aliphatic carboxylic acyl radicals, n is an integer from 2 to 3, and the ethyl ester and non-toxic salts thereof.

2,820,815

SYNTHETIC LUBRICATING COMPOSITIONS AND PROCESS FOR THEIR PREPARATION

Alfred H. Matuszak, Westfield, Daniel S. Maisel, Union, and E. Wendell Carrier, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application April 8, 1954, Serial No. 421,822

4 Claims. (Cl. 260-485)

1. A process for the preparation of complex ester synthetic lubricants having improved thixotropic characteristics which comprises the steps of esterifying at least one mol of a polyoxyalkylene glycol with at least two mols of an aliphatic dicarboxylic acid selected from the group consisting of adipic, suberic, azelaic and sebacic acid and excess of two mols of an aliphatic monohydric alcohol having from 4 to 10 carbon atoms per molecule in the presence of an esterification catalyst and in the presence of from 25% to 75% by weight, based on the weight of the total product, of a C₄ to C₁₀ alkyl diester of said aliphatic dicarboxylic acid.

2,820,816

PREPARATION OF α,β-DICHLOROPROPIONIC ACID ESTERS

Harry D. Anspen, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application December 17, 1956
Serial No. 628,501

13 Claims. (Cl. 260-487)

1. A process for the preparation of an ester of α,β-dichloropropionic acid which comprises chlorinating an acrylic ester of an alcohol in the presence of from about 1 to about 10% by weight based on the weight of the acrylic ester of a weak N-heterocyclic base having a dissociation constant in water at 25° C. of 10⁻⁸ to 10⁻¹⁰, in which the heterocyclic nitrogen is tertiary.

2,820,817

OXYGENATED INDAN COMPOUNDS AND METHOD OF MAKING THE SAME

Joseph Sam, Philadelphia, Pa., assignor to McNeil Laboratories, Inc., Philadelphia, Pa., a corporation of Pennsylvania
No Drawing. Application February 4, 1954
Serial No. 408,298

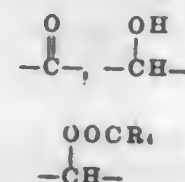
6 Claims. (Cl. 260-490)

1. Oxygenated indan compounds having the fundamental structural formula:



where R₁ is a dialkylaminoalkoxy group the alkyl and alkoxy groups of which contain from 1 to 4 carbon atoms; where R₂ is selected from the group consisting of hydrogen and alkyl groups containing from 1 to 4

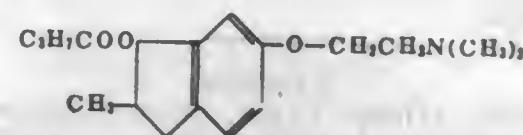
carbon atoms and where X is selected from the group consisting of



and

where R_1 is an alkyl group containing from 1 to 4 carbon atoms.

6. Oxygenated indan compounds having the fundamental structural formula:



2,820,818

PREPARATION OF SALTS OF HYDROXY ALIPHATIC SULFONIC ACIDS

Arthur R. Sexton and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application April 12, 1954

Serial No. 422,664

17 Claims. (Cl. 260-513)

1. A method for the preparation of salts of hydroxy aliphatic sulfonic acids which comprises adding sulfur dioxide to an aqueous solution of an alkali until the pH value of the solution is between 4.5 and about 8, and adding an epoxy aliphatic compound having from 2 to 4 carbon atoms in the molecule and a further amount of sulfur dioxide to the aqueous solution under reaction conditions and in a manner so as to maintain the pH value of the solution between 4.5 and about 8 until substantially one molecular proportion of sulfur dioxide is added per molecular proportion of alkali originally charged to the solution and alkali salt of sulfurous acid is substantially consumed in the reaction mixture.

2,820,819

SEPARATION OF ISOMERIC PHTHALIC ACIDS

Harry J. Aroyan, El Cerrito, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application December 30, 1952, Serial No. 328,693

3 Claims. (Cl. 260-525)

1. A process for separating a mixture of isophthalic acid and terephthalic acid containing from 2 to 95% by weight of terephthalic acid, which comprises intimately contacting the mixture with water at an elevated temperature in the range 350° to 500° F., under an elevated pressure sufficient to maintain the water in liquid phase at said elevated temperature to form a slurry, and separating a solid phase and a liquid phase from the slurry while maintaining said elevated temperature and pressure.

2,820,820

METHOD FOR OXIDIZING GLUTARALDEHYDES

Amelio E. Montagna and Everett R. Lashley, Jr., South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application January 5, 1956

Serial No. 557,456

13 Claims. (Cl. 260-530)

1. A process for making a glutaric acid selected from the group consisting of glutaric acid and lower alkyl substituted glutaric acids, wherein the corresponding glutaraldehyde is oxidized at a temperature between 0° C. and 110° C. with molecular oxygen in a reaction mixture containing not less than 10 percent by weight of a saturated lower aliphatic mono-carboxylic acid.

2,820,821

PROCESS FOR OXIDIZING GLUTARALDEHYDES

Howard R. Guest, Charleston, and Harry A. Stansbury, Jr. and Herman F. Lykins, South Charleston, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application January 5, 1956

Serial No. 557,457

15 Claims. (Cl. 260-530)

1. A process for making a glutaric acid selected from the group consisting of glutaric acid, lower alkyl substituted glutaric acids and halogen substituted glutaric acids, wherein the corresponding glutaraldehyde is oxidized in an aqueous solution having not less than 10 parts nor more than 50 parts of said glutaraldehyde per 100 parts of water and said glutaraldehyde.

2,820,822

PREPARATION OF GUANIDINO TYPE COMPOUNDS

William G. Skelly, Northbrook, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application February 1, 1956

Serial No. 562,627

9 Claims. (Cl. 260-534)

1. A process for preparing guanidino type compounds which comprises reacting a carbamide, in which no more than one amino group includes a hydrocarbon radical as a substituent for hydrogen thereon, with a dialkyl sulfate, the alkyl group of which contains no more than six carbon atoms, adding to the resulting product an alpha-amino fatty acid and sufficient strong inorganic base to produce a mixture having a pH between about 10.0 and about 10.3 and recovering an alpha-guanidino substituted fatty acid therefrom upon substantial completion of the reaction.

2,820,823

PROCESSES FOR THE CATALYTIC OXIDATION OF ACETONE

Edmond Batton, Saint-Fons, and Maximilien Grunfeld, Lyon, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France

No Drawing. Application May 7, 1954

Serial No. 428,385

Claims priority, application Great Britain May 8, 1953

7 Claims. (Cl. 260-541)

1. A process for the simultaneous preparation of acetic acid, formic acid, and formaldehyde which comprises passing oxygen at a temperature of at least 65° C. through liquid acetone containing a catalyst, and separating the whole of the acetic acid, formic acid and formaldehyde formed in gaseous form from the reaction medium continuously with their formation.

2,820,824

PURIFICATION OF NEUTRAL TETRACYCLINE

Joseph F. Weidenheimer, Pearl River, and Lawrence Ritter, Suffern, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 15, 1957

Serial No. 652,646

6 Claims. (Cl. 260-559)

1. The process of producing essentially tasteless tetracycline neutral which comprises adjusting the pH of an aqueous slurry of impure tetracycline prepared by catalytically reductively dechlorinating chlortetracycline with hydrogen in the presence of a noble metal catalyst to a pH of between 0.5-2 so as to dissolve the tetracycline, adding a filter aid thereto, filtering, adding to the filtrate from about 0.9 percent to about 15 percent based on the weight of the tetracycline of a compound selected from the group consisting of alkali metal sulfites, ammonium sulfite and mixtures thereof, and adjusting the pH of the

resulting aqueous solution to not more than about 3 whereupon purified essentially tasteless tetracycline neutral crystallizes therefrom and the impurities remain in solution.

2,820,825

PRODUCTION OF OXIMES

John C. Hillyer and Joseph F. Wilson, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application October 7, 1955, Serial No. 539,137

7 Claims. (Cl. 260-566)

1. A process comprising reacting an alicyclic mono-ketone with a hydroxylamine reactant selected from the group consisting of hydroxylamine sulfate and hydroxylamine acid sulfate to form an oxime product in presence of a sufficient amount of a sulfate-containing compound selected from the group consisting of ammonium sulfate and methylamine sulfate to cause salting out of molten oxime product; neutralizing resulting reaction mixture with a neutralizing agent selected from the group consisting of methylamine and ammonia whereby said sulfate-containing compound is formed; separating oxime product from the resulting reaction mixture at a temperature at which said oxime product is molten to recover said oxime product and a non-product phase; adjusting the concentration of said sulfate-containing compound in said non-product phase so as to cause substantially complete salting out of high purity molten oxime product; and introducing additional amounts of said alicyclic mono-ketone and said hydroxylamine reactant into said non-product phase to form additional oxime product.

2,820,826

PREPARATION OF OXIMES

Samuel C. Temin, Cleveland, and Max Levine, East Cleveland, Ohio, assignors to Industrial Rayon Corporation, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application February 1, 1956

Serial No. 562,639

6 Claims. (Cl. 260-566)

1. A method for preparing oximes which comprises mixing in an aqueous alkaline medium, a compound selected from the group consisting of nitroalkanes and nitrocycloalkanes, with an oxide selected from a group consisting of the oxides of arsenic, antimony and tin in a lower valence state, the equivalent weight ratio of the nitroalkane to the oxide in the mixture being between about two to one and one to one.

2,820,827

PROCESS OF SEPARATING L- AND D-AMINO-METHYL-(3,4-DIHYDROXYPHENYL)-CARBINOL

Heinrich Ruschig and Leonhard Stein, Bad Soden am Taunus, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Brüning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application October 26, 1954

Serial No. 464,877

Claims priority, application Germany November 2, 1953

10 Claims. (Cl. 260-570.6)

1. The process for separating L- and D-aminomethyl-(3,4-dihydroxyphenyl)-carbinol from an equimolecular mixture of said bases, which comprises heating said mixture of bases on the steam bath with an acid selected from the group consisting of L-mandelic acid and D-mandelic acid in an anhydrous lower alkyl alcohol to thereby form salts of said bases with said acid which salts dissolve in said alcohol, and thereafter cooling said solution whereby the acid salt of one of said bases precipitates from said solution while the acid salt of the other base remains in solution.

2,820,828

PREPARATION OF N-NITROSYLHYDROXYLAMINOPHENOLS

Milton J. Hogsed, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 4, 1955

Serial No. 566,089

9 Claims. (Cl. 260-571)

1. A process for producing an N-nitrosylhydroxylaminophenol, from a monohydric arylhydroxide which is wholly hydrocarbon except for the single phenolic oxygen atom, which comprises forming an aqueous solution of a phenoxide selected from the group consisting of alkali and alkaline earth metal salts of said monohydric arylhydroxide, introducing oxygen-free nitric oxide into the solution at a pressure of 100 to 1000 pounds per square inch, reacting the phenoxide with the nitric oxide at a temperature of 0° to 50° C. to form an N-nitrosylhydroxylaminophenol, and isolating the product.

2,820,829

DIPHENYLAMINE PROCESS

John J. Kalvinskis, Woodbury Heights, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 23, 1955

Serial No. 530,215

4 Claims. (Cl. 260-576)

1. A process for preparing diphenylamine which comprises condensing aniline in the presence of a catalyst selected from the group consisting of hydrogen chloride, ammonium chloride and aniline hydrochloride at a temperature in the range of 380° C. and 425° C. and at a pressure sufficient to maintain essentially all of the aniline in a liquid phase.

2,820,830

PRODUCTION OF ORGANIC BORON HALIDES

Patrick A. McCusker, South Bend, Ind., assignor, by mesne assignments, to Olin Chemical Co., Inc., a corporation of Delaware

No Drawing. Application March 5, 1954

Serial No. 414,495

9 Claims. (Cl. 260-606.5)

1. A method for the preparation of a compound of the formula R_nBX_{3-n} which comprises reacting a compound of the formula $R_nB(OH)_{3-n}$ with a compound of the formula BX_3 , R being a substituent selected from the group consisting of saturated hydrocarbon, phenyl, lower alkyl phenyl and naphthyl radicals, X being selected from the group consisting of fluorine, chlorine and bromine and n being an integer from 1 to 2, with the proviso that when R is phenyl, lower alkyl phenyl and naphthyl, X is selected from the group consisting of chlorine and bromine.

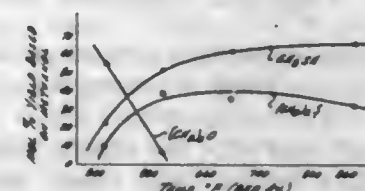
2,820,831

PREPARATION OF MERCAPTANS

Thomas F. Doumani, Whittier, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California

Application April 6, 1953, Serial No. 347,104

1 Claim. (Cl. 260-609)



A continuous, adiabatic process for preparing methyl mercaptan which comprises preparing a feed mixture comprising about 1 mole-proportion of methanol, about 1 mole-proportion of hydrogen sulfide, and between

about 7 and 10 mole-proportions of dimethyl sulfide, preheating said feed mixture to a temperature between about 600° and 800° F., contacting the preheated mixture with a catalyst selected from the group consisting of activated alumina and activated alumina-silica containing up to about 10% by weight of silica-gel, and continuing said contacting for a period of time sufficient to react substantially all of said methanol and hydrogen sulfide, said contacting being effected without adding or substantially subtracting heat whereby adiabatic temperatures below about 1100° F. are maintained throughout said contacting, separating methyl mercaptan from the resulting product and recycling the remaining dimethyl sulfide.

2,820,832

PRODUCTION OF HYDROPEROXIDES

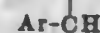
Kurt Helmut Bernels, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain

No Drawing. Application August 3, 1954

Serial No. 447,651

Claims priority, application Great Britain June 18, 1954 18 Claims. (Cl. 260-610)

1. A process for the production of hydroperoxides which comprises contacting an aromatic hydrocarbon containing the grouping:



where Ar is a phenyl group which may contain alkyl substituents and the carbon atom is a tertiary carbon atom which is a constituent of a saturated hydrocarbon radical selected from the group consisting of alkyl and cyclohexyl, in the liquid phase at an elevated temperature with a gas containing free oxygen in the presence of 0.1 to 400 parts per million, based on the weight of hydrocarbon to be oxidized, of a catalyst selected from the group consisting of silver, said silver being present initially as an organic acid salt which is soluble in the reaction mixture and copper, said copper being present initially as an organic acid salt of an acid selected from the group consisting of formic acid and acetic acid.

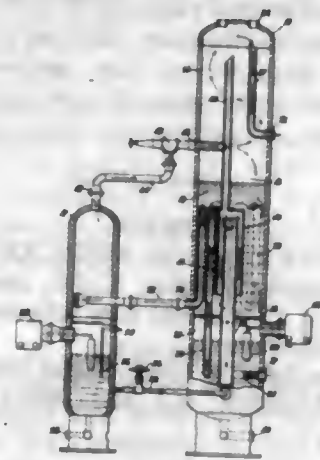
2,820,833

DEHYDRATION OF NATURAL GAS STREAMS AND COLD SEPARATION UNITS THEREFOR

Samuel A. Wilson, Minden, La.

Application January 27, 1955, Serial No. 484,454

3 Claims. (Cl. 260-676)



1. A method of dehydrating a natural gas stream having impurities therein, consisting of passing the stream through a heat exchange coil surrounded by a liquid bath to transfer heat to the bath and cool the stream, maintaining the liquid bath within a second stage vessel, discharging the cooled stream into a first stage vessel remote from the liquid bath, removing the impurities from the gas stream for precipitation and accumulation within the first stage vessel, directing the removed impurities into the lower portion of the second stage vessel, maintaining the removed

impurities out of contact with the liquid bath, withdrawing the remaining vapor components of the gas stream from the first stage vessel, reducing the pressure and further cooling the vapor components of the gas stream to substantially hydrate forming condition, discharging the further cooled gas stream into the upper portion of the second stage vessel, precipitating the hydrates into the liquid bath for melting the hydrates, substantially precluding loss of the liquid bath, and withdrawing the dehydrated gas from the upper portion of the second stage vessel.

2. In a cold separation unit for dehydrating a natural gas stream comprising a first stage tank and a second stage tank, said second stage tank having a baffle secured therein providing an upper and a lower chamber, an inlet means disposed within the lower chamber, a heat exchange coil in the upper chamber surrounded by a liquid bath, communication between the inlet means and the heat exchange coil, communication between the heat exchange coil and the first stage tank, means within the first stage tank to transfer precipitates from the gas stream to the lower chamber of the second stage tank, means to conduct gas from the first stage tank into the upper chamber of the second stage tank, means to reduce the pressure of the stream to permit hydrates to precipitate into the liquid bath, means for precluding loss of the liquid bath, and means in the upper chamber of the second stage tank for withdrawing the dehydrated gas therefrom.

2,820,834

DEHYDROGENATION OF HYDROCARBONS IN THE PRESENCE OF A SAMARIUM SESQUIOXIDE CATALYST

Vasil L. Komarewsky, Chicago, Ill., assignor, by mesne assignments, to Heavy Minerals Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application June 14, 1955

Serial No. 515,549

16 Claims. (Cl. 260-683.3)

1. A process for dehydrogenation which comprises subjecting aliphatic hydrocarbons to the action of a catalyst of samarium sesquioxide at a temperature within the range from about 430° C. to 650° C. at a space velocity of not more than about 2.0.

2,820,835

CATALYTIC REACTIONS OF OLEFINS

Edwin F. Peters, Lansing, Ill., and Bernard L. Evering, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application August 18, 1955

Serial No. 529,322

2 Claims. (Cl. 260-683.51)

1. A process for synthesizing hydrocarbons which comprises contacting a liquid mixture of an olefin hydrocarbon and an isoparaffin hydrocarbon with a catalyst consisting essentially of between about 1 and 10 percent cobalt oxide, between about 2 and 15 percent molybdenum oxide, between about 2 and 20 percent HF, and the remainder essentially alumina, said contacting being effected at a temperature between about 150 and 210° F. and under a pressure of between about 50 and 2000 p. s. i. g. and which is sufficient to maintain at least a substantial portion of the reactants in the liquid phase.

2,820,836

METHOD OF DISPERSING CARBON BLACK IN BULK RUBBER

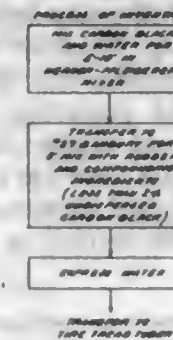
Frank B. Smith, Detroit, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application March 30, 1954, Serial No. 419,744

4 Claims. (Cl. 260-763)

1. An improved method of effecting microscopic dispersion of carbon black in a rubber stock comprising subject-

ing to intense shearing action in a Banbury mixer a mixture of water-insoluble ingredients comprising 100 parts of compressed carbon black, 150 to 250 parts of solid



gum rubber in bulk form, and from 60 to 250 parts of water, and thereafter removing the water from the mixture.

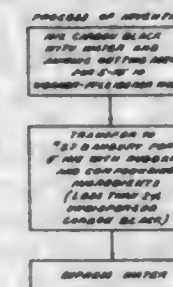
2,820,837

METHOD OF DISPERSING CARBON BLACK IN BULK RUBBER

Frank B. Smith, Detroit, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application March 30, 1954, Serial No. 419,745

3 Claims. (Cl. 260-763)



1. An improved method of effecting microscopic dispersion of carbon black in a rubber stock comprising sub-

jecting to intense shearing action in a Banbury mixer a mixture of 100 parts of compressed carbon black, from 150 to 250 parts of bulk rubber, from 10 to 250 parts of water and from 2 to 10 parts of an anionic wetting agent, and thereafter removing the water from the mixture.

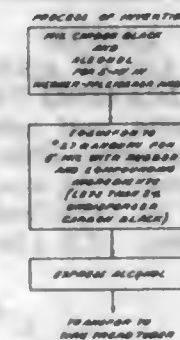
2,820,838

METHOD OF DISPERSING CARBON BLACK IN BULK RUBBER

Frank B. Smith, Detroit, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application March 30, 1954, Serial No. 419,746

5 Claims. (Cl. 260-763)



1. An improved method of effecting microscopic dispersion of carbon black in a rubber stock comprising masticating in an internal mixer a mixture comprising 100 parts of compressed carbon black, 150 to 250 parts of rubber, and from about 25 to 250 parts of an alkanol having from one to four carbon atoms, and thereafter removing the said alkanol from the mixture.

ELECTRICAL

2,820,839

THERMOCOUPLE

Edwin C. Schunke, Speedway, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 23, 1953, Serial No. 369,856

4 Claims. (Cl. 136-4)



4. A gas probe comprising a metallic tube adapted to be supported by a duct wall normal to the flow of a gas in the duct at a different temperature than that of the duct wall, insulators in the tube spaced from each other to form an elongated chamber therein, and a spaced pair of thermocouple wires in the chamber being free of contact with the tube and having a junction with each other located centrally therein, each wire being supported at each end of the chamber by the insulators, the tube being effec-

tive to reduce radiation heat transfer between the wall and junction, the thermocouple wires being exposed over that portion of their length in the chamber, the tube having an inlet opening facing upstream at each end of the chamber and a diametrically opposed outlet opening at the center of the chamber for the flow of gas from different strata through the tube and across the junction and exposed portion of wire length, the tube openings and chamber being effective to obtain an average gas temperature, the flow of gas across the exposed portion of wire length being effective to reduce conduction heat transfer between the wall and junction, the tube and insulators being effective to reinforce the thermocouples wire against bending by the impact of the gas flow.

2,820,840

GAS TEMPERATURE SENSING UNIT OR PROBE OF THERMOCOUPLE TYPE

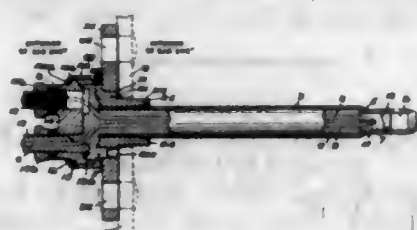
John H. Cantlin, Southboro, and Eric E. Anderson, Needham Heights, Mass., assignors to Fenwal Incorporated, Ashland, Mass., a corporation of Massachusetts

Application August 23, 1954, Serial No. 451,416

15 Claims. (Cl. 136-4)

2. For thermocouple gas temperature sensing, an elongate probe having an outer supporting end and an inner free end presenting a thermocouple junction, and a mount for said probe comprising a sleeve with a mounting flange, the sleeve having a straight cylindrical bore portion directly receiving the outer end of the probe with a press fit and having in longitudinal continuation of said

cylindrical bore portion a flare portion the inner wall of which defines the arc of a circle whose radius normal thereto occupies the cantilever support plane for said



probe intersecting the first point of its contact with said sleeve, the probe extending freely through said flare portion in progressively spaced lateral relation thereto and with the inner end projecting therebeyond.

2,820,841

PHOTOVOLTAIC CELLS AND METHODS OF FABRICATING SAME

Allan E. Carlson, Euclid, and Lebo R. Shiozawa and Joel D. Finegan, Cleveland, Ohio, assignors to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio
Application May 10, 1956, Serial No. 583,980
21 Claims. (Cl. 136-89)

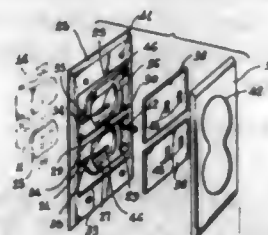


1. A photovoltaic cell comprising a layer of polycrystalline cadmium sulfide and a second layer, said layers being in intimate physical contact along an interface of substantial area and forming a photovoltaic junction in the region of and substantially coextensive with said interface, said second layer being a photovoltaic barrier layer composed of a material comprising monovalent cations of at least one metal from group 1B of the periodic table; and electrode means individual to and conductively associated with each of said layers at locations spaced from said interface.

2,820,842

SAFETY COVER PLATE FOR ELECTRICAL RECEPTACLES

John V. Meistrell, Manhattan Beach, Calif.
Application March 22, 1954, Serial No. 417,852
4 Claims. (Cl. 174-67)



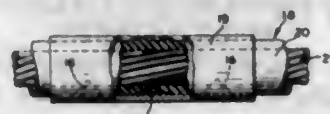
1. A safety cover plate for installation on an electrical receptacle of the plug-in type, which comprises: a flat rear wall having an opening adapted to receive the socket face of said receptacle and an enlarged forwardly open recess of rectangular shape, said wall having a short laterally extending trough therein at the side of said opening; a shutter mounted for lateral sliding movement in said recess directly in front of the plane of said receptacle socket faces, and formed with spaced slots therein for receiving therethrough the prongs of an electrical

plug; a forward wall secured to said rear wall and confining said shutter to said recess, said forward wall having an opening therein exposing the face of said shutter surrounding said slots and of a size larger than the face of a standard electrical plug whereby said plug may seat directly against said shutter; and spring means confined within said trough and projecting forwardly into said recess to engage with said shutter for urging said shutter to a position wherein said slots are out of alignment with the contact sockets of said receptacle, and yieldable so that said shutter may be moved to align said slots with said contact sockets.

2,820,843

CROSS CONNECTOR FOR ELECTRICAL CONDUCTORS

Elmer H. Dreher, South Norwalk, Conn., assignor to Sperry Rand Corporation, a corporation of Delaware
Application March 29, 1955, Serial No. 497,698
1 Claim. (Cl. 174-87)

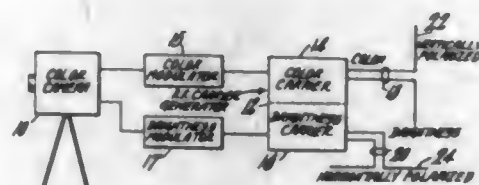


An electrical connector of the type intended to be pressure-formed onto a pair of crossed conductors; comprising a body member having a trough-like retaining section and substantially parallel spaced wall sections formed integral with said retaining section to provide a trough for receiving one of said conductors which is insulated, and a pair of tabs punched from opposite sides of the body member and bent downwardly and outwardly therefrom to form apertures through which the other conductor may be disposed, said apertures disposed near the bottom of the body member on each side thereof and terminating below the tops of the wall sections, the other conductor being a bare conductor whereby when the wall sections are pressure-formed around the insulated conductor lying within the trough and the tabs are simultaneously curled against the bare conductor, electrical contact is established between said conductors by forcing said bare conductor through the covering of the insulated conductor.

2,820,844

COLOR TELEVISION SYSTEMS

George L. Beers, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 1, 1952, Serial No. 274,417
5 Claims. (Cl. 178-5.2)

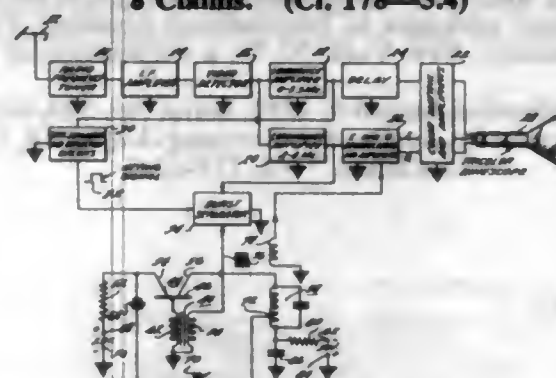


1. Apparatus for transmitting compatible color television signals comprising in combination, means generating a first carrier, means for generating a color television picture brightness information signal, means modulating said carrier with said picture brightness signal information to provide a first transmission signal, means generating a second carrier, means for generating a color television picture color information signal, means modulating said second carrier with said picture color information signal to provide a second transmission signal, means for propagating only the first transmission signal in a given propagation field, and means for propagating only the second transmission signal in a propagation field mutually perpendicular to said given field.

2,820,845

FREQUENCY CONTROLLED OSCILLATORS

Louis J. Kabell, Palo Alto, Calif., assignor to Radio Corporation of America, a corporation of Delaware
Application September 1, 1954, Serial No. 453,579
8 Claims. (Cl. 178-5.4)



8. In a color television receiving system including synchronous detector means for demodulating color information from a received color television signal, said television signal containing a recurrent synchronizing signal burst component definitive of the signal carrier frequency required for synchronous detection in said detector, a frequency controlled oscillator system for providing said required signal carrier, comprising in combination; means coupled with said receiving system separating said burst component from received television signal; a semi-conductor amplifier having operating electrodes corresponding to a base, emitter and collector and characterized by an effective collector-base capacitance which is a function of the potential appearing between said collector and base electrodes; input circuit means including an emitter bias source connected between said base and said emitter to form an input circuit; output circuit means including a collector bias source connected between said base and said collector to form an output circuit; a parallel inductance-capacitance resonant circuit connected in series with said output circuit between said collector and collector bias source, said resonant circuit being tuned to a frequency substantially equal to the frequency defined by said burst; a resistance-capacitance time constant network connected in series with said output circuit between said resonant circuit and said collector bias source said time constant circuit including a resistor connected to conduct collector current flow such that the collector-base potential and hence the effective collector-base capacitance of said amplifier device is rendered a function of the value of collector current while the time constant value of said time constant network is in excess of the recurrence period of said burst component; a series resonant circuit means connected from a point on said parallel resonant circuit to said emitter electrode, said series resonant circuit means being tuned to a frequency substantially equal to the frequency defined by said burst such to establish sustained oscillation in said amplifier device at a frequency which is a function of collector-base capacitance; and transformer coupling means connected with said burst separating means and in series with said base electrode for simultaneously imposing said separated burst in both said input and output circuits for comparing the frequency of said burst component with said frequency of sustained oscillation to alter the collector-base potential and capacitance as a function of said frequency comparison.

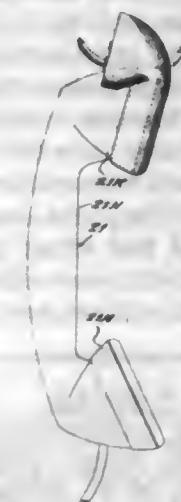
2,820,846

TELEPHONE RECORDING PICKUPS

Ernest E. Hansen, Jr., Glendale, and Lawrence M. Heine-man, Los Angeles, Calif., assignors to Permoslux Corporation, Chicago, Ill., a corporation of Illinois
Application May 4, 1951, Serial No. 224,546
2 Claims. (Cl. 179-1)

2. In a telephone having a receiving end housing a

pair of magnetic pole members for receiving incoming signals and having a transmitting end including means for transmitting outgoing signals, a recording pickup comprising an arcuate main body adapted to be rotatably mounted on said receiving end of the telephone while exposing said receiving end for normal audio listening, said main body including a housing portion projecting radially outwardly in a lateral direction beyond said main body so as to be disposed beyond a peripheral side edge of said receiving end of the telephone, a central chamber in said housing opening at one face thereof

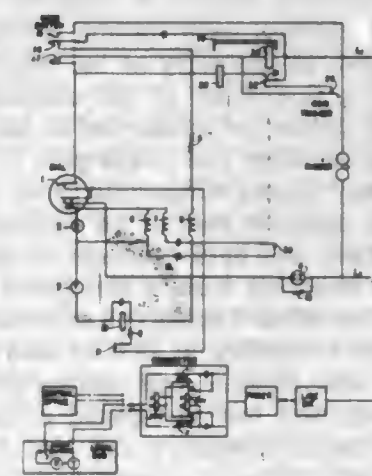


and including a pair of extensions extended part way about said main body on either side of said central chamber, and an inductive coupling including a central part disposed in said central chamber and including parts on opposite sides of said central part disposed respectively in said extensions of said central chamber so that optimum coupling can be established by rotating said main body on said receiving end to dispose the inductive parts in said extensions at an optimum position in respect of said pole members.

2,820,847

REVERSE BATTERY PAYSTATION

George King, Columbia, Mo., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application May 14, 1953, Serial No. 355,013
4 Claims. (Cl. 179-6.3)



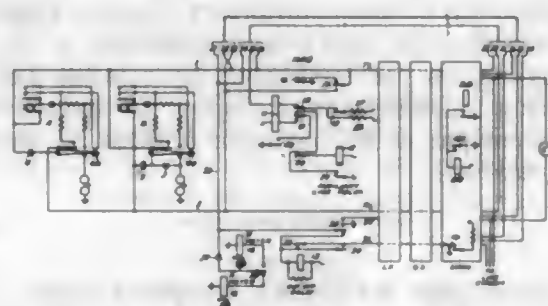
1. In a telephone system, a line having a paystation thereon, a called subscriber, a substation circuit including an induction coil, a transmitter, a relay, normally closed contacts controlled by said relay, a receiver circuit comprising a primary winding and a receiver bridged across

a secondary winding of said induction coil, a first normally closed shunt circuit comprising said contacts shunting said primary winding thereby causing said receiver circuit to become ineffective, means responsive to the initiation of a call on said line for initially operating said relay over said first shunt circuit and the line conductors of said line, means for extending a connection from said paystation line to said called subscriber, means for reversing battery over said line when said connection is answered by said called subscriber for momentarily energizing said receiver circuit, a second shunt circuit comprising a rectifier connected in bridge of said relay and said transmitter effective in response to the receipt of reverse battery to cause said transmitter to become ineffective and to restore said relay, said contacts restored to normal by said relay to reclose said first shunt circuit to again cause said receiver circuit to become ineffective, and means responsive to the deposit of a coin for opening said second shunt circuit to cause said transmitter to become effective and to reoperate said relay, said contacts reoperated by said relay to open said first shunt circuit to cause said receiver circuit to again become effective, whereby conversation is free to take place over said connection.

2,820,848

TWO-PARTY LINE INDIVIDUAL METERING
Henry Leopold Horwitz, Nutley, and George Louis Hasser, Packanack Lake, N. J., assignors to International Telephone and Telegraph Corporation, a corporation of Maryland

Application March 12, 1953, Serial No. 341,857
3 Claims. (Cl. 179-8.5)

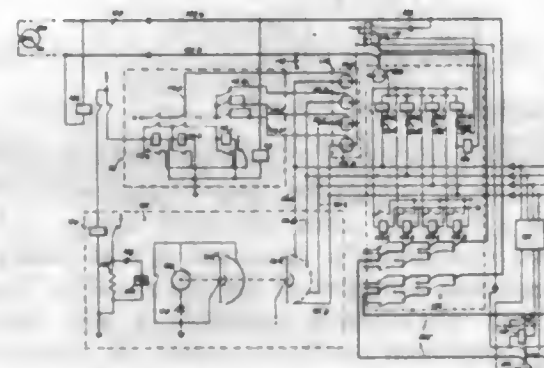


1. In a telephone system, a party line comprising first and second line conductors terminating in an exchange, two stations on said party line, an individual meter at the exchange for each said station, a normally open bridge across said conductors at each station, means for closing a bridge responsive to the party at the respective station initiating a call, a line relay at the exchange having a winding normally connected at one end to said second line conductor and at the other end to one pole of an exchange battery, a normally closed connection from said first line conductor to the opposite pole of an exchange battery, a metering wire, front and back contacts on said line relay over which said metering wire is connected alternatively to one or the other of said meters, a normally open connection including a rectifier at one of said stations and extending from one of said line conductors to ground, means for closing said last mentioned connection when a party at said station initiates a call said rectifier being so poled that at this time no current flows over said last mentioned connection, an auxiliary line relay, contacts on said line relay for closing a circuit for said auxiliary line relay, a locking circuit for said auxiliary line relay, contacts on said auxiliary line relay for reversing the polarity of the current applied to said other end of said line relay winding, a cut-off relay, and a locking circuit for said line relay including make contacts of said cut-off relay.

2,820,849 DIGITAL REGISTER FOR COMMUNICATION SYSTEM

Kurt Klinkhammer, Stuttgart-Zuffenhausen, Karl Steinbuch, Walblingen, Gerhard Merk, Stuttgart-Zuffenhausen, and Hans Bretschneider, Stuttgart-Feuerbach, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application August 9, 1952, Serial No. 303,464
Claims priority, application Germany August 16, 1951
21 Claims. (Cl. 179-18)



1. In a communication system, in combination, an incoming line, a single register connected to said line and adapted to successively store single digits represented by digital signals received over said line, a plurality of outgoing lines, first switch means for selectively connecting said incoming line to any one of said outgoing lines under the control of a first digit stored by said register, first actuating means for said first switch means responsive to completion of the storing of said first digit by said register, second switch means for further extending a selected one of said outgoing lines in response to the receipt by said register of a second digit, second actuating means for said second switch means, switch-over means normally connecting said first actuating means and said first switch means to said register and adapted to operate subsequent to operation of said first switch means for disconnecting said first actuating means and said first switch means from said register and connecting said register to said second actuating means and said second switch means, thereby preparing operation of said second switch means in response to said second digit stored by said register, and register-restoring means under control of and operating substantially simultaneously with said switch-over means to obliterate each digit stored in said register.

2,820,850

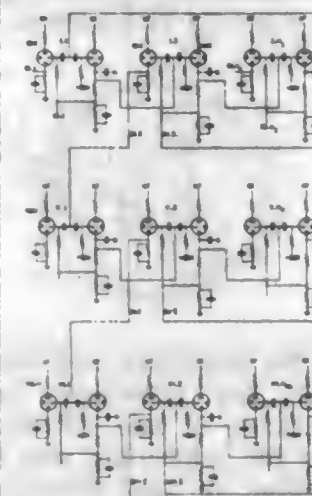
SELECTING ARRANGEMENTS

Alan Heathcote and Douglas Austin Read, Liverpool, England, assignors to Automatic Telephone & Electric Company Limited, Liverpool, England, a British company

Application February 24, 1955, Serial No. 490,305
Claims priority, application Great Britain March 20, 1954
8 Claims. (Cl. 179-18)

1. A selecting device comprising a plurality of outlets, a group of serially-connected static circuit elements of a first order, a plurality of groups of serially-connected static circuit elements of a second order, means connecting each static circuit element of said second order to one of said outlets, means connecting each static circuit element of one order to the first circuit of a group of static circuit elements of the next order, means for applying conditioning signals to said static circuit elements, means responsive to the application of a pulse input to a static circuit element of a group in the absence of a conditioning signal for repeating a pulse to the next succeeding static

circuit element of the same group, means responsive to the application of a pulse input to a static circuit element of a group of said first order in the presence of a conditioning signal for repeating a pulse to the first static circuit element of the connected group of the next order and means responsive to the application of a pulse input to a static circuit element of a group of said second order in

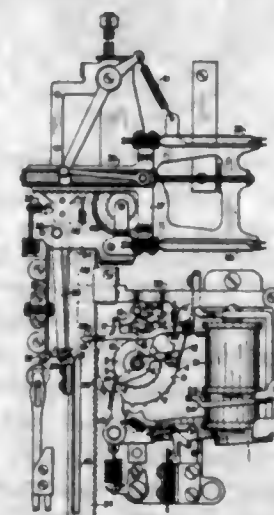


the presence of a conditioning signal for applying a seizing signal to the connected outlet whereby the application of a conditioning signal to one static circuit element of each order and the application of a pulse input to the first static circuit element of the first order causes a seizing signal to be applied to a particular outlet as determined by the static circuit elements to which the conditioning signals have been applied.

2,820,851

TWO-MOTION SWITCH

Kenneth W. Graybill, Elmhurst, and Hans Sengebusch, Chicago, Ill., assignors to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application August 30, 1954, Serial No. 452,752
10 Claims. (Cl. 179-27.52)



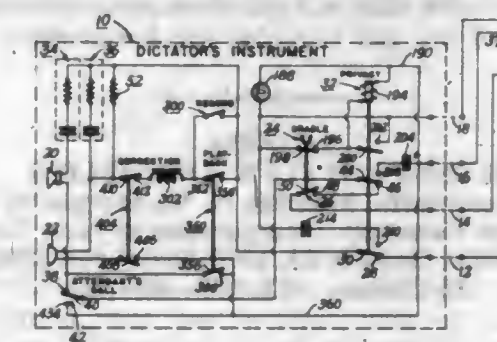
1. In a driving unit for an automatic switch, a hub, a sprocket wheel rotatably mounted on said hub, a ratchet wheel secured to said sprocket wheel and rotatable therewith, a release spider rotatably mounted on said hub independent of the rotation of said sprocket and ratchet wheels, said spider having a normal and a release position, a main rack meshing with the teeth on said sprocket wheel, a main carriage and a secondary carriage movably associated with said rack, a holding detent normally engaging the teeth of said sprocket wheel to hold the same in its operated position, a driving pawl for rotating said ratchet and sprocket wheels, a stepping magnet for operating said pawl, a changeover magnet, locking means for locking said main rack in its normal position, a changeover member operated by a first actuation of said

changeover magnet for operating said locking means to permit movement of said rack, actuation of said stepping magnet operating said pawl to rotate said ratchet and sprocket wheels to advance said main rack for moving said main carriage in one direction, deenergization of said changeover magnet releasing said changeover member to thereby cause said locking means to be effective for locking said main carriage in said advanced position, reoperation of said stepping magnet again actuating said pawl to rotate said ratchet and sprocket wheels to move said secondary carriage in another direction, a latch bar operated in response to a second actuation of said changeover magnet for rotating said spider from its normal position to its release position, means on said spider in its release position for disengaging said detent from the teeth of said sprocket wheel and for disassociating said pawl from the teeth of said ratchet wheel, a main rack restoring means effective in response to said disengagement of said detent and said disassociation of said pawl for restoring said main rack to its normal position, and means including said latch bar effective in response to the restoration of said main rack to normal for restoring said spider to its normal position.

2,820,852

DICTATION SYSTEM

Lloyd R. Jones, Bridgeport, and Douglas E. Taylor, Westport, Conn., said Jones assignor to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York
Application September 20, 1954, Serial No. 457,165
22 Claims. (Cl. 179-100.1)



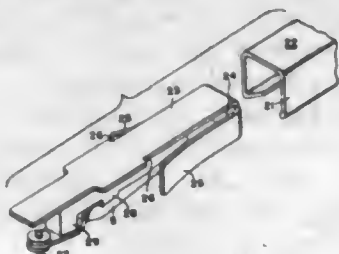
1. For use with a remotely-operated dictation system which includes centrally located recording and control apparatus wherein a recording head is arranged for relative traveling movement with respect to a record medium, said system also including a plurality of dictators' stations any one of which may be coupled to said recording head to transmit sound signals thereto for recording on said record medium, apparatus for enabling a plurality of control function signals to be transmitted over a minimum number of interconnecting lines and comprising, in combination, a plurality of dictators' instruments each including a microphone and a receiver, a control circuit for connecting said instruments to said recording and control apparatus, power supply means for producing current flow in said control circuit, control means associated with each of said instruments for selectively setting in discrete steps the magnitude of current flow through said control circuit such that a plurality of current conditions may be established therein, current-energizable means associated with said control circuit and actuable by the current flowing therein when one of said current conditions is established but not actuable by the current flowing therein when other of said current conditions are established, the current flow in said other conditions being of a lower magnitude than the current flow in said one condition, operating means under the control of said current-energizable means and arranged to be activated when one of said other current conditions is established and to subsequently actuate said current-energizable means by increasing the flow of current therethrough, and means responsive to the actuation of said current-energizable

means for changing the sensitivity of said operating means so as to deactivate said operating means and thereby reestablish said other current condition in said control circuit, whereby said operating means is made available for future activation and consequent operation of a predetermined control function when said one current condition is established in said control circuit by said control means.

2,820,853

PHONOGRAPH STYLUS ASSEMBLY

Roy Dally, Liverpool, N. Y., assignor to General Electric Company, a corporation of New York
Application October 13, 1955, Serial No. 540,219
9 Claims. (Cl. 179-100.41)

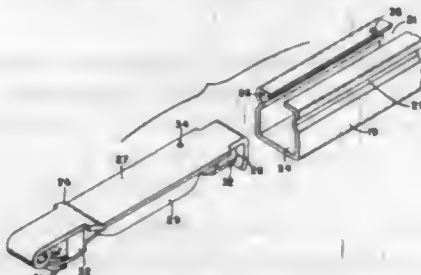


5. A stylus support assembly comprising an elongated base of non-magnetic material, said base having a tab at one end extending substantially perpendicular to said base, a flexible cantilever arm of magnetic material mounted on said tab to extend along side and substantially parallel to said base, and a pair of resilient wings extending from opposite sides of said tab and flaring outwardly from said base in a direction perpendicular to the plane defined by said arm and the longitudinal axis of said base.

2,820,854

SLIDE-IN STYLUS ASSEMBLIES

Mark E. Woodworth, Manlius, N. Y., assignor to General Electric Company, a corporation of New York
Application October 13, 1955, Serial No. 540,220
18 Claims. (Cl. 179-100.41)



5. A stylus support assembly adapted for slide-in retention in a stylus support holder, said assembly comprising: an approximately rectangularly-shaped base constructed of non-magnetic material, a tab at one end of said base extending at an angle of approximately 90 degrees with the plane of said base, and a flexible magnetic cantilever arm mounted on said tab to extend along side and in substantially parallel relationship with said base, the free end of said cantilever arm being suitable for the mounting of a stylus thereon.

2,820,855

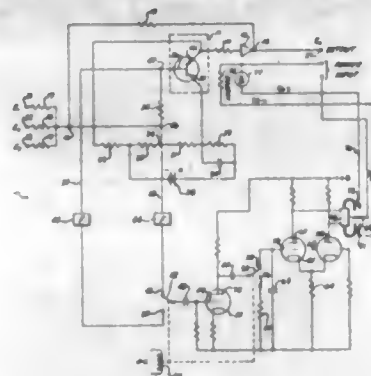
HIGH IMPEDANCE TRANSISTOR AMPLIFIER

Solomon Sherr, Yonkers, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York

Application July 7, 1955, Serial No. 520,533
7 Claims. (Cl. 179-171)

6. A high impedance transistor amplifier having a base input electrode comprising a direct-current detector including a resistor in series with said base input electrode, said resistor carrying all of the base bias direct current, and a chopper vibrator having at least one

terminal connected to said resistor, a capacitor connected to said chopper vibrator, an amplifier amplifying the potentials of said capacitor, a vibrating rectifier rectifying said amplifier output, means vibrating said chopper vibrator and said vibrating rectifier in synchronism and phase to produce at the output thereof direct current



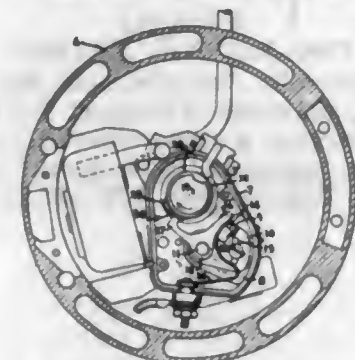
representative of the amplitude and sense of said base bias direct current, heat exchanging means for maintaining the temperature of said transistor at a selected value, and means for controlling said heat exchanging means by the output of said vibrating rectifier, said selected value being that temperature at which said base bias direct current is zero.

2,820,856

SWITCH CONTACT POSITIONING DEVICE

Robert G. Krueger, Milwaukee, Wis., assignor to Power Products Corporation, Grafton, Wis., a corporation of Wisconsin

Application March 28, 1956, Serial No. 574,490
5 Claims. (Cl. 200-21)



1. A timing device for the ignition system of an internal combustion engine comprising, a normally stationary contact, means for effecting adjustment of said contact, a movable contact cooperable with said stationary contact, a rotatable member disposed adjacent to said contacts and having a cylindrical surface provided with a local peripheral cam portion and an adjoining fixed contact adjusting portion lying intermediate said cylindrical surface and said cam portion, and an element supporting said movable contact and being successively engageable with said cam portion to intermittently cause said movable contact to be retracted out of engagement with the fixed contact, said element being cooperable with said fixed contact adjusting portion and with said adjusting means to predetermine the correct position of said stationary contact.

2,820,857

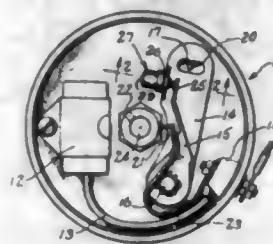
IGNITION TIMER FOR INTERNAL COMBUSTION ENGINES

Orrin H. Thomas, Williamsport, Pa., assignor to James L. Burke, Elmira, N. Y.

Application November 29, 1955, Serial No. 549,689
4 Claims. (Cl. 200-30)

1. An ignition timer for internal combustion engines comprising an adjusting plate including a mounting screw, said plate having an upright flange, an opening being

formed in said flange, a hollow housing having a wall at one end and having an axial opening therethrough, a collar surrounding said opening and projecting therefrom, said collar being of a diameter for passage through the opening of said flange and projecting therefrom, the end of said collar being swaged for securing said collar within the opening of the flange, said housing being provided with interior screw threads, a substantially spherical body member in said housing and having a circular extension



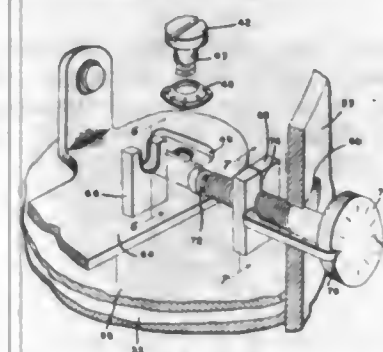
reciprocally mounted in said collar and projecting therefrom, a contact on the projecting end of said extension, a removable closure cap for said hollow housing, a helical spring interposed between said closure cap and the substantially spherical body member urging said circular extension and contact outwardly of said collar, a spring pressed swinging arm mounted on said adjusting plate, said arm having a contact aligned with and engaging the first named contact and a rotary cam member for effecting intermittent movement of said swinging arm.

2,820,858

DISTRIBUTOR POINT ADJUSTMENTS

Bert E. Tompkins, Martinez, Calif., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 29, 1953, Serial No. 371,118
1 Claim. (Cl. 200-31)



A distributor for an internal combustion engine, comprising in combination; a housing including an aperture therethrough, a support plate positioned within said housing having at least a portion thereof rotatably mounted for movement within predetermined limits, a circuit breaker pivotally carried by the rotatable portion of said plate and comprising fixed and movable contacts whereby said fixed and movable contacts are translated bodily and as a unit by the rotatable portion of said support plate during rotation thereof, said fixed contact being adjustably movable relative to said movable contact for adjustment of contact opening therebetween, stop means cooperating with said fixed contact for limiting the extent of said adjustable movement thereof, an adjuster externally accessible of the housing for adjusting the position of the fixed contact relative to the movable contact, said adjuster comprising a threaded stud fixedly carried by said rotatable portion of said support plate, an adjustment rod threaded through said stud and extending outwardly of the housing and through said aperture, a second stud spaced from and generally aligned with said threaded stud and immovable associated with said fixed contact, said second stud including a swivel connection for one end of said rod whereby a universal movement is possible between said second stud and said

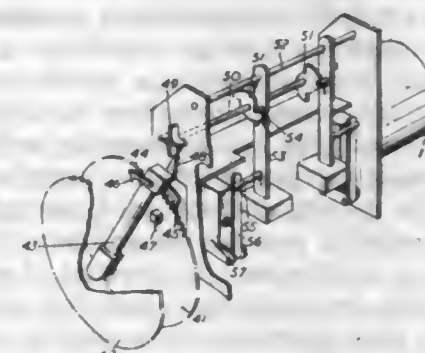
rod for preventing binding of the rod and stud upon pivotal movement of the fixed contact when the rod is adjustably threaded through said first mentioned stud for adjusting the position of the fixed contact, locking means associated with the threaded stud for frictionally maintaining any adjusted position of the rod in said threaded stud, whereby the position of the fixed contact may be predeterminedly adjusted with respect to the movable contact externally of the housing and maintained in said adjusted position through the action of said locking means, an indicia bearing dial located externally of the housing and carried by an end of said adjustment rod, and a pointer mounted on the threaded stud and extending outwardly of the housing through said aperture and into proximity with said dial, whereby the pointer and dial are translated as a unit during rotation of the support plate.

2,820,859

MEANS FOR CONTROLLING OPERATIONS AT VARIABLE INTERVALS

Charles William Davies and Leonard Arthur Pollard, East Molesey, England, assignors to Trianco Limited, East Molesey, England

Application January 11, 1956, Serial No. 558,579
9 Claims. (Cl. 200-37)



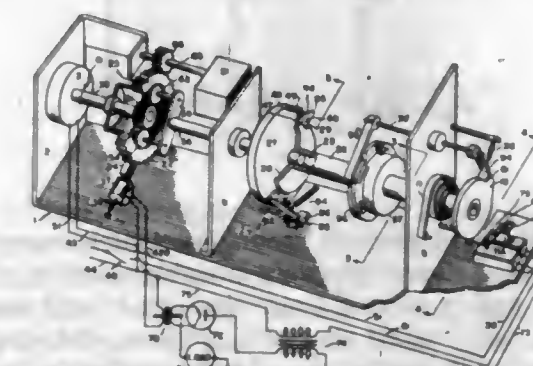
1. Means for periodically selecting an electrical circuit and subsequently controlling the condition of that circuit, comprising at least two switches, each of said switches controlling an electrical circuit, a rotatable shaft, timing means connected to said shaft to rotate it intermittently step-by-step in one direction, and means operable at successive operations of said shaft to operate said switches successively and including pendulum arms, and means operated on rotation of said shaft to swing said arms successively into contact with said switches.

2,820,860

DELAYED CIRCUIT CLOSERS

Felix Kozikowski and Frank Arthur Pearson, Moline, Ill., assignors to Eagle Signal Corporation, Moline, Ill., a corporation of Massachusetts

Application January 5, 1954, Serial No. 402,244
15 Claims. (Cl. 200-39)



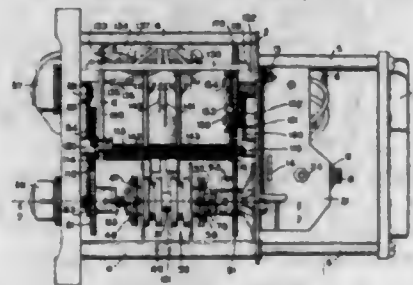
1. A delayed circuit closer, having in combination, a current source, a load circuit, a switch controlling the flow of current from said source to said load circuit, a movable element which in its first position closes said switch, means becoming effective upon failure of said

current source that moves said element at a controlled rate away from its initial position thereby opening said switch, means becoming effective when the element has moved a preset distance that instantaneously moves said element a fixed additional distance, means becoming effective on revitalization of said current source to move said element at a controlled rate back to its initial position.

2,820,861

CIRCUIT CONTROLLER

Ralph M. Manning, West Medford, Mass., and Francis W. Truesdell, Dover, N. H., assignors to General Electric Company, a corporation of New York
Application March 31, 1955, Serial No. 498,188
23 Claims. (Cl. 200—39)

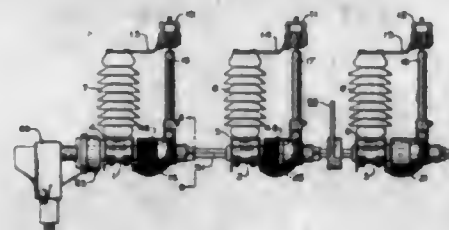


1. A circuit controller comprising in combination, first and second contact carrying members, a movably mounted support member having a predetermined position, first and second control members movably mounted on said support member and cooperating with said first and second contact carrying members respectively to control the relative spacing thereof, said control members having a first relative position on said support member corresponding to a first switching position of said contact carrying members, means to move said first control member relative to said support member and to said second control member, said first contact carrying member moving with said first control member to establish a second switching position, means to move said support member and said second control member relative to said first control member, said second contact carrying member moving with said second control member to re-establish said first switching position, and means to return said support member to said predetermined position without changing the relative position of said control members.

2,820,862

ELECTRIC SWITCH

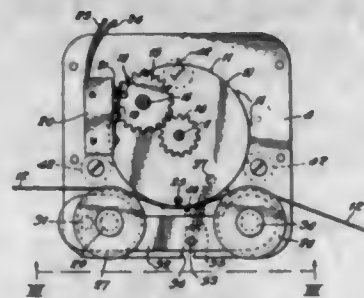
Robert D. Carmichael and Gerald F. Hastings, Hampton, Ga., assignors to Southern States Equipment Corporation, a corporation of Georgia
Application December 21, 1956, Serial No. 629,908
14 Claims. (Cl. 200—48)



1. A high-speed electric grounding switch comprising a pair of biased closed relatively movable contacts, a latch engageable with a part of a movable one of said contacts for locking said contact in closed position, and operating means mounted independently of said movable contact and movable relative to said movable contact and latch, said operating means being engageable with said latch to unlock said contact and to allow said contact to open and said operating means being subsequently engageable with said contact to move said contact to the open position.

2,820,863
SOUND TAPE OPERATED SWITCHING MECHANISM

Norman Swanson, Warrenville, Ill.
Application April 25, 1955, Serial No. 503,582
9 Claims. (Cl. 200—61.13)

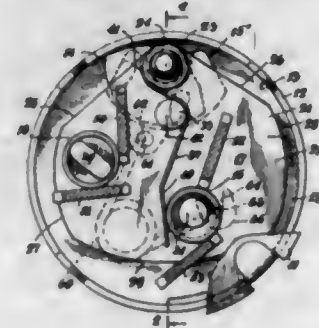


1. An electric switching device adapted to be operated by a perforated magnetic sound tape, including a base plate, a sprocket to be engaged by the perforated magnetic sound tape and to be rotated thereby when the sound tape is moved lengthwise, means on said base plate for rotatably supporting said sprocket, a normally open switch supported by said base plate, a gear adapted to be driven by said sprocket, and an eccentric pin on said gear actuating said switch at uniformly spaced time intervals during the rotation of said sprocket.

2,820,864

POWER OR LINE SWITCHES FOR CONTROLS

William K. Newman and George O. Puerner, Indianapolis, Ind., assignors to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware
Application July 5, 1955, Serial No. 519,824
10 Claims. (Cl. 200—67)



1. An electric switch comprising a metal casing having an open end, a flat base of insulating material placed in said open end to close the same, unitarily constructed electric terminals having soldering lugs attached thereto inserted in said base, said terminals being predeterminedly angularly disposed therein, an actuator for said switch, said actuator including a pivot post, means in said casing for limiting the movement of said actuator, a rotor connected to said actuator to be moved thereby, said rotor including a hollow bore fittable over said pivot post of said actuator to move thereabout and to position said rotor in said casing, a pair of sides of said rotor extending at an angle from said bore to form a tapered area thereby, another portion of said rotor joined to said tapered area to complete the extent of the rotor, said latter area being somewhat rectangular in shape, said rotor further having a plurality of bosses formed on a surface thereof, and individual ring contact means adapted to fit over individual bosses of said rotor, means bearing against said bore, a contact ring, and a boss thereof with said ring contact means being free moving about said boss on said rotor to cooperate with said predetermined spaced terminals to afford positive contact action and improved current transfer characteristics for the said switch.

2,820,865

ELECTRIC SIGNALING GAUGES

Henry H. McKinnies, Milwaukee, Wis.
Application November 4, 1955, Serial No. 545,096
8 Claims. (Cl. 200—84)



1. The combination with a flat chamber of a sight tube extension thereof having a transparent wall, a float in the chamber, a magnetic actuator connected with the float and guided for reciprocation in the tube, a switch means including a responsive member for switch operation disposed adjacent the tube and offset laterally from the path of movement of said actuator, said member and actuator being magnetically complementary and said member being magnetically responsive to the proximity of the actuator to operate the switch, said tube and actuator providing a continuously effective visual indication of liquid level in the float chamber upon which said float is buoyed.

2,820,866

RELAY

Kenneth W. Graybill, Elmhurst, and Hans Sengebusch, Chicago, Ill., assignors to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application November 20, 1953, Serial No. 393,278
4 Claims. (Cl. 200—104)

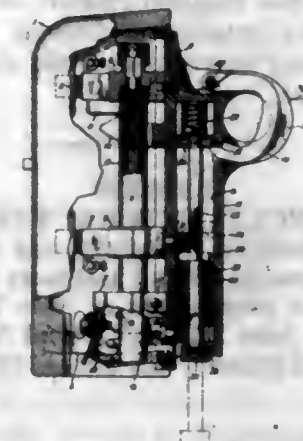


1. In a relay, a core, an electromagnetic coil about said core, a first shell secured to and enclosing said coil, pole pieces secured to said core, an armature rotatably mounted on one end of said core, said armature magnetically attracted to said pole pieces from a normal position upon energization of said coil, a plurality of contact springs arranged circumferentially about said coil and within said first shell, means for imparting motion to certain of said contact springs which thereby contact certain others of said springs in response to movement of said armature, a spring for biasing said armature in said normal position, and a second transparent shell enclosing said armature and the contacts of said contact springs and secured to said biasing spring, the condition of said contacts being visible through said second transparent shell, said second shell manually adjustable to adjust said biasing spring in accordance with a desirable change of said springs indicated by said visible condition of said springs.

2,820,867

ENCLOSED CUTOFF HAVING A LOAD BREAK DEVICE

Sidney R. Smith, Jr., Stockbridge, Mass., assignor to General Electric Company, a corporation of New York
Application May 5, 1954, Serial No. 427,743
8 Claims. (Cl. 200—114)



1. An enclosed cutoff having a load break device comprising an electrical insulating material housing having two spaced metallic terminal contacts therein, an electrical insulating material door for said housing, current interrupting means on said door for completing an electrical circuit between said terminal contacts when said door is closed, said current interrupting means having three spaced metallic contacts, a first and second of said three current interrupting means contacts electrically inter-connected by said current interrupting means, a third of said three current interrupting contacts and one of said first and second contacts electrically engageable with said terminal contacts when said door is closed, a tubular electrical insulating material portion on said door, a movable spring driven metallic contact in said tubular portion electrically bridging said third contact and the other of said first and second contacts.

2,820,868

LOAD INTERRUPTER FUSE CUTOFF

George R. McCloud, Cudahy, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application September 29, 1955, Serial No. 537,456
8 Claims. (Cl. 200—114)



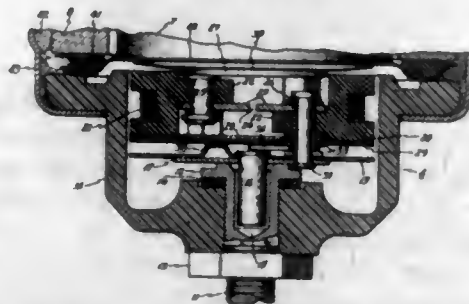
1. A load interrupter fuse cutoff comprising in combination, an insulating supporting structure, a pair of terminals mounted on said support in insulated spaced relation, hinge members carried by said support, a fuse tube pivoted at one end on said hinge members and including a pair of spaced contacts normally engaged respectively with said terminals, a fuse link in said tube having a fusible section electrically connecting said contacts and projecting from said tube adjacent the pivoted end thereof, and mechanism engageable with the pro-

jecting portion of said fuse link for mechanically rupturing the fusible section of said link, said mechanism comprising an element movable in a longitudinal direction relative to said tube and parallel with the axis of said tube and into stressing engagement with said link, and a manually operable lever interacting with said element to move it in said longitudinal direction and movable about a pivot axis in fixed position relative to said supporting structure, whereby rotative movement of said lever is translated to a linear movement of said element parallel to the axis of said tube.

2,820,869

CIRCUIT INTERRUPTER

Roland G. M. Hedlund, Pittsfield, and Eugene C. Sakshaug, Lanesborough, Mass., assignors to General Electric Company, a corporation of New York
Application June 27, 1955, Serial No. 518,118
6 Claims. (Cl. 200-115)

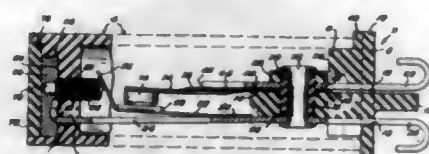


1. A circuit interrupter comprising an inductance coil, a fuse, and a pair of spaced electrodes which define a spark gap, said coil and fuse being connected in series and said spark gap being connected in parallel with said series connected coil and fuse, said fuse extending transverse to the internal magnetic field of said coil whereby said magnetic field will move an electrical arc which is established in said fuse, and an explosive, said explosive being spaced from said fuse and being positioned in the path of movement of said fuse arc by said magnetic field.

2,820,870

THERMOSTATIC SWITCH

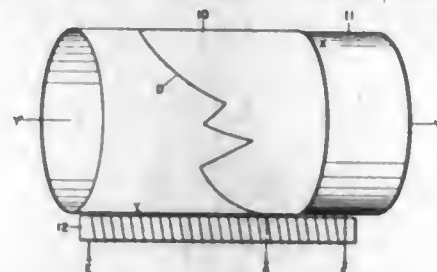
Walter H. Moku, Attleboro, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application July 19, 1956, Serial No. 598,914
12 Claims. (Cl. 200-138)



1. A snap-acting thermostatic switch including a mounting member; an elongated thermostatic element in strip form lying along one side of said member with one end thereof overhanging said member and having a part thereof dished to provide a snap-acting portion, said dished part lying beyond the end of said mounting member; a restraining member lying on top of said element and extending over a portion of the dished area of said element; a movable first contact carried by the overhanging end of said element beyond said dished portion; a flexible contact arm supported from the other side of said mounting member and extending beyond its end; a second contact carried by said contact arm and positioned to engage said first contact when said thermostatic element is in one of its positions; and means holding said thermostatic element, restraining member, flexible contact arm, and mounting member together in substantial alignment.

2,820,871
ELECTRONIC COMPUTER CONTACT AND
PROCESS OF MAKING SAME

Paul H. Smith, Brooklyn, N. Y.
Application September 30, 1953, Serial No. 383,417
5 Claims. (Cl. 201-48)
(Granted under Title 35, U. S. Code (1952), sec. 266)

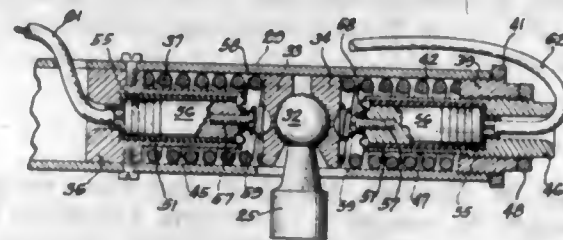


5. An article of manufacture comprising a base member on which is plotted a curve, a flexible and limp fiber member adhesively secured to only one side of said sheet coextensive with said curve, the top surface of the fiber member being coated with an electrically conductive material and extending sufficiently above the surface of the sheet to provide an electrical point contact.

2,820,872

ELECTRICAL BOOSTER FOR POWER STEERING WITH VARIABLE RESISTANCE CONTROL

William F. Carr, Grand Rapids, Mich., assignor to Lear Incorporated, Grand Rapids, Mich.
Application August 31, 1953, Serial No. 377,427
2 Claims. (Cl. 201-51)



1. A device for translating a force variable in magnitude and direction into a voltage having a corresponding magnitude and sense for actuation of a control circuit comprising an elongated support having an abutment at each end thereof, a pair of coiled compression springs each seated at one end on a respective abutment, an impedance device positioned within each of said springs and of a character which presents a variable impedance in accordance with pressure applied thereto, a member interposed between the other ends of said springs movable axially of said springs for receiving the variable force and transmitting the same to one or the other of said springs, and a second pair of compression springs one individual to each impedance device and interposed between said member and device for transmitting movement of said member in one direction or the other to one of said second pair of springs or the other while deforming one of said first pair of springs or the other.

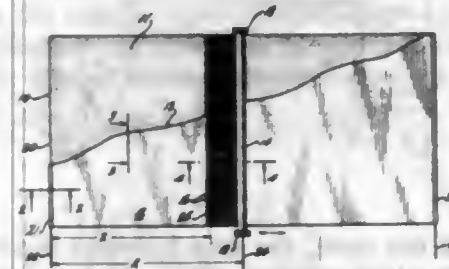
2,820,873

VARIABLE ELECTRICAL RESISTANCE DEVICE

Bernard Klestadt, Beverly Hills, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application March 25, 1955, Serial No. 496,793
4 Claims. (Cl. 201-60)

1. A variable non-linear potentiometer comprising, in combination: an elongated plate of non-conductive material and having a planar surface; an electrically conductive coating on said surface, a portion of the area of said coating being removed, whereby to expose an area of said plate material, said coating having a generally increasing transverse width from one longitudinal end of

said plate to the other; a layer of conductive material disposed over end portions of said coating lying along said longitudinal edges and over said edges, said layer serving to retain and electrically connect leads to each of said ends; a transversely disposed rod positioned to overlap said coating in spaced relationship thereto, said rod being adapted for longitudinal movement over said coat-

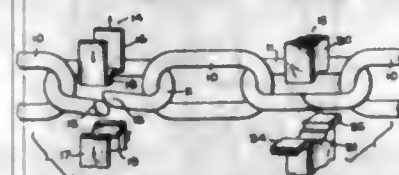


ing; a plurality of contacts carried by said rod, said contacts being disposed in contact with said coating; and a further lead attached to said rod, a variable non-linear resistance to flow of electrical energy being established by connection across said further lead and one of said first mentioned leads upon movement of said rod through a plane parallel to said surface.

2,820,874

MANUFACTURE OF CHAINS

Joseph Dunn, Cradley Heath, England, assignor of two-thirds to David Roberts, Jr., Audnam, and one-sixth to Arthur George James, Halesowen, England
Application July 1, 1953, Serial No. 365,445
1 Claim. (Cl. 219-9.5)



The process of uniting in a chain link the two opposed end portions comprising substantially aligning the end portions thereof so that the end faces present transverse jointing faces and subjecting the two opposed end portions to a high frequency electromagnetic heating field of substantially annular formation so as substantially to completely encircle the cross-section of said end portions, said field being such as to extend each side of the transverse jointing faces of the end portions longitudinally thereof and so that at any instant the field lies in a single sense substantially longitudinally in the two end portions with said field entering into and emerging from the portions around the complete peripheral surfaces thereof to obtain electro-magnetic saturation of said end portions over their entire cross-sectional areas with the maximum flux density being created at the transverse jointing faces of the end portions whereby said end portions become heated to a welding temperature which attains a maximum at said transverse jointing faces, and applying pressure to the end portions whilst in the heated condition to hold said end portions in mutual contact and to cause same to become welded together to form a closed chain link.

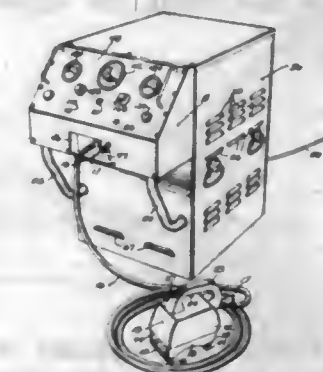
2,820,875

HIGH FREQUENCY DIELECTRIC HEATING APPARATUS

Ewald R. Werych, Elm Grove, and Lawrence W. Peterson, Milwaukee, Wis., assignors to Industrial Electronic Engineering Corp., Milwaukee, Wis., a corporation of Wisconsin
Application June 23, 1954, Serial No. 438,768
14 Claims. (Cl. 219-10.75)

1. In a tool in which high frequency is impressed between a pair of spaced electrodes, the combination with

a handle and means for supporting said electrodes therefrom, of a transformer having means for supporting it from the handle and having connections between its ends and the respective electrodes and electrode plates having spring pins for which the electrodes provide sockets, said



pins constituting means for the physical and electrical connections of the plates detachably with respective electrodes, said plates having a dielectric smoothing sheet with which they are unitarily connected and which extends between electrodes when said plates are connected to the electrodes.

2,820,876

YARN HEATING APPARATUS

Pieter van Dijk, Velp, Netherlands, assignor to American Enka Corporation, Enka, N. C., a corporation of Delaware
Application November 28, 1955, Serial No. 549,494
Claims priority, application Netherlands
December 14, 1954
2 Claims. (Cl. 219-19)



1. Apparatus for heating a plurality of running yarns comprising a pair of yarn separating means disposed in spaced and laterally offset relation, an elongated body extending across the space between said pair of yarn separating means, means for heating said body and a plurality of groups of pins projecting radially from said body for guiding the plurality of running yarns in parallel but helical paths around said body, each group comprising a plurality of spaced pins aligned with the longitudinal axis of said body.

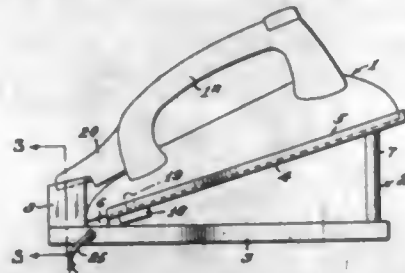
2,820,877

CORDLESS ELECTRIC IRON AND STAND ASSEMBLY

David J. Oates, Jr., Rocky Mount, N. C.
Application August 16, 1956, Serial No. 604,529
4 Claims. (Cl. 219-25)

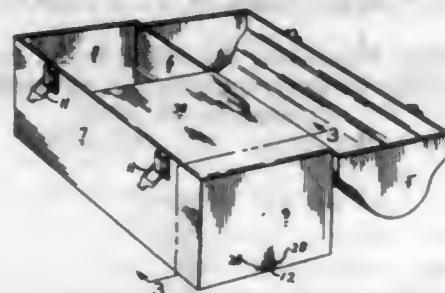
1. In an electric iron and stand assembly, an iron having a projection extending longitudinally from its rearward end, said projection having its under surface formed as two angularly-related planes whose line of intersection is parallel with the longitudinal axis of said iron, a metallic contact bar carried by each said plane face in parallel

with line of intersection, a stand constructed and arranged to support said iron and to hold the iron in forwardly and upwardly sloping position, a plunger, means fixed with said stand mounting said plunger for vertical movement toward and from said projection when said iron is in position upon said stand, the upper surface of said



plunger being formed as a channel V-shaped in cross section and having each plane face thereof parallel with a respective plane face of said projection, an electrical contact in each said plane face of said plunger, and means urging said plunger toward said projection to bring each contact into engagement with a respective contact bar of said projection.

2,820,878
LUNCH BOX
Roy L. Mills, Norman, Okla.
Application August 3, 1955, Serial No. 526,119
2 Claims. (Cl. 219-35)

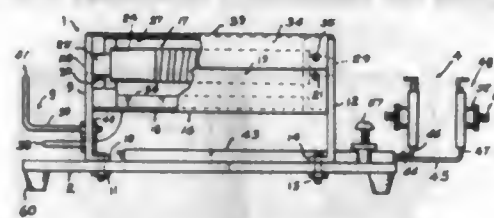


1. An electrically heated lunch box, comprising: a housing having a back, front and end walls integrally connected to a bottom, and having a top hingedly connected to said back wall for closing the housing; a rectangular substantially flat electrical resistance heating unit flatly disposed within said housing adjacent one end wall, said unit having an electrical outlet receptacle connected to said one end wall adjacent the lower edge thereof, said one end wall having an aperture co-operatively surrounding the opening of said receptacle; a rectangular food tray closely received by said housing above said heating unit, the uppermost edges of said tray flared outwardly for sealing with the upper edges of said housing for preventing the rapid dissipation of heat; and a flat rectangular lid overlying the flared edges of said tray for closing the same, the lowermost surface of said top bearing against the upper surface of said lid when said lid is in closed position.

2,820,879
BURN-IN KNIFE HEATER
Eustace V. Paollicelli, Elmhurst, N. Y.
Application September 10, 1956, Serial No. 608,834
9 Claims. (Cl. 219-35)

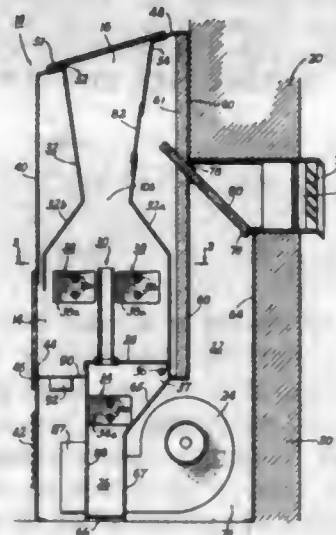
1. A burn-in knife heating device comprising an elongated horizontally disposed oven, open in one end for the reception of the blade of a burn-in knife having a shouldered handle, heating means associated with the oven for transmitting heat thereto, a base board disposed below the oven and in parallel relation thereto, upright members on the base board supporting the oven, a pair of elongated slide members supported on the base board below the oven for longitudinal adjustable slidable movement in a direction beyond the open end of the oven, a

handle rest having a vertical support on one of the slide members for supporting the handle of a burn-in knife the blade of which is to be inserted into the open of the oven, and a stop member having a vertical support on the other slide member disposed between the handle rest and the



open end of the oven, the stop member serving as a rest for the knife blade adjacent the handle and serving as an abutment against which the shoulder of the handle is adapted to limit when the knife blade is inserted a predetermined distance into the oven.

2,820,880
SPACE HEATER
Charles E. Huntsinger and Robert L. Boyd, Jr., Rochester, N. Y., assignors to Commercial Controls Corporation, Rochester, N. Y.
Application January 20, 1956, Serial No. 560,443
28 Claims. (Cl. 219-39)

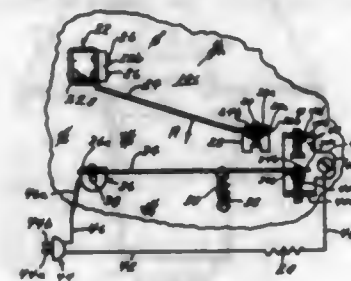


6. In a room heater-ventilator, in combination, a casing, a duct for connecting said casing to the fresh outside air, a fan located to draw air from the outside through said duct into said casing thence to force it upwardly through said casing and out into the room, a heating element in the path of said fresh air, thermostatic means responsive to the temperature of said fresh air only for controlling said heating element, and an additional heating element supported in said casing above said first mentioned heating element to heat room air circulating therethrough said additional heating element adapted to respond to a room thermostat.

2,820,881
VACUUM TYPE COFFEE MAKER AND CYCLING SWITCH MECHANISM THEREFOR
Alfred J. Huck, St. Louis, Mo., assignor to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware
Application April 12, 1954, Serial No. 422,340
12 Claims. (Cl. 219-44)

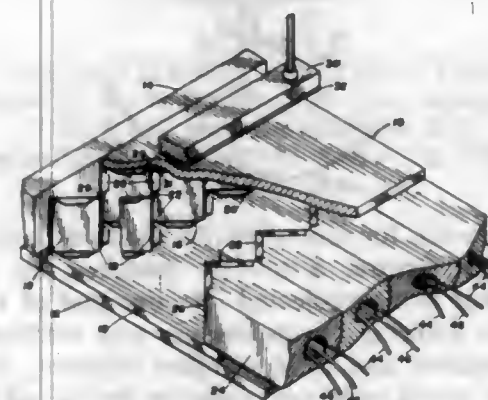
1. A vacuum type coffee maker comprising in combination: a lower bowl for water having a single electric heating element; an upper bowl for coffee having a transfer tube depending into the lower bowl to receive water therefrom; a thermostatic element affixed to the lower bowl to partake of the temperature thereof and to swing

over a predetermined arc as that temperature rises; a double throw switch element disposed within the range of swing of the thermostatic element and said switch element having a pair of spaced circuit-making positions which are arranged relative to said thermostatic element so that one of said circuit-making positions is more remote with respect to the arc of swing of the thermostatic element and the other circuit-making position is less remote, the switch element being biased to the more remote circuit-making position; means defining an energizing circuit to said heating element through said switch



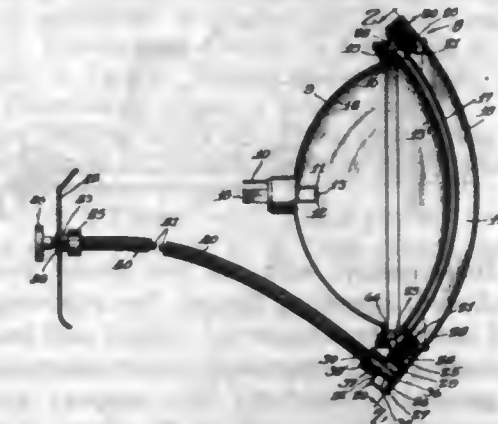
in either position of throw; and means on one of said elements to attract the switch element against said bias and away from the more remote circuit-making position to said thermostatic element as the thermostatic element swings to juxtaposition with the switch element in response to heating of the lower bowl above water boiling temperature, said means holding said elements in engagement to move in unison under the bias of said thermostatic element as the temperature thereafter falls and to regulate about the less remote circuit-making position to keep the brew warm.

2,820,882
PROCESS FOR WELDING METALLIC SANDWICH STRUCTURE
Raymond H. Johnson, Chula Vista, Calif.
Application November 15, 1955, Serial No. 546,997
4 Claims. (Cl. 219-117)



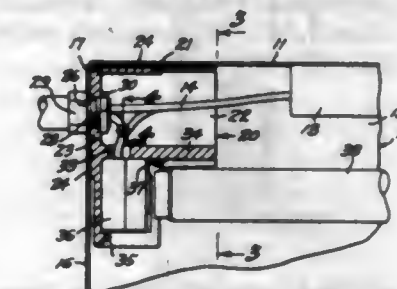
1. The process of fabricating a metal sandwich structure having skin sheets and a core of metal strips, said process comprising the following consecutive steps: (1) Bending portions on each longitudinal edge of a plurality of metal strips to constitute flange portions extending from one side of and substantially normal to adjacent portions of the strips; (2) Pushing the strips one at a time between a pair of metal sheets, by means of a member having its forward end engaged between the flange portions of the strips; (3) As each strip reaches its final position pressing the flange portions and the adjacent portions of the sheets together by relatively moving the sheets and the forward end of the member used to push the strips into place, with the sheets being held in the required final positions, and simultaneously passing welding current through the portions so pressed together.

2,820,883
FOG PENETRATING ILLUMINATION MEANS
Kenneth J. Thelen, Macomb, Ill.
Application August 29, 1955, Serial No. 531,165
4 Claims. (Cl. 240-46.13)



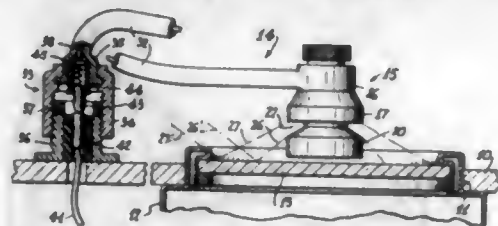
3. In a headlamp provided with a parabolic reflector and a source of illumination located at the focal point of said parabolic reflector, a concave iris reflector of spherically arcuate configuration secured to said headlamp and positioned in opposed relationship to said parabolic reflector, said concave iris reflector being adjustable to provide a range of openings about its axis to vary the intensity of light emanating through said openings, said reflectors being mounted with their focal axes in coincidental relationship so as to complement their reflective operation permitting beams of light to reverberate therebetween in order to propagate rays of light emanating through said range of openings resulting in greater light intensity, and remotely controlled manipulative means connected to said iris reflector for adjusting it to any opening within said range of openings.

2,820,884
OUTDOOR LIGHTING FIXTURE
William H. Yetman, Los Angeles, Calif.
Application August 31, 1955, Serial No. 531,758
5 Claims. (Cl. 240-51.11)



1. A lighting fixture, comprising: an elongate, inverted trough-shaped reflector; at least one lighting tube extending lengthwise within the reflector, said reflector including an elongate channel section having a flat horizontally disposed top portion and substantially vertically disposed side portions, and unitary end portions fixed to and overlying the ends of the channel section; end members disposed within the reflector at the ends thereof and each having a top wall, side walls and an end wall engageable against the corresponding top, side and end portions of the reflector; means providing a waterproof seal between said walls and portions; light sockets carried by said end members to occur within the confines of the walls thereof and adapted to support the ends of the lighting tube, at least one of said end members having a hole in its end wall registering with a like hole in the adjacent end portion; a sleeve extending through said holes; and nuts screwed onto said sleeve from the opposite ends thereof to engage said member and the related end portion and adapted to retain the sleeve in place, said sleeve providing a conduit for electric wires entering the fixture and conducting current to the lighting tube.

2,820,885
INSTRUMENT ILLUMINATING MEANS
 Edwin A. Neugass, Poteau, Okla.
 Application January 25, 1954, Serial No. 406,017
 8 Claims. (Cl. 240-8.16)



3. In combination with an instrument panel having several adjacent openings therein for exposing the faces of related instruments mounted behind said panel; means for illuminating said instrument faces comprising at least one elongated and relatively thin support arm lying in a plane substantially parallel to the plane of said panel, means swingably mounting one end of said arm on said panel for swinging about an axis normal to said panel at a location between said openings and equi-distant to all of the latter so that said arm can be selectively extended in front of any selected one of said openings, and an illuminating head on the other end of said arm operative to direct light toward said panel against the instrument face exposed at said selected opening.

2,820,886
LAMP BASE
 Alice G. Posey, White Plains, N. Y.
 Application May 25, 1955, Serial No. 511,055
 4 Claims. (Cl. 240-81)

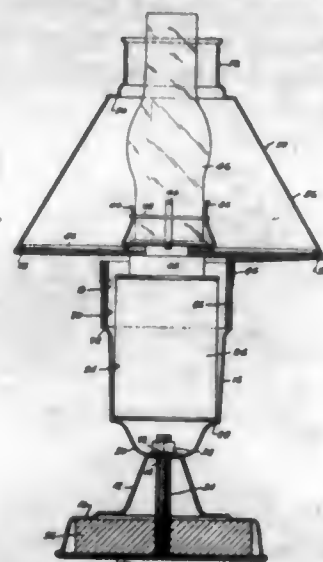


4. As a new article of manufacture, a lamp base comprising a rigid hollow cylindrical standard having an outer layer of resilient sponge rubber padding; a removable fabric sleeve snugly fitting thereover; flanged cap and base members removably secured to the top and bottom of said cylinder whereby the flanges firmly press said fabric sleeve against said padding and retain the latter in position on said cylinder; aligned openings in said cap and base; and conduit means extending through said openings, said conduit having a lamp socket connected to the upper end thereof and means securing said cap and base members to said cylinder.

2,820,887
LAMP CONSTRUCTION
 Joseph S. McInnis, Chicago, Ill., assignor to McInnis and Company, Incorporated, Chicago, Ill., a corporation of Illinois
 Application July 25, 1956, Serial No. 599,996
 3 Claims. (Cl. 240-83)

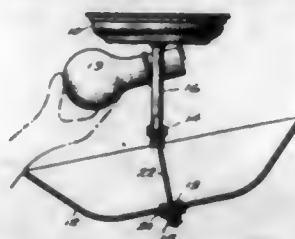
1. A lamp construction comprising a base in the form of an inverted shallow dish having an upwardly tapering hollow post portion thereon, a central opening through

the top of said post portion, a hollow generally cylindrical shaped base extension portion having an in-turned shoulder adjacent its upper open end, a second in-turned shoulder adjacent its lower end, the lower end of said extension being closed and having a central opening therethrough, a weight positioned in said base, a bolt screw-threadedly mounted therein and extending upwardly through said openings and provided with a nut to



fasten said base and base extension together, a fuel container, chimney base and chimney positioned in said base extension and resting on said second in-turned shoulder, a shade for said chimney, said shade having radial rods extending inwardly, a cylindrical tube connected thereto and adapted to be snugly fitted into the upper end of said base extension with its lower end resting on said first shoulder.

2,820,888
LIGHTING FIXTURE SUPPORT
 Daniel Fekete, North Hills, Pa., assignor to Progress Manufacturing Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
 Application April 2, 1956, Serial No. 575,520
 5 Claims. (Cl. 240-146)

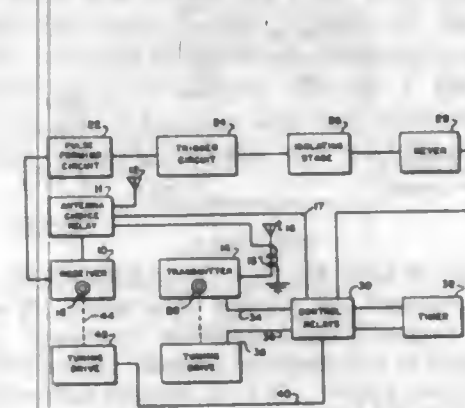


1. In a device for mounting the shade of a ceiling type electric light fixture, a tubular member, an elongated rigid element freely projected into one end of said member, means securing corresponding end portions of said tubular member and rigid element together, an electric light shade seated upon said securing means, said securing means being detachable from said tubular member, and the assembly including said securing means, rigid element and shade being thereupon shiftable as a unit into axial extension of said tubular member, and means securing said tubular member and rigid element against disassembly and thereby limiting the movement aforesaid of said assembly relative to said tubular member.

2,820,889
AUTOMATIC RADIO JAMMING SYSTEM
 Horace E. Overacker, Los Altos, Calif., assignor to the United States of America as represented by the Secretary of War
 Application February 26, 1953, Serial No. 339,023
 6 Claims. (Cl. 250-13)

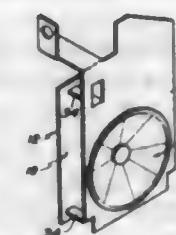
1. A jamming system comprising a receiver for receiving radiated waves, normally operative receiver tuning

drive means for continuously tuning only said receiver over a predetermined frequency band, a normally inoperative transmitter for transmitting a jamming signal wave, normally inoperative transmitter tuning drive means for continuously tuning only said transmitter over said predetermined frequency band, means responsive to a first wave received by said receiver for deriving therefrom a first control signal, means responsive to said first control signal for simultaneously stopping said receiver tuning drive means at the frequency of said first wave, rendering operative said transmitter, and actuating said transmitter tuning drive means, a holding relay responsive to said first control signal to maintain said transmitter



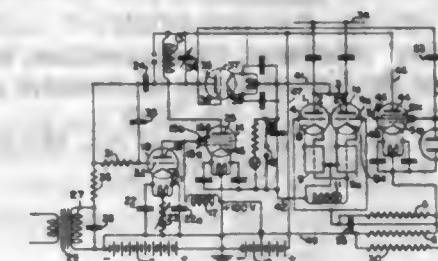
operative and to maintain said transmitter tuning drive means actuated when said first signal is terminated, means responsive to a second wave received by said receiver from said transmitter when the latter is tuned to the response frequency of said receiver for deriving therefrom a second control signal, and means responsive to said second control signal for stopping said transmitter tuning drive means, and a time delay means actuated by said first control signal for disabling said holding relay, thereby terminating the operation of said transmitter and again actuating said receiver tuning drive means, a predetermined time interval after the occurrence of said second control signal.

2,820,890
RADIO CHASSIS CONSTRUCTION
 Richard C. Koch, Indianapolis, Ind., assignor to I. D. E. A., Inc., Indianapolis, Ind.
 Application April 29, 1955, Serial No. 504,945
 4 Claims. (Cl. 250-16)



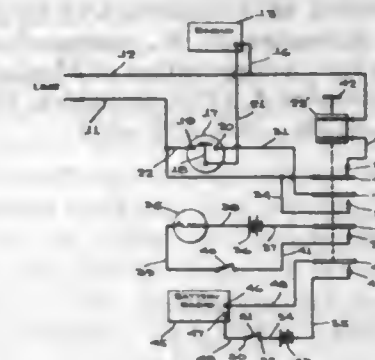
3. A chassis construction for a radio receiver comprising a flat supporting chassis having a speaker opening, a circuit board spaced from and mounted parallel to said supporting chassis, a wiring circuit having all portions thereof secured to said board, said board having a central speaker magnet-receiving opening in registry with said speaker opening, and spaced apart mounting elements extending from said chassis and attached to said board for rigidly securing the chassis and board together, said chassis imparting rigidity to said board.

2,820,891
PULSE FREQUENCY MODULATION TRANSMISSION SYSTEM
 La Verne R. Philpott, Newark, N. J., and Robert M. Page, Camp Springs, Md., assignors, by mesne assignments, of one-third to Robert M. Page, one-ninth to Harold G. Bowen, one-twelfth to La Verne R. Philpott, one-fourth to Leo C. Young and two-ninths to Burns, Doane, Benedict & Irons, a partnership
 Original application April 30, 1940, Serial No. 332,526, now abandoned. Divided and this application March 3, 1952, Serial No. 274,642
 1 Claim. (Cl. 250-17)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



A radio frequency pulse transmitter comprising a radio frequency oscillator including an electron discharge device having a cathode, an anode and a control electrode, keying means normally applying a blocking potential to said control electrode, energy storage means for said anode, means generating a series of high power rectangular impulses of short duration at successive intervals each the reciprocal of a single frequency, means applying said rectangular impulses to said keying means to apply an unblocking potential to said control electrode, means applying said rectangular impulses to said energy storage means, a source of audio frequency oscillations, and means varying the frequency of said series of rectangular impulses in accordance with said audio frequency oscillations.

2,820,892
WARNING ALARM SYSTEM
 James O. Spangler, Muskogee, Okla.
 Application October 26, 1955, Serial No. 542,865
 3 Claims. (Cl. 250-20)



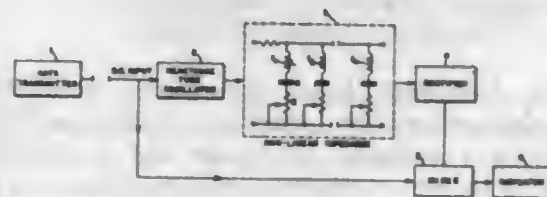
1. In a power interruption alarm and radio receiver control circuit, a pair of electric power supply lines, a radio receiver having a pair of power input terminals, a relay having a pair of power input terminals, means electrically connecting one input terminal of the receiver and one input terminal of the relay to one power supply line, a first switch arm controlled by said relay, a stationary contact engageable by said switch arm when the relay is energized, means electrically connecting the other input terminal of said relay to said stationary contact, means electrically connecting said switch arm to the other power supply line, means for manually moving said switch arm into engagement with said stationary contact to establish a holding circuit for the relay, a second switch arm controlled by said relay, a second stationary contact engageable by said second switch arm only when the relay is deenergized, means electrically connecting said second

stationary contact to said other power supply line, a manual switch having a pole, a first stationary contact connected to said other power supply line, and a second stationary contact connected to said second switch arm, said pole being movable selectively to engage either the first stationary contact or the second stationary contact, means electrically connecting said pole to the remaining power input terminal of the radio receiver, an alarm circuit, and means energizing said alarm circuit responsive to the deenergization of said relay subsequent to the establishment of said holding circuit.

2,820,893

C. W. CALIBRATOR

William J. Bickford, Waltham, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application July 14, 1953, Serial No. 367,963
6 Claims. (Cl. 250-27)

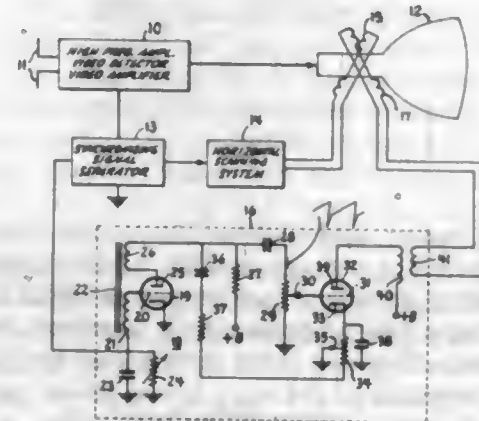


1. In a calibrating circuit the combination of means for producing data signals having amplitudes which depart from a linear relationship with respect to the intelligence they represent by a particular function, means responsive to the instantaneous amplitude of said data signals for producing variable frequency signals of substantially constant amplitude, impedance means varying in magnitude with frequency in accordance with said function, means for applying said variable frequency signals to said impedance means to produce correction signals of varying amplitude and means combining said correction signals with said data signals to produce calibrated signals whose amplitudes are a linear function of said intelligence.

2,820,894

TELEVISION SCANNING SYSTEM

Ray Schrecongost, Kenmore, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application September 4, 1953, Serial No. 378,551
3 Claims. (Cl. 250-27)



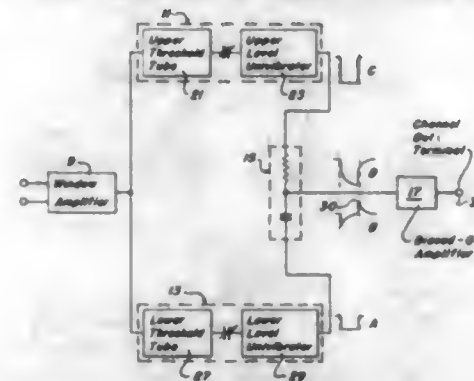
1. A television scanning system comprising, means including series connected capacitive and resistive elements for generating a signal of composite saw tooth and pulse wave form, an amplifier having a non-linear input-output amplification characteristic for amplifying said signal, adjustable linearity control means included in said amplifier for adjustably preselecting the extent of non-linear modification of the wave form of said signal during amplification thereof by said amplifier, and means common to said adjustable linearity control means for increasing the pulse

component of said signal with increase of gain of said amplifier and for adjusting said resistive element of said generating means concurrently with adjustments of said linearity control means.

2,820,895

PULSE HEIGHT ANALYZER

Charles Wilkin Johnstone, Los Alamos, N. Mex., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application October 28, 1953, Serial No. 388,930
5 Claims. (Cl. 250-27)

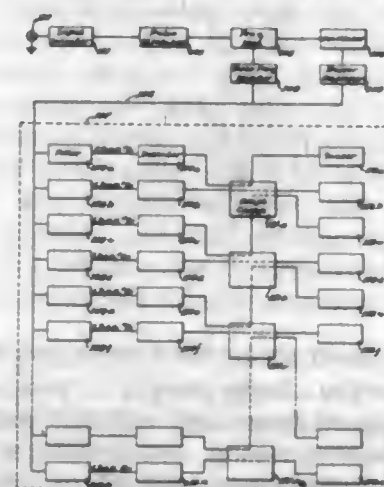


1. An anticoincidence device for a pair of adjacent channels of a multi-channel pulse height analyzer for preventing the lower channel from generating a count pulse in response to an input pulse when the input pulse has sufficient magnitude to reach the upper level channel, comprising first and second square waveform generators, said generators having negative polarity and substantially equal pulse length generating characteristics, the first generator pulse having a greater magnitude than that of the second generator pulse, an RC network having a product in the neighborhood of one-third the waveform duration, the resistor end of said RC network being electrically coupled to the first waveform generator and the other end of said RC network being electrically coupled to the second waveform generator, a biased-off grid controlled thermionic device having its control electrode coupled to the common junction of said resistor and condenser and having its output electrically coupled to a terminal.

2,820,896

MULTICHANNEL PULSE-HEIGHT ANALYZER

James T. Russell, Seattle, and Harlan W. Lefevre, Richland, Wash., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application June 24, 1955, Serial No. 517,947
6 Claims. (Cl. 250-27)



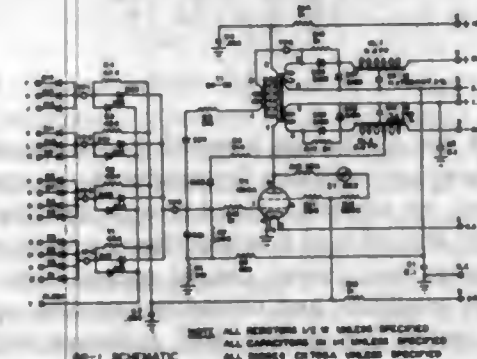
1. A device for segregating random pulses according to their amplitudes into channels, comprising, in combination, a source of random input pulses, an input circuit connected to the source for shaping said pulses, a fre-

quency modulated oscillator including an output connected to the input circuit for generating frequency signals corresponding to the amplitude of the shaped pulses, a plurality of band-pass filters connected to the output of said oscillator, each of said filters being pretuned to a different frequency, a plurality of detectors connected to the band-pass filters for rectifying signals impressed thereacross, each of said detectors associated with one of said band-pass filters, a series of amplitude comparators connected to the detectors and adapted to pass the strongest signal developed across one of said filters, each of the amplitude comparators connected to a separate pair of adjacent detectors, a scaler circuit associated with each band-pass filter and connected to at least one amplitude comparator for recording the output of the amplitude comparator whereby an input pulse which is converted to a frequency signal is passed through a filter which is responsive to said frequency and then recorded thereafter in the scaler circuit associated with said filter.

2,820,897

UNIVERSAL GATING PACKAGE

Franklin R. Dean and Robert W. Brooks, Needham, Mass., assignors to Computer Control Company, Inc., Wellesley, Mass., a corporation of Massachusetts
Application August 29, 1955, Serial No. 531,068
5 Claims. (Cl. 250-27)



1. A universal logical package having input and output terminals and adapted for interconnection and association with a plurality of identical packages for the implementation of logical operations comprising, an electronic circuit including a plurality of And gates and an Or gate, each of said And gates having a predetermined number of inputs coupled to respective ones of said input terminals for external excitation by binary data input signals and each having one additional input joined to a common one of said input terminals for external excitation by a synchronizing clock signal, means for applying the outputs of said And gates as inputs to said Or gate, an amplifier having an input responsive to the output of said Or gate and an output circuit for simultaneously energizing first and second like delay lines in opposite polarity and for simultaneously providing a regenerative feedback signal to said amplifier input, means coupling a tap on one of said delay lines to said amplifier input to furnish a negative feedback signal for controlling the time duration of signals transferred by said amplifier, and means coupling the outputs of said delay lines to said output terminals of said logical package.

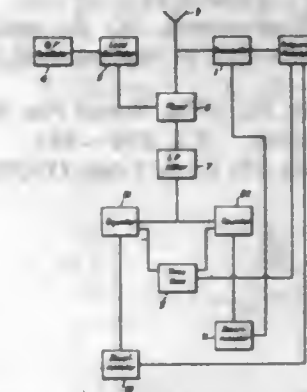
2,820,898

DISTANCE MEASURING EQUIPMENT UTILIZING FREQUENCY MODULATION

Henri Famlier and Basile Ginger, Paris, France, assignors to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application June 22, 1954, Serial No. 438,502
Claims priority, application France July 2, 1953
3 Claims. (Cl. 250-36)

1. A radioelectrical frequency modulated distance measuring equipment, of the type comprising: a trans-

mitter with an output, for emitting ultra high frequency energy, a stabilized modulator for frequency modulating said energy according to a recurrent law, the frequency thus obtained varying, continuously with time, between a maximum and a minimum frequency, comprising further a calibrating and stabilizing device, said device comprising: a first oscillator having an output and operating at a frequency substantially equal to the mean frequency of said transmitter, means for amplitude modulating said first oscillator, said means comprising a second stabilized oscillator operating at a fixed modulating frequency so as to produce energy respectively at said mean frequency and at a first and a second side frequency, said fixed modulating frequency being such that the first side frequency is always higher than, but in the vicinity of, said maximum frequency of said transmitter, and the second side frequency is always lower than, but in the vicinity of, said minimum frequency of said transmitter; a mixer having a first and a second input, and an output, said first input being connected to said output of said first oscillator, said second input being connected to said output of said transmitter;



a low pass filter, with an input and an output, said input of said low pass filter being connected to said output of said mixer, for filtering the lowest frequency produced by the mixing in said mixer of said energies respectively produced by said first oscillator and said transmitter; a first counter having an input and an output, means for connecting said input of said first counter to said output of said filter; means for causing said counter to count the beats produced by said mixer, during fixed periods of equal duration, the respective beginnings and ends of said fixed periods being in the vicinity of the successive times at which the frequency of said transmitter is respectively maximum, and minimum, and the middle of said periods being substantially said successive times; means for bringing back to zero said counter after each period of modulation of said transmitter; the both last mentioned functions being assumed by a time base device, a discriminator with an input and an output, said input being connected to the output of said first counter, and means for collecting at said output of said discriminator a voltage proportional to the beats counted by said first counter.

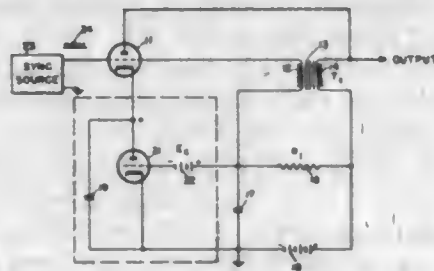
2,820,899

FREQUENCY DIVIDER CIRCUIT

Emil E. Sanford, Clifton, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application July 6, 1954, Serial No. 441,391
6 Claims. (Cl. 250-36)

3. An electronic frequency divider circuit comprising: a relaxation oscillator tube having a grid, a cathode, and an input circuit; an amplifier tube having a plate, a grid, and a cathode; a connection between said amplifier plate and said oscillator cathode; a condenser connected in parallel with said amplifier tube between said plate and said cathode; a source of exponential voltage connected to said grid of said relaxation tube; said relaxation tube being normally biased to cutoff by the sum of volt-

ages across said condenser and said source of exponential voltage; a source of biasing voltage connected between the grid and cathode of said amplifier tube to bias said amplifier tube to cutoff; a connection between said grid



of said amplifier tube and said source, said exponential voltage being polarized to cause said relaxation tube and said amplifier tube to approach conductivity as said exponential voltage is applied.

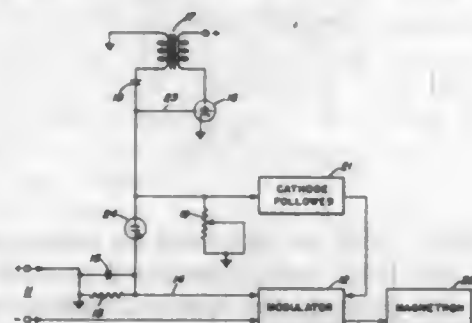
2,820,900 MAGNETRON OVERLOAD PROTECTION CIRCUIT

Robert K-F Scal, Englewood, N. J., assignor to the United States of America as represented by the Secretary of the Navy

Application July 30, 1954, Serial No. 446,983

5 Claims. (Cl. 250-36)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a radar set, a modulator coupled to a magnetron; a high voltage power supply connected to the modulator; oscillator means, including a triode, connected to the modulator; means connected between the power supply and the modulator for developing a bias voltage proportional to the high voltage power supply current, said means being coupled to the grid of the triode; whereby upon occurrence of an overload in the set the bias voltage biases the grid of the triode to reduce the repetition rate of the oscillator.

2,820,901 FREQUENCY SWEEP CIRCUIT FOR MICROWAVE OSCILLATORS

Horace R. Johnson, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application December 8, 1954, Serial No. 473,883

3 Claims. (Cl. 250-36)



1. In a traveling-wave tube backward-wave oscillator having a thermionic cathode for providing a source of electrons and a conductive helix for propagating electromagnetic waves, an electronic tuning circuit for sweeping the oscillation frequency range of the oscillator substantially linearly with time, said circuit comprising a resistor connected between the cathode and the helix

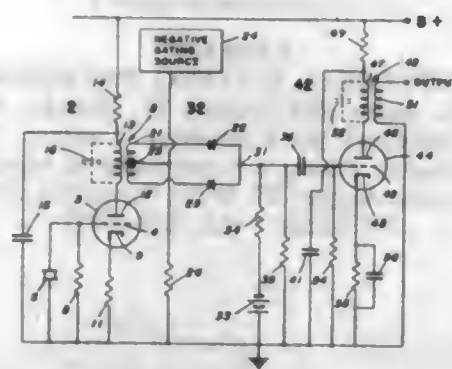
of the oscillator, a double-pole single-throw switch, the poles of which having normally closed contacts and normally open contacts respectively, a first source of potential, an inductor, and a second source of potential connected in the order named serially from the helix through said normally closed contacts to the cathode, the positive terminal of said second potential source being connected positive to the cathode, said normally open contacts of said switch being respectively connected between the helix and the negative terminal of said first potential source.

2,820,902 GATED FREQUENCY DOUBLER

William S. Levin, Baltimore, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application February 4, 1955, Serial No. 486,295

8 Claims. (Cl. 250-36)



1. A system for producing a gated frequency doubled output comprising an oscillator for producing an output of a first frequency, an amplifier tuned to a second frequency which is double that of said first frequency and having input circuit means and output circuit means, and means coupled to said oscillator and connected to said amplifier input circuit means for gating and fullwave rectifying the oscillator output whereby a gated frequency doubled signal is produced at said amplifier output circuit means.

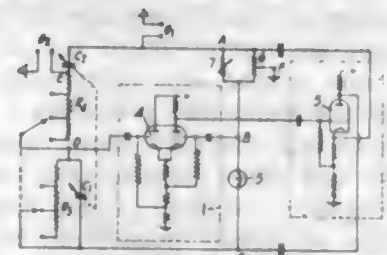
2,820,903 WIEN BRIDGE OSCILLATOR

Kenneth Irwin Roulston, Winnipeg, Manitoba, Canada, and Cyril Frank Pizzey, Beckenham, England, assignors to Elliott Brothers (London) Limited, London, England, a British company

Application April 6, 1955, Serial No. 499,700

Claims priority, application Great Britain April 6, 1954

9 Claims. (Cl. 250-36)



1. An electrical device for providing simultaneously two outputs in quadrature phase relationship comprising an electric circuit incorporating a Wien bridge network in which equal resistances and equal capacitances are provided in the two R-C arms, a differential amplifier having its two inputs connected one to the junction of the R-C arms of the network and the other to the junction of the resistance arms of the network to produce an output signal in phase with the signal appearing across the junctions of the resistance arms with the R-C arms, a phase-splitting device connected between the output of the amplifier and the last-mentioned junctions to apply the output of the amplifier to said last-mentioned junctions.

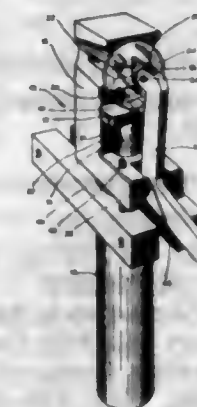
tions in such a sense as to cause the circuit to oscillate, means connecting to earth the mid-point of that resistance arm making a junction with the series R-C arm, means connected between earth and the last-mentioned junction to make available one of the desired outputs and means connected between earth and the junction of the resistance and the capacitance in the series R-C arm to make available the other of the desired outputs.

2,820,904 CRYSTAL HOLDER

Kurt Lowitzsch, Yonkers, N. Y., assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 25, 1952, Serial No. 316,897

9 Claims. (Cl. 250-51)



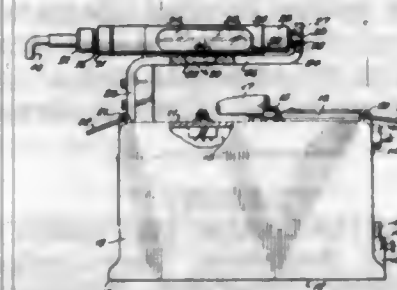
9. A crystal holder for use in crystal analysis X-ray units comprising a hollow shaft supporting member being provided at one end with a first banking surface coinciding substantially with the longitudinal axis of said supporting member, a plunger movable in said hollow shaft supporting member, a part at the end of said plunger closest to said vertical banking surface being positioned substantially perpendicular to said plunger and having a portion thereof forming a second banking surface, said second banking surface being adjustable to accommodate a variety of crystals, and means mounted on said supporting member having an element which is adapted to frictionally hold a portion of said crystal in engagement with said first banking surface.

2,820,905 RADIATION DETECTOR CALIBRATION

Benjamin Schloss, Brooklyn, N. Y.

Application June 3, 1954, Serial No. 434,269

5 Claims. (Cl. 250-83.6)



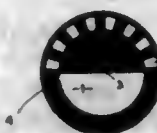
4. In a portable radiation measurement device including a housing having a handle, a radiation sensor detachable from said housing, and an evaluation means to measure the output of said sensor, a means of calibrating said device which comprises a container carrying radioactive material, first mounting means reproducibly detachably retaining said container to said handle, and second mounting means reproducibly detachably securing said sensor to said handle so as to intercept radiation from said radioactive material and means to vary said evaluation means to produce a predetermined output therefrom.

2,820,906 RADIANT ENERGY SENSING SYSTEM

Victor A. Miller, Long Beach, Calif., assignor to North American Aviation, Inc.

Application January 28, 1952, Serial No. 268,483

14 Claims. (Cl. 250-203)



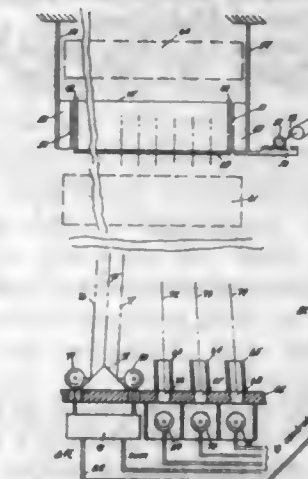
11. A uniform radiant energy gradient compensated reticle having a primary transparent area and a segmented transparent compensating area arranged on diametrically opposed sides of said reticle for alternatively transmitting received radiant energy whereby if said reticle is rotated in the path of radiant energy, the modulation of said energy produced by said area differs in frequency from that produced by said compensating area.

2,820,907 MICROFILM APPARATUS

Daniel Silverman, Tulsa, Okla.

Application July 27, 1951, Serial No. 238,922

8 Claims. (Cl. 250-204)



1. In a statistical machine adapted to utilize a statistical record sheet having a pattern of identifiable characters, longitudinal indicia and transverse indicia, each of said characters in said pattern and said indicia having one of a multiplicity of discrete optical properties and impressed on said sheet substantially simultaneously, the improvement comprising pattern scanning means comprising a multiplicity of optical detectors arranged in said pattern and responsive respectively to the optical properties of each of said characters, longitudinal indicia scanning means and transverse indicia scanning means, each of the same general character as said pattern scanning means, means for creating an optical image of said sheet, means for traversing said image in a longitudinal movement along said scanning means, means responsive to said transverse indicia scanning means for positioning said image transverse to said longitudinal direction, and means responsive to said longitudinal indicia scanning means for determining when a predetermined relationship exists between said longitudinal indicia and said longitudinal indicia scanning means.

2,820,908 LIGHT SHIELD

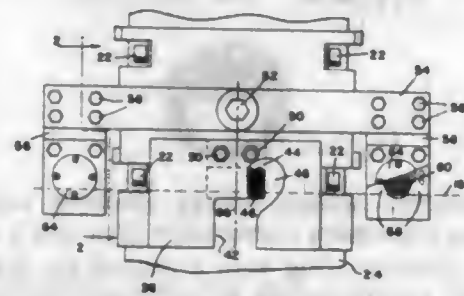
Garrett B. Linderman, Washington, D. C., assignor to Linderman Engineering Company, Inc., a corporation of Maryland

Application July 1, 1955, Serial No. 519,541

10 Claims. (Cl. 250-229)

1. In combination with a pinhole detector providing a path to be traversed by a strip of metal and having a

light source and a light sensitive device substantially aligned on opposite sides of said path; a light shield transversely movably mounted with respect to said path, guide means carried by said shield adjacent said path

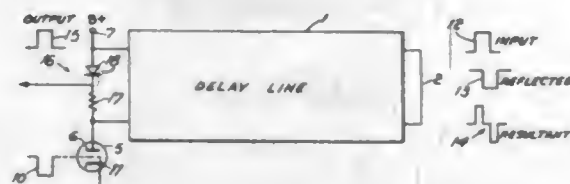


for positioning it relative to an edge of the metal strip, said shield providing light absorbing surfaces proximate to said path and in alignment with said light source and light sensitive device protecting said light sensitive device against reflected light.

2,820,909

DELAY LINE PULSE SHAPER

Robert L. Plouffe, Jr., Livingston, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application September 12, 1956, Serial No. 609,373
13 Claims. (Cl. 307-106)



13. A pulse shaper for employment in the anode circuit of a vacuum tube circuit comprising a delay line having one terminal of one end thereof coupled to the anode of the vacuum tube and the other terminal of said one end coupled to the anode supply voltage, means to couple negative pulse to the control grid of said vacuum tube, means to short circuit the other end of said delay line to provide negative-pulse signals reflected therefrom, a series circuit coupled between the anode of said vacuum tube and the anode supply voltage across said one end of said delay line for termination thereof in an open circuit in the presence of positive pulse signals and the characteristic impedance of said delay line in the presence of negative pulse signals, said series circuit including a resistor having a value substantially equal to said characteristic impedance and a semi-conductor diode, one end of said resistor being connected to the anode of said vacuum tube, the other end of said resistor being connected to the cathode of said diode and the anode of said diode being connected to said anode supply voltage.

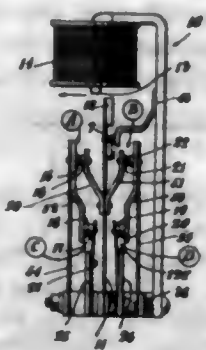
2,820,910

VOLTAGE REGULATING VIBRATOR

Robert E. Barnes, Indianapolis, Ind., assignor to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware
Application December 14, 1955, Serial No. 552,994
13 Claims. (Cl. 307-150)

1. A voltage regulatory type of vibrator comprising a vibratory reed mounted in a stack at one end thereof, said reed having an armature at its free end disposed opposite thereto, a coil adapted to have a current supplied thereto so as to influence said armature and to move said reed, contacts attached individually on each side of said reed, side contacts mating therewith, and a plurality

of pairs of contacts, a pair of said contacts disposed on each side of said vibratory reed having a resistance of

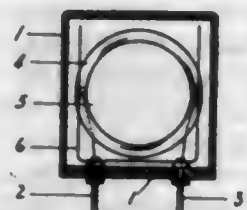


predetermined value connected thereto for obtaining negative, positive and flat voltage regulation characteristics in said vibrator as desired.

2,820,911

PIEZOELECTRIC CRYSTAL RESONATOR SUPPORT

Kurt Klingsporn, Neckarbischofsheim, Germany
Application February 16, 1953, Serial No. 337,114
Claims priority, application Germany February 14, 1952
8 Claims. (Cl. 310-9.1)

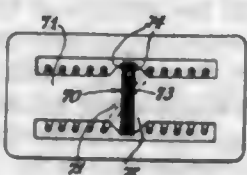


1. A high-frequency piezoelectric crystal resonator support comprising in combination a housing consisting of a base plate and a cap removably mounted to said base plate, two current-conducting wires carried through the base plate and into said housing, a several-sided and angular-bent supporting strip of insulating material provided on top of the base plate and having narrow longitudinal slots of elliptical shape, and the width of which is a little less than the width of the base plate, a crystal resonator of flat shape each side of which is partially silvered and connected to one current-conducting wire, said crystal resonator being loosely held in suspended and freely oscillating position by equal side portions partially protruding through the longitudinal slots of the insulating strip and engaging the supporting strip at spaced points along the major axis of said elliptically shaped slots.

2,820,912

MAGNETOELASTIC TRANSDUCER

Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut
Application October 1, 1953, Serial No. 383,563
27 Claims. (Cl. 310-26)



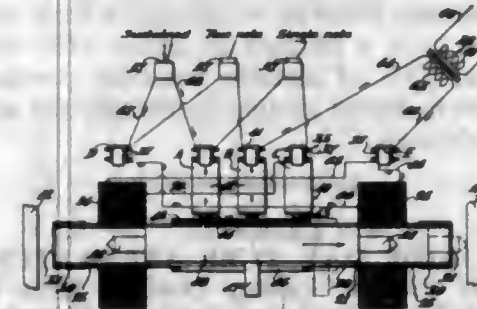
1. In a transducer of the character indicated, a three-legged ferromagnetic core with an open gap in the cen-

ter leg, said gap being substantially shorter than the spacing of said center leg from either of the other legs, and an electrical winding coupled to said center leg.

2,820,913

REPEATER MECHANISM FOR CHIMES

James W. Christy, Norwood, Ohio, assignor to NuTone, Inc., Cincinnati, Ohio, a corporation of New York
Application September 2, 1954, Serial No. 453,736
8 Claims. (Cl. 310-35)



1. A repeater mechanism for a chime signal comprising a solenoid tube, a first and second solenoid coil mounted on opposite end portions of said tube, a solenoid plunger slidably sustained within said tube and movable endwise in opposite directions in response to the energization of said solenoid coils, spring means connected to the plunger normally maintaining the plunger in an intermediate position relative to said solenoid coils, a shuttle slidably mounted relative to the solenoid tube, the shuttle residing in a homing position when the plunger is in said intermediate position, an actuating element connected to the plunger and engageable with the shuttle, the actuating element shifting the shuttle from said homing position to a second position upon endwise movement of the plunger toward the first solenoid coil and shifting the shuttle back to said homing position upon movement of the plunger toward the second coil, a first and a second contact means, respective conductors electrically connecting the first and second contact means to the first and second solenoid coils, an electrical element on the shuttle electrically energizing the contact means of the first coil when the shuttle is in homing position and energizing the contact means of the second coil when the shuttle is shifted to said second position, a normally open sustained reciprocation switch interposed in the conductor between the first contact means and first coil for energizing the same, said switch in closed position providing sustained reciprocation of the plunger and shuttle, and a normally open two-note switch connected to the first coil for energizing the same independently of said shuttle, whereby closing of the two-note switch shifts the plunger toward the first coil and shifts the shuttle to said second position energizing the second coil for movement of the plunger toward the second coil upon opening of said switch.

2,820,914

DYNAMOELECTRIC MACHINE STRUCTURES

Hyman Rudolf, Schenectady, and Thomas J. Jordan, Amsterdam, N. Y., assignors to General Electric Company, a corporation of New York
Application August 31, 1954, Serial No. 453,268
8 Claims. (Cl. 310-43)



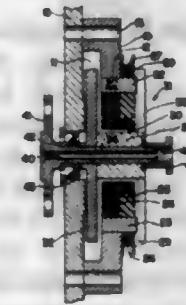
1. A member for a dynamoelectric machine comprising a magnetic core, a winding on said core, and a ma-

terial in intimate contact with all parts of said member, said material comprising a polyester resin filled with glass fiber and a material selected from the class consisting of mica, silica, alumina, and mixtures thereof.

2,820,915

MAGNETIC SIGNAL GENERATOR

Kenneth C. Mathews, Waltham, Mass., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application November 15, 1956, Serial No. 622,366
7 Claims. (Cl. 310-168)



2. A magnetic signal generating device comprising, a base, a cylindrical core mounted on said base and having a plurality of pole extensions at one extremity thereof, a rotor member having a circular flange at one extremity and a sector like flange at the other extremity, said rotor member being positioned within said cylindrical core member such that the circular flange at one extremity is positioned adjacent one extremity of said cylindrical core and the sector like flange at the other extremity is positioned adjacent pole extensions of extremities of said cylindrical core overlying the same, shaft means journaled in said base and mounting said rotor member for rotation into said cylindrical core, an energizing winding mounted on said cylindrical core encircling said rotor member between said flange portions, and secondary windings positioned on pole extensions of said cylindrical core.

2,820,916

TUNING INDICATOR VALVE OF SMALL DIMENSION AND A HIGH SENSITIVITY

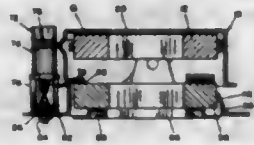
Friedrich Malsch, Esslingen-Waldenbrunn, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application August 30, 1952, Serial No. 307,188
Claims priority, application Germany September 5, 1951
4 Claims. (Cl. 313-107.5)



1. An optical voltage indicating valve comprising a beam forming assembly including an electron emitting source, a pair of deflecting electrodes on opposite sides of said source, and a deflecting control electrode, said control electrode and said source substantially defining a plane of symmetry for said assembly, a luminous screen positioned to receive electrons from said beam assembly, having a dish surface with a substantially planar opening perpendicular to the axis of said source and having a plane of symmetry substantially through said control electrode, said beam assembly being mounted with its plane of symmetry at an angle to the plane of symmetry of said luminous screen.

2,820,917 FOCUSING DEVICE

Raymond A. Lamoureux, Jr., North Adams, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application February 23, 1954, Serial No. 411,994
3 Claims. (Cl. 313—84)



1. A focussing device for television tubes comprising a generally cylindrical supporting structure having two sections axially movable relative to each other, a first toroidal permanent magnet member securely positioned within one of said sections and a second toroidal permanent magnet member securely positioned in the other of said sections, each of said sections as well as each of said magnetic members having axial openings therein of a size and shape suitable to embrace the neck of a television tube, and adjustment means connected for moving one of said sections in an axial direction relative to the other section.

2,820,918 OPTICAL DEVICE FOR THERAPEUTIC AND OTHER PURPOSES

Robert Aronstein, Brooklyn, N. Y.
Application October 14, 1955, Serial No. 540,518
4 Claims. (Cl. 313—108)



3. The combination with a fluorescent light source of a shield comprising a body of light transmitting material and means distributed substantially uniformly throughout said material for absorbing ultra-violet light and for discriminating against light in the yellow-orange region of the spectrum.

2,820,919 MOUNT FOR ELECTRON DISCHARGE DEVICES

Barbara W. Wall, Owensboro, Ky., assignor to General Electric Company, a corporation of New York
Application October 14, 1955, Serial No. 540,512
5 Claims. (Cl. 313—261)



2. An electron tube mount assembly comprising a planar insulator including an aperture, an electrode including a support portion extending through and tightly fitted in said aperture in said insulator, a clip member having an end portion affixed to one end of said support portion of said electrode, said clip member including an opposite end portion of a folded double thickness secured to said support portion of said electrode and extending contiguously along the length thereof to a point substantially below the normal plane of the corresponding side of said insulator, whereby said opposite end portion of said clip member is effective for substantially depressing the edge of said insulator at said aperture out of said normal plane and into wedging engagement with said support portion of said electrode for increasing the tightness of said fit.

2,820,920 MANUFACTURE OF COATED ELECTRODES

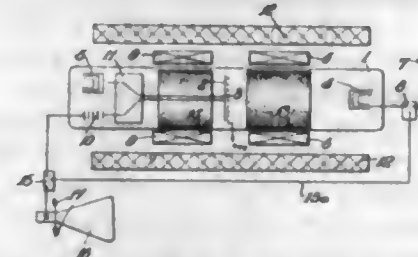
René Penon, Saint-Cloud, France, assignor to Etablissements Claude, Paz et Silva, Paris, France, a corporation of France
Application September 17, 1952, Serial No. 310,115
2 Claims. (Cl. 313—344)



1. An electrode for electric discharge lamps comprising a molybdenum filament wound into a helix and carrying within its coils a mixture of about 42% of barium dioxide, about 27% of metallic tantalum powder, about 25% of mono hydrated barium hydroxide and about 6% of barium carbonate.

2,820,921 CATHODE RAY TUBE APPARATUS

James Dwyer McGee, Ealing, London, Hans Gerhard Lubszynski, Northwood, and Reginald Sidney Webley, Hayes, England, assignors to Electric & Musical Industries Limited, Hayes, England, a company of Great Britain
Application April 15, 1948, Serial No. 21,124
Claims priority, application Great Britain April 22, 1947
3 Claims. (Cl. 315—9)



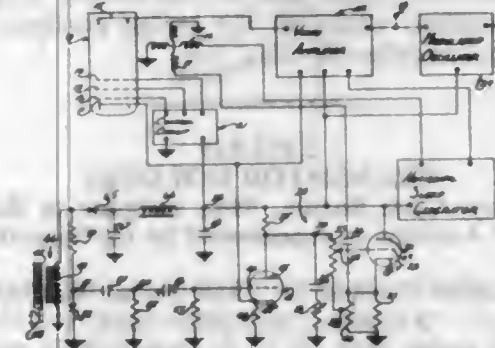
1. A circuit arrangement comprising an electronic charge storage device having a storage target therein, means for developing a first electron beam, means for modulating said beam in response to electrical signals, first deflecting means for deflecting the developed beam to cause it to execute a scanning raster on said target to produce a charge image on said target in accordance with said electrical signals, means for developing a second electron beam, second means for deflecting the developed second electron beam to cause it to scan said charge image a plurality of times at a frequency to produce derived signals which are repetitions of said electrical signals, a signal reproducing tube having a screen adapted to display said electrical signals and having a decay time short in relation to a desired display time for said electrical signals, means including an amplifier for applying said derived signals to said signal reproducing tube to reproduce said repetitions to provide said desired display time, and means for feeding said derived signals via said amplifier to said modulating means to modulate said first beam, whereby said charge image on said target as it is reduced by said second electron beam is renewed by the signals fed via said amplifier.

2,820,922 LINE VOLTAGE DERIVED SWEEP DRIVING CIRCUIT

George H. Fathauer, Decatur, Ill., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application August 2, 1954, Serial No. 447,336
4 Claims. (Cl. 315—27)

1. In a cathode ray tube circuit including a cathode ray tube having a cathode, a target and a pair of deflection means for sweeping said target with a cathode ray beam from the cathode, a sweep generator, comprising: alternating current supply means; a rectifier connected to said alternating current supply means to develop a pul-

sating direct current; means for filtering said pulsating current to develop a substantially constant voltage; a capacitor; series resistance means for connecting said capacitor to said constant voltage; a discharge device having at least a cathode, an anode and a control grid; means for connecting said anode to said capacitor; a clipping rectifier connected to said alternating current supply means to transmit only the negative half cycle of



the alternating current; at least one differentiating circuit connected to the output of said clipping rectifier to develop a sharp positive pulse during each cycle of the alternating current; means for applying said positive pulses to said control grid to cause said discharge device to periodically conduct and discharge said capacitor, and means for coupling said capacitor to one of said deflection means.

2,820,923 MAGNETRON

Donald A. Wilbur, Albany, N. Y., assignor to General Electric Company, a corporation of New York
Application July 25, 1952, Serial No. 300,927
13 Claims. (Cl. 315—39.3)



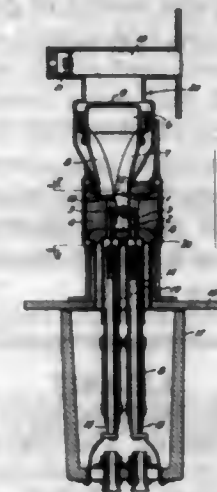
4. A traveling wave magnetron discharge device comprising an anode assembly having a plurality of spaced anode segments defining a re-entrant space charge chamber between their inner surfaces and an elongated cathode extending along an axis through said chamber, and means for debunching the space charge comprising a portion of said space charge chamber extending for a substantial angle about said cathode wherein the ratio of the cathode radius from said axis to the radius of the facing anode surfaces from said axis is relatively low as compared to the corresponding ratio for other portions of said chamber.

2,820,924 MAGNETRON OUTPUT COUPLER

Charles V. Litton, Redwood City, Calif., assignor to Litton Industries, Inc.
Application January 28, 1954, Serial No. 406,636
4 Claims. (Cl. 315—39.53)

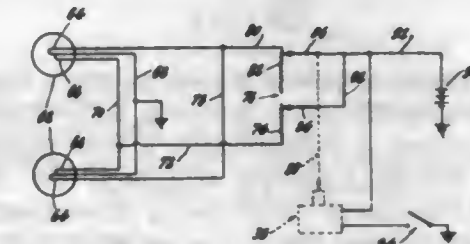
3. A magnetron comprising a ring-shaped body portion and a plurality of radial partitions extending inwardly and defining with the inner surface of said body, a plurality of cavity resonators, and an output wave guide for energy of said magnetrons having an impedance

matching ramp with two opposed portions mounted therein, characterized in that said wave guide is provided with a coupling opening communicating with said magnetron through an opening in said body at one edge of one partition, said ramp having one portion parallel and



2,820,925 AUTOMOBILE HEADLIGHT CONTROL DEVICES

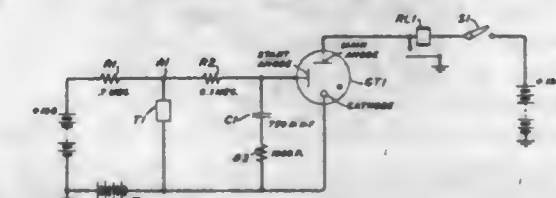
Ernest H. Schmidt, Jr., New York, N. Y.
Application February 11, 1954, Serial No. 409,750
6 Claims. (Cl. 315—83)



6. In an automobile headlight beam control system, the combination comprising a headlamp operable to cast a light beam for night driving, means controlling said headlamp to move a light beam cast by said headlamp from one position to another, and adjustable means for automatically controlling the length of time required for moving the light beam cast by said headlamp from one position to another from a minimum length of time of about one-half second to a greater length of time, whereby a great enough time interval can be effected in moving from one beam position to another to minimize eye fatigue due to repeated beam switching.

2,820,926 FIRING CIRCUITS FOR A COLD CATHODE GAS TUBE

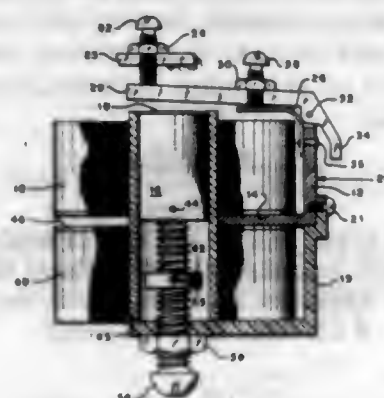
James B. Kennedy, Brooklyn, N. Y., and Paul Mallery, Murray Hill, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application July 14, 1955, Serial No. 522,034
5 Claims. (Cl. 315—157)



3. In a circuit for a cold cathode gas tube having a plurality of electrodes including a cathode, a start anode,

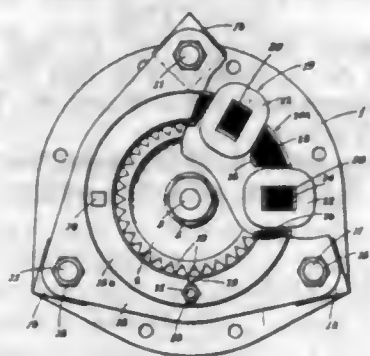
and a main anode, said tube being of the type in which a discharge of sufficient intensity between said start anode and said cathode effects a discharge between said main anode and said cathode, a first source of potential connected to said cathode, a resistor interconnecting said start anode with a second source of potential that is negative with respect to said first source whereby a discharge is initiated between said start anode and said cathode and said start anode and said main anode to which is connected a third source of potential that is positive with respect to said first source, and means including a condenser connected between said start anode and said cathode to cause said initiated discharges to become of sufficient intensity to effect a discharge between said cathode and said main anode.

2,820,927
ANTI-INRUSH SENSING DEVICE
Rudolf Steiner, Van Nuys, Calif.
Application May 28, 1956, Serial No. 587,914
8 Claims. (Cl. 317-49)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In an electrical power system having a main power line for supplying excitation to a load, an overload sensing device comprising, in combination, a first relatively high inductance means, a second relatively low inductance means, said inductance means being interconnected electrically in parallel and thence connected directly in series with a load to form binary actuating means of said sensing device, and armature means pivotally mounted adjacent said first high inductance means for movement between an open position and a closed position, said armature means being insensitive to transient or surge overload currents through said inductance means, but responsive to sustained overload currents through said inductance means, thereby actuating said armature means to the closed position.

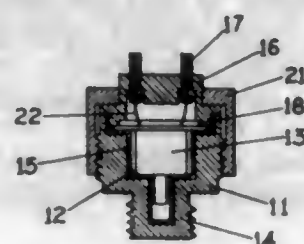
2,820,928
ELECTRICALLY CONTROLLED BRAKE UNIT
Robert G. LeTourneau, Longview, Tex.
Application January 5, 1952, Serial No. 265,075
9 Claims. (Cl. 317-198)



1. An electromagnetic control assembly which includes a pair of relatively movable members, each of said members having mounted thereon in adjacent spaced relationship, circularly wound ring shaped laminated structures

which are each of the same mean diameter and which are axially aligned, with the central axis of said laminated structures on each member being coincident, each of said ring shaped laminated structures being uniformly discontinuous along the length thereof and being defined by a series of at least three pairs of spaced core and bridge portions, said spaced core and bridge portions on adjacent structures being aligned longitudinally, magnetizing coils surrounding a corresponding core portion on each member, and with the bridge portions bridging the gap between adjacent coils.

2,820,929
TRANSISTOR HOLDERS
Carl E. Coy, Glen Burnie, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application October 11, 1955, Serial No. 539,952
3 Claims. (Cl. 317-234)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A mounting device for a transistor comprising; a body having an internal cavity adaptable for receiving a transistor, said body having mounting means on one end thereof for mounting said device to a chassis; a terminal holder having a plurality of terminals adaptable to receive lead wires of a transistor mounted in said internal cavity; and a cap threadably connectable to said body and adaptable to retain said terminal holder and said transistor within said internal cavity.

2,820,930
TRANSISTOR HOLDERS
Carl E. Coy, Glen Burnie, Md., and Byrl D. Tague, Indianapolis, Ind., assignors to the United States of America as represented by the Secretary of the Navy
Application October 11, 1955, Serial No. 539,954
3 Claims. (Cl. 317-234)
(Granted under Title 35, U. S. Code (1952), sec. 266)

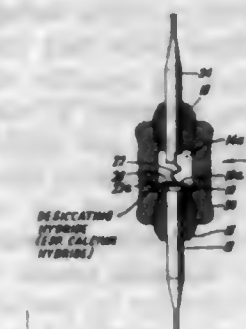


3. A holder for a transistor of the hermetic enclosure type having a flange thereon comprising; a bottom leaf, a top leaf of thin flexible material spaced apart and attached to said bottom leaf, each said top and bottom leaf having an opening on one side whereby the body of a transistor to be mounted may be passed therethrough, and adjustable means for bending said top leaf of thin flexible material towards said bottom leaf whereby a flange on said transistor to be mounted is removably clamped between said top and bottom leaves.

2,820,931
SEMICONDUCTOR DEVICES AND METHODS
Frederic Koury, Lexington, Mass., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application April 27, 1953, Serial No. 351,113
7 Claims. (Cl. 317-236)

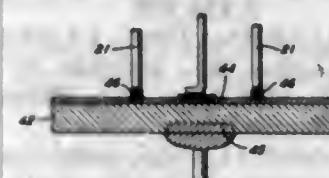
1. A semiconductor device comprising a sealed envelope, contact and semiconductor elements mounted in

said envelope in proper mutual contact, and a hydride



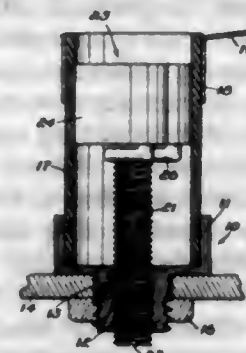
desiccant in said sealed envelope producing hydrogen within said sealed envelope upon moisture absorption.

2,820,932
CONTACT STRUCTURE
Duncan H. Looney, Summit, N. J., assignor to Bell Telephone Laboratories Incorporated, New York, N. Y., a corporation of New York
Application March 7, 1956, Serial No. 570,009
7 Claims. (Cl. 317-240)



5. A device comprising a body of semiconductive material selected from the group consisting of silicon, germanium and silicon-germanium alloys, and an ohmic connection alloyed thereto, said connection comprising a metallic member having a coating comprising an inner silver layer, an intermediate lead layer and an outer silver layer, said lead and silver forming an alloy with said semiconductive material.

2,820,933
NON-BINDING VARIABLE CAPACITOR
Harry M. Passman, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application April 26, 1954, Serial No. 425,418
4 Claims. (Cl. 317-249)



1. A non-binding variable capacitor comprising; support means; a hollow cylindrical form of insulating material fixedly received at one end in said support means; a cylindrical plate of conducting material received on the outer side of said form at its other end; a shaft threadably received through said support means axially of said form; a yoke fixed on said shaft and formed with a pair of fingers which extend parallel to said shaft; a rotor plate mounted on said shaft adjacent to said yoke; said rotor plate comprising, a terminal portion fixed to said shaft, an angular portion fixed at one end to said

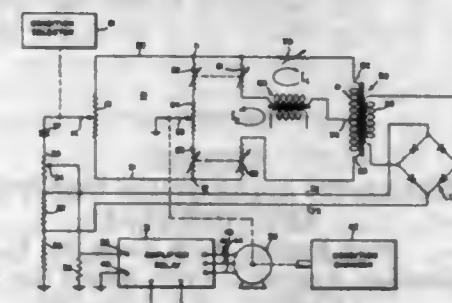
terminal portion, a cylindrical portion formed with a small longitudinal opening and resiliently received against the inner surface of said form, a pair of end portions fixed to the ends respectively of said cylindrical portion and extending inwardly, and one of said end portions connected to the other end of said angular portion; and said yoke fingers engaging the nonfacing opposite sides of said end portions, respectively.

2,820,934
CAPACITOR ASSEMBLY
Forrest T. Mullikin, Falls Church, Va., assignor to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application August 18, 1954, Serial No. 450,583
2 Claims. (Cl. 317-260)



1. In a capacitor assembly, a base of flat rigid insulating material having notches in the edges thereof, spaced parallel elongated solder areas on said base, metallic conductors on said base leading between their respective solder areas and notches, a wound capacitor having aluminum foil electrodes projecting from opposite ends thereof, and elongated metallic clamps of channel section in soldered engagement with their respective solder areas, each clamp having parallel opposed leg portions in clamping engagement with its respective electrode, said leg portions each having a length substantially corresponding to the width of said electrodes.

2,820,935
FAIL-SAFE SERVOSYSTEM
Demetrius B. Kleason, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application December 1, 1954, Serial No. 472,277
9 Claims. (Cl. 318-29)



4. In apparatus for connecting a condition selector remotely to a condition changing device, bridge network circuit means having an input adjustment means and a follow-up adjustment means, said input adjustment means being adapted to be positioned by the condition selector, motor means responsive to the output of said bridge network circuit, said motor means adapted to control the condition changing device and simultaneously position said follow-up adjustment means, electrical current comparing means having an output circuit and a plurality of circuits connected to its input, a source of power, means including one of said circuits for connecting said source of power to said bridge network circuit means so that upon an unbalance of said bridge network circuit means from a null condition said motor means is operative to reestablish balance through said follow-up adjustment means, a second of said plurality of circuits having means for equalizing the currents of said first and second circuits to produce no output from said output circuit of said comparing means, and means for connecting said output circuit of the electrical current comparing means to said motor means so that upon a short or open occurring in said bridge network circuit means the current in

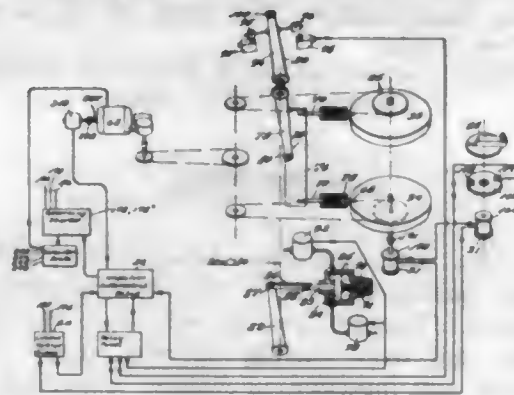
said first and second circuits will become unequal and the output of said output circuit will bias said motor means in a predetermined manner.

2,820,936

REMOTE CONTROL SERVOSYSTEM FOR TURRET PUNCH PRESS

Walton Rainey, Philadelphia, Pa., assignor to Wiedemann Machine Company, Philadelphia, Pa., a corporation of Pennsylvania

Application December 11, 1951, Serial No. 261,078
22 Claims. (Cl. 318—30)

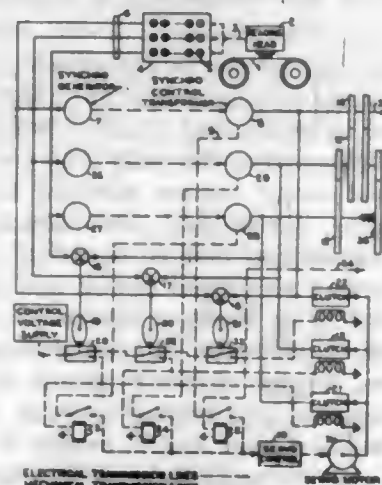


1. In a remote control device for turning a turret or the like, indexing means for bringing the turret into different precise angular positions, mechanism for withdrawing and restoring the indexing means, and remote control driving means for turning the turret, including an electric motor driving the turret and means for determining a selected position to which the turret is to move and moving the turret from the previous position to the selection position, including remote control selector means under the control of the operator as to each selection which is made, and producing an error signal which is a function of the magnitude and direction of the angular error between the selector means and the turret position, electrical means for amplifying the angular error signal, electrical means for discriminating the direction of the angular error, and electrical means for selectively energizing the driving motor in a direction determined by the means for discriminating the direction.

2,820,937

DIGITAL TO ANALOGUE CONVERTER SERVOSYSTEM

Max Fogiel, New York, N. Y.
Application August 2, 1955, Serial No. 525,856
5 Claims. (Cl. 318—30)



1. A digital to analog converter comprising in combination a recording means to record digital information, reading means to read said information from said recording means, converting means to accept said digital information and position a shaft for each present digit in proportion to the magnitude of the digit, means to trans-

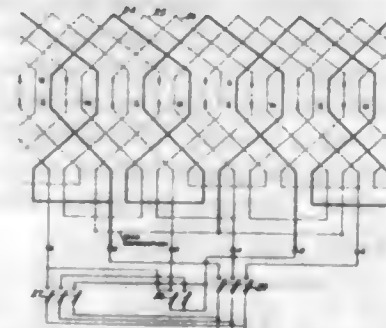
mit said information from said reading means to said converting means, a synchro generator for each present digit to convert the mechanical shaft position of said converting means to an electrical voltage, means to transmit said shaft positions from said converting means to said synchro generators, a synchro control transformer for each said synchro generator to receive said electrical voltage from said generator and convert it into a corresponding shaft rotation, summing means to indicate the different in the shaft positions of said generator and corresponding control transformer, cams mounted on the output shafts of said summing means to operate switches when said output shafts are at positions which are different from zero, a servo motor to position the shafts of said control transformers in turn beginning with the one which represents the greatest unit, a servo control to control said servo motor, a clutching means for each said control transformer to connect said servo motor to each said control transformer in turn during the period that said servo motor is positioning said control transformer, a switching means to connect in turn the electrical output of each said control transformer into said servo control and simultaneously operate said clutching means, gears to connect the output shafts of said control transformers, and a backlash loop to eliminate the backlash from said gears.

2,820,938

MULTI-SPEED ALTERNATING CURRENT MOTOR

Howard Davies, Yeadon, Pa., assignor, by mesne assignments, to John F. McCarthy, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application March 11, 1955, Serial No. 493,645
18 Claims. (Cl. 318—224)



1. In a polyphase multi-speed alternating current motor producing speed ratios other than 2:1, a continuous winding for each phase providing conductors occupying slots, each winding comprising a plurality of sections defined by taps for supplying current to the winding, said sections being arranged to produce different numbers of magnetic poles by reversal of current flow in one of said sections, thus producing different speeds of the motor, each winding being characterized in that during minimum speed operation the slot-occupying conductor or conductors of each phase occupies at least $1/q$ of each phase belt, q being the number of phases, and during maximum speed operation the slot-occupying conductors or conductor groups are uniformly distributed between successive pole centers, and the conductors of the different phases are interspersed or interleaved in relation to one another, so that the slot-occupying conductors of each phase are spread over substantially the entire pole belt.

2,820,939

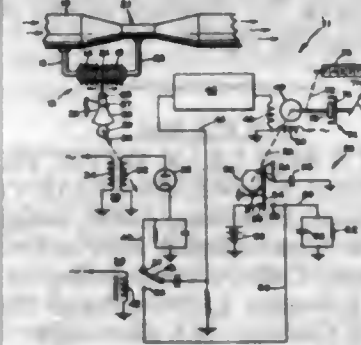
INDICATING SYSTEM

Henry G. Elwell, Jr., Hackensack, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application December 17, 1951, Serial No. 262,151
11 Claims. (Cl. 318—309)

1. In a fluid flow measuring system wherein means are provided for sensing the rate of fluid flow through a con-

duit, the combination comprising means responsive to said sensing means for producing a signal corresponding to the rate of fluid flow, a variable speed motor operated in accordance with said signal, means operated by said motor for providing a second signal substantially pro-



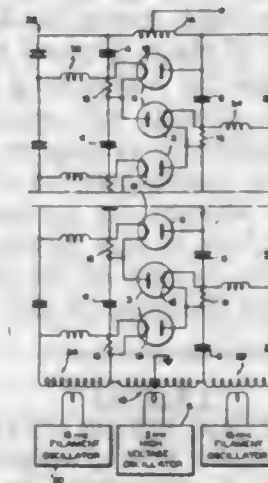
portional to the speed of said motor, means including alternately operable means for receiving and comparing both of said signals and for developing a third signal representing the difference between said first two signals for controlling the speed of operation of said motor.

2,820,940

RADIO FREQUENCY VARIABLE VOLTAGE MULTIPLIER

Forrest I. Boley, Middletown, Conn., assignor to Research Corporation, New York, N. Y., a corporation of New York

Application December 3, 1954, Serial No. 472,910
12 Claims. (Cl. 321—15)



1. In a voltage multiplier for producing high direct-voltage from a first radio-frequency alternating current source, a rectifier and multiplier circuit comprising at least two groups of high-tension condensers, a plurality of unidirectional discharge tubes connected between said groups, each of said tubes having an incandescent cathode, means for heating each cathode comprising individual impedance means associated with each tube for producing a voltage drop due to the normal radio-frequency circulating currents in said circuit, and means connecting each respective cathode with its associated impedance element for supplying each cathode with heating current, and at least one additional radio-frequency source, and means for coupling said additional source to said impedance elements to provide an additional supplementary voltage drop in said elements for supplying supplementary heating current to said cathodes.

2,820,941

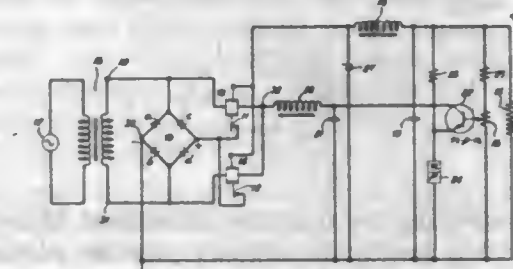
CURRENT SUPPLY APPARATUS

Eugene A. Berkery, Sayreville, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application August 17, 1956, Serial No. 604,839
9 Claims. (Cl. 321—18)

2. In combination, a first and a second electromagnetic relay each having a winding and a pair of contacts, means

for supplying current from a supply source through a load circuit to a load, means for completing said load circuit through the contacts of each of said relays when operated, means for supplying alternating current from an alternating-current source through said windings in series, said relays being polarized so that one of said relays is operated in response to current of one polarity of said alternating-current source and the other of said



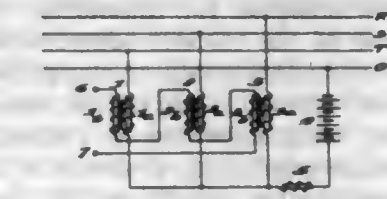
relays is operated in response to current of opposite polarity of said alternating-current source, a current path for diverting current from the winding of each of said relays to reduce the current supplied to the winding, and means responsive to the load voltage for controlling the resistance of said current path to thereby control the opening and closing of the contacts of each of said relays.

2,820,942

STATIC FREQUENCY CONVERTER

Manfred Depenbrock, Mannheim-Almshof, Germany, assignor to Brown, Boveri & Cie, Aktiengesellschaft, Mannheim, Germany, a joint-stock company

Application January 22, 1957, Serial No. 635,281
Claims priority, application Germany February 7, 1956
5 Claims. (Cl. 321—68)



1. A static frequency converter for converting a source of n -phase alternating current into a single-phase alternating current of n -fold frequency comprising single-phase transformers with D-C polarized cores associated with each phase, said transformers having their primary windings connected in star arrangement and the cores of said transformers consisting of soft magnetic material having a sharply broken magnetization characteristic, and direct-current means for supplying a polarizing current to said cores of a value which is a multiple of that current required to magnetically saturate said transformer cores.

2,820,943

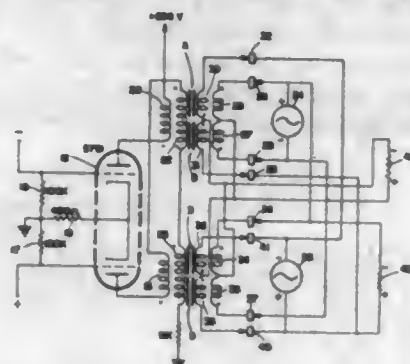
MINIMUM TIME DELAY MAGNETIC AMPLIFIER

Keith L. Sanders, Jr., Paramount, Calif., assignor to North American Aviation, Inc.

Application October 14, 1952, Serial No. 314,623
4 Claims. (Cl. 323—89)

1. A minimum time delay magnetic amplifier comprising a source of alternating current, an electrical load having a predeterminable effective resistance connected at one end thereof to one terminal of said alternating current source, a resistor equal in resistance to said load effective resistance, a pair of saturable reactors each connected by one of its terminals to one end of said resistor, a rectifier connecting the other terminal of one of said saturable reactors to the other terminal of said alternating current source, a rectifier connecting the other terminal of the other of said saturable reactors to the other end of said electrical load, means including a pair of unidirectional

devices for coupling the other end of said resistor to said other source terminal and to the other end of said load, and electrical means associated with said saturable re-



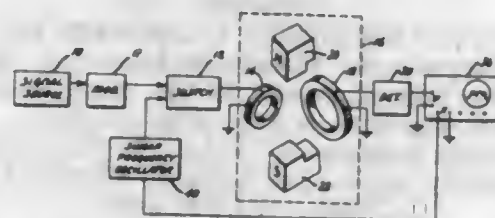
actors for controlling the magnetic saturation of the cores of said saturable reactor to thereby provide a minimum time delay magnetic amplifier.

2,820,944

METHOD OF AND MEANS FOR MEASURING FREQUENCY

William E. Bradley, New Hope, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application September 23, 1952, Serial No. 311,108
9 Claims. (Cl. 324-0.5)



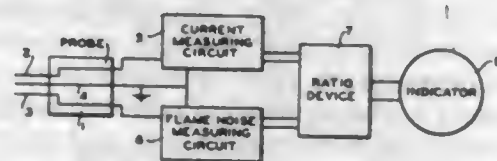
1. A harmonic analyzer for measuring the frequency and/or amplitude of the various components of a complex wave, said harmonic analyzer comprising a nuclear inductor provided with input and output connections, said nuclear inductor being saturable in response to signals exceeding a certain amplitude, a source of constant amplitude signal, means for supplying said complex wave and said constant amplitude signal to said input connection of said nuclear inductor, the combination comprising said inductor and said source of constant amplitude signal inducing means for causing at preselected times, a shift in the relative frequencies of said constant amplitude signal and the passband of said nuclear inductor, thereby to cause said passband to be scanned in frequency by said constant amplitude signal, and indicator means coupled to said output connection of said nuclear inductor for measuring the instantaneous amplitude of the signal appearing at said output connection.

2,820,945

FLAME TURBULENCE ANALYZER

Ross S. Marsden, Jr., Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application September 14, 1953, Serial No. 379,755
8 Claims. (Cl. 324-33)



1. A circuit for flame analysis which comprises, in combination, two pair of closely spaced electrodes adapted to be positioned in a turbulent flame zone and adapted to be moved known distances apart, a computer, constructed and arranged to perform a mathematical operation upon a plurality of signals thereto, means for feeding current,

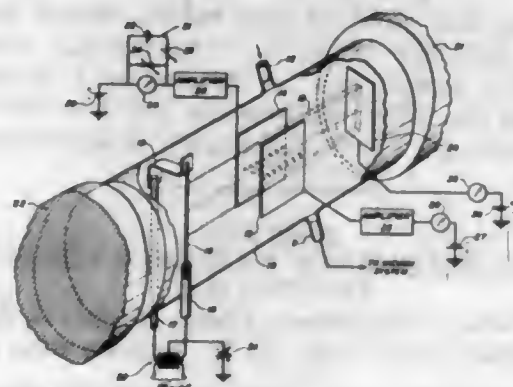
generated across the terminals of the two pair of electrodes generated by random motion in said turbulent flame, to said computer, means for amplifying the resulting signal from said computer, means for squaring the amplified signal, means for rectifying the squared signal, means for averaging the rectified signal, and means for indicating the resulting signal.

2,820,946

APPARATUS FOR LEAK DETECTION AND PRESSURE MEASUREMENT

Charles F. Robinson, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California

Application February 1, 1954, Serial No. 407,321
8 Claims. (Cl. 324-33)



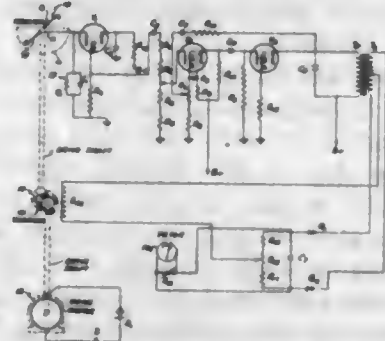
1. A combined leak detector and ion gauge comprising an evacuable envelope, means for admitting a gas to the envelope, a pair of plates disposed in the envelope in spaced relation, means for maintaining a first one of the plates at a positive potential with respect to the second one of the plates, means for causing an ionizing electron beam to traverse the region between the plates without striking either plate whereby the gas admitted to the envelope is ionized at least in part between the two plates, and means connected to each of the plates to measure the magnitude of ion discharge at the respective plates.

2,820,947

ELECTRIC FIELD METER

Ross Gunn, Washington, D. C., assignor to the United States of America as represented by the Secretary of Commerce

Application April 29, 1955, Serial No. 505,067
3 Claims. (Cl. 324-72)



1. An electric field meter comprising a rotating rod having loops on each end, shaft means connected through insulation to the midpoint of said rod, driving means coupled to said shaft means, means for successively exposing each end of said rod to the field to be measured over approximately 180° of the rotation of said rod, brush means coupled to said rod for obtaining an alternating electrical signal therefrom, an A.C. generator coupled to said shaft for rotation therewith to produce a reference signal in synchronism with said alternating electrical signal, a transformer coupled to said brush means through amplifier means, the secondary of said transformer coupled to a meter means for indicating the resulting signal.

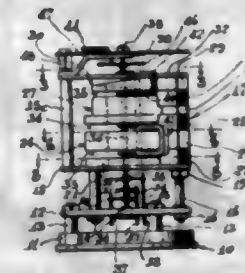
transformer having a center tap and having each end coupled through a rectifier to a corresponding end of a balancing resistor, an adjustable contact on said resistor, one side of said generator output being coupled to said center tap; the other side of said generator output being coupled to said adjustable contact and meter means connected to said resistor for determining the net D.-C. signal through said resistor.

2,820,948

ELECTRICAL INSTRUMENTS

Frederick G. Kelly, West Orange, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware

Application July 16, 1952, Serial No. 299,133
9 Claims. (Cl. 324-150)



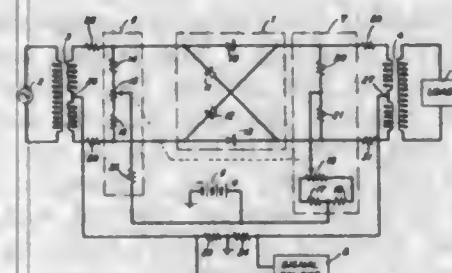
1. An electrical instrument comprising two arcuate-shaped pole members of magnetically-permeable material having substantially equal radii of curvature and each being less than 360° in length; a permanent magnet connected to base portions of said pole members to produce a flux between the arcuate portions thereof; means connecting said pole members and magnet into a permanent structure wherein the pole members are held on a common axis and equally spaced from each other to provide an air gap of uniform length therebetween, said pole members having substantially uniform magnetomotive force therealong to provide substantially uniform flux density in said gap, the confronting faces of both of said members having width dimensions varying from a maximum at the base portions thereof to a minimum at the free end portions thereof, said variation being substantially uniform throughout the central portions of said pole members and being accentuated at the end portions thereof, and one of said pole members being tapered substantially uniformly in its dimension along said axis to cause the fringe flux from the side walls thereof to decrease along the arcuate lengths of said pole members proceeding toward the free ends thereof; and an armature coil surrounding one of said pole members and pivoted at said axis for movement along the pole members.

2,820,949

BALANCED MODULATOR

Herman C. Hey, Whippany, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application May 16, 1955, Serial No. 508,500
7 Claims. (Cl. 332-47)



1. In combination with a wave translating lattice comprising four asymmetrically conducting elements disposed in pairs for opposite directions of transmission in each

of two opposite diagonals thereof, a source of carrier current, a source of signal current, a load circuit, and means for coupling said carrier and signal sources and said load circuit to said two lattice diagonals in such manner that said carrier and signal sources are in conjugate relation to said load circuit, means for substantially reducing the transmission of current from said carrier and signal sources directly into said load circuit, comprising a source of direct current, and resistance means for connecting said direct-current source to said two lattice diagonals, said last-mentioned means being adjustable to provide different amounts of current flow in the respective element pairs of one of said two lattice diagonals to balance the forward resistance of the last-mentioned element pairs for the transmission of signal current in said lattice, said last-mentioned means being further adjustable to control the direct current flow in the respective element pairs of the other of said two lattice diagonals to balance the forward resistance of the last-mentioned element pairs for the transmission of carrier current in said lattice.

2,820,950

FOUR TERMINAL EQUALISER NETWORKS

Joachim Justus Andreas Grabau, Liverpool, and Wolja Saraga, Orpington, England, assignors to Automatic Telephone & Electrical Company Limited, Liverpool, England, a British company

Application September 30, 1954, Serial No. 459,306
Claims priority, application Great Britain

October 22, 1953

5 Claims. (Cl. 333-28)



1. A four-terminal network having an image impedance which is constant and real for all frequencies within a limited frequency range and which when terminated by a resistor has a driving point impedance the logarithm of whose modulus varies with frequency over said limited range as a substantially linear function, the slope of which varies with the value of the terminating resistor, the network being formed of components which make the image phase shift equal to one of the values $45 \text{ deg.} \pm n \cdot 90 \text{ deg.}$, n being a positive integer, at a frequency within said limited frequency range at which the driving point impedance is desired to be maintained constant and independent of the terminating resistor.

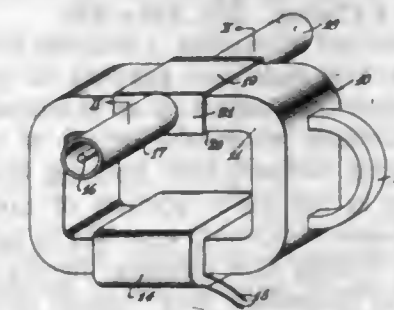
2,820,951

ATTENUATOR

Ernest A. Jones, Columbus, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio

Application March 17, 1953, Serial No. 342,929

4 Claims. (Cl. 333-81)



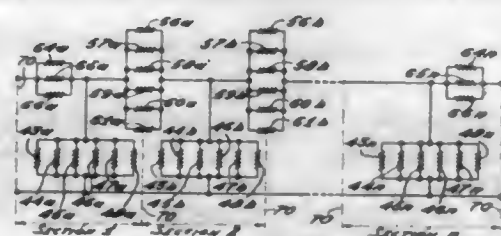
1. An attenuator, comprising: an elongated conductor, a pair of hollow conductors surrounding longitudinally spaced portions of said elongated conductor and defining therewith a pair of transmission line sections, means defining a closed magnetic flux path of high permeability material having a portion disposed intermediate said hollow conductors in surrounding relation to said elongated conductor.

conductor, means for inducing in said flux path a flux variable at frequencies in a low frequency range, means connecting said outer conductors including a pair of plates on opposite sides of said portion, and means in series with at least one of said plates between said hollow conductors and defining a capacitance having a low reactance in the range of high frequencies transmitted between said transmission line sections and a high reactance at frequencies in said low frequency range.

2,820,952

HIGH POWER LADDER NETWORK ATTENUATOR FOR FREQUENCIES FROM ZERO TO OVER ONE THOUSAND MEGACYCLES

Noel W. Hancock and Edwin N. Phillips, Cedar Rapids, Iowa, assignors to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 29, 1953, Serial No. 400,928
9 Claims. (Cl. 333-81)



1. A high power ladder network comprising, a series of T resistor sections connected in series with the exponential attenuation across each T section defined by the formula:

$$D_n = 10 \log_{10} \frac{P_{in} - (n-1)L}{P_{in} - nL}$$

where D_n is the attenuation in decibels across the n th T section, n is the number of the T section numbered consecutively from one at the input end, P_{in} is the input power to the ladder network, and L is the power loss per T section in watts; the shunt impedance Z_n per T section being defined by the formula:

$$Z_n = \frac{Z_0}{\sinh \theta_n}$$

where Z_0 is the characteristic impedance of the network, and θ_n is the attenuation across the n th T section in nepers; and the total series impedance Z_0 per T section is defined by the formula:

$$Z_s = 2Z_0 \tanh \frac{\theta_n}{2}$$

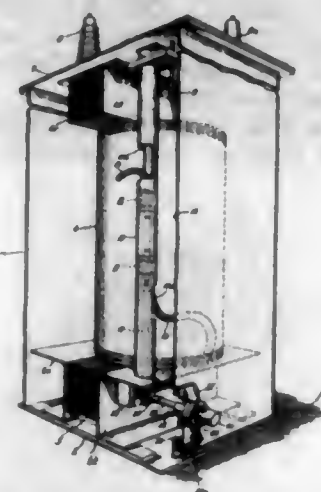
2,820,953

TRANSFORMER TAP CHANGER MECHANISM

William J. Cuthbertson, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application August 24, 1954, Serial No. 451,798
4 Claims. (Cl. 336-45)

1. In a transformer apparatus, a housing having a top, a bottom and a side wall and adapted to rest with its bottom on a supporting surface so as to extend upwardly therefrom substantially above the height of an operator on said supporting surface, said housing being formed with an opening in the lower portion of said side wall thereof; cover means removably attached to said side wall of said housing closing said opening therein, said cover means having an inspection port formed therein and a removable closure therefor; a winding arranged within said housing extending upwardly therein; switch means arranged within said housing adjacent said winding above the height of the operator and being connected to said winding, said switch means including contact means movable to different positions for varying the effective number of turns of said winding; manually operable drive means mounted on said cover means of said housing at

the exterior thereof, so as to be located at the lower portion of said housing within reach of an operator on the supporting surface on which said housing rests; connecting means arranged within said housing extending downwardly from said switch means and connecting said manually operable drive means to said movable contact means of said switch means, said connecting means being turnable by said manually operable drive means for moving said contact means to different positions, and being separable to allow removal of said cover means together

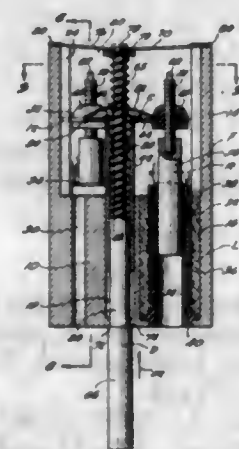


with said manually operable means from said housing; internal indicating means associated with said connecting means for indicating the position of said movable contact means of said switch means and arranged so as to be visible through said inspection port of said cover means from the exterior of said housing; and external indicating means associated with said manually operable drive means and visible from the exterior of said housing for indicating the position of said movable contact means of said switch means.

2,820,954

PERMEABILITY TUNER STRUCTURE

Gerald S. Fay, Chicopee Falls, Mass., assignor to General Instrument Corporation, Elizabeth, N. J., a corporation of New Jersey
Application January 7, 1955, Serial No. 480,369
10 Claims. (Cl. 336-131)



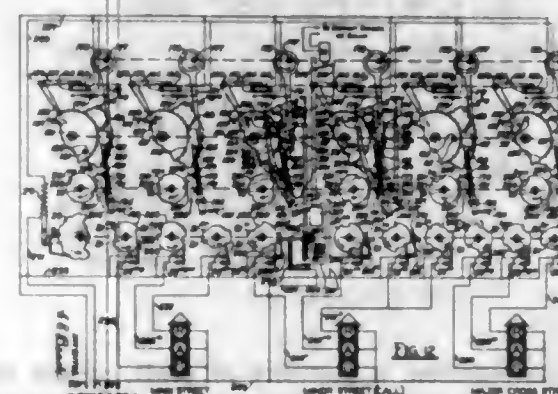
1. A permeability tuner structure comprising a unitary one-piece frame providing a base portion and a portion extending from the base portion, the base portion being formed with parallel arranged coil and shaft receiving wells, tuner coils mounted in and fixedly supported by the walls of the coil receiving wells, a movable carriage including a longitudinal member received with a close fit by and axially movable in the shaft receiving well and a transverse member attached thereto engaging and guided by said extending portion to restrain the carriage against rotation in its movement, said transverse member carrying cores axially movable in said coils, a tuning shaft rotatable in said shaft receiving well, and mating means

on said shaft and longitudinal member for imparting an axial movement to the member upon rotation of the shaft.

2,820,955

TRAFFIC SIGNAL CONTROLLERS

Clarence E. Beach, Binghamton, N. Y.
Application February 9, 1953, Serial No. 335,965
5 Claims. (Cl. 340-35)

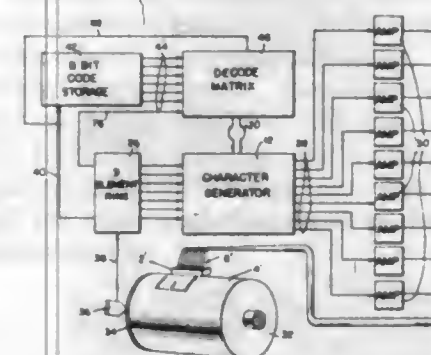


2. In a traffic signal controller, the combination of a signal display controller, electro-responsive means connected to actuate said display controller through a plurality of discrete signal display positions, said display positions determining a recurrent signal display sequence for a plurality of traffic lanes; a cyclic program timer comprising a plurality of elements severally subject to timed actuations for controlling said electro-responsive means to cause actuations of said display controller from one to another of its said signal display positions; and means selectively governed by said display controller for causing timed discrete actuations of diverse ones of said program timer elements during respectively diverse ones of aforesaid display positions.

2,820,956

MAGNETIC PRINTING MACHINE

William J. Rueger, Pleasant Valley, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application April 9, 1956, Serial No. 577,116
10 Claims. (Cl. 340-174)



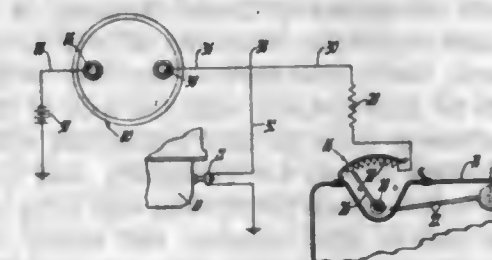
1. A mechanism for forming a character pattern on a moving magnetic surface comprising in combination a magnetic head having a plurality of individual juxtapositioned head elements which are operable to form a character pattern when selectively energized during alignment of the head with the plural increments of a character position on said magnetic surface, a character generator having electrical subdivisions corresponding in number to the number of increments of a character position on said magnetic surface, each of said electrical subdivisions having individual selectively conditionable means corresponding in number to the number of said magnetic head elements, means conditioning said conditionable means to form a pattern corresponding to the characters to be

formed on said magnetic surface, means responsive to the alignment of increments of a character position with said magnetic head for pulsing the corresponding electrical subdivision of the character generator, and means responsive to the pulsing of said electrical subdivisions for energizing said head elements corresponding to the conditioned conditionable means in each pulsed electrical subdivision.

2,820,957

INDICATORS OF CONDITIONS REQUIRING PRECEDENCE

John A. McDougal, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 18, 1955, Serial No. 529,296
3 Claims. (Cl. 340-220)

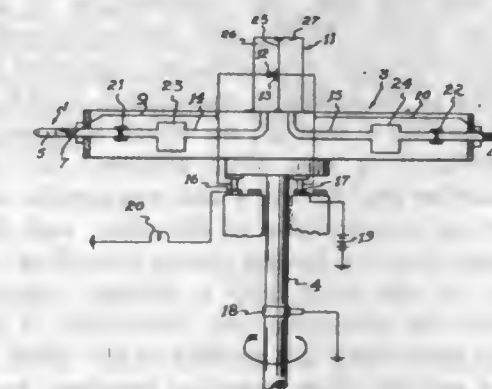


3. An automatic system including an indicating instrument comprising an electrically operated gauge including a dial and pointer, a source of electrical power connected thereto, parallel electrical circuits connected to said gauge and completing the energizing system therefor, a switch in one of the said parallel circuits and automatically controlled by a first condition to be indicated by said pointer over a given field of said dial, and variable resistance means in another of said parallel circuits the resistance value of which automatically varies dependent upon a second condition which said pointer may indicate over an extension of said field.

2,820,958

WHIRLING ICING DETECTOR

Donald Fraser, Ottawa, Ontario, Canada; Gladys Clayton Fraser, executrix of the estate of said Donald Fraser, deceased, assignor to National Research Council, Ottawa, Ontario, Canada, a body corporate
Application May 24, 1956, Serial No. 587,089
9 Claims. (Cl. 340-234)

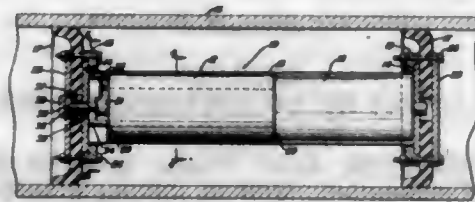


1. A device for detecting icing conditions comprising: a reference probe adapted to be heated so as to prevent ice formation thereon, a detector probe, means mounting the said probes for rotation in synchronism so that their longitudinal axes describe circular paths, a pressure switch pneumatically connected to each of the probes, and means adapted to be actuated by said pressure switch for the purpose described when the pressure in the detector probe falls below the pressure in the reference probe by a predetermined amount.

2,820,959

PIPELINE SCRAPER-LOCATOR TRANSMITTER

James E. Bell, Whiting, Ind., assignor to Standard Oil Company, Chicago, Ill., a corporation of Indiana
Application March 5, 1956, Serial No. 569,579
6 Claims. (Cl. 340-282)

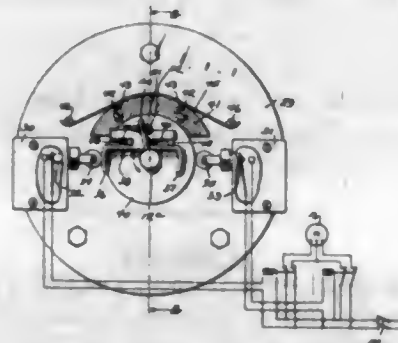


1. A signal transmitter for use in locating a pipeline scraper which comprises a closed housing, a pair of propulsive cups supporting each end of said housing, an electromagnetic wave transmitter mounted within said housing with its axis co-axial with the axis of the pipe, an electronic power drive for said transmitter within said housing, a battery means for energizing said electronic power drive, switch means controlling said drive mounted adjacent one end of said housing, and means operable through one of said propulsive cups for actuating said switch means.

2,820,960

CHURCH BELL RINGERS

Leon J. Witkowiak, Milwaukee, Wis.
Application September 30, 1954, Serial No. 459,267
7 Claims. (Cl. 340-398)

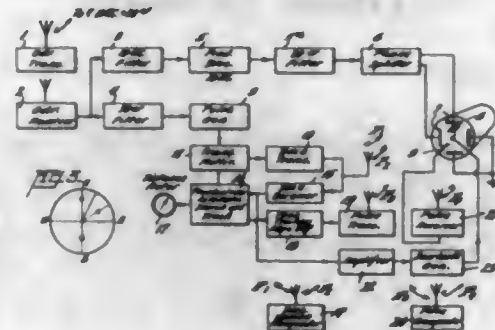


1. In a device for ringing a bell which is mounted for oscillation and including a motor having a driving connection with the bell, the combination of a switch controlling the motor during bell operation and having a cam follower actuator, an oscillator connected with the bell to partake of its swinging movement, a slide mounting member having a support on which it is oscillatable with the oscillator, a cam slide mounted on the slide mounting member and having a cam engageable with said cam follower in one position of the slide, said slide and slide mounting member having means providing ways for the guidance of the slide, and a driving connection to the slide from the oscillator, the movement of the slide on said ways permitting lost motion in the drive between the oscillator and the slide mounting member, and means for resisting the oscillation of the slide mounting member whereby to ensure reciprocation of the slide upon reversal of the direction of oscillation of the oscillator, the cam and cam follower aforesaid being positioned for engagement to close the motor circuit when the oscillator has been moving in a direction in which the motor will augment the amplitude of such movement if such circuit is closed, said cam having limited extent whereby the switch closing effected thereby is momentary, the oscillator being free for continued oscillation beyond the point at which the switch is closed.

2,820,961

NAVIGATIONAL SYSTEM

Marcel Wallace, East Port Chester, Conn., assignor to Panoramic Radio Products, Inc., Mount Vernon, N. Y., a corporation of New York
Application January 16, 1953, Serial No. 331,649
2 Claims. (Cl. 343-15)

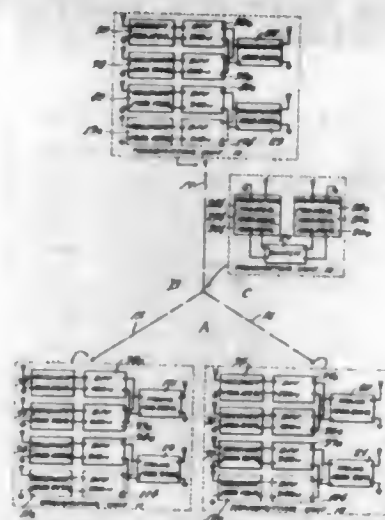


1. In combination, a plurality of craft, means aboard one of said craft for transmitting a pulse, means for repeating said pulse from a fixed geographic location, means responsive to reception aboard said one of said craft of said repeated pulse for transmitting a further pulse, means at said location for repeating said further pulse, means aboard another of said craft for measuring short time intervals, comprising a timing initiator and a timing terminator, means responsive to arrival at said another of said craft of said first repeated pulse for actuating said timing initiator and means responsive to arrival at said another of said craft of said further repeated pulse for actuating said timing terminator.

2,820,962

RADIO LOCATION SYSTEM

James E. Hawkins, Broken Arrow, and Edward J. Crossland, Tulsa, Okla., assignors to Selsmograph Service Corporation, Tulsa, Okla., a corporation of Delaware
Application April 23, 1954, Serial No. 425,181
28 Claims. (Cl. 343-105)

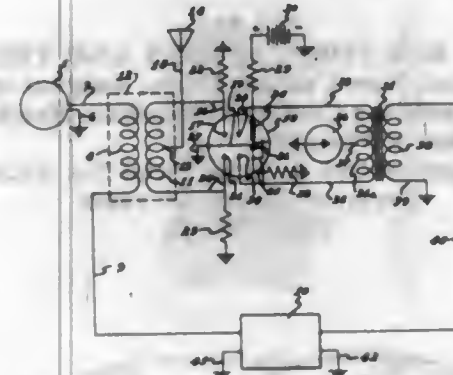


1. In a position determining system having a receiving point, at least four spaced transmitting units each of which simultaneously radiates a pair of position indicating signals, means for sequentially and intermittently modulating the pair of signals radiated by at least three of said transmitting units with reference signals, and receiving and translating apparatus at said receiving point jointly responsive to said position indicating and reference signals for producing at least four indications respectively representative of the position of said receiving point relative to different pairs of said transmitting units.

2,820,963

RADIO DIRECTION FINDING CIRCUIT

Kent H. Stevens, Phoenix, Ariz., assignor to Aircraft Specialty Lines, Phoenix, Ariz., a corporation of Arizona
Application November 27, 1953, Serial No. 394,793
2 Claims. (Cl. 343-120)

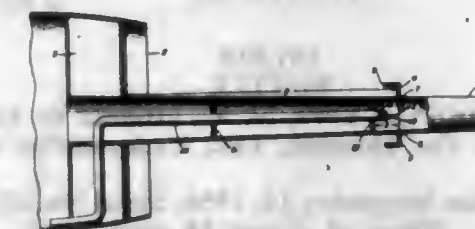


2. In a radio direction finding circuit, a radio receiver, a loop antenna having one end connected to ground, a coupling transformer having a primary winding with one end connected to the other end of said loop antenna and the other end of said primary winding being connected to the loop antenna input of said radio receiver, a secondary winding in said coupling transformer having a center tap and bucking turns each side thereof, a whip antenna connected to said center tap, a first resistor interconnected between one end of said secondary winding and ground, a second resistor interconnected between the other end of said secondary winding and ground, a vibrating reed connected to ground, electrically energized means to cause said reed to vibrate at a predetermined frequency, an engageable contact on one side of said reed connected to one end of said secondary winding, an engageable contact on the other side of said reed connected to the other end of said secondary winding, said contacts being alternately engaged by said reed when vibrating to alternately connect one end and then the other end of said secondary winding to ground, an output transformer having a secondary winding, an engageable output contact on one side of said reed connected to one end of said output transformer secondary winding, an engageable output contact on the other side of said reed connected to the other end of said output transformer secondary winding, a zero-center direct current galvanometer connected in series with ground and an intermediate center tap on said output transformer secondary winding, and a primary winding in said output transformer having one end connected to ground and the other end connected to the audio output of said radio receiver.

2,820,964

ANTENNA

Charles F. Lyle, Morris Plains, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application January 17, 1955, Serial No. 482,005
11 Claims. (Cl. 343-706)

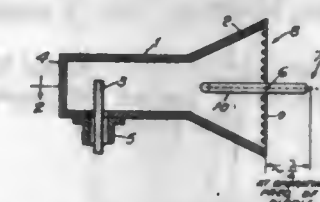


10. An antenna system for an aircraft comprising a tapered tube adapted for mounting at its larger end on the nose of the aircraft to extend in the forward direction, a pair of oppositely disposed, quarter-wave, dipole elements insulatingly secured at their bases to said tube at a distance from said larger end equal to an integral number of half wavelengths and equal to at least three wavelengths, and a transmission line positioned within said tube and electrically connected to said elements, said elements being bent in a backward direction at a right angle and having a streamlined cross section and beveled ends.

2,820,965

DUAL POLARIZATION ANTENNA

William Sichak, Nutley, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application February 16, 1956, Serial No. 565,868
8 Claims. (Cl. 343-756)



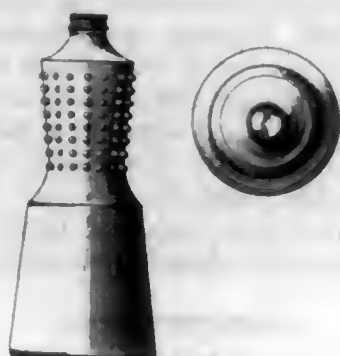
1. A dual polarization antenna comprising a waveguide having an open end shaped to determine the space radiation pattern desired, a grille disposed crosswise of said open end to pass a first polarized wave energy, said grille being located to contain substantially in the plane thereof the focusing point of said radiation pattern, and antenna means responsive to a second polarized wave energy orthogonal with respect to said first polarized wave energy, said antenna means being disposed forward of said grille by a predetermined amount to cause the focusing point of the radiation pattern of said second polarized wave energy to coincide substantially with said first-mentioned focusing point.

DESIGNS

JANUARY 21, 1958

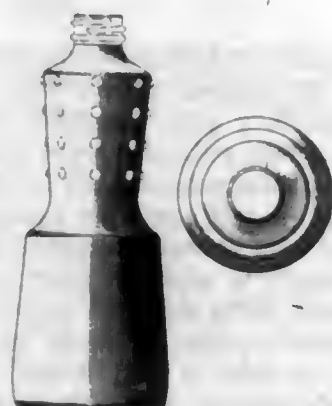
181,918
BOTTLE

Egmont Arens, New York, N. Y., assignor to Anderson, Clayton & Co., Houston, Tex., a corporation of Delaware
Application November 16, 1956, Serial No. 43,792
Term of patent 14 years
(Cl. D58-8)



181,919
BOTTLE

Egmont Arens, New York, N. Y., assignor to Anderson, Clayton & Co., Houston, Tex., a corporation of Delaware
Application July 30, 1957, Serial No. 47,154
Term of patent 14 years
(Cl. D58-8)



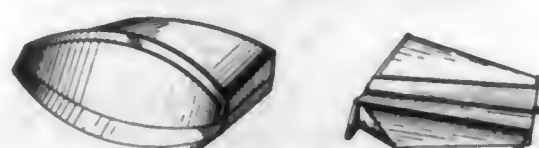
181,920
LINK CHAIN FOR A BRACELET OR SIMILAR ARTICLE

Gottlob Armbrust, Providence, and John Mancyak, Jr., Cranston, R. I., assignors to Armbrust Chain Company, Providence, R. I., a corporation of Rhode Island
Application May 17, 1957, Serial No. 46,222
Term of patent 3 1/2 years
(Cl. D45-4)



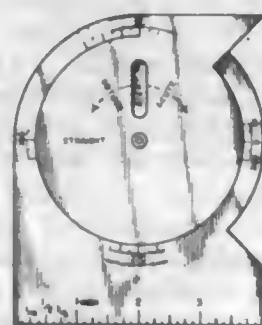
181,921

DISPLAY BOX FOR WATCHES AND THE LIKE
Francis E. Blod, New Canaan, Conn., assignor to Farrington Manufacturing Company, Needham Heights, Mass., a corporation of Massachusetts
Application Oct. 8, 1956, Serial No. 43,261
Term of patent 14 years
(Cl. D80-5)



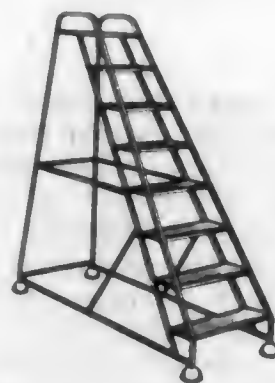
181,922

EDUCATIONAL PROTRACTOR
Pearl M. Bush, Canastota, N. Y.
Application February 15, 1956, Serial No. 40,175
Term of patent 14 years
(Cl. D52-1)



181,923

STEPLADDER OR THE LIKE
Roy A. Cramer, Kansas City, Mo.
Application August 12, 1957, Serial No. 47,315
Term of patent 7 years
(Cl. D15-8)



JANUARY 21, 1958

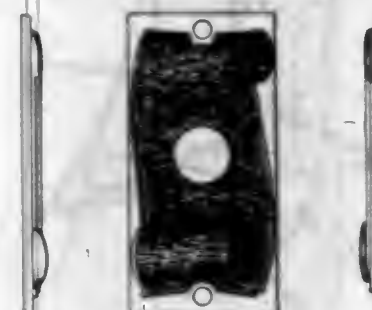
U. S. PATENT OFFICE

627

181,924

SWITCH PLATE

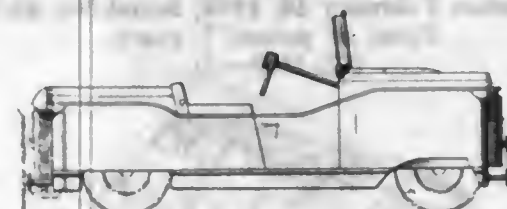
Gerard J. Feuerbacher, Scarsdale, N. Y., assignor to Trine Manufacturing Corporation, New York, N. Y., a corporation of New York
Application November 4, 1955, Serial No. 38,728
Term of patent 14 years
(Cl. D26-13)



181,925

UTILITY VEHICLE

Kenneth P. Folks, Orlando, Fla.
Application June 29, 1956, Serial No. 42,083
Term of patent 14 years
(Cl. D14-3)



181,926

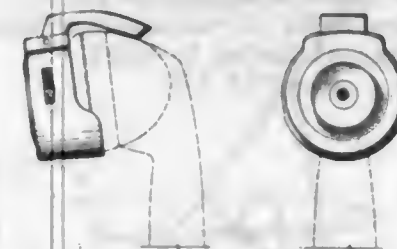
REAR VIEW MIRROR

William H. Goodworth, Mount Holly, N. J., assignor to Peerless Accessories Co., Mount Holly, N. J., a corporation of New Jersey
Application February 8, 1956, Serial No. 40,075
Term of patent 14 years
(Cl. D14-6)



181,927

TELEPHONE RECEIVER AMPLIFYING DEVICE
Robert C. Gray, San Francisco, and Harry A. Greene, San Carlos, Calif., assignors to Remler Company, Ltd., San Francisco, Calif., a corporation of California
Application September 19, 1955, Serial No. 37,986
Term of patent 14 years
(Cl. D26-14)



181,928
CHAIR

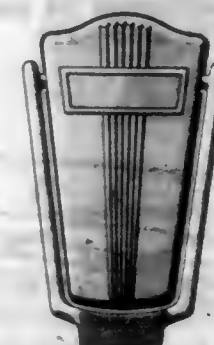
Robert E. Kjer Jakobsen, Manhattan Beach, Calif., assignor to Virtue Bros. Mfg. Co., Los Angeles, Calif., a corporation of California
Application May 6, 1957, Serial No. 46,036
Term of patent 14 years
(Cl. D15-1)



181,929

MECHANICALLY OPERATED DOOR CHIME ACTUATOR

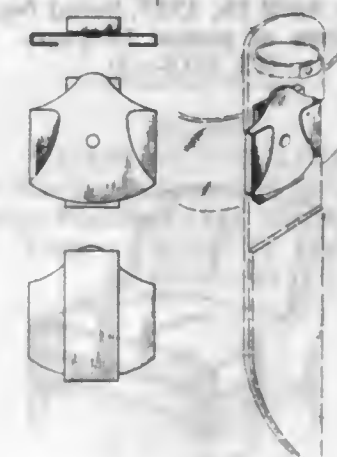
John G. Jolly, Cincinnati, Ohio, assignor to NuTune, Inc., Cincinnati, Ohio, a corporation of New York
Application May 31, 1957, Serial No. 46,431
Term of patent 14 years
(Cl. D72-1)



181,930

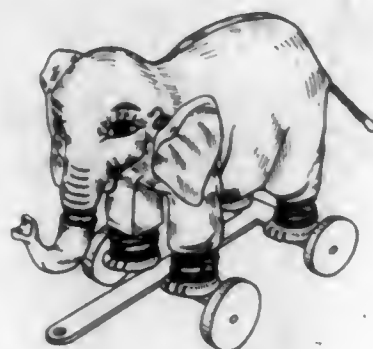
KNIFE SHEATH HOLDER FOR A BELT

Frank J. Kamarad, Vallejo, Calif.
Application November 19, 1956, Serial No. 43,835
Term of patent 14 years
(Cl. D22-6)



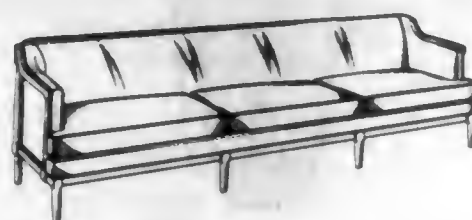
**181,931
ANIMAL PULL TOY**

William S. Loeb, Philadelphia, Pa., assignor to Wilkening Manufacturing Company, Philadelphia, Pa., a corporation of Delaware
Application April 29, 1957, Serial No. 45,931
Term of patent 7 years
(Cl. D34-15)



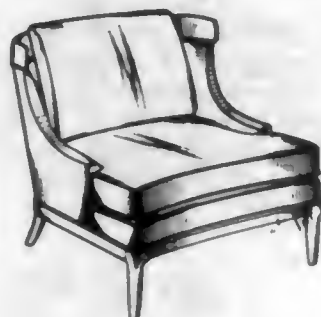
**181,932
SOFA**

John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application April 12, 1957, Serial No. 45,710
Term of patent 14 years
(Cl. D15-11)



**181,933
CHAIR**

John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
Application April 16, 1957, Serial No. 45,756
Term of patent 14 years
(Cl. D15-1)



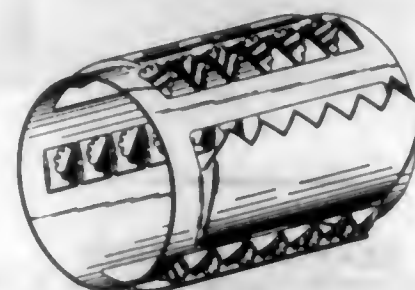
**181,934
BOOKMARK**

Luigi T. Marotta, Brooklyn, N. Y.
Application November 13, 1956, Serial No. 43,717
Term of patent 14 years
(Cl. D6-2)



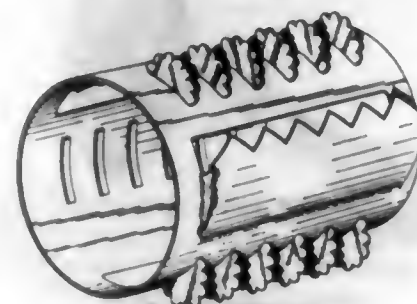
**181,935
VEGETABLE CUTTING CYLINDER**

Dean J. Michals, Youngstown, Ohio
Application February 20, 1956, Serial No. 40,214
Term of patent 7 years
(Cl. D89-1)



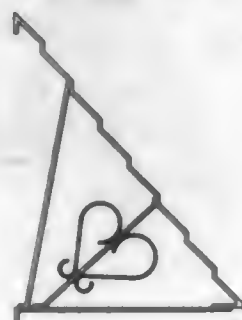
**181,936
VEGETABLE CUTTING CYLINDER**

Dean J. Michals, Youngstown, Ohio
Application February 20, 1956, Serial No. 40,215
Term of patent 7 years
(Cl. D89-1)



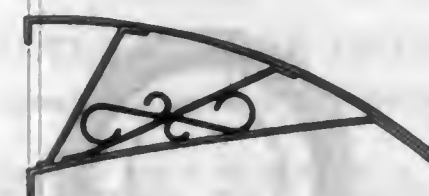
**181,937
AWNING BRACKET**

Edwin Mitchell, Warren, Ohio, assignor to Walter A. Curtze, Erie, Pa.
Application December 6, 1956, Serial No. 44,082
Term of patent 14 years
(Cl. D21-6)



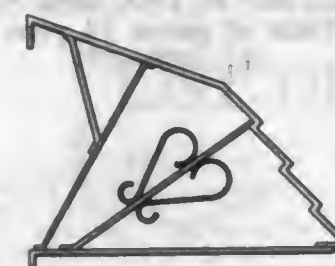
**181,938
AWNING BRACKET**

Edwin Mitchell, Warren, Ohio, assignor to Walter A. Curtze, Erie, Pa.
Application December 6, 1956, Serial No. 44,083
Term of patent 14 years
(Cl. D21-6)



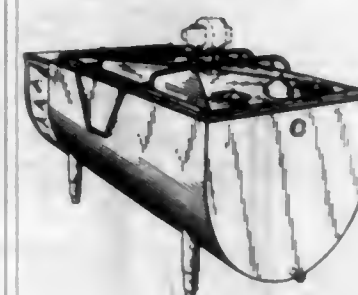
**181,939
AWNING BRACKET**

Edwin Mitchell, Warren, Ohio, assignor to Walter A. Curtze, Erie, Pa.
Application December 6, 1956, Serial No. 44,084
Term of patent 14 years
(Cl. D21-6)



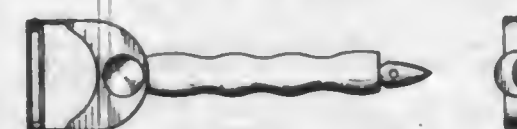
**181,940
COOLING TANK**

Maurice J. Mouthrop, Oak Park, Ill., assignor to The Creamery Package Mfg. Company, Chicago, Ill., a corporation of Illinois
Application September 6, 1956, Serial No. 42,846
Term of patent 14 years
(Cl. D23-1)



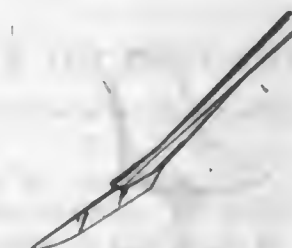
**181,941
VEGETABLE PEELER**

Myrtise M. Murphree, Hapeville, Ga.
Application November 26, 1956, Serial No. 43,931
Term of patent 14 years
(Cl. D22-3)



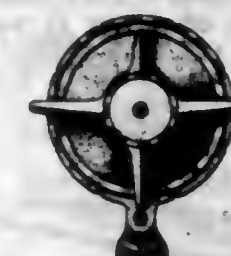
**181,942
KNIFE**

John J. Olson, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn.
Application September 9, 1957, Serial No. 47,650
Term of patent 14 years
(Cl. D22-3)



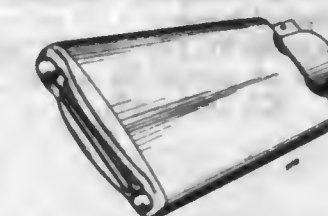
**181,943
REAR VIEW MIRROR**

Robert R. Rossi, Audubon, N. J., assignor to Peerless Accessories Co., Mount Holly, N. J., a corporation of New Jersey
Application November 6, 1956, Serial No. 43,679
Term of patent 14 years
(Cl. D14-6)



**181,944
EXHAUST DEFLECTOR**

Linus E. Russell, Springfield, Ohio, assignor to Peters & Russell, Inc., Springfield, Ohio, a corporation of Ohio
Application June 4, 1956, Serial No. 41,762
Term of patent 14 years
(Cl. D14-6)



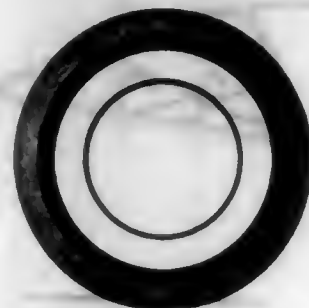
**181,945
CHAIR OR THE LIKE**
Eero Saarinen, Bloomfield Hills, Mich.
Application March 1, 1957, Serial No. 45,040
Term of patent 14 years
(Cl. D15-1)



181,946
CHAIR OR THE LIKE
Eero Saarinen, Bloomfield Hills, Mich.
Application March 1, 1957, Serial No. 45,041
Term of patent 14 years
(Cl. D15-1)



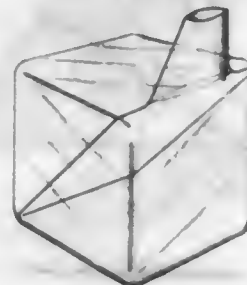
181,949
TIRE
Robert G. Smith, Birmingham, Mich., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application April 5, 1956, Serial No. 40,924
Term of patent 14 years
(Cl. D90-20)



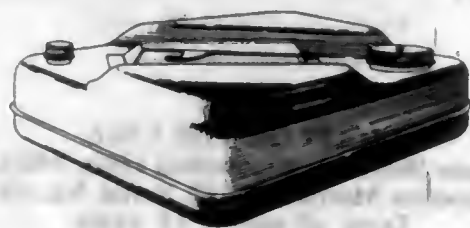
181,947
LIQUID FUEL CAN
Joseph E. Scanland, Des Moines, Iowa, assignor to New Monarch Machine & Stamping Company, Des Moines, Iowa, a corporation of Iowa
Application October 7, 1957, Serial No. 47,997
Term of patent 14 years
(Cl. D58-17)



181,950
DISPENSING CARTON FOR LIQUIDS, POWDERS OR THE LIKE
Thomas W. Winstead, Baltimore, Md., assignor to Hedwin Corporation, Baltimore, Md., a corporation of Maryland
Application July 16, 1956, Serial No. 42,265
Term of patent 14 years
(Cl. D58-17)



181,948
LIQUID FUEL CAN
Joseph E. Scanland, Des Moines, Iowa, assignor to New Monarch Machine & Stamping Company, Des Moines, Iowa, a corporation of Iowa
Application October 21, 1957, Serial No. 48,178
Term of patent 14 years
(Cl. D58-17)



181,951
BALL POINT PEN OR SIMILAR ARTICLE
Marshall B. Young, Riverdale, N. Y., assignor to Eagle Pencil Company, a corporation of Delaware
Application August 21, 1957, Serial No. 47,481
Term of patent 14 years
(Cl. D74-17)



LIST OF REISSUE PATENTEEES

TO WHOM

PATENTS WERE ISSUED ON THE 21ST DAY OF JANUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Jackson, Clarence E., and A. E. Shrubbsall, to Union Carbide Corp. Electric welding medium containing manganese oxide, titania and silica. Re. 24,418, 1-21-58, Cl. 148-26.
Kish, Arthur S.: See—
Ziherl, Frank, and Kish. Re. 24,419.
Shrubbsall, Arthur E.: See—
Jackson, Clarence E., and Shrubbsall. Re. 24,418.
Union Carbide Corp.: See—
Jackson, Clarence E., and Shrubbsall. Re. 24,418.
Walker, Geoffrey W.: See—
Ziherl, Frank, and Kish. Re. 24,419.
Ziherl, Frank, and A. S. Kish, to G. W. Walker, F. and L. A. Ziherl. Inoculant injector instrument. Re. 24,419, 1-21-58, Cl. 128-173.
Ziherl, Louis A.: See—
Ziherl, Frank, and Kish. Re. 24,419.

LIST OF PLANT PATENTEEES

Hill, E. G., Co., Inc.: See—
Jelly, Robert G. 1,675.
Jelly, Robert G., to E. G. Hill Co., Inc. Rose plant., 1,675, 1-21-58, Cl. 47-61.

LIST OF DESIGN PATENTEEES

Anderson, Clayton & Co.: See—
Arens, Egmont. 181,918.
Arens, Egmont. 181,919.
Arens, Egmont, to Anderson, Clayton & Co. Bottle. 181,918, 1-21-58, Cl. D58-8.
Arens, Egmont, to Anderson, Clayton & Co. Bottle. 181,919, 1-21-58, Cl. D58-8.
Armbrust Chain Co.: See—
Armbrust, Gottlob, and Mancyak. 181,920.
Armbrust, Gottlob, and J. Mancyak, Jr., to Armbrust Chain Co. Link chain for a bracelet or similar article. 181,920, 1-21-58, Cl. D45-4.
Blod, Francis E., to Farrington Mfg. Co. Display box for watches and the like. 181,921, 1-21-58, Cl. D80-5.
Brown & Bigelow: See—
Olson, John J. 181,942.
Bush, Pearl M. Educational protractor. 181,922, 1-21-58, Cl. D52-1.
Cramer Posture Chair Co., Inc.: See—
Cramer, Roy A. 181,923.
Cramer, Roy A., to Cramer Posture Chair Co., Inc. Step-ladder or the like. 181,923, 1-21-58, Cl. D15-8.
Creamery Package Mfg. Co., The: See—
Moulthrop, Maurice J. 181,940.
Curtze, Walter A.: See—
Mitchell, Edwin. 181,937.
Mitchell, Edwin. 181,938.
Mitchell, Edwin. 181,939.
Eagle Pencil Co.: See—
Young, Marshall B. 181,951.
Farrington Mfg. Co.: See—
Blod, Francis E. 181,921.
Fauerbacher, Gerard J., to Trine Mfg. Corp. Switch plate. 181,924, 1-21-58, Cl. D26-13.
Folke, Kenneth P. Utility vehicle. 181,925, 1-21-58, Cl. D14-3.
Goodworth, William H., to Peerless Accessories Co. Rear view mirror. 181,926, 1-21-58, Cl. D14-6.
Gray, Robert C., and H. A. Greene, to Remler Co., Ltd. Telephone receiver amplifying device. 181,927, 1-21-58, Cl. D26-14.
Greene, Harry A.: See—
Gray, Robert C., and Greene. 181,927.
Hedwin Corp.: See—
Winstead, Thomas W. 181,950.
Jakobsen, Robert E. K., to Virtue Bros. Mfg. Co. Chair. 181,928, 1-21-58, Cl. D15-1.
Jolly, John G., to NuTone, Inc. Mechanically operated door chime actuator. 181,929, 1-21-58, Cl. D72-1.
Kamarad, Frank J. Knife sheath holder for a belt. 181,930, 1-21-58, Cl. D22-6.
Loeb, William S., to Wilkening Mfg. Co. Animal pull toy. 181,931, 1-21-58, Cl. D34-15.
Lubberts, John J., and L. J. Mulder, to Tomlinson of High Point. Sofa. 181,932, 1-21-58, Cl. D15-11.
Lubberts, John J., and L. J. Mulder, to Tomlinson of High Point. Chair. 181,933, 1-21-58, Cl. D15-1.
Mancyak, John, Jr.: See—
Armbrust, Gottlob, and Mancyak. 181,920.
Marotta, Luigi T. Bookmark. 181,934, 1-21-58, Cl. D6-2.
Michals, Dean J. Vegetable cutting cylinder. 181,935, 1-21-58, Cl. D80-1.
Michals, Dean J. Vegetable cutting cylinder. 181,936, 1-21-58, Cl. D80-1.
Mitchell, Edwin, to W. A. Curtze. Awning bracket. 181,937, 1-21-58, Cl. D21-6.
Mitchell, Edwin, to W. A. Curtze. Awning bracket. 181,938, 1-21-58, Cl. D21-6.
Mitchell, Edwin, to W. A. Curtze. Awning bracket. 181,939, 1-21-58, Cl. D21-6.
Moulthrop, Maurice J., to Creamery Package Mfg. Co., The. Cooling tank. 181,940, 1-21-58, Cl. D23-1.
Mulder, Lambert J.: See—
Lubberts, John J., and Mulder. 181,932.
Lubberts, John J., and Mulder. 181,933.
Murphree, Myrtice M. Vegetable peeler. 181,941, 1-21-58, Cl. D22-3.
New Monarch Machine & Stamping Co.: See—
Scanland, Joseph E. 181,947.
Scanland, Joseph E. 181,948.
NuTone, Inc.: See—
Jolly, John G. 181,929.
Olson, John J., to Brown & Bigelow. Knife. 181,942, 1-21-58, Cl. D22-3.
Peerless Accessories Co.: See—
Goodworth, William H. 181,926.
Ross, Robert R. 181,943.
Peters & Russell, Inc.: See—
Russell, Linus E. 181,944.
Remler Co., Ltd.: See—
Gray, Robert C., and Greene. 181,927.
Ross, Robert R., to Peerless Accessories Co. Rear view mirror. 181,943, 1-21-58, Cl. D14-6.
Russell, Linus E., to Peters & Russell, Inc. Exhaust deflector. 181,944, 1-21-58, Cl. D14-6.
Saarinen, Eero. Chair or the like. 181,945, 1-21-58, Cl. D15-1.
Saarinen, Eero. Chair or the like. 181,946, 1-21-58, Cl. D15-1.
Scanland, Joseph E., to New Monarch Machine & Stamping Co. Liquid fuel can. 181,947, 1-21-58, Cl. D58-17.
Scanland, Joseph E., to New Monarch Machine & Stamping Co. Liquid fuel can. 181,948, 1-21-58, Cl. D58-17.
Smith, Robert G., to United States Rubber Co. Tire. 181,949, 1-21-58, Cl. D90-20.
Tomlinson of High Point: See—
Lubberts, John J., and Mulder. 181,932.
Lubberts, John J., and Mulder. 181,933.
Trine Mfg. Corp.: See—
Fauerbacher, Gerard J. 181,924.
United States Rubber Co.: See—
Smith, Robert G. 181,949.
Virtue Bros. Mfg. Co.: See—
Jakobsen, Robert E. K. 181,928.
Wilkening Mfg. Co.: See—
Loeb, William S. 181,931.
Winstead, Thomas W., to Hedwin Corp. Dispensing carton for liquids, powders or the like. 181,950, 1-21-58, Cl. D58-17.
Young, Marshall B., to Eagle Pencil Co. Ball point pen or similar article. 181,951, 1-21-58, Cl. D74-17.

LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 21ST DAY OF JANUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

ACF Industries, Inc.: See—
Mullikin, Forrest T. 2,820,934.
Aarvold, Reinhardt O., to Aktiebolaget Gotaverken. Hold
hatches operated with the aid of a pressure medium.
2,820,515, 1-21-58, Cl. 160—188.
Abbott Laboratories: See—
Endicott, Clarence J., Prickett, and Dallavia. 2,820,741.
Ackeret, Jakob, and C. Keller, to Aktiengesellschaft Fuer
Technische Studien. Dual unit jet propulsion plant for
aircraft. 2,820,599, 1-21-58, Cl. 244—15.
Adams, Cecil E., and Y. H. Sun, to American Brake Shoe Co.
Fluid pressure energy translating device. 2,820,417,
1-21-58, Cl. 103—136.
Adams, Seth R., to Industrial Rayon Corp. Method for the
preparation of polyamides. 2,820,770, 1-21-58, Cl.
260—23.
Adamson United Co.: See—
Stratton, Edgar H. 2,820,250.
Ainsworth, Burton G. Screw construction. 2,820,660,
1-21-58, Cl. 292—327.
Aircraft Specialty Lines: See—
Stevens, Kent H. 2,820,963.
Air Force, United States of America as represented by the
Secretary of the: See—
Koons, Clarence J., and Archdeacon. 2,820,661.
Seeler, Henry W. 2,820,469.
Aktiebolaget Gotaverken: See—
Aarvold, Reinhardt O. 2,820,515.
Aktiebolaget Svenska Metallverken: See—
Waenerlund, Torsten G. E. 2,820,402.
Aktiengesellschaft Fuer Technische Studien: See—
Ackeret, Jakob, and Keller. 2,820,598.
Oechallin, Konrad. 2,820,652.
Sauter, Josef. 2,820,348.
Albertson, Lawrence E., to The McKays Co. Regenerating
apparatus for water softeners. 2,820,419, 1-21-58, Cl.
103—276.
Albrecht, Ransom C.: See—
Day, Carl L., Albrecht, and Fanth. 2,820,489.
Alheritiere, Louis: See—
Mention, Maurice, and Alheritiere. 2,820,743.
Allen, Walter C., and T. F. Berry, to United States Steel Corp.
Method of improving characteristics of iron oxide agglom-
erates. 2,820,704, 1-21-58, Cl. 75—5.
Alvey Conveyor Mfg. Co.: See—
Oswald, Walter H. 2,820,542.
Aman, Charles A., to General Motors Corp. Braking and
reverse turbine for gas turbine engines. 2,820,341,
1-21-58, Cl. 60—39.15.
Amboraki, Leonard E., to E. I. du Pont de Nemours and Co.
Sealing of polymeric linear terephthalate ester structures.
2,820,735, 1-21-58, Cl. 154—139.
American Brake Shoe Co.: See—
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Komarewsky, Vasil I., to Heavy Minerals Co. Dehydrogenation of hydrocarbons in the presence of a samarium sesquioxide catalyst. 2,820,834, 1-21-58, Cl. 260-683.3.
Koons, Clarence J., and G. D. Archdeacon, to the United States of America as represented by the Secretary of the Air Force. Universal crane sling. 2,820,661, 1-21-58, Cl. 294-78.
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Leobach Corp.: See—
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Leonard, Fred: See—
Fram, Paul, Nielson, and Leonard. 2,820,718.
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 Molina, Desmond W., Ruau, and Jackson. 2,820,463.
 Rudolf, Hyman, and T. J. Jordan, to General Electric Co. Dynamoelectric machine structures. 2,820,914, 1-21-58, Cl. 319-43.
 Rueckert, Dean E., to Swift & Co. Method of forming pressure sensitive tape. 2,820,734, 1-21-58, Cl. 154-125.
 Rueger, William J., to International Business Machines Corp. Magnetic printing machine. 2,820,956, 1-21-58, Cl. 340-174.
 Ruegg, Ernst, to Escher Wyss Aktiengesellschaft. Effecting relative displacement between pusher member and separator cage of a push-type centrifugal machine. 2,820,436, 1-21-58, Cl. 121-123.
 Rusch, Kenneth A., to Milprint, Inc. Art of forming bag bottoms. 2,820,497, 1-21-58, Cl. 150-0.5.
 Ruschig, Heinrich, and L. Stein, to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning. Process of separating L- and D-aminomethyl-(3,4-dihydroxyphenyl)-carbinol. 2,820,827, 1-21-58, Cl. 260-370.6.
 Russell, Burrell B. Bean and pea sheller. 2,820,459, 1-21-58, Cl. 130-30.
 Russell, James T., and H. W. Lefevre, to the United States of America as represented by the United States Atomic Energy Commission. Multichannel pulse-height analyzer. 2,820,896, 1-21-58, Cl. 250-27.
 Russell Mfg. Co., Inc.: See—
 Warren, George C., Jr. 2,820,337.
 Rydberg, Rudolph C., and E. A. Herman. Veneer joining edge staplers. 2,820,223, 1-21-58, Cl. 1-106.
 S. A. S. Lavorazione Materie Plastiche (L. M. P.) di M. I. Colombo & C.: See—
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 Hedlund, Roland G., and Sakshaug. 2,820,869.
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 Santos, Miguel H. 2,820,631.
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 Saunders, Alfred P., to Wildt and Co. Ltd. Circular knitting machines of the superimposed needle cylinder type. 2,820,354, 1-21-58, Cl. 66-14.
 Saunders, Clarence, deceased, by P. H. Saunders, administratrix, to P. H. Saunders. Registering key for mechanical stores. 2,820,591, 1-21-58, Cl. 235-1.
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 Sauter, Josef, to Aktiengesellschaft Fuer Technische Studien. Utilizing intermittently produced waste heat. 2,820,348, 1-21-58, Cl. 60-59.
 Sauzedde, René E., to General Motors Corp. Sprag clutch. 2,820,537, 1-21-58, Cl. 192-45.1.
 Saxton, Arthur L., to Esso Research and Engineering Co. Fluid contacting apparatus. 2,820,700, 1-21-58, Cl. 23-270.3.

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 Schaaf, Carl G., to McDonnell Aircraft Corp. Floating, swivelling anchor nut. 2,820,499, 1-21-58, Cl. 151-41.7.
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 Schmidt, Marvin M. Powder measures. 2,820,392, 1-21-58, Cl. 86-33.
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 Scott, Delmer D., to J. B. Nethercutt. Fishing lure construction. 2,820,314, 1-21-58, Cl. 43-42.1.
 Scott, Robert E., to Gagnier Fibre Products Co. Metal fastener assemblies. 2,820,270, 1-21-58, Cl. 24-73.
 Seeler, Henry W., to the United States of America as represented by the Secretary of the Air Force. Combined compensated inhalation exhalation valve for pressure breathing mask. 2,820,469, 1-21-58, Cl. 137-64.
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 Shumaker, Charles S., to United Engineering and Foundry Co. Reconditioning shear overload device. 2,820,518, 1-21-58, Cl. 164-47.
 Sichak, William, to International Telephone and Telegraph Corp. Dual polarization antenna. 2,820,965, 1-21-58, Cl. 343-756.

- Silverman, Daniel. Microfilm apparatus. 2,820,907, 1-21-58, Cl. 250-204.
- Simmons, Frank E., 40% to L. J. Hennessy, and 25% to Eljay Corp. Garment hanger. 2,820,582, 1-21-58, Cl. 223-88.
- Simmons, Harold C., to Dowty Fuel Systems Ltd. Fuel atomizing nozzles. 2,820,674, 1-21-58, Cl. 209-114.
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- Skatsche, Othmar: See—
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- Skelly, William G., to International Minerals & Chemical Corp. Preparation of guanidino type compounds. 2,820,822, 1-21-58, Cl. 260-334.
- Skerritt, Roy P. Heating system humidifier. 2,820,449, 1-21-58, Cl. 126-113.
- Smerz, Frank W., to Western Electric Co., Inc. Device for cutting annular groove in annular article. 2,820,387, 1-21-58, Cl. 82-35.
- Smith, A. O., Corp.: See—
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- Smith, Charles E. Tension-applying nut and bolt, and method and means of applying same. 2,820,382, 1-21-58, Cl. 81-54.
- Smith, Curtis W., to Shell Development Co. Production of esters of hydroxy compounds. 2,820,813, 1-21-58, Cl. 260-405.4.
- Smith, Frank B., to United States Rubber Co. Method of dispersing carbon black in bulk rubber. 2,820,836, 1-21-58, Cl. 260-763.
- Smith, Frank B., to United States Rubber Co. Method of dispersing carbon black in bulk rubber. 2,820,837, 1-21-58, Cl. 260-763.
- Smith, Frank B., to United States Rubber Co. Method of dispersing carbon black in bulk rubber. 2,820,838, 1-21-58, Cl. 260-763.
- Smith, Harry J. Quick change trolley. 2,820,428, 1-21-58, Cl. 115-18.
- Smith, Lester L. Louver type ventilator. 2,820,407, 1-21-58, Cl. 98-121.
- Smith, Mortimer P., to North American Aviation, Inc. Engine trailer steering means. 2,820,644, 1-21-58, Cl. 280-103.
- Smith, Paul H. Electronic computer contact and process of making same. 2,820,871, 1-21-58, Cl. 201-48.
- Smith, Ralph C.: See—
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- Smith, Sidney R., Jr., to General Electric Co. Enclosed cut-off having a load break device. 2,820,867, 1-21-58, Cl. 200-114.
- Sneed, James K., to E. I. du Pont de Nemours and Co. Textile treatment. 2,820,724, 1-21-58, Cl. 117-139.5.
- Snyder, Glenn M., to Landis Tool Co. Locator. 2,820,332, 1-21-58, Cl. 31-105.
- Snyder, Roland S. Portable lectern. 2,820,688, 1-21-58, Cl. 312-282.
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- Randall, David I., and Solonen. 2,820,787.
- Soref, Harry E., and D. J. Foote, to Master Lock Co. Lock shell and plug assembly. 2,820,360, 1-21-58, Cl. 70-307.
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- Spakman, Geert, to North American Philips Co., Inc. Tuning device for use in radio receivers having push-buttons. 2,820,366, 1-21-58, Cl. 74-10.33.
- Spangler, James O. Warning alarm system. 2,820,892, 1-21-58, Cl. 250-20.
- Spannagel, Dorothy J. Elbow patch. 2,820,225, 1-21-58, Cl. 2-122.
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- Standard Oil Co. (Ohio), The: See—
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- Stelzer, William. Booster brake mechanism. 2,820,345, 1-21-58, Cl. 60-54.6.
- Stephens, James R., and L. Rapoport, to American Cyanamid Co. Process of hydrolyzing cyanoethylated cotton textiles with alkaline hydrogen peroxide and acidic hydrolysis. 2,820,697, 1-21-58, Cl. 8-129.
- Stevens, Calvin L., to Parke, Davis & Co. Process for producing amides. 2,820,781, 1-21-58, Cl. 260-112.
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- Sullivan, Bernard G., and L. H. Turner, to General Motors Corp. Jet assembly for pumps. 2,820,418, 1-21-58, Cl. 103-260.
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33-104: 2,820,293	47: 2,820,382	41.66: 2,820,744	431: 2,820,532	431: 2,820,532	2,820,961
107: 2,820,295	82: 2,820,383	41.66: 2,820,745	431: 2,820,533	431: 2,820,533	2,820,962
137: 2,820,296	81-52.4: 2,820,384	41.66: 2,820,746	431: 2,820,534	431: 2,820,534	2,820,963
148: 2,820,297	54: 2,820,385	41.66: 2,820,747	431: 2,820,535	431: 2,820,535	2,820,964
149: 2,820,298	64: 2,820,386	41.66: 2,820,748	431: 2,820,536	431: 2,820,536	2,820,965
163: 2,820,299	69: 2,820,387	41.66: 2,820,749	431: 2,820,537	431: 2,820,537	2,820,966
174: 2,820,300		41.66: 2,820,750	431: 2,820,538	431: 2,820,538	2,820,967

CLASSIFICATION OF PATENTS

257- 250: 2,820,616	260-347.7: 2,820,800	260-683.3: 2,820,834	280- 150: 2,820,648	308- 91: 2,820,679	318- 29: 2,820,935
262.18: 2,820,617	404: 2,820,801	683.51: 2,820,835	478: 2,820,649	156: 2,820,680	30: 2,820,936
259- 104: 2,820,618	404.8: 2,820,802	763: 2,820,836	285- 184: 2,820,650	180: 2,820,681	300: 2,820,937
107: 2,820,619	412.5: 2,820,803	2,820,837	151: 2,820,651	310- 9.1: 2,820,911	224: 2,820,938
260- 2.3: 2,820,770	412.6: 2,820,804	2,820,838	286- 9: 2,820,652	26: 2,820,912	300: 2,820,939
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33.8: 2,820,772	448.8: 2,820,806	263 7: 2,820,621	26: 2,820,654	43: 2,820,914	18: 2,820,941
45.5: 2,820,773	455: 2,820,807	21: 2,820,622	287- 53: 2,820,655	108: 2,820,915	68: 2,820,942
45.75: 2,820,774	456: 2,820,808	33: 2,820,623	54: 2,820,656	311- 61: 2,820,682	323- 89: 2,820,943
45.95: 2,820,775	463: 2,820,809	265- 27: 2,820,624	103: 2,820,657	312- 31.1: 2,820,683	324- 5: 2,820,944
87.7: 2,820,776	2,820,810	267- 1: 2,820,625	2,820,658	140.3: 2,820,684	33: 2,820,945
89.7: 2,820,777	465: 2,820,811	268- 63: 2,820,627	292- 262: 2,820,659	207: 2,820,685	2,820,946
94.3: 2,820,778	465.3: 2,820,812	125: 2,820,628	327: 2,820,660	282: 2,820,686	72: 2,820,947
94.9: 2,820,779	465.4: 2,820,813	270- 54: 2,820,629	294- 78: 2,820,661	350: 2,820,687	150: 2,820,948
112: 2,820,780	471: 2,820,814	79: 2,820,630	2,820,662	313- 84: 2,820,917	332- 47: 2,820,949
145: 2,820,782	485: 2,820,815	86: 2,820,631	106: 2,820,663	107.5: 2,820,916	333- 28: 2,820,950
148: 2,820,783	487: 2,820,816	271- 18: 2,820,632	111: 2,820,664	108: 2,820,918	81: 2,820,951
151: 2,820,784	490: 2,820,817	76: 2,820,633	296- 1: 2,820,665	261: 2,820,919	2,820,952
153: 2,820,785	513: 2,820,818	1: 2,820,635	23: 2,820,666	344: 2,820,920	336- 45: 2,820,953
154: 2,820,786	525: 2,820,819	272- 43: 2,820,636	24: 2,820,667	315- 9: 2,820,921	131: 2,820,954
193: 2,820,787	530: 2,820,820	273- 106.5: 2,820,634	69: 2,820,668	27: 2,820,922	340- 35: 2,820,955
231: 2,820,788	534: 2,820,822	164: 2,820,637	299- 28.7: 2,820,670	39.3: 2,820,923	174: 2,820,956
259.1: 2,820,789	541: 2,820,823	274- 1: 2,820,638	83: 2,820,671	39.53: 2,820,924	220: 2,820,957
274: 2,820,790	559: 2,820,824	279- 41: 2,820,640	86: 2,820,672	83: 2,820,925	234: 2,820,958
290: 2,820,791	566: 2,820,825	106: 2,820,641	107.6: 2,820,673	157: 2,820,926	282: 2,820,959
304.7: 2,820,792	570.6: 2,820,827	29: 2,820,642	114: 2,820,674	49: 2,820,927	398: 2,820,960
306.8: 2,820,793	571: 2,820,828	34: 2,820,643	141: 2,820,675	198: 2,820,928	343- 15: 2,820,961
2,820,794	576: 2,820,829	103: 2,820,644	144: 2,820,676	234: 2,820,929	105: 2,820,962
2,820,795	606.5: 2,820,830	106: 2,820,645	19: 2,820,677	246: 2,820,930	120: 2,820,963
314.5: 2,820,796	609: 2,820,831	112: 2,820,646	303- 2: 2,820,678	240: 2,820,931	706: 2,820,964
326: 2,820,797	610: 2,820,832	124: 2,820,647	307- 106: 2,820,909	240: 2,820,933	766: 2,820,965
326.5: 2,820,798	676: 2,820,833		150: 2,820,910	260: 2,820,934	346- 74: 2,820,988
327: 2,820,799					140: 2,820,989

CLASSIFICATION OF DESIGNS

D 6- 2: Des. 181,934	D15- 1: Des. 181,933	D21- 6: Des. 181,938	D26- 13: Des. 181,924	D58- 8: Des. 181,919	D74- 17: Des. 181,951
D14- 3: Des. 181,925	Des. 181,945	Des. 181,939	14: Des. 181,927	17: Des. 181,947	D80- 5: Des. 181,921
6: Des. 181,926	Des. 181,946	D22- 3: Des. 181,941	D34- 15: Des. 181,931	Des. 181,948	D89- 1: Des. 181,935
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Des. 181,944	11: Des. 181,932	6: Des. 181,930	D52- 1: Des. 181,922	D72- 1: Des. 181,929	D90- 20: Des. 181,940
D15- 1: Des. 181,928	D21- 6: Des. 181,937	D22- 1: Des. 181,940	D58- 8: Des. 181,918		

TRADEMARKS
NOTICES

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

Orion A. Potts (Alice A. MacRitchie, assignee substituted),
Youngstown, Ohio, Reg. No. 378,641, Canc. No. 7005.
Pure Rock Mineral Springs Corporation, Ellenville, N. Y.,
Reg. No. 372,028, Canc. No. 7015.
International Glass Fibres Corporation, Baltimore, Md., Reg.
No. 374,255, Canc. No. 7016.
Colortek, Inc., New York, N. Y., Reg. No. 390,129, Canc.
No. 7020.

MAURICE A. CREWS,
Assistant Commissioner of Patents.

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of applications awaiting action (excluding renewals and Sec. 12 (c))..... 10,934
Date of oldest new application..... Apr. 17, 1957
Date of oldest amended application..... May 1, 1957

J. H. MERCHANT, Director, Trademark Examining Operation TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION	Oldest Application	
	New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation		
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50.....	4-17-57	5-13-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B.....	6-10-57	8-20-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks (Goods) Class A.....	5-16-57	5-1-57
Renewals (All Classes).....	10-28-57	11-26-57
Sec. 12 (c) Publications (All Classes).....	10-17-57	11-22-57

Applications Filed During the Month of November 1957—1,672

Registrations Issued..... 278—No. 657,304 to No. 657,581
Renewals Issued..... 67

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent
of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all
communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 22,975. The Societa Anonima Snta Viscosa, Societa Nazionale Industria Applicazioni Viscosa, Milan, Italy. Filed Jan. 22, 1957.

NOVATEX

Owner of Italian Reg. No. 91,633, dated Sept. 19, 1949.
For Mixed Artificial Short Staple Fibers.

Class 2—Receptacles

SN 4,699. Ekco Products Company, Chicago, Ill. Filed Mar. 16, 1956. Sec. 2(f) as to "McClintock."



For Base Metal Platters, Pans, Trays, Lugs, and Containers for Handling, Shipping, Storing and Displaying Meats, Produce and Other Products, and Racks for Such Receptacles.
First use on or about Nov. 25, 1954; on or about Dec. 1, 1947, as to "McClintock."

SN 31,648. Fashioncraft Products, Brooklyn, N. Y. Filed June 10, 1957.

TRAV-ALL

For Heat Insulated Bags.
First use in February 1954.

SN 31,847. Max Klein, Inc., Oak Park, Mich. Filed June 12, 1957.

ROSEWARE

For Plastic Flower Planters or Flower Pots.
First use Jan. 10, 1957.

SN 32,105. Marathon Corporation, Menasha, Wis. Filed June 17, 1957.

VELMAR

For Paper Drinking Cups.
First use May 29, 1957.

Class 6—Chemicals and Chemical Compositions

SN 3,495. The Welty Company, Chicago, Ill. Filed Feb. 27, 1956. Sec. 2(f).

OFF-E-ZEE

Owner of Reg. No. 421,905.
For Solvent for Enabling Removal of Adhesive Tape Affixed to Human Skin Areas Substantially Without Pain.
First use on or about Jan. 1, 1920.

TM 80

SN 19,648. Clean Home Products, Incorporated, St. Louis, Mo. Filed Nov. 21, 1956.

APEX DIDY-PAL

Owner of Reg. Nos. 276,630, 311,251, and 311,396.
For Deodorant Compositions for Use in Diaper Pails and Toilet Bowls.
First use Oct. 23, 1956.

SN 20,430. Mississippi Lime Company, Alton, Ill. Filed Nov. 15, 1956.



Applicant makes no claim to the words "Brand Hydrate" apart from the mark as shown.
For Lime as Used for Chemical Purposes.
First use prior to Oct. 23, 1947.

SN 24,119. The Carwin Company, North Haven, Conn. Filed Feb. 11, 1957.

PAPI

For Polyisocyanates (Useful in Coating Applications for Bonding Rubber and Other Elastomers to Cloth, as an Adhesive Adhering Rubber to Tire Cord and to Metal, and as an Ingredient in Foams and Resins for Improving the Properties of Such Foams and Resins).
First use Aug. 16, 1956.

SN 32,914. Colorprint Laboratories Inc., New York, N. Y. Filed July 1, 1957.

CORRECT-A-CHROME

For Dyes for the Color Compensation of Color Transparencies or the Like.
First use May 20, 1957.

JANUARY 21, 1958

U. S. PATENT OFFICE

TM 81

Class 10—Fertilizers

SN 17,049. American Cyanamid Company, New York, N. Y. Filed Nov. 5, 1957.

TREBO-PHOS

For Triple Superphosphate for Use as a Fertilizer.
First use Sept. 12, 1956.

SN 33,224. Faesy & Besthoff, Inc., New York, N. Y. Filed July 5, 1957.



For Soluble Fertilizer, Pure Steamed Bone Meal, Pelletized Fertilizer, Sulphate of Ammonia, Superphosphate, Rose Food, Broadleaf High Organic, Nitrate of Soda, and Muriate of Potash, for Use as Fertilizers.
First use 1950.
Subj. to Intf. with SN 28,625.

Class 12—Construction Materials

SN 11,482. Hill & Co., Tulsa, Okla. Filed July 3, 1956.



Applicant disclaims the representation of the goods apart from the mark as shown.
For Weatherstrip.
First use Nov. 11, 1955.

SN 21,541. Hagan Mfg. Company, Delphos, Ohio. Filed Dec. 24, 1956.



No claim is made to the words "Hagan Mfg. Company—Delphos, Ohio" apart from the mark.
For Treated Cellulose Fibers Used as Fill Type Building Insulation.
First use Oct. 22, 1956.

SN 21,742. Selinsgrove Block Company, Selinsgrove, Pa. Filed Dec. 27, 1956.

SWIRL-STONE

For Concrete Paving Blocks.
First use Oct. 3, 1955.

SN 23,970. American Encaustic Tiling Company, Incorporated, Lansdale, Pa. Filed Feb. 7, 1957.

TILE GEMS

No claim is made to the word "Tile" apart from the mark as shown.
For Glazed Ceramic Tile.
First use Jan. 10, 1957.

SN 26,436. American-Marietta Company, Chicago, Ill. Filed Mar. 19, 1957.

HI-HED

For Concrete Pipe.
First use Feb. 7, 1957.

SN 27,253. AA Wire Products Company, Chicago, Ill. Filed Apr. 1, 1957.

ECONO-LOK

For Masonry Reinforcing Wall Bonds.
First use Mar. 28, 1956.

SN 27,256. AA Wire Products Company, Chicago, Ill. Filed Apr. 1, 1957.

BLOK-LOK

For Masonry Reinforcing Wall Bonds.
First use in January 1951.

SN 27,257. AA Wire Products Company, Chicago, Ill. Filed Apr. 1, 1957.

ECONO CAVITY-LOK

For Masonry Reinforcing Wall Bonds.
First use Apr. 5, 1956.

SN 27,258. AA Wire Products Company, Chicago, Ill. Filed Apr. 1, 1957.

CAVITY-LOK

For Masonry Reinforcing Wall Bonds.
First use Aug. 22, 1955.

SN 29,272. Colorcrete Industries, Inc., Holland, Mich. Filed May 2, 1957.

GARDENCRETE

For Cementitious Construction Materials Such as, Blocks, Bricks, and Molded Cementitious Bodies of Various Shapes, for Constructing Garden Accessories and Furniture; Such as, Flower Boxes, Vases, Urns, Bird Baths, Seats, Walks, and Walls.
First use Mar. 25, 1957.

SN 29,544. National Gypsum Company, Buffalo, N. Y. Filed May 7, 1957.

TRI-DEK

For Insulation Roof Deck Slab With Ceiling Finish Suitable for Interior Use.
First use about Oct. 18, 1956.

SN 32,966. M. P. H. Manufacturing Corporation, Inc., Chicago, Ill. Filed July 1, 1957.

SKIN

For Sheet Metal Structural Members for Prefabricated Buildings.
First use July 2, 1956.

Class 16—Protective and Decorative Coatings

SN 24,312. American-Marietta Company, Chicago, Ill. Filed Feb. 13, 1957.

SAFE-T-GLO

For Reflective Paints.
First use Jan. 18, 1957.

SN 24,925. Cartoon Colour Company, Culver City, Calif. Filed Feb. 25, 1957.



The hatching represents any color other than black.
For Paints for Plastic Surfaces.
First use Apr. 6, 1949.

SN 33,181. U B S Chemical Corporation, Cambridge, Mass. Filed July 3, 1957.

CHAROLITE

For Synthetic Composition for Producing a Protective and Decorative Coating on Leather and the Like Sheet Materials.
First use May 31, 1957.

SN 34,276. American-Marietta Company, Chicago, Ill. Filed July 24, 1957.

AMREV

For Lacquers.
First use on or about July 3, 1957.

SN 34,327. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed July 24, 1957.

Olde Mill

For Paints, Paint Primers, Paint Enamels, Stains, Varnishes, Asphalt Products, and Paint Colors.
First use February 1957.

Class 17—Tobacco Products

SN 4,369. Aaron Rothchild, New York, N. Y. Filed Mar. 12, 1956.



The word "Habana" is disclaimed apart from the mark shown. Owner of Reg. Nos. 426,867 and 442,820.
For Cigars.
First use Feb. 19, 1953.

Class 18—Medicines and Pharmaceutical Preparations

SN 8,261. Pretested Products Limited, London, England. Filed May 14, 1956.

MILLENIUM

Owner of British Reg. No. 748,269, dated Nov. 21, 1955.
For Medicines and Pharmaceutical Substances for Internal Human Use and for Use by Injection—Namely, Hypnotics, Tranquillizers, and Sedatives.

SN 15,927. Whorton Pharmacal Company, Gadsden, Ala. Filed Sept. 18, 1956. Sec. 2(f).

WHORTON'S

For Skin Ointments and Analgesics Which Promote Healing of Cuts, Scratches, and Abrasions of the Skin and Intestinal Antiseptics, General Antiseptics, and Germicides for Personal Use.
First use about 1912.

SN 22,089. Carter Products, Inc., New York, N. Y. Filed Jan. 4, 1957.

MEPROBEN

For Sedative To Relieve Tension, Nervousness, Headaches, Fatigue, Depression, and Sleeplessness.
First use Oct. 5, 1956.

SN 22,674. Emile Gerschenson, d. b. a. Alva Laboratories, Chicago, Ill. Filed Jan. 16, 1957.

SLUMBRON

For Drug Preparation for the Relief of Insomnia.
First use Mar. 2, 1954.

SN 22,880. Ciba Pharmaceutical Products Inc., Summit, N. J. Filed Jan. 22, 1957.

SISTOCYLIN

For Hormone Preparation.
First use Jan. 17, 1956.

SN 26,296. Remedis, Inc., New York, N. Y. Filed Mar. 15, 1957.

Tensionil

For Medicinal and Pharmaceutical Preparations Indicated in and for the Relief of the Symptomatic Manifestations of Neurasthenia, Nervous Tension, and Related Psychoneurotic Conditions.
First use Feb. 1, 1957.

SN 27,636. The Skentrole Company, Albany, Ga. Filed Apr. 5, 1957.

SKENTROLE

For Medicated Skin Lotion for the Treatment of Acne and Pimples.
First use Feb. 5, 1957.

SN 29,744. Parke, Davis & Company, Detroit, Mich. Filed May 9, 1957.

MYCORT

For Antibiotic Ointment.
First use Mar. 28, 1957.

SN 29,941. P-M Laboratories, Inc., Hampton, Iowa. Filed May 13, 1957.

Teen Clear

For Preparation in Lotion and Gel Form as an Antiseptic for Pimples and Acne.
First use Mar. 1, 1957.

SN 30,141. Amos R. Beamon, d. b. a. Kombu Co., Los Angeles, Calif. Filed May 16, 1957.

KOMBU

For Dietary Food Supplement Containing Vitamins, Minerals, and Other Ingredients.
First use Feb. 1, 1956.

SN 32,425. Sterling Drug Inc., New York, N. Y. Filed June 21, 1957.

DILCORON

For Vasodilator Preparation for the Prevention and Treatment of Angina Pectoris.
First use June 7, 1957.

SN 32,624. Organon Inc., Orange, N. J. Filed June 25, 1957. Owner of Reg. No. 547,244.

STENISONE

For Medicinal Hormone Preparation.
First use May 8, 1957.

SN 33,062. Darro Pharmacal Company, Inc., Long Island City, N. Y. Filed July 2, 1957.

MORFEO

For Sleeping Tablets.
First use May 1, 1957.

SN 33,264. Merck & Co., Inc., Rahway, N. J. Filed July 5, 1957.

DARANIDE

For Diuretic.
First use June 19, 1957.

SN 33,337. Norman Dartell, d. b. a. Dartell Laboratories, Los Angeles, Calif. Filed July 8, 1957.

DARFERRIN

For Iron-Iron Chelate Complex Concentrate for Use as a Hematinic in Iron Deficiencies and as a Dietary Food Supplement.
First use June 20, 1957.

SN 34,166. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 22, 1957.

BIENMYCIN

For Antibiotic Preparation.
First use Feb. 26, 1957.

SN 34,254. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 23, 1957.

COMBIRAX

For Antacid-Anticholinergic Preparation.
First use Mar. 27, 1957.

SN 34,261. Smith Kline & French Laboratories, Philadelphia, Pa. Filed July 23, 1957.

VI-SORBIN

For Vitamin-Hematinic Preparation.
First use Apr. 25, 1957.

SN 34,302. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 24, 1957.

REABAN

For Gastro-Intestinal Preparation.
First use June 13, 1957.

TM 726 O. G.—9

SN 34,386. Walker Laboratories, Inc., Mount Vernon, N. Y. Filed July 25, 1957.

CALCETS

For Pharmaceutical Preparation for a Dietary Calcium Supplement.
First use Feb. 21, 1957.

SN 34,724. R. J. Moran Co., Boston, Mass. Filed July 31, 1957.

CIPRIAL

For Medicinal Preparation Useful as a Hypnotic and Sedative for Nervousness and Sleeplessness.
First use on or about June 12, 1957.

SN 34,970. Merck & Co., Inc., Rahway, N. J. Filed Aug. 5, 1957.

PENTASPRAY

For Medicinal Preparation for Use in the Treatment of Diseases of the Upper Respiratory Tract.
First use July 15, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 21,106. American Stair-Glide Corporation, Kansas City, Mo. Filed Dec. 17, 1956.

STAIR-RIDE

For Electrically Actuated Stairway Elevators.
First use Dec. 12, 1956.

SN 21,643. Nucleonic Products Company, Inc., Los Angeles, Calif. Filed Dec. 26, 1956.

RESISTA

For Resistors.
First use Aug. 1, 1956.

SN 28,673. Yardney Electric Corporation, New York, N. Y. Filed Apr. 22, 1957.

SILCAD

For Electric Batteries.
First use July 22, 1955.

SN 29,537. The James Knights Company, Sandwich, Ill. Filed May 7, 1957.

THERMYSTAL

For Piezoelectric Crystals.
First use Apr. 1, 1955.

Class 22—Games, Toys, and Sporting Goods

SN 24,958. Harry Ganger, d. b. a. Chummy-Sinker Co., Atlantic City, N. J. Filed Feb. 25, 1957.

CHUMMY

For Fishing Sinkers.
First use Feb. 15, 1957.

SN 29,095. Protection Equipment Co., Sunbury, Pa. Filed Apr. 29, 1957.

PEC-10

For Protective Equipment for Athletes—Namely, Shoulder Pads, Hip Pads, Rib Pads, Knee Pads, Thigh Guards, Injury Pads, Shin Guards, Leg Guards, and Life Vests.
First use May 15, 1956.

SN 31,242. Murrell Laboratories, Inc., Norman, Okla. Filed June 3, 1957.

YAK-YAK

For Action Toy Consisting of 2 Balls Each on a String Which String Is Joined by Glue Into a Small Handle.
First use Apr. 8, 1957.

SN 31,856. Thomas W. Messick, d. b. a. T-Gard, Mattoon, Ill. Filed June 12, 1957.

T-GARD

For Fishing Tackle—Namely, Fish-Hook Guards.
First use on or about Feb. 28, 1957.

SN 31,857. Thomas W. Messick, d. b. a. T-Gard, Mattoon, Ill. Filed June 12, 1957.



For Fishing Tackle—Namely, Fish-Hook Guards.
First use on or about Feb. 28, 1957.

SN 32,513. Mattel, Incorporated, Los Angeles, Calif. Filed June 24, 1957.

THUNDERBURP

For Toy Guns.
First use Jan. 4, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 20,529. Harbison-Fischer Manufacturing Co., Inc., d. b. a. Harbison-Fischer Mfg. Co., Fort Worth, Tex. Filed Dec. 6, 1956.

DUMORE

For Valve Balls and Seats for Oil Well and Water Well Pumps.
First use June 7, 1954.

SN 22,739. Clark Equipment Company, Buchanan, Mich. Filed Jan. 17, 1957. Sec. 2(f).

CLARK-ROSS

Owner of Reg. Nos. 595,904, 596,737, and others.
For Straddle Carriers.
First use Sept. 24, 1955.

SN 24,715. Nilos G. m. b. H., Foerderband-Anrueistung, Dusseldorf, Germany. Filed Feb. 19, 1957.

NILOS

Owner of German Reg. No. 623,041, dated July 8, 1952.
For Tools, Articles and Machines for the Production of Conveyor and Belt Connections, for the Squeezing-In of Connector Bands and for the Position Change of Conveyor Bands; Measuring Tapes, Measuring Needles, Measuring Marks, Punches for Steel Transport Bands; Punches for Steel Conveyor Bands, Devices for the Production and the Safe-Guarding of Hose Connections, Tube Applying Means.

SN 26,317. Automotive Specialties Co., Inc., Los Angeles, Calif. Filed Mar. 18, 1957.



For Lead-Applying Gun.
First use Jan. 26, 1957.

SN 27,426. L. G. Evans & Company, Chicago, Ill. Filed Apr. 3, 1957.

EVCO

For Metal Working and Woodworking Machines, Potters Wheels, Dust Collectors, Vises, and Work Benches.
First use Oct. 10, 1954.

SN 27,666. Borg-Warner Corporation, Chicago, Ill. Filed Apr. 8, 1957.

BYRON JACKSON

Owner of Reg. No. 378,463.
For Pumps and Parts Thereof.
First use in or about the year 1890.

SN 28,954. Minipump Corp., Phoenix, Ariz. Filed Apr. 26, 1957.

MINIPUMP

For Rinse Injector.
First use Nov. 1, 1955.

SN 33,016. Western Auto Supply Company, Kansas City, Mo. Filed July 1, 1957.

WIZARD

Owner of Reg. No. 518,329.
For Sewing Machines.
First use June 14, 1957.

SN 33,514. Whitso, Inc., Schiller Park, Ill. Filed July 10, 1957.

FREELoader

For Automatic Parts Positioning Machines.
First use Jan. 4, 1957.

SN 33,706. Graham Transmissions, Inc., Menomonee Falls, Wis. Filed July 15, 1957.

DRY TRAC

For Variable Speed Transmissions.
First use Nov. 30, 1956.

SN 35,412. Eddie S. Tubin, Los Angeles, Calif. Filed Aug. 5, 1957.

Oil-Pen

For Oiling Tools.
First use Dec. 25, 1956.

Class 26—Measuring and Scientific Appliances

SN 9,208. VEB Kamera-Werke Niedersiedlitz, Dresden, Germany, to Standard Camera Corporation, New York, N. Y. Filed May 28, 1956.

PRAKTIFLEX

Assignee owner of Reg. No. 535,929.
For Photographic Cameras.
First use during 1939; in commerce during 1939.

SN 17,684. Zeiss Ikon Aktiengesellschaft, Stuttgart, Germany. Filed Oct. 17, 1956.

FAVORIT

Owner of German Reg. No. 87,858, dated May 19, 1906.
For Cameras and Tripods.

SN 18,611. Aerial Products, Inc., Elkton, Md. Filed Nov. 2, 1956.

FLUORIDATOR

For Apparatus for Adding Measured Amounts of Chemicals to Water.
First use Oct. 9, 1956.

SN 19,863. Burr W. Bement, d. b. a. The Redding Company, Cortland, N. Y. Filed Nov. 26, 1956.

REDDING

For Powder and Bullet Scales, Powder Measures, Telescopic Shot Gun Sights.
First use Feb. 11, 1954.

SN 26,149. American Photocopy Equipment Company, Chicago, Ill. Filed Mar. 14, 1957.

EJECT-O-MATIC

For Light-Tight Paper Container for Holding and Feeding Sheets of Photosensitive Paper.
First use Mar. 5, 1957.

SN 27,748. Ivan Sorvall, Inc., Norwalk, Conn. Filed Apr. 8, 1957.

SERVALL

Owner of Reg. No. 547,590.
For Microtomes, Motor Driven Laboratory Mixers and Hand Pipettes and Motor Driven Pipettes.
First use Apr. 7, 1952, on motor driven laboratory mixers.

SN 30,085. F. Ward Harman, d. b. a. F. Ward Harman Associates, Halesite, N. Y. Filed May 15, 1957.

TEMP RINTS

For Grids and Two-Dimensional Templates for Application Thereto To Produce Prints of Plant Layouts and the Like.
First use Nov. 14, 1952.

SN 30,185. Ing. C. Olivetti & C., S. p. A., Ivrea, Italy. Filed May 16, 1957.

TETRACTYS

For Calculating Machines and Parts Thereof.
First use Apr. 12, 1956; in commerce in August 1956.

SN 30,308. Coventry Gauge & Tool Company Limited, Coventry, England. Filed May 20, 1957.

CROMATRIX

Owner of British Reg. No. 745,359, dated Aug. 20, 1955.
For Gauges; and Apparatus for Measuring or Testing Dimensions, Shapes, or Angles.

SN 30,433. Legois Manufacturing Company, Sturtevant, Wis. Filed May 21, 1957.

MIRACLE POINT

For Center Locators for Shafts and Level Indicators.
First use on or about May 28, 1955.

Class 31—Filters and Refrigerators

SN 24,654. Ivar Wallquist, d. b. a. Wallquist & Co., Karlstad, Sweden. Filed Feb. 18, 1957.

WACO

Owner of Swedish Reg. No. 68,809, dated Sept. 29, 1950.
For Rotary Filters for the Purification of Liquids.

SN 28,964. H. D. Sheldon and Co., Inc., New York, N. Y. Filed Apr. 26, 1957.



For Refrigerators, Freezers, and Refrigeration Equipment.
First use Feb. 4, 1957.

SN 32,368. Balfour, Guthrie & Co., Limited, New York, N. Y. Filed June 21, 1957.

BALCO

Owner of Reg. No. 164,415.
For Refrigerators.
First use Apr. 5, 1957.

SN 33,750. Riegel Paper Corporation, New York, N. Y. Filed July 15, 1957.

POR-AN-SOFT

For Filter Paper.
First use on or about June 22, 1955.

SN 34,154. The Marley Company, Kansas City, Mo. Filed July 22, 1957.

HERRINGBONE ELIMINATOR

For Liquid Cooling Towers and Parts Thereof.
First use July 1, 1957.

SN 37,119. Air-Maze Corporation, Cleveland, Ohio. Filed Sept. 13, 1957.

MUFFL-MAZE

For Filter-Silencers.
First use on or about Aug. 1, 1957.

Class 32—Furniture and Upholstery

SN 18,296. Blanco Manufacturing Company, St. Louis, Mo. Filed Oct. 29, 1956.

CRUMB STRIP

For Booths and Settees, for Use in Commercial Establishments Such as Restaurants, Refreshment Stands and the Like, and Dinette Booths for Use in Homes.
First use in April 1956.

SN 30,640. Devoe & Reynolds Company, Inc., Louisville, Ky. Filed May 24, 1957.

PAINT MART

For Color Chip Display Racks.
First use at least as early as March 1954.

SN 30,641. Devoe & Reynolds Company, Inc., Louisville, Ky. Filed May 24, 1957.

PAINT-O-RAMA

For Color Chip Display Racks.
First use at least as early as March 1954.

SN 36,618. Perfection Mfg. Corp., Mansfield, Ohio. Filed Sept. 3, 1957.

LAZY SNOOZAN

For Sofas, Unibeds (a Bed Having a Unitary Mattress and Spring Unit), Bunk Beds, Twin Beds, and Beds.
First use on or about July 1, 1957.

SN 36,736. Plastic Tops, Inc., Detroit, Mich. Filed Sept. 5, 1957.

Trimtops!

For Post-Formed Kitchen Counter Tops and Bathroom Vanity Counter Tops.
First use Apr. 15, 1957.

Class 36—Musical Instruments and Supplies

SN 16,206. French American Reeds Manufacturing Co., Inc., New York, N. Y. Filed Sept. 24, 1956.

CHORD MASTER

Owner of Reg. No. 613,589.
For Mechanical Attachments for Mounting on Stringed Musical Instruments for Playing Such Instruments.
First use on or about Dec. 21, 1950.

SN 21,265. Howard M. Lockie and Herman J. Snyder, d. b. a. Lockie Music Exchange, Los Angeles, Calif. Filed Dec. 18, 1956.



For Musical Instruments Imported From Abroad—Namely, Tubas, French Horns, Baritones, Trombones, Trumpets, Alto Horns, Flugel Horns, Coach Horns, Saxophones, Clarinets, Bassoons, Flutes, Oboes, Drums, and Percussion Instruments of All Types.
First use June 1, 1953.

SN 29,150. Carl Fischer Musical Instrument Co., Inc., New York, N. Y. Filed Apr. 30, 1957. Sec. 2(f).



Owner of Reg. No. 250,862.
For Reed and Brass Musical Instruments.
First use about the year 1931.

SN 29,151. Carl Fischer Musical Instrument Co., Inc., New York, N. Y. Filed Apr. 30, 1957. Sec. 2(f).



Owner of Reg. No. 250,862.
For Reed and Brass Musical Instruments.
First use about the year 1931.

Class 37—Paper and Stationery

SN 14,697. Sitrue Incorporated, New York, N. Y. Filed Aug. 27, 1956.

WIZARD

For Paper Towels.
First use Apr. 17, 1956.

SN 28,963. The Sawdon Company, Inc., New York, N. Y., to Victor J. Sawdon, New York, N. Y. Filed Apr. 26, 1957.

CARD-VELOPE

For Combination Card and Mailing Envelope.
First use Apr. 3, 1957.

SN 29,228. National Blank Book Company, Riverside, Holyoke, Mass. Filed May 1, 1957.

"500"

For Shorthand Notebooks.
First use Oct. 12, 1956.

SN 29,802. Rex D. Howard, d. b. a. Rex Howard Co., Las Vegas, Nev. Filed May 10, 1957.

"REXPAL"

For Clipboards.
First use Oct. 17, 1949.

Class 38—Prints and Publications

SN 23,596. American Mail Advertising Incorporated, Boston, Mass. Filed Feb. 1, 1957.

PEEK-O-MAIL

For Syndicated Direct Mail Advertising Pieces Contained in Envelopes With Transparent Windows.
First use Aug. 1, 1956.

SN 29,543. National Catholic Welfare Conference, Washington, D. C. Filed May 7, 1957.

NEWMAN

For Magazine of Interest to the National Newman Club Federation.
First use Dec. 1, 1956.

SN 31,306. Business Scope, Cambridge, Mass. Filed June 4, 1957.

BUSINESS SCOPE

For Periodical Newsletter of Business.
First use May 4, 1957.

SN 31,507. Providence Journal Company, Providence, R. I. Filed June 6, 1957. Sec. 2(f).

THE RHODE ISLANDER

Owner of Reg. No. 431,536.
For Magazines.
First use May 31, 1946.

SN 31,556. General Features Corporation, New York, N. Y. Filed June 7, 1957.

HOW TO BE A SUCCESSFUL WIDOW

For Newspaper Feature Column.
First use May 26, 1957.

SN 31,562. The Hall Syndicate, Inc., New York, N. Y. Filed June 7, 1957.

FAMOUS LAST WORDS

For Comic Drawings of a Fictitious Character, Published in Daily Newspapers.
First use June 11, 1956.

SN 31,626. Battenfeld Grease & Oil Corp., Kansas City, Mo. Filed June 10, 1957.

TECHNI-LETTER

For Bulletins Published Periodically.
First use May 23, 1957.

SN 31,807. American Chemical Paint Company, Ambler, Pa. Filed June 12, 1957.

hormolog

For House Organ.
First use Apr. 29, 1957.

SN 31,946. Mildred R. Williams, d. b. a. Bunnle Williams Illustrations, Annandale, Va. Filed June 13, 1957.

MISSIE

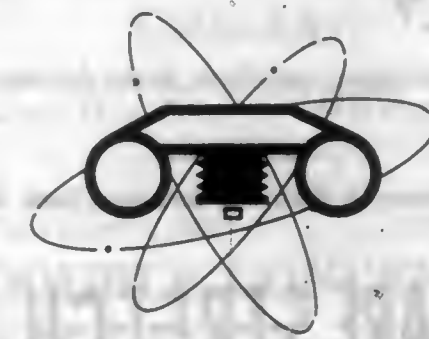
For Comic Strip.
First use Apr. 6, 1957.

SN 32,150. Union Oil Company of California, Los Angeles, Calif. Filed June 17, 1957.

SEVENTY-SIX

For Magazine.
First use June 3, 1957.

SN 32,196. Micro-Master, Inc., Kansas City, Mo. Filed June 18, 1957.



Owner of Reg. No. 609,909.
For Photographic Prints.
First use Oct. 11, 1954.

SN 32,207. The Oranges, Inc., Orange, N. J. Filed June 18, 1957.

SUBURBAN LIFE

For Magazine Published Bi-Monthly.
First use May 7, 1950.

SN 32,312. Henry Allan Hartley, Morristown, N. J. Filed June 20, 1957.

SUBURBIA

For Cartoons.
First use May 30, 1957.

SN 32,317. Humbug Publishing Co., Inc., New York, N. Y. Filed June 20, 1957.

HUMBUG

For Monthly Magazine.
First use May 10, 1957.

Class 39—Clothing

SN 678,291. Universal Overall Company, Chicago, Ill. Filed Dec. 13, 1954.

UNIVERSAL

For Overalls, Coveralls, Shopcoats, Dungarees, Pants, and Jackets for Men, Women, Boys, Girls, and Children.
First use in 1925.

SN 686,296. Esquire Sportswear Co., New York, N. Y. Filed Apr. 26, 1955.

Acriflan

For Slacks Made of Synthetic and Other Fibers.
First use Jan. 28, 1955.

SN 691,593. Shelburne Shirt Co., Inc., New York, N. Y. Filed July 19, 1955. Sec. 2(f).

Shelburne

For Dress, Negligee, and Work Shirts for Men and Boys.
First use Mar. 9, 1928.

SN 1,474. Chester H. Roth Co., Inc., New York, N. Y. Filed Jan. 25, 1956.

BARE STRETCH

The word "Stretch" is disclaimed apart from the mark as shown.
For Hosiery.
First use Jan. 12, 1956.

SN 10,409. Dijon Lingerie Co., Inc., New York, N. Y. Filed June 18, 1956.

Dijon

For Lingerie—Namely, Ladies' Slips, Panties, and Nightgowns.
First use 1935.

SN 12,029. Eddie Jacobs, Ltd., Baltimore, Md. Filed July 12, 1956.

JAMAICA JEANS

No claim is made to the exclusive right to the use of the word "Jeans" apart from the mark as shown.
For Men's and Women's Sports Apparel—Namely, Trousers of Sailcloth.
First use May 19, 1956.

SN 16,444. The House of Perfection, Inc., New York, N. Y. Filed Sept. 26, 1956.

Judy Lynn

For Dresses.
First use Aug. 1, 1956.

SN 17,766. Società Accomandita Semplice Calzaturificio Vibelsport di Vibelli & C., Nerviano, Milan, Italy. Filed Oct. 18, 1956.

GUANTONE

Owner of Italian Reg. No. 133,098, dated Aug. 5, 1957.
For Shoes.

SN 19,340. Ware, Pratt Company, Worcester, Mass. Filed Nov. 15, 1956.

Burlington Club

For Men's and Boys' Suits, Outercoats, Sport Coats, and Trousers.
First use Sept. 1, 1928.

SN 21,061. France Neckwear Co., Inc., New York, N. Y. Filed Dec. 14, 1956.

Alessandro di Milano

For Neckties.
First use Dec. 5, 1955.

SN 23,136. The Fibre-Metal Products Company, Chester, Pa. Filed Jan. 24, 1957.

SUPERLITE

For Aluminum Safety Hats and Caps.
First use Jan. 2, 1957.

SN 25,740. Bennie & Henry Wiesen, Inc., New York, N. Y. Filed Mar. 7, 1957.

MISS VOGUE FASHION

For Ladies', Misses', and Junior Dresses, and Ensembles Consisting of Matched Three Piece Items—Namely, Waist, Jacket and Skirt, and/or Matched Two Piece Items, Consisting of Dresses and Jackets, Separates, Consisting of Waists and Skirts, Which Can Be Worn Separately; and Sport Dresses.
First use Jan. 10, 1957.

SN 26,238. The Bamberger-Reinthal Company, Cleveland, Ohio. Filed Mar. 15, 1957.

Ardleigh

For Ladies' Sweaters.
First use Feb. 27, 1957.

SN 26,725. Rose Marie Reid, Los Angeles, Calif. Filed Mar. 22, 1957.

"DARE-BACK"

For Women's Bathing Suits.
First use October 1956.

SN 27,515. Palisio, Inc., New York, N. Y. Filed Apr. 4, 1957.

DEFAZZIO

For Women's Shoes.
First use in 1949.

SN 28,476. F. W. Woolworth Co., New York, N. Y. Filed Apr. 18, 1957.

PATA-CAKE

For Diapers and Other Articles of Infants' Wear—Namely, Flannelette Kimonos and Gowns, Plastic Baby Pants, Infants' and Toddlers' Bouffant Slips, Infants' Nylon Dresses.
First use Jan. 16, 1957.

SN 28,803. Elias Saylor Co., Inc., New York, N. Y. Filed Apr. 24, 1957.

sayurban

For Women's, Misses', and Children's Housecoats, Dresses, Negligees, Blouses, and Bed Jackets.
First use Dec. 10, 1956.

SN 29,103. Irving H. Schmier, Flushing, N. Y. Filed Apr. 29, 1957.

Mr. Irving Originals

The word "Originals" is disclaimed apart from the mark as shown.
For Ladies' Hats.
First use on or about Nov. 25, 1955.

SN 29,125. Internationale Verbandstoff-Fabrik Schaffhausen, Schaffhausen, Switzerland. Filed Apr. 23, 1957.

THERMOSETA

Owner of Swiss Reg. No. 163,851, dated Dec. 19, 1956.
For Underwear for Men, Women, and Children.

SN 29,454. Juliet Sportswear Co., Inc., New York, N. Y. Filed May 6, 1957.

BRALLURE BY JULIET

For Bathing Suits.
First use Apr. 8, 1957.

SN 30,113. Audrey Scott, Inc., New York, N. Y. Filed May 15, 1957.

LITTLE

Audrey Scott

For Children's Blouses.
First use Apr. 1, 1957.

SN 30,834. Regal Knitwear Co., Inc., New York, N. Y. Filed May 27, 1957.

Regal

Owner of Reg. Nos. 188,058 and 539,838.
For Sweaters, Bathing Suits, and Swim Suits.
First use in January 1956.

SN 31,021. Miss America Brassiere Company, Inc., Chicago, Ill. Filed May 29, 1957.

MISS AMERICA

Owner of Reg. No. 224,499.
For Corsets, Brassieres, Girdles and Combination Garments Which Combine the Properties of Brassieres and Hip Girdles, Made of Textile Fabrics.
First use Feb. 16, 1926.

SN 32,029. The Woolenwear Co., Chicago, Ill. Filed June 14, 1957.

GRO-JAC

For Men's, Women's, and Children's Coats.
First use May 24, 1957.

SN 32,099. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed June 17, 1957.

DOUBLE CONCERTO

Owner of Reg. No. 385,699.
For Brassieres.
First use May 31, 1957.

SN 32,100. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed June 17, 1957.

PAVANNE

For Brassieres.
First use May 31, 1957.

SN 32,101. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed June 17, 1957.

SARABANDE

For Brassieres.
First use May 31, 1957.

SN 32,102. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed June 17, 1957.

TWICE-OVER

Owner of Reg. No. 384,683.
For Brassieres.
First use May 31, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 4,838. The Quiltex Company, New York, N. Y. Filed Mar. 19, 1956.



Owner of Reg. No. 330,732.
For Comforters, Blankets, Spreads, Pram Robes, Carriage Covers, Receiving Blankets, Combination Blankets and Quilts, and Sleeping Bags.
First use Dec. 4, 1939; Jan. 5, 1931, as to "Quiltex" on comforters and blankets.

SN 4,839. The Quiltex Company, New York, N. Y. Filed Mar. 19, 1956.

Quiltex

Owner of Reg. No. 330,732.
For Comforters, Blankets, Spreads, Pram Robes, Carriage Covers, Receiving Blankets, Combination Blankets and Quilts, and Sleeping Bags.
First use Jan. 5, 1931, on comforters and blankets.

SN 23,840. Sears, Roebuck and Co., Chicago, Ill. Filed Feb. 5, 1957.

WONDER BRAID

The word "Braid" is disclaimed apart from the mark as shown, for the purposes of this registration.
For Textile Rugs and Floor Coverings.
First use on or about Jan. 2, 1954.

SN 29,126. Internationale Verbandstoff-Fabrik Schaffhausen, Schaffhausen, Switzerland. Filed Apr. 23, 1957.

THERMOSETA

Owner of Swiss Reg. No. 163,851, dated Dec. 19, 1956.
For Textile Fabrics of Silk.

SN 30,219. Beacon Manufacturing Company, Swannanoa, N. C. Filed May 17, 1957.

SUPERWEAVE

For Blankets.
First use July 16, 1956.

Class 43—Thread and Yarn

SN 19,827. Stockholms Superfosfat Fabriks Aktiebolag, Stockholm, Sweden. Filed Nov. 23, 1956.

TACRYL

Owner of Swedish Reg. No. 80,580, dated June 8, 1956.
For Textile Yarn and Thread of Synthetic Fiber.

SN 30,318. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed May 20, 1957.

DORCOLOR

Owner of German Reg. No. 695,321, dated Sept. 27, 1956.
For Yarns.

Class 44—Dental, Medical, and Surgical Appliances

SN 34,453. Otariion Listener Corporation, Ossining, N. Y. Filed July 26, 1957.

little ear

For Hearing Aid Devices or Instruments.
First use Feb. 18, 1954.

Class 46—Foods and Ingredients of Foods

SN 689,110. Frontier Produce Co., Inc., d. b. a. Frontier Produce Co., Boston, Mass. Filed June 24, 1955.

DAVY CROCKETT



For Fresh Spinach.
First use on or about June 6, 1955.

SN 696,768. William V. Birch, d. b. a. Wm. C. Bunting, Chincoteague, Va. Filed Oct. 20, 1955. Sec. 2(f).



Established 1855

No claim is made to the wording "Established 1855" apart from the mark as shown.
For Fresh Shucked Oysters and Oysters in Shell.
First use on or before Jan. 1, 1905.

SN 697,341. Topps Chewing Gum, Incorporated, Brooklyn, N. Y. Filed Oct. 28, 1955.

Robin Hood

For Chewing Gum—Namely, Bubble Gum.
First use Oct. 4, 1955.

SN 13,532. V. F. Garza, d. b. a. Mexican Products Sales Co. and V. F. Garza and Sons, Indiana Harbor, Ind. Filed Aug. 7, 1956.

LA CASITA

The Spanish words "La Casita" mean "The Little House" when translated into English.
For Mexican Style Chocolate for Eating and for Making Chocolate Beverages.
First use on or about Nov. 1, 1935.

SN 14,254. The Manhattan Coffee Company, d. b. a. General Coffee Company, St. Louis, Mo. Filed Aug. 20, 1956.

STAR

For Coffee.
First use at least as early as 1916.

SN 17,809. Hills Bros. Coffee, Inc., San Francisco, Calif. Filed Oct. 19, 1956.



The drawing is lined for gold. Owner of Reg. Nos. 163,338, 51,468, and others.
For Instant Coffee.
First use Oct. 11, 1956.

TM 726 O.G. -10

SN 19,181. Real Pie Bakers, Pittsburgh, Pa., to Real Pie Bakers (new partnership), Pittsburgh, Pa. Filed Nov. 13, 1956.



Applicant disclaims the words "Real" and "Pie" and the representation of a pie apart from the mark as shown, and, while the drawing is lined for red, applicant disclaims the exclusive right to said color.
For Bakery Products—Namely, Freshly Baked Fruit and Berry Pies and Frozen Fruit and Berry Pies.
First use July 12, 1956.

SN 19,293. California Artichoke & Vegetable Growers Corporation, Castroville, Calif. Filed Nov. 15, 1956.

CASTROVILLE'S PRIDE

For Fresh Vegetables.
First use Sept. 15, 1955.

SN 20,838. Hunt Foods, Inc., Fullerton, Calif. Filed Dec. 11, 1956.

TOMATO-RAMA

For Stewed Tomatoes, Whole Peeled Tomatoes, Tomato Cat-sup, Tomato Paste, Tomato Sauce, Tomato Puree, Chili Sauce, Tomato Juice, All of Which Goods Are Canned Products.
First use Nov. 23, 1956.

SN 21,243. The Borden Company, New York, N. Y. Filed Dec. 18, 1956.

SVELTE

Owner of Reg. No. 388,263.
For Low Calorie Frozen Dessert, Similar to Ice Milk.
First use Jan. 31, 1956.

SN 21,455. A. Michaud Co., Philadelphia, Pa. Filed Dec. 21, 1956.

PROTECT-A-PAK

For Ground Beef in Plastic Bags.
First use Sept. 15, 1954.

SN 23,566. Operators' Warehouse, Inc., Shreveport, La. Filed Jan. 31, 1957.

Bonnie Baker

For Wheat Flour.
First use Dec. 17, 1956.

SN 26,145. Pierce Grain Corporation, Buffalo, N. Y. Filed Mar. 6, 1957.

MOBILE

For Dairy Feed for Use as a Feed Supplement.
First use Oct. 1, 1956.

SN 27,178. Bowman Dairy Company, Chicago, Ill. Filed Mar. 29, 1957.

STAY

Owner of Reg. No. 571,832.
For Fortified Skim Milk.
First use Mar. 26, 1957.

SN 29,850. Alamo Products Company, Alamo, Tex. Filed May 9, 1957.

MAGIC GARDEN

Owner of Reg. No. 419,959.
For Canned Citrus Juices, Canned Vegetables, Canned Tomato Juice, Dried and Fresh Peas.
First use in the year 1937.

SN 30,531. Geo. M. Still, New York, N. Y. Filed May 22, 1957.

DIAMOND POINT

For Raw Oysters.
First use in January 1931.

SN 32,470. The Cincinnati Sugar Co., Cincinnati, Ohio. Filed June 24, 1957.

TERRAZZO

For Ice Cream.
First use Jan. 2, 1957.

SN 35,166. Alvin A. Costa, d. b. a. Verde Farms, Blythe, Calif. Filed Aug. 8, 1957.

DESERT RANCH

For Fresh Melons.
First use June 13, 1957.

SN 35,169. The Griffith Laboratories, Inc., Chicago, Ill. Filed Aug. 8, 1957.



For Antioxidant for Use in Stabilizing Lard and Other Food Fats.
First use June 21, 1954.

Class 47 - Wines

SN 20,055. Kurt Reiss, Toronto, Ontario, Canada. Filed Nov. 28, 1956.

KHAINAN

Priority claimed under Sec. 44(d) on Canadian application filed Nov. 22, 1956; Reg. No. 108,077, dated Sept. 20, 1957.
For Wines.

Class 48 - Malt Beverages and Liquors

SN 33,266. Metz Brewing Co., Omaha, Nebr. Filed July 5, 1957.



The word "Beer" is disclaimed.
For Beer.
First use May 23, 1957.

SN 33,798. Cerveceria Corona, Inc., New York, N. Y. Filed July 16, 1957.



"Banda Blanca" is Spanish for the English words "white stripe."
For Beer.
First use July 10, 1957.

Class 49 - Distilled Alcoholic Liquors

SN 31,276. Schenley Import Corporation, d. b. a. Compania Ron Carioca, New York, N. Y. Filed June 3, 1957.



The drawing is lined for red and gold. The Latin phrase "Boni Spiritus Homines Boni" means "good spirits good men." Owner of Reg. No. 318,851.
For Rum.
First use Mar. 15, 1934.

Class 50 - Merchandise Not Otherwise Classified

SN 2,862. Dadant & Sons, Inc., Hamilton, Ill. Filed Feb. 17, 1956. Sec. 2(f).



The word "Foundation" is disclaimed apart from the mark as shown. Owner of Reg. No. 351,037.
For Bee Comb Foundations.
First use Nov. 1, 1935.

SN 2,977. Gospel Light Press, d. b. a. The Sunday School House, Glendale, Calif. Filed Feb. 20, 1956.

Action-ette

For Jointed Figures To Be Used as Visual Aids in Teaching.
First use Dec. 10, 1955.

SN 21,012. Frank P. Mitten, d. b. a. Mitten's Display Letters, Redlands, Calif. Filed Dec. 13, 1956.

VISTA-VISION

For Three-Dimensional Font Assortments of Letters and Figures and Illustrating Accessories for Use in Making Up Changeable or Permanent Signs.
First use July 31, 1956.

SN 34,005. Phoenix Gummiwerke Aktiengesellschaft, Hamburg-Harburg, Germany. Filed July 18, 1957.



Owner of German Reg. No. 608,901, dated July 27, 1956.
For Rubber Matting, Rubber Printers' Blankets, Rubber Sheetings.

Class 51 - Cosmetics and Toilet Preparations

SN 10,884. Houbigaut, Inc., New York, N. Y. Filed June 25, 1956.

REFRESHENCE

For Cologne.
First use Oct. 21, 1955.

SN 12,435. Siegfried Lechner, d. b. a. L. Lechner, Berlin-Dahlem, Germany. Filed July 19, 1956. Sec. 2(f).



For Perfumes, Perfumed Skin Lotions, Cologne Water, Face Lotions, Perfumed Toilet Waters, Cosmetic Skin Creams, Nail Protecting Creams, Face Powder, Cosmetic Bath Salts and Powders, Sachets, Talcum Powder, Finger Nail and Toe Nail Polish, Nail Polish Removers, Lipsticks, Eye Brow Pencils, Rouge, Hair Tonic, Hair Dressing, Hair Dyes and Hair Removing Preparations.
First use in about 1894; in commerce in about 1894.

SN 12,766. R. D. Spicer, Jr., d. b. a. Reliance Laboratories, San Diego, Calif. Filed July 17, 1956.

TWICE-A-DAY

For Toothpaste.
First use Mar. 7, 1934.

SN 17,137. Tritle Laboratories, Seattle, Wash., to John B. Mitchell, Seattle, Wash. Filed Oct. 8, 1956. Sec. 2(f).

TRITLE'S

For Skin Cream.
First use in or about 1919.

SN 18,318. Harper Method, Inc., Rochester, N. Y. Filed Oct. 29, 1956.

STAR O' FORTUNE

For Liquid Waving Solution.
First use Sept. 7, 1956.

SN 22,463. Parfumerie Seger Aktiebolag, Stockholm, Sweden. Filed Jan. 11, 1957.

WHITE HORSE

Owner of Swedish Reg. No. 68,650, dated Aug. 25, 1950.
For Shaving Soap, Shaving Lotion, and Eau-de-Cologne.
Subj. to Intf. with SN 24,155.

SN 24,155. Gals of London Limited, London, England. Filed Feb. 11, 1957.



Priority claimed under Sec. 44(d) on British Reg. No. 757,086, dated Aug. 29, 1956.

For Perfumes, Cosmetics, Essential Oils for Use in Preparing Cosmetics, Preparations for the Hair, Dentifrices, Shaving Creams, and After Shave Lotions; Toilet Lotions, Toilet Waters, and Perfumed and Toilet Soaps.
Subj. to Intf. with SN 22,463.

SN 26,381. Paddock Club, Ltd., New York, N. Y. Filed Mar. 18, 1957.



For Cosmetics and Toilet Preparations—Namely, Astringents, Shaving Cream, After Shave Lotion, Cologne, Toilet Water, Deodorants, Face and Hand Creams, Face and Hand Lotions for Men and Women.
First use Jan. 10, 1957.

Class 52 — Detergents and Soaps

SN 20,716. Continental Oil Company, Ponca City, Okla.
Filed Dec. 10, 1956.

CONOCO

Owner of Reg. Nos. 212,187, 566,710, and others.
For Synthetic Detergents for Use in the Manufacture of
Industrial, Toilet, Household, or Medical Detergents.
First use Nov. 27, 1956.

SN 21,081. Helene Pessl, Inc., New Rochelle, N. Y. Filed
Dec. 14, 1956.

DUTCH TREAT

For Soap.
First use Dec. 7, 1956.

SN 24,704. Maid-Easy Cleansing Products Corp., Mount Ver-
non, N. Y. Filed Feb. 19, 1957.

MEL-EZY

For Oxygen Cleaner for Stain Removal on Plastics, Coffee
Makers, Textiles, and General Stain Removal.
First use Feb. 18, 1957.

SN 31,844. Jet Products, Incorporated, Branford, Conn.
Filed June 12, 1957.

JET EMERALD

For Liquid Detergent.
First use Jan. 15, 1957.

SERVICE MARKS**Class 100 — Miscellaneous**

SN 24,714. New Eyes for the Needy, Inc., Short Hills, N. J.
Filed Feb. 19, 1957.



For Providing Free Eyeglasses to the Needy, Said Service
Being Financed From Funds Obtained by Donations of Dis-
carded Eyeglasses and Odd Bits of Jewelry.
First use Jan. 15, 1948.

SN 28,789. Jerrico, Incorporated, Lexington, Ky. Filed Apr.
24, 1957.

**Jerry's
DRIVE-IN**

Applicant disclaims use of the words "Drive-In" except in
the particular combination shown.
For Restaurant Services.
First use December 1946.

Class 101 — Advertising and Business

SN 4,577. Sonotone Corporation, Elmsford, N. Y. Filed Mar.
14, 1956.

"Mr. Hearing"

For Periodic Checking of the Hearing of Individuals Who
Use Hearing Aid Devices, and the Adjustment and Repair of
the Hearing Aid Devices To Meet Changes Which Occur in
the Hearing of Individuals.
First use Mar. 10, 1956.

Class 102 — Insurance and Financial

SN 16,255. Old Republic Life Insurance Company, Chicago,
Ill. Filed Sept. 24, 1956.

**Old Republic
Life Insurance Company**

For Life Insurance.
First use Apr. 30, 1931.

SN 24,865. New England Reinsurance Corporation, Boston,
Mass. Filed Feb. 21, 1957.



For Underwriting Reinsurance Policies and Contracts.
First use Jan. 17, 1957.

SN 31,607. United Life and Accident Insurance Company,
Concord, N. H. Filed June 7, 1957.



For Underwriting of Life, Accident, and Health Insurance.
First use Mar. 27, 1957.

Class 103 — Construction and Repair

SN 19,270. Stavid Engineering, Incorporated, Plainfield, N. J.
Filed Nov. 14, 1956.



For Electronic Research and Development Services for
Others.
First use Oct. 9, 1956.

SN 22,421. Central Carpet Cleaning Co., Inc., New York,
N. Y. Filed Jan. 11, 1957.



For Cleaning and Dyeing of Rugs and Carpets.
First use 1905.

SN 23,708. E. A. Irish, Contractor, Los Angeles, Calif. Filed
Feb. 4, 1957. Sec. 2(f).

IRISH

For General Contracting, Including Construction of Pipe
Lines, Underground Utilities Such as Gas, Water, and Tele-
phone Conduit Systems, and Flood Control or Storm Drain
Projects.
First use about 1919.

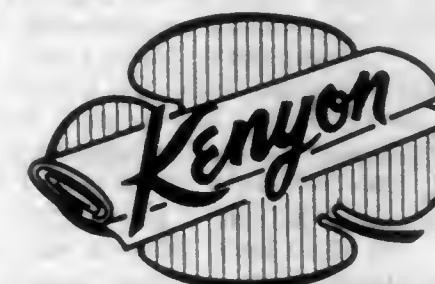
SN 24,740. Zane Construction Company, Baltimore, Md.
Filed Feb. 19, 1957.



For Building Construction, Remodeling, and Repair.
First use Apr. 15, 1953.

Class 106 — Material Treatment

SN 688,246. The Kenyon Piece Dyeworks, Inc., Kenyon, R. I.
Filed May 25, 1955. Sec. 2(f).



The lining in the drawing constitutes lining forming part
of the mark, and does not represent color. Owner of Reg. Nos.
500,439, 565,159, and 576,741.
For Dyeing of Fabric Piece Goods Owned by Others.
First use Mar. 13, 1950.

SN 19,509. Quinn-Berry Corporation, Erie, Pa. Filed Nov. 19, 1956.



For Custom Molding of Parts and Articles Out of Plastic.
First use Dec. 28, 1945.

Class 107 — Education and Entertainment

SN 25,799. Teleclinics, Inc., New York, N. Y. Filed Mar. 8, 1957.

TELE-SELL Spectacular

The word "Spectacular" is disclaimed apart from the mark as shown.

For Title of a Closed Circuit Television Program Devoted to the Education and Training of Salesmen in the Art and Techniques of Salesmanship.
First use Feb. 26, 1957.

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

Class 1 — Raw or Partly Prepared Materials

- 657,304. CAMELINE AND DESIGN. Harry T. Campbell Sons' Corp. SN 2,003. Pub. 11-5-57. Filed 2-8-56.
657,305. JERSEYITE. Lee Patten Seed Company. SN 4,051. Pub. 11-5-57. Filed 3-7-56.
657,306. NEW ENGLANDER. Lee Patten Seed Company. SN 4,052. Pub. 11-5-57. Filed 3-7-56.
657,307. NEW YORKER. Lee Patten Seed Company. SN 4,053. Pub. 11-5-57. Filed 3-7-56.
657,308. TURCO. Turco Products, Inc. SN 16,772. Pub. 11-5-57. Filed 10-1-56.
657,309. ATTAGEL. Minerals & Chemicals Corporation of America. SN 17,746. Pub. 7-9-57. Filed 10-18-56.
657,310. BLOOM-WELL. Michael Collura, d. b. a. Local Florist. SN 17,991. Pub. 11-5-57. Filed 10-23-56.
657,311. CHESLAM. Chester Packaging Products Corp. SN 18,065. Pub. 11-5-57. Filed 10-24-56.
657,312. EXECUTIVE. L. Teweles Seed Co. SN 19,399. Pub. 11-5-57. Filed 11-16-56.
657,313. GAY GREEN. Seaboard Seed Company, d. b. a. Lawn Products Company. SN 21,468. Pub. 11-5-57. Filed 12-21-56.
657,314. GOLDEN-VEIN. Montgomery Coal & Coke Co., Inc. SN 23,819. Pub. 11-5-57. Filed 2-5-57.
657,315. DENDRONIER. Rayonier Incorporated. SN 24,730. Pub. 11-5-57. Filed 2-19-57.
657,316. FAMILY LAWN. The O. M. Scott & Sons Company. SN 25,896. Pub. 11-5-57. Filed 3-11-57.
657,317. PICTURE LAWN. The O. M. Scott & Sons Company. SN 25,899. Pub. 11-5-57. Filed 3-11-57.
657,318. SIERRACOTE. The Sierracin Corporation. SN 26,881. Pub. 11-5-57. Filed 3-25-57.
657,319. PLUG-GIT. National Lead Company. SN 27,715. Pub. 11-5-57. Filed 4-8-57.

Class 2 — Receptacles

- 657,320. COLORVISION. Gits Molding Corporation. SN 687,464. Pub. 1-17-56. Filed 5-13-55.
657,321. AUTO-PAK. Plastic Container Corporation. SN 9,049. Pub. 5-14-57. Filed 5-25-56.
657,322. CANCO-MATIC AND DESIGN. American Can Company. SN 24,478. Pub. 11-5-57. Filed 2-15-57.
657,323. STA-TEMP. Stone Container Corporation. SN 25,798. Pub. 11-5-57. Filed 3-8-57.
657,324. THERMABIN. Therm-Nat Company. SN 25,907. Pub. 11-5-57. Filed 3-11-57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

- 657,325. CRAGSTAN. Cragstan Corporation. SN 29,432. Pub. 11-5-57. Filed 5-6-57.

Class 6 — Chemicals and Chemical Compositions

- 657,326. BELL O' PERFUME. Esquire Chemical Co. SN 12,714. Pub. 11-5-57. Filed 7-24-56.

- 657,327. PINE-MIST. Plough, Inc., d. b. a. International Distributors. SN 18,349. Pub. 11-5-57. Filed 10-29-56.
657,328. LUMBER TOX. The Termitol Company. SN 18,658. Pub. 11-5-57. Filed 11-2-56.
657,329. WATEREZ. Reichhold Chemicals, Inc. SN 28,641. Pub. 10-8-57. Filed 4-22-57.
657,330. AUTOPHEN. Ilford, Limited. SN 30,251. Pub. 11-5-57. Filed 5-17-57.
657,331. NOPCOSET. Nopco Chemical Company. SN 30,519. Pub. 11-5-57. Filed 5-22-57.
657,332. DETERMATUBE. Worthington Biochemical Corporation. SN 30,538. Pub. 11-5-57. Filed 5-22-57.
657,333. YANKEE. H. F. Botstford & Company. SN 30,557. Pub. 11-5-57. Filed 5-23-57.
657,334. DIAM. General Mills, Inc. SN 30,765. Pub. 11-5-57. Filed 5-27-57.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

- 657,335. COUGAR. J. L. Galef & Son, Inc. SN 27,769. Pub. 11-5-57. Filed 4-9-57.

Class 10 — Fertilizers

- 657,336. OZARK. Ozark-Mahoning Company. SN 28,724. Pub. 11-5-57. Filed 4-23-57.
657,337. OZARK AND DESIGN. Ozark-Mahoning Company. SN 28,726. Pub. 11-5-57. Filed 4-23-57.

Class 11 — Inks and Inking Materials

- 657,338. BLUE SPRUCE. Underwood Corporation. SN 28,393. Pub. 11-5-57. Filed 4-17-57.

Class 12 — Construction Materials

- 657,339. JALOWALL. A. Bruene & Co. SN 681,487. Pub. 7-19-55. Filed 2-11-55.
657,340. STRIBORD. Edward Hines Lumber Co. SN 7,346. Pub. 11-5-57. Filed 4-30-56.
657,341. MOR-TILE. Morton Pottery Company. SN 8,792. Pub. 11-5-57. Filed 5-22-56.
657,342. SIMCAR. Simon-Carves Limited. SN 9,500. Pub. 11-5-57. Filed 6-1-56.
657,343. PERFO. Anstalt für Bauchemie. SN 11,899. Pub. 11-5-57. Filed 7-11-56.
657,344. DESIGN OF SHIELD. Heyno von Munchhausen, d. b. a. Munchhausen Soundproofing Company, Inc. SN 15,248. Pub. 11-5-57. Filed 9-6-56.
657,345. MODULITE AND DESIGN. Modulite Company. SN 15,614. Pub. 11-5-57. Filed 9-13-56.
657,346. KOOL-E-KIT. Alaynite Company of America. SN 17,253. Pub. 11-5-57. Filed 10-11-56.
657,347. POLYFILLA. Polycell Products Limited. SN 19,380. Pub. 11-5-57. Filed 11-16-56.
657,348. JOHN DAY. Edward Hines Lumber Co. SN 19,680. Pub. 11-5-57. Filed 11-21-56.
657,349. SUPIRA. Omnia Constructions Limited. SN 20,478. Pub. 11-5-57. Filed 12-5-56.

- 657,350. VOLASCO AND DESIGN. Volasco Products Company. SN 20,811. Pub. 11-5-57. Filed 12-10-56.
- 657,351. MIAMI TRADITIONAL. Miami Window Company. SN 21,320. Pub. 11-5-57. Filed 12-19-56.
- 657,352. AMTICO CUSTOMOTIFS AND DESIGN. American Biltrite Rubber Company, Inc. SN 24,309. Pub. 11-5-57. Filed 2-13-57.
- 657,353. AMTICO DECORSTRIPS. American Biltrite Rubber Company, Inc. SN 24,310. Pub. 11-5-57. Filed 2-13-57.
- 657,354. SYNTHACALK. Pecora Paint Company, Inc. SN 27,516. Pub. 11-5-57. Filed 4-4-57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

- 657,355. VENT-RITE. Anderson Products, Incorporated. SN 28,318. Pub. 11-5-57. Filed 4-17-57.
- 657,356. MAG-PNEU-POWER. Hankison Corporation. SN 28,517. Pub. 11-5-57. Filed 4-19-57.

Class 14—Metals and Metal Castings and Forgings

- 657,357. LIQUID WIRE. Superweld Corporation. SN 10,200. Pub. 11-5-57. Filed 6-13-56.
- 657,358. THERMOSPRAY. Metallizing Engineering Co., Inc. SN 14,752. Pub. 11-5-57. Filed 8-28-56.

Class 15—Oils and Greases

- 657,359. CACTUS CX-11 AND DESIGN. Southwestern Petroleum Company, Inc. SN 1,732. Pub. 11-5-57. Filed 1-30-56.
- 657,360. WARCO. Julius Goldner, d. b. a. Warwick Laboratories Company. SN 10,224. Pub. 11-5-57. Filed 6-14-56.
- 657,361. CLIMAX MOLYBDENUM AND DESIGN. Climax Molybdenum Company. SN 11,342. Pub. 11-5-57. Filed 7-2-56.
- 657,362. POWERADD. Invex, Inc. SN 18,078. Pub. 11-5-57. Filed 10-24-56.

Class 16—Protective and Decorative Coatings

- 657,363. POOL-GARD. Oncrete Products, Inc. SN 23,500. Pub. 10-22-57. Filed 1-30-57.
- 657,364. SANALOID. M. A. Bruder & Sons, Inc. SN 33,206. Pub. 11-5-57. Filed 7-5-57.
- 657,365. CAROLINE. The Celcote Company, Inc. SN 37,068. Pub. 11-5-57. Filed 9-12-57.

Class 17—Tobacco Products

- 657,366. REEMTSMA. Reemtama Cigarettenfabriken G. m. b. H. SN 21,728. Pub. 11-5-57. Filed 12-27-56.

Class 18—Medicines and Pharmaceutical Preparations

- 657,367. TRIOLYTE. Grove Laboratories, Inc. SN 26,172. Pub. 11-5-57. Filed 3-14-57.
- 657,368. YARON AND DESIGN. American Transpacific Corp., d. b. a. American Chemical & Drug Co. SN 27,266. Pub. 10-22-57. Filed 4-1-57.

- 657,369. SENNAPLEX. The Purdue Frederick Company. SN 28,277. Pub. 11-5-57. Filed 4-16-57.
- 657,370. SENNOSYL. The Purdue Frederick Company. SN 28,279. Pub. 11-5-57. Filed 4-16-57.
- 657,371. NUMONYL. Laboratorios Terrier, Inc. SN 28,867. Pub. 11-5-57. Filed 4-23-57.
- 657,372. TEMARIL. Smith Kline & French Laboratories. SN 28,967. Pub. 11-5-57. Filed 4-26-57.
- 657,373. TREXAMATE. Carter Products, Inc. SN 29,030. Pub. 11-5-57. Filed 4-29-57.
- 657,374. BLO-TROL. Chas. Pfizer and Co., Inc. SN 29,167. Pub. 11-5-57. Filed 4-30-57.
- 657,375. P C H. Paul C. Held, d. b. a. Paul C. Held Co. SN 29,210. Pub. 11-5-57. Filed 5-1-57.
- 657,376. DI-CA. Percival W. Beltnes, d. b. a. Beltnes Laboratories. SN 29,266. Pub. 11-5-57. Filed 5-2-57.
- 657,377. KLIRZOL. Madeleine Laboratories, Inc. SN 29,290. Pub. 11-5-57. Filed 5-2-57.
- 657,378. EQUIZENE. Alexander-Shaw Corporation. SN 29,308. Pub. 11-5-57. Filed 5-2-57.
- 657,379. PHOSPHOMYCIN. The Upjohn Company. SN 29,320. Pub. 11-5-57. Filed 5-2-57.
- 657,380. FLUORESEPTIC AND DESIGN. Professional Pharmaceutical Co., Inc. SN 29,383. Pub. 11-5-57. Filed 5-3-57.
- 657,381. VECTIL. American Cyanamid Company. SN 29,411. Pub. 11-5-57. Filed 5-6-57.

Class 19—Vehicles

- 657,382. STRONGLIGHT AND DESIGN. Etablissements Verot & Perrin, S. A. R. L. SN 5,514. Pub. 11-5-57. Filed 3-30-56.
- 657,383. MERRYMOBILE AND DESIGN. Robert H. Hefflinger. SN 14,242. Pub. 11-5-57. Filed 8-20-56.
- 657,384. YORCK. Schminke-Werke, G. m. b. H. SN 17,035. Pub. 11-5-57. Filed 10-5-56.
- 657,385. NORTH AMERICAN MARINE ETC. AND DESIGN. Luther Corporation. SN 18,780. Pub. 8-20-57. Filed 11-5-56.
- 657,386. MERCEDES-BENZ. Daimler-Benz Aktiengesellschaft. SN 23,779. Pub. 11-5-57. Filed 2-5-57.
- 657,387. DESIGN OF 2-DIMENSIONAL THREE POINTED STAR. Daimler-Benz Aktiengesellschaft. SN 23,898. Pub. 11-5-57. Filed 2-6-57.

Class 20—Linoleum and Oiled Cloth

- 657,388. AMERACELLA. J. H. Benecke. SN 1,195. Pub. 10-9-56. Filed 1-9-56.

Class 21—Electrical Apparatus, Machines, and Supplies

- 657,389. ACEC AND DESIGN. Ateliers de Constructions Electriques de Charleroi. SN 24,825. Pub. 11-5-57. Filed 7-16-57.
- 657,390. STERADAPTER. International Magnetic Electronics Co. SN 30,169. Pub. 10-15-57. Filed 5-16-57.

Class 22—Games, Toys, and Sporting Goods

- 657,391. CONNIE LYNN. Terri Lee Sales Corp. SN 694,933. Pub. 11-5-57. Filed 9-19-55.
- 657,392. SNO-PLANE. West Bend Aluminum Co. SN 696,391. Pub. 11-5-57. Filed 10-13-55.
- 657,393. SLINGIN' SAMMY BAUGH'S PASSER'S TARGET. George R. Masters. SN 1,257. Pub. 11-5-57. Filed 1-23-56.

- 657,394. GERBER. Gerber Products Company. SN 4,441. Pub. 11-5-57. Filed 3-13-56.
- 657,395. A MICKEY VERNON GAME ETC. AND DESIGN. The Mickey Vernon Game Co. SN 8,499. Pub. 11-5-57. Filed 5-17-56.
- 657,396. CORTLAND FIRST IN LINE AND DESIGN. Cortland Line Company, Inc. SN 19,103. Pub. 11-5-57. Filed 11-13-56.
- 657,397. OK. Ohio-Kentucky Manufacturing Company. SN 26,421. Pub. 11-5-57. Filed 2-27-57.
- 657,398. TALENT SHOW. Maco Toys. SN 26,713. Pub. 11-5-57. Filed 3-22-57.
- 657,399. J-B. Jorgensen Bros. SN 27,319. Pub. 11-5-57. Filed 4-1-57.
- 657,400. BLACK BALL EXPRESS AND DESIGN. Schaper Manufacturing Co., Inc. SN 28,547. Pub. 11-5-57. Filed 4-19-57.
- 657,401. SO SLEEPY. Terri Lee Sales Corporation. SN 28,662. Pub. 11-5-57. Filed 4-22-57.
- 657,402. BENJON. Benjamin P. Brown. SN 28,680. Pub. 11-5-57. Filed 4-23-57.
- 657,403. DESIGN OF A KNIGHT. Protection Equipment Co. SN 29,096. Pub. 11-5-57. Filed 4-29-57.
- 657,404. NUGGET. George E. Falatic. SN 29,203. Pub. 11-5-57. Filed 5-1-57.
- 657,405. BIG MOUTH. Hassenfeld Bros., Inc. SN 29,358. Pub. 11-5-57. Filed 5-3-57.
- 657,406. FEARLESS FIREMAN. Hassenfeld Bros., Inc. SN 29,359. Pub. 11-5-57. Filed 5-3-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 657,407. TD AND DESIGN OF CIRCLE AND SQUARE. Daimline S. p. A. SN 8,906. Pub. 11-5-57. Filed 4-30-56.
- 657,408. AQUAIR. Carl H. Anderson, d. b. a. Aquair Products. SN 10,280. Pub. 11-5-57. Filed 6-15-56.
- 657,409. INCLINA-VEYOR. Samuel Olson Mfg. Company, Inc. SN 15,625. Pub. 11-5-57. Filed 9-13-56.
- 657,410. YOU CAN DO IT BETTER WITH A HENRY. Henry Manufacturing Company, Inc. SN 20,187. Pub. 11-5-57. Filed 11-30-56.
- 657,411. MARY ANN. Ekco Products Company. SN 21,138. Pub. 11-5-57. Filed 12-17-56.
- 657,412. GENEVA. Ekco Products Company. SN 21,139. Pub. 11-5-57. Filed 12-17-56.
- 657,413. CARGON. Thomas Mark Anthony O'Connell. SN 21,461. Pub. 11-5-57. Filed 12-21-56.
- 657,414. MERCEDES-BENZ. Daimler-Benz Aktiengesellschaft. SN 23,985. Pub. 11-5-57. Filed 2-7-57.

Class 26—Measuring and Scientific Appliances

- 657,415. OLYMPUS TOKYO AND DESIGN. Olympus Optical Company Limited. SN 8,979. Pub. 11-5-57. Filed 5-24-56.
- 657,416. GEVAERT AND DESIGN. Gevaert Photo-Producten N. V. SN 11,848. Pub. 11-5-57. Filed 7-10-56.
- 657,417. BANDRIVE. Norden-Ketay Corporation. SN 12,451. Pub. 11-5-57. Filed 7-19-56.
- 657,418. NUMAR. Nuclear Magnetics Corporation. SN 15,975. Pub. 11-5-57. Filed 9-19-56.
- 657,419. DURAN. Jenaer Glaswerk Schott & Gen. SN 17,367. Pub. 11-5-57. Filed 10-12-56.
- 657,420. RICOH. Riken Optical Industry, Ltd. SN 19,384. Pub. 11-5-57. Filed 11-16-56.
- 657,421. CUB. John Reagan McCrary, Jr. SN 22,938. Pub. 11-5-57. Filed 1-22-57.
- 657,422. HUMI-SPOT. Culligan, Inc. SN 24,427. Pub. 11-5-57. Filed 2-14-57.

- 657,423. INGAGE. Alina Corporation. SN 25,069. Pub. 11-5-57. Filed 2-26-57.
- 657,424. INFRACORD. The Perkin-Elmer Corporation. SN 25,269. Pub. 11-5-57. Filed 2-28-57.

Class 29—Brooms, Brushes, and Dusters

- 657,425. BIRDCAGE. Essex Graham Company. SN 15,880. Pub. 11-5-57. Filed 9-18-56.
- 657,426. EASY GLITTER. Easy Glitter Wax Company. SN 27,496. Pub. 11-5-57. Filed 4-4-57.
- 657,427. ROLO-MASTER. Whiting-Adams Company, Inc. SN 28,404. Pub. 11-5-57. Filed 4-17-57.

Class 31—Filters and Refrigerators

- 657,428. LUBRICOOLER. Turbine Equipment Company. SN 6,201. Pub. 11-5-57. Filed 4-11-56.
- 657,429. DOWPAC. The Dow Chemical Company. SN 12,879. Pub. 11-5-57. Filed 7-26-56.

Class 32—Furniture and Upholstery

- 657,430. TEXTBORO. Textboro Cabinet Corporation. SN 33,003. Pub. 11-5-57. Filed 7-1-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

- 657,431. CHAMPION. Bastian-Morley Co., Inc. SN 27,927. Pub. 11-5-57. Filed 4-11-57.
- 657,432. HOMEMAKER. Belknap Hardware and Manufacturing Company. SN 28,020. Pub. 11-5-57. Filed 4-12-57.
- 657,433. THERMO JET. General Research and Supply Co. SN 30,427. Pub. 11-5-57. Filed 5-21-57.

Class 37—Paper and Stationery

- 657,434. STAK GRIP AND DESIGN. The Cromwell Paper Company. SN 688,630. Pub. 2-14-56. Filed 6-1-55.
- 657,435. BEAVER. Western Tablet & Stationery Corporation. SN 1,553. Pub. 11-5-57. Filed 1-26-56.
- 657,436. STAK-RITE. Bemis Bro. Bag Company. SN 7,416. Pub. 11-20-56. Filed 5-1-56.
- 657,437. WACHUSETT CLASP. Worcester Envelope Company. SN 12,760. Pub. 11-5-57. Filed 7-24-56.
- 657,438. MK. II. The Parker Pen Company. SN 17,188. Pub. 11-5-57. Filed 10-9-56.
- 657,439. LUSTRALOY. The Parker Pen Company. SN 17,231. Pub. 11-5-57. Filed 10-10-56.
- 657,440. HEAH-TIZ AND DESIGN. James L. Smith, d. b. a. James L. Smith Co. SN 20,798. Pub. 11-5-57. Filed 12-10-56.
- 657,441. HALLMARK AND DESIGN. Hallmark Cards Incorporated. SN 22,538. Pub. 11-5-57. Filed 1-14-57.
- 657,442. CLEAR SPRING SUPERPAC WHITE. West Virginia Pulp and Paper Company. SN 25,739. Pub. 11-5-57. Filed 3-7-57.
- 657,443. COIL-PAK. The Cromwell Paper Company. SN 28,114. Pub. 11-5-57. Filed 4-15-57.

Class 38—Prints and Publications

- 657,444. A DOANE AGRICULTURAL REPORT. Doane Agricultural Service, Inc. SN 659,135. Pub. 11-5-57. Filed 1-7-54.

- 657,445. TANK TOPICS. National Tank Company. SN 2,373. Pub. 11-5-57. Filed 2-9-56.
- 657,446. ASAE AND DESIGN. American Society of Agricultural Engineers. SN 17,417. Pub. 11-5-57. Filed 10-15-56.
- 657,447. FOOD TOPICS. Topics Publishing Company, Inc. SN 20,070. Pub. 11-5-57. Filed 11-28-56.
- 657,448. DESIGN OF TREE. Insurance Securities Incorporated. SN 21,548. Pub. 11-5-57. Filed 12-24-56.
- 657,449. THE BREW KETTLE. Piel Bros. SN 22,626. Pub. 11-5-57. Filed 1-15-57.
- 657,450. THE HEXAGON OF ALPHA CHI SIGMA AND DESIGN. Alpha Chi Sigma Fraternity. SN 24,553. Pub. 11-5-57. Filed 2-18-57.
- 657,451. AFTER HOURS. Jay Publishing Co., Inc. SN 24,994. Pub. 11-5-57. Filed 2-25-57.
- 657,452. HOROSCOPE'S ANNUAL YOUR FUTURE. Dell Publishing Company, Inc. SN 25,405. Pub. 11-5-57. Filed 3-4-57.
- 657,453. SPECTRO-SCOPICS. National Spectrographic Laboratories, Inc. SN 25,715. Pub. 11-5-57. Filed 3-7-57.
- 657,477. RESISTOL "SELF-CONFORMING." Byer-Rolnick Hat Corporation, by change of name from Resistol Hats, Inc., d. b. a. Byer-Rolnick Hat Co. SN 23,514. Pub. 10-1-57. Filed 1-30-57.
- 657,478. TRAILWISE. The Ski Hut. SN 23,946. Pub. 11-5-57. Filed 2-6-57.
- 657,479. BOBBY LANE. Comfe Pajama Mfg. Co. SN 23,236. Pub. 11-5-57. Filed 2-28-57.
- 657,480. DUNKIRK AND DESIGN. Premier Knitting Co., Inc. SN 26,487. Pub. 11-5-57. Filed 3-19-57.
- 657,481. WORTHMORE. Worthmore Shirt Corp. SN 26,665. Pub. 11-5-57. Filed 3-21-57.
- 657,482. LUCCHI DE LANO. Mosinger-Cohn, Inc. SN 26,849. Pub. 11-5-57. Filed 3-25-57.
- 657,483. TWIRL ABOUT. Lazy Time Togs, Inc. SN 27,611. Pub. 11-5-57. Filed 4-5-57.
- 657,484. WYNOL AND DESIGN. Joshua Smith (1908) Limited. SN 27,746. Pub. 11-5-57. Filed 4-8-57.
- 657,485. SKRIBBLE. Bernstein & Sons Shirt Corporation. SN 28,231. Pub. 11-5-57. Filed 4-16-57.
- 657,486. SKIVVIES AND DESIGN. Norwich Mills, Inc. SN 28,265. Pub. 11-5-57. Filed 4-16-57.
- 657,487. NITEY NITE. The Perry Knitting Company. SN 28,270. Pub. 11-5-57. Filed 4-16-57.
- 657,488. PEGGIN-BO TIE. Floyd H. Desbrow, d. b. a. Peggin-Bo Manufacturing Co. SN 28,580. Pub. 11-5-57. Filed 4-22-57.
- 657,489. OLEG CASSINI. Oleg Cassini. SN 28,682. Pub. 11-5-57. Filed 4-23-57.
- 657,490. COMBINAIRE. Joseph H. Cohen & Sons, Inc. SN 28,763. Pub. 11-5-57. Filed 4-24-57.
- 657,491. VELVETOUCH. Jewel Tea Co., Inc. SN 29,217. Pub. 11-5-57. Filed 5-1-57.

Class 39—Clothing

- 657,454. SCOTCH HEATHER. Society Brand Clothes, Inc., now by change of name Industrial Development Corporation, to Hart Schaffner & Marx. SN 629,919. Pub. 3-20-56. Filed 5-19-52.
- 657,455. FILMFIT. Sapphire Corporation. SN 683,142. Pub. 11-1-55. Filed 3-9-55.
- 657,456. MR. SHERBROOKE AND DESIGN. Sherman Bros., Inc. SN 687,638. Pub. 11-5-57. Filed 5-16-55.
- 657,457. BOBBY MOX AND DESIGN. Belgrade Shoe Co. SN 690,793. Pub. 11-5-57. Filed 7-6-55.
- 657,458. R AND DESIGN. Royal Woolen Underwear Co. SN 691,234. Pub. 11-5-57. Filed 7-13-55.
- 657,459. KASHMOOR. Country Tweeds. SN 2,226. Pub. 10-1-57. Filed 2-7-56.
- 657,460. CHARMIES. Butler's, Inc. SN 3,144. Pub. 11-5-57. Filed 2-23-56.
- 657,461. RESORT. Cluett, Peabody & Co., Inc. SN 5,407. Pub. 11-5-57. Filed 3-29-56.
- 657,462. CARLYLE AND DESIGN. Philip Rothenberg & Co., Inc. SN 7,458. Pub. 11-5-57. Filed 5-1-56.
- 657,463. EASY WALKERS. Ideal Shoe Company. SN 10,166. Pub. 11-5-57. Filed 6-13-56.
- 657,464. THERMA-KNIT. Cooper's, Incorporated. SN 10,660. Pub. 1-8-57. Filed 6-21-56.
- 657,465. A LADY PETITE FASHION. Petite Lady Dress Co., Inc. SN 11,955. Pub. 11-5-57. Filed 7-11-56.
- 657,466. SUPREME. Supreme Coat Co. SN 11,975. Pub. 11-5-57. Filed 7-11-56.
- 657,467. GRADUATE. The Lovable Brassiere Co. SN 12,280. Pub. 11-5-57. Filed 7-17-56.
- 657,468. KOOL KORK. Cambridge Rubber Company. SN 13,342. Pub. 11-5-57. Filed 8-3-56.
- 657,469. KLIPS BY CAMBRIDGE. Cambridge Rubber Company. SN 13,343. Pub. 11-5-57. Filed 8-3-56.
- 657,470. KASHARA. Smithline Coat Co., to Smithline Coat Co., Inc. SN 15,638. Pub. 9-17-57. Filed 9-13-56.
- 657,471. MR. STANLEY. Mr. Stanley Inc. SN 17,406. Pub. 11-5-57. Filed 10-12-56.
- 657,472. CLUB-LAZER. Gordon Clothes, Inc. SN 17,906. Pub. 11-5-57. Filed 10-22-56.
- 657,473. GLOVE MOULD SHOE. T. O. Dey Service Corporation. SN 18,657. Pub. 11-5-57. Filed 11-2-56.
- 657,474. SPACE. Alan E. Murray, d. b. a. Alan E. Murray Laboratories. SN 21,180. Pub. 11-5-57. Filed 12-17-56.
- 657,475. BRITISH THOROBREDS. Dial Shoe Company, Inc. SN 23,039. Pub. 11-5-57. Filed 1-23-57.
- 657,476. LI DANO. Dansky Shep, Inc. SN 23,133. Pub. 11-5-57. Filed 1-24-57.
- 657,492. SOOTY AND DESIGN. Sooty Concessions Limited. SN 700,272. Pub. 11-5-57. Filed 12-19-55.
- 657,493. GLOPERL. Empire Button Mfg. Co., Inc. SN 26,341. Pub. 11-5-57. Filed 3-18-57.
- 657,494. BARCLAY-FREITAG. Barclay Home Products, Inc. SN 685,809. Pub. 9-25-56. Filed 4-19-55.
- 657,495. LANONET. Fablok Mills, Inc. SN 691,453. Pub. 11-5-57. Filed 7-18-55.
- 657,496. SOOTY AND DESIGN. Sooty Concessions Limited. SN 700,270. Pub. 11-5-57. Filed 12-19-55.
- 657,497. DUNSTAN-TWEED. Mohasco Industries, Inc. SN 15,894. Pub. 11-5-57. Filed 9-18-56.
- 657,498. VERTI-STRIP. Levi Strauss and Company. SN 16,912. Pub. 11-5-57. Filed 10-3-56.
- 657,499. MASSE. D. B. Fuller & Co., Inc. SN 19,883. Pub. 7-23-57. Filed 11-26-56.
- 657,500. KATYALENA. J. P. Stevens & Co., Inc. SN 26,508. Pub. 11-5-57. Filed 3-19-57.
- 657,501. CAVALON. E. I. du Pont de Nemours and Company. SN 27,676. Pub. 11-5-57. Filed 4-8-57.
- 657,502. GOLDEN TREAD. American Latex Products Corporation. SN 28,478. Pub. 11-5-57. Filed 4-19-57.
- 657,503. FAHRENHEIT. Brand & Oppenheimer, Inc. SN 28,677. Pub. 11-5-57. Filed 4-23-57.
- 657,504. NUCOOL. Brand & Oppenheimer, Inc. SN 28,679. Pub. 11-5-57. Filed 4-23-57.
- 657,505. TRELIS. Rodier, Incorporated. SN 28,729. Pub. 11-5-57. Filed 4-23-57.

Class 40—Fancy Goods, Furnishings, and Notions

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

- 657,506. KISSING COUSIN. Collins & Alkman Corporation. SN 28,924. Pub. 11-5-57. Filed 4-26-57.
- 657,507. COTTHARA. Rosewood Fabrics, Inc. SN 29,171. Pub. 11-5-57. Filed 4-30-57.
- 657,531. LUN-WICH. Charles K. Kiefer, d. b. a. C. K. Kiefer. SN 24,854. Pub. 11-5-57. Filed 2-21-57.
- 657,532. POOR FAMILY. Charles K. Kiefer, d. b. a. C. K. Kiefer. SN 24,855. Pub. 11-5-57. Filed 2-21-57.
- 657,533. 20 MULE TEAM. United States Borax & Chemical Corporation. SN 25,911. Pub. 11-5-57. Filed 3-11-57.
- 657,534. PLYMOUTH. Piggly Wiggly Corporation. SN 26,015. Pub. 11-5-57. Filed 3-12-57.
- 657,535. PLYMOUTH. Piggly Wiggly Corporation. SN 26,016. Pub. 11-5-57. Filed 3-12-57.
- 657,536. TEND-R-IT. Meat Industry Suppliers, Inc. SN 28,053. Pub. 11-5-57. Filed 4-12-57.
- 657,537. BEAR MOUNTAIN. T. Apkarian & Sons. SN 29,130. Pub. 11-5-57. Filed 4-30-57.
- 657,538. SPRALENE. H. Kohnstamm & Co., Inc. SN 29,160. Pub. 11-5-57. Filed 4-30-57.
- 657,539. CARDINAL. Southern Fruit Distributors, Inc. SN 30,201. Pub. 11-5-57. Filed 5-16-57.
- 657,540. OSPREY. John Freitas. SN 30,649. Pub. 11-5-57. Filed 5-24-57.
- 657,541. K AND DESIGN. Kraft Foods Company. SN 30,665. Pub. 11-5-57. Filed 5-24-57.
- 657,542. CHRISTIE'S INSTANT-CHEF. Dean G. Christie, d. b. a. Christie Food Products. SN 30,729. Pub. 11-5-57. Filed 5-27-57.

Class 44—Dental, Medical, and Surgical Appliances

- 657,508. DRUG-PAK. Nutex Corporation of America. SN 19,493. Pub. 10-22-57. Filed 11-19-56.

Class 45—Soft Drinks and Carbonated Waters

- 657,509. VARIETY CLUB AND DESIGN. Variety Club Beverage Company. SN 10,501. Pub. 5-7-57. Filed 6-18-56.

Class 46—Foods and Ingredients of Foods

- 657,510. RFF REESE AND DESIGN (REPRESENTATION OF SHIELD). Reese Finer Foods, Inc., sometimes d. b. a. Rles Finer Food Division. SN 662,467. Pub. 8-2-55. Filed 3-11-54.
- 657,511. GOLDEN COUNTIES. Berns & Koppstein, Inc. SN 698,264. Pub. 11-5-57. Filed 11-15-55.
- 657,512. FARMER JOHN AND DESIGN. John S. Zaninovich. SN 119. Pub. 11-5-57. Filed 1-3-56.
- 657,513. DESIGN OF GROTESQUE CHEF. Joseph J. Profera, d. b. a. Profera's Pizza Bakery. SN 267. Pub. 3-5-57. Filed 1-6-56.
- 657,514. DIXIE SHAKE ETC. AND DESIGN. Dix-A-Dee Beverage Corp. SN 3,657. Pub. 11-5-57. Filed 3-1-56.
- 657,515. GRIMES TALK O' TEXAS BRANDS, INC. AND DESIGN. Talk O' Texas Brands, Inc., d. b. a. Talk O' Texas Brands. SN 3,965. Pub. 11-5-57. Filed 3-6-56.
- 657,516. TRIBECO. Tiger Rice Brokerage & Elevator Company, d. b. a. Tribeco. SN 5,001. Pub. 11-5-57. Filed 3-21-56.
- 657,517. DOLLY MADISON AND DESIGN. Philadelphia Dairy Products Company, Inc., to Foremost Dairies, Inc. SN 5,865. Pub. 11-5-57. Filed 4-5-56.
- 657,518. FEMALE SILHOUETTE. Philadelphia Dairy Products Company, Inc., to Foremost Dairies, Inc. SN 5,866. Pub. 11-5-57. Filed 4-5-56.
- 657,519. S SWANSON AND DESIGN. Campbell Soup Company. SN 7,567. Pub. 11-5-57. Filed 5-3-56.
- 657,520. SWISS COLONY. Italian Swiss Colony, d. b. a. Swiss Colony. SN 13,222. Pub. 11-5-57. Filed 8-1-56.
- 657,521. ITALIAN SWISS COLONY. Italian Swiss Colony. SN 13,223. Pub. 11-5-57. Filed 8-1-56.
- 657,522. ILIMA. Clarence Y. Jim. SN 15,790. Pub. 11-5-57. Filed 9-17-56.
- 657,523. ILIMA AND DESIGN. Clarence Y. Jim. SN 15,791. Pub. 11-5-57. Filed 9-17-56.
- 657,524. PROFIT & MAKER. Louis A. M. Phelan, d. b. a. Products Plus. SN 16,259. Pub. 11-5-57. Filed 9-24-56.
- 657,525. ANNE LEE. Anne Lee Candy Shops, d. b. a. Anne Lee Candies. SN 16,352. Pub. 11-5-57. Filed 9-25-56.
- 657,526. SPUN GOLD. Golden Grain Macaroni Co., d. b. a. Gragnano Products, Inc. SN 17,098. Pub. 11-5-57. Filed 10-8-56.
- 657,527. FRITOS AND DESIGN. The Frito Company. SN 17,559. Pub. 11-5-57. Filed 10-16-56.
- 657,528. FRITOS. The Frito Company. SN 17,560. Pub. 11-5-57. Filed 10-16-56.
- 657,529. BALLERINA. Safeway Stores, Incorporated, d. b. a. Fairfax Baking Company. SN 21,206. Pub. 11-5-57. Filed 12-17-56.
- 657,530. CREAM-TONE. Vegetable Oil Products Company, Inc. SN 22,995. Pub. 11-5-57. Filed 1-22-57.

Class 47—Wines

- 657,543. VOIGNY. Julius Wile Sons & Co. Inc. SN 699,943. Pub. 11-5-57. Filed 12-13-55.

Class 48—Malt Beverages and Liquors

- 657,544. WEBER W. Weber Waukesha Brewing Company. SN 13,491. Pub. 11-5-57. Filed 8-6-56.

Class 49—Distilled Alcoholic Liquors

- 657,545. CANADA DRY. Canada Dry Ginger Ale, Incorporated. SN 22,656. Pub. 11-5-57. Filed 1-16-57.

Class 50—Merchandise Not Otherwise Classified

- 657,546. ARMOR CHALKBOARD AND DESIGN. New York Silicate Book Slate Co., Inc. SN 622,273. Pub. 8-11-53. Filed 12-8-51.
- 657,547. SEAL LABEL AND DESIGN. Ames Harris Neville Co. SN 25,936. Pub. 11-5-57. Filed 3-12-57.

Class 51—Cosmetics and Toilet Preparations

- 657,548. SET AND NET. Coty, Inc. SN 7,326. Pub. 11-5-57. Filed 4-30-56.
- 657,549. PEDIFLEUR. Nelaworth Distributors, to The Pedifleur Corporation. SN 12,375. Pub. 11-5-57. Filed 7-18-56.
- 657,550. POND'S ANGEL. Chesebrough-Pond's Inc. SN 27,185. Pub. 11-5-57. Filed 3-29-57.
- 657,551. BEAUTY SET. Bymart-Tintair, Inc. SN 27,773. Pub. 11-5-57. Filed 4-9-57.

Class 52—Detergents and Soaps

- 657,552. MASTER KEY AND DESIGN. Master Manufacturing Company. SN 6,026. Pub. 11-5-57. Filed 4-9-56.

- 657,553. WINDSOR. Helene Curtis Industries, Inc. SN 16,105. Pub. 11-5-57. Filed 9-21-56.
 657,554. SUPER SUDS. Colgate-Palmolive Company. SN 23,449. Pub. 11-5-57. Filed 1-30-57.
 657,555. BP AND DESIGN. The British Petroleum Co., Ltd. SN 25,953. Pub. 11-5-57. Filed 3-12-57.

Service Marks

Class 100—Miscellaneous

- 657,556. SHOPWORTH. United States Wholesale Grocers Association, Inc. SN 690,208. Pub. 11-5-57. Filed 6-24-55.

Class 101—Advertising and Business

- 657,557. HOMES WITH A BUILT-IN FUTURE. Hitchcock & Chamberlain, Ltd., d. b. a. Foothill Farms. SN 11,768. Pub. 11-5-57. Filed 7-9-56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 10—Fertilizers

- 657,561. Lafayette Farm Supply, Inc., Lexington, Mo. SN 12,893. Filed P. R. 7-26-56. Am. S. R. 10-14-57.

EZY-SPRED

For Fertilizer in Liquid Form.
 First use June 6, 1956.

Class 15—Oils and Greases

- 657,562. Clarence M. Wynn, d. b. a. Dri-Powr Co., Asusa, Calif. SN 27,764. Filed P. R. 4-8-57. Am. S. R. 11-20-57.

DEE-GUMM

For Additives for Fuels and Lubricants for Use in Internal Combustion Engines.
 First use on or before July 1, 1953.

Class 18—Medicines and Pharmaceutical Preparations

- 657,563. Industrial Research Engineering, d. b. a. Pep-Aid, Chicago, Ill. SN 15,697. Filed P. R. 9-14-56. Am. S. R. 8-16-57.

PEP-AID

For Health Food Supplement Containing Choline, Inositol, and Phosphorous.
 First use July 5, 1956.

Class 103—Construction and Repair

- 657,558. GO GULF. Gulf Oil Corporation. SN 28,938. Pub. 11-5-57. Filed 4-26-57.

Class 105—Transportation and Storage

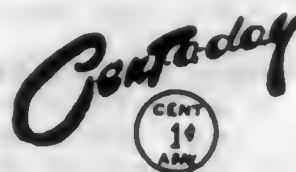
- 657,559. SAUNDERS DRIVE IT YOURSELF SYSTEM AND DESIGN. Saunders Drive It Yourself System, Inc. SN 700,756. Pub. 11-5-57. Filed 12-28-55.

Certification Mark

Class A—Goods

- 657,560. TREMCO "MILL-SEALED, MILL-GLAZED" ETC. AND DESIGN. The Tremco Manufacturing Company. SN 669,299. Pub. 11-5-57. Filed 7-1-54.

- 657,564. Herbert H. Feld, d. b. a. Cent-A-Day Vitamin Co., Willow Grove, Pa. SN 20,171. Filed P. R. 11-30-56. Am. S. R. 11-18-57.



For Vitamin Capsule.
 First use Nov. 8, 1956.

Class 22—Games, Toys, and Sporting Goods

- 657,565. Archer Plastics, Inc., Elmhurst, N. Y. SN 3,975. Filed P. R. 3-7-56. Am. S. R. 10-23-57.



The word "Toys" is disclaimed apart from the mark as shown.
 For Children's Educational Toys and Blocks.
 First use Oct. 15, 1953.

Class 23—Cutlery, Machinery, and Tools, Class 39—Clothing and Parts Thereof

- 657,566. The De Laval Separator Company, Poughkeepsie, N. Y. SN 10,586. Filed P. R. 6-20-56. Am. S. R. 9-30-57.

COW-TO-CAN

For Milking Machines and Parts and Attachments Therefor.
 First use on or about Dec. 29, 1954.

- 657,567. Alex Desela, d. b. a. Americas International Co., San Francisco, Calif. SN 23,387. Filed 1-29-57.



For Automotive Replacement Parts, Including Engine and Drive Parts for Automobiles.
 First use December 1955.

Class 37—Paper and Stationery

- 657,568. Wilson Jones Company, Chicago, Ill. SN 687,661. Filed P. R. 5-16-55. Am. S. R. 7-19-57.

NO-TYE

For Expanding Files, Envelopes and Wallets, and the Like.
 First use May 1, 1951.

Class 38—Prints and Publications

- 657,569. Locker Management, Inc., St. Louis, Mo., to Albert Todoroff, Clayton, Mo. SN 6,811. Filed P. R. 4-20-56. Am. S. R. 9-27-57.

FREEZER PROVISIONING

For Magazine Published Monthly.
 First use Apr. 4, 1956.

- 657,570. Cleworth Publishing Company, Inc., Coa Cob, Conn. SN 20,597. Filed P. R. 12-7-56. Am. S. R. 11-21-57.

TRANSMISSION AND DISTRIBUTION

For Periodical Published Monthly, Dealing With Power Generation, Transmission and Distribution.
 First use October 1956.

- 657,571. Industrial Publishing Corporation, Cleveland, Ohio. SN 23,149. Filed P. R. 1-24-57. Am. S. R. 11-14-57.

MODERN OFFICE PROCEDURES

For Publication Published Monthly or From Time to Time, the Subject Matter of Which Is Directed to Modern Office Procedures.
 First use Mar. 1, 1956.

- 657,572. Bristol Manufacturing Corporation, Bristol, R. I. SN 20,589. Filed P. R. 12-7-56. Am. S. R. 11-27-57.

POSTURE ARCH POSITIONER

For Men's, Boys', Youths', Women's, Misses', and Children's Shoes Made With Canvas Uppers and Rubber Soles.
 First use Nov. 19, 1956.

- 657,573. Charlotte Gottlieb, d. b. a. The Professional Shoe Service, Washington, D. C. SN 21,629. Filed P. R. 12-26-56. Am. S. R. 11-12-57.

X-TRA ARCH

For Shoes.
 First use June 25, 1956.

Class 40—Fancy Goods, Furnishings, and Notions

- 657,574. American Heat-Seal, Inc., Milwaukee, Wis., by change of name from Johnson Products, Inc. SN 7,019. Filed P. R. 4-24-56. Am. S. R. 11-8-57.

"STAY ON"

For Fabric Patch and Tape Having a Coating of Thermoplastic Adhesive for Application by Hot Pressing.
 First use June 27, 1955.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

- 657,575. The Boss Company, Amboy, Ill. SN 31,378. Filed P. R. 6-5-57. Am. S. R. 6-21-57.

WOOLTONE

For Textile Rugs Made in Substantial Part of Wool.
 First use on or before July 9, 1954.

Class 46—Foods and Ingredients of Foods

- 657,576. The Southern Sea Food Company, Baltimore, Md. SN 697,034. Filed P. R. 10-24-55. Am. S. R. 10-8-56.

LOBSTER DAINTRIES

For Frozen Lobster Tails and Claws in the Shell, and Frozen Lobster Meat in Bulk Form, Packed in Paper, Cardboard or Wooden Boxes.
 First use Oct. 19, 1954.

657,577. Ellena Brothers, Etiwanda, Calif. SN 20,735. Filed P. R. 12-10-56. Am. S. R. 9-27-57.

QUEEN OF FLAVOR

For Meat, Fowl and Fish Marinade; Wine Vinegar.
First use Apr. 6, 1956.

657,578. Aktiengesellschaft Chocolat Tobler, d. b. a. Chocolat Tobler, Limited and Societe Anonyme Chocolat Tobler, Berne, Switzerland. SN 21,663. Filed P. R. 12-27-56. Am. S. R. 8-16-57.



No claim is made to any of the wording shown on the drawing, except the words "Tobler," "Toblerone," "Nolsetta" and the letter "T." Owner of Swiss Reg. No. 162,635, dated Sept. 29, 1956, and of U. S. Reg. Nos. 211,015, 638,852, and others.

For Chocolate Bars.
First use June 1956; in commerce June 1956.

657,579. Oceano Packing Co., Oceano, Calif. SN 29,472. Filed 5-6-57.



For Fresh Celery.
First use Jan. 29, 1952; Feb. 14, 1950, as to "Hand Pict."

Service Marks

Class 102 — Insurance and Financial

657,580. Alaska Western Life Insurance Company, Anchorage, Alaska. SN 34,105. Filed 7-22-57.

"Alaska's First Life Insurance Company"

For Underwriting Life Insurance.
First use June 12, 1956.

Class 103 — Construction and Repair

657,581. Mayer-Seaton, Inc., Mansfield, Ohio. SN 697,177. Filed P. R. 10-26-55. Am. S. R. 2-6-57.

"DON'T ANNEAL YOUR TOOL STEEL"

For Milling and Drilling of Hardened Tool Steel of Others.
First use Mar. 24, 1955.

TRADEMARK REGISTRATIONS RENEWED

- | | |
|---|--|
| 117,917. TUXEDO. Cl. 39. 8-7-17. | 352,686. LAZY GAL. Cl. 39. 12-7-37. |
| 117,945. STORK. Cl. 44. 8-7-17. | 352,730. AUNT MARY'S. Cl. 46. 12-14-37. |
| 118,903. "MERRIMACK" AND DESIGN. Cl. 42. 10-9-17. | 352,814. CUPRON. Cl. 18. 12-14-37. |
| 119,391. CUPRANIL. Cl. 6. 11-13-17. | 352,968. SANFORIZED. Cl. 39. 12-21-37. |
| 119,490. TRICO. Cl. 21. 11-27-17. | 353,120. G D AND DESIGN. Cl. 47. 12-28-37. |
| 120,317. DOLPHIN ATLANTIC AND DESIGN. Cl. 21. 2-5-18. | 353,188. BITUPLASTIC. Cl. 12. 12-28-37. |
| 120,318. DOLPHIN. Cl. 21. 2-5-18. | 353,463. TONOVEJ AND DESIGN. Cl. 46. 1-11-38. |
| 120,881. GRITS AND GRINDS. Cl. 38. 3-12-18. | 353,475. GLAYOR SECRET AND DESIGN. Cl. 46. 1-11-38. |
| 120,882. RR ALUNDUM. Cl. 1. 3-12-18. | 353,742. HEIDI. Cl. 22. 1-18-38. |
| 120,993. MUNSING WEAR. Cl. 39. 3-19-18. | 353,780. THERMOMETAL. Cl. 14. 1-18-38. |
| 121,027. AQUA VELVA. Cl. 51. 3-19-18. | 353,781. WILCO. Cl. 14. 1-18-38. |
| 121,419. DIAMOND T AND DESIGN. Cl. 19. 4-30-18. | 354,308. GLUE LINE PRODUCT AND DESIGN. Cl. 23. 2-9-38. |
| 328,781. BLACK CROSS. Cl. 49. 10-1-35. | 354,367. RURALAY. Cl. 21. 2-8-38. |
| 348,673. HARTZ MASTER. Cl. 46. 8-3-37. | 354,483. YOUR LIFE. Cl. 38. 2-15-38. |
| 350,492. LAMBKIN AND DESIGN. Cl. 44. 9-28-37. | 354,610. EARLYWARM. Cl. 42. 2-15-38. |
| 351,200. ROYAL CROWN AND DESIGN. Cl. 51. 10-19-37. | 354,746. OCEAN GARDEN. Cl. 46. 2-22-38. |
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REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 1—Raw or Partly Prepared Materials

394,780. Apr. 28, 1942. Strong & Fisher Limited, Rushden, England. Pub. by registrant.

ZEBRETTA

For Leather (Raw or Partly Prepared Materials).

Class 18—Medicines and Pharmaceutical Preparations

148,010. Nov. 8, 1921. J. C. Eno, Limited, London, England. Pub. by Harold F. Ritchie, Inc., Clifton, N. J.

ENO

For Saline Aperient.

441,033. Oct. 19, 1948. J. C. Eno, Inc., Bloomfield, N. J. Pub. by Harold F. Ritchie, Inc., Clifton, N. J.

**SAL
ENO**

For Medicinal Saline Preparation for Internal Human Use as a Laxative or for a Similar Purpose.

Class 24—Laundry Appliances and Machines

418,097. Dec. 4, 1945. Vic Cleaning Machine Co., Minneapolis, Minn. Pub. by Vic Manufacturing Co., Minneapolis, Minn.



For Industrial Dry Cleaning and Industrial Laundry Machines.

TM 106

Class 26—Measuring and Scientific Appliances

424,279. Oct. 1, 1946. E. Leitz, Inc., New York, N. Y. Pub. by registrant.

PANPHOT

For Microscope and Camera.

Class 39—Clothing

221,789. Dec. 14, 1926. The Byard Manufacturing Company, Limited, Nottingham, England. Pub. by Byard Manufacturing Company Limited, Nottingham, England.

HALO

For Hair Nets.

377,029. Apr. 16, 1940. The Byard Manufacturing Company, Limited, Nottingham, England. Pub. by Byard Manufacturing Company Limited, Nottingham, England.

RELIANCE

For Hair Nets.

385,928. Mar. 25, 1941. Allen Solly & Company Limited, Nottingham, England. Pub. by registrant.



For Knitted Socks for Men; Knitted Stockings for Men and Women; and Knitted Articles of Underclothing for Men.

398,480. Nov. 3, 1942. The Byard Manufacturing Company, Limited, Nottingham, England. Pub. by Byard Manufacturing Company Limited, Nottingham, England.

HALO

For Coats, Cloaks, Jackets, Jumpers, Blouses, Dresses, Suits, Outer Skirts and Underskirts for Women and Children; Fancy Dress Costumes; Evening Gowns; Mantles; Capes; Stockings and Socks; Underclothing for Men and Children—Namely, Undershirts, Underdrawers, Vests, Pants, Panties, Drawers, Knickers, Cami-Knickers, Petticoats, Corsets, Girdles, and Brassieres; Pyjamas, Night Dresses, and Night-Gowns, for Men, Women, and Children; and Bathing Suits, Trunks, Shirts, Capes, and Cloaks.

JANUARY 21, 1958

U. S. PATENT OFFICE

TM 107

416,631. Sept. 25, 1945. Byard Manufacturing Company Limited, Nottingham, England. Pub. by registrant.

HA-LO-NY

For Hair Nets.

433,392. Oct. 14, 1947. J. B. Lewis & Sons Limited, Nottingham, England. Pub. by Meridian Limited, Nottingham, England.

MERIDIAN

For Men's, Women's, Children's, and Infants' Wearing Apparel—Namely, Hosiery, Underwear Consisting of Shirts, Shorts, Drawers, and Union Suits, Panties, Knickers, Trunks, Petticoats, Bodices, Corsets, Brassieres, Pyjamas, Night-Dresses, Sleeping Suits, Dressing Gowns and Jackets, Bed-Jackets, Housecoats, Coats, Suits, Waistcoats, Trousers, Slacks, Outer Shorts, Outer Skirts, Frocks, Spencers, Mantles, Shawls, Sweaters, Rompers, Sports Shirts and Blouses, Football Jerseys, Gym Shirts, Bathing Suits and Trunks, Gloves and Mittens of Leather and Fabric, Belts, Scarves, Sleeping Bags, Lumber Coats, Boys' Jerseys, Jersey Suits, Infants' Pram Suits, Matinee Coats, Play Suits, Men's Pants, Boots, Shoes, and Slippers Made of Fabric, Leggings and Gaiters.

440,641. Sept. 14, 1948. J. Barlow & Co. (Nottingham) Limited, Beeston, Notts, England. Pub. by registrant.

BAR-WIN

For Men's Socks.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

425,727. Dec. 3, 1946. J. B. Lewis & Sons Limited, Nottingham, England. Pub. by Meridian Limited, Nottingham, England.

MERIDIAN

For Piece Goods Made of Cotton, Natural Silk, Wool, Linen, Rayon, Glass Nylon, Vinyl Resin Fibres, and Vinylidene Polymers, and Combinations Thereof.

436,856. Mar. 8, 1948. Byard Manufacturing Company Limited, Nottingham, England. Pub. by registrant.

WIG-TORY

For Silk Lace Nets Being Piece Goods.

Class 45—Soft Drinks and Carbonated Waters

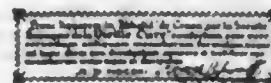
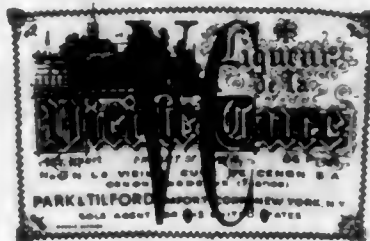
407,750. June 27, 1944. J. C. Eno (U. S.) Limited, Bloomfield, N. J. Pub. by Harold F. Ritchie, Inc., Clifton, N. J.

ENO

For Nonalcoholic Maltless Beverage and Compound for Making the Same.

Class 49—Distilled Alcoholic Liquors

444,652. Jan. 22, 1952. Societe Anonyme de la Vieille Cure de Cenon, Cenon, France. Pub. by registrant.



For Liqueurs.

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- AP Parts Corp., The, Toledo, Ohio, 551,770, can. Cl. 6.
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Alaska Western Life Insurance Co., Anchorage, Alaska, 657,580, Cl. 102.
Alexander-Shaw Corp., Wellesley Hills, Mass., 657,378, pub. 11-5-57, Cl. 18.
Allina Corp., Mineola, N. Y., 657,423, pub. 11-5-57, Cl. 26.
Allen Solly & Co., Ltd., Nottingham, England, 385,928, 12(c) pub. 1-21-58, Cl. 39.
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American Cyanamid Co., New York, N. Y., 657,381, pub. 11-5-57, Cl. 18.
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Ayerst, McKenna & Harrison, Ltd.
American Latex Products Corp., Hawthorne, Calif., 657,502, pub. 11-5-57, Cl. 42.
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Anne Lee Candy Shops.
Anne Lee Candy Shops, d. b. a. Anne Lee Candies, Norfolk, Va., 657,525, pub. 11-5-57, Cl. 46.
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Bymart-Tintail, Inc., New York, N. Y., 657,551, pub. 11-5-57, Cl. 51.
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Society of Chemical Industry in Basle.
Classy Curler Co.: See—
Currie, Margaret F.
Cleworth Publishing Co., Inc., Cos Cob, Conn. 657,570, Cl. 38.
Climax Molybdenum Co., New York, N. Y. 657,361, pub. 11-5-57. Cl. 15.
Cluett, Peabody & Co., Inc., Troy, N. Y. 657,461, pub. 11-5-57. Cl. 39.
Cluett, Peabody & Co., Inc., New York, N. Y. 352,968, ren. 12-21-57. Cl. 39.
Cohen, Goldman & Co., Inc., New York, N. Y., to House of Worsteds, Inc., Baltimore, Md., and Philadelphia, Pa. 355,567, ren. 3-22-58. Cl. 39.
Cohen, Goldman & Co., Inc., New York, N. Y., to House of Worsteds, Inc., Baltimore, Md., and Philadelphia, Pa. 355,534, ren. 3-22-58. Cl. 39.
Cohen, Joseph H., & Sons, Inc., New York, N. Y. 657,490, pub. 11-5-57. Cl. 39.
Colgate-Palmolive Co., New York, N. Y. 657,554, pub. 11-5-57. Cl. 52.
Collins & Alkman Corp., New York, N. Y. 657,506, pub. 11-5-57. Cl. 42.
Collura, Michael, d. b. a. Local Florist, Nesquehoning, Pa. 657,310, pub. 11-5-57. Cl. 1.
Colotype Tyle-Bord, Inc., Seattle, Wash. 551,612, can. Cl. 12.
Comfe Pajama Mfg. Co., New Bedford, Mass. 657,479, pub. 11-5-57. Cl. 39.
Comics Novelty Candy Corp., New York, N. Y. 551,793, can. Cl. 46.
Compania de Productos Marinos, S. A., to Pesquera Del Pacifico, S. de R. L., Ensenada, Mex. 354,746, ren. 2-22-58. Cl. 46.
Consolidated Cosmetics, Chicago, Ill. 551,700, can. Cl. 51.
Consolidated Cosmetics, Chicago, Ill. 551,701, can. Cl. 51.
Cooper's Inc., Kenosha, Wis. 657,464, pub. 1-8-57. Cl. 39.
Cooper's Inc., Kenosha, Wis. 551,509, can. Cl. 39.
Cortland Line Co., Inc., Cortland, N. Y. 657,396, pub. 11-5-57. Cl. 22.
Coty, Inc., New York, N. Y. 657,548, pub. 11-5-57. Cl. 51.
Country Tweeds, New York, N. Y. 657,459, pub. 10-1-57. Cl. 39.
County Canning Corp., New Bedford, Mass. 551,740, can. Cl. 46.
Craftsmen's Guild, Hollywood, Calif. 551,520, can. Cl. 29.
Cragstan Corp., New York, N. Y. 657,325, pub. 11-5-57. Cl. 3.
Crock of Gold, Ltd., The, Blackrock, Elre. 551,469, can. Cl. 42.
Cromwell Paper Co., The, Chicago, Ill. 657,434, pub. 2-14-56. Cl. 37.
Cromwell Paper Co., The, Chicago, Ill. 657,443, pub. 11-5-57. Cl. 37.
Culligan, Inc., Northbrook, Ill. 657,422, pub. 11-5-57. Cl. 26.
Currie, Margaret F., d. b. a. Classy Curler Co., Manhasset, N. Y. 551,652, can. Cl. 40.
Curtis, Helene, Industries, Inc., Chicago, Ill. 657,553, pub. 11-5-57. Cl. 52.
Cutlery Corp. of America, Bridgeport, Conn. 551,699, can. Cl. 23.
Daimler-Benz Aktiengesellschaft, Stuttgart, Germany. 657,386-7, pub. 11-5-57. Cl. 19.
Daimler-Benz Aktiengesellschaft, Stuttgart, Germany. 657,414, pub. 11-5-57. Cl. 23.
Daimler-Benz Aktiengesellschaft, Stuttgart, Germany. 657,414, pub. 11-5-57. Cl. 23.
Daimler-Benz Aktiengesellschaft, Stuttgart, Germany. 657,414, pub. 11-5-57. Cl. 23.
Daisy Shep, Inc., New York, N. Y. 657,476, pub. 11-5-57. Cl. 39.
Davis Creosoting Co.: See—
Davis, W. F.
Davis, W. F., d. b. a. Davis Creosoting Co., Birmingham, Ala. 551,855, can. Cl. 6.
Deep Run Packing Co., The: See—
Smith, Willard H.
De Laval Separator Co., The, Poughkeepsie, N. Y. 657,506, Cl. 23.
Dell Publishing Co., Inc., New York, N. Y. 657,452, pub. 11-5-57. Cl. 38.
Desbrow, Floyd H., d. b. a. Peggin-Bo Mfg. Co., Woodward, Okla. 657,488, pub. 11-5-57. Cl. 39.
Desela, Alex, d. b. a. Americas International Co., San Francisco, Calif. 657,567, Cl. 23.
Dey, T. O., Service Corp., New York, N. Y. 657,473, pub. 11-5-57. Cl. 39.
Dial Shoe Co., Inc., Philadelphia, Pa. 657,475, pub. 11-5-57. Cl. 39.
Diamond T Motor Car Co., Chicago, Ill. 121,419, ren. 4-30-58. Cl. 19.
Dix-A-Dee Beverage Corp., Brooklyn, N. Y. 657,514, pub. 11-5-57. Cl. 46.
Doane Agricultural Service, Inc., St. Louis, Mo. 657,444, pub. 11-5-57. Cl. 38.
Douglass, Josephine, Okmulgee, Okla. 551,541, can. Cl. 3.
- Dow Chemical Co., The, Midland, Mich. 657,429, pub. 11-5-57. Cl. 31.
Dri-Powr Co.: See—
Wynn, Clarence M.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 551,577, can. Cl. 6.
Du Pont, E. I., de Nemours and Co., Wilmington, Del. 657,501, pub. 11-5-57. Cl. 42.
Eagle Clothes, Inc., New York, N. Y. 551,554, can. Cl. 39.
Early, Charles, & Co. Ltd., Witney, England. 354,610, ren. 2-15-58. Cl. 42.
Easy Glitter Wax Co., West Palm Beach, Fla. 657,426, pub. 11-5-57. Cl. 29.
Ekeo Products Co., Chicago, Ill. 657,411-12, pub. 11-5-57. Cl. 23.
Electrolux Corp.: See—
Electrolux, Inc.
Electrolux, Inc., to Electrolux Corp., New York, N. Y. 356,560, ren. 5-3-58. Cl. 21.
Electrolux, Inc., to Electrolux Corp., New York, N. Y. 356,561, ren. 5-3-58. Cl. 21.
Elgin National Watch Co., Elgin, Ill. 288,383, can. Cl. 27.
Ellena Brothers, Etiwanda, Calif. 657,577. Cl. 46.
Elmar Co.: See—
Misko, Michael J.
Elwell-Parker Electric Co., The, Cleveland, Ohio. 551,496, can. Cl. 23.
Empire Button Mfg. Co., Inc., Union City, N. J. 657,493, pub. 11-5-57. Cl. 40.
Eno, J. C., Inc., Bloomfield, to Harold F. Ritchie, Inc., Clifton, N. J. 441,033, 12(c) pub. 1-21-58. Cl. 18.
Eno, J. C., Ltd., London, England, to Harold F. Ritchie, Inc., Clifton, N. J. 148,010, 12(c) pub. 1-21-58. Cl. 18.
Eno, J. C., (U. S.) Ltd., Bloomfield, to Harold F. Ritchie, Inc., Clifton, N. J. 407,750, 12(c) pub. 1-21-58. Cl. 45.
Equire Chemical Co., Downers Grove, Ill. 657,326, pub. 11-5-57. Cl. 6.
Essex Graham Co., Chicago, Ill. 657,425, pub. 11-5-57. Cl. 29.
Essex Metal Products Co., West New York, N. J. 551,746, can. Cl. 40.
Etablissements Verot & Perrin, S. a. r. l., Saint-Etienne, Loire, France. 657,382, pub. 11-5-57. Cl. 19.
Evans, David G., Coffee Co., to Old Judge Coffee Co., St. Louis, Mo. 351,767, ren. 11-9-57. Cl. 45.
Fablok Mills, Inc., Irvington, N. J. 657,495, pub. 11-5-57. Cl. 42.
Fairfax Baking Co.: See—
Safeway Stores, Inc.
Falatic, George E., Warren, Ohio. 657,404, pub. 11-5-57. Cl. 22.
Feld, Herbert H., d. b. a. Cent-A-Day Vitamin Co., Willow Grove, Pa. 657,564, Cl. 18.
Filterzone Auto-Vision Co., Brooklyn, N. Y. 551,670, can. Cl. 26.
Filterzone Auto-Vision Co., Brooklyn, N. Y. 551,671, can. Cl. 26.
Flowmeter Corp. of America, High Falls, N. Y. 551,478, can. Cl. 26.
Foremost Dairies, Inc.: See—
Philadelphia Dairy Products Co., Inc.
Formfit Metal Shoulder Pad Co., New York, N. Y. 551,857, can. Cl. 50.
Forsberg, Jonas A., Umea, Sweden. 551,430, can. Cl. 46.
Forstner Chain Corp., to Forstner, Inc., Irvington, N. J. 356,133, ren. 4-12-58. Cl. 23.
Freeman, Edwin M., to M. A. Freeman, Executrix of the Estate of E. M. Freeman, Denver, Colo. 356,353, ren. 4-26-58. Cl. 6.
Freeman, Mildred A.: See—
Freeman, Edwin M.
Freitas, John, Corning, N. Y. 657,540, pub. 11-5-57. Cl. 46.
Frito Co., The, Dallas, Tex. 657,527-8, pub. 11-5-57. Cl. 46.
Fuller, D. B., & Co., Inc., New York, N. Y. 657,499, pub. 7-23-57. Cl. 42.
Future Enterprises, Inc., Grand Forks, N. Dak. 551,563, can. Cl. 23.
Galef, J. L., & Son, Inc., New York, N. Y. 657,335, pub. 11-5-57. Cl. 9.
Gambarelli & Davitto, New York, N. Y., to Italian Swiss Colony, San Francisco, Calif. 353,120, ren. 12-28-57. Cl. 47.
Garfinkel & Ritter, to The Barblizon Corp., New York, N. Y. 352,658, ren. 12-7-57. Cl. 39.
Garfinkel & Ritter, to The Barblizon Corp., New York, N. Y. 352,686, ren. 12-27-57. Cl. 39.
General Cable Corp.: See—
Atlantic Insulated Wire & Cable Co.
General Cable Corp., New York, N. Y. 354,367, ren. 2-8-58. Cl. 21.
General Mills, Inc., Minneapolis, Minn. 657,334, pub. 11-5-57. Cl. 6.
General Research and Supply Co., Grand Rapids, Mich. 657,433, pub. 11-5-57. Cl. 34.
Gerber Products Co., Fremont, Mich. 657,394, pub. 11-5-57. Cl. 22.
Gettelfinger, Joseph A., Cincinnati, Ohio. 551,596, can. Cl. 13.
Gevaert Photo-Producten N. V., Mortsel, Belgium. 657,416, pub. 11-5-57. Cl. 26.
Gits Molding Corp., Chicago, Ill. 657,320, pub. 1-17-56. Cl. 2.
Glenwood Range Co., Taunton, Mass. 551,812, can. Cl. 21.
Goddin, Hazel B., Richmond, Va. 551,845, can. Cl. 13.
Golden Grain Macaroni Co., d. b. a. Gragnano Products, Inc., San Leandro, Calif. 657,526, pub. 11-5-57. Cl. 46.
Goldner, Julius, d. b. a. Warwick Laboratories Co., Brooklyn, N. Y. 657,360, pub. 11-5-57. Cl. 15.
Goodman & Sons, Inc., Jersey City, N. J., and New York, N. Y. 551,749, can. Cl. 40.

- Gordon Clothes, Inc., Philadelphia, Pa. 657,472, pub. 11-5-57. Cl. 39.
Gottlieb, Charlotte, d. b. a. The Professional Shoe Service, Washington, D. C. 657,573. Cl. 39.
Gragnano Products, Inc.: See—
Golden Grain Macaroni Co.
Graphic Arts Disability Plan, Inc., New York, N. Y. 551,827, can. Cl. 102.
Greenspan, Philip J., Inc., New York, N. Y. 551,634, can. Cl. 21.
Griffin Chemical Co., San Francisco, Calif. 551,690, can. Cl. 15.
Griggs, Cooper & Co., St. Paul, Minn. 551,570, can. Cl. 46.
Gristede Bros., Inc.: See—
Character Sales Corp.
Grove Laboratories, Inc., St. Louis, Mo. 657,367, pub. 11-5-57. Cl. 18.
Gulf Oil Corp., Pittsburgh, Pa. 657,558, pub. 11-5-57. Cl. 103.
Hallmark Cards Inc., Kansas City, Mo. 657,441, pub. 11-5-57. Cl. 37.
Hankison Corp., Pittsburgh, Pa. 657,356, pub. 11-5-57. Cl. 13.
Harrison Co., Inc., The, Long Island City, N. Y. 551,734, can. Cl. 40.
Hart Schaffner & Marx: See—
Society Brand Clothes, Inc.
Hartz Mountain Products Inc., to Hartz Mountain Products Corp., New York, N. Y. 348,673, ren. 8-3-57. Cl. 46.
Hartz Mountain Products Inc.: See—
Hartz Mountain Products Corp.
Hisco Valve and Machine Co., Milwaukee, Wis. 352,356, ren. 11-30-57. Cl. 13.
Hassenfeld Bros., Inc., Central Falls, R. I. 657,405-6, pub. 11-5-57. Cl. 22.
Heffelfinger, Robert H., Memphis, Tenn. 657,383, pub. 11-5-57. Cl. 19.
Held, Paul C., d. b. a. Paul C. Held Co., Salt Lake City, Utah. 657,375, pub. 11-5-57. Cl. 18.
Held, Paul C., Co.: See—
Held, Paul C.
Henry Mfg. Co., Inc., Topeka, Kans. 657,410, pub. 11-5-57. Cl. 23.
Hines, Edward, Lumber Co., Chicago, Ill. 657,340, pub. 11-5-57. Cl. 12.
Hines, Edward, Lumber Co., Chicago, Ill. 657,348, pub. 11-5-57. Cl. 12.
Hitchcock & Chamberlain, Ltd., Redwood City, Calif. 657,557, pub. 11-5-57. Cl. 101.
Home Containers Corp., San Francisco, Calif. 551,787, can. Cl. 33.
Hound Metallic Packing Co., Chicago, Ill. 296,921, can. Cl. 35.
House of Worsteds, Inc.: See—
Cohen, Goldman & Co. Inc.
Hunt Foods, Inc., Fullerton, Calif. 551,741, can. Cl. 46.
Huwood Components Ltd., Newcastle-on-Tyne, England. 551,807, can. Cl. 21.
Ideal Shoe Co., Philadelphia, Pa. 657,463, pub. 11-5-57. Cl. 39.
Ilford, Ltd., Ilford, England. 657,330, pub. 11-5-57. Cl. 6.
Industrial Development Corp.: See—
Society Brand Clothes, Inc.
Industrial Publishing Corp., Cleveland, Ohio. 657,571. Cl. 38.
Industrial Research Engineering, Chicago, Ill. 657,563. Cl. 18.
Insurance Securities Inc., Oakland, Calif. 657,448, pub. 11-5-57. Cl. 38.
International Distributors: See—
Plough, Inc.
International Magnetic Electronics Co., Minneapolis, Minn. 657,390, pub. 10-15-57. Cl. 21.
Invox, Inc., Coral Gables, Fla. 657,362, pub. 11-5-57. Cl. 15.
Italian Swiss Colony: See—
Gambarelli & Davitto.
Italian Swiss Colony, d. b. a. Swiss Colony, San Francisco, Calif. 657,520, pub. 11-5-57. Cl. 46.
Italian Swiss Colony, San Francisco, Calif. 657,521, pub. 11-5-57. Cl. 46.
Jay Publishing Co., Inc., Philadelphia, Pa. 657,451, pub. 11-5-57. Cl. 38.
Jenae Glaswerk Schott & Gen., Mainz, Germany. 657,419, pub. 11-5-57. Cl. 26.
Jergens, Andrew, Co., The, Cincinnati, Ohio. 551,553, can. Cl. 51.
Jewel Tea Co., Inc., Melrose Park, Ill. 657,491, pub. 11-5-57. Cl. 39.
Jim, Clarence Y., Honolulu, Territory of Hawaii. 657,522-3, pub. 11-5-57. Cl. 46.
Johns-Manville Corp., New York, N. Y. 551,576, can. Cl. 12.
Johnson Products, Inc.: See—
American Heat-Seal, Inc.
Jorgensen Bros., Pleasanton, Calif. 657,399, pub. 11-5-57. Cl. 22.
Kiefer, C. K.: See—
Kiefer, Charles K.
Kiefer, Charles K., d. b. a. C. K. Kiefer, Lancaster, Pa. 657,531-2, pub. 11-5-57. Cl. 46.
Kimberly-Clark Corp., Neenah, Wis. 551,677, can. Cl. 12.
Kingway Press, Inc., The, New York, N. Y. 354,483, ren. 2-15-58. Cl. 38.
Knapp-Monarch Co., St. Louis, Mo. 551,849, can. Cl. 6.
Kohnstamm, H., & Co., Inc., New York, N. Y. 657,538, pub. 11-5-57. Cl. 46.
Koppers Co., Inc.: See—
Walica Dove-Hermiston Corp.
Kraft Foods Co., Chicago, Ill. 657,541, pub. 11-5-57. Cl. 40.
- Laboratories Terrier, Inc., Hato Rey, Puerto Rico. 657,371, pub. 11-5-57. Cl. 18.
Lachoy Food Products, Inc., Detroit, Mich., to Beatrice Foods Co., Chicago, Ill. 353,475, ren. 1-11-58. Cl. 46.
Lady Esther, Ltd., Chicago, Ill. 551,642, can. Cl. 51.
Lafayette Farm Supply, Inc., Lexington, Mo. 657,561. Cl. 10.
Lawn Products Co.: See—
Seaboard Seed Co.
Lazy Time Togs, Inc., New York, N. Y. 657,483, pub. 11-5-57. Cl. 39.
Lear, Inc., Grand Rapids, Mich. 551,657, can. Cl. 21.
Lee, Terri, Sales Corp., Apple Valley, Calif. 657,391, pub. 11-5-57. Cl. 22.
Lee, Terri, Sales Corp., Apple Valley, Calif. 657,401, pub. 11-5-57. Cl. 22.
Leeds and Northrup Co., Philadelphia, Pa. 355,991, ren. 4-5-58. Cl. 26.
Leitz, E., Inc., New York, N. Y. 424,279, 12(c) pub. 1-21-58. Cl. 26.
Lewis, J. B., & Sons Ltd., to Meridian Ltd., Nottingham, England. 425,727, 12(c) pub. 1-21-58. Cl. 42.
Lewis, J. B., & Sons Ltd., to Meridian Ltd., Nottingham, England. 433,392, 12(c) pub. 1-21-58. Cl. 39.
Life Savers Corp., Port Chester, N. Y., to Beech-Nut Life Savers, Inc., Canajoharie, N. Y. 355,158, ren. 3-8-58. Cl. 46.
Lilly, Eli, and Co., Indianapolis, Ind. 551,462, can. Cl. 18.
Local Florist: See—
Collura, Michael.
Locker Management, Inc., St. Louis, to A. Todoroff, Clayton, Mo. 657,569. Cl. 38.
Logan Fuel Co., Inc., Cincinnati, Ohio. 551,573, can. Cl. 1.
Lorito, Vincent, & Sons, New Garden, Pa. 551,607, can. Cl. 46.
Lovable, Brassiere Co., The, Atlanta, Ga. 657,467, pub. 11-5-57. Cl. 39.
Luther Corp., Warsaw, Ind. 657,385, pub. 8-20-57. Cl. 19.
Maco Toys, Brooklyn, N. Y. 657,398, pub. 11-5-57. Cl. 22.
Madeleine Laboratories, Inc., White Plains, N. Y. 657,377, pub. 11-5-57. Cl. 18.
Marathon Corp.: See—
Menasha Products Co.
Martin's Brooklyn, N. Y. 356,584, ren. 5-3-58. Cl. 39.
Master Mfg. Co., Peoria, Ill. 657,552, pub. 11-5-57. Cl. 52.
Masters, George R., Waco, Tex. 657,393, pub. 11-5-57. Cl. 22.
Matchabell, Prince, Inc.: See—
Cameron, Ewen.
Mayer-Seaton, Inc., Mansfield, Ohio. 657,581. Cl. 103.
McBride's: See—
Taylor, Marion M.
McCrory, John R., Jr., New York, N. Y. 657,421, pub. 11-5-57. Cl. 26.
McFall-Brodie Co., Glendale, Calif. 551,605, can. Cl. 33.
McGrath & Sons, Detroit, Mich. 551,470, can. Cl. 26.
Meat Industry Suppliers, Inc., Chicago, Ill. 657,536, pub. 11-5-57. Cl. 46.
Menasha Products Co., to Marathon Corp., Menasha, Wis. 355,149, ren. 3-8-58. Cl. 5.
Meridian Ltd.: See—
Lewis, J. B., & Sons Ltd.
Merrimack Mfg. Co., to Merrimack Mfg. Co. (1953), Lowell, Mass. 118,903, ren. 10-9-57. Cl. 42.
Merrimack Mfg. Co. (1953): See—
Merrimack Mfg. Co.
Metallizing Engineering Co., Westbury, N. Y. 657,358, pub. 11-5-57. Cl. 14.
Miami Window Co., Hialeah, Fla. 657,351, pub. 11-5-57. Cl. 12.
Mid-West Refineries, Inc., Grand Rapids, Mich. 551,502, can. Cl. 15.
Minerals & Chemicals Corp. of America, Menlo Park, N. J. 657,309, pub. 7-9-57. Cl. 1.
Minnesota Mining & Mfg. Co., St. Paul, Minn. 351,770, ren. 11-9-57. Cl. 4.
Minnesota Mining & Mfg. Co., St. Paul, Minn. 351,771, ren. 11-9-57. Cl. 4.
Minutoll, A., d. b. a. Travertite Co., San Francisco, Calif. 551,655, can. Cl. 12.
Misko, Michael J., d. b. a. Elmar Co., Inglewood, Calif. 551,852, can. Cl. 22.
Mississippi Valley Canning Co., The, Osceola, Ark. 551,689, can. Cl. 46.
Modern Optics, Inc., Houston, Tex. 551,850, can. Cl. 26.
Modulite Co., Los Angeles, Calif. 657,345, pub. 11-5-57. Cl. 12.
Mohasco Industries, Inc., Amsterdam, N. Y. 657,497, pub. 11-5-57. Cl. 42.
Montabert, Germaine, and Co., New York, N. Y. 551,778, can. Cl. 40.
Montgomery Coal & Coke Co., Inc., Brooklyn, N. Y. 657,314, pub. 11-5-57. Cl. 1.
Moore, Benjamin, & Co., New York, N. Y. 351,864, ren. 11-9-57. Cl. 16.
Mor-Pak Preserving Corp., San Francisco, Calif. 352,750, ren. 12-14-57. Cl. 46.
Morton Pottery Co., Morton, Ill. 657,341, pub. 11-5-57. Cl. 12.
Morton Salt Co., Chicago, Ill. 551,422, can. Cl. 46.
Mosinger-Cohn, Inc., St. Louis, Mo. 657,482, pub. 11-5-57. Cl. 39.
Munchhausen, Heyno von, d. b. a. Munchhausen Soundproofing Co., Inc., New York, N. Y. 657,344, pub. 11-5-57. Cl. 12.
Munchhausen Soundproofing Co., Inc.: See—
Munchhausen, Heyno von.
Munsingwear, Inc.: See—
Northwestern Knitting Co., The.
Munsingwear, Inc., Minneapolis, Minn. 355,220, ren. 3-8-58. Cl. 39.

- Murray, Alan E., d. b. a. Alan E. Murray Laboratories, Bridgeport, Conn. 657,474, pub. 11-5-57. Cl. 39.
Murray, Alan E., Laboratories: See—
Murray, Alan E.
Nagel, Herman, d. b. a. The Herman Nagel Co., Chicago, Ill. 551,417, can. Cl. 18.
Nagel, Herman, Co., The: See—
Nagel, Herman.
National Lead Co., New York, N. Y. 657,319, pub. 11-5-57. Cl. 1.
National Spectrographic Laboratories, Inc., Cleveland, Ohio. 657,453, pub. 11-5-57. Cl. 38.
National Tank Co., Tulsa, Okla. 657,445, pub. 11-5-57. Cl. 38.
Nelsworth Distributors, Long Beach, to The Pedifleur Corp., San Francisco, Calif. 657,549, pub. 11-5-57. Cl. 51.
Newberry, J. J., Co., New York, N. Y. 551,844, can. Cl. 23.
New York & New Jersey Lubricant Co., New York, N. Y. 356,401, ren. 4-26-58. Cl. 15.
New York & New Jersey Lubricant Co., New York, N. Y. 356,403, ren. 4-26-58. Cl. 15.
New York Silicate Book Slate Co., Inc., New York, N. Y. 657,546, pub. 8-11-53. Cl. 50.
Nopco Chemical Co., Harrison, N. J. 657,331, pub. 11-5-57. Cl. 6.
Norden-Ketay Corp., Milford, Conn. 657,417, pub. 11-5-57. Cl. 26.
Nordic Mfg. Co., Minneapolis, Minn. 551,643, can. Cl. 26.
Northwestern Knitting Co., The, to Munsingwear, Inc., Minneapolis, Minn. 120,993, ren. 3-19-58. Cl. 39.
Norton Co., Worcester, Mass. 120,881, ren. 3-12-58. Cl. 38.
Norton Co., Worcester, Mass. 120,882, ren. 3-12-58. Cl. 1.
Norwich Mills, Inc., Norwich, N. Y. 657,486, pub. 11-5-57. Cl. 39.
Nuclear Magnetics Corp., Boston, Mass. 657,418, pub. 11-5-57. Cl. 26.
Nutex Corp. of America, Philadelphia, Pa. 657,508, pub. 10-22-57. Cl. 44.
Oceano Packing Co., Oceano, Calif. 657,579. Cl. 46.
O'Connell, Thomas M. A., Wellington, New Zealand. 657,413, pub. 11-5-57. Cl. 23.
Ohio-Kentucky Mfg. Co., Ada, Ohio. 657,397, pub. 11-5-57. Cl. 22.
Olson, Samuel, Mfg. Co., Inc., Chicago, Ill. 657,409, pub. 11-5-57. Cl. 23.
Olympus Optical Co. Ltd., Shibuya-ku, Tokyo, Japan. 657,415, pub. 11-5-57. Cl. 26.
Omnia Constructions Ltd., London, England. 657,349, pub. 11-5-57. Cl. 12.
Omnipol, Ltd. Co., also named Omnipol, Akcloya Spolecnost, Prague, Czechoslovakia. 551,460, can. Cl. 13.
Oncrete Products, Inc., Chicago, Ill. 657,363, pub. 10-22-57. Cl. 16.
O-So Grape Co.: See—
Schneeberger, Leroy O.
Oxford Boysewear, Inc., New York, N. Y. 551,750, can. Cl. 39.
Ozark-Mahoning Co., Tulsa, Okla. 657,336-7, pub. 11-5-57. Cl. 10.
Parker Pen Co., The, Janesville, Wis. 657,438-9, pub. 11-5-57. Cl. 37.
Patten, Lee, Seed Co., Jersey City, N. J. 657,305-7, pub. 11-5-57. Cl. 1.
Pecora Paint Co., Inc., Philadelphia, Pa. 657,354, pub. 11-5-57. Cl. 12.
Pedifleur Corp., The: See—
Nelsworth Distributors.
Peggin-Bo Mfg. Co.: See—
Desbrow, Floyd H.
Pennsylvania Salt Mfg. Co., The, Philadelphia, Pa. 551,463, can. Cl. 1.
Perkin-Elmer Corp., The, Norwalk, Conn. 657,424, pub. 11-5-57. Cl. 26.
Perry Knitting Co., The, Perry, N. Y. 657,487, pub. 11-5-57. Cl. 39.
Pesquera Del Pacifico, S. de R. L.: See—
Compania de Productos Marinos, S. A.
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Rodier, Inc., New York, N. Y. 657,505, pub. 11-5-57. Cl. 42.
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The first of these is the fact that the United States has a large and growing surplus of goods and services. This surplus is the result of the fact that the United States has a large and growing population, and a large and growing economy. The surplus is also the result of the fact that the United States has a large and growing military and naval power. This surplus is the result of the fact that the United States has a large and growing population, and a large and growing economy. The surplus is also the result of the fact that the United States has a large and growing military and naval power.

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PATENTS NOTICES

Foreign Patents Received in the Scientific Library as of December 31, 1957

Country	Date received	Highest number
Australia:		
(Abstracts)-----	Dec. 19, 1957-----	27,595
(Patents)-----	Dec. 23, 1957-----	209,348
Austria-----	Dec. 16, 1957-----	193,000
Belgium-----	Dec. 2, 1957-----	531,000
Canada-----	Dec. 30, 1957-----	550,152
Denmark-----	Oct. 14, 1957-----	83,336
Egypt-----	Nov. 25, 1957-----	1,000
Finland-----	Nov. 20, 1957-----	28,940
France:		
(Patents)-----	Dec. 30, 1957-----	1,147,050
(Additions)-----	Dec. 23, 1957-----	67,000
Germany:		
(Auslegeschriften)-----	Dec. 2, 1957-----	1,016,650
(Patents)-----	Dec. 2, 1957-----	1,006,799
Great Britain-----	Dec. 19, 1957-----	787,400
India-----	Sept. 12, 1957-----	57,315
Ireland-----	Oct. 1, 1957-----	21,200
Italy-----	Oct. 21, 1957-----	549,200
Japan-----	Dec. 24, 1957-----	9,900
Netherlands-----	Dec. 10, 1957-----	86,922
Norway-----	Nov. 25, 1957-----	90,288
Philippines-----	June 29, 1956-----	217
Poland-----	Nov. 21, 1957-----	40,098
Sweden-----	Nov. 19, 1957-----	160,860
Switzerland-----	Dec. 23, 1957-----	324,989
Yugoslavia-----	Feb. 17, 1955-----	16,461

Australia: First 2,000 incomplete
Belgium: First printed 493,079
Canada: First printed 453,746
Czechoslovakia: Latest 81,300/1952
Finland: First printed 19,428
Hungary: First 500 incomplete
Hungary: First received 6,792
Hungary: Latest 140,582/1951
Ireland: Missing 1-10,000
Italy: First 243,000 incomplete
Russia: Latest 2496/1928
Yugoslavia: First received 10,001

Patents Available for Licensing or Sale

2,812,719. Rotary Pump. Humphrey L. Nash, Jr., and John Nash II, Trustees, % Corflow Company, 181 Topsfield Road, Danvers, Mass.
2,813,275. Hair and Head Treating Device. Josephine G. Davenport, Wilson Creek, Meeker, Colo.
2,813,467. Reciprocating Concrete Screed. Giuseppe Vigneri, 57 Passaic Ave., Belleville, N. J.

2,815,212. Punch Gun (Pool Gun). Samuel Hall, 3408 Ivandell Ave., Dallas 11, Tex.

General Electric Company is prepared to grant non-exclusive licenses under the following patents on reasonable terms to domestic manufacturers.

Applications for licenses under the following 11 patents may be addressed to: General Electric Company, Appliance & Television Receiver Division, Appliance Park, Louisville 1, Ky.

2,247,817. Centrifugal Pump.
2,276,852. Condition Responsive Control.
2,292,032. Refrigerator Cabinet.
2,292,803. Evaporator for Refrigerating Machines.
2,550,512. Brazing Process.
2,606,990. Control System for Electric Heating Units.
2,646,328. Cover Construction for Work Tables.
2,794,322. Variable Temperature Refrigerator.
2,794,328. Variable Temperature Refrigerator.
2,794,329. Variable Temperature Refrigerator.
2,799,142. Dual Temperature Refrigerator.

Classification Order No. 242

Classification Order No. 242, dated January 3, 1958, incorporates changes in the following classes:

Classes 40, 46 and 260

The above changes will be incorporated in the Manual of Classification replacement pages dated April 1958.

M. C. ROSA,
Director, Patent Examining Operation.

Classification Order No. 243

The following transfers are hereby ordered to take effect on Monday, January 6, 1958:

From Division 7 to Division 62
Class 95, PHOTOGRAPHY
From Division 26 to Division 42
Class 307, ELECTRICAL TRANSMISSION OR INTERCONNECTION SYSTEMS, Subclass 88
From Division 48 to Division 26
Class 336, INDUCTOR DEVICES

M. C. ROSA,
Director, Patent Examining Operation.

New Applications Received During November 1957

Patents-----	6,063
Designs-----	425
Plant Patents-----	4
Reissues-----	19
Total-----	6,511

Issue

Patents-----	747—No. 2,820,966 to No. 2,821,712, incl.
Designs-----	60—No. 181,952 to No. 182,011, incl.
Plant Patents--	1—No. 1,676
Reissues-----	2—No. 24,420 to No. 24,421, incl.
Total-----	810

Disclaimer

2,712,686.—*Norman A. Heldt*, Allen Park, Mich. ADJUSTABLE TOOL CONSTRUCTION. Patent dated July 12, 1955. Disclaimer filed Dec. 19, 1957, by the assignee, *Ex-Cell-O Corporation*.

Hereby enters this disclaimer to claims 1, 3, 5, and 6 of said patent.

Dedication

2,812,263.—*Henry C. Geen*, Grand Rapids, and *James D. Quist*, Holland, Mich. POLISH. Patent dated Nov. 5, 1957. Dedication filed Dec. 23, 1957, by the assignees, *S. C. Johnson & Son, Inc.* and *Simoniz Company*.

Hereby dedicates to the public the full and unrestricted use of said patent.

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CONDITION OF PATENT APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of pending applications (excluding Designs).....	212,792
Total number of pending Design applications.....	6,640
Total number of applications awaiting action (excluding Designs).....	95,704
Total number of Design applications awaiting action.....	3,114
Date of oldest new application.....	Aug. 27, 1956
Date of oldest amended application.....	July 5, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS	
(I) STONE, I. G., CHEMICAL AND RELATED ARTS.....	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.	
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS.....	16, 26, 37, 41, 42, 44, 48, 51, 54, 69, 70.	
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS.....	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.	
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSE- MENT DEVICES.	7, 11, 17, 27, 34, 35, 39, 63, 62.	
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION.....	5, 8, 20, 29, 33, 36, 40, 52, 66.	
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS.....	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.	
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.	
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICA- TION DIVISIONS.	I, II, III, IV, V.	
DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders.....	2-28-57	12-5-56
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps.....	2-19-57	10-29-56
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats.....	4-17-57	2-6-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways.....	3-18-57	11-29-56
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors, Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing.....	2-25-57	11-27-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines.....	3-20-57	3-8-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. O., acting), Optics, Photographic Apparatus.....	2-4-57	12-3-56
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles.....	4-8-57	1-16-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines.....	3-5-57	11-16-56
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making.....	3-15-57	1-28-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits.....	4-22-57	2-26-57
12. (III) SPITTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls.....	3-4-57	12-11-56
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning.....	4-2-57	1-28-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes.....	4-3-57	2-20-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass.....	3-13-57	12-3-56
16. (II) ROSE, R. H., (acting), Telephony; Recorders (part).....	8-27-56	8-1-56
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Asso- ciation or Folding.....	2-25-57	10-3-56
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices.....	3-1-57	1-2-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating.....	3-4-57	12-26-56
20. (V) BROWN, L. M., Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors.....	1-28-57	11-6-56
21. (III) MADER, R. C., Textiles.....	12-18-56	10-1-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Dia- phragms and Bellows.....	3-4-57	12-4-56
23. (VI) ANDRUS, L. M., Cash and Fare Registers; Calculators and Counters; Education.....	12-31-56	7-16-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control.....	4-12-57	1-30-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Ap- paratus; Paper Making.....	6-6-57	1-25-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Sys- tems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms.....	5-1-57	2-6-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids.....	3-21-57	2-28-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes.....	3-25-57	11-3-56
29. (V) HABECKER, L. B., Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fasten- ings.....	1-23-57	11-23-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling.....	2-6-57	7-12-56

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)		Oldest Application	
		New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils		12-14-56	11-2-56
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers		4-1-57	2-13-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering, Roads and Pavements		3-5-57	12-5-56
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements		2-25-57	10-1-56
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding		4-25-57	4-17-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales		12-28-56	11-30-56
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits		2-5-57	2-7-57
38. (I) MARMELESTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols		5-7-57	5-16-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows)		4-9-57	3-14-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages		6-3-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television		10-16-56	7-13-56
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part)		12-3-56	11-16-56
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles		5-27-57	6-24-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes		11-28-56	9-28-56
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part)		4-1-57	11-20-56
46. (I) WILES, W. G., Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part)		3-11-57	12-13-56
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles		5-29-57	4-1-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers		3-4-57	9-19-56
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring		3-14-57	12-10-56
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber		5-6-57	5-3-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices		3-7-57	2-19-57
52. (V) NEFF, P. R., Supports and Racks		4-1-57	10-31-56
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators		4-23-57	4-8-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications		1-9-57	3-4-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators		10-8-56	8-14-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry		5-20-57	3-11-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending		4-3-57	3-6-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spitoons; Boring and Drilling; Paper Manufactures; Packaging (part)		2-11-57	8-8-56
59. (I) HENKIN, B., Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating		2-25-57	11-14-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products		3-7-57	12-5-56
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths		3-5-57	9-24-56
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination		7-1-57	7-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds		2-20-57	12-3-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions		3-4-57	11-15-56
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures		2-6-57	7-23-56
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification		12-27-56	7-5-56
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators		2-26-57	11-13-56
70. (II) BREWRINK, J. L., Security Laws Administration			
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics		1-3-57	9-6-56
II—LADY, J. E., Oscillators; Amplifiers		3-5-57	11-8-56
III—WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres		2-18-57	9-4-56
IV—BERLOWITZ, W., Harrows and Diggers; Plows		3-20-57	12-26-56
V—ANGEL, C. D., Refrigeration; Roofs		3-4-57	3-4-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part)		4-1-57	1-10-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts		5-2-57	6-10-57
B—GRAY, M. A., Household, Personal and Fine Arts		5-1-57	5-1-57

* Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during December 1957, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents

Plant Patents

Numbers 2,223,338 to 2,227,417, inclusive
Numbers 434 to 436, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

In the United States Patent Office
Before the Board of Appeals

EX PARTE RICHARD S. ABKLESS

Appeal No. 442-61. Decided March 23, 1955

1. REISSUE—ERROR—PRIORITY RIGHT NOT PROPERLY CLAIMED IN ORIGINAL APPLICATION.

Arguments alleging error in the denial of a petition from a holding that the filing of a claim of priority in an original application was too late Held not germane to the issue of whether failure to properly claim the right of priority provided by 35 U. S. C. 119 in the original application may be rectified by a reissue.

2. SAME—SAME—35 U. S. C. 251 CONSTRUED—PRIORITY RIGHT NOT PROPERLY CLAIMED IN ORIGINAL APPLICATION.

Held that 35 U. S. C. 251 "pertains only to errors in the disclosure of, or claim to, invention," and that "It does not pertain to recapture of a right of priority where through either error or deliberate intent, the option given by section 119 is not exercised in accordance with the time limits thereunder imposed."

APPEAL from the Examiner. Serial No. 452,745.

AFFIRMED.

Before ASP and WOLFFE, *Examiners-in-Chief*, and
BAILEY, *Acting Examiner-in-Chief*

BAILEY, *Acting Examiner-in-Chief*:

This is an appeal from the final rejection of the instant reissue application.

No art is involved and it is unnecessary to consider the subject matter claimed. In the parent application, on which Patent No. 2,681,685 was issued, a claim for priority (based on a British application, a certified copy being presented) was filed under 35 U. S. C. 119 on May 28, 1954, prior to issue of the patent on June 22, 1954, but subsequent to payment of the final fee on May 10, 1954.

35 U. S. C. 119, as to the time for filing the claim for priority and the appropriate papers, provides in the second paragraph:

"No application for patent shall be entitled to this right of priority unless a claim therefor and a certified copy of the original foreign application, specification and drawings upon which it is based are filed in the Patent Office before the patent is granted, or at such time during the pendency of the application as required by the Commissioner not earlier than six months after the filing of the application in this country."

Pursuant to this provision, and in order to give time to carry out the obligation imposed by article 4D of the International Convention for Protection of Industrial Property, 53 Stat. 1748 (613 O. G. 23) to incorporate the particulars of priority in patent copies, the Commissioner established, by means of Rules of Practice of the Patent Office, Rule 55, second paragraph, the time for filing as follows:

"The claim for priority and the certified copy of the foreign application specified in the second paragraph of 35 U. S. C. 119 must be filed in the case of interference when specified in rules 216 and 224; when necessary to overcome the date of a reference relied upon by the Examiner; or when specifically required by the Examiner; and in all other cases they must be filed not later than the date the final fee is paid."

The special provisions of this rule (i. e., interference, overcoming a reference date, and specific requirement) did not apply in the parent application, and as already noted filing was done after the date of payment of the final fee. This date of filing was held to be too late, and on petition from this holding the Assistant Com-

missioner denied the petition on the ground that the presentation of the claim of priority was not timely.

Because of this ruling, on August 27, 1954, about three months after the patent issued, the instant reissue application was filed. This reissue application does not seek to change the specification or drawing or claims of the patent. The only basis urged for reissue is the allegation that the patent is deemed partly inoperative due to failure to claim the right of priority.

The Examiner refused the reissue on the ground of failure to establish a proper basis for reissue under 35 U. S. C. 251, the provisions of the first paragraph that are pertinent to the issues herein being:

"Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent, the Commissioner shall, on the surrender of such patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent."

[1] Much of the brief is devoted to arguments as to why appellant considers the decision on petition to which reference has above been made to be in error, i. e., why he considers that under 35 U. S. C. 119 an applicant may properly present a claim for priority after the final fee has been paid but before the patent issues, even though this is in contravention of Rule 55 adopted pursuant to the code provision. These arguments are not germane to the only issue before us, namely, whether failure to properly claim the right of priority provided by 35 U. S. C. 119 in an original application may be rectified by a reissue. Thus we will not consider further the errors alleged in the parent case.

We cannot agree with appellant's contention that the right of priority can thus be claimed in a reissue application.

As appellant has noted, 35 U. S. C. 119 sets a time limit for claiming priority as "before the patent is granted or at such time during pendency of the application as required by the Commissioner . . ." Under this provision the terminal date beyond which priority may not be claimed is "before the patent is granted." When this fact occurs, and it occurred when Patent No. 2,681,685 was granted, the right of priority is lost insofar as section 119 is concerned. This section does not provide for extending the time period beyond this terminal date, the only other times mentioned in the statute being "at such time during the pendency of the application as required by the Commissioner," which times are those that have been specified in Rule 55.

But appellant is of the view that section 251 provides by reissue for correction of the error of failure to claim a right of priority, even though this section fails explicitly to mention the same. His argument is that the patent is rendered partly inoperative by reason of failure to claim such right, whereby patentee claimed less than he had a right to claim, and section 251 provides reissue as the means for correcting such error.

This is an intriguing argument, utilizing as it does the terms of section 251 but in a sense entirely foreign to the clear meaning of the section. We do not agree with the same.

Reference to the above quoted portion of the statute shows that the only bases for the patent being partly inoperative or invalid that are subject to correction by reissue are:

"by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent . . ."

This joinder makes it clear that [2] this section pertains only to errors in the disclosure of, or claim to, invention. It does not pertain to recapture of a right of priority where through either error or deliberate intent, the option given by section 119 is not exercised in accordance with the time limits thereunder imposed.

The decision of the Examiner is affirmed.

AFFIRMED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,445,322, M. C. Fridolph, Body garment, filed June 29, 1955, D. C., S. D. N. Y., Doc. 101/358, *Sarong, Inc. v. Regent Corset Co.* Stipulation and order of discontinuance Dec. 17, 1957.

2,450,866, Morehouse and Mayfield, Poultry treatment composition, filed July 18, 1956, D. C., E. D. N. Y. (Brooklyn), Doc. 16748, *Dr. Salsbury's Laboratories, Inc. v. Chemo Puro Manufacturing Corp.* Order of dismissal Dec. 13, 1957. Same, filed July 20, 1956, D. C., S. D. N. Y., Doc. 111/235, *Dr. Salsbury's Laboratories, Inc. v. Chemo Puro Mfg. Corp.* Stipulation and order of discontinuance and dismissal Dec. 17, 1957.

2,452,806, B. A. Tetzlaff, Clamps, filed July 8, 1955, D. C., N. D. Ill. (Chicago), Doc. 55c1017, *Witteck Mfg. Co. v. Coliseum Battery and Equipment Co.* Consent judgment; patent held valid Dec. 10, 1957.

2,457,310. (See 2,772,734.)

2,472,958, J. M. Oldak, Cuff link construction, filed Sept. 23, 1955, D. C. R. I. (Providence), Doc. 1908, *Niash Refining Co., Inc. v. Azor, Inc.* Patent held invalid; judgment for defendant Dec. 6, 1957.

2,509,909, W. L. George, Check stand for grocery stores and the like, filed Oct. 20, 1955, D. C., S. D. Calif. (Los Angeles), Doc. 18910-C, *Wm. T. Alvarado Sales Co., et al. v. Check-A-Matic Co.* Patent held invalid as to claims 3, 5, 6, and 7 (notice Dec. 10, 1957). Same, filed Mar. 7, 1956, same, Doc. 19,618-PH, *Wm. T. Alvarado Sales Co., et al. v. Max Garth et al.* Decree as above.

2,627,181, E. C. Klekhaefer, Outboard motor speedometer, filed Dec. 10, 1957, D. C. Minn. (Minneapolis), Doc. 457/133, *Elmer Carl Klekhaefer v. Scott-Atwater Mfg. Co., Inc.*

2,650,156, D. L. Eastman, Scouring implement, filed June 22, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1060, *The Carborundum Co. v. National Tea Co.* Patent held invalid (notice Dec. 11, 1957).

2,655,185, D. C. Richardson, Single cylinder fluid-actuated log turner; 2,655,186, same, Power-operated log turner with fulcrum stop, filed June 5, 1956, D. C., E. D. Tenn. (Chattanooga), Doc. 2787, *Dow C. Richardson v. Corley Mfg. Co.* Cause dismissed with prejudice Dec. 9, 1957.

2,655,186. (See 2,655,185.)

2,709,854, L. Price, Gauge mounting, filed July 16, 1957, D. C., N. D. Ohio (Cleveland), Doc. 33756, *Winslow Mfg. Co. v. Joh-Mar Co., Inc. et al.*

2,711,622, G. R. Goodwin, Electrical plug connector having means to mount it in an operated panel, filed Dec. 12, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 18287, *Miller Electric Co. v. Lectrolord Corp. et al.*

2,747,851, C. E. Marsh, Impact type frost breaker, filed Dec. 16, 1957, D. C., N. D. Iowa (Dubuque), Doc. 834, *Clarence E. Marsh v. Punchy Co.*

2,753,823. (See 2,772,734.)

2,767,421, V. K. Fremstad, Door stop construction, filed Dec. 10, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1369/57-WB, *Ajax Hardware Mfg. Corp. v. Hennelly Associates, Inc.*

2,772,734, D. N. Judelson, Bias cutting machine; 2,753,823, same, Seam-openers; 2,457,310, D. N. Judelson, Cutting machine, filed Dec. 11, 1957, D. C., S. D. N. Y., Doc. 127/339, *Oscar I. Judelson, Inc. et al. v. American Seam Binding Machine Co., Inc. et al.*

2,815,130, N. H. Franks, Shelving unit, filed Dec. 10, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2031, *Norvin H. Franks et al. v. Storage Products Corp. et al.*

Des. 176,221, B. Lieber, Smoker's pipe, filed Mar. 1, 1957, D. C., E. D. N. Y. (Brooklyn), Doc. 16324, *Aply-Tec Products, Inc. v. House of Oxford, Ltd.* Order of dismissal Dec. 13, 1957.

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Des. 180,907, Kay and Cormier, Sock, filed Dec. 12, 1957, D. C., S. D. N. Y., Doc. 127/346, *Roland J. G. Nadeau v. P. W. Woolworth Co., Inc.*

Des. 181,193, J. A. Higler, Glove, filed Dec. 11, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2041, *Crescendo Gloves, Inc. v. C. D. Osborn Co., et al.*

REISSUES

JANUARY 28, 1958

Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

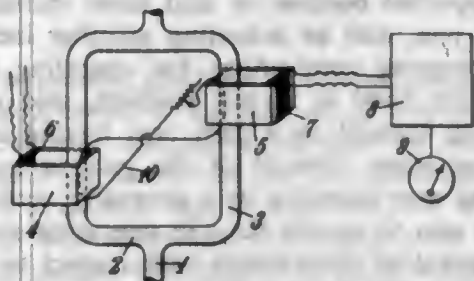
24,420

MEASUREMENT OF CONDUCTIVITY OF LIQUIDS

John E. Fielden, Sale, England, assignor, by mesne assignments, to Robertshaw-Fulton Controls Company, Greensburg, Pa.

Original No. 2,709,785, dated May 31, 1955, Serial No. 293,901, June 17, 1952. Application for reissue February 4, 1957, Serial No. 639,598

7 Claims. (Cl. 324-65)



1. Means for measuring the electrical conductivity of liquids, comprising an insulating tube for the liquid forming a closed loop, a transformer core with which the liquid tube is linked, a winding on the core, the impedance of which is influenced by the conductivity of the tube loop, an impedance bridge of which said winding forms one member, means for applying an alternating current to the bridge and a measuring instrument connected across the bridge to measure the impedance of the said winding and calibrated to indicate the conductivity of the liquid.

24,421

BLOWER DISCHARGE VOLUME CONTROL

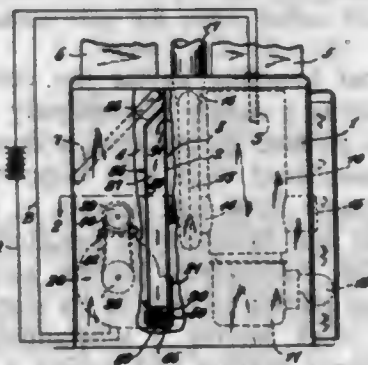
Malcom W. Patrick, Cleveland Heights, Ohio, assignor, by mesne assignments, to Hupp Corporation, Detroit, Mich., a corporation of Virginia

Original No. 2,721,704, dated October 25, 1955, Serial No. 251,912, October 18, 1951. Application for reissue February 1, 1956, Serial No. 562,917

10 Claims. (Cl. 236-10)

6. A volume control for centrifugal blowers of the type comprising a snail shell casing including end walls

and a volute peripheral wall and having a neck and a throat that is spaced inwardly from the outer end of the neck and a fan wheel rotatable within the casing on an axis in eccentric relation to the peripheral wall, said volume control comprising a plate-like member, a shaft rotatably supported by the end walls of the casing and in substantially parallel relation to the axis of the fan wheel, said member being rigid with said shaft, said shaft supporting said member with its trailing edge positioned adjacent the outer end of said neck, said trailing edge being adapted to swing between a first position at the side of the neck farthest from the axis of the fan wheel and a



second position spaced from the side of the neck a distance approximately equal to the spacing of the shaft and the nearest part of the peripheral wall of said casing, stop means disposed in the path of said member and adapted to arrest movement of said member when it reaches said second position, one end of the shaft extending beyond an end wall of the casing, a resilient bi-metal strip of spiral formation having its inner end operatively connected to said end of said shaft outwardly of said end casing wall, and means securing the outer end of said strip to said casing outwardly thereof whereby the bi-metal strip is positioned out of the path of air delivered by said blower.

PLANT PATENTS

GRANTED JANUARY 28, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,676

CHRYSANTHEMUM PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application May 16, 1957, Serial No. 659,739

1 Claim. (Cl. 47-60)

A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and

described, characterized particularly as to novelty by its vigorous, compact and bushy habits of plant growth, its floriferousness, the large size of its flowers, and the distinctive Orange-Buff general color tonality of its flowers.

PATENTS

GRANTED JANUARY 28, 1958

GENERAL AND MECHANICAL

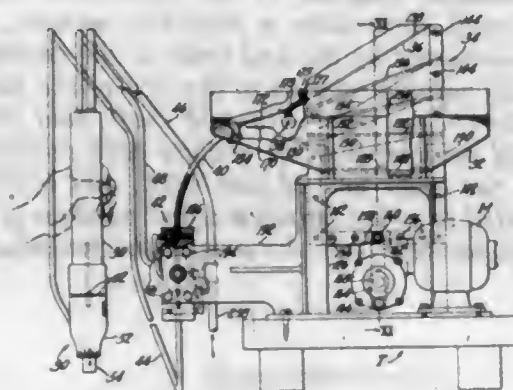
2,820,966

FASTENER HANDLING MACHINES

Donald B. McIlvin, Danvers, Mass., assignor to United Shoe Machinery Corporation, Boston, Mass., a corporation of New Jersey

Application May 3, 1954, Serial No. 427,021

8 Claims. (Cl. 1-6)



1. In a fastener handling device the combination of a hopper for holding a supply of randomly oriented fasteners which are pointed at one end, a downwardly extending track associated with said hopper, means for transferring fasteners from said hopper to said track in such fashion that said fasteners lie longitudinally within said track and slide downwardly therein, said track being interrupted by an abrupt change in its slope, the lower portion of said track having a substantially shallower slope than the upper portion and having a cam surface formed at its upper end, said cam surface being shaped to reject fasteners descending said track unpointed end first from said track and to permit fasteners descending point first to continue to the lower portion of said track uniformly oriented with respect to their points.

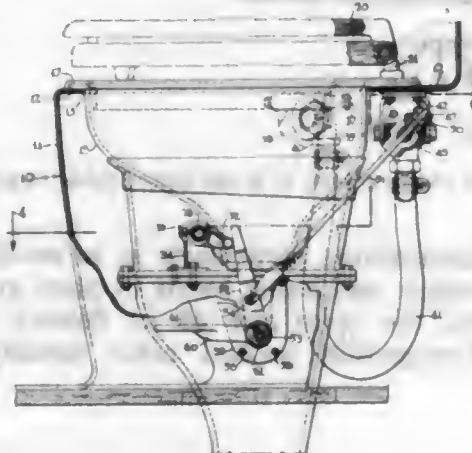
2,820,967

TOILET BOWL ASSEMBLY AND MOUNTING

Walter B. Dean, Narberth, and David L. Buchanan, Whitemarsh, Pa., assignors to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania

Application July 10, 1956, Serial No. 596,884

4 Claims. (Cl. 4-8)



1. A toilet bowl assembly and mounting comprising in combination, a fixed housing having a side enclosure and a top cover with an opening in the top cover to receive the toilet bowl, a toilet bowl insertable in said top open-

638

ing by downward movement and having an outwardly extending top flange larger than said opening lying on and supporting said bowl on said top cover, a flexible flush water hose connected between a fixed interior supply pipe and said bowl and being of sufficient length to permit the bowl to be taken out for making connection with said hose, a flush valve between said pipe and hose mounted inside the housing, an operator mounted on and disposed outside the housing with operating connections to the valve inside the housing, a sealing pan movably mounted on and below said bowl and provided with an operating element, the size of said opening being greater than the supported portion of said bowl including said element and pan, and an actuating member included in the valve operating connections for operating said element when the bowl is in use position, said actuating member being formed as a cam arm having means to move the operating element of the pan to move said pan, said cam arm standing in a generally vertical position when at rest to permit the pan operating element to move into operative relationship with respect to the cam arm when the toilet bowl is brought down into its use position or to be moved up and away therefrom.

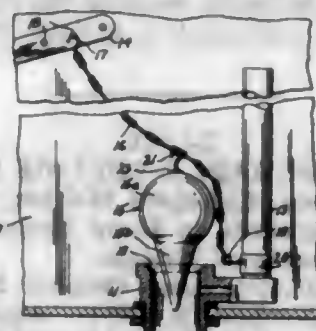
2,820,968

FLUSH TANK VALVE CONTROLS

Bernard A. Flightmaster, Liberty, Mo.

Application August 28, 1956, Serial No. 606,670

5 Claims. (Cl. 4-57)



1. In a flush tank including a flush valve port, a stand-pipe adjacent thereto and a flush lever, the combination of a flush valve ball engageable with said port, and a flexible actuating element connected at one end thereof to said lever and connected at its other end to said stand-pipe, said valve ball being attached to an intermediate portion of said element.

2,820,969

CHILD'S TOILET SEAT

Louther Dewell Wedge, Smithfield, Pa.

Application November 8, 1954, Serial No. 467,479

1 Claim. (Cl. 4-239)

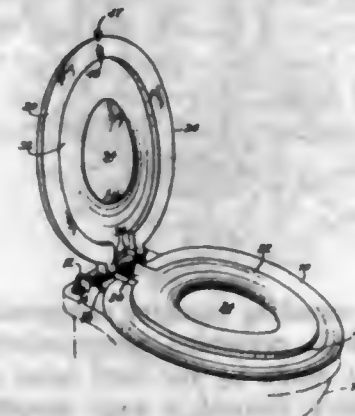
In a toilet seat assembly, a generally annular seat member having a central opening, hinge means connecting said seat member with a toilet bowl, a cover separately connected to said hinge means, said cover having a generally annular channel on the under side thereof, a second generally annular separately hinged seat member having a central opening so dimensioned as to fit snugly within said channel in uniplanar relation with said cover, said second seat member having an external diameter greater than the diameter of the central opening of said

JANUARY 28, 1958

GENERAL AND MECHANICAL

639

first seat member, and a central opening less than the diameter of said first mentioned central opening said cover having a horizontal bore extending from the exterior front side of said cover into communication with said channel, the inner portion of said bore being enlarged, a latch pin extending through said bore, a stop flange on said pin within the enlarged portion of said bore, a coil spring in said enlarged portion biasing said stop flange and hence said pin inwardly towards said



channel, a handle head on said pin exteriorly of said cover, and a notch in the edge of said second seat, said second seat edge and said latch pin end being cooperatively shaped to cause said pin to automatically retract as said second seat enters said channel to align said notch and said latch pin for engagement thereby, to retain said second seat in said channel, said cover being raised from said second seat to leave said second seat in operative position by manual retraction and lifting of said latch pin handle head.

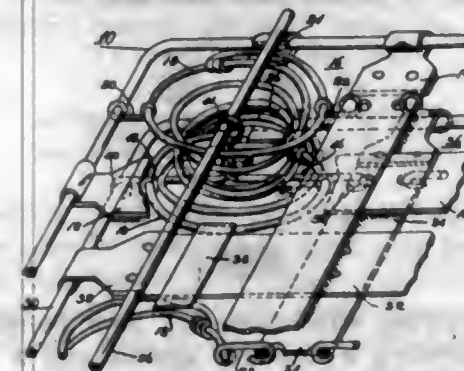
2,820,970

MEANS ASSOCIATED WITH A SPRING MEMBER FOR RETAINING THE SPRING IN A COMPRESSED POSITION

Rose Shapiro, Chicago, Ill.

Application April 16, 1956, Serial No. 578,395

10 Claims. (Cl. 5-351)



1. In a spring having a retaining member, said retaining member being secured to the lower portion of said spring and having inwardly extending means, said means adapted to extend below the top of said spring when said spring is in expanded position and above the top of said spring when said spring is compressed, and a bar horizontally positioned across the top of said spring and secured to said means for retaining said spring in compressed position, said bar being removable from said means to permit said spring to assume its expanded position.

2,820,971

SUBMERGED OBJECT MARKER

Erwin K. Welsh and Glenn L. Welsh, Vassar, Mich.

Application July 9, 1956, Serial No. 596,641

3 Claims. (Cl. 9-9)

1. A submerged object marker of the character described comprising: a base to be mounted on the object,

726 O. G.-44

a float removably mounted on said base, a flexible line enclosed in the float and having one end anchored thereto and its other end anchored to the base, and means operable by water pressure for detachably anchoring the float to



the base, said means including a stud on the float, spaced diaphragms in the base for receiving water therebetween and operable thereby, and opposed keepers on said diaphragms engageable with the stud.

2,820,972

METHOD OF STAMPING SCREW THREADED FASTENERS FROM FLAT BAR STOCK

Wilbur F. Pink, Parma Heights, Ohio

Application May 24, 1954, Serial No. 431,953

1 Claim. (Cl. 10-10)



The method of forming threaded fasteners comprising the steps of piercing continuous strip metal at spaced positions to form openings each serving to locate the work in subsequent steps and beginning formation of a screw driver slot, forming tapered edges on the side surfaces of the slot by stamping, trimming the sides from portions of the strip in the region between successive pierced holes to form shank portions, shaving the edges of the shank portions to commence the formation of screw threads, laterally pressing the metal at the edges of the shanks to produce curvature in the edges and complete the formation of the screw threads, and thereafter severing successive portions of the strip at the margins of the pierced holes to form completed fasteners.

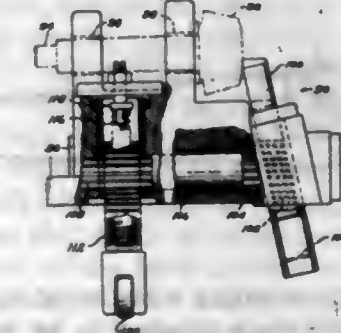
2,820,973

CAM ACTUATED WORK CLAMP MEANS MOVABLE CONTINUOUSLY IN A ROTARY PATH

Horace E. Farmer, Howell, Mich.

Application August 3, 1955, Serial No. 526,222

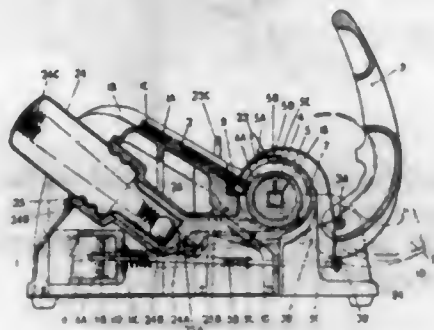
3 Claims. (Cl. 10-107)



1. In a tool operating machine, a support, a fixed cam on said support, a trunnion mounted on said support and rotatable about said fixed cam, a workpiece holder carried by said trunnion outwardly thereof, a reciprocal clamp bar carried by said trunnion and slidably guided thereby, said clamp bar movable lengthwise thereof relative to said trunnion between workpiece clamping and

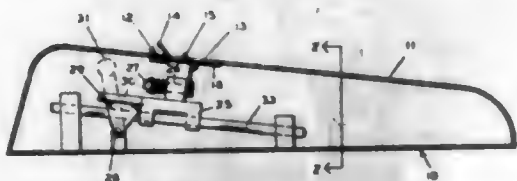
releasing positions, a radially reciprocal cam follower carried by said trunnion and reciprocal by said cam, said follower spaced from said clamp bar axially of said trunnion, and gear and rack means operatively connecting said cam follower and said clamp bar.

2,820,974
SHEET BINDING APPARATUS
 Gerard T. Hodge, London, England
 Application July 14, 1955, Serial No. 522,126
 8 Claims. (Cl. 11-1)



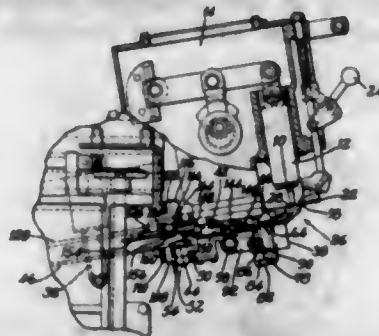
1. Apparatus for binding sheets together comprising a support for supporting sheets piled thereon, aligning means in association with the support for abutting the supported sheets so that their binding edges are aligned, pressure-applying means for pressing the supported and aligned sheets together close to their binding edges, a closable container for flexible-film-forming two-phase liquid, a closed cylinder horizontally and rotatably mounted within the container and positioned such that it dips into the two-phase liquid in the container and such that a first segment of its exterior may provide the said aligning means, means on another segment being adapted to take up some of the two-phase liquid, carry it on rotation of the cylinder, and then apply it to the aligned binding edges, means communicating with the cylinder interior for supplying dispersion phase liquid thereto, closure means for automatically closing the container when the machine is not in use, and the cylinder including means permitting dispersion phase liquid within the cylinder to disperse into the two-phase liquid in the container, the arrangement being such that the dispersion phase of the two-phase liquid is replenished as required.

2,820,975
BINDER OPERATING MACHINE
 Arthur L. Ruck, Richard C. Layne, and Ralph E. Dennis,
 Columbus, Ohio
 Application October 5, 1955, Serial No. 538,725
 12 Claims. (Cl. 11-1)



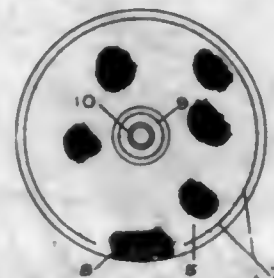
1. A machine for actuating a binder of the type which includes flexible split rings adapted to be spread to permit insertion or removal of punched loose-leaf elements comprising a unit for supporting the binder, a ring engaging unit adjacent said supporting unit, said supporting unit comprising fingers which extend angularly so that as the binder rings are moved therebetween the binder will be guided longitudinally into cooperative relationship with said ring engaging unit.

2,820,976
ROUGH ROUNDING MACHINES
 Gerald W. Cleversey, Topsfield, and John S. Lyness, Nahant, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., and Boston, Mass., a corporation of New Jersey
 Application September 26, 1955, Serial No. 536,474
 16 Claims. (Cl. 12-85)



4. In a rough rounding machine comprising a tool head to which a shoe is presented progressively to transfer the rounding cut made by the tool head upon the sole about the periphery thereof, a gage mounted upon said head for positioning it with respect to the shoe, said gage having elements mounted for movement relatively to each other between an extended and a collapsed relation in which the gage presents a concave and a convex work engaging surface, respectively, to the shoe, gage operating mechanism for moving said elements between their extended and collapsed relations, a guide mounted upon said head for yielding movement into engagement with the side of the upper of the shoe contiguous to its welt crease, and means operated in synchronism with said gage operating means for locking said guide against movement on said tool head while the rounding cut traverses a predetermined portion of the shoe.

2,820,977
WAX APPLYING ATTACHMENT FOR FLOOR POLISHERS
 Stanley J. Carr, Tete Jaune, British Columbia, Canada
 Application January 11, 1956, Serial No. 558,537
 1 Claim. (Cl. 15-131)

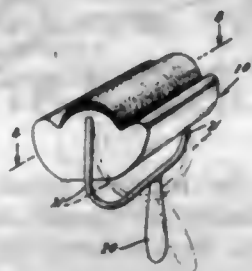


A wax applying attachment for floor polishers of a character providing a rotatable spindle and a brush on the spindle, said attachment comprising a container for the wax having means of attachment of the container on the spindle bearing against the under side of the brush, said container consisting of upper and lower superimposed circular pieces of fabric joined together at the edges with the exception of a part providing an opening for insertion of wax, the upper fabric having a reinforcing fabric between the spindle attaching means and said upper fabric, and said upper fabric being of a material adapted to prevent extrusion of wax therethrough and the lower fabric being of a material adapted to permit of extrusion of wax therethrough.

2,820,978
CEILING PAINTING DEVICE
 William John Brady, Fairlawn, N. J.
 Application April 17, 1956, Serial No. 578,635
 1 Claim. (Cl. 15-132.5)

A device for painting ceilings comprising an upright container bilaterally symmetrical with respect to a vertical

longitudinal plane through the median line thereof, the container having a flat bottom, side walls and end walls, said side walls having their upper portions deformed inward toward each other, the longitudinal edges of said deformed portions being mutually parallel, said end walls having supports on their inner surfaces spaced above the bottom of the container, said supports having aligned journals therein lying in said vertical plane, at least one of said supports having a vertical slot extending upward from the journal therein, an applicator roller having a diameter slightly smaller than the distance between said edges and having aligned hubs in the ends thereof, said roller being positioned in the container with said hubs registering rotatably in said journals, the diameter of the roller ex-



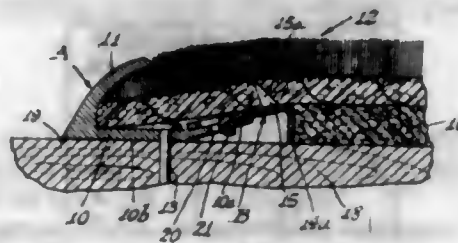
ceeding the distance between the axis of said journals and the upper edges of said end walls and also exceeding the distance between said axis and said side wall edges, said end walls having aligned recesses therein positioned above said journals near said upper edges of the end walls in said vertical plane, and a unitary rigid handle having two divergent normally parallel arms, the extremities of said arms being deformed toward each other and in mutual alignment, said arm extremities registering pivotally in said recesses said device having at each end thereof a clear unobstructed space between the end wall of the container and the adjacent of said arms whereby said container will always remain upright by gravity when held by said handle regardless of the angle of the handle to the vertical.

2,820,979
POCKET TOOTH-BRUSH
William Jacques Herter, Paris, France
Application January 23, 1957, Serial No. 635,678
3 Claims. (Cl. 15-135)



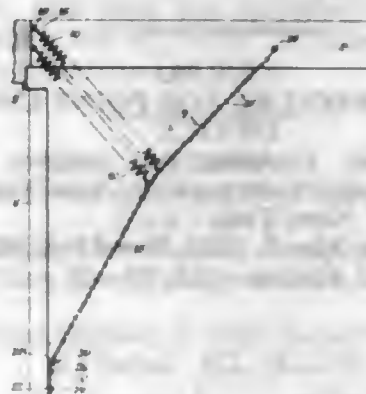
1. A pocket tooth-brush comprising a head, a longitudinal passage formed in said head and leading to the outside through feed orifices, bristles carried by said head around said orifices, a body comprising a front end mounted on said head having an externally screw-threaded rear end, a tube mounted in and communicating with said passage said tube extending through said body and projecting from the said screw-threaded rear end, a tubular member formed with internal screw-threads adapted to engage said screw-threaded rear end of said body, a pair of longitudinal, diametrically opposite slots formed along said tubular member, a ring slidably mounted on said tubular member, the inner surface of said ring carrying two projecting ribs adapted to co-act with two corresponding series of transverse notches spaced along said slots and two resilient sheet-metal arms having widened ends, said arms being mounted radially in the inner surface of the tubular member and extending through said longitudinal slots, respectively, and a sealed yielding envelope filled with dentifrice and located within said tubular member, the front face of said envelope contacting the rear tube portion projecting from said head, said envelope being adapted to be compressed by and between said sheet-metal arms along the path of said slidable ring.

2,820,980
COMBINATION BINDING AND ANCHOR DEVICE FOR FLOOR COVERINGS
Frank S. Karas, Stamford, Conn.
Application March 1, 1955, Serial No. 491,375
8 Claims. (Cl. 16-7)



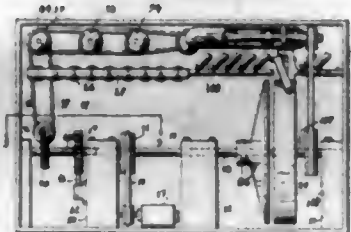
1. A protective and anchoring device for a floor covering comprising an elongate protective binding member of readily bendable material having a base portion adapted to be secured to a floor and a cover portion connected to extend along one edge of the base portion to project upwardly and overlie the base in spaced relation and being adapted to be bent relatively to the base portion so as to grip the edge portion of a floor covering therebetween; anchoring means connected to the other edge of the base portion to form a rigid continuation thereof and comprising a member of metal more resistant to bending than the binding member so as to have considerable resistance to bending and extending therealong and having tangs projecting upwardly therefrom adapted to bite into the back of the floor covering to hold it against movement away from the cover portion.

2,820,981
DOOR STOP AND CLOSER
Lester A. Klee, Hammond, Ind.
Application November 4, 1953, Serial No. 390,184
4 Claims. (Cl. 16-63)



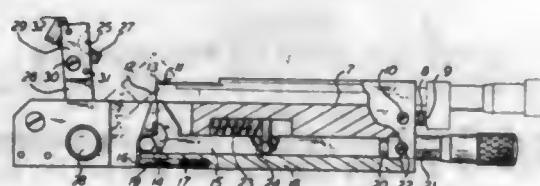
1. In a door stop for a door hinged to a support, the combination of a chain having one end anchored to the support, a bracket having a flat body portion bearing against one side thereof against the door and anchored thereto, and a neck projecting angularly from the opposite side of said bracket and having a head thereon spaced from the door, said head extending above and below said neck, said chain having an end link with an elongated opening the width of which is narrower than the length of said head, the length of said opening being greater than that of said head and the width of said opening being greater than the width of the head so that the latter may pass through the opening when aligned therewith, said neck being received in said opening, and spring means connected to the support and to the chain between its ends for maintaining the chain under tension and thereby holding said link in position whereat its opening is approximately perpendicular to said head to prevent accidental disassembly of said link from said neck, said chain defining an obtuse angle when the door is fully open at approximately a right angle to the support.

2,820,982
WIENER SKINNING DEVICES
 Daniel J. Ellefson, St. Vital, Manitoba, Canada
 Application October 8, 1954, Serial No. 461,235
 3 Claims. (Cl. 17-1)



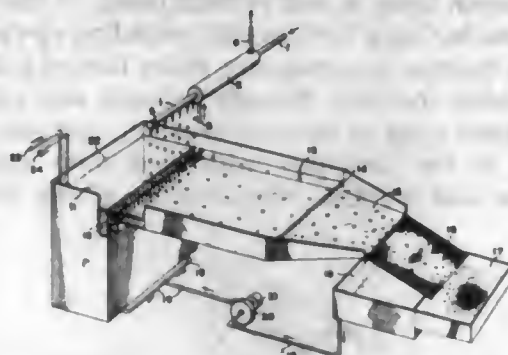
1. A device for stripping the skins from wieners and the like comprising in combination a supporting framework, a set of idling rollers horizontally disposed within said supporting framework, a set of driving rollers disposed above and spaced from said idling rollers, said wieners being adapted to pass between said sets of rollers and to be moved therealong by said driving rollers, said device for stripping the skins off said wieners includes a peeling wheel assembly journaled for selective rotation within said framework, a source of power in said framework for said peeling wheel, clutch means in said wheel adapted selectively to engage said peeling wheel with said source of power, adapted to rotate same, the upper perimeter of said peeling wheel being adjacent the path of said wieners, a skin clamping and cutting assembly mounted on said wheel, trigger means also on said wheel operatively connected to said skin clamping and cutting assembly, and further means associated with said wheel adapted to be actuated by the pressure of the end of the wiener being skinned whereby said trigger mechanism is tripped to initiate said skin clamping and cutting means, said trigger mechanism also actuating said clutch, thereby rotating said peeling wheel.

2,820,983
ASSEMBLY FIXTURE FOR POINT CONTACT DEVICE
 Karl A. Schmuldt, Emmaus, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
 Application May 7, 1953, Serial No. 353,507
 3 Claims. (Cl. 18-1)



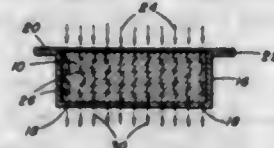
1. A fixture, for assembling point contact transistors in which the points of formed contact wires are held in pressure contact with a semi-conductor wafer mounted on a rigid member by a bead of resin molded around the wafer and the formed wires, the fixture comprising a main body portion having means for receiving and positioning a holder carrying formed contact wires projecting therefrom, jaws for supporting the rigid member with the wafer aligned with the points of the wires, means for producing accurately controlled pressure between the points and the wafer and a member having a mold cavity pivotally mounted on the body portion and movable from a loading position, where encapsulating material may be inserted in the mold, to a molding position where the wafer and the points are within the cavity of the mold and completely surrounded by encapsulating material therein.

2,820,984
METHOD AND APPARATUS FOR PRODUCING REGENERATED CELLULOSE PELLETS
 Anthony N. Spina, Frankfort, and Alfred S. Brown, Hamilton, N. Y., assignors to Skenandoa Rayon Corporation, Utica, N. Y., a corporation of Delaware
 Application July 27, 1951, Serial No. 238,914
 5 Claims. (Cl. 18-2.4)



3. In an apparatus for forming pellets of regenerated cellulose wherein globules of viscose are dropped into a coagulating bath, the improvement comprising a supply pipe for conveying viscose under pressure, a plurality of globule-forming nozzles attached to and depending from said pipe, a hot water jacket surrounding a portion of said pipe for continuously heating the viscose passing through said pipe immediately before the viscose enters said nozzles, each of said nozzles having a constricted liquid flow region directly communicating with said supply pipe, a less constricted liquid flow region contiguous with said first region, an aperture at the end of said second region defined by a drop-forming surface for gathering in detachable globule form the viscose received in said second region, a gently sloping trough having a coagulating bath for receiving the viscose globules dropped from said nozzles and for covering said globules into skin-encased pellets, said nozzles being disposed above a dropping zone of said bath, and perforated baffles positioned at the upper end of said trough for admitting the coagulating bath into said trough and for effecting a quiescent non-turbulent flow of said bath devoid of eddy currents in said trough, said flow of said bath being adapted to move said skin-encased pellets away from said dropping zone and through said bath.

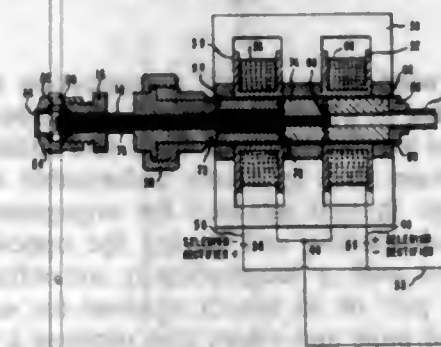
2,820,985
SPINNERETTE INSERT AND ASSEMBLY
 Arthur Cresswell, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
 Application July 11, 1955, Serial No. 521,199
 3 Claims. (Cl. 18-8)



1. A spinnerette assembly comprising, in combination, a spinnerette having a cup and a lip; an insert of such size and shape as to permit it to fit snugly within the cup of the said spinnerette, the thickness of the said insert being slightly less than the inside depth of the spinnerette cup, said insert comprising superimposed disks of stainless steel wire cloth sintered together to form a rigid, porous unitary structure, the disks of said insert, after the first disk, having been rotated in the plane of lamination from 10° to 80°, with respect to contacting superimposed disks, before being united together, and the openings between the woven filaments comprising the said wire cloth being such that, when the assembly is in

use, there will be relatively good flow of the spinning solution through the insert with minimum back pressure; and a filter fabric positioned adjacent the said insert so that the outer portion thereof rests upon the lip of the spinnerette and is then held firmly in place when the spinnerette is fixed in its support, said fabric having a porosity which is less than that of the individual disks of stainless steel wire cloth of which the said insert is formed.

2,820,986
APPARATUS FOR PRODUCING VARIABLE DENIER FILAMENTS
 John S. Seney, Seaford, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
 Application November 27, 1956, Serial No. 624,602
 9 Claims. (Cl. 18-8)



4. Apparatus for spinning artificial filaments comprising a spinneret, a conduit leading to the spinneret, means for supplying filament-forming liquid through the conduit under pressure, a hollow piston slidably mounted in the conduit as the only moving part, said piston being open at each end and throughout its length to provide a continuously open passageway through the piston for the liquid, an armature affixed to the piston, fixed magnetizable coils located on each side of the armature, an electrical means for alternately energizing the coils to oscillate the armature and piston at high frequency to transmit pulsations to the liquid supplied to the spinneret.

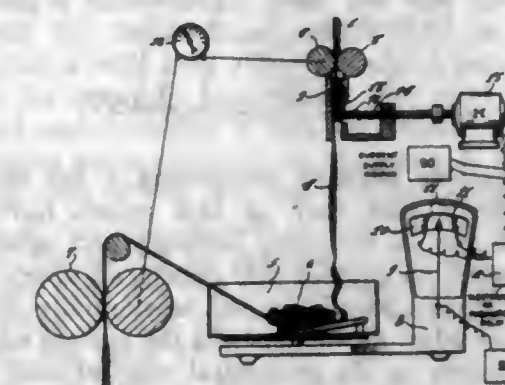
2,820,987
METHODS OF AND APPARATUS FOR CONTROLLING THE APPLICATION OF PLASTIC MATERIALS UPON FILAMENTARY ARTICLES
 Tillman T. Bunch, near Ashland, Md., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
 Application June 7, 1955, Serial No. 513,671
 10 Claims. (Cl. 18-13)



8. In apparatus for extruding plastic materials including an extruder for applying a sheath of plastic insulating material upon an electrically conductive filamentary core and means for advancing the core continuously through the extruder, the improvement which comprises means positioned adjacent to the extruder for detecting continuously deviations in the unit length capacitance of the sheathed core from a variable reference value soon after it emerges from the extruder, means responsive to said detecting means for controlling the operation of the extruder in accordance with the detected deviations so as to tend continuously to maintain the value of said capacitance substantially equal to the variable reference value, a second means positioned remotely with respect to the extruder for detecting subsequently deviations in the unit length capacitance of the sheathed core from a desired predetermined standard value after the capacitance has been suitably stabilized, and means responsive to the second

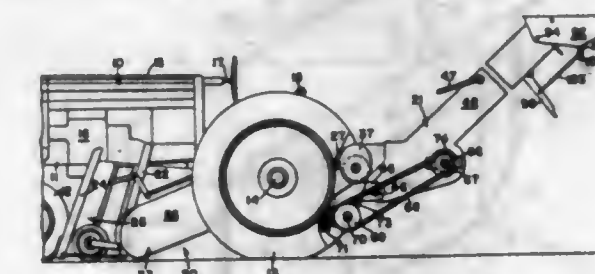
detecting means for changing the variable reference value associated with the first detecting means in accordance with the average of said last-mentioned deviations over a predetermined time interval so as to tend to maintain the capacitance per unit length of the finished sheathed core substantially constant at a desired predetermined value.

2,820,988
DEVICE AND A PROCESS FOR CONTROLLING THE CRIMPING ARC IN COMPRESSION CRIMPING OF STRANDS OF FIBERS
 Harry Wegener, Ems, Switzerland, assignor to Inventa A. G. fuer Forschung und Patentverwertung, Zurich, Switzerland
 Application May 27, 1954, Serial No. 432,812
 Claims priority, application Switzerland May 28, 1953
 5 Claims. (Cl. 19-66)



1. A process for the continuous control of the crimping arc in compression crimping of fiber strands, which comprises crimping said strands in one operation, withdrawing said strands in crimped condition, maintaining a definite ratio between the feeding of the uncrimped strand and the withdrawing thereof in crimped condition, allowing an amount of the crimped strand to collect for weighing the same, and using the deviations in weight from an adjusted value for regulating the crimping pressure in said crimping operation.

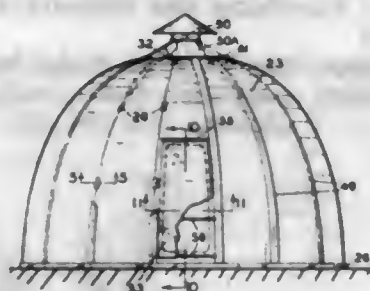
2,820,989
DISCHARGE ELEVATOR FOR COTTON HARVESTER
 Edward C. Bopf, Des Moines, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
 Application October 5, 1955, Serial No. 538,588
 6 Claims. (Cl. 19-72)



1. A material conveyor and separating means for transferring and separating a commingled mixture of ripe and green cotton bolls, comprising: a housing structure forming a pair of substantially parallel and elongated air passages having a pair of respective outlets at one end, one of the passages having a material inlet at the opposite end for receiving into said one passage the commingled mixture; blower means having a blower housing connected to the housing means and opening into the passages for directing blasts of air through the passages and in the direction of the outlets, the upper blast of air being of sufficient intensity to move both the ripe and green bolls from the material inlet through the upper outlet; and means on the housing means proximate the outlets re-

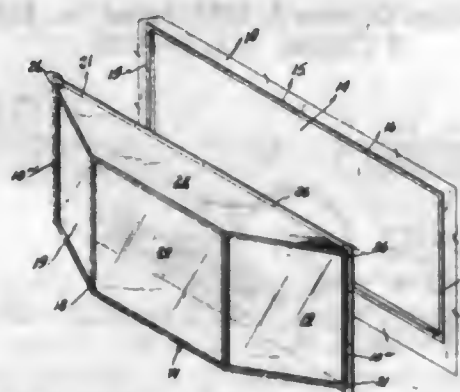
directing the commingled bolls exiting from the upper outlet in a stream traversing the lower blast of air, the lower blast of air being of sufficient intensity to drive the ripe bolls from the stream and in the direction of the lower blast while permitting the green bolls to continue substantially in the direction of the stream.

2,820,990
DEMOUNTABLE BUILDING
Robert F. Johnson, Portland, Oreg.
Application May 11, 1955, Serial No. 507,650
4 Claims. (Cl. 20-2)



1. A demountable building comprising a flat base, a plurality of panels with each of said panels having a bottom edge, a pair of arcuately inwardly and upwardly tapering side edges on each of said panels, an upper edge on each of said panels parallel to and substantially shorter than said bottom edge, means securing the bottom edge of each of said panels to the peripheral edge of said base with the side edge of adjacent panels abutting throughout their height, said panels each curving inwardly from its bottom edge to its upper edge, a plurality of edge aligning members engaging adjacent edges of adjacent panels in vertically spaced relation, means cooperating with each of the uppermost of said aligning members for securing the upper edges of said panels together, and means overlying the adjacent edges of said panels for sealing the joint between adjacent panels.

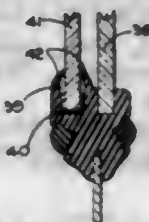
2,820,991
REVERSIBLE WINDOW CONSTRUCTION FOR MOBILE HOMES
Myron C. Poole, Elwood, Ind., assignor to Revolve Corporation, Alexandria, Ind., a corporation of Indiana
Application August 16, 1955, Serial No. 528,702
1 Claim. (Cl. 20-40)



In a mobile home structure having a rigid body including a substantially vertical wall with a cut out opening therein, and having projecting studs surrounding said opening, the combination of a reversible bay window unit adapted to project outwardly from said wall in its normal position and adapted to project inwardly from said wall in its reversed position, said bay window unit comprising a window frame conforming generally to the shape of said opening but having an area smaller than the area of said opening in said wall so as to be received therein, and a frame member secured to the periphery of said window frame and projecting therefrom so as to overlie the marginal edges of said opening, said frame

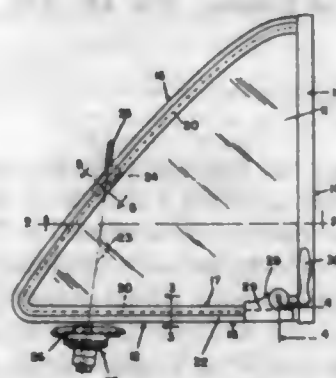
member having openings therein registering with and receiving said studs in both normal and reversed positions of said window unit.

2,820,992
SLIDING WINDOWS OR OTHER PANELS
Howard Clayton-Wright, Wellesbourne, England, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 26, 1954, Serial No. 464,785
1 Claim. (Cl. 20-52)



In a sliding window assembly, a supporting structure having an opening in which is mounted a fixed pane and a sliding pane and a frame for said fixed and sliding panes comprising a main strip of elastic deformable material, having one edge thereof adapted for engagement with the edge of said opening and having the opposite edge thereof provided with a longitudinally extending channel which over part of its length receives the edge portions of the fixed pane and which also receives a separate strip in those parts of the channel not occupied by the fixed pane, said main strip having a second longitudinally extending channel running parallel with and transversely spaced from the first channel by an intermediate longitudinally extending portion of the strip, and a rigid guide of channel cross section having the edge portions of the sliding pane mounted slidably therein disposed within said second channel, the sides of said second channel being extended outwardly to provide two elongated flexible lips adapted to engage one another to seal off portions of said second channel not occupied by the sliding pane at any time.

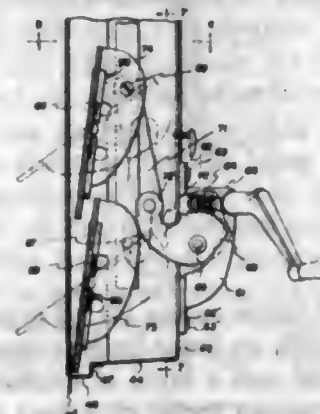
2,820,993
VENTILATOR WINDOW FOR VEHICLE BODIES
Donald G. Renno, Birmingham, Mich., assignor to Motor Products Corporation, Detroit, Mich., a corporation of New York
Original application March 1, 1954, Serial No. 413,038.
Divided and this application April 18, 1955, Serial No. 501,872
9 Claims. (Cl. 20-53)



1. A ventilator window comprising a closure panel, a frame having first and second separate sections respectively extending along adjacent edges of the panel at opposite sides of the latter, the first frame section having a first flange which overlies the edges aforesaid of the panel and having a second flange which overlies one side of the panel, said first flange having a third flange extending laterally outwardly from the free edge thereof and having a portion of the third flange removed by an elongated slot formed in said free edge, a bracket having angu-

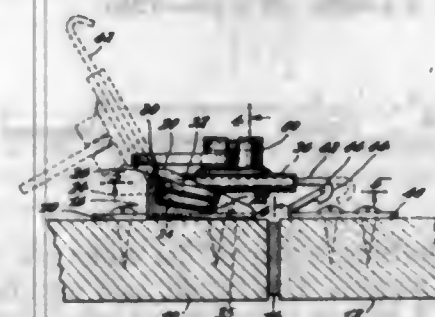
larly related portions respectively seated against the inner faces of the first and second flanges and having a part extending laterally outwardly through said slot and forming a continuation of the third flange aforesaid, the second frame section having a first portion overlying the side of the panel opposite the side adjacent the second flange on the first frame section and having a second portion bearing against and secured to the third flange on the first frame section and the part aforesaid depending from the bracket.

2,820,994
JALOUSIE WINDOWS
Thomas J. Metzger, North Miami, Fla., assignor to Lu Vent Corporation
Application April 19, 1954, Serial No. 424,002
4 Claims. (Cl. 20-62)



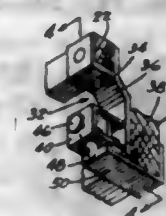
1. Jalousie window comprising a frame, a plurality of window louvers, clip means for retaining said louvers in assembled position in said jalousie, means for pivotally mounting said clip means on said frame, removable spring means interposed between said clip means and said louvers urging said clip means against said frame, and common actuating means for all of said clip means, said clip means including protruding members extending in a direction essentially parallel to said pivotal mounting means and said spring means being provided with slots for engagement with said protruding members.

2,820,995
SPRING LOADED LINK LOCK FASTENER
Ernest Schlueter, Troy, N. Y.
Application October 4, 1955, Serial No. 538,297
10 Claims. (Cl. 20-92)



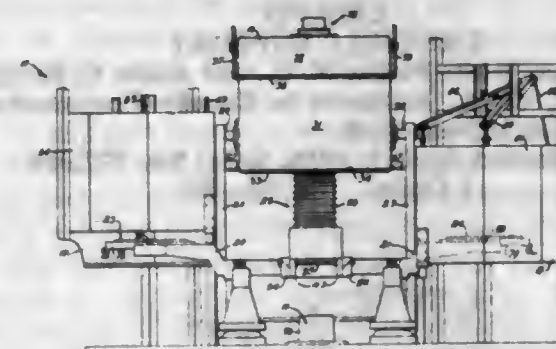
5. A fastener for securing-together panels having adjacent faces one of which carries a keeper; said fastener comprising approximately aligned relatively slidable upper hasp member and lower slider members, one member having a hook adapted to catch on the keeper; the other member being pivoted to the other panel; means for holding said members against relative transverse and rotary movement; said hasp member being provided with a large opening; said slide member having a transverse slot; a bolt in said opening having a flat inner end face engaging the slide face and an eccentric pin fast in said bolt at said face and engaging in said transverse slot.

2,820,996
DETACHABLE CLAMP AND GUARD BRACKET
Charles W. Works, Chicago, Ill.
Application October 19, 1954, Serial No. 463,185
1 Claim. (Cl. 20-92.4)



A clamp comprising: a bracket arm formed of a length of flat bar stock; means at one end thereof for fixedly connecting the same to a support in position extending outwardly from said support, the other end of the arm forming a flat-surfaced, wide jaw one face of which is adapted for face-to-face contact with an article to be clamped; a wide arm affixed to and extending outwardly from the opposite face of the jaw, said arm being L-shaped and including a first leg secured to the jaw and extending perpendicularly to the plane of the article-contacting face of the jaw, the arm including a second leg lying in a plane parallel to the first named plane, the second leg having an opening; a threaded stem rotatably engaged near one end in said opening and extending between the jaw and the second leg perpendicularly to said planes, the stem at its other end abutting and rotating against the jaw; a guide arm connected between said second leg and said jaw in parallel relation to the first leg, the guide arm having a slot paralleling the stem; a second clamp jaw of U shape embracing the first jaw, one leg of the second jaw lying in a plane parallel to the first plane, said one leg of the second jaw confronting the first jaw for clamping of said article therebetween, the second jaw having a second leg extending through the guide slot and formed with a threaded opening receiving the stem, for shifting of the second jaw longitudinally of the slot and stem responsive to rotation of the stem.

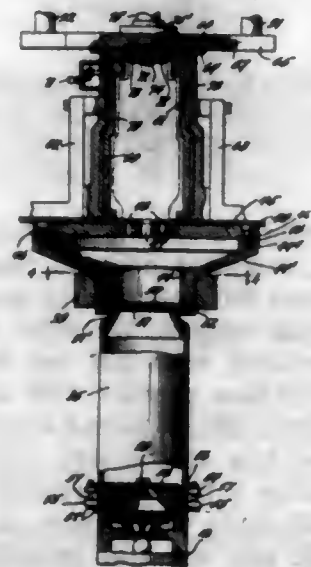
2,820,997
SHELL MOLDING MACHINE
Earl W. Jahn, Springfield, Mass., assignor to Production Pattern & Foundry Co., Chicopee, Mass., a corporation of Massachusetts
Application June 22, 1956, Serial No. 593,068
10 Claims. (Cl. 22-20)



1. A shell molding machine comprising in combination, a single pivotally mounted investment box; a pattern heating and mold curing oven on either side of said box; a shell mold ejector; and two pattern carriers swingable in a horizontal plane about fixed spaced centers; said box, one of said ovens and said ejector being angularly spaced about one of said centers to receive in operative relation a pattern carried by one of said carriers; said box, the other of said ovens and said ejector being angularly spaced about the other of said centers to receive in operative relation a pattern carried by the other of said carriers.

2,820,998

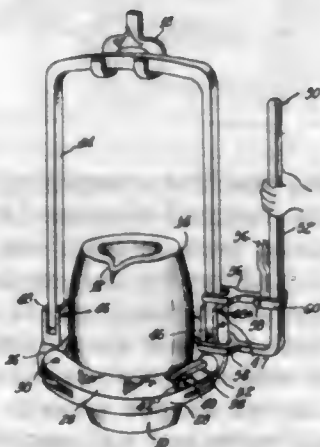
MACHINE FOR MAKING SHELL MOLDS
Charles R. Harrison, Wesleyville, Pa., assignor to Harrison Machine Company, Erie, Pa., a corporation of Pennsylvania
Application October 12, 1953, Serial No. 385,519
20 Claims. (Cl. 22—36)



1. A machine for forming shell molds from a mixture of sand and particulate thermosetting material comprising: means for holding a heat conducting pattern on a perforated work table in a position wherein a cavity is formed between said pattern and said table; means for heating said pattern to a temperature sufficient to plasticize said thermosetting material and to build up a layer of a plasticized sand and thermosetting material mixture to adhere to said pattern upon contact of said mixture therewith; a sand tube or reservoir disposed below said table for holding a mixture of sand and particulate thermosetting material; a blow head disposed below said sand tube; means for introducing a blast of air from said blow head into said sand tube, to force said mixture upwardly through said perforations into said pattern cavity into contact with the heated surface of the pattern for a sufficient time interval to build up a thermosetting shell of desired thickness; and means for interrupting said air blast and introducing into said pattern cavity a scavenging air blast in a direction opposite to said first mentioned air blast, whereby any surplus sand mixture which has not adhered to the pattern is returned to the sand tube.

2,820,999

CRUCIBLE SUPPORT
Ezra Meltzer, White Plains, N. Y., and Andre C. Herrault, Westport, Conn., assignors to Burndy Corporation, a corporation of New York
Application April 9, 1956, Serial No. 577,006
1 Claim. (Cl. 22—82)

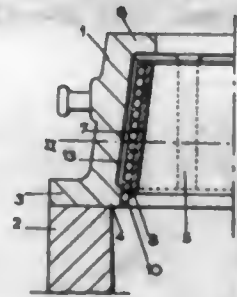


A crucible support comprising a ring for attachment to a crucible for supporting the same; a yoke having a

pivot connection to the ring; a lever having a U-shaped end portion for sliding under the pivot connection to said ring; said lever provided with a U-shaped portion pivotally mounted thereto for locking engagement with said yoke for preventing said ring from pivoting on said yoke.

2,821,000

EXOTHERMIC LINED FEED-HEAD FRAME
Henri Nouveau, Saint-Germain les Corbell, France, assignor to S. A. R. L. Dolitau Produits Metallurgie, Seine-et-Oise, France, a corporation of France
Application May 16, 1955, Serial No. 508,658
Claims priority, application France October 11, 1954
2 Claims. (Cl. 22—147)



1. In a feed head metal casing for an ingot mold which casing is provided with an inner lining comprising a layer of insulating material and a layer of exothermic material that is exposed to molten metal of a feed head, the said metallic feed head casing being imperforate and having an inwardly projecting lower rim and inwardly projecting, spaced narrow ribs extending upwardly from said rim, said rim and ribs having cemented on the inwardly directed surface thereof, the external face of preformed blocks comprising a layer of agglomerated material forming a gas-pervious insulating layer and an internal layer of exothermic material, so as to allow the gases to freely escape during a casting operation through the insulating layer and upwardly extending passages between said blocks, ribs and feed head casing.

2,821,001
CLAMP

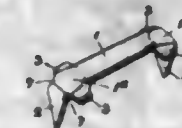
Trenholm L. Brownley and William F. Paulsen, Aiken, S. C., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application December 10, 1953, Serial No. 397,416
1 Claim. (Cl. 24—136)



A clamp comprising a pair of flat outer jaw members in spaced-apart parallel relationship, said members being cut out to form a pair of outer aligned jaws facing a pair of aligned, outwardly-sloping surfaces; a flat inner jaw member mounted to slide between said outer jaw members, said inner member being cut out to form an inner jaw facing an outwardly-sloping surface, said inner jaw being in opposed relationship to said pair of outer aligned jaws and in position for the opposed jaws to be slid together to close on an object, said outer aligned jaws being laterally spaced apart to slideably receive said inner jaw, said sloping surfaces assuming relative positions effective to disengage a clamped object from said jaws when the jaws are opened; spring means for urging said inner jaw toward said outer aligned jaws, and means for opening and closing said jaws.

2,821,002

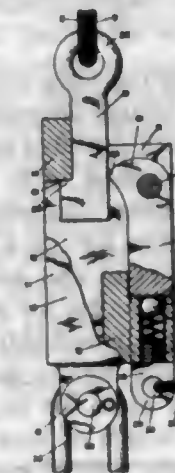
FASTENING DEVICES FOR THE WAISTBANDS OF TROUSERS
Herbert Howard Wood, Birmingham, England, assignor to Thomas Walker Limited, Birmingham, England, a British company
Application July 24, 1953, Serial No. 370,013
Claims priority, application Great Britain December 13, 1952
3 Claims. (Cl. 24—227)



1. A staple for a hook-and-staple fastening device for the waistbands of trousers, said staple comprising: a straight bar provided at opposite ends with attachment prongs bent at right-angles to the bar, said bar having at opposite ends and sides, adjacent the prongs, integral extensions shaped to provide downwardly-extending side wall parts having at their lower ends integral outwardly-extending lugs forming flat feet lying in a plane parallel to the main portion of the bar but in a plane at right-angles to that of the attachment prongs, the said outwardly-extending lugs being adapted to bear upon the outer face of the waistband when the staple is attached to the latter by bending over the prongs after their insertion through the material of said waistband.

2,821,003

LOG BINDER RELEASE
Gordon Boyes and Charles A. Wilson, Glenwood, Wash.
Application June 23, 1954, Serial No. 438,664
2 Claims. (Cl. 24—230)

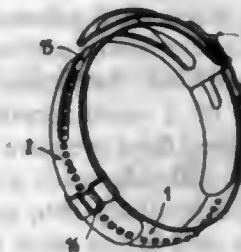


1. A quick release device for anchoring cables, log binding elements and the like, comprising in combination, a body portion having first and second ends and first and second sides and including spaced side walls and a connecting web, said side walls defining a slot open at said first end and at said first side of said body portion and said web providing a web shoulder adjacent said second side and facing said second end, a catch bolt of a thickness substantially equal to the width of said slot and insertible longitudinally in the open end of said slot, said bolt having on the insertible end thereof a laterally extending lug forming a shoulder engageable with said web shoulder with said bolt longitudinally engaging the inner face of said web and extending beyond the open end of said body portion, means on the other end of said bolt for attachment to one end of a binding element, a pivot extending between said walls substantially opposite said web shoulder and adjacent the open side of said body portion, a lock lever pivotally mounted on said

pivot adjacent one end thereof, said lever having a thickness substantially equal to the width of said slot and having a locking cam portion extending laterally from the pivoted end thereof and facing said web shoulder when said lever is swung into said slot in locking position, said cam portion in locking position being spaced from the inner side of said web a distance substantially equal to the thickness of said bolt to retain said bolt against said web with said web and bolt shoulders in abutment, said cam portion tapering around the pivoted end of said lever to permit movement of said bolt from said web and disengagement of said shoulders when said lever is swung outwardly through the open side of said body portion, means on the free end of said lever for connection to a pull member for swinging said lever to release position, stop means between said side walls adjacent said second end and spaced from said first side of said body portion and constituting an abutment for said lever in locking position, latch means on said lever intermediate the ends thereof, and complementary latch means carried by said body portion between said stop means and said first side for cooperation with said lever latch means when said lever is swung into said slot to releasably retain said lever in locking position.

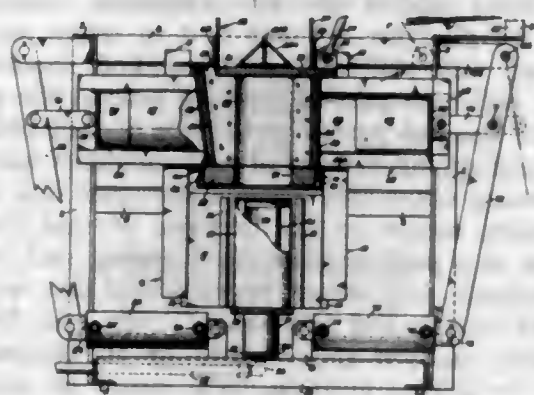
2,821,004

METAL CLIP ADAPTED FOR USE WITH RUBBER PIPING
Luigi Romano and Silvio Romano, Voghera, Italy
Application December 17, 1954, Serial No. 475,890
Claims priority, application Italy December 21, 1953
1 Claim. (Cl. 24—273)



A hose clip comprising in combination: an encircling band having a first section and a second section, said sections being adapted to be secured in overlapping relation, a U-shaped member adapted to slidably engage said sections whereby the extent which said sections overlap may be adjusted, a resilient member arranged substantially in the form of a rectangle having two short sides and two long sides, one short side being pivoted to one end of said first section, a tension lever pivotally mounted on the other short side of said member, said long sides being bent outwardly thereby affording extensible means, and an external projection disposed on said band adjacent the free end of said second section, such projection constituting a fulcrum for said tension lever, said tension lever having a slot adapted to receive the free ends of said member, said free ends each having a downward bend whereby said free ends are adapted to fit loosely in said slot and retain said member in association with said tension lever, said first section having a plurality of projections disposed therealong and said second section having a plurality of recesses disposed therealong, said recesses being arranged to register with said projections thereby affording antislip means for said sections, said second section having a longitudinal slot adapted to receive a plurality of said projections, and said U-shaped member, in association with said overlapping sections being adapted to prevent relative movement of said sections.

2,821,005
CEMENT BLOCK MAKING AND FORMING PRESS
 Clarence Guy Davis, Albany, Oreg.
 Application February 1, 1954, Serial No. 407,290
 1 Claim. (Cl. 25—41)



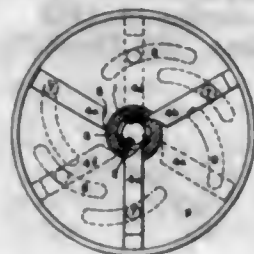
Apparatus of the class described comprising a frame, a pallet support mounted within the frame, a pallet slidably mounted upon the support for insertion into the frame to form a bottom wall for a mold and for removal from the frame with a finished block disposed thereupon, core receiving openings formed in the pallet, a fixed vertical end wall for the mold mounted within the frame, an opposite vertical end wall and a plurality of molding cores mounted upon a lifting plate for simultaneous vertical movement into and out of mold-forming positions, a vertical side wall and an opposite side wall diagonally arranged with respect to the pallet and extending to a greater height than said side vertical side wall, both of said side walls being slidably mounted within the frame for movement toward and away from each other into and out of mold-forming positions respectively, a cover plate for the mold slidably mounted within the frame for horizontal movement into and out of a mold-forming position, individual manually controlled fluid pressure-actuated means operatively connected to said side walls and to said cover plate for moving them horizontally into and out of mold-forming positions and to said lifting plate for moving said end wall and molding cores mounted thereon into and out of mold-forming positions, and abutment means carried by the frame in the path of movement of said connection of the fluid pressure-actuated means to said plate to limit said horizontal movement of the plate toward said diagonal side wall whereby space will be provided between the adjacent edge of the plate and said extended portion of said diagonal wall to provide space for molding a flange entirely along the corresponding edge of a block being molded.

2,821,006
PROCESS FOR THE MANUFACTURE, FROM PLASTIC MATERIAL, OF HOLLOW BODIES HAVING PROJECTIONS PROTRUDING FROM THE INNER SURFACE

Wilhelm Pfannmueller, Mannheim, and Alois Letschert and Theophil Fuchs, Baumbach, Westerwald, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
 Application June 23, 1953, Serial No. 363,436
 Claims priority, application Germany September 27, 1952
 5 Claims. (Cl. 25—156)

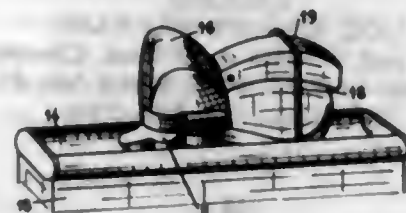
2. The method of manufacturing a hollow body having a plurality of tongue-like projections extending inwardly from the inner surface of the body from plastic material which comprises: supporting the inner wall of a hollow body of a soft plastic material by a sleeve positioned therein and having a plurality of openings corresponding in dimensions to said projections, said openings communicating with an end of said sleeve for slidably re-

moving said projections therefrom; cutting portions of said body corresponding in dimensions to said projections and bending said portions inwardly through said openings in one operation by reciprocating cutters simultaneously moved inwardly on said body from the outer surface thereof at points therearound and then simultaneously



removed outwardly from said body, said cutters being dimensioned to provide the desired size and deflection of said projections; and sliding the resulting body off of said sleeve such that said projections pass axially of the sleeve through said openings communicating with the end of said sleeve.

2,821,007
ATTACHMENTS FOR HOLDING AN APPARATUS DESIGNED TO BE RECIPROCATED BY HAND
 Peter Wild-Fierz, Richterswil, Switzerland, assignor to D. Wild & Co., Richterswil, Switzerland, a corporation of Switzerland
 Application November 9, 1954, Serial No. 467,859
 Claims priority, application Switzerland October 8, 1954
 4 Claims. (Cl. 28—1)

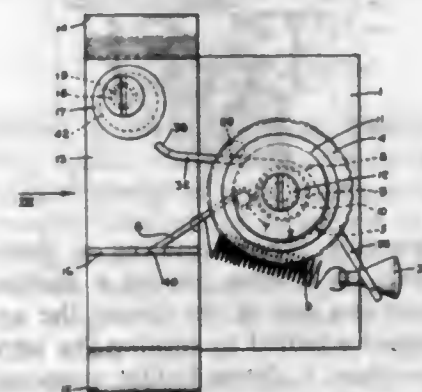


1. In an apparatus for marking cloth and like material, a stationary mounted trough-shaped guide base having one end projecting beneath the edge of the web of material to be marked, a plate formed to fit within and slidably arranged in said guide base, clamping means carried by said plate, a marking device having a recess to receive the edge of the web of material and adapted for operation when the material is in the recess for marking the material, said marking device being detachably held in position on said plate by said clamping means, means associated with said marking device and plate for reciprocating the same in the direction of the length of said trough-shaped base to position the edge of the web of material in said recess, and means for stopping the marking device and plate when the edge of the web of the material is in the recess and for actuating the device to apply a mark to said material.

2,821,008
YARN CLEARER
 Kurt Klug, Greiz, and Paul Schubert, Greiz-Moschwitz, Germany, assignors to Veb Greizer Kammgarnwebereien, Greiz, Germany
 Application November 29, 1955, Serial No. 549,807
 8 Claims. (Cl. 28—64)

1. A yarn clearer for use in eliminating slubs and like relatively soft enlarged portions of more than a predetermined maximum thickness from yarn being checked while permitting relatively hard knots to remain in said yarn, comprising a base plate, a guide plate fixedly positioned on said base plate, a guide roller provided with a peripheral guide groove rotatably mounted on said guide plate, a checking member disposed on said guide plate and provided with a first wedge-shaped recess coacting

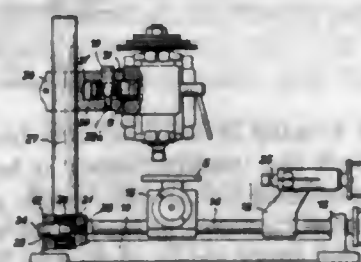
with said groove of said guide roller to define a path of movement for said yarn over said guide plate, a mounting body rotatably arranged on said base plate laterally of said guide plate, a control lever provided with two arms oriented angularly with respect to one another, said control lever being fixedly connected intermediate its extremities to said mounting body for rotary movement therewith, one of said arms of said control lever extending toward said path and being provided in its free extremity with a second wedge-shaped recess intersecting said path at a location between said guide roller and said checking member, an adjustment member pivotally connected at one extremity to said mounting body laterally of the axis of rotation of the latter and having another extremity in engagement with said checking member for sliding movement therealong substantially transversely to said path and across said first wedge-shaped recess to define with the sides of the latter a variable-size, substantially triangular aperture, and tension spring means operatively inter-



connecting said adjustment member and the other of said arms of said control lever to draw said adjustment member against said checking member and bias said one arm of said control lever in the direction of said guide roller, thereby ensuring positioning of said mounting body so as to cause said adjustment member to impart to said aperture a predetermined minimum size facilitating catching and breaking of said yarn at said aperture due to appearance of slubs and like enlarged portions of greater thickness than said predetermined maximum, knots in said yarn when caught by said second wedge-shaped recess causing swinging of said one arm of said control lever toward said checking member against the force of said tension spring means and concurrent movement of said adjustment member along said checking member to enlarge the size of said aperture, whereby said knots upon slipping off said one arm of said control lever are enabled to pass through said aperture without engendering breaking of said yarn.

2,821,009
BENCH-TYPE MACHINE TOOL CONSISTING OF INTERCHANGEABLE COMPONENTS, PARTICULARLY FOR AMATEURS

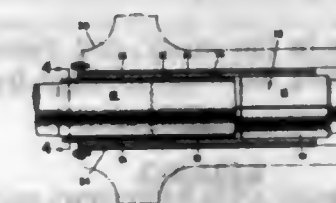
Karl Maler, Hallein, Austria
 Application August 1, 1955, Serial No. 525,675
 2 Claims. (Cl. 29—27)



1. In a bench-type machine tool having a drive motor and a headstock, the combination of a base having a vertical bore therein, a column having a lower end plug removably inserted in said bore, a bracket adjustably

fixed to said column and having a horizontal bore therein of the same shape and size as said vertical bore in said base and a plug for said motor and headstock identical to said lower end plug and fitting said horizontal bore in said bracket and said vertical bore in said base when said column has been removed from said vertical bore.

2,821,010
BEARING SLEEVE
 Edgardo G. Vasconi, Fairview, N. J., and Harold J. Meek, Staten Island, N. Y., assignors, by direct and mesne assignments, to Jaroco Engineering Co., Hoboken, N. J., a corporation of New Jersey
 Application March 17, 1955, Serial No. 495,008
 4 Claims. (Cl. 29—149.5)



1. The method of making a bearing member which consists in welding an outer hard metal facing to an inner metal sleeve to form a bi-metal sleeve, and then attaching said bi-metal sleeve to a shaft.

2,821,011
METHOD FOR COMPRESSION SPLICING OF WIRES
 Thomas A. Sanders and Frank Kahn, Philadelphia, Pa.
 Application March 25, 1952, Serial No. 278,426
 8 Claims. (Cl. 29—155.55)

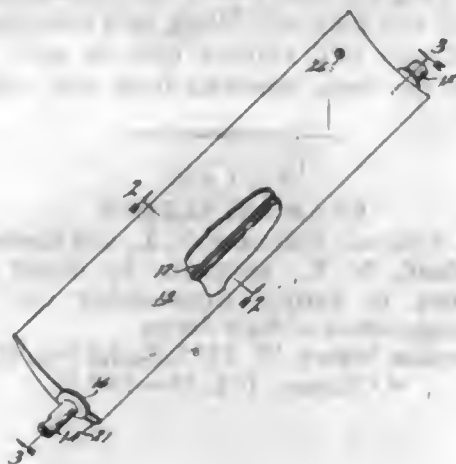


7. The method of securing an electrical conductor or the like in a ductile metal sleeve which comprises disposing a conductor in said sleeve, engaging a relatively narrow transverse portion of said sleeve with a backing and holding indenter, then applying to the opposite side of said sleeve by means of an indenter compression over a relatively small transverse area beginning at one edge of said sleeve to form an initially generally V-shaped transverse indentation of correspondingly small area, and then progressively advancing said area of compression incrementally across the sleeve to the other edge to form successive generally V-shaped indentations such that the spacing between the centers of adjacent indentations is substantially the width of the indentations, and relieving the compression behind said area as it is thus advanced, whereby to form a generally flat indentation in said opposite side.

2,821,012
METHOD OF SHAPING HOLLOW METAL ARTICLES
 Joseph A. Rzezutko, Detroit, and Jan C. Mueller, Highland Park, Mich., assignors to American Metal Products Company, Detroit, Mich., a corporation of Michigan
 Application March 3, 1955, Serial No. 491,814
 4 Claims. (Cl. 29—156.8)

1. The method of shaping a hollow blade to a desired form which includes the steps of: filling the interior with

water, freezing the water to ice, placing the blade within the cavity of a die set, applying pressure to the die set

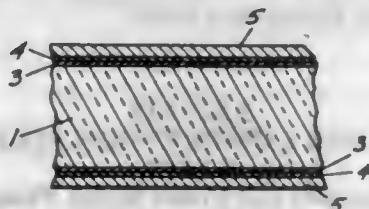


to shape the blade to the cavity, and thereafter melting the ice and permitting the water to drain from the blade.

2,821,013

METAL COATING AND METHOD OF MAKING THE SAME

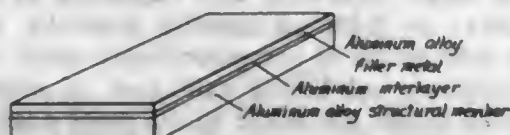
John W. Schell, Erie, Pa., assignor to Erie Resistor Corporation, Erie, Pa., a corporation of Pennsylvania
Application December 16, 1954, Serial No. 475,783
4 Claims. (Cl. 29—195)



4. A ceramic dielectric having a coating comprising a coating of flash thickness of nickel gas plated directly in contact with the ceramic, a coating of flash thickness of electroplated nickel on and in direct contact with the gas plated coating, and an electroplated copper coating on and in direct contact with and of substantially greater thickness than the electroplated nickel coating.

2,821,014

COMPOSITE ALUMINOUS METAL ARTICLE
Mike A. Miller, New Kensington, Pa., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 31, 1951, Serial No. 229,130
9 Claims. (Cl. 29—197.5)



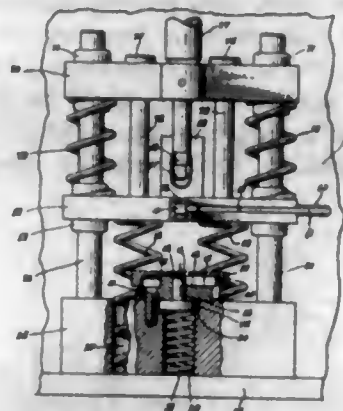
1. A composite aluminous metal article adapted to be joined to another metallic body by the brazing process, said article having a structural component consisting of an aluminum base alloy that has a melting point not lower than 1080° F. and is susceptible to penetration by molten brazing filler metal; a thin aluminous interlayer at least 0.0010" in thickness and constituting from 2 to 10% of the total thickness of the composite article, said interlayer extending over at least a portion of the surface of said structural component and adhesively joined thereto, said interlayer also having a melting point not lower than 1180° F. and above that of the structural component; and a layer of brazing filler metal adhesively joined to said interlayer composed of an aluminum base alloy having a melting point below that of the structural component, said brazing filler metal being completely sep-

arated from said structural component by said interlayer, said composite article being characterized by substantial freedom from penetration of the structural component by molten filler metal during the brazing process.

2,821,015

ASSEMBLY APPARATUS

Samuel Kuba, Allentown, Pa., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application November 2, 1953, Serial No. 389,750
3 Claims. (Cl. 29—203)

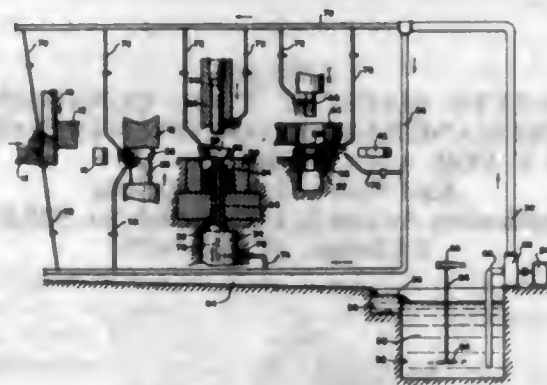


1. An apparatus for assembling a sleeve having an aperture therein to a stem having a portion adapted to enter and close one end of the sleeve, the apparatus comprising a support adapted to receive the stem and hold it in a given position, a sleeve holder supported for movement relative to the support and adapted to position the sleeve in alignment with the stem, an element movably carried by the sleeve holder and adapted to removably enter the aperture of the sleeve to releasably hold and orient the sleeve relative to the stem, an actuator, means responsive to the actuator to move the sleeve holder and element relative to the support to locate the sleeve adjacent the stem, means responsive to the actuator to move the element out of the aperture of the sleeve, and means movable by the actuator to engage and force the sleeve over and its leading end beyond the portion of the stem.

2,821,016

METHOD OF HOT FORGING OR EXTRUDING METAL SHAPES AND LUBRICANT FOR USE IN HOT FORGING AND EXTRUDING OPERATIONS

William M. Dickson, Houston, Tex.
Application March 3, 1955, Serial No. 491,957
6 Claims. (Cl. 29—424)

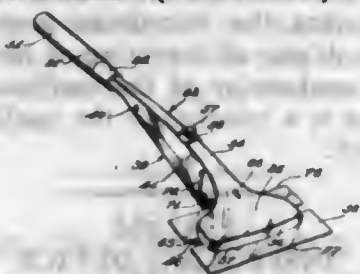


1. In the hot forging of steel articles from heated steel bar stock in which the steel bar stock is heated to a temperature approximating 2300° F., slugs are cut successively from one end of the heated steel bar stock by a cut-off means, the slugs being placed in succession in a die cavity of a forming die and pressed therein to the shape of the steel article, the improvement in which a cooling and lubricating composition is flooded over the slugs as they are cut from the bar stock, the cut-off

means and all parts of the forming die during the cutting of the slugs and the forming of the steel articles therefrom, said cooling and lubricating composition comprising a water solution consisting essentially of water, approximately one part by weight of finely-divided graphite to 6000 parts by weight of water, and from approximately 1.5 to 7% by weight of a soluble cutting oil, whereby scoring and excessive wear of the forming die is prevented.

2,821,017 SCRAPER

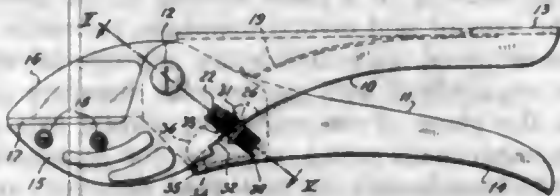
Vytautas Liesunaitis, Verdun, Quebec, Canada
Application January 18, 1957, Serial No. 634,890
10 Claims. (Cl. 30-169)



1. In a scraper, a blade, a blade clamping mechanism comprising a pair of clamping members each having a clamping jaw, means to press said jaws one against the other in opposite relation, the upper one of said clamping jaws providing an edge portion lying in a substantially flat plane, the lower one of said clamping jaws providing an edge portion lying in a curved plane, said jaws securely contacting the blade only at the ends thereof a rocking member pivotally mounted intermediate its ends on one of said members and having one end adapted to contact the upper face of said blade at that portion intermediate the ends of the clamping jaws, and a lever operated cam member contacting the other end of said rocking member for rocking said member about its pivotal point to various angular positions.

2,821,018 PRUNING CUTTERS

Archie M. Schwieso, Santa Cruz, Calif., assignor to H. Boker & Co., Inc., New York, N. Y., a corporation of New York
Application April 4, 1957, Serial No. 650,648
5 Claims. (Cl. 30-186)



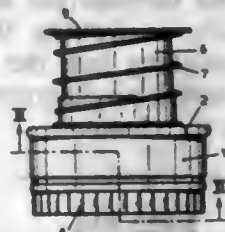
1. Pruning cutters having crossed members having cheeks where crossed, a pivot through said cheeks for permitting scissor-like movement of said members with respect to each other, one of said members having an edge overlying the other member and said edge having steps at different radial distances from said pivot in progressive succession one to the next, and the other said member having a slide catch mounted therein and overlapping said stepped member, said catch being selectively engageable with any one of said steps for imposing desired limitation of movement upon said members.

2,821,019 PASTRY CUTTERS

Frits H. Immink, The Hague, Netherlands
Application March 8, 1955, Serial No. 492,920
Claims priority, application Netherlands March 15, 1954
3 Claims. (Cl. 30-301)

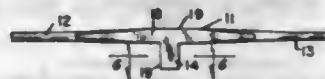
1. A pastry cutter for use in connection with a single layer of dough comprising two cylinders each of different

diameter than the other and open at their lower ends, a sleeve having a lower edge and extending into and secured to the cylinder of larger diameter, the smaller cylinder being axially slidable in said sleeve and supporting on its outer surface a radially projecting flange, which is spaced from the lower end of said smaller cylinder and forms an



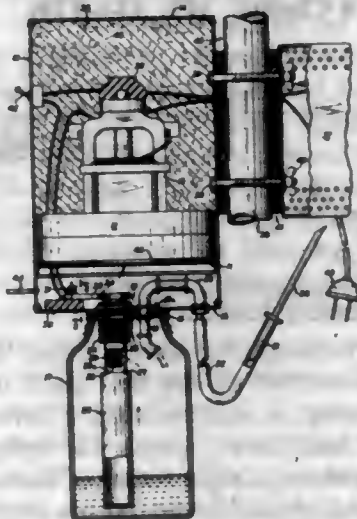
abutment cooperable with the lower edge of said sleeve, and spring means provided outside of and between said larger and smaller cylinders tending to move said smaller cylinder in upward direction relative to said larger cylinder and with its radially projecting flange abutting against the lower edge of said sleeve.

2,821,020
ORTHODONTIC SECTIONAL ARCH WIRE
Archie B. Brusse, Denver, Colo., assignor to Rocky Mountain Metal Products Co., Inc., Denver, Colo., a corporation of Colorado
Application June 6, 1955, Serial No. 513,243
2 Claims. (Cl. 32-14)



1. An orthodontic sectional arch wire comprising an elongated body of a length equivalent to at least a substantial portion of a human dental arch, said body having ends and being round in cross section except for an area adjacent but spaced from one end thereof, said area consisting of a T, the top of that T being substantially rectangular in shape with the side, top and bottom walls of the rectangle being flattened, the top of the T being in substantial alignment with the round portion of the body, and the leg of the T forming with the body a laterally extending rectangular extension having sides and edges which are substantially flat.

2,821,021
POWER-OPERATED DENTAL ASPIRATOR
Marvin Winter, Great Neck, N. Y., assignor, by mesne assignments, to The Pelton & Crane Company, Charlotte, N. C., a corporation of Michigan
Application October 31, 1956, Serial No. 619,618
18 Claims. (Cl. 32-33)



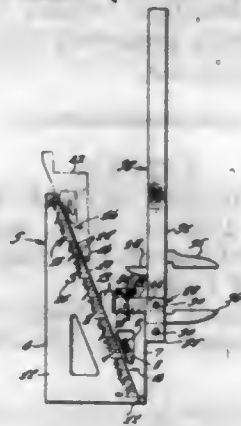
1. A power-operated dental aspirator unit comprising a housing, an electric motor-operated blower within said

housing, a chamber below said blower, means providing air communication between said chamber and the intake side of the blower, an aspirator conduit positioned exteriorly of the chamber, means for establishing fluid communication between the chamber and the aspirator conduit, said chamber being adapted to receive and collect liquid and debris drawn through the aspirator conduit, a normally closed switch controlling the current to the blower and means extending into the chamber operable to open said switch when a predetermined amount of the liquid has collected in the chamber.

2,821,022

GAGE HOLDER AND SCALE MEANS—ATTACHMENT HOLDER AND NEW RULES

Lester J. Woodward, Burbank, Calif.
Application March 21, 1955, Serial No. 495,425
1 Claim. (Cl. 33—162)

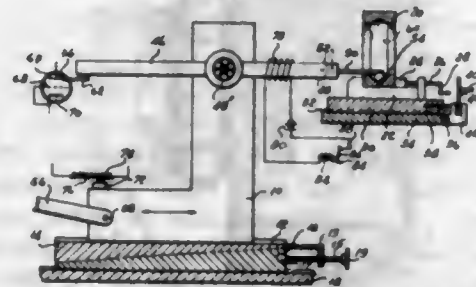


A combined scale and gage attachment means, including a substantially triangular base member with a gage slider adjustably mounted upon an inclined edge of the base member, a scale with gaging jaws thereon adapted to be supported upon the gage slider, and a right angled holder member with two arms disposed at right angles to each other with one arm having an elongated slot open to the outside of the member into which one end of the scale is adapted to extend in alternative positions at right angles to each other, said one arm having transverse holes for transverse pins or screws to secure the scale in place in said slot, the other arm having an inwardly directed hole for a set screw for securing the holder to one end of the slider upon the exterior thereof, in all positions of said slider relative to said scale and base member.

2,821,023

CURVATURE GAUGE

Bruce L. Mims, Danbury, Conn., assignor to The Barden Corporation, Danbury, Conn., a corporation of Connecticut
Application October 2, 1953, Serial No. 383,749
4 Claims. (Cl. 33—174)



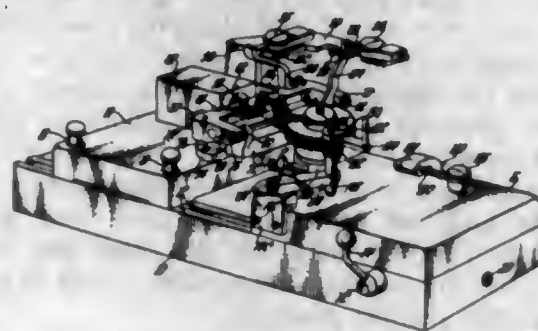
1. A curvature gauge for determining the degree and quality of the curvature of the ball track of a ball bearing race comprising in combination a lever, means pivotally mounting said lever, means for reciprocating said lever mounting means, a rigid feeler of known dimensions carried by one end of said lever, means mounting the ball bearing race to be measured in a position relative to said feeler where said feeler engages and slides across the ball track as the lever mounting means reciprocates, a first

transducer actuated by the end of said lever removed from said feeler to produce an output voltage proportional to the vertical component of the motion of said feeler, a second transducer actuated by said means for reciprocating the lever mounting means to produce an output voltage corresponding to the horizontal component of the motion of said feeler, each of said transducers having an amplifier function means for adjusting the gains of said first and second transducers while maintaining a constant gain ratio and an oscilloscope fed by the voltage outputs of said first and second transducers to produce a trace which is a visual representation of the curvature of said ball track, said oscilloscope having a face provided with a scribed figure of known curvature, the arrangement of parts being such that the setting of said means for varying the transducer amplifications is a measure of the degree of curvature of the ball track and the degree of conformity of the oscilloscope trace with the scribed area is a measure of the quality of curvature of the ball track.

2,821,024

INSPECTION DEVICE

Edward R. Nyland, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 24, 1955, Serial No. 483,593
1 Claim. (Cl. 33—179.5)



A gear checking device which includes gimbal means universally mounting a gear member for inspection, said gimbal means including a member pivotal about an axis tangent to the base circle of said gear member and another member pivotal about an axis normal to said first-mentioned axis, means receiving and biasing a driving gear member in meshing engagement with said first-mentioned gear member in a plane normal to the planes including the axes of said pivotal members, tolerance gauging means mounted upon said device and operatively disposed for engagement with said pivotal members normal to and in the plane of the respective pivotal axis of the pivotal member with which engaged for separately detecting individual errors in said gear member, another tolerance gauging means mounted upon said device and operatively disposed for engagement with said driving gear receiving means for detecting cumulative errors in said gear member being inspected, gauge feeler arms secured to said pivotal member and bent and formed to dispose a gauge engaging surface thereof normal to said tolerance gauging means and in the plane of the respective pivotal axis of the pivotal member to which secured, and counterweight members secured to said pivotal members for counterbalancing the weight of said gauge feeler arms on said pivotal members.

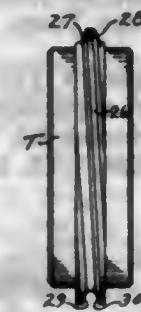
2,821,025

GEAR MEASURING INSTRUMENT

Arthur Insley Bean, Springfield, Vt., assignor to The Fellows Gear Shaper Company, Springfield, Vt., a corporation of Vermont
Application August 27, 1956, Serial No. 606,294
9 Claims. (Cl. 33—179.5)

1. A device for measuring gears and the like consisting of a substantially cylindrical body, a plurality of gaging

surfaces substantially spaced from each other peripherally about said body, said surfaces having alternately opposed measuring characteristics, said characteristics alternating between surfaces to measure teeth and surfaces to measure

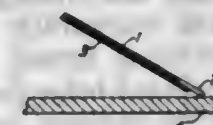


tooth spaces and a helical rib on the periphery of said body extending between said alternate surfaces to index said gear and to locate said gaging surfaces in the desired measuring position.

2,821,026

PRINTING PLATE LOCATION AND AFFIXING MEANS

George Arthur Moggridge, St. Catharines, Ontario, Canada
Application June 24, 1955, Serial No. 517,820
5 Claims. (Cl. 33—184.5)

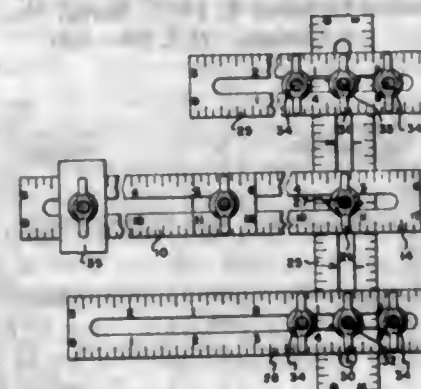


1. Means for enabling the accurate location and affixing of flexible adhesive backed printed plates upon plate cylinders or beds, consisting of a strip abutting and affixed to one edge of the plate, said strip being $\frac{1}{4}$ " to $\frac{1}{2}$ " in width and having an adhesive backing on all but the outermost $\frac{1}{4}$ " to $\frac{1}{4}$ " thereof.

2,821,027

ADJUSTABLE RULE GAUGE FOR CABINET PULLS AND DOOR HANDLES

Joseph John Billhimer, Sr., Rivera, Calif.
Application July 26, 1954, Serial No. 445,690
7 Claims. (Cl. 33—189)



1. A device of the class described comprising an elongated twelve inch rule, a six inch rule removably and adjustably attached to said twelve inch rule and extending transversely thereto, a pair of six inch rules removably and adjustably attached to said six inch rule and extending substantially parallel to said twelve inch rule and a pair of marking devices removably and adjustably positioned on each of said pair of six inch rules, each of said rules having a longitudinal slot extending for substantially the entire length thereof, and bolts attaching said rules together, said bolts being slidably mounted in said slots, with bases disposed beneath said rules and wing nut screw threadedly mounted adjacent the top of said bolts.

2,821,028

MORTISE TEMPLATE ASSEMBLY

James H. Godfrey, Berlin, Conn., assignor to The Stanley Works, New Britain, Conn., a corporation of Connecticut
Application August 31, 1953, Serial No. 377,347
4 Claims. (Cl. 33—197)

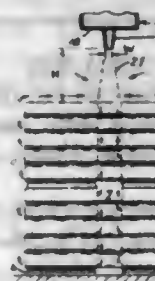


1. A mortise template assembly comprising a pair of longitudinally spaced and aligned mortise templates, and a longitudinally extending link of adjustable length pivotally connected at its opposite ends respectively to said templates at corresponding locations thereon for movement of each end thereof relative to the respective template about an axis extending laterally of the respective template.

2,821,029

METHOD AND APPARATUS FOR CIRCULATING AIR

Edward Simons, San Francisco, Calif., assignor to Alford Refrigerated Warehouses, Dallas, Tex., a corporation of Texas
Application May 25, 1953, Serial No. 357,299
4 Claims. (Cl. 34—34)



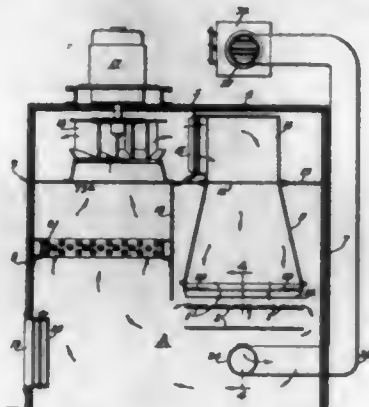
1. Apparatus for circulating air around stacked articles in a cold storage space comprising: an elongated air duct closed at one end and provided at its other end with a fan for forcing air into said duct, means for supporting said duct horizontal and spaced above the floor of said space to permit stacking such articles on said floor in vertically extending stacks to form an upwardly opening horizontally elongated pocket with the vertical sidewalls of said pocket defined by such articles, a plurality of nozzles along the underside of said duct for directing the air in jets from said duct vertically downwardly into said pocket through the upper open end of the latter, said nozzles being elongated longitudinally of said duct and being spaced apart along the length of said duct to permit entrainment of ambient air by said jets from all sides of the latter, elongated tubular extensions secured at one of their corresponding ends to said nozzles and adapted to be suspended from the latter for discharging air downwardly from their opposite ends, said extensions being flexible whereby their lengths may be adjusted to space said opposite ends different distances from the floor to accommodate stacks of different heights.

2,821,030
APPARATUS FOR DRYING MATERIALS IN PASTE FORM

Stanislaus Bogaty, Philadelphia, Pa., assignor to Proctor & Schwartz, Inc., Philadelphia, Pa., a corporation of Pennsylvania

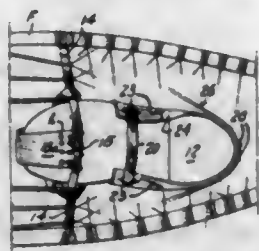
Application October 21, 1953, Serial No. 387,490

4 Claims. (Cl. 34-225)



1. A dryer for materials in paste form comprising a housing, means subdividing said housing into a succession of drying sections, an endless conveyor passing entirely through the housing and the several drying sections thereof to convey thin layers of the material successively through said sections, a plurality of narrow elongated discharge nozzles for drying air in each section of the dryer overlying the conveyor and disposed in spaced parallel relation lengthwise of the conveyor with the individual nozzles extending transversely thereof, said nozzles being disposed to discharge drying air downwardly perpendicular to the plane of the conveyor, and perforate members disposed in the air stream at the opposite end portions of the discharge nozzles operable to partially throttle the drying air discharged through said nozzle end portions and thereby retard the rate of drying of the outer portions of the material on the conveyor so that they dry at substantially the same rate as the inner portions thereof.

2,821,031
SNOWSHOE BINDING
 Harold Howe, Rowayton, Conn., assignor to Howe Folding Furniture, Inc., New York, N. Y., a corporation of New York
 Application December 24, 1956, Serial No. 630,174
 4 Claims. (Cl. 36-4.5)



1. A snowshoe binding adapted to provide control from the heel of the user's boot comprising, means attached to the snowshoe for limiting movement of the user's boot forwardly of the snowshoe, means for preventing movement of the toe of the boot laterally of the snowshoe and means adjustable in length for engaging the heel of the boot and exerting pressure on the boot to keep it in abutting relation with said stop member, said last mentioned means having portions extending forwardly and outwardly from the heel and adapted for attachment to the snowshoe at points spaced laterally of the snowshoe thus providing a triangular support with the base of the triangle substantially equal to the width of the snowshoe in its mid-portion.

2,821,032
ORTHOPEDIC APPLIANCE FOR FLAT-FOOTEDNESS

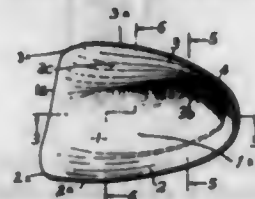
Arthur Jacob Helfet, Newland, Cape Town, Union of South Africa, assignor to Walk-Rite Appliances (Proprietary) Limited, Cape Town, Union of South Africa, a British company

Application November 29, 1955, Serial No. 549,778

Claims priority, application Great Britain

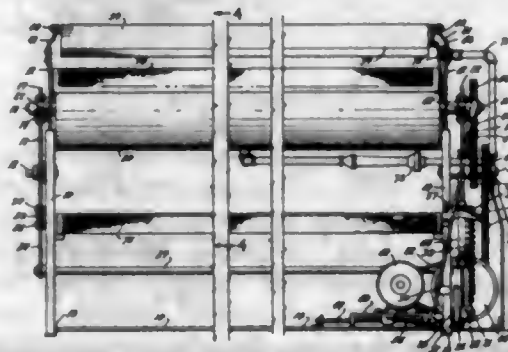
December 24, 1954

5 Claims. (Cl. 36-71)



1. An orthopedic appliance for correcting everted heels comprising a one-piece rigid scoop-shaped member of relatively thin material adapted to fit upon and receive only that area of the heel of the wearer occupied by the os calcis; said scoop-shaped member having a flat bottom wall the surfaces of which are substantially horizontal and parallel and having the opposing side walls and the rear wall joined with the bottom wall on a rounded curve and shaped internally to conform to the outline of a normal heel to encase and firmly grip said everted heel medially, laterally and rearwardly; the front portion of the medial side wall being formed on its inner surface with a curvilinear convexed bulge portion extending horizontally of said wall to conform with the depression in the os calcis underlying the sustentaculum tali thereof, whereby, under the weight of the wearer standing on his heel and forefoot, the bottom wall of said scoop-shaped member is held flat on a supporting surface and the convexed portion acts to exert a pressure against the front portion of the medial side of the everted os calcis to invert it to normal vertical position and hold it against the lateral wall and force the talus and its associated bones of the arch of the foot upwardly to restore the foot to normal arched position.

2,821,033
IRONING MACHINES
 Arthur Edwin Lelsenring, Denver, Colo.
 Application October 8, 1956, Serial No. 614,664
 4 Claims. (Cl. 38-58)



1. An ironing machine comprising: two spaced-apart end frame structures; an end frame plate in each end frame structure; a heater box supported by and extending between said end frame plates adjacent the upper extremities thereof; an arcuately concave ironing member forming the forward face of said heater box; a stub shaft projecting outwardly from the end plate of each end frame structure; a rotatable bearing plate pivotally mounted on each stub shaft; a press roll shaft journaled in and extending between said bearing plates above and in spaced relation to the adjacent stub shaft; a press roll mounted on said press roll shaft; means for heating said ironing member; means for rotating said press roll; a

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toggle shaft journaled in and extending between said end frame structures; a toggle lever mounted on and extending from said toggle shaft adjacent each extremity thereof; a toggle link hingedly secured to each toggle lever and extending to a pivotal connection on one of said bearing plates; a foot lever pivotally mounted on one end frame member and extending forwardly therefrom; an actuating lever rigidly connected with said foot lever and extending upwardly therefrom; a connecting link connecting said actuating lever with the connecting point of one of said toggle levers and its connected toggle link so that when said foot lever is depressed, said toggle shafts will be rotated to cause both toggle levers to approach alignment with their respective links to cause said press roll to enter the concavity of said ironing member; and spring means urging said foot lever upwardly.

2,821,034

IDENTIFICATION DEVICE FOR LIVE STOCK

Glenn W. Baker, Kansas City, Mo., assignor to Stone Manufacturing and Supply Company, Kansas City, Mo., a corporation of Missouri

Application October 19, 1954, Serial No. 463,162
2 Claims. (Cl. 40-3)



1. An identification device for livestock comprising a linked chain adapted to be passed about the neck of a livestock animal, a connector link joining the end links of said chain, and a planar identification tag having indicia on both sides thereof and having a perforation therethrough through which said connector link is threaded, said connector link comprising a U-shaped body member formed of resilient wire and having approximately parallel side arms, each of said side arms being offset outwardly adjacent its free end to form a bight in which one of the end links of said chain is engaged, and the free end portions of said side arms being formed respectively to present an eye and an outwardly opening hook, and a fastener link pivoted in said eye and operable to be moved into engagement with said hook only when said side arms are urged resiliently closer together.

2,821,035

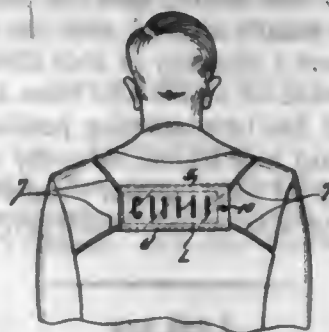
LICENSE AND SEAL HOLDER

Raymond C. Joseph, Bay City, Mich.

Application February 28, 1955, Serial No. 490,930
1 Claim. (Cl. 40-10)

Apparatus for accommodating and displaying a hunting license or the like on the body of a person, said apparatus comprising a flat rectangular sheath having two closely spaced, substantially parallel walls at least one of which is transparent, said sheath having an open edge through which the license or the like may be inserted; an elongate elastic fabric band at each end of the sheath connected to the sheath with the free ends of each band secured to the same end of said sheath at the corners

thereof, to form unconnected stretchable loops each receiving one of the person's arms and shoulders whereby



said sheath may be held snugly on the person's back with said transparent wall facing rearwardly of the person.

2,821,036

INDICIA BEARING WRITING IMPLEMENT

Alfred T. Liguori, Bronx, N. Y.

Application June 15, 1954, Serial No. 436,825
1 Claim. (Cl. 40-19)



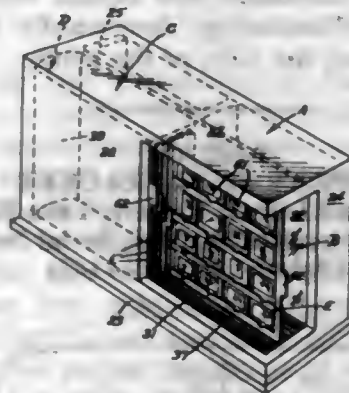
A writing implement comprising a barrel including a pair of longitudinally bored barrel members, one of said barrel members having an axially extending first shank of reduced cross section and being internally threaded in the proximity of said first shank and the other of said barrel members having an axially extending threaded second shank of reduced cross section separably engaging said internal thread, said first and second shanks having peripheral shoulders at the bases thereof which with the outer face of said first shank define an annular groove in said barrel, a transparent collar located in said annular groove and having an inner face spaced from the surface of said first shank, circumferentially spaced longitudinally extending ribs located in said groove to separate the space between the confronting faces of said first shank and said collar into indicia receiving pockets and a separate indicia element located in each of said pockets.

2,821,037

COMBINATION DEVICE FOR PHOTOGRAPHIC SLIDES

Henry J. Westphal, Angwin, Calif.

Application March 10, 1954, Serial No. 415,359
5 Claims. (Cl. 40-64)



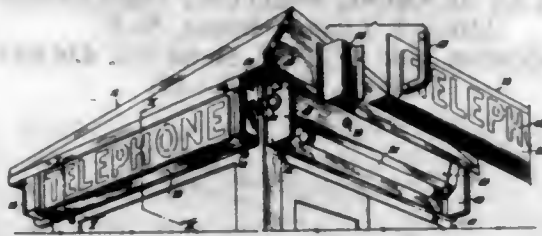
1. A combination slide film storage, previewing, and selection device adapted to facilitate visual access to a large number of mounted slide films comprising an open-sided box frame having a plurality of parallel track means provided in wall portions thereof, a light source in said box frame and translucent means separating the track

means from the light source; a book-shaped file having an open side adapted for insertion and removal through one open end of said box frame, said file having a plurality of parallel track means aligned with the track means in said box frame; and a plurality of slide film carrier frames, each adapted to slide on said tracks from a position within said book-shaped file to a viewing position adjacent the light source in said box frame; whereby a large number of slides in each of said carrier frames may each be previewed prior to a selection therefrom for the purpose of exhibition.

2,821,038

COMBINATION SIGN AND ILLUMINATING MEANS FOR TELEPHONE BOOTHS

Frank H. Gee, St. Joseph, Mo., assignor to Geeco, Inc., St. Joseph, Mo., a corporation of Missouri
Application June 24, 1953, Serial No. 363,823
1 Claim. (Cl. 40-132)



In an illuminating sign for out door booths having horizontal, U-shaped eaves extending outwardly from the sides of the booth beneath the roof thereof, an elongated L-shaped plate having a vertical back wall and a horizontal top wall, each of the walls being provided with relatively narrow, longitudinally extending channel members at the outermost ends thereof, each of the channel members extending laterally and inwardly from its respective wall, the member on said top wall lying in a substantially vertical plane and the member on said back wall lying in a substantially horizontal plane; means for attaching the plate to a booth within said U-shaped eaves with said back wall bearing against the vertical wall of the booth and the top wall bearing against the eave; an elongated, L-shaped, translucent panel substantially co-extensive in a length with said plate and having a vertical leg and a substantially shorter horizontal leg, the marginal edges of said legs being removably disposed in corresponding channel members, the panel and the plate presenting a tubular case substantially rectangular in cross section when the edges are disposed in their respective channel members; substantially rectangular closure caps removably attached to each end of the eave; indicia on the vertical leg of said panel for identifying the booth; an elongated lamp mounted in said case and extending substantially the longitudinal length thereof; and a power line electrically connected to said lamp for energizing the same to thereby illuminate said indicia bearing vertical leg and provide illumination downwardly through said horizontal leg along the sides of the booth.

2,821,039

DISPLAY SIGN BRACKET

Price R. Nash and Loretta E. Kerr, Twin Falls, Idaho
Application September 30, 1955, Serial No. 537,637
2 Claims. (Cl. 40-142)



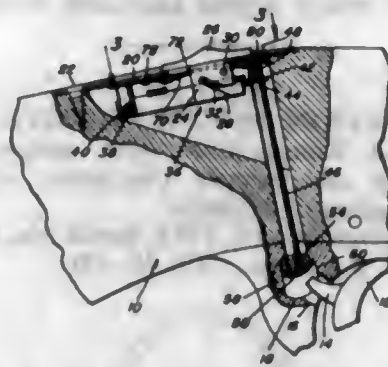
1. In a price tag supporting bracket, the combination which comprises a bar having spaced transversely dis-

posed openings therethrough with longitudinally positioned recesses extended from sides of the openings and positioned in the upper surface, characters with T's having arms extended from shanks extended from upper ends thereof, the T's being adapted to be extended through the transversely disposed openings of the bar and turned to an angle of 90 degrees with the arms positioned in said recesses in the upper surface of the bar.

2,821,040

SAFETY FOR FIREARMS

James L. Tatman, Ludington, Mich.
Application December 29, 1955, Serial No. 556,200
7 Claims. (Cl. 42-70)



1. For use on and in conjunction with existing recess means in the stock of rifles and shotguns and which when installed and used requires no structural alterations of the stock, the trigger assembly or the trigger guard; a trigger locking safety comprising, in combination, a projectible and retractable stop with which a check lug on a trigger is operatively engageable, an adapter structurally designed to be removably fitted into an existing open ended socket in said trigger guard which is in communication with said recess, said adapter having a stop confining and guiding passage in which said stop is slidable and movable toward and from said check lug, a pivotally mounted swingable lever, a push-pull rod means operatively connected at one end with said stop and at its other end with said lever, a thumb actuated push-button operatively connected with said lever, and spring means cooperable with said push-button and adapted to cooperate with a button mounting plate.

2,821,041

COMBINATION FISHING ROD HOLDER AND FISH HOOKING DEVICE

Alfred L. Hughes, North Platte, Nebr.
Application September 9, 1955, Serial No. 533,423
2 Claims. (Cl. 43-16)



2. In a fishing rod holder, a standard having an upper end, and having a rearward side, a rearwardly inclined bracket on the upper end of the standard, said bracket having an upper end, a rearwardly projecting horizontal arm on the upper end thereof, a straight forwardly and rearwardly rockable bar pivoted at a point intermediate its ends on said bracket at the juncture of the bracket and said arm, said bar being arranged to occupy a rearwardly inclined and forwardly tilted set position and having a

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forward portion overlying the bracket in the set position of the bar, said bar having a rearward portion arranged to extend upwardly and rearwardly above and beyond said arm in the set position of the bar, a latch pivoted on the upper end of the standard having an arm freely engageable over the forward portion of the bar only in the set position of the bar, a retracting spring stretched between said rearward portion of the bar and an intermediate portion of the standard and urging said bar to tilt rearwardly from its set position toward a horizontal operated position, the pull of said spring and the resultant pivoting of the bar serving to maintain engagement of the catch with said forward portion of the bar, tilting of the bar in a forward direction serving to free the catch from engagement with the forward portion of the bar, an upstanding fishing rod socket on said forward portion of the bar, and latch means mounted on said horizontal arm compressing an upstanding latch pivoted at its lower end on said arm, said latch having vertically spaced teeth having cam surfaces on their upper sides, and spring means urging said latch toward a side of the bar, said cam surfaces being engageable by the bar as the bar is tilted rearwardly by the retracting spring upon release of the catch from the bar and as the bar is moved toward said horizontal position, the latch being laterally displaced as the bar approaches its horizontal position until the latch teeth are above the bar, said spring means then serving to maintain a latch tooth engaged over the bar in its horizontal position.

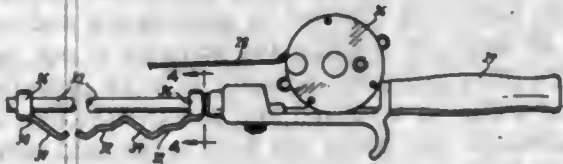
2,821,042

FISHING EQUIPMENT

Otto A. Kneisel, St. Louis, Mo.

Application April 26, 1954, Serial No. 425,581

5 Claims. (Cl. 43-19.2)



1. A vibration-imparting device that can transmit a series of vibrations to a fishing rod adjacent the butt end of said fishing rod for transmission through said fishing rod to the tip of said fishing rod and thence through the fishing line on said fishing rod to the lure at the outer end of said fishing line and that comprises a structure that is mounted on said fishing rod adjacent the butt end of said fishing rod in unyielding relation and that is adapted to be struck repeatedly to impart a series of vibrations to said fishing rod adjacent the butt end of said fishing rod, said structure having a plurality of alternating outwardly inclined portions and inwardly inclined portions and gently arcuate portions that interconnect said inclined portions.

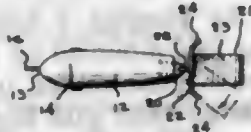
2,821,043

FISH LURE

Ewell E. Parker, Jr., Amarillo, Tex.

Application October 5, 1956, Serial No. 614,199

3 Claims. (Cl. 43-42.15)



1. A fish lure comprising a substantially flat vertical main body, means for securing said main body to a fishing line, said main body being formed with a transverse vertical rear surface, a rigid tail element pivotally connected to the intermediate portion of said rear end sur-

face of said main body, and a channel-shaped bill rigidly secured to the forward end of said tail element and having curved vertical side flanges extending rearwardly and divergently with respect to the tail element.

2,821,044

FISH LURE

Robert E. Bateman, North Girard, Pa.

Application October 5, 1953, Serial No. 384,148

3 Claims. (Cl. 43-42.16)



1. A fish lure comprising a wire frame having an eye formed at each end thereof, a plastic body formed on said frame at one end thereof, rear legs integrally connected together and pivotally mounted on said frame intermediate the ends of said frame behind said plastic body and adapted to swing therearound, and a spinner attached to each of said legs at the end thereof remote from said frame whereby said legs are urged to swing around said body simulating a swimming frog, said legs being pivotally attached to said frame by means of a leg support twisted around said wire frame, said legs being molded around said leg support.

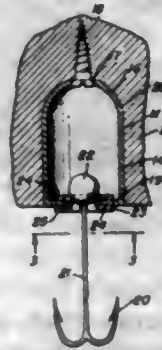
2,821,045

FISH HOOK ATTACHING MEANS FOR LURES

Tony A. Shabarick, Los Angeles, Calif.

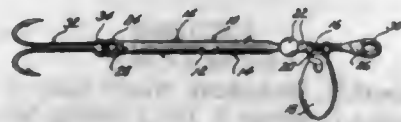
Application April 29, 1955, Serial No. 504,887

7 Claims. (Cl. 43-42.44)



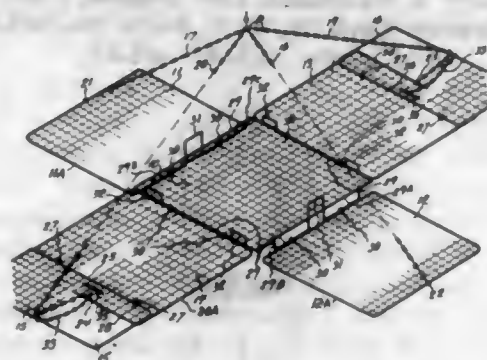
1. A fishing lure comprising in combination a lure body having a cavity therein, a hook member having a shank of predetermined diameter and terminating at one end in a hook bill, a ball head member fixed to the other end of the shank and disposed within said cavity, said cavity being of a size as to width and depth relative to the size of the head member whereby the head member has substantial movement axially and transversely therein, and a member closing the outer end of the cavity for preventing escape of said head member therefrom and having an opening smaller than the head member in and through which said hook shank has free movement, said opening being at least twice the diameter of the hook shank and said hook shank being freely movable through the major portion of its length and freely radially movable in all directions in and from the center of the opening.

2,821,046
COMBINATION BAIT HOLDER AND SINKER
 John W. Fisk, Independence, Mo.
 Application June 6, 1955, Serial No. 513,289
 1 Claim. (Cl. 43—44.2)



A combination bait holder and sinker comprising an elongated, unitary member of a single length of unbent, rigid material and having first and second elongated, cylindrical portions, said second portion being smooth surfaced, coaxial and integral with the first portion, having a diameter approximately half that of the first portion and appreciably shorter than the latter, said member having a frusto-conical intermediate portion at the zone of merger between said first and second portions, opposed, outermost segments of each of the sections being flattened to present relatively thin, planar ends lying in a common plane and having arcuate peripheral edges, each of said ends being provided with a perforation to present an eyelet at each end of the member, said first portion having a plurality of radially extending, relatively sharp, pointed barbs integral therewith, spaced at intervals both longitudinally and circumferentially throughout the length of said first portion and all canted in the direction of said second portion, said first portion and the eyelet thereof being adapted to be pushed into the bait and said first portion being of sufficient weight to maintain the bait below the surface of the water; a number of beads rotatably mounted on the second portion adjacent the intermediate portion; and a spinner rotatably mounted on said second portion between the beads and the eyelet thereof.

2,821,047
COMBINATION CRAB TRAP AND NET
 Ignacio L. Ruiz, Bronx, N. Y.
 Application April 20, 1956, Serial No. 579,627
 8 Claims. (Cl. 43—102)



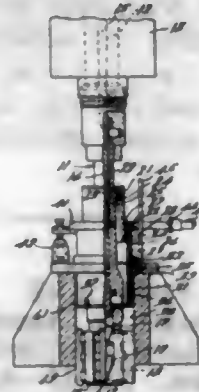
1. A combination crab trap and net including two sets of opposed latticework side doors and a bottom panel to which said side doors are hinged to be swung from open flat to box forming position when the trap is lifted, said doors and bottom each having rectangular frame portions to which said latticework is connected, hinge ring means for pivotally connecting the frames of a first set of opposed doors to the frame of the bottom, an auxiliary frame fast to said bottom frame and coextensive therewith, hinge ring means for pivotally connecting the frames of a second set of opposed doors to said auxiliary frame, latticework panel means constituting half covers each having a frame to which the latticework is connected, hinge ring means for pivotally connecting the frame of each half cover to the first set of doors below the upper edge thereof, means for limiting the closing movement of said half covers and flexible lift means adapted to close the sets of doors and to coact with the half covers to close the trap.

2,821,048
DISPENSING DEVICE
 John T. Eford, Stratford, and Lester C. Morton, Trumbull, Conn.
 Application July 6, 1955, Serial No. 520,220
 7 Claims. (Cl. 47—1)



1. The combination of a container, a dispensing valve assembly mounted in the end of said container comprising a flexible diaphragm in operative association with an elongated nozzle such that a force applied to said nozzle results in the discharge of fluid therethrough, a collar mounted on said container and spaced from the said nozzle, said collar containing at least one lug integral with the end thereof and spaced from the container, an actuator rotatably mounted on said elongated nozzle and provided with an enlarged nozzle section in open communication with said elongated nozzle, said actuator containing at least one lug integrated laterally therewith and in alignment with the lug of said collar for engagement therewith, at least one cam and groove associated with the collar and actuator, said lugs, cams and grooves so constructed and arranged that in an engaged position the actuator is not operative and when disengaged the actuator is in an operative position, and a clip so arranged and constructed that the lugs of the actuator and collar are held in the said inoperative position.

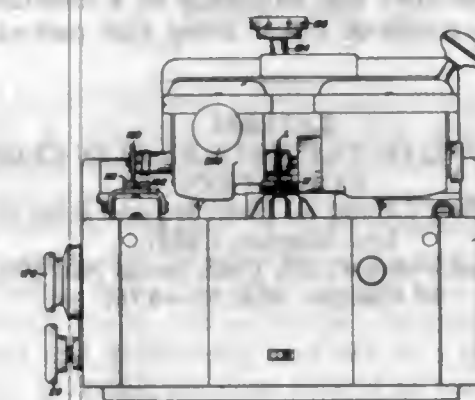
2,821,049
SIZE GAUGING DEVICE ON HONING TOOL
 William H. Harris, Jr., Detroit, Mich., assignor to Micro-matic Hone Corporation, Detroit, Mich., a corporation of Michigan
 Application May 10, 1956, Serial No. 584,062
 7 Claims. (Cl. 51—34)



6. In a device for gauging a honing operation performed by a honing tool mounted on a machine provided with means for driving the honing tool in reciprocation and rotation, a sleeve about said honing tool in spaced relation thereto permitting lateral displacement of the sleeve, a shoulder on the inner surface of said sleeve adjacent to the top thereof, a ring on a reciprocating part of the tool and machine within said sleeve engageable with the shoulder thereof for raising the sleeve therewith, said sleeve having passageways for a fluid, nozzles on said

sleeve connected with the passageways for directing a fluid onto the surface of the bore being honed when the diameter has reached a size to permit the entrance of the sleeve therinto, an air circuit for delivering a fluid to the passageways and the nozzles at a predetermined rate and pressure, means actuated upon the movement of the sleeve into the bore being honed for initiating the flow of said fluid, and an electric circuit for indicating the drop in pressure in the fluid of the system which is completed only during the time the sleeve is within the bore.

2,821,050
EDGE GRINDING MACHINE FOR LENSES
 James F. McCarthy, Oak Corners, N. Y., assignor to Shuron Optical Company, Inc., Geneva, N. Y., a corporation of New York
 Application September 29, 1954, Serial No. 459,102
 6 Claims. (Cl. 51—101)



1. An edge grinding machine for lenses comprising a pair of supports, a rotary tool holder rotatably mounted on one of said supports, a grinding wheel secured to said tool holder to rotate therewith, means for rotating said tool holder, a rotary work holder rotatably mounted on the other of said supports, means for securing a lens to said work holder coaxially thereof to rotate therewith, means for securing a lens template to said work holder coaxially thereof to rotate therewith, means for intermittently rotating said work holder step-by-step comprising a hydraulic motor, a valve for controlling supply of hydraulic motive fluid to said motor, said valve being normally closed to shut-off flow of the fluid to said motor to stop said motor and being operable to allow flow of the fluid to said motor to actuate the motor, one of said supports being movable in a direction at an angle to the axis of said work holder to permit relative feed and withdrawal movements between the lens and the grinding wheel, a member positioned to be engaged by said template to cause said valve to be opened to allow flow of the motive fluid to said motor to index the work holder a step, the lens being adapted to engage the grinding wheel to hold the template away from said member until the area of said lens which is in contact with said wheel has been ground down to a predetermined degree, means operative, after a predetermined number of revolutions of the work holder for moving one of said supports from operative position to effect relative withdrawal of the lens from operative relation with the wheel, and means for simultaneously opening said valve, whereby at the time of said relative withdrawal from operative position the work will be rotated.

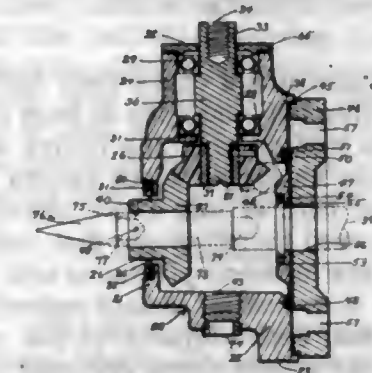
2,821,051
SHARPENER FOR HYPODERMIC NEEDLES
 Frederick Franz, West Haven, Conn.
 Application February 10, 1955, Serial No. 487,330
 12 Claims. (Cl. 51—124)

1. A sharpening device for hypodermic needles or the like comprising a frame, an abrasive disk rotatably mounted on the frame, a needle-supporting member rotat-

ably and tiltably mounted on the frame to support a needle in position to present the point thereof to the surface of the disk, means for continuously rotating said disk and said supporting member, and a needle-supporting



2,821,052
HEAD FOR A JEWELER'S POLISHING MACHINE
 George Phanara, Oceanside, N. Y.
 Application October 24, 1956, Serial No. 617,974
 1 Claim. (Cl. 51—166)



In a polishing head attachment adapted to be driven by the drive shaft of a jeweler's polishing machine and in combination, a bell shaped casting, said casting having a crown portion, a skirt flaring laterally outwards from said crown portion and terminating in an annular flange projecting laterally outwards from said skirt, said crown portion and said skirt in conjunction defining a substantially bell shaped chamber, and said annular flange defining the bell mouth, said casting including a neck portion positioned between said crown portion and said bell mouth, said neck portion merging with and protruding radially outwardly from said skirt portion and forming a shaftway connecting with said chamber, a first shaft journaled to rotate in said shaftway, said shaft having an inner end extending into said chamber and an outer end projecting beyond the outer end of said neck portion, the outer end of said shaft terminating in a socket threaded to receive a spindle of a lapping tool, a first bevelled gear mounted upon the inner end of said shaft for rotation within said chamber, said crown portion having a central opening formed therethrough, a second bevelled gear adapted to rotate in said chamber in mesh with said first bevelled gear, said second bevelled gear having a shaft-receiving hub extending through and floating in said central opening, said lateral flange being rabbeted to define a plurality of concentric shouldered seats including an inner seat and an outer seat, a sealing plate sealed against said inner seat, an adapter plate seated against said outer seat, each of said plates having a central opening formed therein in axial alinement with said shaft-receiving hub for affording free passage for a drive shaft of a jeweler's polishing machine when extended through said chamber

into said shaft-receiving hub to drive said gears and said first shaft about an axis positioned at right angles to said drive shaft, said casting being rockable about the axis of rotation of said drive shaft under control of said adapter plate to vary the angular position of said first shaft, means for locking said casting to said adapter plate, said chamber defining a bath for containing oil for lubricating said gears, an oil seal positioned in said shaftway to prevent the escape of oil along said first shaft, a second oil seal positioned in the central opening of said crown portion to prevent the escape of oil along said shaft-receiving hub, and a third oil seal positioned in the central opening of said sealing plate to prevent the escape of oil along said drive shaft.

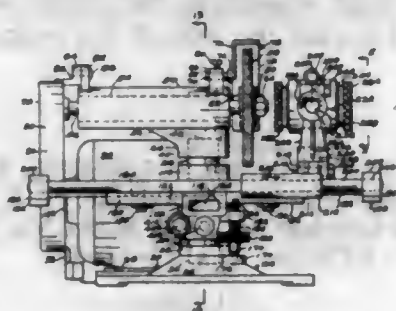
2,821,053

ADJUSTABLE BENCH GRINDER

Edward F. Chandler, Brooklyn, N. Y.

Application September 4, 1953, Serial No. 378,539

4 Claims. (Cl. 51—225)



1. A chuck comprising a chuck body having an opening formed therethrough and open at both ends, a chuck sleeve secured in said opening and having an axial bore open at both ends, an anchor block carried on the inner side of said axial bore of said chuck sleeve and having an axial bore formed therethrough, first and second pluralities of chuck jaw members pivoted to said anchor block and oriented so as to extend toward opposite end openings in said sleeve, each plurality of jaw members extending toward one of said sleeve openings, cam surfaces on said jaw members, and cam nuts carrying cooperating cam surfaces and threaded to opposite ends of said sleeve and constructed and arranged for extension inside and retraction out of said sleeve, whereby upon extension inside said sleeve said jaw members are cammed inwardly to grip firmly any tool shank inserted therein to hold the same securely to said chuck.

2,821,054

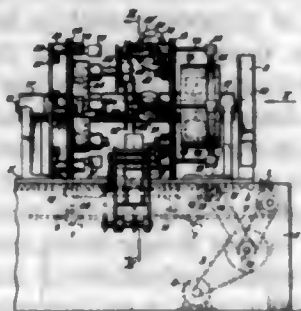
APPARATUS FOR PRODUCING CIGARETTE PACKAGES AND THE LIKE

Arthur Ritscher, Hamburg-Bergedorf, Germany, assignor to Kurt Körber & Co. K.-G., Hamburg-Bergedorf, Germany

Application June 30, 1954, Serial No. 440,434

Claims priority, application Germany July 2, 1953

1 Claim. (Cl. 53—170)



In an apparatus for producing cigarette packages having one end open, comprising a rotary carrier having a plurality of circumferentially spaced former blocks thereon, means to feed sheet material to said rotary car-

rier in the path of said former blocks, means on said rotary carrier to wrap the sheets circularly about said blocks, a rotary member spaced from the rotary carrier and rotatable about the same axis, means to rotate said rotary carrier and rotary member at the same uniform speed, a plurality of end folding mechanisms on said rotary carrier corresponding in position to said former blocks, a series of holder plates rockably mounted on said rotary member, ejector plungers mounted within each of the former blocks adapted to project a completed package from the former blocks when they reach a predetermined position in their circular travel so that they will be deposited upon said holder plates, a conveyor pathway arranged beneath said rotary member and rotary carrier and extending in parallel relation to the axis thereof, means for feeding bundles of cigarettes along said conveyor pathway, and means for feeding the open end packages to said pathway in advance of said cigarettes with the open end extending in a direction opposite to the direction of travel along said pathway.

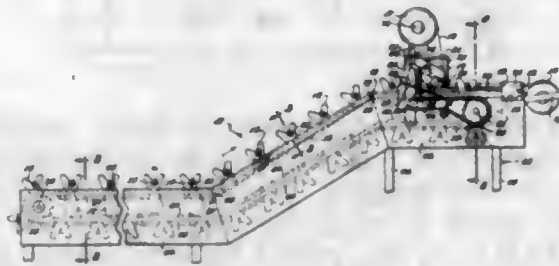
2,821,055

FASTENING OF FLEXIBLE BAGS IN CLOSED CONDITION

Leland H. Platt, Leland H. Platt, Jr., and John D. Platt, Los Angeles, Calif.

Application February 28, 1955, Serial No. 490,824

18 Claims. (Cl. 53—176)



11. Apparatus for securing filled flexible bags in closed condition comprising an endless bag advancing conveyor moving along an endless path, said conveyor having a series of units moving therewith along said endless path and adapted to grip and advance closed neck portions of said bags, and means along said path operating to fasten closed said neck portions held by said units, each of said units comprising means forming a throat into which the neck portion of one of said bags is movable essentially transversely of said neck, and a releasable holding element movable relative to the throat and operable to releasably retain a bag neck in said throat, said means for fastening the necks closed including two pressure members forming a yielding restriction through which said necks are forced, and means for supplying adhesive tape to said necks at a location to be pressed thereagainst by said pressure members and hold the necks closed, said units being movable with said conveyor past said pressure members in close proximity thereto to force the necks through said restriction.

2,821,056

ATTACHMENT FOR POWER MOWERS

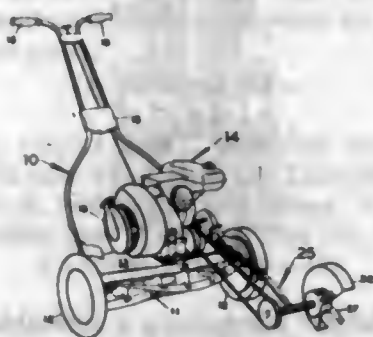
James A. Cole, North Miami Beach, Fla., assignor to E. Z. Edge, Inc., Miami, Fla., a corporation of Florida

Application December 12, 1956, Serial No. 627,863

1 Claim. (Cl. 56—25.4)

In an attachment for power mowers having support means, a motor secured by bolts on said support, a shaft mounted on said motor and a pulley mounted on said shaft, the combination comprising a support plate adapted to be mounted on said support means, said support plate having bores for receiving said motor bolts a split support secured to said support plate, said split support having an upper and lower lug, said lugs having comple-

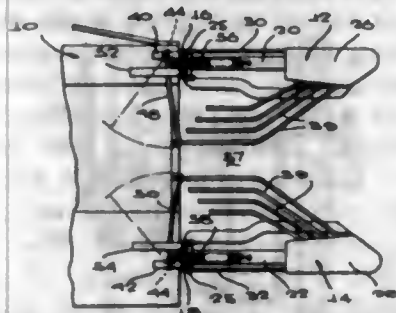
mentary bores, a lock rod having a threaded end portion, said lock rod extending through said bore of said upper lug and threadedly engaging said bore of said lower lug, a shoulder mounted on said lock rod in contact relation with said upper lug, an arm member mounted in said split support whereby upon rotation of said lock rod, said shoulder forces said upper lug in the direction of said lower lug to lock said arm member, a tubular housing secured intermediate its ends at substantially right angle to one end of said arm member, a shaft rotatably



mounted in said housing, a pulley mounted on one end of said shaft in alignment with said first named pulley, a belt engaging said pulleys, a blade mounted on the other end of said shaft, a blade guard secured to said tubular housing adjacent said blade, a collar mounted on said arm member, and a coil spring mounted on said arm member and extending between said collar and said split support for yieldingly urging said pulleys in a direction away from each other and maintaining said belt in a taut condition when said lock rod has been rotated to loosen said arm member in said split support.

2,821,057
GRASS EXTRACTOR FOR COTTON PICKING MACHINES

George W. Campbell, Lynchburg, and Minnie Z. Des Champs, Sumter, S. C.
Application March 29, 1957, Serial No. 649,515
5 Claims. (Cl. 56—28)

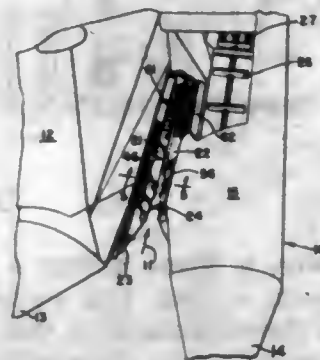


1. In a cotton picking machine of the type including elongated guide and lifting fingers grouped in transversely spaced sets and extending in a fore-and-aft direction within each set, a grass extractor attachment comprising a pair of identical but opposite arms extending toward each other and pivoted to swing between normal, first positions in which said arms extend approximately perpendicularly to the direction of movement of the machine and have free ends terminating at opposite sides of but projecting slightly into the space between said sets to pull grass away from stalks guided into said space, and second positions in which the arms are swung rearwardly out of said space; and resilient, yielding means tensioned to bias said arms to said normal positions thereof.

2,821,058
CORN HARVESTER
Frank D. Jones, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application February 16, 1956, Serial No. 565,826
10 Claims. (Cl. 56—108)

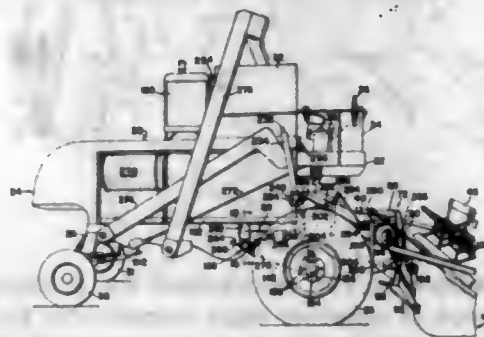
1. A corn harvester apparatus comprising a supporting frame; a pair of forwardly extending snapping rolls ro-

tatably mounted on the frame and spaced apart laterally to provide a passage for stalks to pass, each of the rolls having a series of radially projecting portions spaced axially along the roll and extending between the radially projecting portions of the other roll, said portions aggressively engaging the stalks for driving the stalks downwardly and away from the rolls to thereby sever the ears of corn from the stalks; means on the frame for adjusting the rolls laterally to increase or decrease the lateral distance between the rolls; a pair of shield members, each member being fixedly mounted on the frame



outwardly respectively of one of the rolls and including rib portions extending inwardly above and proximate to the rolls, the rib portions being interspaced between the radially extending portions of the rolls and having at least their inner surfaces radially inwardly of the outer extremities of the radially extending portions, the rib portions terminating substantially at the stalk-passage between the rolls and operative to limit contact between the ears of corn and the snapping rolls; and means on the frame operative to adjust said shield members laterally in unison with lateral adjustment of the snapping rolls.

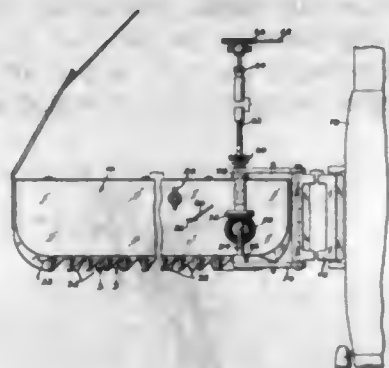
2,821,059
HILLSIDE HARVESTER
Daniel C. Heitshu, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application April 1, 1954, Serial No. 420,284
10 Claims. (Cl. 56—209)



1. Header control means for a hillside harvester of the type including a longitudinal body supported by transversely spaced wheel means relatively vertically adjustable in opposition and a header supported on the body for angular movement relative to the body generally about a longitudinal axis, said header control means comprising: longitudinal lever means fulcrumed on the body intermediate the wheels and the header and having first and second portions spaced apart longitudinally and respectively positioned adjacent to one of the wheel means and to the header; first force-transmitting means connecting the first portion of the lever means to the one wheel means to impart motion to said lever means in response to vertical adjustment of said one wheel means; and second force-transmitting means connecting the second lever means portion to the header for transmitting motion of said lever means to the header.

2,821,060

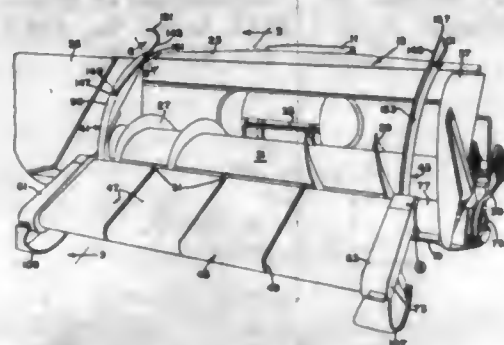
ENDLESS CUTTING ASSEMBLY WITH UPPER AND LOWER CUTTER GUARD MEANS
 Willie M. Shoffner, Dayton, Ohio, assignor to Roto-Table Co., Dayton, Ohio, a corporation of Ohio
 Application November 24, 1954, Serial No. 470,910
 7 Claims. (Cl. 56—292)



1. In a mower; a frame having a straight side wall with a slot therein, a chain loop supported in the frame with one reach thereof parallel to said wall adjacent said slot, cutting elements on the chain projecting through said slot having their upper leading edges sharpened, and members mounted on the outside of said wall above the slot having edges at the bottom adapted and arranged for shearing cooperation with the sharpened edges of the cutting elements, said cutting elements being the general shape of isosceles triangles, and the edges of the said members cooperating with the cutting elements being substantially perpendicular to said wall.

2,821,061

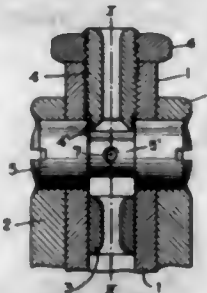
HARVESTER PICKUP ATTACHMENT
 Harold W. Pilcher and Vernon A. Maxson, Moline, Ill., assignors to Deere & Company, Moline, Ill., a corporation of Illinois
 Application February 7, 1955, Serial No. 486,602
 8 Claims. (Cl. 56—364)



1. A windrow pickup attachment for a harvester platform bordered at opposite sides respectively by fore-and-aft side sheets and having a transverse leading edge and a transverse rear edge spaced higher than the leading edge, said attachment comprising: a pair of transversely spaced, fore-and-aft elongated supports separate from the side sheets, each having a lower front end portion and extending upwardly and rearwardly to an upper rear end portion, said end portions on each support being positionable respectively adjacent to the leading edge and rear edge of the platform; a pair of front securing means for detachably securing the lower front end portions of the supports to the platform front edge; a pair of rear securing means for detachably securing the upper rear end portions of the supports to the platform rear edge; a pair of brackets, one on the lower front end portion of each support, each bracket having a bearing and said bearings being transversely coaxial; and pickup means carried by the supports and extending transversely across and ahead of the platform and including shaft means journaled in the bearings.

2,821,062

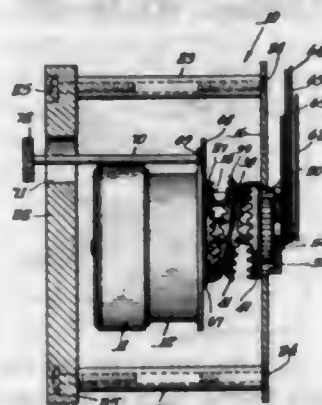
YARN TWISTER
 Philippe Boillat and Reinhard Rohrer, Biel, Switzerland, assignors to Miniatur Kugellager A. G., Biel, Switzerland, a corporation of Switzerland
 Application February 2, 1954, Serial No. 407,724
 Claims priority, application Switzerland
 February 12, 1953
 7 Claims. (Cl. 57—77.33)



2. A yarn twister comprising a rotatable body having an axial bore providing a guide axis for the passage of yarn, a twister member secured to said body for rotation therewith and provided with a guideway positioned within said bore and coincident with a plane passing through said guide axis, said twister member being mounted for angular adjustment relative to said body about an axis extending transverse to said bore, the yarn guideway of said twister member having a portion nearer its axis than another portion, whereby said guideway may be set at a desired position to guide said yarn being fed through said twister out of axial alignment with said guide axis and thereby twist the same upon rotation of said twister.

2,821,063

CLOCKWORK MECHANISM
 Edward V. Sundt, Wilmette, Ill.
 Application February 17, 1956, Serial No. 566,264
 15 Claims. (Cl. 58—26)

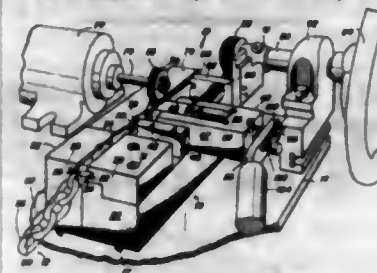


7. A clockwork mechanism comprising a synchronous motor, a shaft extending therefrom and rotating in a clockwise direction, a first eccentric secured to the shaft for rotation therewith, a first member rotatably mounted on the eccentric and oscillated thereby and having first, second and third rings of gear teeth arranged thereon, a first toothed gear secured against rotation and meshing with the first ring of gear teeth on the first member to react against the first member to cause the first member to rotate in a clockwise direction, a second toothed gear having a hub rotatably mounted on and supported by the shaft and meshing with the second ring of gear teeth on the first member to cause the second toothed gear to rotate in a clockwise direction, a third toothed gear having a hub rotatably mounted on and supported by the hub of the second toothed gear and meshing with the third ring of gear teeth on the first member to cause the third toothed gear to rotate in a clockwise direction, a second eccentric secured to and rotated by the hub of the third toothed gear, a second member rotatably mounted on the second eccentric and oscillated thereby and having first and second

rings of gear teeth arranged thereon, a fourth toothed gear secured against rotation and meshing with the first ring of gear teeth on the second member to react against the member to control the same, a fifth toothed gear rotatably mounted on and supported by the hub of the third toothed gear and meshing with the second ring of gear teeth on the second member to cause the fifth toothed gear to rotate in a clockwise direction, a second hand secured to and rotated by the hub of the second toothed gear, a minute hand secured to and rotated by the hub of the third toothed gear, and an hour hand secured to and rotated by the fifth toothed gear.

2,821,064

APPARATUS INCLUDING MEANS FOR FEEDING A CHAIN TO A SPRUE TRIMMER
 John S. Nelson, Grand Island, N. Y.
 Application June 8, 1955, Serial No. 513,964
 6 Claims. (Cl. 59—29)

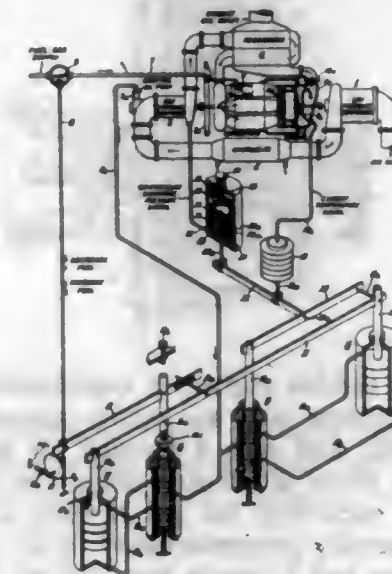


1. In a machine for cutting and machining the sprue portion from cast aluminum or bronze chain links in a chain length as said chain is moved past a milling station, a milling tool arranged at said station, said milling tool consisting of a rotary cutter having a U-shaped head portion for engaging the chain link and cutting off the sprue and machining the link, means for driving said milling tool, chain supporting means comprising a plurality of interfitting block members having cooperating slotted portion therein for receiving and guiding said chain length past said milling station, an adjustable chain guide block disposed on said chain supporting means having a slotted head portion cooperating with a portion of said slotted chain supporting means for guiding said chain therealong towards said milling station, a cylinder block comprising an open-ended portion arranged on one of said block members and adjacent to said chain guide block, a chain link holder member slidably mounted in said open-ended portion, said chain link holder member comprising a chain link receiving slot and cooperating shelf portion with longitudinally spaced grooves therein for engaging the opposite sides of a chain link having a sprue portion to be removed, and means for moving said chain link holder member in position to engage the chain link to be machined and clamp the link firmly in said chain supporting slotted means while said chain and link is moved as a unit past said milling station and said milling tool operated to machine off the sprue portion, said slot for slidably receiving the chain links being in the shape of a cross as viewed in cross section and wherein the cooperating elongated slots for accommodating the chain links are disposed below the surface of said chain supporting table and such as to accommodate both the horizontal and vertically disposed chain links and expose the sprue link portion above the top of said longitudinally extending open slot for the milling off of said sprue.

2,821,065

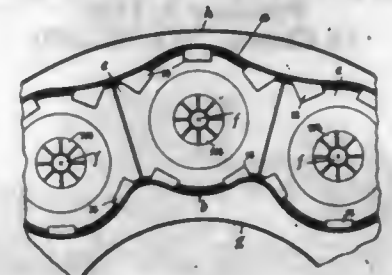
EXHAUST TEMPERATURE REGULATOR FOR GAS TURBINE POWER-PLANT
 Neal E. Starkey, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
 Application July 5, 1952, Serial No. 297,272
 2 Claims. (Cl. 60—39.28)

2. In temperature regulating mechanism for a gas turbine power-plant having hot gas generating means sup-



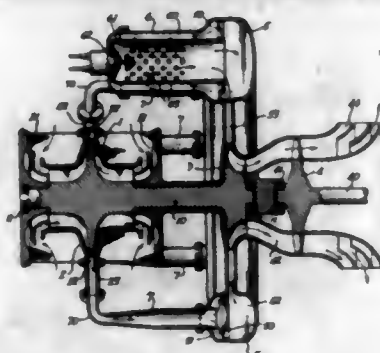
plying motive fluid under pressure to a turbine rotor, the combination of means controlling the rate of fuel consumption in the hot gas generating means as a function of load output desired from the turbine rotor, means responsive to turbine exhaust temperature and connected to move said fuel consumption control means in the decrease direction, means rendering said temperature responsive

AIR-JACKETED ANNULAR COMBUSTION CHAMBER FOR A JET-PROPULSION ENGINE, GAS TURBINE OR THE LIKE
 John Stanley Clarke, Blacko, near Nelson, and Squire Ronald Jackson and Geoffrey John Hudson, Burnley, England, assignors to Joseph Lucas (Industries) Limited, Birmingham, England
 Application March 25, 1954, Serial No. 418,692
 1 Claim. (Cl. 60—39.69)



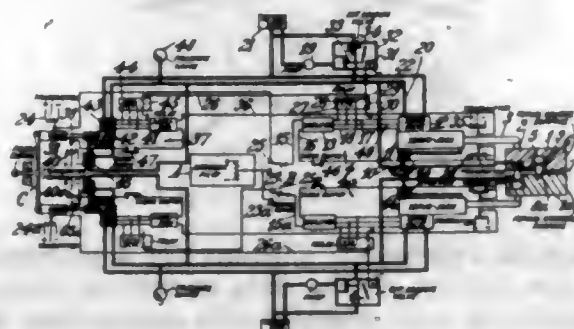
An annular combustion chamber for a jet-propulsion engine, gas turbine or the like, comprising inner and outer peripheral walls provided with corrugations shaped and arranged to form inner and outer boundaries of an annular series of laterally intercommunicating adjacent combustion zones in the chamber, the portions of the said walls bounding the inner and outer parts of each combustion zone being of concentric curvature, air jackets around the said walls, and an annular series of burner nozzles mounted in spaced relationship in the chamber with their axes respectively coincident with the geometrical centres of the combustion zones so that each of the latter can be supplied with fuel by the corresponding nozzle, the said walls being provided at positions adjacent to the nozzles with air inlets leading from the air jackets to the combustion zones so that air from the jackets can enter the combustion zones and set up therein a circular motion around the axis of each individual burner nozzle.

2,821,067
COMBUSTION CHAMBER CONSTRUCTION IN A GAS TURBINE ENGINE
 Henry C. Hill, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
 Application May 28, 1956, Serial No. 587,614
 4 Claims. (Cl. 60—39.75)



1. In a gas turbine engine, in combination with a centrifugal compressor and an axially spaced gas turbine coupled thereto, and with a housing for the compressor having outlet ports distributed about the compressor; a hollow torus encircling the gas turbine, a wall dividing said torus generally perpendicularly to its axis into a collector chamber and a nozzle box, means defining nozzle passages leading from the nozzle box to the gas turbine, combustion chambers each comprising an outer wall opening freely at one end only, to the collector chamber, and a generally coaxial perforated inner shell within said outer wall and opening freely at one end only, to the nozzle box, a burner admitting to the interior of each inner shell, at the end thereof distant from the nozzle box, and means defining circumferentially distributed air passages leading from the outlet ports from the compressor in a generally axial direction to said collector chamber.

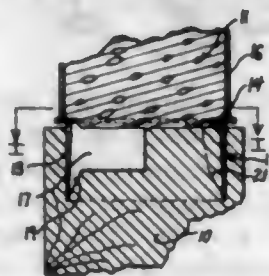
2,821,068
SERVO SYSTEMS
 George Orloff, Arthur Ernest Henry Elmer, and Richard Abdel Chorley, Gloucester, England, assignors to British Messier Limited, Gloucester, England, a British company
 Application February 9, 1956, Serial No. 564,521
 Claims priority, application Great Britain February 9, 1955
 16 Claims. (Cl. 60—97)



1. A servo actuating system comprising: (a) twin servo units each having a movable output member, means for transmitting a duplicated control signal to the servo units said control signal having a characteristic which is variable in accordance with the position required to be taken up by the output members, with a control arrangement for each servo unit including means associated with the output member to produce a follow-up signal indicating the actual position of said member, means for receiving and comparing the control and follow-up signals and means acting in response to the lack of correspondence revealed by said comparison to cause working medium to act in the servo unit and move the output member in a sense to reduce the difference between the actual position of said member as signalled by the follow-up signal and

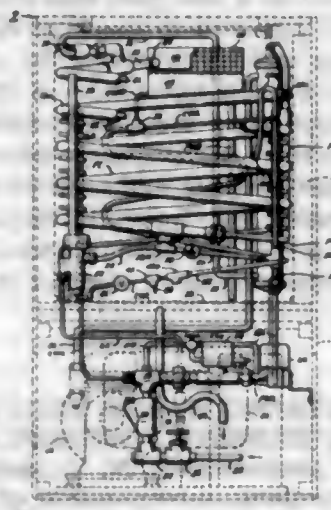
the required position signalled by the control signal, (b) release means associated with each servo unit for rendering the output member at least of said servo unit freely movable in both working directions irrespective of the value or sense of the aforesaid difference indicated by the signal comparison, operation of said release means being initiated by said difference when the latter reaches a predetermined abnormal value, and (c) operative connections between each of the output members and a part to be actuated, said operative connections permitting relative movement between the output members sufficient for the aforesaid difference between the actual position of the output member of one servo unit and the required position of the said member to build up to the predetermined abnormal value while the difference between the actual position of the output member of the other servo unit and the required position of the said member remains within normal limits.

2,821,069
COMPOSITE WOOD AND CONCRETE PILE
 Joseph H. Fox, Birmingham, Ala.
 Application November 7, 1955, Serial No. 545,211
 12 Claims. (Cl. 61—53)



1. In a composite pile embodying a lower wooden section and an upper section of concrete, the improvement which comprises, a cylindrical shell mounted on top of the wooden section for receiving concrete, a sleeve-like wedge member projecting downwardly into the wooden section, an annular ring secured to the top of said wedge member and extending inwardly thereof and bonded within said upper section of concrete, and means securing the lower end of said shell to said ring with the inwardly extending portion of said ring positioned inwardly of said shell.

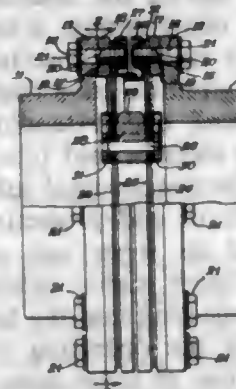
2,821,070
ICE MAKING MACHINE AND STORING APPARATUS
 John R. Watt and Raymond H. Stewart, Austin, Tex., said Stewart assignor to said Watt
 Application September 7, 1954, Serial No. 454,354
 25 Claims. (Cl. 62—7)



1. A liquid freezing machine which comprises, in combination, a freezing tube, means for refrigerating said

tube to freeze a liquid therein into a frozen core, and means for supplying liquid to be frozen to said tube and for discharging said core from said tube including a connection to the tube for supplying liquid to be frozen under pressure to move the core along and out of said tube and at the same time to substantially fill said tube with liquid to be frozen, valve means in said connection and controlling flow of said liquid into said tube, said connection between said valve means and the tube being sufficiently unrestricted that said liquid flows into said tube at a rate at least as great as that at which the core is ejected from the tube so that the liquid pushes the core from the tube, control means operable to open said valve means when said core is to be ejected from said tube and to hold the valve means in open position until said core is ejected by said liquid and then to close said valve means to substantially stop the flow of said liquid into said tube upon ejection of said core and upon substantially filling the tube with the liquid to be frozen, and core breaking means disposed to be engaged by the core as it is ejected from the tube and operable to crack the core into pieces by utilizing the force exerted on the core by the liquid ejecting the same, said valve means comprising a means adapted to meter a predetermined quantity of said liquid into said tube and then to substantially stop flow thereinto and including a vessel having an outlet in fluid communication with said liquid supply connection to said tube and an inlet spaced from said outlet, said vessel also including a part movable from said inlet toward said outlet while limiting flow of liquid past itself.

2,821,071
FLEXIBLE POWER TRANSMISSION COUPLINGS
 Norman Tedlow, High Lane, near Stockport, England
 Application May 26, 1955, Serial No. 511,332
 5 Claims. (Cl. 64—15)



3. A flexible power transmission coupling consisting of a flanged driven sleeve adapted to be secured to a driven shaft, a flanged driving sleeve adapted to be secured to a driving shaft, and a removable coupling assembly interconnecting the said sleeves and consisting of a pair of retaining rings and an intermediate ring secured in assembled relationship with each other by two similar banks of flexible laminar power transmission links; the links of each of said banks having their inner ends in abutting and overlapping relationship and secured to the opposite faces of the intermediate ring by a pair of clamping rings mounted thereon; with the outer ends of the links of each bank secured to one of the aforementioned retaining rings by a clamping ring mounted thereon.

2,821,072
KNITTING MACHINE
 Pierre Leleu, Rennes, France
 Application March 27, 1953, Serial No. 345,091
 Claims priority, application France March 31, 1952
 13 Claims. (Cl. 66—60)

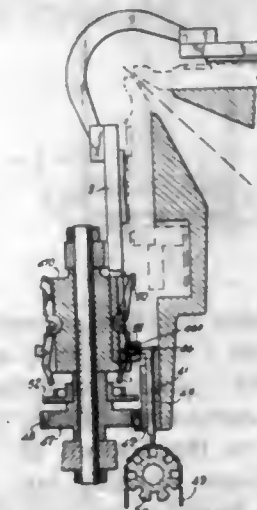
1. In a knitting machine, in combination, a frame; a casting supported by said frame; knitting needles slidably

mounted on said casting; a guiding bar situated at the back of the frame; and a carriage for operating the



needles, said carriage being mounted for sliding and pivoting movement on said guiding bar for deviating from or coming closer to the casting.

2,821,073
FLAT KNITTING MACHINE FOR PRODUCING TWO OR MORE DOUBLE PIECES OF FABRIC INDEPENDENT FROM EACH OTHER
 Walter Mehnert, Karl-Marx-Stadt, Germany, assignor to VEB Fahrradwerk Elite-Diamant, Karl-Marx-Stadt, Germany
 Application February 24, 1956, Serial No. 567,587
 Claims priority, application Germany February 4, 1956
 6 Claims. (Cl. 66—64)

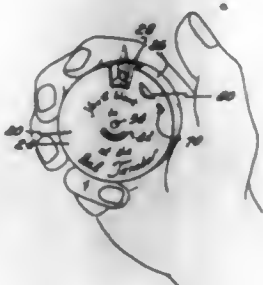


1. A flat knitting machine, with at least two needle rows arranged one behind the other and consisting of two single needle rows each for the production of at least two double-faced pieces of fabric independent of one another, comprising a curved cam slide constituted by a plurality of single slides and movable along the needle rows, a selecting drum positioned at each single slide and turning at the movement of the cam slide in accordance with the gauge, said drums comprising first jacks for controlling the needles, a stationary Jacquard device fastened at one of the curves in the cam slide and controlling said jacks, and a stationary mechanism adjacent the Jacquard device for conveying the jacks into inactive position.

2,821,074
MATCH CASE
 Robert D. Kirkpatrick, Los Angeles, Calif.
 Application January 13, 1956, Serial No. 558,961
 7 Claims. (Cl. 67—7)

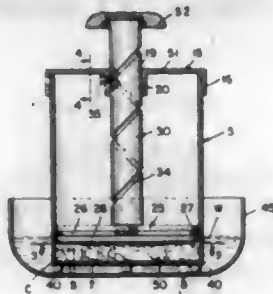
1. In a match case of a type particularly adapted to the ignition of a match by manipulation of the case in

one hand, the combination comprising: an outer substantially disk-shaped casing provided with a flame opening in its peripheral surface; said casing mounting a spindle axially thereof and a striking surface adjacent said flame opening; wheel means mounted for rotation on said spindle; a plurality of matches supported about



the periphery of said wheel and extending radially outwardly therefrom; and actuating means carried by said casing and radially offset from the axis of said spindle for causing rotation of said wheel means, said means being capable of actuation by a single digital movement of one hand to force a match into said flame opening simultaneously with ignition of the match against said striking surface.

2,821,075
CLOTHES WASHING MACHINE
Esther A. Keady, Los Angeles, Calif.
Application August 30, 1954, Serial No. 453,096
2 Claims. (Cl. 68—28)

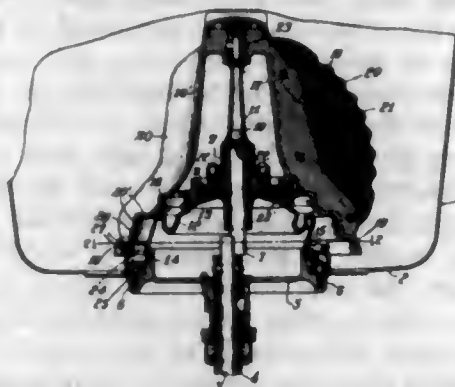


1. A clothes washing machine comprising a cylinder having a side wall and a bottom wall, a piston mounted to reciprocate in said cylinder and forming with said walls a chamber for containing clothes to be washed, depending radial ribs on the bottom of said piston, said walls having perforations opening into said chamber, a cover cap removably mounted on said cylinder and having a central opening, an annular flange carried by said cover and surrounding said opening, a piston rod secured at its bottom end to said piston and extending through said opening, a spirally disposed groove in the periphery of said piston rod, a radial pin carried by said flange and extending into said groove whereby to impart rotative movement to said piston rod in response to axial movement thereof relative to said cylinder, and supporting legs depending from said bottom wall.

2,821,076
CLOTHES WASHING MACHINE
John A. Castricone, Peoria, Ill., assignor to Altorfer Bros. Company, Peoria, Ill., a corporation of Illinois
Application November 27, 1953, Serial No. 394,674
5 Claims. (Cl. 68—131)

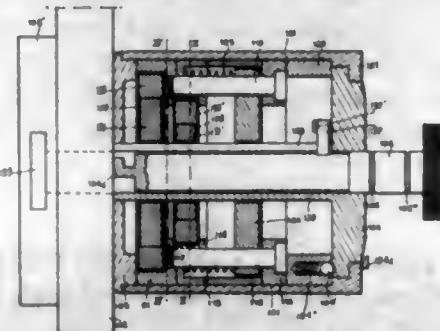
1. In a clothes washing machine the combination of a tub, a hollow perforated dasher having a dependent skirt portion spaced an appreciable distance above the bottom of the tub, means for moving the dasher in an orbital path to effect a washing action, and means including an upstanding ring inside the skirt portion and eccentrically

located relative to the skirt portion for creating an outward pumping action between adjacent portions of the



dasher and the tub for directing articles of clothing away from the space therebetween.

2,821,077
PERMUTATION DEVICE FOR A LATCH OF A LOCK
Paul Joseph Jean Tercé, Paris, France
Application March 30, 1954, Serial No. 419,823
Claims priority, application France March 13, 1954
4 Claims. (Cl. 70—309)

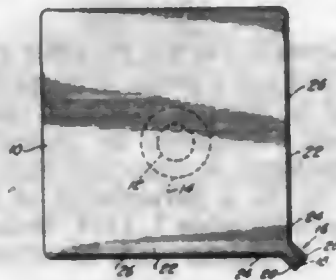


1. A permutation device for operating the latch of a lock, comprising, in combination, a housing, a centrally apertured front cover rotatably inserted in the front end of the housing, a longitudinal tube fixed to said cover, on the inner face thereof and extending throughout the housing, longitudinal slots in said tube, an operating rod slidably engaged in the longitudinal tube, the said operating rod having its front end projecting in front of the cover and having at its inner end an axial extension engageable with the latch, radial extensions fixed on the operating rod and projecting into the housing through the slots, a radial rib on the operating rod projecting into the housing through one of these slots, the said rib being axially spaced from the radial extensions, a non-rotatable disc mounted for sliding movement on the said tube, intermediate the radial extensions and the radial rib, a series of axial fingers fixed on the slidable disc at different distances from the axis of the housing and projecting towards the latch, a series of discs independent from each other, rotatably disposed in the housing and freely engaged over the tube in front of the ends of the fingers, each of said discs corresponding to a given finger and including an aperture equally distant from the axis of the housing as its corresponding finger and a way for the radial rib, whereby free passage is obtained for the axial fingers after all the discs have been properly rotated by successively introducing the rib in the way of each disc and rotation thereof to bring the aperture therein into alignment with its corresponding axial extension.

2,821,078
POINTING HAWK
Arthur D. Steward, Fairview, N. J.
Application August 18, 1955, Serial No. 529,207
2 Claims. (Cl. 72—138)

1. An improved combination masonry hawk and pointing tool comprising a substantially flat platen having a

pair of converging edges, a handle member depending from said platen, upwardly directed main walls extending along said converging edges, a horizontally, outwardly projecting spout member having side walls extending



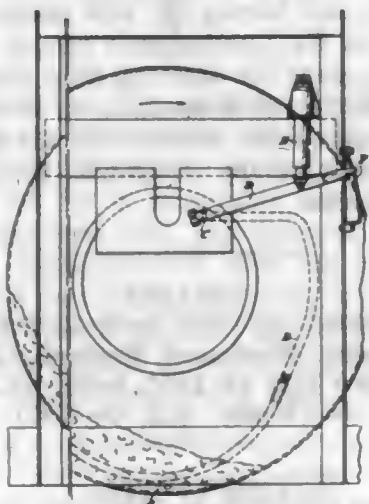
to said main walls and forming an obtuse angle therewith whereby said main walls define a funnelling guide to said spout member, said spout member having a bottom wall coplanar with said platen.

2,821,079

APPARATUS FOR MEASURING THE CONSISTENCY DURING MIXING OF CONCRETE

Norman Edward Kerridge, Saltford, near Bristol, England, assignor to Stothert & Pitt Limited, Bath, England, a British company

Application May 16, 1955, Serial No. 508,574
5 Claims. (Cl. 73-54)



1. The combination with a slurry mixing container mounted on a stationary frame for revolving movement, of apparatus for measuring the consistency of the slurry, said apparatus comprising an elongate flexible element positioned adjacent to the perimeter of the container and extending into the container and having a specific gravity such as to sink into slurry the consistency of which is to be measured so as to be submerged in the slurry throughout a substantial part of the length of said element whereby relative movement between said submerged part of said element and the slurry surrounding said submerged part will induce drag on said element; and means for biasing said element against being moved by the drag of the slurry on the submerged part of said element and for indicating the consistency of the slurry comprising a movable pointer, and means connecting said element to said pointer for actuating the latter in response to the inducement of drag on the element.

2,821,080

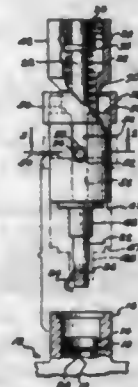
TENSION GAGE FOR TESTING THE BOND BETWEEN BRAZED PARTS

Julius A. Gemignani, Elmwood Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application May 6, 1954, Serial No. 428,066
6 Claims. (Cl. 73-88)

1. A tension gage for testing the bond between a hollow part and an apertured element brazed to and within the

hollow part comprising a rod having a hook on one end thereof insertable in an aperture in said apertured part to establish a connection therewith, a compression spring on said rod for applying force thereto, a tubular member mounted for rotary and longitudinal movement on said rod for compressing said spring, a sleeve slidably mounted on said rod for longitudinal movement into engagement



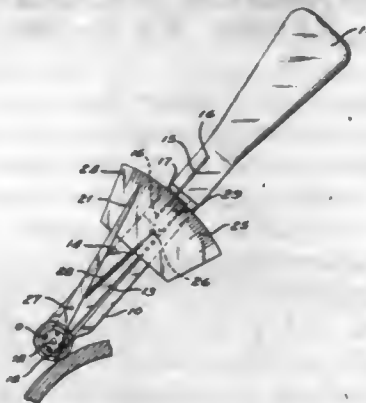
with said hook for locking it to said apertured part, said sleeve having a seat engageable with said hollow part for supporting said gage thereon, and cam means on said tubular member and said sleeve operable to impart longitudinal movement to said tubular member in response to rotation thereof for compressing the spring and applying a predetermined force through said rod and said hook to the apertured part.

2,821,081

SURFACE RESISTANCE INDICATOR

Charles F. Staples, Birmingham, Mich.

Application October 19, 1956, Serial No. 617,117
8 Claims. (Cl. 73-105)



1. An instrument for measuring the surface resistance of a finished workpiece comprising a bar, an arcuate anvil on one end thereof, an arm mounted for lateral swinging movement on said bar, a disc rotatively mounted on the end of said arm adjacent said anvil and overlying the crest of said anvil, a pointer mounted on said arm for rotative movement with said disc, spring means for the yieldable retention of said pointer on the medial axis of said arm, a graduated dial on said bar subjacent said pointer, and spring means on said bar coupled with said arm yieldingly supporting said arm in parallel relation with said bar.

2,821,082

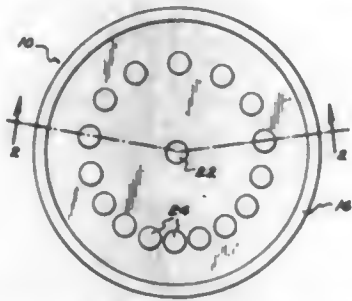
METHOD OF AND DEVICE FOR DETERMINING THE RELATIVE RESISTANCE OF VARIOUS CASTING RESINS TO CRACKING

Richard G. Black, Downers Grove, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application September 9, 1953, Serial No. 379,169
16 Claims. (Cl. 73-150)

14. A method of determining the relative resistance to cracking of various resins which comprises the steps of casting a plurality of uniformly shaped samples of

various kinds of casting resins around a plurality of relatively fixed core elements spaced from each other in progressively increasing distances to form a plurality of apertures and a plurality of wall portions of progressively increasing thicknesses in the samples, curing the samples with the core elements therein, and inspecting the samples to determine the number of cracked walls in each sample.

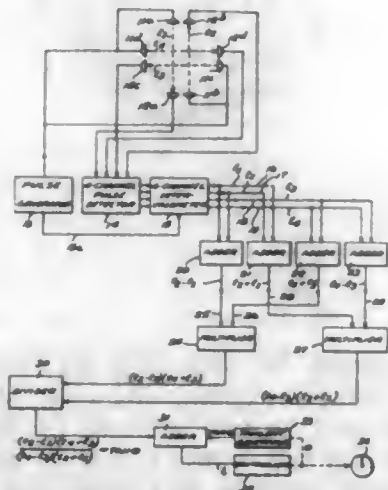


15. In a device for determining the resistance of cast resins to cracking, a plurality of sections forming an open mold, one of said sections having apertures spaced from each other in predetermined progressively increasing distances, and a plurality of pins removably supported by said one section in said apertures and extending into and across the cavity of the mold whereby uniform quantities of resin to be tested may be poured into the mold around the pins with the pins projecting therethrough so that they may be removed from the cast resin after it has been cured.

2,821,083

SONIC AIR STREAM DIRECTION DETECTOR SYSTEM

Victor H. Seliger, Forest Hills, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 19, 1955, Serial No. 482,750
5 Claims. (Cl. 73—180)

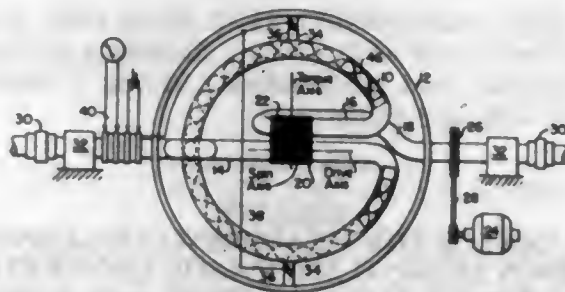


1. In a system for the measurement of air stream direction with respect to the axes of an airborne aircraft, four pairs of sound wave propagation and detection elements, the elements of each pair being mounted on the outer surface of an aircraft fuselage, the propagation elements of the first two pairs being adapted to emit sound pulses in opposite directions along the longitudinal aircraft axis and the propagation elements of the second two pairs being adapted to emit sound pulses in opposite directions along the transverse aircraft axis, one of said detection elements being positioned with reference to one of said axes in the path of the sound pulses emitted by each of said propagation elements, a pulse generator connected to the propagation elements, intervalometric means connected to said detection elements for measuring the periods of time taken by the pulses to travel between each of the four pairs of propagation and detection elements and means connected to said last mentioned means for deriving a ratio of velocity components of the air

stream with respect to said longitudinal and transverse axes in terms of said time periods whereby said ratio may be employed to compute trigonometrically air stream direction.

2,821,084

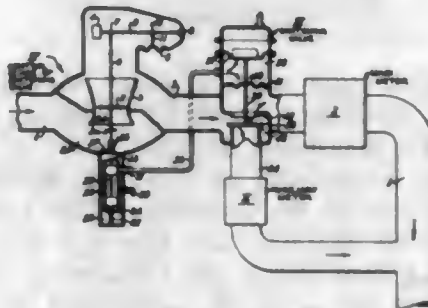
FLOW CONTROL DEVICES FOR FLOWMETERS
Michael D. Altfillisch, Canton, George S. Cherniak, Newton, Howard A. Powers, Medfield, and Roby B. White, Sharon, Mass., assignors, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application September 7, 1954, Serial No. 454,486
6 Claims. (Cl. 73—194)



1. In a gyrosopic mass flowmeter having an inlet conduit and an outlet conduit defining a first axis and a central conduit disposed between and interconnected with said inlet and outlet conduits, said central conduit being formed into a coil having an axis normal to said first axis, and means for rotating said central conduit about said first axis, means for directing fluid through said conduits and guide means disposed in at least a portion of said central conduit for maintaining the center of mass of said fluid substantially coincident with the center of said central conduit.

2,821,085

SWITCHING DEVICE FOR GAS METERS
Hans Gehre, Oberkassel, Siegburg, Germany
Application May 16, 1952, Serial No. 288,265
16 Claims. (Cl. 73—197)



1. In a compound gas meter having a gas flow feed line leading to a two-way valve with a main meter being connected to one outlet of said two-way valve and a secondary meter being connected to the other outlet of said two-way valve, the improvement in the means of actuation of the switch-over of the valve from one meter to the other meter at a predetermined rate of gas flow, which comprises a constricted portion in said gas flow feed line, a control member defining a gas-impinging surface positioned for limited movement in said constricted portion of the gas-flow feed line without completely sealing the same from gas flow with said gas-impinging surface facing the direction of gas flow, constant force means connected with said control member for urging said control member against the gas flow, means actuated by said control member for actuating said two-way valve upon limited movement of said control member for the switch-over of the valve from one meter to the other meter, and means responsive to the pressure of fluid in said feed line positioned for urging said control member against said gas flow with a force proportional to the operating pres-

sure of the gas p_g , whereby the total force urging said control member against said gas flow varies as a function of the specific gravity of the gas.

2,821,086

CORING DEVICES

Cameron A. Baker, Ridgewood, N. J., and Richard T. McAndrew, Braintree, Mass., assignors to United States Testing Company, Incorporated, Hoboken, N. J., a corporation of New York

Application October 4, 1956, Serial No. 613,901

6 Claims. (Cl. 73—425.2)



1. A coring device for obtaining samples from the center of a mass of material including a cylindrical canister closed at one end by an integral end wall and at the other end by a removable closure member, a coring tube associated with said integral end wall having a bore in communication with the interior of said canister, manual pressure transmitting means secured to said removable closure member, and manually operable rotating means connected to said coring tube adapted to reciprocatingly rotate said coring tube.

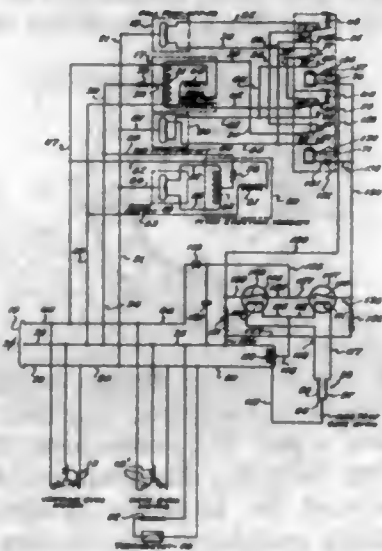
2,821,087

SYSTEM FOR MODIFYING THE MONITORING CONTROLS OF AN AIRCRAFT GYROSCOPIC REFERENCE INSTRUMENT

Robert L. Hammon, Fresh Meadows, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application October 21, 1954, Serial No. 463,792

11 Claims. (Cl. 74—5.41)



1. In an aircraft gyroscopic reference instrument with monitoring controls, a system for modifying the operation of the monitoring controls during turns of the craft about its yaw axis including a damped rate gyro responsive to turns and oscillatory yaw of the craft about its yaw axis,

differential relay means providing a time delay for the system, means for energizing said relay means including a circuit with a switch having a movable element operatively connected to said rate gyro, a bridge circuit having said relay in unbalancing relation therein, and means operated by the output of said bridge circuit for modifying the operation of the monitoring controls of the gyroscopic reference instrument, said rate gyro being so damped and the delay time of said relay being such that the system is responsive to turns of the craft above a predetermined turn rate with or without oscillatory yaw superimposed on such turns of the craft when the turn rate is higher than the predetermined rate and is unresponsive to oscillatory yaw of the craft in straight flight.

2,821,088

LIMIT SWITCH OPERATING MECHANISM

Lawrence Pierce, Buffalo, and Ralph B. Immel, Williams-ville, N. Y., and Stanley Kmonk, Jr., Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application November 7, 1951, Serial No. 255,252

8 Claims. (Cl. 74—99)



1. In an operating mechanism for a plunger actuated device, in combination, a base, a plunger actuated device having an axially movable plunger, a pair of bell-crank levers pivotally mounted on the base, bearing means on each of one pair of corresponding arms of the bell-crank levers, a flat spring clipped in bowed relation between the bearing means and the bearing means being so disposed that the middle convex portion of the spring is adjacent the plunger of the device to be operated by axial movement of the plunger, a shaft mounted for rotation in suitable bearings in the base, a cam secured to the shaft, said cam being disposed adjacent the ends of the other pair of corresponding arms of the bell-crank levers, and means for rotating the shaft to thus cause the cam to rotate each of the bell-crank levers through an equal fixed angle to thus move each of the bearing means toward each other an equal amount to bow the spring still more to cause the middle of the spring to actuate the plunger.

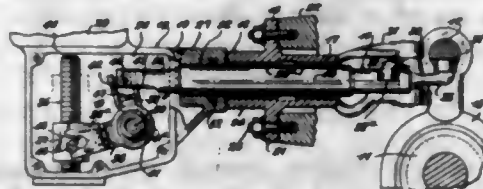
2,821,089

GEARSHIFT MECHANISM

Robert C. Russell, South Euclid, Ohio., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application February 4, 1953, Serial No. 335,005

9 Claims. (Cl. 74—335)



1. In a shift mechanism for moving a part between two positions, a support, an actuating member mounted on said support for swinging movement, means effective

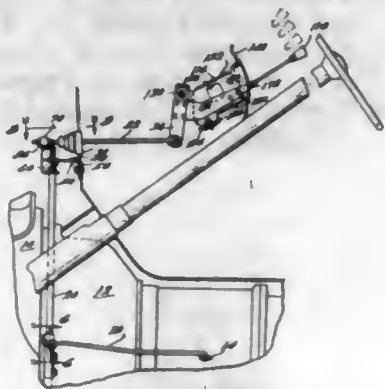
to impart swinging movement to said actuating member, linkage engageable with said part and including a rod axially slidable in said support with its outer end adjacent said actuating member, and torsion spring means forming a yieldable thrust applying connection between said actuating member and said rod, said rod having a thrust member on said outer end and said spring means having a pair of spaced arms in straddling relation to said thrust member.

2,821,090

TRANSMISSION GEARSHIFT CONTROL MECHANISM

James R. McCordle, Royal Oak, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application August 9, 1955, Serial No. 527,250
7 Claims. (Cl. 74-473)



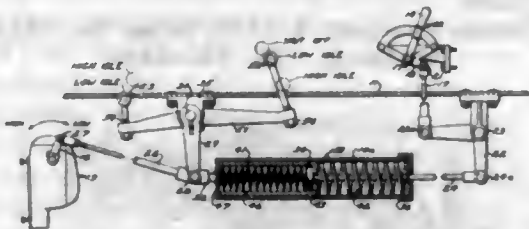
1. In a wheeled vehicle having a power plant, a multiple speed reduction ratio transmission for transmitting driving power from the power plant to the vehicle wheels, a passenger compartment, and vehicle dash structure including a control panel disposed within the passenger compartment; linkage means having portions operatively connected to a portion of said transmission for effecting a change in the reduction speed ratio thereof and comprising a manually operable selector lever, a relatively fixed pivot member carried by said dash structure, a nylon bushing disposed about said pivot member, said selector lever being pivotally mounted on said bushing, a gate opening formed in said dash control panel with abutment shoulders formed on one edge thereof, said selector lever extending through said gate opening, and a spring element disposed at one side of said lever in the vicinity of said pivot member for urging said lever into engagement with said one edge of said gate opening, the abutment shoulders on the latter being effective to define a plurality of angular positions of said lever with respect to the pivotal axis thereof.

2,821,091

AUXILIARY CONTROL FOR INTERNAL COMBUSTION ENGINES

Paul B. Benner, Peoria, Ill., assignor to Caterpillar Tractor Co., Peoria, Ill., a California corporation

Application August 20, 1954, Serial No. 451,218
6 Claims. (Cl. 74-482)



1. In a vehicle engine control which includes a fuel control device, a hand throttle adapted to be set in a fixed position, and connections between the hand throttle and control device to vary the quantity of fuel delivered to the engine, the combination of pedal means connected

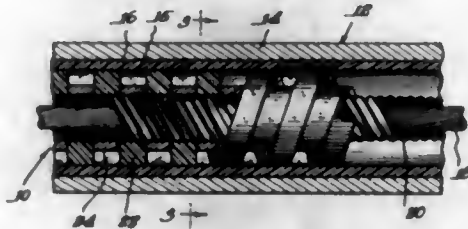
to the fuel control device to accelerate or decelerate the engine by foot pressure, and an expandable-contractible link in the hand throttle connections to prevent alteration of the hand throttle position upon acceleration or deceleration through the pedal means.

2,821,092

CONTROL SYSTEM AND CONDUIT CABLE

Joseph C. Cordora, North Wales, and Thomas Francis Carlin, Philadelphia, Pa., assignors to Teleflex Incorporated, North Wales, Pa., a corporation of Delaware

Application August 16, 1956, Serial No. 604,559
6 Claims. (Cl. 74-501)



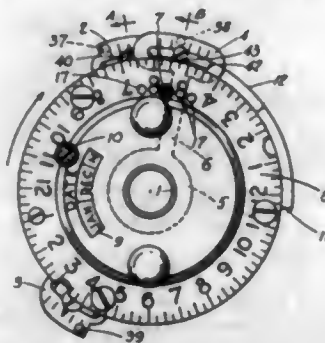
1. A control system of the type described comprising a guide conduit, a tetrafluoro polyethylene tubular liner member disposed within and bonded to said conduit, and a flexible load transmitting cable shiftably disposed within said liner member, said cable including a wire core for accommodating tension forces, a metallic wire coil around said core for accommodating compression forces, a tetrafluoro polyethylene wire helically wound with spaced coils around said metallic wire coil, said tetrafluoro polyethylene wire having a cross sectional area substantially greater than a cross sectional area of said metallic wire and having an inner surface substantially flat in cross section and bonded to said metallic wire, said tetrafluoro polyethylene wire having an outer surface substantially flat in cross section so that the spaced coils thereof provide spaced bearing surfaces engageable with said liner member, and spacing wire means of substantially less radial extent than said tetrafluoro polyethylene wire wound on said metallic wire coil between coils of said tetrafluoro polyethylene wire for maintaining said last mentioned coils in spaced relationship.

2,821,093

TIMING DEVICE DIAL PLATE

Kenneth John Horstmann and Ronald Blessley
Horstmann, Bath, England

Application April 1, 1954, Serial No. 420,414
6 Claims. (Cl. 74-568)

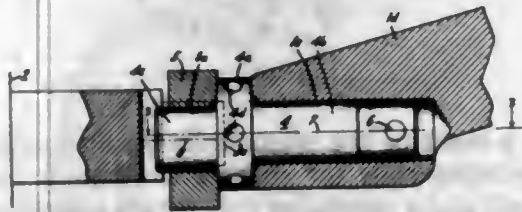


driving the said intermediate "on" tappet with the dial, and co-operating means between the solar "off" tappet and the intermediate "on" tappet to push the latter from its set time into the area of said projecting peripheral edge when the solar "off" tappet arrives at a setting corresponding substantially with that of the intermediate "on" tappet.

2,821,094

SHAFT ALIGNMENT MECHANISM

Franklin R. Ericson, Leominster, Mass., assignor to General Electric Company, a corporation of New York
Application November 25, 1955, Serial No. 549,011
4 Claims. (Cl. 74-606)

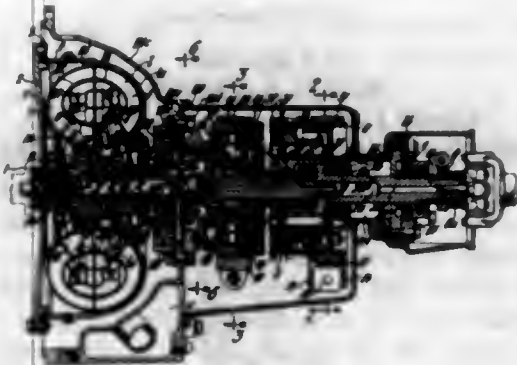


1. In combination, a first machine having a first rotatable shaft, a second machine having a second rotatable shaft, means securing the first machine against movement relative to a foundation common to said machines, and means for aligning said shafts in a first plane parallel to the foundation and comprising a keyway defined by a first portion of one of said machines, said keyway extending in a second plane normal to said first plane, a key member slidably disposed in said keyway and defining a cylindrical opening with its axis disposed parallel to said first plane, a portion of said other machine adjacent said first machine defining a cylindrical bore having an axis parallel to said first plane but eccentrically located relative to said cylindrical opening, a pin member with eccentrically disposed cylindrical end portions located in said cylindrical bore and key opening respectively, the pin member having a radially extending portion disposed between said first and second machine portions and adapted to be engaged by means for rotatably adjusting the pin to alter the relative position of said first and second shafts in said first plane, and means for locking the pin against rotation after the adjustment has been made.

2,821,095

TRANSMISSION

Oliver K. Kelley, Bloomfield Hills, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Continuation of application Serial No. 83,618, March 26, 1949. This application October 19, 1955, Serial No. 541,653
38 Claims. (Cl. 74-645)



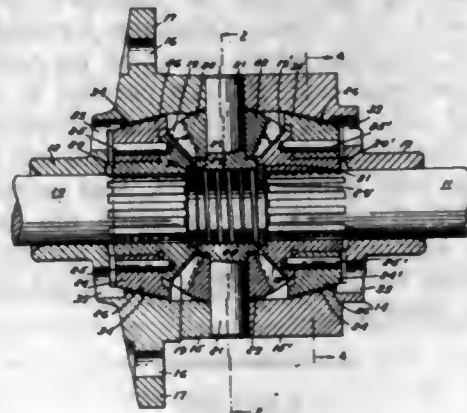
1. In a fluid-pressure-controlled power transmission assembly for delivering the power of a vehicle engine to

the vehicle wheels at variable speeds and torques, an output shaft connected to drive said wheels, a fluid torque converter having a fluid working space in which are located an input member driven by the said engine and an output member, a change-speed gear unit driven by said output member and driving said output shaft, a fluid pressure circulating and pressure-developing system supplied by power obtained from rotation of said engine and said output shaft, including two pumps one driven by said engine and the other by said output shaft, clutch elements within said unit adapted for engagement to provide direct drive between said output member and said output shaft, gear drive elements actuable to provide reduction drive between said output member and said output shaft, fluid pressure operated mechanism for actuating said elements, selective valving in said system for directing the pressure of said system to said mechanism, pressure-regulating valving for said fluid system for controlling the degree of said actuating pressure and a mechanism for modulating the action of said pressure-regulating valving made operative by fluid pressure connections to said fluid working space.

2,821,096

VEHICLE DIFFERENTIAL WITH CUMULATIVE TORQUE RESISTANCE

John M. R. Lyeth, Jr., East Detroit, Mich.
Application June 22, 1956, Serial No. 593,293
9 Claims. (Cl. 74-711)



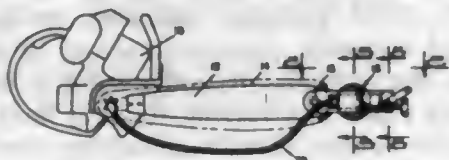
1. A differential transmission for the transfer of power to driving wheels with a minimum resistive force to differentiation increased by, and in proportion to, the input torque, comprising, a driven housing having means for the attachment of a ring gear and axle openings in opposed sides of said housing, a recess to receive bevel side gears and pinion gears within said housing having, adjacent said axle openings, inwardly facing conical surfaces spaced from the axis of the housing outwardly to lie adjacent the outermost diameter of the recess relative to said axis and diverging toward the center of the housing, bevel side gears having inwardly facing teeth and conical extensions on the rear faces thereof to match and engage said conical surfaces whereby to form a friction developing means having a mechanical advantage, axle ends projecting into said axle openings, means on said side gears and means on said ends wherein said gears are slidably and rotatably mounted on said ends within the housing, pinion gears mounted between said side gears in mesh therewith, means to locate said pinion gears relative to said housing to permit the pinion gears to rotate but to cause them to revolve with said housing, and spring means mounted independently of said housing positioned to avoid contact with assembled axle ends within said housing exerting an equal and opposite predetermined bias on the inner faces of said side gears to force the conical extensions of said side gears into pressure contact with the conical surfaces of said housing to utilize the mechanical advantage thereof, the pitch

line of said side and pinion gears being disposed at an angle to utilize the axial thrust of the meshing teeth of said gears to supplement said spring means to increase the force applied to said friction developing means in proportion to the torque input to said transmission.

2,821,097

APPARATUS FOR SHARPENING SAW CHAINS
Raymond R. Carlton, Portland, Oreg., assignor to Oregon Saw Chain Corp., Portland, Oreg., a corporation of Oregon

Application May 31, 1955, Serial No. 512,154
8 Claims. (Cl. 76—37)

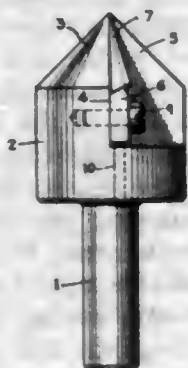


4. Apparatus for sharpening a scratcher type saw chain mounted on a saw bar having a rounded nose, said saw chain comprising a plurality of centrally disposed raker links and right and left cutter links disposed on opposite sides of said raker links and having forward cutting edges spaced beyond the outer extremity of the forward cutting edges of said raker links, said apparatus comprising an elongate frame having means at one end thereof for attaching the frame to said saw bar adjacent said nose with said frame extending forwardly of said nose, and a grinding wheel mounted on said frame so as to be positioned with its axis parallel to the axis of curvature of said nose, means for continuously moving said chain longitudinally of itself on said bar and means for rotating said grinding wheel, said grinding wheel having a central portion for engaging the ends of said raker links and opposite side portions of predetermined lesser diameter than said central portion for engaging the ends of said cutter links.

2,821,098

CUTTING TOOL

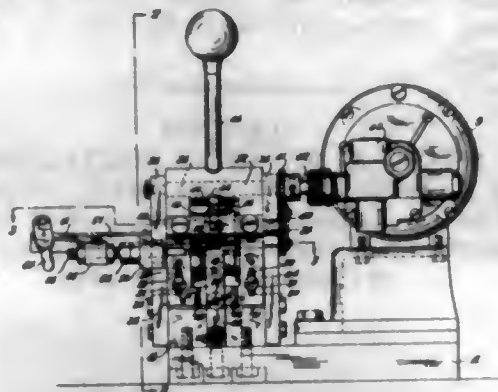
Gustav Blickenstorfer, Uster, Switzerland
Application November 27, 1953, Serial No. 394,845
Claims priority, application Switzerland
November 29, 1952
4 Claims. (Cl. 77—73.5)



1. A cutting tool comprising a head having a cylindrical portion and a conical portion coaxially extending from said cylindrical portion, a single sector-shaped cut-out in said conical portion and in a part of said cylindrical portion adjacent to said conical portion, leaving a solid cylindrical base portion, said cut-out having two plane radial walls extending from the rotation axis of the cutting tool and being positioned at an angle which is smaller than 180°, and a cutting knife removably and axially adjustably mounted on one of the radial walls of said cut-out.

2,821,099

APPARATUS FOR MAKING PROJECTILES
Eugene L. Beecher, Cleveland Heights, Ohio
Application October 2, 1953, Serial No. 383,822
7 Claims. (Cl. 80—23)



1. In a machine for manufacturing bullets, a plurality of cooperating rolls for shaping the bullets including a master roll and a regulating roll, means rotatably supporting said rolls, said master roll having a portion at each end extending beyond the ends of the other rolls and being shaped so as to form the point and the base of the bullet, respectively, and means for driving at least one of said rolls, said regulating roll having its axis inclined at such an angle with respect to the other rolls so as to cause a blank when rotated thereon to travel toward the extending portion of the master roll adapted to shape the base end of the bullet.

2,821,100

COTTER KEY BENDING TOOL

Robert W. Decker, Van Nuys, Calif.
Application October 24, 1955, Serial No. 542,379
9 Claims. (Cl. 81—15)



1. A tool for bending the ends of a cotter-pin, said tool comprising an elongate tube, a die carried by an end of said tube and having a seat receptive of the portion of the cotter pin that is opposite said ends, a plunger slidably fitted in said tube, an end-spreading member between the said die and the adjacent end of the plunger, a spring between said end-spreading member and said plunger end and biasing the former toward the die, end-bending members fixedly carried by the plunger, a lost-motion connection between the latter members and the end-spreading member, and means to relatively axially move said tube and plunger to first, move the end-spreading means into spreading engagement with the cotter pin ends and then, move the end-bending members into bending engagement with the spread ends of the cotter pin.

2,821,101

BOTTLE OPENER

Ernest J. Hendricks, Detroit, Mich.
Application August 13, 1954, Serial No. 449,564
1 Claim. (Cl. 81—3.3)



A bottle opener comprising a vertically extending plate comprising a pair of vertically and centrally divided integrally formed wing portions, said wing portions extending in planes at right angles to each other, said plate

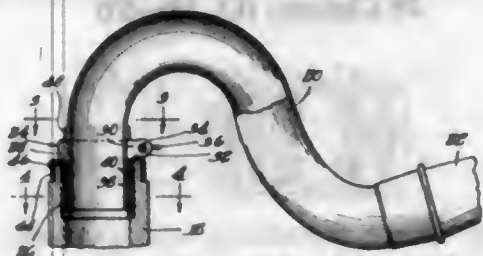
having a centrally disposed opening therein, an integrally formed beak extending centrally downwardly from the upper edge of said opening, and a pair of integrally formed spurs each projecting inwardly from the lower portion of one side of said opening.

2,821,102

CLARINET NECK ATTACHMENT

Leon Leblanc, Paris, France, assignor to G. Leblanc Corporation, Kenosha, Wis., a corporation of Wisconsin

Application October 12, 1955, Serial No. 540,093
6 Claims. (Cl. 84—382)



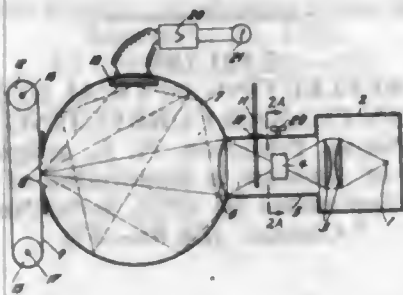
1. A clarinet construction comprising a body of wood or the like having an axial bore therethrough, a metal neck receiver permanently mounted therein, and a metal neck detachably received in said metal neck receiver, said neck receiver including a cylindrical metal body having a circumferential groove therein, a ring of resilient material in said groove and extending radially outwardly beyond said metal body, said metal body being inserted in the bore of said wood body with said resilient material impinging against said wood body, and means permanently retaining said receiver in said bore.

2,821,103

MICRO-PHOTOMETRY

Georges Charles Frédéric Blet, Paris, France, assignor to Centre National de la Recherche Scientifique, Paris, France, a corporation of France

Application October 27, 1953, Serial No. 388,627
Claims priority, application France October 30, 1952
10 Claims. (Cl. 88—14)



1. An apparatus for surveying the conditions of surface of bodies capable of diffusing light, comprising a symmetrical casing having its axis perpendicular to said surface, the end of the casing which is towards said surface being substantially fully spherical and having an inner diffusing surface, in said spherical part a first slot parallel and as close as possible to the surface, a light sensitive receiver fixed on the inside wall of said spherical part, at the other end of the casing and inside thereof a source of light centered on the axis of the casing, an adjustable slot uniformly illuminated by the source of light perpendicular to the axis of the casing between the source of light and the spherical part of the casing, an optical device between the slot and the surface for concentrating the images of said adjustable slot on the surface through the first slot, and a measuring device connected to the light sensitive receiver.

2,821,104

OPTICAL TESTING APPARATUS FOR MEASURING DEVIATION OF POINTS FROM A PLANE

John Alfred Mills, Leicester, England, assignor to Kapella Limited, Leicester, England, a British company

Application May 31, 1955, Serial No. 512,217
Claims priority, application Great Britain June 3, 1954
10 Claims. (Cl. 88—14)

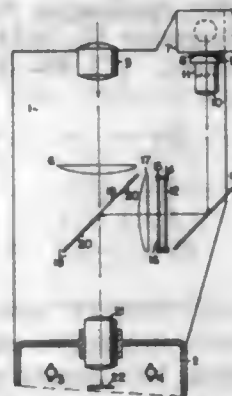


1. Apparatus for testing the accuracy of positioning of a set of target mountings provided with sighting points nominally in a plane, comprising in combination a framework, a telescope carried by the framework, a housing rotatably mounted on the framework about an axis accurately aligned with the optical axis of the telescope, a pentaprism carried by such housing for deflecting the optical axis of an observation beam accurately through a right angle and thereby defining a plane of sight accurately at right angles to the optical axis of the telescope, means for adjusting the framework whereby such plane of sight can be brought into coincidence with the plane defined by the sighting points on three of the mountings to be tested and can thereafter be sighted in turn on the sighting points carried by the remaining mountings thus rendering apparent any error in positioning thereof relatively to the said plane, and a micrometer device controlling the path of the observation beam for laterally adjusting with respect to the optical axis of the telescope the image of the target being viewed.

2,821,105

SYSTEM FOR OPTICALLY COMBINING PLURAL IMAGES

Joseph B. Walker, Los Angeles, Calif.
Application April 1, 1954, Serial No. 420,402
8 Claims. (Cl. 88—16)



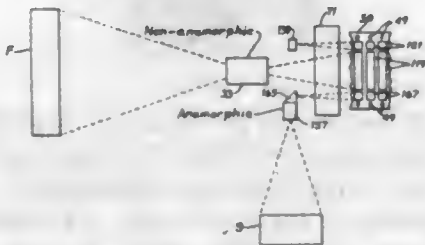
1. A system for optically combining plural images comprising a positive lens for forming an image of an object, a field lens of greater focal length than said first lens coaxially mounted with respect thereto closer than the focal plane thereof, means for forming a second image of a second object, a second field lens mounted between said means and said second image close to said second image, a mirror equally oblique to each of said field lenses lying across the optical axis of each and close to the focal plane thereof.

said image of each, said mirror having a reflective area and a transparent area, laterally adjustable means for removably holding said mirror, a second positive lens positioned opposite to one said field lens with respect to said mirror, the field of view of said second positive lens consisting of that portion of one said image as transmitted through the transparent area of said mirror and that portion of said second image as reflected by the reflective area of said mirror, and a working surface on the side opposite said mirror with respect to said second positive lens for receiving the image of said field of view of that lens.

2,821,106

MULTIPLE IMAGE HIGH SPEED MOTION PICTURE CAMERA

Ludwig G. Ranft, Irondequoit, and Robert B. Herden, Webster, N. Y., assignors to Wollensak Optical Company, Rochester, N. Y., a corporation of New York
Application July 20, 1955, Serial No. 523,171
8 Claims. (Cl. 88-16)



4. A motion picture camera comprising in combination, means for advancing continuously an elongated strip of film, a prism rotating in synchronism with the advancing motion of the film, a primary optical objective system for projecting an image of a first scene through said prism and onto the moving film, and a secondary optical objective system for projecting an image of a second scene through the same prism and onto the same film simultaneous with the projection of the first image, one of said two optical objective systems being anamorphic and serving to compress one of said images in the direction of film travel to a greater degree than the compression thereof in a direction across the film.

2,821,107

OPTICAL MIRROR SYSTEM COMPRISING AT LEAST ONE CONIC LENS CORRECTOR ELEMENT

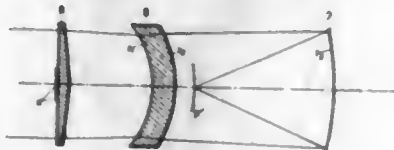
Albert Bouwers, The Hague, Netherlands, assignor to N. V. Optische Industrie "de Oude Delft," Delft, Netherlands

Application September 1, 1953, Serial No. 377,908

Claims priority, application Netherlands

September 12, 1952

5 Claims. (Cl. 88-57)



1. Reflecting optical imagery system comprising in axial alignment a spherical concave mirror and a conical lens means, said conical lens means comprising at least one convex refractive surface in the shape of a circular cone, having its axis of rotation coinciding with the optical axis and being positioned substantially at the center of curvature of said mirror, the image surface of said system being positioned between the paraxial focal point of said spherical mirror and said mirror itself at a location where the lateral spherical aberrations in the image surface introduced by said spherical mirror in the absence of said conical lens means are substantially constant for light-rays originating from the axial point of the

object and entering the system throughout the effective aperture area of the system and said conical lens means giving said light rays a substantially constant deviation towards the optical axis of said system whereby said lateral spherical aberrations are substantially corrected.

2,821,108

DEEP-FIELD OPTICAL OBJECTIVES

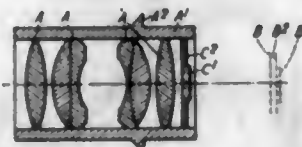
Arthur Warmisham and Kenneth Roy Coleman, Leicester, England, assignors to Taylor, Taylor & Hobson Limited, Leicester, England, a British company

Application February 4, 1954, Serial No. 408,063

Claims priority, application Great Britain

February 6, 1953

20 Claims. (Cl. 88-57)



1. A deep-field device for an optical objective comprising, in combination with the objective, an approximately afocal light transmitting member located on the optical axis of the objective at a distance remote from the image plane where there is negligible zonal segregation of the field rays, said afocal member comprising a plurality of concentric zones of different thicknesses, each individual zone being of substantially uniform thickness, the surfaces of at least one of said zones departing from an exact parallelism only to the extent of a slight curvature serving to correct at least in part the distortion introduced by said afocal member, the optical power of any such zone thus curved on its surface being less than three percent of the power of the whole objective, whereby the image forming beam passing through the objective consists of individual parts passing respectively through the individual zones of the afocal member and having different effective ray-path lengths with substantially the same equivalent focal lengths but different flange back focal lengths, thereby producing a composite image comprising superposed sharply defined images having the same magnifications of at least two object planes at different distances in the field of view.

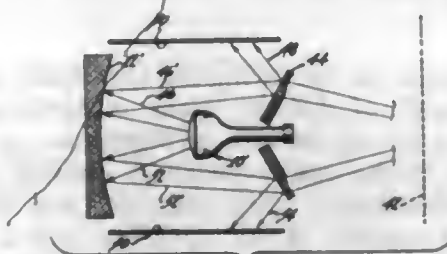
2,821,109

SPHERICAL REFLECTING OPTICAL SYSTEM HAVING A NON-PLANAR CORRECTING PLATE

Frederick H. Nicoll, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application September 30, 1952, Serial No. 312,297

7 Claims. (Cl. 88-57)



1. An optical system comprising a spherical reflecting member and a non-planar correcting plate positioned coaxially with respect to said reflector, said correcting plate being generally frusto-conical in shape and having an aspherical surface located at substantially the center of curvature of said reflector and on the axis of said optical system and wherein the frusto-conical surface of said correcting plate describes an angle with respect to a plane perpendicular to the axis of said reflector of such magnitude that light rays reflected by said spherical mirror strike

said plate at an acute angle so that light rays reflected by said plate are directed toward a light-absorbing surface positioned outside of the projection beam whereby the reflected light from the aspherical correcting member does not return to the spherical reflector.

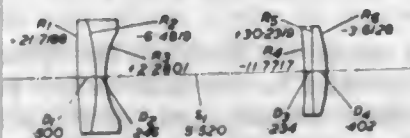
2,821,110

ANAMORPHOTIC ATTACHMENTS FOR OPTICAL OBJECTIVES

Gordon Henry Cook, Leicester, England, assignor to Taylor, Taylor & Hobson Limited, Leicester, England, a company of Great Britain

Application June 4, 1954, Serial No. 434,570

Claims priority, application Great Britain June 10, 1953
14 Claims. (Cl. 88—57)



1. An anamorphic attachment for an optical objective, corrected for spherical and chromatic aberrations, coma, and tangential curvature, and comprising two doublets having all their surfaces cylindrical with parallel generatrices, the conditions in the plane transverse to such generatrices being such that the rear doublet (that is the doublet nearer to the main objective) is convergent and the front doublet divergent, the separation between the adjacent nodal points of the two doublets being not greater than Δ and not less than $(\Delta - .15f_2)$, whilst the rear surface of the rear doublet is concave to the front with radius of curvature between Δ and $.4\Delta$ and the rear surface of the front doublet is convex to the front with radius of curvature between $.15f_1$ and $.6f_1$, where f_1 and f_2 are the positive values of the equivalent focal lengths respectively of the front doublet and of the rear doublet and Δ is the difference between f_1 and f_2 .

2,821,111

ANAMORPHOTIC OPTICAL SYSTEMS

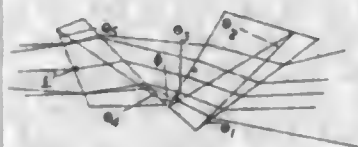
Kenneth Roy Coleman, Leicester, England, assignor to Taylor, Taylor & Hobson Limited, Leicester, England, a British company

Application September 22, 1955, Serial No. 535,875

Claims priority, application Great Britain

September 22, 1954

16 Claims. (Cl. 88—57)



1. An anamorphic optical system, comprising two refracting compound prisms, of which the first acts to deviate an incident ray in one sense and the second to deviate such ray in the reverse sense to an extent sufficient to include an axial ray within the useful field, the front compound prism being in the form of a cemented triplet consisting of a middle element made of material having Abbe V number less than 45 and two outer elements each with its apex pointing in a direction opposite to that of the middle element and made of material whose Abbe V number is greater than 45 and exceeds that of the middle element by at least 10, the front outer element having prism angle lying between 0.1 and 1.5 times the prism angle of the rear outer element, and the middle element having its prism angle between 9 and 25 degrees and more than 10 degrees less than the sum of the prism angles of the front and rear elements, whilst the rear element has its prism angle between 10 and 40 degrees.

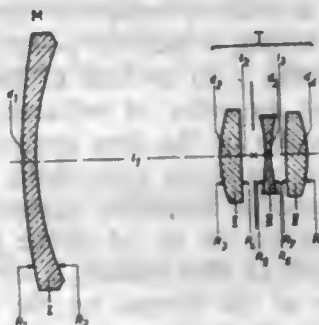
2,821,112

FOUR-MEMBERED PHOTOGRAPHIC WIDE-ANGLE OBJECTIVE

Johann Lautenbacher and Theodor Brendel, Munich, Germany, assignors to Enna-Werk Optische Anstalt Dr. Appelt K. G., Munich, Germany, a corporation of Germany

Application March 5, 1956, Serial No. 569,500

2 Claims. (Cl. 88—57)



1. A photographic wide-angle objective consisting of four members which consist of a simple triplet and a negative meniscus located in front of the triplet and having a concave surface which is directed toward the triplet, having the following characteristic data, in relation to the radii r_1 to r_8 of the members with reference to the focal length f ,

$$1.5f < r_1 < 2.5f$$

$$0.8f < r_2 < 1.2f$$

$$0.4f < r_3 < 0.55f$$

$$r_4 = \infty$$

$$0.45f < r_5 < 0.6f$$

$$0.45f < r_6 < 0.55f$$

$$2f < r_7 < 4f$$

$$0.35f < r_8 < 0.5f$$

in relation to the thicknesses d_1 to d_4 of the members, the air gaps l_1 to l_3 between the members with reference to the focal length f ,

$$0.01f < d_1 < 0.2f$$

$$0.7f < l_1 < 1.0f$$

$$0.05f < d_2 < 0.2f$$

$$0.05f < l_2 < 0.2f$$

$$0.003f < d_3 < 0.1f$$

$$0.03f < l_3 < 0.1f$$

$$0.05f < d_4 < 0.2f$$

in relation to the refractive indices n_1 to n_4 of the members,

$$1.44 < n_1 < 1.60$$

$$1.65 < n_2 < 1.80$$

$$1.62 < n_3 < 1.75$$

$$1.60 < n_4 < 1.75$$

and in relation to the Abbe-numbers v_1 to v_4 of the members,

$$45 < v_1 < 75$$

$$35 < v_2 < 55$$

$$27 < v_3 < 37$$

$$50 < v_4 < 65$$

2,821,113

WIDE ANGLE PHOTOGRAPHIC OBJECTIVE

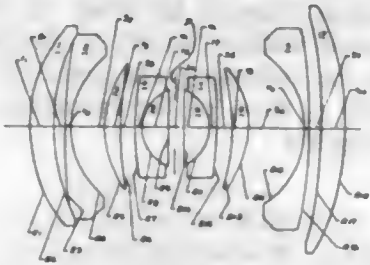
James G. Baker, Winchester, Mass., assignor to the United States of America as represented by the Secretary of the Air Force

Application March 18, 1957, Serial No. 646,944

5 Claims. (Cl. 88—57)

1. A wide angle photographic objective made of glass components throughout comprising a substantially symmetrical lens system, said lens system comprising initial positive meniscus elements on the outside of the system, a second negative meniscus element, the initial positive meniscus element shaped to compensate the refraction

of the chief ray at the second negative meniscus element for reducing the internal slope angle of the chief ray, said initial element having a dioptric power within .20 to .40 of the power of the entire system and having an index of refraction from 1.5 to 1.7, said second element comprising a negative meniscus and having a dioptric strength within minus 1.5 to minus 2.5 of the power of the entire system, and having an index of refraction between 1.56 and 1.75, a third element, said third element comprising a positive meniscus curved around the central stop and having a dioptric power with the thickness neglected within 1.20 to 2.00 of the power of the system and having an index of refraction between 1.62 to 1.92, the air space of the lens system lying between the strong negative meniscus comprising the second element and the positive meniscus comprising the third element lying between .08 to .14 of the numerical value of the focal length of the system, a corresponding air space in the rear of the system on the short conjugate side, said corresponding air space lying between 1.3 to 1.8 times the axial length of the air space in the front half of the system, a central group of lenses disposed



on each side of a central stop for achromatizing the system and for contributing negative spherical aberration, the portion of said central group on each side of the central stop comprising at least two elements cemented together, said cemented surfaces substantially concentric around the image of the stop formed by the refraction of the chief ray at the respective air surfaces adjacent the central stop, the numerical value of the radius of curvature of the cemented surface of the central group of lenses in front of the central stop within .12 to .20 of the focal length of this system, the numerical value of the contact radius of curvature of the air surface adjacent the central stop greater than six times the focal length of the system, the index differences across the cemented surfaces within .04 to .09, the next to the last element in the rear group of lenses comprising a strong negative meniscus curved around the central stop, the adjacent concave surface of the last element within .7 to 1.4 times the numerical value of the radius of the adjacent convex surface of the next to the last element, the remaining elements in the rear half of the lens system within 10 percent of the specification of the values of the corresponding elements in the front half of the system.

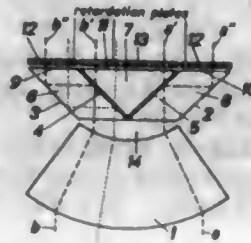
2,821,114

SYMMETRICAL INTERFERENCE POLARIZERS
Kurt Wiemer, Bad Tolz, and Paul Edward Wiemer, Rotach-Egern, Germany, assignors to Pola-Lux Gesellschaft für Blendschutz und Raumbildprojektion mit beschränkter Haftung, Düsseldorf, Germany, a corporation of Germany

Application April 1, 1953, Serial No. 346,112
Claims priority, application Germany April 16, 1952
5 Claims. (Cl. 88-65)

1. A polarizing device comprising lens means for condensing the light rays entering said device to a fraction of their initial cross section and for directing them as parallel beams, a pair of parallelepiped prism elements positioned behind said lens means and being arranged to diverge from said lens means symmetrically about the optical axis of said lens, an angular prism element also arranged symmetrically with respect to the optical

axis of said lens means and being included within the space between said pair of parallelepiped prism elements, interference polarizing layer means disposed between the adjacent surfaces of said pair of parallelepiped prism elements and said angular prism element, the surfaces of each of said parallelepiped prism elements opposite said surfaces adjacent said polarizing layer means form-

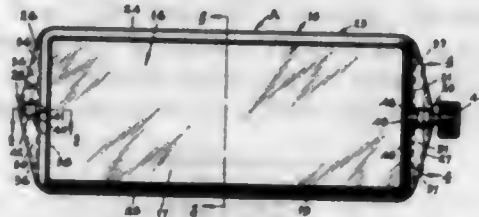


ing reflecting means for directing the reflected polarized light beams parallel to the transmitted polarized light beams, and the combined areas of the exit surfaces of said prism elements being substantially equal to the entrance area of said lens means to provide emergent polarized light substantially unaltered in cross section with respect to said light rays entering said device.

2,821,115

REAR VIEW MIRROR MOUNTING
Arthur R. Weinrich, Brackenridge, and Ferdinand J. Mazur, Natrona Heights, Pa., assignors to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio

Application May 27, 1949, Serial No. 95,724
2 Claims. (Cl. 88-77)



1. In a reversible rear view mirror for automobiles and the like, a supporting case including a rear wall provided with mounting means therefor and open at the front thereof, a mirror unit normally closing the front of said case and having two oppositely facing reflective surfaces of different reflecting values, and means swivelly connecting the mirror unit to the case at the top of the case and intermediate the ends thereof, comprising a vertical tab on the case, a block carried by the tab to rotate freely about a substantially horizontal axis, and means carried by the mirror unit and pivotally connected to the block so that the driver may swing said mirror unit outwardly on the block, rotate it by rotation of said block to present the desired reflecting surface to his vision, and return it to normal operating position with respect to the case, the rear wall of the case serving to shield the mirror from light rays emanating in front of the automobile.

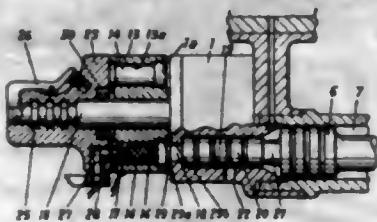
2,821,116

COCKING DEVICE FOR AUTOMATIC FIREARMS
Oskar Schwager and Fritz Herlach, Zurich, Switzerland, assignors to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company of Switzerland

Application December 17, 1952, Serial No. 326,398
3 Claims. (Cl. 89-1)

1. In an automatic firearm having a barrel; a fluid-pressure operated cocking device comprising a cylinder, a piston slidable in said cylinder and defining an inner space within a part of said cylinder, separate sealing means movably mounted in said space and adapted to operatively connect with said piston, a cartridge-receiving

charge casing; two separate passage-forming means for supplying fluid pressure to said space, said passage-forming means being connected at separate locations to said cylinder part, said sealing means separating said locations, one of said passage-forming means being connected with said barrel to operate said cocking device by fluid



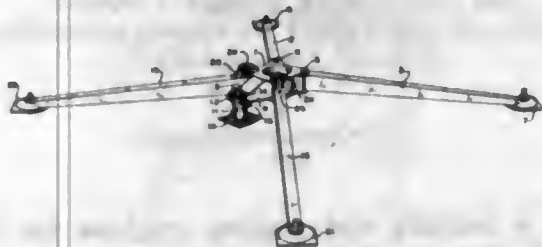
pressure derived from said barrel and loading said piston, the other one of said passage-forming means being connected with said charge casing to operate said cocking device by fluid pressure produced by said cartridge and loading said sealing means, whereby pressure fluid derived from said barrel is prevented from escaping into said charge casing by said sealing means.

2,821,117

UNDERCARRIAGE FOR A FIREARM

Karl Sten Rodolf Hultgren, Bofors, Sweden, assignor to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation

Application January 27, 1956, Serial No. 561,832
Claims priority, application Sweden January 29, 1955
13 Claims. (Cl. 89—37)



1. An undercarriage for a traversing firearm, comprising a center base having an axis defining a traversing axis of a firearm, a fixed support member on said base, two adjustable support members pivoted to said base, the free ends of said pivotal members and said fixed member constituting a three-point support for the carriage, two stabilizing arms, a mounting means for each stabilizing arm, each of said mounting means linking the respective arm to the base for pivotal movement about an axis of rotation substantially parallel with said traversing axis and also for pivotal movement about a transverse rotational axis that is transverse of said traversing axis, said stabilizing arms being linked to the base at points located to include said fixed support member therebetween, and a locking means for each of said stabilizing arms coacting with the respective mounting means for independently locking each arm in a selected pivotal position on its transverse axis.

2,821,118

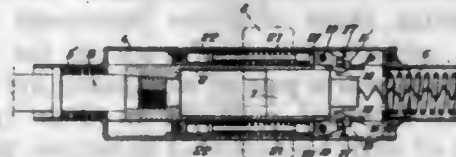
AUTOMATIC GUNS INCLUDING A RECOILING SYSTEM

Alexandre Billard, Paris, France, assignor to Societe d'Exploitation des Matériels Hispano-Suiza, Bois-Colombes, France, a society of France

Application January 21, 1954, Serial No. 405,426
Claims priority, application France January 30, 1953
2 Claims. (Cl. 89—137)

1. An automatic gun which comprises, in combination, a support, a breech-case reciprocable longitudinally in said support with a recoil and counter-recoil movement on every firing of a shot, a barrel integral with said breech-case at the front thereof, a breech-block reciprocable longitudinally in said breech-case, transversely reciprocating means carried by said support to

feed cartridges along a transverse path successively into a position located in the same longitudinal plane perpendicular to said path as said barrel at the rear thereof, cooperating means carried by said support and said breech-case for controlling said cartridge feed means in response to the recoil and counter-recoil of said breech-case in said support, said breech-case being provided in its side walls with at least one bearing surface turned toward the front end of the gun, at least one emergency pawl pivotally mounted in the side wall of said support capable of engaging said bearing surface, resilient means for urging said pawl toward said bearing surface, said

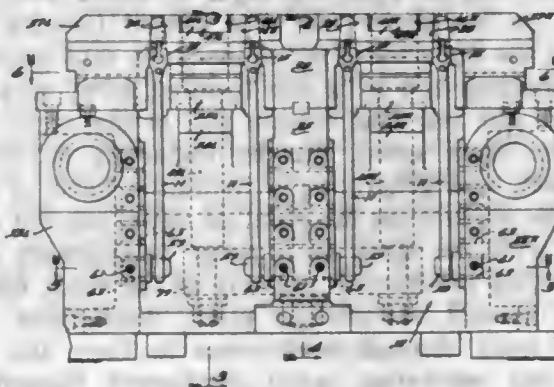


pawl being arranged to project, when in contact with said bearing surface, across the path of said breech-block, and means carried by said breech-block for preventing, during the rearward movement of said breech-block with respect to said breech-case under normal operation conditions of said gun, said pawl from engaging said bearing surface said last mentioned means being therefor capable of retracting said pawl from engagement with said bearing surface when, accidentally, said last mentioned means have not prevented said engagement.

2,821,119

FIXTURE FOR USE IN METAL WORKING OPERATIONS

Paul L. Dugas, Berkley, and John M. Jacksy, Detroit, Mich., assignors to Colonial Broach and Machine Company, Detroit, Mich., a corporation of Delaware
Application March 25, 1957, Serial No. 648,380
8 Claims. (Cl. 90—33)



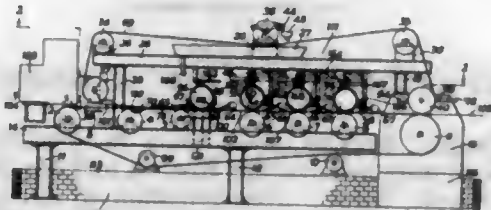
1. A work-holding fixture for maintaining a plurality of substantially like workpieces in predetermined positions while metal working operations are performed thereon comprising a base, a plurality of stationary jaws fixedly secured in spaced relation on the base, including a pair of end jaws and a center jaw disposed between the pair of end jaws, and a pair of movable jaws each positioned between a pair of said stationary jaws which consists of said center jaw and one of said end jaws and spaced therefrom so that a pair of workpieces may be clamped between each of the movable jaws and its respective pair of stationary jaws with each workpiece being wedged between a pair of opposed faces, one of which is on one of the stationary jaws and the other of which is an adjacent face of one of the movable jaws, all of said jaws being constructed so that each said pair of opposed faces relatively converge toward a vertical plane, a pair of rods slidably carried in the base and having their upper ends individually and removably secured to the pair of movable jaws, a common bar extending longitudinally of the base and connecting to

gether adjacent its ends the lower ends of the pair of rods, means connecting the common bar at its center to the base and including an adjustable member threadably secured in the base, adjustment of said member actuating said common bar to commonly move the pair of movable jaws each between its respective pair of stationary jaws and each essentially in one plane so that the amount of relative convergence between the pairs of opposed faces increases whereby to seat and clamp each of the pair of movable jaws against its respective pair of workpieces to secure them in place on the fixture in predetermined positions, means permitting rocking movement between the pair of rods and the common bar and permitting the common bar to rock at its center thereby permitting slight off-center movement with respect to each said one plane of each of the movable jaws so that its respective pair of workpieces are clamped in substantially identical positions in their respective planes in spite of slight dimensional variations therein.

2,821,120

DEWATERING PULP OR STOCK ON A PAPER OR BOARDMAKING MACHINE

Reginald James Thomas, Weston-Super-Mare, England, and Stanley Fred Smith, Pittodells, Aberdeen, Scotland, assignors to St. Anne's Board Mill Company Limited, Brislington, Bristol, England, a British company
Application August 10, 1953, Serial No. 373,382
Claims priority, application Great Britain August 22, 1952
22 Claims. (Cl. 92-39)



2. The method of making a fibrous web which comprises depositing an open top layer of dilute web forming stock on the upper run of a looped forming wire, contacting the open top layer of stock on said upper run with the bottom run of a top forming wire, advancing said upper run and said bottom run in the same direction at the same speed, thereby imparting momentum to the stock and generating a hydraulic head of stock between the wires from the point of initial contact of the top wire with the stock to a point downstream therefrom, applying mechanical pressure to the stock between the wires at said downstream point, discharging water from the stock through both wires to form the stock thereon, and separating water discharged through the top wire from contact with said wire under the influence of momentum developed in the water by the advancing stock.

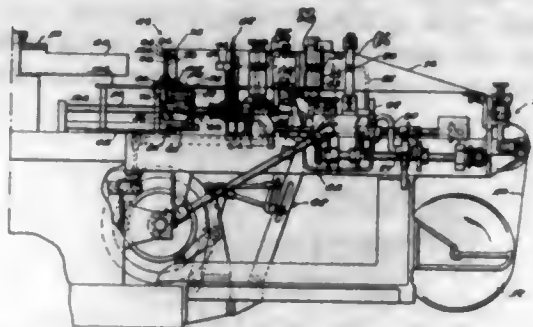
2,821,121

CONTAINER FORMING MACHINE

John G. Vergobbi, Quincy, Mass., assignor to Pneumatic Scale Corporation, Limited, Quincy, Mass., a corporation of Massachusetts
Application November 2, 1954, Serial No. 466,360
8 Claims. (Cl. 93-8)

1. In a container forming machine, in combination, an expansible mandrel, means for supporting a flat bag having an open mouth portion in alignment with said mandrel, means for opening and transferring the bag onto said mandrel including bag opening members engageable with the outer faces of opposed side walls of the flat bag adjacent the mouth portion, and means cooperating with said bag opening members and engageable with the inner faces of opposed side walls of the bag for maintaining the side walls flat against their respective bag opening members during the transfer operation, said cooperating

means being engageable with said inner faces in gripping relation with said bag opening members to assure re-

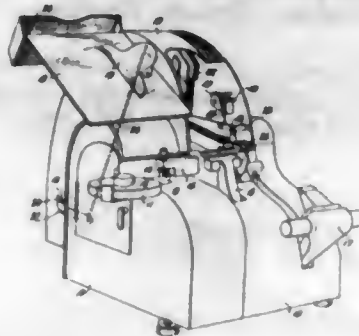


tention of the bag by the opening and transferring members during the transfer operation.

2,821,122

LAUNDRY MARKING AND STAPLING MACHINE SHUT-OFF DEVICE

Phil A. Long, Kansas City, Mo., assignor of one-half to A. O. Long, Jr., Johnson County, Kans., and one-half to Phil A. Long, Kansas City, Mo.
Application February 9, 1956, Serial No. 564,523
6 Claims. (Cl. 93-88)



1. In a marking and stapling machine for laundry tags of the type employing hand set type segment wheels to register a number relative a marking head and marking zone, said wheels having each a blank position and a plurality of number indicating positions, said machine having marking and stapling heads to mark numbers on laundry tags and staple said tags to laundry pieces, said machine also having a clip board platform with a clip mounted on the frame thereof; the combination of means cooperating between the clip on the clip board platform and one type segment wheel whereby depression of the clip frees the type segment wheel from its marking position, means operable on release of said type segment wheel to return it to its blank position and means operable by the return of said type segment wheel to its blank position to render the marking and stapling mechanisms inoperable until said wheel is reset from said blank position.

2,821,123

DOUBLE PAN SHINGLE TAKE-OFF FOR MACHINE FOR MAKING ROOFING SHINGLES

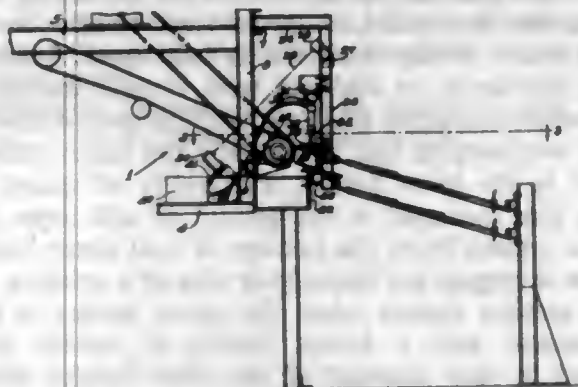
Homer H. Fuller, Western Springs, Ill., assignor to Roofing Machinery Mfg. Company, Chicago, Ill., a corporation of Illinois

Application June 7, 1955, Serial No. 513,777

3 Claims. (Cl. 93-93)

2. A roofing shingle take-off for a roofing shingle making machine of the type for making shingles having a plurality of tabs along the longitudinal edge of the shingles, said take-off comprising an endless conveyor for carrying newly made shingles in spaced end to end seriatim relationship from a roofing shingle making machine, a pair of superimposed spaced shingle-receiving pans disposed adjacent the discharge end of said conveyor upon which said spaced shingles are slid in the direction of their length from said conveyor in substantially plane-parallel super-

imposed relationship, each pan being provided with adjacent areas along a longitudinal side thereof corresponding to the tabs of the shingles received, adjacent areas of each pan being divided by a transverse line of severance and the area of each pan adjacent the conveyor being offset at the line of severance above the area on the other



side of said line of severance, a diverting gate positioned between the discharge end of said conveyor and said pans for diverting shingles from said conveyor to a predetermined pan, and means for actuating said gate after a predetermined number of shingles have been received by one pan to divert shingles to the other pan.

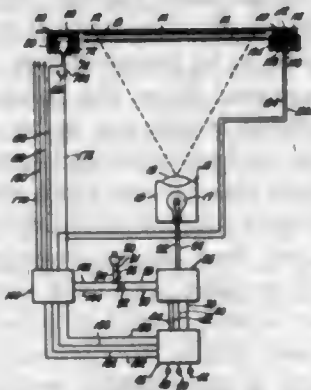
2,821,124

INDICATING APPARATUS FOR PHOTOGRAPHIC PRINTERS

Joseph J. Enright, Kansas City, Mo.

Application August 24, 1953, Serial No. 376,083

3 Claims. (Cl. 95-1.1)



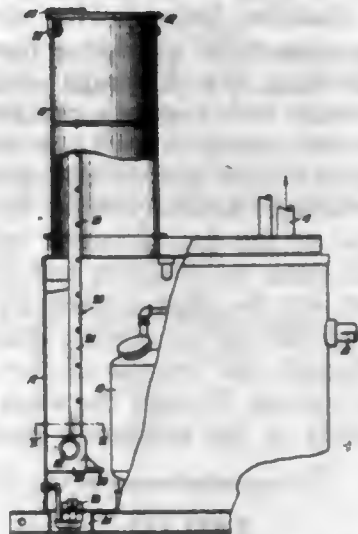
1. For use with a photographic printing machine provided with an electric exposure lamp having a timing and operating circuit and a plurality of manually operable, exposure time selection switches connected with said circuit to permit selective operation of the lamp for a plurality of predetermined periods corresponding to the switches, exposure time indicating apparatus for automatically marking a print being processed with photographic indicia of the particular exposure time selected by operation of a particular one of said switches, said apparatus comprising marking means including a separate, electrically responsive, light source corresponding to each switch respectively, and indicia producing means for each of said light sources disposed between the respective source and the print for causing a beam of light emanating from the particular source to mark the print with an indicia distinctive to each of the sources respectively; restrictive electrical circuit means connected to said light sources for limiting energizing of each of the same to a predetermined period irrespective of the period of energization of said lamp by operation of one of the switches; means for controlling said marking means to select the particular indicia which will be marked by said marking means upon said print; and means for operably coupling said controlling means with said switches for automatic selection by said controlling means, when any of said switches is operated to select

a particular exposure time for the processing of said print, of that particular indicia corresponding to said operated switch and said selected exposure time.

2,821,125

COMBINATION VENTILATOR AND LADDER FOR TANKS OR THE LIKE

Compere Loveless, Prairie Village, Kans., assignor to Smith & Loveless, Inc., Merriam, Kans., a corporation of Kansas

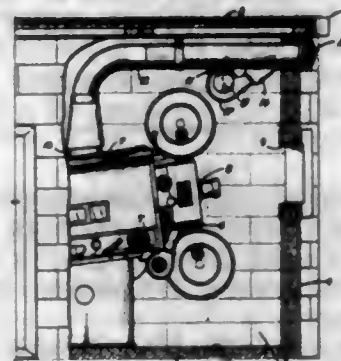
Application June 6, 1955, Serial No. 513,368
4 Claims. (Cl. 98-33)

1. In a sewage installation, a tank provided with an access opening and adapted to be at least partially within the ground with said opening located above ground level; an upright ladder within the tank and extending from adjacent said access opening downwardly to adjacent the lowermost portion of the tank, said ladder being provided with at least one elongated, tubular side rail; a rigid, elongated, tubular extension, one end of the extension passing through the side wall of the tank adjacent said opening therein and the opposite end of the extension being connected to and communicating with said one side rail adjacent the uppermost end thereof, said extension serving both as an air current coupling and a means of mechanical support for said one side rail; and blower means mounted within the tank, operably coupled with said one side rail adjacent the lowermost end thereof and communicating with the interior of said tank for directing artificial currents of air through said one side rail to thereby remove contaminated air from the tank.

2,821,126

MOTION PICTURE PROJECTION BOOTH AND LAMP HOUSE VENTILATOR

George P. Heller, Kansas City, Mo., assignor to Dit-Mco, Incorporated, Kansas City, Mo., a corporation of Missouri

Application March 28, 1955, Serial No. 497,114
1 Claim. (Cl. 98-43)

In a motion picture projecting apparatus, walls defining a motion picture projecting booth having a chamber

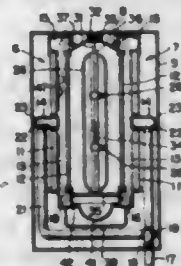
therein and an opening in one wall thereof, a motion picture projector in the chamber directed toward the opening for projecting pictures therethrough, said projector having a louvered lamp housing with a stack extending from and communicating with the interior of the lamp housing, a duct having an inlet connected with the stack and an outlet exteriorly of the walls that define said projecting booth for communicating the stack with the atmosphere exteriorly thereof, a branch on the duct adjacent the wall through which the duct extends and said branch extending rearwardly at an acute angle into the interior of the chamber, a blower in the chamber and having an inlet opening communicating with the interior of the chamber for removing air therefrom, a discharge outlet connection extending from the blower, flange means securing the discharge outlet connection to the duct branch, and a nozzle communicating with the discharge outlet connection of the blower and extending through the duct branch and terminating in a jet opening substantially centrally of the duct and directed toward the outlet of the duct whereby operation of the blower draws air from the chamber and discharges same in a jet directed into the duct toward the outlet of the duct for inducing flow of air therein drawing air from the chamber through the louvers of the lamp housing then from said housing through the stack and duct for discharge exteriorly of the projection booth.

2,821,127
BROILER

Frederic O. Hess, Philadelphia, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania

Application July 1, 1955, Serial No. 519,387

4 Claims. (Cl. 99—389)



1. In a broiler, a pair of oppositely disposed, vertically extending heating elements, each of said elements including a refractory plate forming the back and a sheet of material transparent to heat rays forming the front thereof, means to support said plate and sheet in spaced relation to form a combustion chamber, said means including a duct extending lengthwise of said chamber at the top thereof, a manifold extending parallel to said duct below the same, said manifold being provided with ports through which fuel can be discharged along the surface of said plate, the space between the sheets of said heating elements forming a cooking chamber, means forming passages between said cooking chamber and the ducts of said cooking elements, an exhaust blower connected to both of said ducts, a rack to support food to be cooked in said cooking chamber, and means to mount said rack for movement from a position between to a position beyond said cooking elements.

2,821,128

INKING AND SENSING MEANS IN ADDRESS PRINTING MACHINES

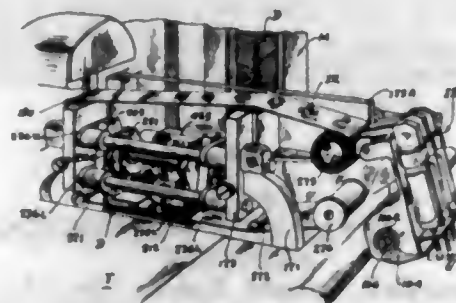
Carl J. Hueber, Euclid, Ohio, assignor to Addressograph-Multigraph Corporation, Wilmington, Del., a corporation of Delaware

Application March 25, 1953, Serial No. 344,581

4 Claims. (Cl. 101—58)

1. In a printing machine of the type in which printing devices each having identifying tabs associated therewith

for effecting control over the printing operations are adapted to be passed one by one along a guideway in the machine to a sensing station whereat such identifying tabs are to be sensed to set up the control, an outer sensing head holder located at the sensing station above the guideway, said holder being connected to a means in the machine for moving the holder toward and away from a printing device located at the sensing station, an inner sensing head holder mounted in said outer holder for sliding movement in and out with respect thereto, said inner holder including a pair of laterally spaced side plates having overhanging lips along their top edges defining a channel in the inner holder, a plurality of spaced apart sensing pins mounted in the bottom of said inner holder so as to project from the bottom of said outer holder in position to engage the identifying tabs of a printing device at the sensing station when the outer holder is moved theretoward, and a block having a handle slidably mounted in said channel of the inner holder with the bottom of said block engaging the heads of the sensing pins.



2. In a printing machine having a printing station and wherein printing plates each having identifying means associated therewith for effecting control over the printing operations are adapted to be passed one by one to a sensing station remotely removed from the printing station and whereat said identifying means are to be sensed in order to set up the control, reciprocable feed means for advancing the printing plates one by one from an initial storage position to said sensing station, oscillatable drive means for reciprocating said feed means in opposed directions between said initial position and said sensing station so that a printing plate is temporarily arrested at the sensing station while said feed means are reciprocating from said sensing station back to said initial position to pick up the next printing plate to be advanced to the sensing station, sensing means at the sensing station adapted to be advanced toward such an arrested printing plate to sense the identifying means thereon, an inking platen at the sensing station mounted in close proximity to the sensing means and adapted to effect inking of the printing plates individually as each is arrested while undergoing sensing at the sensing station, yieldable means for holding the platen in a normal position spaced from the arrested printing plate at the sensing station, a cam shaft and multi-lobe cam means driven thereby effective to actuate the platen in opposition to said yieldable means, means to dispose an inked ribbon beneath the platen for inking an arrested printing plate when the platen is actuated, a ratchet on said cam shaft for imparting step-wise rotary motion to said cam shaft, a feed pawl for indexing said cam shaft ratchet and mounted on a drive plate, a link for operating said drive plate from said oscillatable drive means so as to actuate the platen and effect inking of an arrested printing plate while being sensed, means for feeding out a predetermined length of the ribbon between successive actuations of the inking platen and including spools for the ribbon, a ratchet operatively associated with at least one such ribbon spool, a ribbon feed pawl carried on a reciprocable ribbon feed plate for driving the ratchet associated with said ribbon spool, a spiral cam for reciprocating said reciprocable ribbon feed plate, a drive pinion

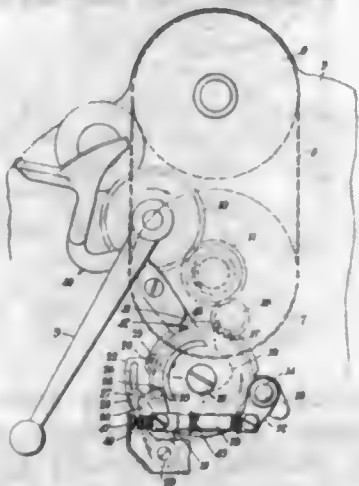
for the spiral cam, and a reciprocable rack for driving said drive pinion, said reciprocable rack in turn being driven by the drive plate on which the first-named pawl is mounted.

2,821,129

STENCIL DUPLICATING MACHINES

Albert G. R. Gates, Edmonton, England, assignor to Gestetner Limited, Tottenham, England, a corporation of Great Britain

Application December 14, 1953, Serial No. 398,162
6 Claims. (Cl. 101—118)



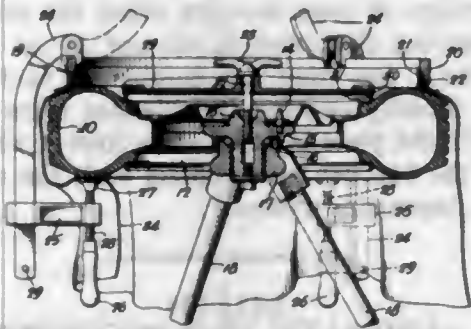
1. A stencil duplicating machine comprising a frame, a cylinder rotatably mounted in the frame and carrying the stencil, a pressure roller, a support for the pressure roller whereby the latter is movable towards the cylinder to apply a sheet of paper fed into the machine against the stencil, a cam, a carrier, a pair of cam followers mounted on said carrier, said followers engaging substantially opposite sides of the cam while the cam is moving through a predetermined angular range whereby the cam positively controls the position of the carrier while moving through said angular range, a mechanical driving connection between said carrier and the pressure roller whereby the roller is advanced towards the cylinder when the cam moves through said angular range, and a common means for driving the cylinder and the cam.

2,821,130

TIRE SPRAYING APPARATUS

Will Eugene Hummel, Philadelphia, Pa.

Application October 11, 1954, Serial No. 461,333
4 Claims. (Cl. 101—126)



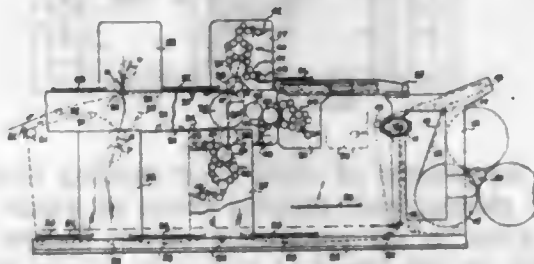
1. Apparatus for applying white side walls on tires comprising a pedestal, a circular support rotatably mounted on said pedestal, connecting means on said support for releasably mounting the centrally-apertured hub portion of a wheel on said support, an axially-movable clamping means extending axially from the central portion of said support, a circular masking plate mounted on said clamping means coaxially with said support, the outer periphery of said masking plate being positioned radially outward of said support, said masking plate being movable toward said support into clamping relationship therewith by axial movement of said clamping means,

an annular masking ring coaxial with said masking plate and positioned radially outward of the outer periphery of said masking plate and in spaced relationship therewith to define an annular treating area therebetween, a plurality of lever arms, each being hinged at one end to said masking ring and having a lateral bracket thereon, a threaded stem threadedly engaged in each bracket for threaded adjustment in a direction substantially parallel with the corresponding lever arm, a clamping jaw at one end of each of said threaded stems and a manually operable handle at the opposite end of each of said threaded stems.

2,821,131

MULTIUNIT WEB PRESS

William R. Spiller, Shaker Heights, and Thomas H. Johnson, Peninsula, Ohio, assignors to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware
Application September 30, 1953, Serial No. 383,202
20 Claims. (Cl. 101—137)



1. In a web feed rotary printing press, first and second impression cylinders of the same size arranged to rotate in the same direction and with their axes parallel and in a common plane, the axis of said first impression cylinder lying in a first plane perpendicular to said common plane, the axis of said second impression cylinder lying in a second plane perpendicular to said common plane, means for feeding a web of print receiving material in a loop outwardly along one side of said impression cylinders and backwardly along the other side thereof, and first, second, third and fourth printing cylinders arranged for printing upon said web in that order, said first and fourth printing cylinders being arranged in printing relation with said first impression cylinder and with the axis of said first printing cylinder on that side of said first perpendicular plane remote from said second impression cylinder, means for causing the web to leave said fourth printing cylinder before it leaves said first impression cylinder, said second and third printing cylinders being arranged in printing relation with said second impression cylinder and with the axis of said third printing cylinder on that side of said second perpendicular plane remote from said first impression cylinder, whereby the web is caused to leave each printing cylinder before it leaves the corresponding impression cylinder, thereby minimizing the tendency of the web to flutter during printing.

2,821,132

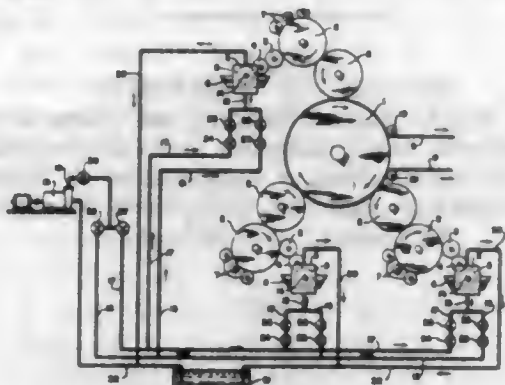
METHOD AND APPARATUS FOR CONTROLLING WATER SUPPLY IN PLANOGRAPHIC PRINTING PRESS

George Rogers Brodie, Lower Merion Township, Montgomery County, Pa., assignor to Fred'k H. Levey Company, Inc., New York, N. Y., a corporation of New York

Application December 13, 1954, Serial No. 474,772
4 Claims. (Cl. 101—138)

1. In conjunction with a multi-color, web-fed printing press comprising a plurality of plate cylinders, adapted to hold planographic printing plates in position during printing, and means for separately applying water to the plates on the respective plate cylinders by which the rate at which water is applied to the respective plates may be varied by varying the speed of operation of the water-

supplying means associated therewith, a plurality of fluid motors each mechanically connected to drive one of the water-supplying means, a fluid pump, a conduit leading from the pump, a shut-off valve positioned in said conduit, connections leading from the conduit beyond said valve to each of the motors, a flow control valve positioned in each of said connections, a second conduit leading from the pump, a shut-off valve positioned in said conduit, connections leading from the second conduit at a point beyond the valve to each of the motors, and a flow control valve positioned in each of the last said connections.



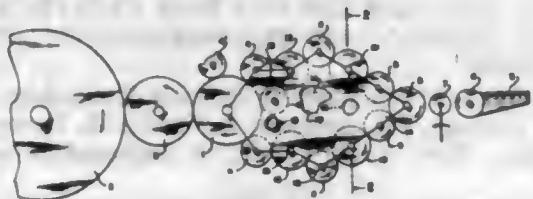
3. In the process of multi-color printing from a plurality of planographic printing plates to which water is applied prior to the application of ink thereto at rates dependent on the speed of operation of the water-supplying means, the method of regulating the rate at which water is applied to the respective plates during the starting-up period and during normal operation of the press, which comprises providing alternate paths by which motivating energy is supplied to the water-supplying means, separately adjusting the rate at which water is to be supplied to the respective plates during the starting period of the press by adjusting the amount of energy supplied to the respective water-supplying means over one of said paths, separately adjusting the rate at which water is to be supplied to the respective plates during normal operation of the press, without disturbing the first adjustments, by adjusting the amount of motivating energy supplied to the respective water-supplying means over the second of said paths, passing the motivating energy to the respective water-supplying means over the first said path when starting the press and switching the motivating energy to the second said path when normal operating conditions have been attained.

2,821,133

METHOD FOR PLANOGRAPHIC PRINTING

George Rogers Brodie, Lower Merion Township, Montgomery County, Pa., assignor to Fred'k H. Levey Company, Inc., New York, N. Y., a corporation of New York

Application December 15, 1954, Serial No. 475,400
3 Claims. (Cl. 101-141)



1. In the process of off-set printing wherein an ink containing a volatile organic solvent is applied to the surface of a printing plate, which has previously been wet with water, by rolling contact with the surface of a form roller to which a film of the ink is supplied over a train of co-operating ink-distributing rollers the step of preventing the accumulation of water in the ink film being conveyed to the printing plate by circulating in contact with a por-

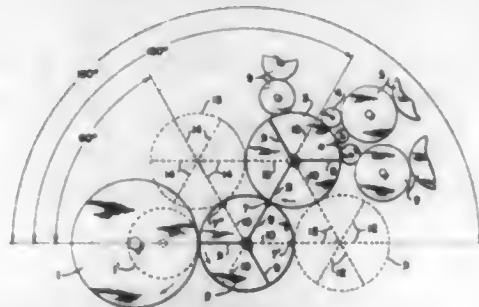
tion of said ink film a substantially dehydrated atmosphere comprising a substantial proportion of vapors of the ink solvent while shielding said portion of the ink film from press-room atmosphere.

2,821,134

OFFSET PRINTING PRESS

George R. Brodie, Lower Merion Township, Montgomery County, Pa., assignor to Fred'k H. Levey Company, Inc., New York, N. Y., a corporation of New York
Application November 24, 1954, Serial No. 470,962

6 Claims. (Cl. 101-217)



1. In a web-fed, offset printing press comprising an impression cylinder, a blanket cylinder, and a plate cylinder rotatably mounted on parallel axes, each having a substantial continuous, smooth peripheral surface, means for passing a continuous web between the impression and blanket cylinders, the blanket cylinder comprising means for securing a blanket about the periphery thereof forming a blanket seam running parallel to the axis of said cylinder, the plate cylinder comprising means for securing to the peripheral surface thereof a printing plate bearing images of pages of equal length, equally spaced circumferentially of the plate cylinder so as to provide equal intervening page margins, the blanket cylinder being adapted to operate in rolling contact simultaneously with the impression cylinder and the plate cylinder, the circumference of the blanket cylinder, with the blanket attached, being equal to the circumference of the plate cylinder, with the plate attached, so that the blanket seam will invariably fall within a page margin on the plate, the improvement which comprises so positioning the axis of the plate cylinder with respect to the axes of the blanket cylinder and the impression cylinder that it will lie in a plane passing through the axis of the blanket cylinder forming with the plane passing through the axis of the blanket cylinder and the axis of the impression cylinder an angle determined by dividing 360° by the number of page margins about the plate cylinder and multiplying the quotient thereof by an integer not greater than 1 less than the number of said page margins, and thereby causing the blanket seam to pass in contact with the plate cylinder at an instant when no page image on the blanket is in contact with the web passing about the impression cylinder.

2,821,135

AUTOMATIC TIME RECORDER

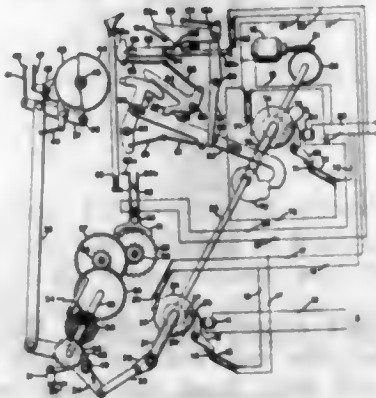
Clinton E. Larrabee, Binghamton, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application May 26, 1954, Serial No. 432,527

5 Claims. (Cl. 101-287)

1. A machine for printing on an inserted record, comprising a receiver having a slot for receiving a record to be printed, a printing mechanism associated with said receiver to perform a printing operation, drive means for said printing mechanism including a control circuit therefor, a normally open first switch and a normally closed second switch connected in series in said circuit for controlling the operation of said drive means, said first switch

being closed upon the insertion of a record in said receiver to energize said drive means and initiate a printing operation on the record, a record detecting device disposed adjacent the slot in said record receiver and having a slot entering portion and a contact engaging portion, spring means for normally holding said detecting device out of said slot and said second switch closed, a shiftable lever associated with said detecting device, an actuating member operative upon initiation of the printing operation to shift said lever into engagement with said detecting device, lever spring means for said lever operative



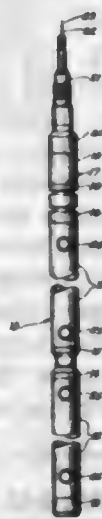
upon engagement with said detecting device for moving the same into said slot to engage the record card being printed and for opening said circuit at said second switch to maintain said drive means inactive independently of the closure of said first switch, and an abutment engaged by said lever after the record has been removed from said receiver and the detecting device has been further moved through said slot by said lever spring for disengaging said detecting device and lever, said first-mentioned spring being effective after disengagement for returning said detecting device to its normal position out of said slot and with said second switch closed.

2,821,136

FIRING SYSTEM FOR JET TYPE PERFORATING GUN

Jacques H. Castel, Houston, Tex., assignor, by mesne assignments, to P. G. A. C. Development Co., Houston, Tex., a corporation of Texas

Application April 5, 1951, Serial No. 219,480
3 Claims. (Cl. 102—21.6)



1. In combination with a jet type perforating gun which comprises a plurality of shaped charges and a cable for lowering said gun into a borehole and including a single insulated conductor, a system for sequentially firing said charges, comprising means for non-concurrently transmitting direct and alternating currents over said conductor to said gun, a coupling transformer in said gun and having one winding thereof connected in series with said conductor, means included in said gun and terminat-

ing said cable for firing at least one explosive charge of said gun in response to said direct current, means for maintaining a closed circuit including said one winding and said conductor after said one charge is fired, and means in said gun and connected to another winding of said transformer for firing at least one other explosive charge of said gun in response to said alternating current.

2,821,137

MILITARY ROCKET STRUCTURE

George Albert Lyon, Detroit, Mich.

Application April 12, 1952, Serial No. 281,947
15 Claims. (Cl. 102—38)



1. A projectile having a tail portion including expansible generally longitudinally extending outwardly bowed spring strips laterally movable relative to the body of the projectile, and a shell casing for supporting the projectile having means therein inter-engageable with said spring strips for retaining the projectile in predetermined axial position within the shell casing, said spring strips having elongated generally helically angled peripherally directed edges thereon cooperable with rifling in the barrel of a gun through which the projectile may be fired.

2,821,138

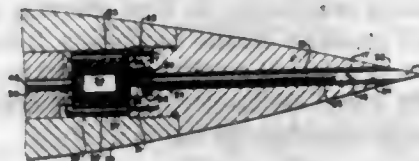
ACCURATE TRIGGERING DEVICE FOR HIGH VELOCITY PROJECTILES

Charles A. Borchert, Silver Spring, Md., Robert A. Anderson, Hicksville, N. Y., and Harold J. Plumley, Silver Spring, Md., assignors to the United States of America as represented by the Secretary of the Navy

Application August 7, 1956, Serial No. 602,673

2 Claims. (Cl. 102—70.2)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a triggering system of the class described, a projectile containing detonator means and capacitance means, said projectile having a nose of electroconductive material constituting a ground contact, said nose having a slot in the front end thereof, an arrowhead-like contact received in said slot and insulated from said ground contact, said last-named contact having external surfaces coextensive with corresponding portions of the nose, means electrically connecting said last-named contact to one terminal of the capacitance means, and means electrically connecting the other terminal of the capacitance means to the ground contact through the detonator means; said contacts being adapted to be shorted by a thin metallic barrier disposed within the trajectory of the projectile and pierced thereby.

2,821,139

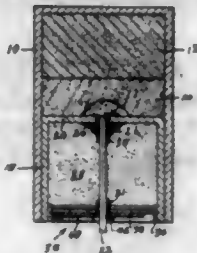
SHIELDED INITIATOR

Maurice Apstein, Bethesda, and Arthur O. Morse, Kensington, Md., assignors to the United States of America as represented by the Secretary of the Army

Application October 9, 1956, Serial No. 614,996

9 Claims. (Cl. 102—70.2)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A shielded initiator comprising: a case, a pyrotechnic charge contained within the case, a central electrical conductor within the case, a high resistance bridge electrically connected to the central conductor, said bridge in physical contact with said pyrotechnic charge, and a lossy magnetic material surrounding the conductor, said lossy magnetic material being proximate to said bridge.

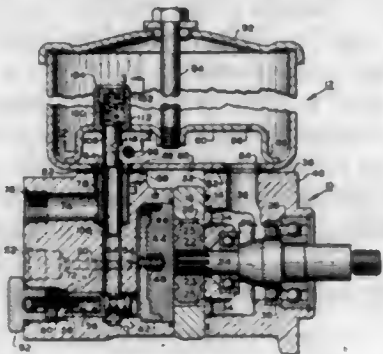
2,821,140

POWER TRANSMISSION

Raymond B. Pettibone, Detroit, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan

Application January 28, 1954, Serial No. 406,633

4 Claims. (Cl. 103—42)



1. A fluid distributing system for use with fluid pumping mechanism having inlet and outlet zones, comprising: means forming a delivery passage extending from said outlet zone; means forming a return passage extending to said inlet zone; means forming a by-pass passage extending from said outlet zone to said inlet zone; valve means responsive to flow in said delivery passage controlling flow in said by-pass passage; auxiliary pressure responsive valve means in said by-pass passage for providing a variable restriction to flow therein; a fluid reservoir; and fluid passage means extending from said reservoir to a point proximate said variable restriction, whereby the velocity effect of fluid passing through the restriction is utilized to supercharge the inlet zone.

2,821,141

HYDRAULIC WELL PUMP

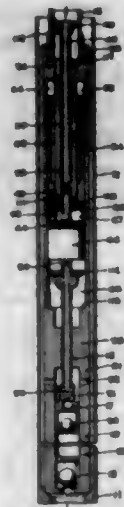
Edward J. Sargent, Los Angeles, Calif., assignor to Sargent Rodless Pump Company, a corporation of California

Application November 30, 1953, Serial No. 395,078

15 Claims. (Cl. 103—46)

1. In a reciprocating fluid motor-driven deep well pump assembly adapted to be lowered into an eduction tubing on the lower end of a motive fluid supply conduit, the combination of a fluid motor having a reciprocating part driven by pressure of motive fluid supplied through said conduit, the motor also having a tube depending from said reciprocating part and carrying exhaust fluid from the motor, a pump positioned below

the motor and having a reciprocating tube carrying fluid produced from the well, a member connecting said tubes together, the member having ports respectively connected



to said tubes and arranged to direct the exhaust fluid from the motor tube outwardly at a low elevation and to direct the well fluid from the pump tube outwardly at a high elevation.

2,821,142

RELAY TYPE FREE PISTON WELL PUMP

Donald G. Knox, Long Beach, Calif., assignor to The National Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application June 20, 1955, Serial No. 516,607

14 Claims. (Cl. 103—52)



1. For use with an eduction tube extending into a well, a pair of valved plungers each slidably engaging the inside surface of the eduction tube for longitudinal movement therein, the plungers being capable of meeting in contact at different locations axially of the eduction tube, and means on the plungers whereby contact between the plungers is effective to open the valve on the lower plunger and to close the valve on the upper plunger.

2,821,143

POWER TRANSMISSION

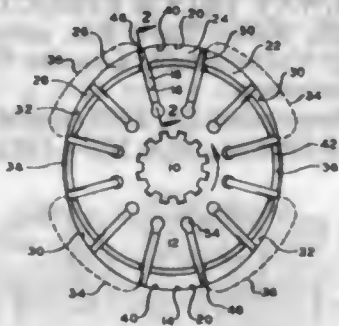
Raymond B. Pettibone, Detroit, Mich., assignor to Vickers Incorporated, Detroit, Mich., a corporation of Michigan

Application July 6, 1954, Serial No. 441,425

5 Claims. (Cl. 103—136)

1. In a fluid pressure energy translating device of the sliding vane type: a pair of relatively rotatable members; means forming vane receiving slots in one of said members; a vane track on the other of said members, said track having portions at varying distances from said one member; a vane in each of the slots; a slot engaging,

plane-faced inner portion on each of said vanes; and an outer portion on each vane extending from the slot to engage said track to control in and out movement of the vane in the slot, the entire width of said outer portion being reduced in thickness relative to said inner portion, inward for a distance greater than the maximum exten-



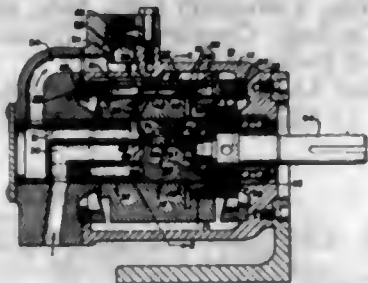
sion of said vane from said slot, providing substantial clearance between the slot and at least one side of said outer portion in all vane positions and thereby avoiding binding of the vane in the slot due to flexure of the extended portion induced by pressure differential thereacross.

2,821,144

FLUID PUMP WITH FLUID RETURNED PISTONS

Howard M. Purcell, Mount Gilead, Ohio, assignor, by mesne assignments, to Koehring Company, Milwaukee, Wis., a corporation of Wisconsin

Application November 16, 1955, Serial No. 547,105
8 Claims. (Cl. 103—162)



1. In a fluid pump including a housing, an insert member within said housing, a rotor having a plurality of pump cylinders and surrounding said insert member, a first and a second pump piston mounted within each said pump cylinder, cam means engageable with said first and second pump pistons for moving said first and second pump pistons toward each other on a discharge stroke, an intake and a discharge passageway located within said insert member, port means extending from each said pump cylinder for alternate communication with said intake and discharge passageways, said first pump piston in each said pump cylinders having a fluid chamber therein, a piston rod in each said pump cylinder and having a first and a second end portion, each said piston rod extending axially within each said cylinder with said first end portion communicating with said fluid chamber in telescoping relationship thereto and said second end portion engaging said second pump piston, conduit means connecting said discharge passageway and each said fluid chamber together thereby providing said fluid chambers with fluid pressure from said discharge passageway whereby said first and second pump pistons in each said pump cylinder are maintained in engagement with said cam means on an intake stroke, a spring loaded check valve cooperating with said discharge passageway for maintaining a predetermined fluid pressure in said discharge passageway at all times and hence maintaining fluid pressure in said fluid chambers whereby said first and second pump pistons in each said pump cylinder are maintained in engagement with said cam means at all times, a valve member cooperating with said conduit means and movable between a first and a second position

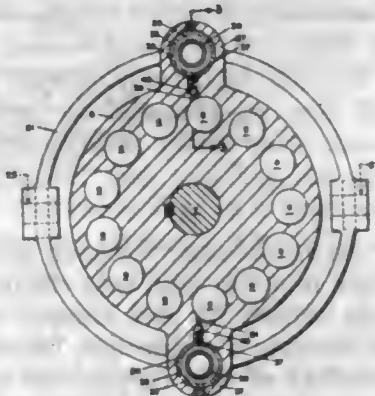
for opening and closing said conduit means, spring means normally maintaining said valve member in said first position thereby providing fluid communication between said discharge passageway and said fluid chambers, said valve member responsive to fluid pressure within said discharge passageway whereby upon sufficient pressure build up within said discharge passageway said spring means is overcome and said valve member moves to said second position shutting off fluid communication between said discharge passageway and said fluid chambers.

2,821,145

HYDROSTATICALLY BALANCED DRIVING CONNECTION

James K. Douglas, Shorewood, Wis., assignor to The Oilgear Company, Milwaukee, Wis., a corporation of Wisconsin

Application November 23, 1956, Serial No. 624,005
12 Claims. (Cl. 103—162)



1. A driving connection for transmitting forces from a rotatable driving member to a rotatable driven member one of which has a bore and a chamber containing liquid under pressure, said driving connection comprising a cylindrical driving element which is fitted in said bore and has a slight clearance between its periphery and the wall of said bore, means connecting said element to the other of said members, a pair of diametrically opposed pressure areas arranged upon said element adjacent to each end of said bore, the extent of each of said areas being determined by removing metal from the peripheral surface of said element, channel means connecting said bore to said chamber, and a restricted passage connecting each of said pressure areas to said channel means, each of said passages being of such a size that liquid tends to flow there-through into a pressure area faster than liquid can escape therefrom and thereby causes pressure to be created in that area but the resistance of said passage is sufficient to cause a substantial drop in pressure between said channel means and that area.

2,821,146

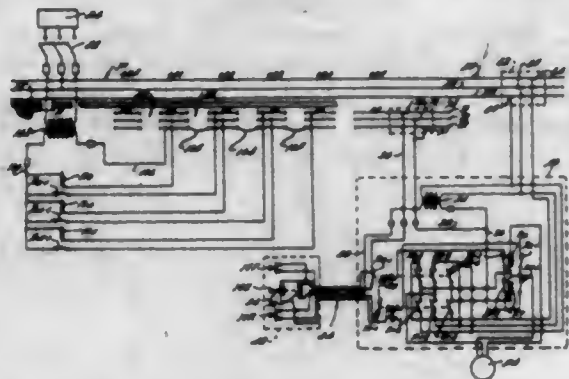
AUTOMATIC SECTIONAL CONTROL SYSTEM FOR TRACK-BORNE CARRIERS

Raymond D. Mahrle, Detroit, Paul V. Mackey, Mount Clemens, and Edward Kuzel, Detroit, Mich., assignors to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application August 2, 1952, Serial No. 302,314
5 Claims. (Cl. 104—148)

1. In a rail carrier control system comprising a track, a carrier suspended from said track, said carrier including an electric motor, a drive means for drivably inter-engaging said electric motor and said track, electric power lines axially disposed adjacent said track, and conductor means slidably contacting said electric power lines for transferring electric power from said lines to said electric motor; an automatic control means for regulating said transfer of electric power to said electric motor, said control means comprising a series of conductors disposed parallel to said track in groups, a first and a sec-

ond conductor of the individual groups being electrically insulated from the corresponding first and second conductors of adjacent groups, a plurality of power transmission means for individually transferring power from said electric power lines to said first one of each group of conductors, each of said transmission means including a relay switch, a plurality of other conductors individually electrically connecting said electric power lines with said second one of each group of conductors, said other conductors each including a relay coil in series therewith, the relay coil for a certain one group of conductors being adapted to individually actuate the relay switch in the individual transmission means for an adjacent one of



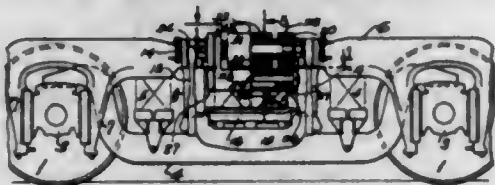
said groups, a third conductor for each group being electrically connected in series with said electric power lines, contactor means carried by said control means slidably contacting and forming a connection between the second and third conductors of said certain one of said groups, a switching circuit including a control lead slidably contacting the first conductor of said certain one group, a control relay coil connected in series with said control lead, motor relay switches interposed in series in said conductor means and operatively coupled to said control relay coil for actuation thereby, and manually actuated switch means in said control lead for energizing and de-energizing said control relay coil.

2,821,147

RAILWAY TRUCK BOLSTER MOUNTING

Richard L. Lich, St. Louis, Mo., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware

Application February 11, 1954, Serial No. 409,585
8 Claims. (Cl. 105—190)



1. In a railway car truck, a truck frame, a bolster, means supporting the bolster on the truck frame and providing for their relative movement transversely of the truck, and a device positioning the bolster longitudinally of the frame comprising a rigid link structure at each side of the truck extending transversely of and outwardly from the frame beyond said bolster support means, and having a horizontal pivotal connection at its inner end to the frame, and a rigid link structure at each side of the truck having a pivotal connection at one end to the outer end of the corresponding first-mentioned link structure and extending substantially vertically therefrom, and having a pivotal connection at its other end to the bolster, the axes of said pivotal connections extending longitudinally of the truck, each of said link structures having a width lengthwise of the frame as great as its length between its pivotal connections and said link structures having abutting engagement with each other lengthwise of the truck and having similar abutting engagement

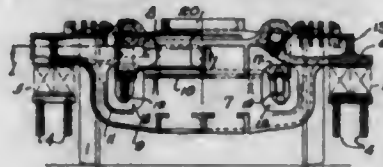
with the truck frame and bolster respectively to hold the truck frame and bolster against relative movement longitudinally of the truck.

2,821,148

RAILWAY TRUCK STRUCTURE

Clement W. Kell, Ridley Park, Pa., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware

Application September 22, 1955, Serial No. 535,822
8 Claims. (Cl. 105—190)



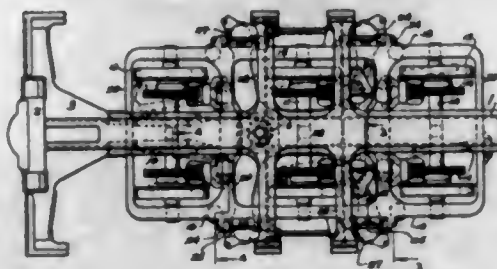
2. In a railway truck having wheeled axles and a truck frame supported therefrom with transverse transom structure provided with apertures between its top and bottom, swing hangers at opposite sides of the transom structure and pivotally suspended therefrom, cross bars extending through the transom apertures and over a portion of the transom structure and carried at their ends on said swing hangers, and a load carrying bolster between transversely spaced hangers and supported on said cross bars.

2,821,149

RAILWAY TRUCK AND BODY ASSEMBLY

James C. Travilla, University City, Mo., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware

Application April 24, 1953, Serial No. 350,810
15 Claims. (Cl. 105—196)



4. In a railway vehicle, a truck including three wheel and axle assemblies and a load-carrying member supported thereby, a body underframe having a swivel connection to said truck member positioned between the middle assembly and one of the end assemblies, the underframe including a draft sill structure extending from said swivel connection over the axle of said end assembly, the underframe including a center sill structure having a portion extending from said swivel connection over the axle of the middle assembly and the axle of the other end assembly, said draft sill structure having a draft gear-receiving portion projecting downwardly below the level of said center sill portion and directly over said first-mentioned end assembly, and said first-mentioned end assembly having brake discs between its wheels and extending above the level of the bottom of said draft gear-receiving portion.

2,821,150

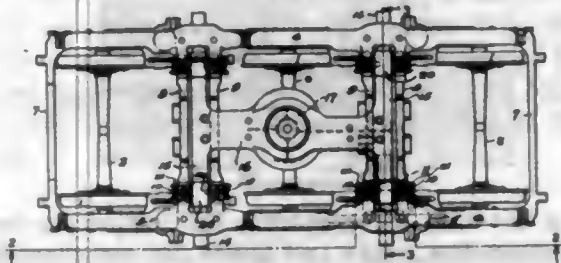
RAILWAY TRUCK BOLSTER RETAINER

Adelbert C. Wintenberg, Drexel Hill, Pa., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware

Application November 8, 1954, Serial No. 467,412
1 Claim. (Cl. 105—200)

In combination in a railway vehicle truck having three wheel and axle assemblies, a truck frame supported therefrom and including wheel pieces and two pairs of trans-

verse transoms spaced apart lengthwise of the truck, a load carrying bolster comprising spaced cross members of box section, each having spaced upright side walls and each member being positioned between the transoms of one of said pairs, and a longitudinal connecting member extending between said bolster cross members and provided with a center plate, individual spring means supporting each end of each of said cross members, a pair of swing hangers at each end of each bolster cross member supporting said spring means, a pivot pin for the upper end of each swing hanger extending through the same lengthwise of the truck and seated in one of the



adjacent transoms, the pin through one transom of each pair of transoms extending beyond the transom into a substantially larger diameter opening in the adjacent side wall of the bolster cross member and limiting the relative movement of the bolster cross member in a vertical plane extending transversely of the truck, and a chafing plate between each bolster cross member and an adjacent frame transom and positioned at the side of the bolster cross member opposite to the pin-receiving side wall and being in alignment with the pin lengthwise of the truck, said chafing plates limiting the movement of the bolster lengthwise of the truck.

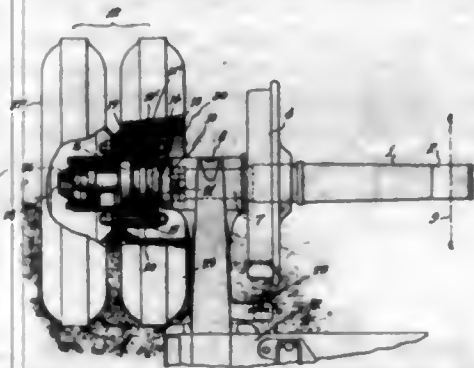
2,821,151

COMBINED HIGHWAY-RAILROAD AXLE AND WHEEL SYSTEM

Edward F. Meister, Elizabeth, and William J. Corr,
Plainfield, N. J.

Application March 9, 1954, Serial No. 414,963

2 Claims. (Cl. 105-215)



2. In a railroad axle assembly designed to carry a highway truck type wheel and comprising a rotatable railroad axle, a railroad wheel fixed to the axle near each end thereof, a railroad truck side member carrying a journal box and a journal on said axle rotatable in said box, said journal being adjacently disposed outside each wheel, the improvement comprising an axial extension projecting outwardly from the axle journal adjacent each wheel, complementary holding means disposed on each extension, and a removable highway type truck wheel of over-all diameter larger than that of the railroad wheel and having holding means coacting with the holding means on the extension to hold said wheel on said extension.

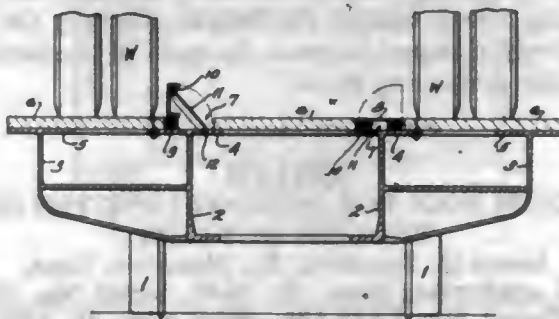
2,821,152

HIGHWAY VEHICLE CARRYING CAR

Thaddeus W. Podgajny, Wilmington, Del., assignor to
General Steel Castings Corporation, Granite City, Ill.,
a corporation of Delaware

Application October 29, 1954, Serial No. 465,574

1 Claim. (Cl. 105-368)



In a railway car, a floor structure having a recess extending lengthwise of the car, a channel iron extending lengthwise of the car, the width of said recess exceeding the width of said channel iron and the depth of said recess approximating the width of said channel iron flanges, pivotal mountings at intervals on said floor structure adjacent one side of said recess each connected to one flange of the channel iron whereby the channel iron is movable about said mountings to a position with its web upright and extending upwardly above the floor structure and forming a guide for vehicle wheels movable over said floor structure alongside said recess, and is movable to a position with its web horizontal and the edges of its flanges resting on the bottom of said recess, diagonals at intervals lengthwise of the channel iron each extending between and secured to points on the channel iron web and the other flange of the channel iron, said floor structure having apertures in the surfaces defining said recess and spaced from said pivotal mountings, and struts each having an aperture at one end receiving one of said diagonals and movable at its other end about the diagonal as a pivot to a position extending transversely of the length of the channel iron to engage in one of said apertures and thereby hold the channel iron upright, and to a position extending lengthwise of the channel iron between channel iron flanges and thereby accommodate lowering of the channel iron into said recess.

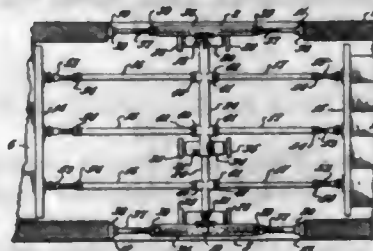
2,821,153

FREIGHT BRACING DEVICE

John J. Canepa, Cincinnati, Ohio, assignor to General
Freight Appliance Corporation, Cincinnati, Ohio, a
corporation of Ohio

Application October 14, 1953, Serial No. 385,911

2 Claims. (Cl. 105-369)



1. A portable freight bracing device for use in a box-car having opposed side door openings, said device comprising a vertically disposed supporting structure extending transversely of the car between the side door openings thereof, oppositely directed horizontally disposed bracing members extending outwardly from the ends of the supporting structure toward the sides of the door openings, door frame engaging feet on the outer ends of said bracing members, adjustment means for effectively increasing the lengths of the bracing members to press said feet into frictional engagement against the sides of the door frames

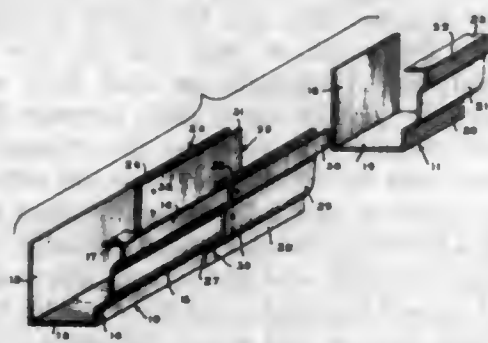
and thereby rigidly secure the supporting structure crosswise of the car, oppositely directed adjustable freight bracing members secured at one end to said supporting structure and projecting lengthwise of the car, and means on the free ends of said freight bracing members for contacting the freight to be braced thereby, said freight bracing members being axially adjustable to force said freight contacting means against the freight, whereby the freight is effectively clamped between the ends of the boxcar and said freight contacting means.

2,821,154

COUPLINGS FOR JOINING LENGTHS OF TROUGH GUTTERS

James D. Tennison, Jr., Memphis, Tenn.
Original application June 18, 1949, Serial No. 100,068, now Patent No. 2,639,680, dated May 26, 1953. Divided and this application April 21, 1953, Serial No. 350,085

3 Claims. (Cl. 108—28)



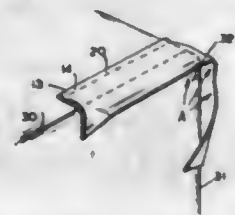
1. A joint for detachably connecting two lengths of sheet metal gutter in contiguous relation, each of said lengths having a substantially flat bottom and substantially flat side walls making abrupt angles with said bottom, said lengths being of identical cross-sectional configuration, said joint including inner and outer rigid transverse members of complementary cross-sectional configuration fixedly secured respectively to the inner and outer surfaces of an extremity of one of said lengths and projecting therebeyond, the secured edge of one of said transverse members having a reversely extending transverse spacing portion whereby the free edges of said transverse members are spaced apart a distance greater than the thickness of the material of said gutter lengths to provide a socket for the reception of the end portion of the other of said lengths.

2,821,155

PROCESS OF APPLYING PROTECTIVE COATINGS

Peter H. Seckel, Forest Hills, N. Y., assignor to Richard A. Fisch, Long Island City, N. Y.
Application December 11, 1953, Serial No. 397,568

2 Claims. (Cl. 112—262)



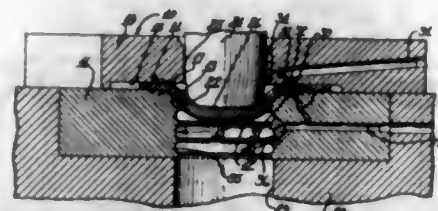
1. A process for applying protective material to at least two, corner-connected, edge regions of a rectilinear article to be protected comprising providing a strip of protective material consisting essentially of a thermoplastic vinyl polymer capable of being given an elastic memory, stretching said strip lengthwise to provide the material with an elastic memory and cooling said strip so that the strip retains its stretched configuration, applying a first side of the stretched strip to one side of the edges to be protected, fixing the applied side of the mate-

rial to the edge region, folding the strip over the edge and heating the same thereby shrinking it so that the unattached side shrinks around said edges and corners in closely conforming relation, and thereafter fixing the second side of the strip to the corresponding edge region which it covers.

2,821,156

DIE

George Albert Lyon, Detroit, Mich.
Application December 5, 1951, Serial No. 259,921
3 Claims. (Cl. 113—49)

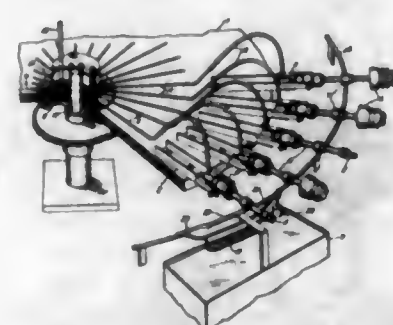


1. In a drawing die assembly for cupping a metallic blank, cooperating upper and lower die members having cooperating opposed hold-down faces, the upper die member having a center plunger portion and the lower die member having a recess in which the plunger portion is adapted to enter, said upper die member having an annular groove in the cooperating hold-down face thereof in surrounding relation to said center plunger portion and said lower die member having an annular groove in the cooperating hold-down face thereof and a plurality of annular grooves opening into said recess and longitudinally spaced therealong to define alternate working surfaces and lubricating areas, means defining fluid ducts radiating from the upper die annular groove and affording communication with said upper die groove, and means defining fluid ducts radiating from said recess in said lower die member and affording communication with said lower die member grooves.

2,821,157

MACHINE FOR MANUFACTURING ELECTRICAL INSULATORS

Godfrey M. Boyd, Catonsville, Md., assignor to General Electric Company, a corporation of New York
Application July 26, 1954, Serial No. 445,570
10 Claims. (Cl. 118—1)



2. In a machine for manufacturing electrical insulators comprising a plurality of radially extending metallic spindles disposed substantially in a like horizontal plane, said spindles journaled adjacent their radially inner ends in cylindrical radially extending bearings, said bearings pivoted for pivotal movement within radially extending planes disposed substantially normal to said horizontal plane, radially outer ends of said spindles adapted to have electrical insulators loaded thereon, means for moving said spindles along a main track, portions of said spindles between said bearings and radially outer ends overlying said main track and said spindles having rotary movement imparted thereto by frictional engagement between said spindle portions and main track, a tank of liquid glaze coating material disposed radially outward

of a portion of said main track, said main track portion concavely configured below said horizontal plane to cause said radially outer ends to be dipped below said horizontal plane into said tank, means for increasing said frictional engagement between said spindle portions and said main track portion comprising magnetic means attracting said spindle portions towards said track portion, and automatically operable means shunting unloaded spindles from said tank comprising a secondary track and a counterweighted lever pivoted to said main track spanning said main and secondary tracks.

6. An apparatus having a rotary spindle which is adapted to be loaded with a component of an article of manufacture, said spindle being mounted for rotation about its axis and along a main track, a pair of track portions, and automatic means operable to selectively transfer said spindle from said main track when unloaded to one of said track portions and when loaded to the other of said track portions.

2,821,158

MACHINE FOR COATING BELL-SHAPED ELECTRICAL SUSPENSION INSULATORS

Leonard Brown and Vincent T. Migliorini, Baltimore, Md., Carl Lenz, Birmingham, Mich., and Wayne C. Smitley, Wakefield, Mass., assignors to General Electric Company, a corporation of New York
Application October 22, 1954, Serial No. 464,084
15 Claims. (Cl. 118—2)



5. A machine for uniformly coating the interiors of bell-shaped ceramic electrical suspension insulators with a liquid glaze and for uniformly sand grip banding the exterior neck portions of said insulators comprising a plurality of radially extending rotary arms moving and spinning along a generally circular rail, radially outward facing cup-shaped suction elements mounted on the radially outer ends of said arms and vacuum means cooperative therewith for holding said insulators on said elements with said insulator interiors facing radially outward, automatically operable insulator interior liquid glaze coating means positioned along a portion of said rail comprising a liquid glaze spray nozzle disposed radially outward of said rail portion and pointing radially inward, and an actuating lever protruding between said rail portion and spray nozzle for actuating said spray nozzle, an automatically operable insulator exterior neck portion sand grip banding means disposed along another portion of said rail, said another rail portion comprising a track moving in a direction opposite to said arms for accelerating said spinning of said arms.

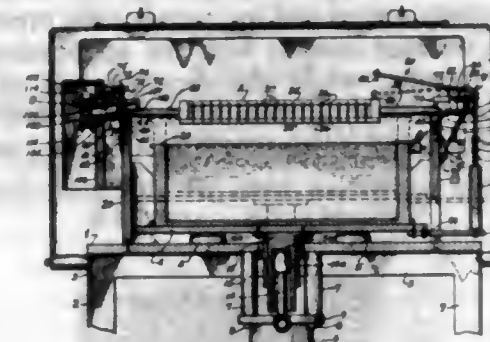
2,821,159

NOTCH TINNER

Charles C. Rayburn and James G. Black, Jr., Falls Church, Va., and Herman A. Schmidt, Washington, D. C., assignors to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application January 23, 1956, Serial No. 560,716
29 Claims. (Cl. 118—6)

1. In an apparatus of the class described, a supporting structure, a pair of spaced guide rails mounted on the supporting structure, said guide rails being adapted to provide a runway and support for a plurality of jigs, said jigs being adapted to support and expose marginal portions of articles carried thereby, power means for advancing said jigs along said rails to predetermined stations, spring actuated clamp means for holding said jigs at said stations when the advancing means is retracted, clutch means for engaging said jigs at said station, power means for rotating said clutch means about

their axes, a platform carried by said supporting structure, receptacles mounted on said platform and adapted to contain flux and solder, and means for elevating said

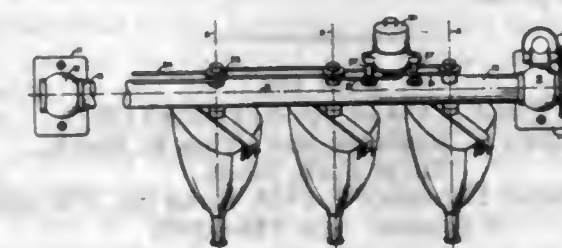


platform to submerge portions of the articles carried in said jigs and for repeating this operation as the jigs are rotated about their axes to present additional edge portions of the articles.

2,821,160

MACHINE FOR COATING THE INTERIOR OF CATHODE RAY TUBE BULBS

Eros Atti, Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 25, 1954, Serial No. 439,288
6 Claims. (Cl. 118—11)



1. A filming machine comprising a substantially horizontally extending shaft, means including a first motor for rotating said shaft, clamping means for clamping a bulb of a cathode ray tube to said shaft with its faceplate facing said shaft and with its neck extending outwardly away from said shaft with the axis of its neck extending substantially perpendicular to the axis of said shaft, said clamping means having a rotary shaft rotatably attached to said horizontal shaft with the axis of the rotary shaft extending substantially in alignment with the axis of the neck of a bulb clamped thereby, means including a second motor for rotating said rotary shaft and means mounted on said horizontally extending shaft for controlling said second motor in response to movement of said horizontal shaft.

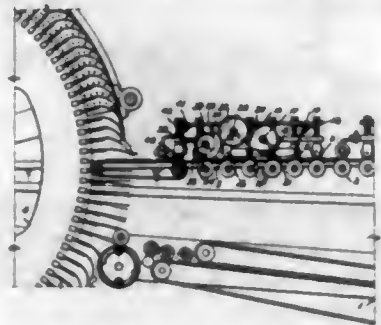
2,821,161

APPARATUS FOR APPLYING A PRESSURE SEALING GUM TO ENVELOPES AND SIMILAR WORKPIECES

Richard Winkler, Rengsdorf, and Kurt Dunnebier, Neu-weld (Rhine), Germany, assignors to Berkley Machine Company, Kansas City, Mo., a corporation of Missouri
Application December 1, 1954, Serial No. 472,452
Claims priority, application Germany December 8, 1953
9 Claims. (Cl. 118—63)

1. An apparatus for applying a pressure sealing gum to work pieces while the work pieces are under movement along a fixed path of travel, a rotary member having an applying face of a width corresponding with the width of an area on the work pieces to which the gum is to be applied and having a forward end and a trailing end spaced apart according to length of said area to which the pressure sealing gum is to be applied, means for supporting said rotary member to bring the applying face into contact with the work pieces

with the forward end of the applying face moving in the direction of movement of the work pieces, means for containing a supply of pressure sealing gum, gum pickup and transfer means for picking up the pressure sealing gum from said supply means and for carrying the pressure sealing gum in transfer contact with the applying face of the rotary member while the forward end of the applying face is moving from said pickup and transfer means and carrying a substantially uniform coating of



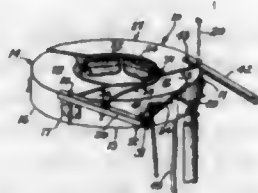
pressure sealing gum from said contact point to said work piece and while excess of said gum is being pushed backwardly toward the trailing end of the applying face and which pressure sealing gum tends to collect on said trailing end in a blob when the trailing end of the applying face rides out of said transfer contact, and means for spreading the blob of pressure sealing gum to prevent a thickened terminal at the trailing end of said area to which the pressure sealing gum is applied to said work pieces.

2,821,162

POLE COATING APPARATUS

Andrew C. Robinson and Hylon K. Burch,
Great Falls, Mont.

Application December 9, 1954, Serial No. 474,245
4 Claims. (Cl. 118-208)



1. A pole coating apparatus comprising a hood open at the bottom and having a substantially flat top wall and a circular sidewall, a central opening in said top wall, said hood comprising an intermediate arcuate segment, a swingable arcuate segment hingedly mounted on each end of said intermediate segment and a bracket extending from the center of the sidewall of said intermediate segment, a supporting and operating rod adjustably secured to said bracket, an actuating arm secured to one of said swingable segments, a link pivotally connected to said arm and to the other of said swingable segments, an eye on said arm, a bar pivotally mounted on said intermediate segment and slidably received in said eye, a compression spring disposed on said bar between said intermediate segment and said eye, a pulley mounted on said intermediate segment, a flexible actuating element trained over said pulley and attached to said arm, a plurality of brushes detachably secured to the top wall of each segment with in said hood, said brushes being inclined downwardly and extending radially inwardly, an arcuate header mounted in each segment between said brushes and said top wall, orifices in said headers, a paint supply fitting connected to the header in said intermediate segment, a paint supply conduit connected to said fitting, flexible conduits connecting said fitting and the headers in each swingable segment and a plurality of pole engaging rollers disposed below said brushes and adjustably mounted on the sidewall of each segment whereby upon exerting a pull on said flexible element to move said arm and compress said spring and

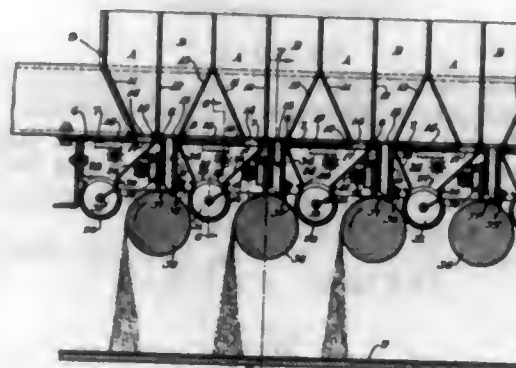
at the same time grasping said rod to hold said intermediate segment stationary, said swingable segments will open to admit a pole to be painted into said central opening and upon release of said flexible element said swingable segments will be closed by said spring to bring said brushes and said rollers into engagement with said pole and upon ejecting paint from said headers on said brushes said hood and brushes carried thereby may be manually manipulated through said rod to spread said paint on said pole.

2,821,163

MACHINE FOR APPLYING GRANULES TO THE SURFACE OF ROOFING MATERIAL

Alfred B. Walton, Chicago, Ill., assignor to Roofing Machinery Mfg. Company, Chicago, Ill., a corporation of Illinois

Application April 13, 1956, Serial No. 578,053
8 Claims. (Cl. 118-310)



1. A machine for depositing a plurality of masses of granules upon a passing web of roofing material, each mass comprising granules of different characteristics than those of another mass, which comprises, a platform having a plurality of adjacent discharge openings and applicator openings alternately disposed, a hopper structure positioned upon said platform, said hopper structure comprising a plurality of pairs of hoppers for carrying granules of different characteristics, each hopper being provided with a flow opening, said hopper structure being movable upon said platform to bring alternately the flow openings of a pair of hoppers into respective communication with an applicator opening and a discharge opening, a valve plate movably carried by said platform adjacent each discharge opening for opening and closing communication between an adjacent discharge opening and an adjacent flow opening, applicator means disposed beneath each applicator opening for applying granules from a flow opening to a passing web, and discharge means beneath each discharge opening for receiving granules from a companion flow opening when said valve plate permits communication between a flow opening and a discharge opening.

2,821,164

SPRAY DEVICE

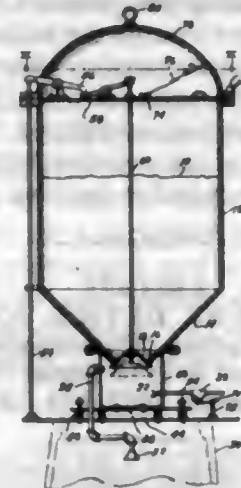
Frank J. Ingala, Chicago, Ill.

Application April 17, 1956, Serial No. 578,647
6 Claims. (Cl. 118-317)

1. Apparatus for the application of coating composition to inside surfaces of a mold, comprising a storage hopper, an auxiliary chamber therebeneath, an outlet provided in said hopper and opening into said auxiliary chamber, a valve means operable for closing of said outlet, a gas inlet and conduit means communicating said chamber with an associated source of gas under pressure, gas valve means in said gas inlet conduit means, outlet means leading from said auxiliary chamber for operatively extending into the interior of an associated mold, means associated with said hopper and chamber and operating in response to disposition of said apparatus on the associated mold to cause said valve means

to move to a closed position with respect to said hopper outlet and to cause said gas valve means to open to provide gas in said auxiliary chamber to mix with a charge

the arrangement of said radiator means and said shield means being such as to distribute the heat from said central heating means evenly throughout the entire area beneath said canopy.

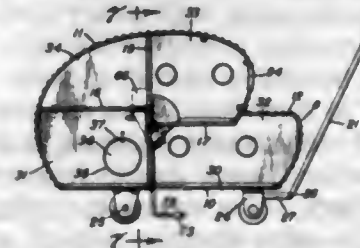


2,821,165

MOBILE PET HOME

Venita A. Wright, Babbitt, Nev.

Application March 6, 1956, Serial No. 569,774
4 Claims. (Cl. 119-15)



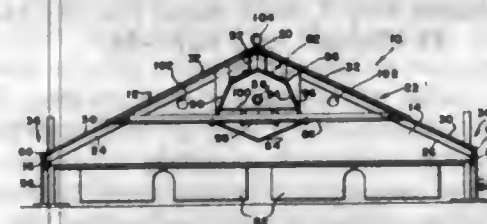
1. A pet home comprising a housing having a flat base, side walls, an arcuate shaped cover, a flat end cover, and an arcuate shaped end closure, said housing having a centrally disposed vertical wall and horizontally disposed partitions therein extending at right angles in opposite directions from said vertical wall and at different levels and said partitions providing a plurality of compartments and having doors and portholes in said compartments, electric lights positioned in said compartments, and wheels rotatably mounted on said housing.

2,821,166

UNIFORM HEAT TYPE RECTANGULAR BROODER

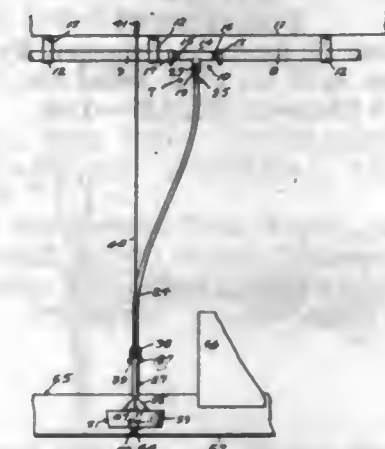
Charles T. Robinson and Dempsey C. Camp, Chattanooga, Tenn., assignors to Cumberland Case Company, Chattanooga, Tenn., a corporation of Tennessee

Application January 23, 1956, Serial No. 560,697
17 Claims. (Cl. 119-32)



1. In a brooder, an elongated canopy, heating means disposed within the central portion of said canopy, elongated radiator means beneath said canopy extending longitudinally outwardly from said heating means in a position to receive the heat from said heating means and direct the same outwardly toward the extremities of said canopy, and radiator shield means beneath said canopy extending outwardly from said heating means toward the extremities of said canopy in a position to prevent a concentration of heat in the central portion of the canopy,

2,821,167
FLEXIBLE SUSPENDED AUTOMATIC WATERING SYSTEM
Louis M. Gilbertson, Brasstown, N. C.
Application July 22, 1957, Serial No. 673,329
6 Claims. (Cl. 119-81)



1. An automatic poultry watering system comprising a main water supply conduit, means supporting said conduit in an overhead position, at least one flexible conduit connected to and forming a depending branch of said main conduit, an elongated rigid tubular body member connected to and depending from the lower end of said flexible conduit, nonelastic flexible means suspended from said supporting means and connected to said body member for supporting the body member and the lower portion of the flexible conduit, an open top drinking receptacle surrounding the lower end of said body member, a hollow conical shield surrounding the lower portion of said body member, spring means yieldably supporting said shield on said body member, connecting means connecting the receptacle to said shield for supporting the receptacle around the enlarged lower portion of the shield, spaced from and out of contact therewith, an upwardly opening valve mounted in the lower end of the bore of said body member and having a stem projecting downwardly therefrom, and an abutment extending upwardly from the receptacle bottom for engaging the valve stem to open the valve when the shield and receptacle are elevated to a predetermined extent relative to said body member for automatically replenishing the supply of water in the receptacle.

2,821,168

FABRIC LEASH FOR ANIMALS

Charles Wright Forbes, Wayne, Pa.

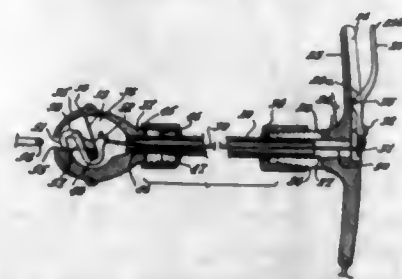
Application November 10, 1954, Serial No. 468,017
5 Claims. (Cl. 119-109)



1. A leash for animals comprising an attaching clip and a leash line secured thereto consisting of a continuous

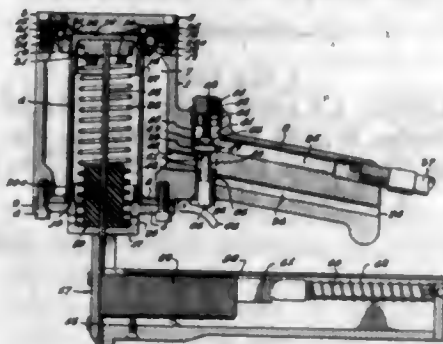
flexible longitudinally extending strip of fabric material having opposed frictionally engaged walls forming a two-ply tape, and the opposed walls thereof being interconnected with one another solely at their side portions and coextensive with the length thereof whereby said opposed side walls are relatively slidable with respect to one another over the full length thereof from said clip, and adapted to cushion forces applied to the leash by friction between the plies.

2,821,169
DOG LEASH
Arthur G. Barhorst, Erlanger, Ky.
Application April 12, 1956, Serial No. 577,817
4 Claims. (Cl. 119—114)



1. A dog leash comprising a flexible tube; a flexible cable within said tube; a catch mechanism fixed to one end of said tube, said catch mechanism including a latch member having a ring-hold position and a ring-release position, resilient means urging said latch member to its ring-hold position; a trip mechanism fixed to the other end of said tube, said trip mechanism including a release member movable between a release and non-release position; said cable being connected to said latch member and to said release member, said resilient means also normally maintaining said release member in non-release position through the pressure exerted by said release means on said latch member and attached cable; the relationship between said tube and said cable being such that said cable is disposed centrally of said tube when said tube is taut, said cable lying against said tube when said tube is relaxed, whereby upon movement of said release member to release position said cable is actuated to pull said latch member to ring release position against the action of said resilient means only when said tube is taut.

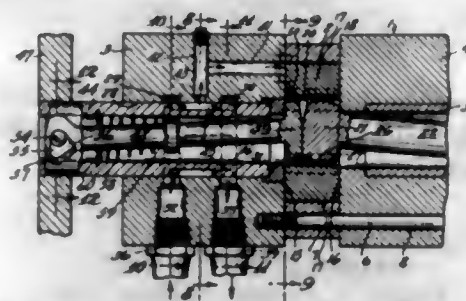
2,821,170
STAPLER
Robin A. Jacobus, Visalia, Calif.
Application May 2, 1955, Serial No. 505,084
5 Claims. (Cl. 121—21)



4. A pneumatic stapler including a cylinder having a head, a piston for movement therein, an air accumulator chamber having a cubic capacity equal to the cubic capacity of the said cylinder, an adjustable valve for controlling communication between the said air accumulator chamber member and the said cylinder above the piston, the said piston provided with a skirting and the said cylinder provided with a series of enlarged ports communicating between the air accumulator chamber member and said cylinder and normally closed by the piston skirting

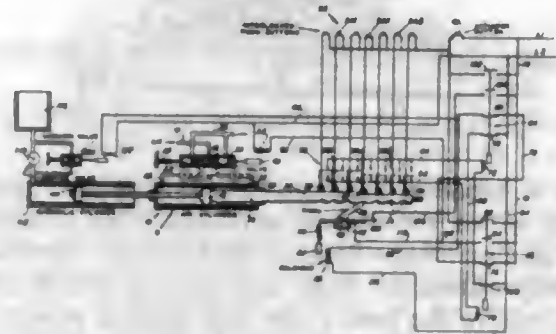
when the piston is adjacent the head of the cylinder, said air accumulator chamber member adapted to be connected to a valved source of air under pressure, the said adjustable valve initially controlling the pressure of the air against the head of the piston to move the same gradually downwardly, there being instantaneous downward movement of the piston within the cylinder when the enlarged ports are exposed to the head of said piston to provide instantaneous equalization of air pressure between the cylinder and said accumulator chamber member.

2,821,171
FLUID PRESSURE DEVICE AND VALVE
Lynn L. Charlson, Minneapolis, Minn.
Application June 8, 1956, Serial No. 590,314
15 Claims. (Cl. 121—39)



15. In a fluid pressure device, an internally toothed member defining the outer wall of a chamber, a cooperating externally toothed member having a less number of teeth than the internally toothed member and disposed eccentric thereof in said chamber in meshing engagement therewith, one of said members moving in an orbit about the axis of the other thereof during relative rotation between said members, valve means including cooperating relatively movable valve elements one of which is operatively coupled to said internally toothed member and which defines fluid passages in communication with said chamber, another of said valve elements defining fluid passages communicating with different ones of the fluid passages in said one of the valve elements upon relative rotation therebetween, said valve means defining inlet and outlet ports communicating with different ones of said fluid passages and adapted to be coupled to a source of fluid, and means operatively coupling said externally toothed member to a cooperating one of said valve elements to cause relative movement between said valve elements responsive to said relative orbital movement between said toothed members.

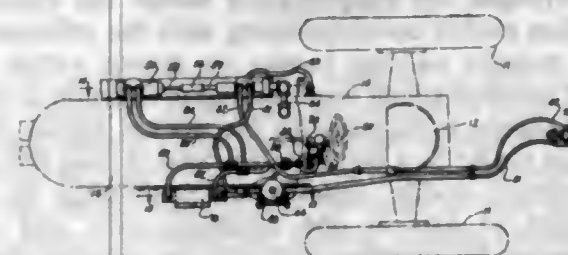
2,821,172
POWER OPERATED DEVICE FOR MOVING AN ELEMENT TO SELECTED POSITIONS
Burton T. Randall, Roseburg, Oreg., assignor to C. & D. Lumber Co., Riddle, Oreg., a partnership
Application May 7, 1956, Serial No. 583,162
11 Claims. (Cl. 121—40)



1. A power operated device including a movable element and means for selectively moving said element to any one of a plurality of predetermined positions and stopping said element in said positions, said means com-

prising motor means, means controlling said motor means to apply a force to said element urging said element in one direction when said element is stopped in any of said positions, stop means engaging said element for holding said element in any one of said positions against said force, selecting means controlling said motor means to move said element to any other selected one of said positions including means operating when said selecting means requires movement of said element in said one direction to control said motor means to first move said element in a direction opposite to said one direction, means for releasing said stop means, means for thereafter controlling said motor means to move said element in said one direction, and means for reengaging said stop means with said element when said element reaches said selected position.

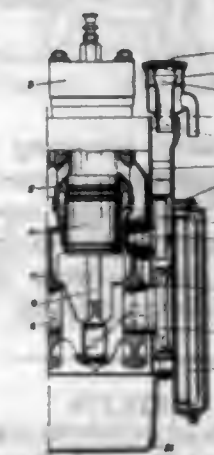
2,821,173
WORK IMPLEMENT POSITION CONTROL HYDRAULIC SYSTEM
Thomas Ralph Adsit, Kirby, Mont.
Application January 21, 1955, Serial No. 483,231
2 Claims. (Cl. 121—41)



1. In a hydraulic system for selectively effecting movement of a working element, a closed drive cylinder having a reciprocating drive piston, a drive piston rod having one end secured to said drive piston and having the other end exteriorly of one of the ends of said drive cylinder, means on the other end of said drive piston rod for attachment to a working element, a closed control cylinder having a reciprocating control piston, a control piston rod having one end secured to said control piston and having the other end exteriorly of one of the ends of said control cylinder, an arm having one end secured to a rotatable pin adapted to be carried by a steering column, another arm having one end secured to said pin and having the other end pivotally connected to the other end of said control piston rod, said another arm having means selectively engageable with means adapted to be connected to said steering column, a control valve connected in fluid communication with said drive cylinder on one side of said drive piston, a first reversible fluid motor connected in fluid communication with said control cylinder on one side of said control piston and mechanically connected to said control valve, said first fluid motor being operable in response to movement of said control piston in said control cylinder in one direction to admit driving fluid to said drive cylinder on one side of said drive piston and in response to movement of said control piston in the other direction to admit driving fluid to said drive cylinder on the other side of said drive piston, a decontrol cylinder having a reciprocal decontrol piston, a decontrol piston rod having one end secured to said decontrol piston and having the other end exteriorly of one of the ends of said decontrol cylinder, conduit means connecting said one end of said decontrol cylinder to the first fluid motor on one side thereof and the other end of said decontrol cylinder to the other side of said first fluid motor, a second reversible fluid motor connected in fluid communication with said drive cylinder on the other side of said drive piston and mechanically connected to the other end of said decontrol piston rod, said second fluid motor being operable in response to execution of fluid flow into said

drive cylinder on one side of said drive piston to energize said first fluid motor to cut off admission of fluid into said drive cylinder on said one side of said drive piston and in response to execution of fluid flow into said drive cylinder on the other side of said drive piston to stop admission of fluid to said other side of said drive piston, and delay means operatively connected to said first fluid motor and to said control valve for causing sequential operation of said first and second fluid motors, said delay means embodying a spring biased over center connection element having one end operatively connected to said control valve and the other end operatively connected to said first fluid motor.

2,821,174
APPLIANCE FOR THE VENTILATION OF THE CRANKCASE OF INTERNAL COMBUSTION ENGINES
Andreas Schelterlein, Graz, Austria, assignor to Gustav Ospelt, Vaduz, Liechtenstein
Application May 27, 1955, Serial No. 511,719
5 Claims. (Cl. 121—194)



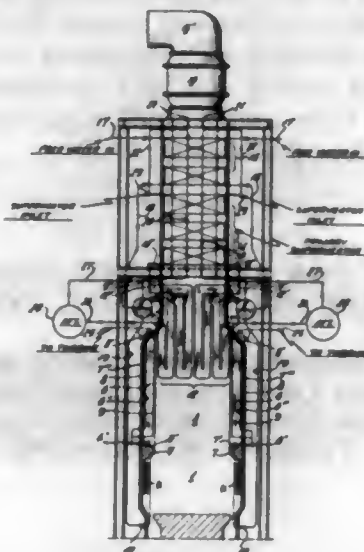
1. In an internal combustion engine of the reciprocating piston type having a rotary crankshaft driven by the reciprocating piston, said engine including a housing having a crankcase in which said crankshaft is rotatably disposed, said crankcase being open at one end, and the corresponding end of the crankshaft projecting through said one end, a gear fixed on said projecting end of the crankshaft, a gear cover closing said open end of the crankcase and housing said gear, means cooperating with said gear cover to define an oil condensing passage extending generally upwardly to one side of said gear from the lower portion of said cover to a vent formed in the upper portion of said cover, said passage being upwardly enlarged to lower the velocity of the air following its entry into said passage to permit an improved separation therefrom of oil particles and oil vapor for drainage into said crankcase.

2,821,175
RADIANT VAPOR GENERATOR WITH RADIANT SUPERHEATER IN FURNACE WALL QUIESCENT ZONES

Herbert Seidl, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application March 10, 1953, Serial No. 341,469
3 Claims. (Cl. 122—481)

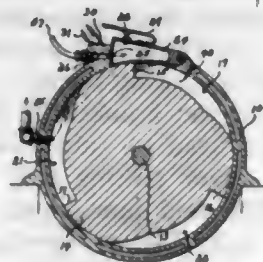
1. In a vapor generating and superheating unit, means forming a firing chamber at the bottom of the unit, means forming a radiation chamber above the firing chamber and having a horizontal cross-section substantially greater than that of the firing chamber, the radiation chamber having jutting-out wall portions, corner burners tangentially firing the firing chamber with a slag forming fuel in a coring manner with the combustion products passing

freely in a main gas flow path centrally up through the radiation chamber, a first radiant superheater in the jutting-out wall portions of the radiation chamber and laterally of the main path of the gas flow from the firing chamber, a second radiant super-heater having platens across upward gas flow from the radiation chamber and



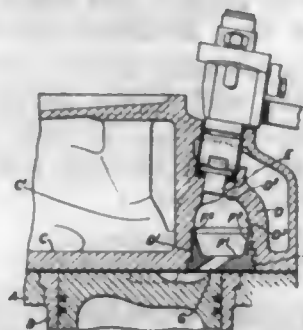
disposed edgewise toward oncoming combustion gases, tubular fluid heating means disposed across gas flow directly upward from the second superheater, and wall vapor generating tubes connected to the superheaters and forming a tubular screen between the main gas flow path and the first radiant superheater.

2,821,176
ROTARY INTERNAL COMBUSTION ENGINE
Donald D. Koser and Duane L. Koser, Sibley, Iowa
Application April 19, 1956, Serial No. 579,318
9 Claims. (Cl. 123-15)



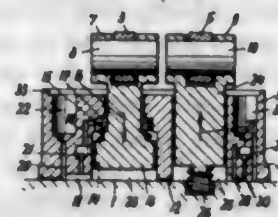
1. In an internal combustion engine, a cylindrical housing having an opening in its side, a drive shaft rotatably longitudinally extending concentrically through said cylindrical housing, a rotor wheel on said shaft and inside said housing, a shoulder formed in the periphery of said rotor wheel, a shoulder on said cylindrical housing at one end of the opening therein, a fuel passageway extending through the said shoulder of said cylindrical housing, a fuel charge container hingedly secured in the opening of said cylindrical housing; said container being hinged at its end opposite from the said shoulder of said cylindrical housing, having its free end capable of sliding engagement with both of said shoulders, and having its bottom free end in slidable contact with the periphery of said rotor wheel, a passageway extending through the free end of said fuel charge container capable of communicating with said fuel passageway when said container is in an outward swung position and capable of communicating with the shoulder of said rotor wheel when in an inward swung position, a means for firing the fuel charge in said container when said container is adjacent the shoulder of said rotor wheel, and an exhaust port means in the side of said cylindrical housing.

2,821,177
INTERNAL COMBUSTION ENGINES OF THE COMPRESSION IGNITION TYPE
George Allen Holt, Shoreham-by-Sea, England, assignor to Ricardo & Co., Engineers (1927) Limited, London, England, a company of Great Britain
Application October 7, 1955, Serial No. 539,212
Claims priority, application Great Britain October 11, 1954
13 Claims. (Cl. 123-32)



1. An internal combustion engine of the compression ignition liquid fuel injection type comprising a cylinder, a piston arranged for reciprocation within the cylinder, a combustion pocket communicating with the cylinder by way of a transfer passage having its mouth within the pocket and through which a substantial proportion at least of the air charge is forced into the pocket during each compression stroke in a direction to cause during the fuel injection period bodily rotation of the charge in the pocket about an axis in one direction only, and fuel injection means for injecting fuel into the rotating charge in the pocket of which the part of the surface of the pocket over which the circumferential portions of the rotating air charge sweep and through which the mouth of the transfer passage opens, is formed as an approximately flat area of substantial dimensions, the transfer passage lying at an appropriate acute angle to said flat surface while adjacent to the part of the flat surface over which circumferential portions of the rotating air charge sweep before passing over the mouth of the transfer passage, the surface of the pocket in planes perpendicular to the axis of rotation being at an obtuse angle to the flat surface to impart to circumferential portions of the rotating charge a substantial component velocity parallel with the flat surface.

2,821,178
VALVE CONTROL FOR INTERNAL COMBUSTION ENGINES
Hartmut Fuhrke, Fellbach, Kreis Walldingen, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application September 20, 1955, Serial No. 535,421
Claims priority, application Germany September 22, 1954
6 Claims. (Cl. 123-90)



1. A valve control mechanism for internal combustion engines having cams and valves operated by said cams, comprising rocking levers disposed between said cams and valves, hydraulic means for adjusting the position of the rotary axis of said rocking levers relative to said cams and valves for continuously eliminating any play of said valves, said hydraulic means comprising a bearing block having cylinders therein, a plunger slidably mounted in each of said cylinders, a bearing at one end of said plunger

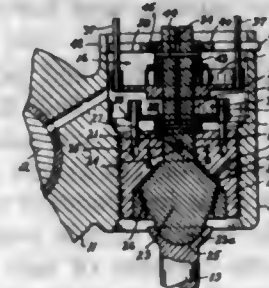
for pivotably supporting the end of one of said rocking levers, spring means acting upon each of said plungers, oil collecting chambers not under pressure in said block, ducts connecting said cylinders with said oil collecting chambers, and a check valve disposed in each of said ducts.

2,821,179
MECHANICAL LASH ADJUSTER
Sidney Oldberg, Birmingham, Mich., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application October 10, 1955, Serial No. 539,357
16 Claims. (Cl. 123-90)



5. In a mechanical lash adjuster, a pair of substantially coaxially disposed and relatively axially movable first and second parts adapted to be subjected to a reciprocative load, one of said parts having inclined-plane helical bearing means thereon and the other of said parts having a plurality of oppositely sloping axially inclined bearing means thereon, a pair of members each having a first follower means engaging said helical bearing means and a second follower means engaging one of the sloping bearing means of said other part, said members being rotatably movable along said helical bearing means and relative to each other for varying the effective length of said adjuster, a predetermined increase in the applied load being effective on said members through said oppositely sloping bearing means to apply actuating force to one of said members in an uphill direction along said helical bearing means and in a downhill direction to the other of said members with a resultant downhill movement of said other member relative to said one member for shortening the effective length of said adjuster, and torsion spring means controlling such relative movement between said members in accordance with changes occurring in the magnitude of the applied load.

2,821,180
SELF-ADJUSTING VALVE TAPPETS
Joseph M. Rekow, San Francisco, Calif.
Application November 29, 1955, Serial No. 549,707
5 Claims. (Cl. 123-90)

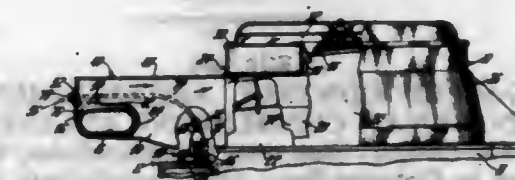


1. In a self-adjusting tappet mechanism, the combination of a body operatively connected to a valve stem and provided with a substantially cylindrical vertical chamber internally screw-threaded in the lower portion thereof, an externally screw-threaded adjusting sleeve rotatable in the screw-threads of said chamber, said sleeve being provided with an axial bore having a frusto-conical counterbore at its lower end and a cam track in a side thereof,

726 O. G.—47

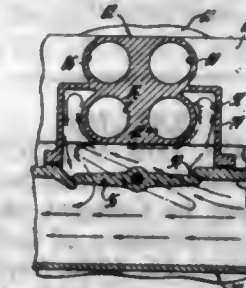
an adjusting shaft extending slidably and rotatably through said bore, a frusto-conical base provided at the lower end of said shaft and operatively connected to a valve push rod, a stop collar provided on said shaft above said sleeve, a cam follower element provided on said shaft and operatively engaging said cam track whereby the shaft is rotated in said bore simultaneously with sliding thereof relative to the sleeve, said shaft being slidable upon rotation thereof in said bore to provide clearance selectively between said collar and the top of the sleeve and between said base and the frusto-conically recessed underside of the sleeve, a pair of springs anchored to said shaft in said chamber, means operatively connecting one of said springs to said sleeve and further means operatively connecting the other spring to said body, whereby to rotatively urge said shaft to a position wherein clearance exists between said base and the frusto-conically recessed underside of the sleeve.

2,821,181
ENGINE INDUCTION MEANS
John Dolza, Davisburg, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 22, 1954, Serial No. 470,200
11 Claims. (Cl. 123-122)



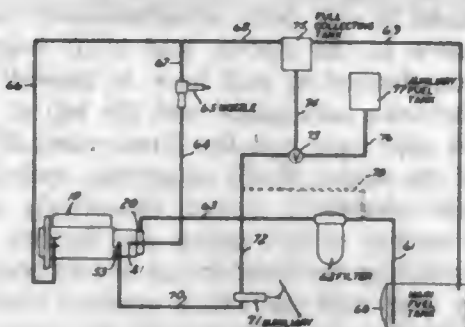
1. The combination of an induction system for an engine, an exhaust system for said engine, said induction system having an intake which includes a heating passage disposed in heat exchanging relation with a portion of said exhaust system, and valve means movable between two positions, said valve means when in one of said positions allowing a stream of air to flow from the atmosphere directly into said induction system and a separate stream of cooling air to flow around said portion.

2,821,182
THROTTLE RISER HEAT APPLICATOR MEANS
Wallace M. Kennedy, Bloomfield Hills, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 7, 1955, Serial No. 513,696
8 Claims. (Cl. 123-122)



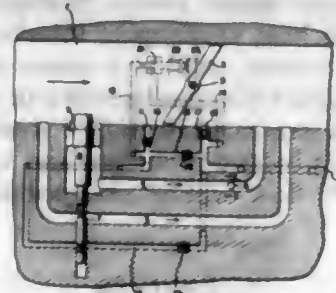
1. In an engine including a charge induction system comprising a throttle riser passage member having separate throttle riser passages formed therein, throttle riser heat applicator means provided about only part of said throttle riser passage member for heating fewer than all of said riser passages.

2,821,183
FUEL INJECTION MEANS FOR INTERNAL COMBUSTION ENGINES
 Vernon D. Roosa, West Hartford, Conn.
 Application December 21, 1955, Serial No. 554,550
 15 Claims. (Cl. 123—139)



1. In a fuel injection system, a plurality of fuel injection lines for connection to an engine, fuel distributing means connected to the fuel injection lines including a rotary distributor adapted to be driven by the engine forming a fluid passageway to the fuel injection lines in sequence as the distributor is rotated, first means for supplying fuel under pressure to the rotary distributor for transfer to the fuel injection lines, and auxiliary means for supplying fuel under pressure to the rotary distributor to facilitate starting the engine.

2,821,184
IDLING-SPEED CONTROL ARRANGEMENT FOR INTERNAL COMBUSTION ENGINES
 Hans R. Groezinger, Stuttgart, Unterturkheim, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart, Unterturkheim, Germany
 Application August 27, 1956, Serial No. 606,322
 Claims priority, application Germany August 29, 1955
 14 Claims. (Cl. 123—140)

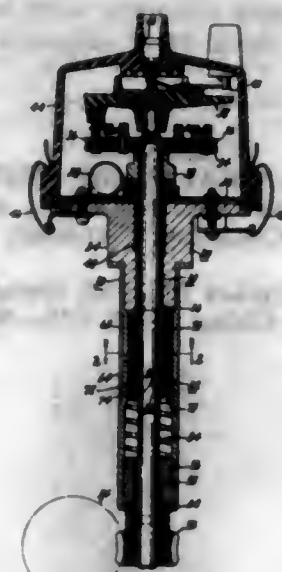


1. A control arrangement for adjusting the idling-speed quantity of suction air of an internal combustion engine, particularly of a liquid fuel injection engine, comprising an idling-speed air-line provided with control means for controlling the cross section thereof, and thermostatic means exposed to said suction air and operatively connected to said control means for adjusting said control means in dependence on the temperature of said suction air.

2,821,185
DISTRIBUTOR STRUCTURE
 Verle E. McCarty, Markleville, and John R. Mail, Anderson, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application January 16, 1956, Serial No. 559,190
 5 Claims. (Cl. 123—148)

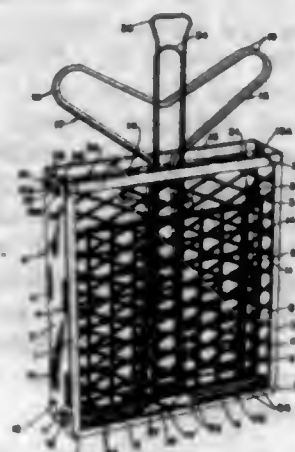
1. In combination with a distributor having a sleeve and a shaft within said sleeve adapted to be continuously rotated by a pair of gears, one of which is connected to the end of said shaft and the other of which is driven by an engine, a means for imparting a frictional drag on said shaft to maintain a tight driving connection between said gears comprising; a stack of discs axially movable within said sleeve having alter-

nate disc members connected to said sleeve and said shaft, and a spring within said sleeve for compressing



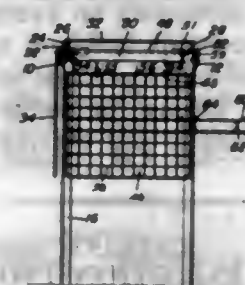
said stack to maintain a predetermined face to face engagement pressure between the discs of said stack

2,821,186
COLLAPSIBLE PORTABLE STOVE
 Stephen C. Peplin, Lakewood, Ohio, assignor to Lakewood Manufacturing Company, Westlake, Ohio, a corporation of Ohio
 Application September 13, 1955, Serial No. 534,094
 1 Claim. (Cl. 126—9)



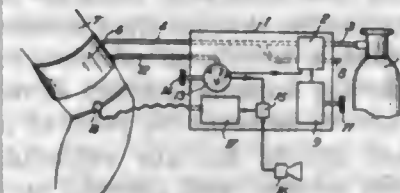
In combination with a collapsible portable stove including a fire basket, a pair of supporting legs detachably attachable to said fire basket, a broiler frame having a handle, said legs having rigid therewith brackets for supporting said broiler frames, said fire basket comprising a carrying kit for said stove when said legs, brackets and broiler frame are disassembled and said legs are placed inside of said fire basket with their brackets resting on the bottom of said fire basket and said broiler frame is placed inside of said fire basket to rest on the brackets of said legs to prevent their independent removal from said fire basket, while the handle of said broiler frame extends outwardly beyond the confines of said fire basket, a clip having a slot therein to slip over the exposed supporting legs and handle of said broiler frame and provided with means for detachable attachment to said fire basket and also provided with arms to bear downwardly on said broiler frame to thus prevent removal of said legs and broiler frame from said fire basket, while leaving the handle of said broiler frame available for manual hand engagement for carrying the assembly as a carrying kit for the portable stove in its dismantled condition.

2,821,187
CHARCOAL BROILER
 John C. Tescula, Fairview Park, Ohio
 Application May 25, 1953, Serial No. 357,130
 2 Claims. (Cl. 126—25)



1. A charcoal broiler comprising an open rectangular frame having side and end members, legs supporting said frame, a plurality of charcoal receptacles, each of said receptacles including an imperforate bottom wall, a pair of spaced side walls and a laterally projecting ear at the upper edge of each side wall, said ears resting upon the upper surface of the opposite side members of said frame, so that said receptacles are slidably suspended from the frame with the upper edges of said receptacles flush with the top surface of said frame, a carrier slidably carried by said frame side members between a pair of said receptacles and adapted to suspend food holders therefrom, each of said carriers including an elongated body having extension strips at its opposite ends terminating in depending tongues, said strips resting upon the upper surfaces of said frame side members, said tongues contacting the outer edge of said side members, depending bracket ears carried by said elongated body and arranged to contact the undersurface of said members, a pair of hooks depending from said elongated body and adapted to receive meat carriers, a grill assembly hingedly secured to one of said frame side members and overlying said receptacles and carriers, said grill assembly including a plurality of spaced rods rigidly interconnected, a front and a rear stringer, said spaced rods fixed at their ends to said stringers, eyes hingedly connecting said rear stringer to one side member of said frame, the other stringer located adjacent to the opposite side member of said frame, said eyes holding one stringer spaced from the upper surface of said member of said frame to which it is attached and providing a confined space in which at least one of said projecting ears and strips are located, and means at the ends of the other stringer contacting said opposite side member of said frame to hold said other stringer spaced slightly therefrom and provide a confined space in which at least one of said projecting ears and strips are disposed.

2,821,188
APPARATUS FOR THE MEASUREMENT OF ARTERIAL PRESSURE
 Gerard Pigeon, Paris, France
 Application April 26, 1954, Serial No. 425,496
 Claims priority, application France May 7, 1953
 13 Claims. (Cl. 128—2.05)



1. A device for automatically checking the arterial pressure, said device comprising in combination a sphygmomanometric armband, inflating means for said armband up to a pressure above the atmospheric pressure, deflating means for said armband, controlling means comprising a periodic contactor for automatically controlling at adjustable intervals of time said inflating and

deflating means, a pressure gauge connected to said armband, marking means for at least two reference values of the arterial systolic pressure corresponding to the acceptable limits of said systolic pressure, means to compare the pressure measured by said pressure gauge to said marked values of the limit systolic pressures, detecting means of the audible signal perceived on an artery controlled by said armband, an alarm circuit, control relays for said alarm circuit, said relays being controlled by said comparing means and said detecting means.

2,821,189
DEVICE AND METHOD FOR PRODUCING RESPIRATION
 Walter Hofmann, Tegernsee, Upper Bavaria, Germany, assignor, by mesne assignments, of seventy percent to Fastel Corporation, Inc., Chicago, Ill., a corporation
 Application March 29, 1955, Serial No. 497,747
 5 Claims. (Cl. 128—29)



2. A device for producing respiration which comprises a pair of positive and negative inspiratory electrodes, said electrodes being in the form of extended belt sections of substantial surface area spaced apart but joined by insulating sections so as to be positioned on opposite sides of the body in the area of the diaphragm, a pair of positive and negative expiratory electrodes, said electrodes being in the form of extended belt sections of substantial surface area spaced apart but joined by insulating sections so as to be positioned on opposite sides of the body in the area of the lower abdomen, a source of low frequency current pulses, switching means in circuit between the current source of the electrodes and arranged to alternately connect the current source with the inspiratory and expiratory pairs of electrodes, said switching means being adapted to control the rate of switching such that it will change the flow of current back and forth between the inspiratory and expiratory electrodes in normal breathing rhythm.

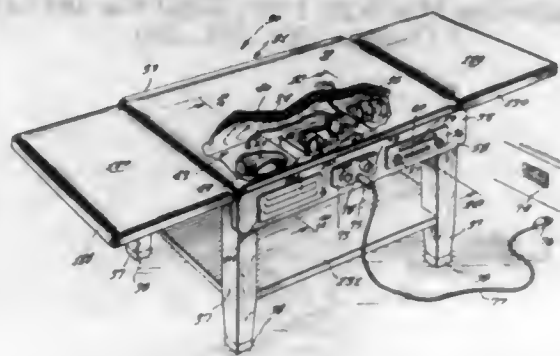
2,821,190
CATHETERIZING ENDOSCOPE
 John S. Chase, San Fernando, Calif.
 Application April 20, 1956, Serial No. 579,697
 4 Claims. (Cl. 128—6)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



1. An instrument for inspecting and catheterizing body cavities adapted to be used with a combination telescope and lighting tube, said instrument comprising a formed elongated longitudinal tube having a plurality of passages including a large central passage and a pair of small passages parallel to and positioned on the outer wall of and on diametrically opposite sides of the central passage, the elongated tube having a viewing end and a distal end, the distal end being angled for facilitating insertion of the assembly and observation within a body cavity, a flexible catheter tube inserted through one of the small passages and extending beyond its distal end, an arcuate

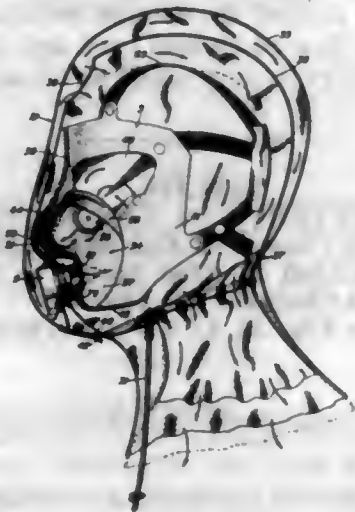
channel located at the termination of the catheter-containing passage and formed in the distal end of the central tube to guide the catheter to one side of the tube, and a projecting lip integral with and partially surrounding the arcuate channel to hold the catheter in place, the arcuate channel and projecting lip acting to effect a desired angular deflection of the end portion of the catheter extending beyond the distal end of the tube to hold it within the confines of the arcuate channel, and to guide it in a desired direction.

2,821,191
PULSATING DEVICE
Arthur Yascha Pall, New York, N. Y.
Application September 23, 1953, Serial No. 381,933
9 Claims. (Cl. 128—33)



1. A pulsating device comprising a tabular portion adapted to support a human body in a reclining position, electrical pulsating means below said tabular portion and connected to the undersurface thereof, music playing means below said tabular portion, and diaphragm-switch means connected in the circuit of said pulsating means and actuated by said music playing means whereby to vary the pulsations with the music emanating from said music playing means.

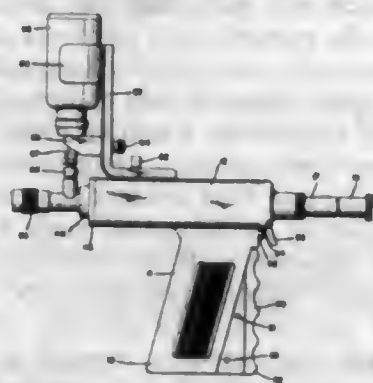
2,821,192
LEAKPROOF GAS MASK
Randolph Monro, Jopka, Md.
Application March 7, 1955, Serial No. 492,809
8 Claims. (Cl. 128—141)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In a gas mask, a facepiece assembly comprising a faceblank, at least one eyepiece mounted on said faceblank, a nose cup within said faceblank, said nose cup including at least one inlet valve, means for introducing purified air into said mask and comprising an inlet connection mounted on said faceblank, an air outlet tube leading from said nose cup through said faceblank, an air outlet valve in said air outlet tube, and means for securing said faceblank to the face of a wearer; a substantially gas-impermeable hood constructed and ar-

ranged to cover said facepiece, said air outlet valve and the head and neck of the wearer, said hood comprising openings receiving said eyepiece and said air inlet connection, and means retaining the edges of each of said openings in contact with said facepiece, and wherein each said eyepiece comprises an eyering projecting outwardly from said faceblank and said means for retaining the edges of each of said openings in contact with said facepiece comprises means for tightening the edges of said openings about each said eyering and said air inlet connection.

2,821,193
MULTIPLE INJECTION INOCULATOR INSTRUMENT
Frank Ziherl, Euclid, and Arthur S. Kish, Cleveland, Ohio, assignors to Geoffrey W. Walker, Frank Ziherl and Louis A. Ziherl, Cleveland, Ohio
Application July 22, 1952, Serial No. 300,224
11 Claims. (Cl. 128—173)



1. In an inoculant injector instrument, the combination of an inoculant ejection chamber, a hollow plunger axially movable into said chamber to displace the contents thereof, spring means for advancing said plunger into said chamber, fluid-pressure means for retracting said plunger in opposition to said spring means, means for releasably maintaining said plunger in retracted position, an inoculant reservoir communicating with said hollow plunger, and inoculant metering means, operative in response to retraction of said plunger, for replenishing the contents of said chamber.

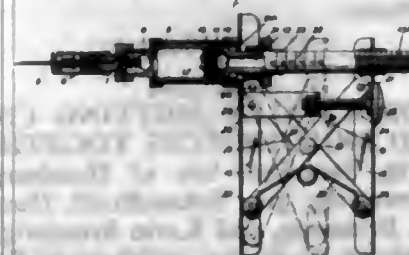
2,821,194
CANNULA LOCATOR
Vaughan P. Simmons, Wauwatosa, Wis.
Application October 24, 1955, Serial No. 542,298
4 Claims. (Cl. 128—214)



1. A locating and attaching bandage for a cannula in place penetrating the skin for fluid transfer, the combination comprising a transverse pressure sensitive sheet base member having a medial portion across and in contact with the cannula adjacent the point of its penetration of the skin and having laterally extending attachment ends on opposite sides of said cannula, an elevating and tension-resisting means formed of pressure sensitive sheet material having a medial elevating portion extending beneath the exposed portion of the cannula and having anchorage leaves overlapping one another and overlying said base member and extending forwardly therefrom to present attachment areas for engagement with the skin; and a covering member extending laterally of the cannula formed of pressure sensitive adhesive sheet material

overlying and adherently attached to the elevating and tension-resisting member and the base member and having a margin portion providing an attachment area for attachment to the skin.

2,821,195
LIQUID-DOSE INSTRUMENTS
Duncan M. McIntock, Prestwick, Scotland
Application July 6, 1954, Serial No. 441,501
8 Claims. (Cl. 128—218)



1. A liquid dosing instrument for use by veterinary surgeons and comprising a manually operated cylinder-and-plunger pump, with a suction conduit for leading liquid to said pump, said liquid to be injected by the instrument, and a nozzle assembly for discharging the liquid, means constraining the pump plunger and pump cylinder to relative motion which is rectilinear, a pump-operating handle incorporating a pair of hand members which are connected to said plunger and cylinder respectively, a pair of diagonal links which are pivotally interconnected and which have connections with said hand members, said hand members and links together constituting a parallel linkage mechanism which effects relative rectilinear motion between the plunger and cylinder whenever said handle is manually compressed, so that a dose of the liquid from the cylinder is discharged, and a motion-limiting connection between said hand members for regulating the size of the dose to be injected.

2,821,196
DRAWERS HAVING A PROTECTIVE COVERING OVER THE RECTAL AREA THEREOF
Samuel Spiro, Jersey City, N. J.
Application October 17, 1956, Serial No. 616,530
1 Claim. (Cl. 128—283)



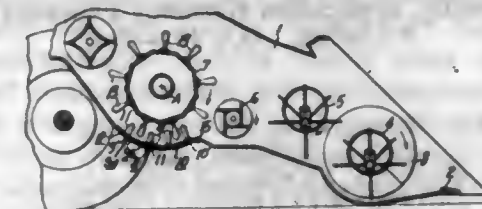
An improvement in drawers comprising a plurality of bands of fabric secured to the drawers in spaced relationship around the area of the drawers with which the rectal area of the wearer comes into contact, each of said bands having the ends thereof stitched to the fabric of the drawers thereby providing a slot between the band and said fabric, each two mutually adjacent bands of said bands being positioned at an acute angle to each other, and a sheet of absorbent material having an outline providing a plurality of corners equal to the number of said bands positioned inside the drawers and covering said first-named area, said corners registering in and extending through said slots, said corners being doubled back over said bands, said doubled back corners having the extremities thereof extending inward toward the center of the sheet beyond the boundaries of said bands, each of said extremities having an adhesive material thereon binding said extremities to the portion of the sheet adjacent the bands.

2,821,197
PEN OR PENCIL HOLDER
Charles R. Bilbrey, Chicago, Ill.
Application June 26, 1953, Serial No. 364,297
3 Claims. (Cl. 129—1)



1. In a writing instrument holder adapted to be removably carried in a snap-ring loose-leaf notebook, an elongated body member adapted to be mounted within the snap-rings of said loose-leaf notebook, receiving means positioned intermediate the ends of said elongated body member and provided with openings at opposite ends thereof for removably receiving the end portions of a pair of generally cylindrical writing instruments extending between said means and the respective ends of said body member, an elongated leaf spring extending along said body member and having a length slightly greater than the length of said member, said leaf spring being centrally fixed to the intermediate portion of said body member and having substantially right-angled terminal portions normally traversing the longitudinal axis of said member adjacent the opposite ends thereof for maintaining the respective ends of said writing instruments within the openings provided by said receiving means, the terminal portions of said spring being flexible in the same general direction away from said body member, whereby, when said terminal portions of said leaf spring are flexed away from said body member, the cylindrical writing instrument extending between said receiving means and the ends of said member may be released from said means and slid in opposite directions along and away from said member.

2,821,198
THRESHER HAVING REVERSIBLE TYPE CONCAVE
Lester E. Oberholtz, Kansas City, Mo., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application September 19, 1955, Serial No. 534,907
4 Claims. (Cl. 130—27)



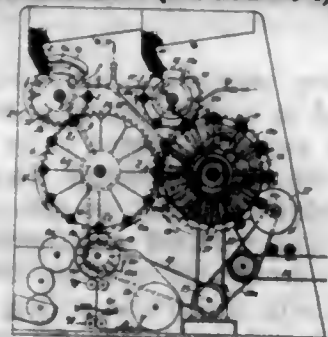
1. In combination, in a harvester having a concave positioned in coacting relation to a rotatable spike toothed threshing cylinder, said concave comprising a plurality of identical removable sections; each of said sections including a base plate, spikes extending from said base plate generally toward the axis of rotation of said cylinder, each of said concave spikes being uniformly spaced from adjacent spikes, said section having one end spike tooth positioned a greater distance from one end than the other end spike tooth is positioned from the other end; said concave including first removable sections mounted with one end of one section abutting said other end of another section in extension forming relation, and second removable sections mounted in reversed side abutting relation with respect to said first sections with the spikes of said first sections being in staggered relation in the direction of rotation to the spikes of said second sections for permitting the spikes of said cylinder to pass closely adjacent between said staggered spikes.

2,821,199

METHOD OF ATTACHING FILTER MOUTHPIECES TO CIGARETTES

Kurt Körber, Hamburg-Bergedorf, Germany, assignor to Kurt Körber & Co. K.-G., Hamburg-Bergedorf, Germany

Application June 22, 1954, Serial No. 438,533
Claims priority, application Germany September 22, 1953
6 Claims. (Cl. 131-94)



1. In a method of manufacturing filter mouthpiece cigarettes or the like, the steps of feeding two cigarettes in axial spaced arrangement and in axial alignment to a circuitous pathway, attaching to the spaced adjacent ends of said axial aligned cigarettes a flat connecting band adhesively coated on one side thereof which bridges the space between said adjacent ends of said cigarettes transferring said cigarettes and connecting band to another pathway, feeding to said second pathway in timed relation for depositing in said space between said cigarettes a filter mouthpiece portion having a length to fill the entire space between said cigarettes, then wrapping said flat connecting band around said filter mouthpiece portion and the adjacent ends of said cigarettes, and then finally dividing said cigarette and filter mouthpiece portion into two parts by cutting transversely through said filter mouthpiece portion to form two complete filter mouthpiece cigarettes.

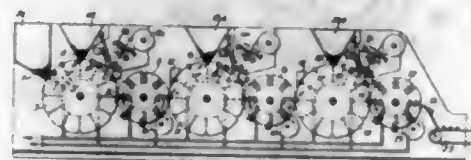
2,821,200

APPARATUS FOR MANUFACTURING FILTER MOUTHPIECE CIGARETTES

Kurt Körber, Hamburg-Bergedorf, Germany

Original application February 5, 1954, Serial No. 408,526, now Patent No. 2,740,409, dated April 3, 1956. Divided and this application September 22, 1955, Serial No. 535,974

Claims priority, application Germany February 24, 1953
5 Claims. (Cl. 131-94)



1. Apparatus for the manufacture of filter mouthpiece cigarettes in which each mouthpiece contains a plurality of filters, comprising a plurality of pairs of rotary drums having axially extending grooves on their circumferences for receiving therein axially aligned cigarettes and filter-bodies and conveying the same successively from one to another of said drums, there being one pair of said drums for each filter body to be contained in the cigarette mouthpiece, cigarette magazine means for the first drum of the first pair of said drums and arranged to deposit a pair of axially aligned spaced cigarettes in each groove of said first drum, filter body magazine means for said first drum and arranged to deposit a filter body between the axially aligned cigarettes in said first drum, means for applying a uniting band to each cigarette filter assemblage on said first pair of drums, cutting means for cutting each cigarette filter as-

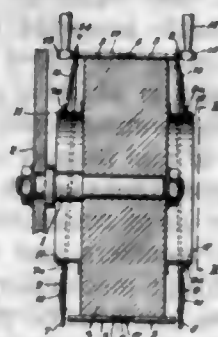
semblage in two parts, while on the second drum of said first pair of drums, each part containing one filter portion, means for transferring said cigarette filter parts from said first pair of drums to at least one other pair of drums, means for positioning an additional filter body between said cigarette filter parts while on the first drum of said other pair of drums, means for applying another uniting band to each cigarette filter assemblage on said other pair of drums, and cutting means for cutting each cigarette filter assemblage in two parts while on the second drum of said other pair of drums, each part containing at least two filter portions.

2,821,201

DEVICE FOR AXIALLY SHIFTING CIGARETTES AND MOUTHPIECES TOGETHER

Karl Brunswig, deceased, late of Hamburg-Lohbrügge; by Irma Brunswig, geb. Schmalfeldt, Hannelore Glessmann, geb. Brunswig, and Karin Brunswig, heirs, Hamburg-Lohbrügge, Germany, assignors to Kurt Körber & Co. K. G., Hamburg-Bergedorf, Germany

Application April 23, 1956, Serial No. 593,005
Claims priority, application Germany April 29, 1955
9 Claims. (Cl. 131-94)



1. A shifting device for axially shifting together a plurality of cigarettes and respective mouthpiece attachments disposed in spaced end-to-end relation including a conveyor drum having a plurality of spaced circumferentially disposed grooves for conveying said cigarettes and mouthpiece attachments in spaced end-to-end relation, a pair of spaced disc rings, elastic means disposed radially of the axis of said conveyor drum for elastically supporting said disc rings radially of the axis of said conveyor drum, and spaced abutment means for bearing upon the disc rings and forcing said disc rings toward each other to shift said cigarettes and mouthpiece attachments together.

2,821,202

DENTAL CORD

Jerome Davis, West Haven, Conn.

Application June 20, 1955, Serial No. 516,630
2 Claims. (Cl. 132-93)



1. A cord consisting of two materials, one elastic and the other non-elastic, said non-elastic material consisting of at least one strand, and being positioned in a helical spiral imbedded within said elastic material.

2,821,203

HAIR STRAND DIVIDING AND COMBING DEVICE

Pearl J. Kesterson, Los Angeles, Calif., and John A. Padjen, Evanston, Wyo.; said Padjen assignor of one-fourth to said Pearl J. Kesterson and one-fourth to Alvia G. Thorpe, Long Beach, Calif.

Application June 8, 1956, Serial No. 590,230
1 Claim. (Cl. 132-149)

A dividing and combing device for use in setting permanently waved hair comprising: a support adapted to be

inserted between adjoining fingers of the hand of an operator and having sleeve portions receiving the fingers to mount the support on the hand; a comb having a back member extending along the length of one of said sleeve portions at one side thereof and provided with a series of relatively fine teeth projecting perpendicularly with respect to the length of said sleeve portions; a narrow, elongated dividing member forming a continuation of one end of said back member so as to project longitudinally

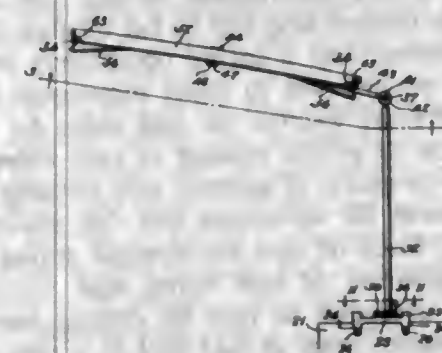


for the major portion of its length beyond an end of said sleeve portions for manipulation by the operator in easily dividing strands of hair accurately preparatory to other operations upon the hair; and a permanent magnet fixed to said sleeve portions at the side thereof opposite said comb and presenting a flat surface in an exposed position to pick up and hold magnetizable spring clips and/or bobby pins for removal conveniently by the operator.

2,821,204
SHADE

George D. Hartshorn, Sr., Atlanta, Ga.

Application October 28, 1955, Serial No. 543,532
1 Claim. (Cl. 135-6)



A shade for mounting on a boat, comprising a fabric sheet of polygonal configuration, a rectangular plate fixed to the center of said sheet, a body depending from said plate guide lugs at the corners of said plate, spaced pairs of ears carried by said body, elongated sheet stretching rods formed with eyes at their inner ends engaging between said ears, means securing said eyes between said ears, said rods extending between said guide lugs, grommets carried by said sheet adjacent the corners thereof, outwardly directed hooks carried by said rods engaging through said grommets, springs yieldably holding said rods against said plate, an elongated supporting bar, means securing one end of said bar to said body, an upright post, means securing the lower end of said post to the boat, and adjustable means connecting the upper end of said post to the other end of said bar.

2,821,205

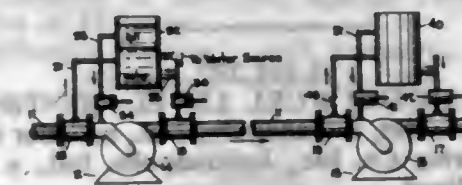
METHOD AND APPARATUS FOR LUBRICATING PIPE LINES

Ernest G. Chilton, Berkeley, and Lauren R. Handley, Richmond, Calif., assignors to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application October 31, 1952, Serial No. 318,004
12 Claims. (Cl. 137-13)

1. The method of transporting a viscous liquid through a pipe line, comprising the steps of continuously pumping

a viscous liquid through the pipe line, injecting a thin lubricating film of a low viscosity liquid into the pipe line on the inner wall thereof, and extracting said low viscosity



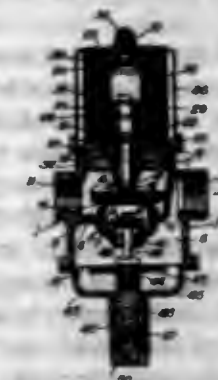
liquid film from said pipe line through the wall thereof at a point downstream of the injection point while flowing the main portion of the viscous liquid in an uninterrupted stream past said extraction point.

2,821,206

COMBINED ELECTRORESPONSIVE VALVE AND PRESSURE REGULATORS

Gifford I. Holmes, Waukesha, Wis., assignor to Baso Inc., a corporation of Wisconsin

Application April 5, 1951, Serial No. 219,457
2 Claims. (Cl. 137-65)



1. In an apparatus for controlling the flow of fluid fuel, a unitary valve body having an inlet and an outlet and formed with a single cup-shaped partition therebetween, said cup-shaped partition being formed with a bore and a counterbore, the latter defining a first upstanding valve seat on the inlet side of said partition, a unitary tubular valve seat and valve guide member mounted in said bore and forming a second upstanding valve seat also on the inlet side of said partition and disposed within said counterbore below said first valve seat, electroresponsive flow control means comprising a flow control member cooperating with said first seat to control flow therethrough, said electroresponsive control means when deenergized urging said control member to a flow-preventing position and when energized moving said control member to a flow-permitting position with respect to said first seat, pressure responsive flow control means comprising a valve member cooperable with said second seat for variation of the flow-permitting area therebetween, said valve member comprising an annular cup-shaped portion having a peripheral lip larger than said bore and smaller than said counterbore and formed with a raised central portion having a threaded aperture therein, a resilient valve disc also formed with a central aperture and disposed within said cup-shaped valve member portion for yielding engagement with said second valve seat, a flexible diaphragm on the outlet side of said valve partition in the path of the fluid flow, means biasing said diaphragm toward said valve member and against the outlet pressure when said flow control member is in flow-permitting position, and connections between said diaphragm and said valve member comprising a valve stem extending through said unitary valve seat and guide member and formed with a threaded extension which extends through the aperture in said valve disc for engagement with said threaded aperture in said cup-shaped valve portion and formed with a radially extending shoulder, engagement of said stem and valve portion causing said shoulder to

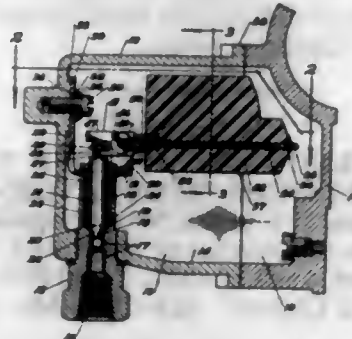
abut and hold said resilient disc in fixed relation to said cup-shaped portion and said stem, said stem being rounded at the opposite end for abutting engagement with said diaphragm.

2,821,207

CARBURETOR FUEL LEVEL CONTROL

Howard W. Linkert, Indianapolis, Ind., assignor to L & L Manufacturing Co. Inc., Indianapolis, Ind., a corporation of Indiana

Application June 7, 1956, Serial No. 589,892
2 Claims. (Cl. 137-426)

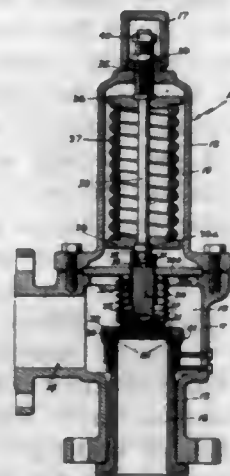


1. A carburetor fuel level control combination comprising a fuel bowl having a fuel inlet; a hollow stem extending upwardly into the bowl from said inlet; an annular shoulder within the stem spaced below the stem upper end; a conical-nosed valve longitudinally reciprocable within the stem and seating by its nose on said shoulder; a bracket vertically adjustably mounted within and on a side of said bowl, said bracket having a foot through which said stem extends by a sliding fit; said bracket bearing by an upright portion along the wall of said bowl and having a vertically extending slot through said upright portion; a screw through said slot engaging said bowl selectively retaining the bracket in fixed position along said stem; a float rocker rockably supported by the bracket and engaging said valve; and a float carried by said rocker lifting and lowering the valve upon corresponding travel of the float under influence of changing level of fuel in the bowl.

2,821,208

SAFETY VALVES

Victor Wallace Farris, Palisades Park, N. J.
Application October 19, 1955, Serial No. 541,364
6 Claims. (Cl. 137-478)



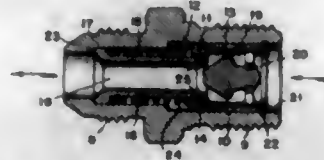
1. A safety valve comprising inlet and exhaust ports separated by a valve disc cooperating with a valve seat, a spring loaded blow-down ring cooperating with said valve disc and being movable with respect thereto, a first ring attached to and movable with respect to said inlet port for controlling a first relationship between said spring loaded blow-down ring and said valve disc prior to discharge of said valve, a second ring attached to and movable with respect to said first ring for controlling a second relationship between said blow-down ring and said

valve disc during discharge of said valve, and first and second locking devices independent of each other for maintaining the pre-set adjustments of said first and second rings.

2,821,209

HYDRAULIC FUSES

William Waterman, Wilmette, Ill.
Application January 23, 1953, Serial No. 332,889
2 Claims. (Cl. 137-498)



1. An excess flow fuse comprising in combination a fuse housing having inlet and outlet and a cylindrical bore connecting the same, said bore having a shoulder adjacent its down-stream end, a removable tubular member slidable in said bore through which flow passes from inlet to outlet and seated at its down-stream end against said shoulder, said tubular member having a valve seat adjacent its up-stream end, said bore having adjacent said seat an enlarged cylindrical chamber coaxial with said bore and outside said tubular member to provide an annular space between its walls and the exterior of said tubular member, an annular piston slidable in said annular space, the latter being closed by said piston except for restricted leakage from one side of said piston to the other, a normally open valve carried by said piston up-stream of said seat in the path of flow and movable thereby at a rate determined by the rate of said restricted leakage toward said seat to cut off flow through said tubular member, and a spring operatively engaging said piston and pre-stressed to resist movement of said piston under the force exerted on said valve by normal flow and yieldable to permit closing of said valve under the force of flow in excess of normal, said housing having a shoulder adjacent its up-stream end for seating said piston under the force of said pre-stressed spring in the normally open position of said valve, said valve being constructed and arranged so that its closing movement increases the pressure drop at said seat at a rate greater than the increase in resistance of said spring as it is deflected by movement of said valve, whereby the closing forces on said valve exceed the resistance of said spring once said valve starts to close.

2,821,210

MULTIPLE ORIFICE METERING MECHANISM FOR ANHYDROUS AMMONIA

Otis M. Liley, Phoenix, Ariz.
Application August 15, 1955, Serial No. 528,412
2 Claims. (Cl. 137-599)



1. In a multiple orifice valve mechanism for metering the flow of anhydrous ammonia from a pressure tank into irrigation water, a manifold having an interior cavity, an entrance pipe adapted for attachment to the outlet

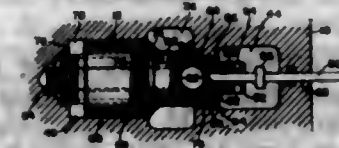
of an anhydrous ammonia storage tank opening into said cavity, and a plurality of outlet openings connected to L fittings, in combination with valves connected to said L's, orifice holders having inlet nipples connected to said valves, and outlet bosses, flexible hoses connected to said outlet bosses, orifice thimbles between said inlet nipples and outlet bosses, and a connector nut holding said bosses onto said orifice thimbles, and a junction fitting attached to said hoses and joining them to a distribution hose, adapted to release ammonia gas into irrigation water; said manifold having a thermo well adapted to receive a thermometer to determine the temperature of ammonia gas within said manifold cavity.

2,821,211

HYDRAULIC VALVE CONTROL

Richard A. Wittren, Cedar Falls, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa

Application March 19, 1956, Serial No. 572,576
8 Claims. (Cl. 137-622.5)

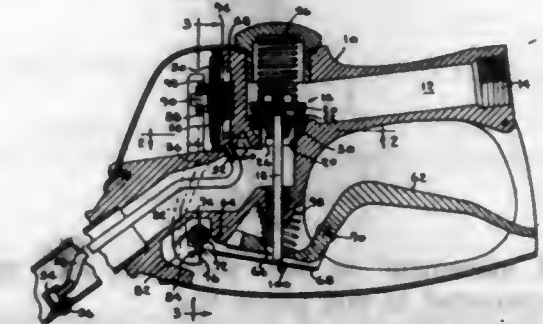


1. Hydraulic control mechanism, comprising: a valve casing having a first fluid passage, a bore opening at one end to said passage and at its other end having a main valve seat, an enlarged counterbore opening at one end to the valve seat and being closed at its other end, and a second fluid passage intersecting the counterbore adjacent to said valve seat; a tubular outer valve in the bore and counterbore and traversing the second passage, said valve opening at one end to the closed end of the counterbore and at its other end to the first passage and having a large portion slidably fitting the counterbore, a small portion received in the bore and an intermediate portion connecting the large and small portions and reduced as respects the large portion to afford a pressure receivable area exposed to the second passage and enlarged as respects the small portion to afford a shoulder seatable on and unseatable from the main valve seat, said intermediate portion having an orifice therethrough communicating the second passage with the interior of the valve, said valve further having an inner valve seat facing the counterbore; means biasing the valve to close the valve via seating of said shoulder on the main valve seat; an inner valve seatable on and unseatable from the inner valve seat; means biasing the inner valve to seat on said inner valve seat; an actuator stem selectively movable within the small portion of the outer valve to unseat the inner valve in varying amounts; regulator means comprising an inner cylindrical surface part of said outer valve small portion adjacent to the inner valve seat and land means on said actuator stem closely cooperative with said surface part upon minor unseating of the inner valve to afford a flow restriction of smaller area than the aforesaid orifice, so that the pressure drop across the restriction is greater than that across the orifice during fluid flow from the second passage to the first passage, whereby the outer valve remains seated, said land means being movable beyond said surface part upon major unseating of the inner valve to enlarge the restriction and thereby to cause a pressure drop across the orifice and consequently a condition of hydraulic unbalance across the pressure-receivable area of the outer valve effective to at least partially overcome the outer valve biasing means until fluid flow through the valve decreases to such extent as to destroy said hydraulic unbalance, whereby the full force of the outer valve biasing means is again available for re-seating of said outer valve.

726 O. G.—48

2,821,212

AUTOMATIC SHUT-OFF FUELING NOZZLE
Lourdes V. McCarty, Milwaukee, Wis., assignor to Controls Company of America, Schiller Park, Ill., a corporation of Delaware
Application October 3, 1955, Serial No. 537,984
18 Claims. (Cl. 141-209)

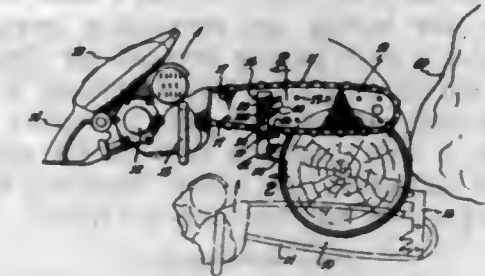


1. In a fueling nozzle of the type having a body provided with an inlet and an outlet with a valve regulating flow therebetween and an aspirator including a diaphragm movable from its normal position to its operative position when the aspirator vent is closed, a stem connected to the valve for actuating the valve, a handle pivoted on the body for manual actuation, a rocker pivoted on the body with one end connected to the diaphragm and its other end movable when the diaphragm moves, a lever having one end pivotally connected to the handle and its other end releasably connected to said other end of said rocker, said lever being connected to the valve stem for actuation of the valve when the handle is actuated, said rocker and said lever being disconnected when the diaphragm moves to said operative position, and means biasing the valve closed.

2,821,213

POWER CHAIN SAW HOOK ATTACHMENT

Floyd L. York, North Fork, Calif.
Application June 29, 1953, Serial No. 364,557
10 Claims. (Cl. 143-32)



1. An attachment for a power driven chain saw including: a pair of side members; means for attaching said side members at the opposite sides of the cutting chain of the saw; a forwardly directed work engaging tooth mounted on each of said side members to buck the thrust of the saw toward the work; and a forwardly extending tooth joined to and disposed between said side members beneath the bucking teeth.

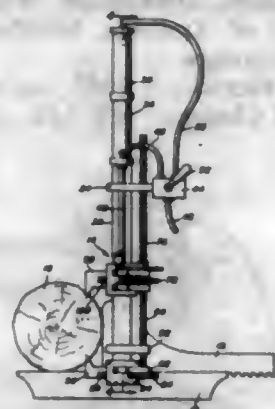
2,821,214

ADJUSTABLE DOUBLE LOG DOG FOR SAWMILLS

Raymond C. Jurek, Virginia, Minn.
Application February 21, 1956, Serial No. 566,943
7 Claims. (Cl. 143-125)

1. A log dog assembly comprising a mounting bracket, a slide bar supported by said mounting bracket for limited vertical sliding movement, an upright fluid motor, said fluid motor including a cylinder secured to an upper end of said slide bar, a piston rod projecting downwardly from said cylinder, a lower dog supported by and for up

and down movement with said slide bar at the lower end of said slide bar, an upper dog slidably mounted for



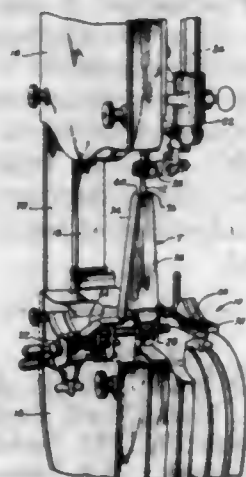
vertical movement on said slide bar, said upper dog being connected to said piston rod.

2,821,215

ELEVATED WORK SUPPORT ATTACHMENT FOR BANDSAW MACHINE

John L. Purvis, Highland, Md., assignor to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey

Application October 19, 1956, Serial No. 617,128
5 Claims. (Cl. 143—132)



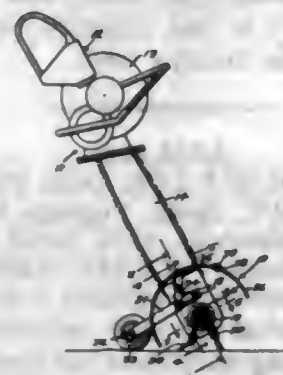
4. An elevated table for use with a band saw comprising a member having legs converging upwardly at an acute angle, a plate joining between the upper ends of said legs and defining a flat topped inverted V, a channel formed in one edge of said plate to receive an endless saw blade, a web extending between the said legs and normal to said plate, and a foot fashioned on each respective leg to join with the band saw frame.

2,821,216

PORTABLE CHAIN SAW ATTACHMENT FOR CLEARING FIRE LANES OR THE LIKE

Raymond M. West, Anaconda, and Robert W. Steele, Missoula, Mont.

Application November 28, 1956, Serial No. 624,859
4 Claims. (Cl. 144—1)



2. In combination with a portable power-driven chain saw including an elongated blade and an endless saw chain

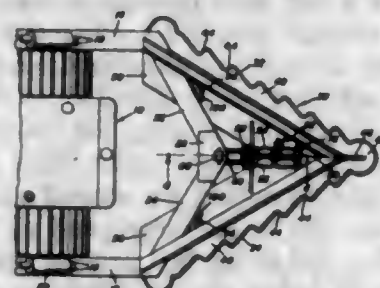
disposed for movement around said blade; a chain saw attachment comprising bearing means secured to an outer portion of said blade and extending outwardly therefrom, a shaft journaled in said bearing means and disposed crosswise of the blade, a sprocket wheel fixed to the shaft substantially in alignment with the blade and beyond the outer end of the blade, said saw chain being trained around said sprocket wheel for driving the sprocket wheel and shaft, sleeves secured to end portions of the shaft on opposite sides of the bearing means, flails connected to said sleeves for digging fire control trenches when the sprocket wheel and shaft are revolved by movement of the saw chain, substantially semicircular guards disposed on opposite sides of the blade and bearing means and adjacent the inner end of the bearing means, and brackets supported by said bearing means and secured to said guards for mounting said guards partially around and substantially concentrically of the end portions of said shaft and spaced from said shaft ends a sufficient distance to clear the extended flails, said guards being disposed between the flails and the opposite end of the chain saw.

2,821,217

BLADE ATTACHMENT FOR DOZERS

Richard D. Shald, Stuart, Nebr., assignor of fifty percent to John Shald, Stuart, Nebr.

Application June 24, 1955, Serial No. 517,725
2 Claims. (Cl. 144—34)



1. An attachment for the forwardly extending yoke of a vehicle, said attachment comprising a blade which has a pair of rearwardly diverging sides, said sides being arranged on the outside of said yoke, a pair of rearwardly diverging blades at the lower edges of said sides, said sides constituting a moldboard, said blades having parts which protrude in advance of said sides and are provided with cutting edges, said blades having flat bottom surfaces, a tongue, means attaching one end of said tongue to said yoke, an upstanding bracket fixed to said tongue, levers mounted for pivotal movement about an axis that is approximately horizontal, said levers being capable of pivoting about the last mentioned axis and with regard to said tongue, the forward ends of said levers being fixed to said blades and spaced from each other, a forward pivot located between said levers and connected thereto, an extensible brace pivoted at one end to said forward pivot, said extensible brace including a pair of elements which are adjustable with respect to each other, one of said elements being pivoted to said forward pivot and the other of said elements being connected to said upstanding bracket.

2,821,218

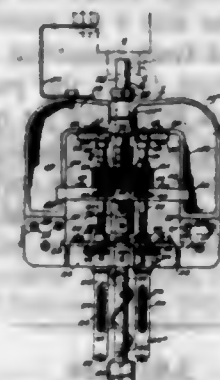
BORING AND MORTISING TOOL ATTACHMENT

Victor J. Hultquist, Alcoa, Tenn.

Application June 15, 1955, Serial No. 515,591
10 Claims. (Cl. 144—78)

4. A tool for forming a keyhole comprising a central hole and a pair of diametrically opposed slots opening into a hole, or a keyhole comprising a hole and a single diametrically extending slot opening thereinto comprising a frame section having a hole forming bit rotatably supported therein and a combined slot forming bit and chisel supported thereby, a second frame section removably en-

gaged with said first section and supporting a combined slot forming bit and chisel, vertically spaced and laterally



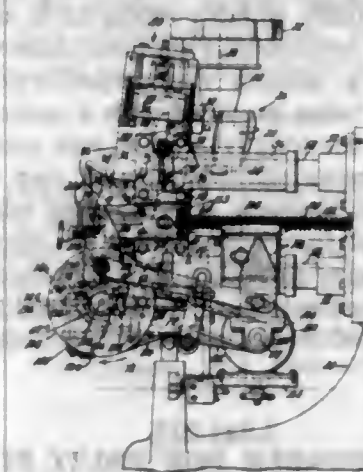
adjustable bearing blocks in said frame sections for said slot forming bits, and drive means between said hole forming bit and said slot forming bits.

2,821,219

MACHINES FOR TURNING WOOD HEEL BLANKS

Edgar E. Joiner, Jr., Andover, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application February 9, 1955, Serial No. 487,107
4 Claims. (Cl. 144—145)



3. In a machine for turning wood heel blanks, a cutter rotatable about a fixed axis, a slide frame mounted for translatory movement toward and away from said axis, a bracket journaled upon the slide-frame, a jack rotatably mounted in the bracket, a drive for rotating the jack upon the bracket, means comprising cams operative in timed relation to the drive for moving the slide-frame toward and away from the axis of rotation of the cutter and for swinging the bracket on the slide frame as the jack is rotated, a motor, said drive comprising high and low speed transmission devices operatively connected to the motor and selectively connected operatively to one or the other of the high and low speed transmission devices, and means responsive to movement of the drive for rendering said high and low speed transmission devices active in a desired sequence during the operation of the machine to vary the speed of the heel blank past the cutter as different portions of the heel blank are being turned.

2,821,220

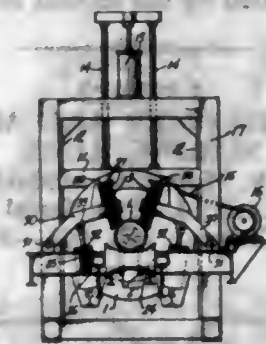
LOG FEED MECHANISM

Thomas W. Nicholson, Seattle, Wash.

Application February 1, 1954, Serial No. 407,362
9 Claims. (Cl. 144—249)

5. Log feed mechanism comprising carrier means operable to support and to advance a log longitudinally and operable when a log is pressed thereagainst to resist rotation of a log about its axis, and anti-rotation hold-down means including two heads spaced transversely of the log and located at opposite sides of the vertical diametral

plane of the log, each head including several rotative axially spaced annular log-engaging ribs rotative about the same axis extending transversely of the direction of movement of said carrier means, means supporting said heads for movement toward and away from said carrier



means, and means connected to said supporting means and exerting a force thereon in a direction to move said heads toward said carrier means and press said ribs against upper portions of a log on said carrier means which are spaced transversely of the log to deter rotation of the log and to press the log downward against said carrier means.

2,821,221

AUTOMATIC MACHINE FOR ASSEMBLING, IN THE FORM OF PANELS, LATHS AND SIMILAR ELEMENTS

Max Pierre Jacquier, Paris, André-François Jacquier, Sucy-en-Brie, and France Haberte Jacquier, Paris, France

Application March 16, 1954, Serial No. 416,646
Claims priority, application France March 19, 1953
21 Claims. (Cl. 144—279)

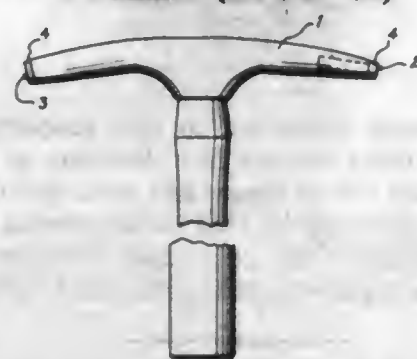


1. In a machine for producing panels formed of laths or other squared elements which are in juxtaposed relationship to each other and have a substantially constant cross-section, said machine being of the type which includes a stand and, provided on this stand, a receiving and discharging passageway, a feed device laterally disposed relative to the passageway for feeding one by one to the input end of this passageway successive rows of squared elements disposed transversely of the passageway, gluing means provided in this feed device for continuously gluing said elements, thrust means disposed adjacent the input end of the passageway for displacing in the longitudinal direction relative to the passageway each row fed by the feed device and the whole of the work in course of production, motive means, driving means for the thrust means, a clutch operatively connecting the motive means to the driving means, and a clutch engaging and disengaging device, in combination with the aforementioned devices: a first regulating device disposed adjacent the input end of the passageway for regulating the length of the row fed to the input end of the passageway, control means for said clutch engaging device and combined with said first regulating device for engaging the clutch and rendering the motive means operative when one row has been fed to the passageway without any gap between the various squared elements placed end to end, this row consisting contingently of a single element, shifting means included in the feed device for shifting the row of elements fed by the feed device away from the gluing means, a second regulating device operatively connected with the thrust

means and capable of periodically actuating the shifting means in the course of the displacement of a given number of rows by the thrust means, whereby the unglued rows obtained when the shifting means is actuated serve to divide the rows of elements into distinct panels the lengths of which are regulated by the second regulating device.

2,821,222
MAGNETIC HAMMER AND METHOD OF MAKING SAME

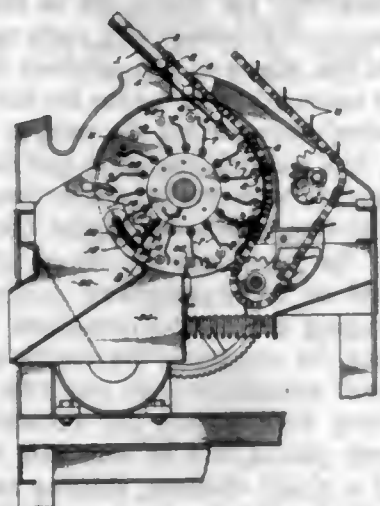
George W. Mount, Greenfield, Mass.
Application April 13, 1953, Serial No. 348,290
3 Claims. (Cl. 145—30)



3. A magnetic type hammer having a head formed of a non-magnetic metal alloy and provided with an axially extending cylindrical bore, the inner end of the bore being closed and its outer end opening substantially centrally of the face of the striking end of the head, a cylindrical bar formed of magnetizable Alnico alloy fitted in said bore with its inner end engaging the non-magnetic alloy of the head at the inner end of the bore and its outer end surface flush with the adjacent surface of the striking end of the head, said surfaces being finished to present a smooth surface in a common plane, and a steel disc coextensive with the striking end of the hammer and of sufficient hardness for driving purposes permanently brazed to the finished surface only of the striking end of the head, the finished surface of the bar contacting said disc in said plane, said bar and disc being unitarily permanently magnetized in place to jointly form the magnetic system of the hammer, the diameter of the bore and bar being not substantially greater than one-half the diameter of the head and disc where the head and disc are brazed together.

2,821,223
PIT DISLODMENT JETS FOR FRUIT PITTING MACHINE

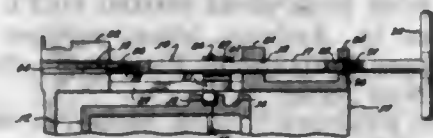
William Herbert Kagley, Lindsay, and Bentley J. Milam, Strathmore, Calif., assignors to Lindsay Ripe Olive Company, Lindsay, Calif., a corporation of California
Application October 17, 1955, Serial No. 540,709
1 Claim. (Cl. 146—27)



In a fruit pitting machine, a punch and a die cooperating with the punch, said punch and die being axially

aligned and relatively reciprocable to push a fruit pit from the fruit into the die with the fruit left impaled on the punch, a wall through which the punch reciprocates, said wall having on one side a pit receiving means and on the other side a pitted fruit receiving means, and means for stripping pitted fruit from the punch as the punch retracts, and a fluid jet removing jet means for directing a fluid jet between said die in retracted position and said wall whereby pits which may be retained on the end of the punch are dislodged before said end is retracted to the side of the wall on which the pitted fruit receiving means is located.

2,821,224
REPLACEABLE PUNCH ASSEMBLY FOR FRUIT PITTING MACHINE
William Herbert Kagley, Lindsay, and Bentley J. Milam, Strathmore, Calif., assignors to Lindsay Ripe Olive Company, Lindsay, Calif., a corporation of California
Application October 17, 1955, Serial No. 540,710
1 Claim. (Cl. 146—27)



In a fruit pitting machine having axially aligned spaced bearings, a rod axially slidably mounted in said bearings, said rod being of substantially uniform diameter throughout and having a smooth and imperforate cylindrical surface, said rod being provided with a socket in one end thereof, a punch frictionally held in said socket, the said end of said rod being slidably through said bearings, reciprocatory means between said bearings releasably connected to said rod for reciprocating the same, the other end of said rod being provided with a threaded axial bore for the reception of a tool whereby to facilitate removal and replacement of said rod axially from said bearings.

2,821,225
SHOCK ABSORBER FOR FRUIT PITTING MACHINE DIE ASSEMBLY
William Herbert Kagley, Lindsay, and Bentley J. Milam, Strathmore, Calif., assignors to Lindsay Ripe Olive Company, Lindsay, Calif., a corporation of California
Application October 17, 1955, Serial No. 540,743
2 Claims. (Cl. 146—27)



1. In a fruit pitting machine, a reciprocal die axially aligned with and adapted to cooperate with a punch for removing a pit from a piece of fruit, a cam actuated sleeve, a die sleeve attached to the die and extending within and throughout the entire length of the cam actuated sleeve, a compression device surrounding the die sleeve between the cam actuated sleeve and the die, means for advancing the cam actuated sleeve to cause the compression device to force the die into engagement with a piece of fruit, said compression device being adapted to yield to permit reduction of the distance between the cam actuated sleeve and the die whenever the die engages an obstruction, the end of said cam actuated sleeve opposite said compression device having a counterbore, an annular stop device threaded on the die sleeve for limiting the travel of the die sleeve relative to the cam actuated sleeve in the direction in which the die is advanced to engage a piece of fruit, said stop device having a portion slidably in said counterbore and a resilient compression-device-resistive shock absorber spring disposed and confined in said counterbore

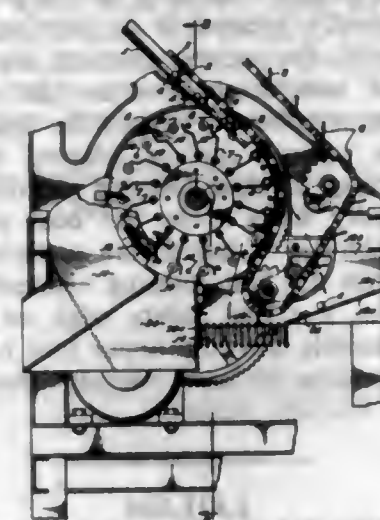
between the stop device and the cam actuated sleeve to lessen the impact between the stop device and the cam actuated sleeve whenever the compression device is quickly released.

2,821,226
FRUIT PITTING MACHINE QUICK-CHANGE CORE TOOL ASSEMBLY
William Herbert Kagley, Lindsay, and Bentley J. Milam, Strathmore, Calif., assignors to Lindsay Ripe Olive Company, Lindsay, Calif., a corporation of California
Application October 17, 1955, Serial No. 540,744
2 Claims. (Cl. 146—27)



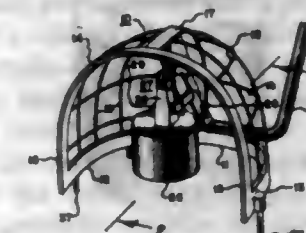
1. In a fruit pitting machine the combination of a fruit receiving die, a cylindrical coring tool axially slidable within the fruit receiving die, a thrust collar surrounding one end of the coring tool outwardly of the rear end of said die; said thrust collar comprising a bifurcated block having terminal legs and smooth cylindrical surfaces embracing said coring tool, means engaging the legs for drawing said legs together to frictionally bind said thrust collar on said coring tool, one face of said thrust collar having an annular groove spaced from and concentric with said cylindrical surfaces, and a compression spring having one end thereof seated in said groove.

2,821,227
SIDE DELIVERY FRUIT AND PIT SEPARATING CHUTE FOR FRUIT PITTING MACHINE
William Herbert Kagley, Lindsay, and Bentley J. Milam, Strathmore, Calif., assignors to Lindsay Ripe Olive Company, Lindsay, Calif., a corporation of California
Application October 17, 1955, Serial No. 540,746
2 Claims. (Cl. 146—27)



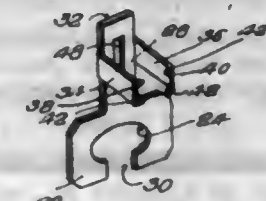
1. A fruit pitting machine comprising axially aligned punches and dies relatively reciprocating axially while traveling in a rotary path transversely of said axes, a fruit feeding and gripping mechanism operating to grip and carry single pieces of fruit through an initial portion of said path, said mechanism including a feed chute terminating in the initial portion of said path, a pit ejecting action being performed by said punches and dies while traveling in a second portion of said path, and means for stripping pitted fruit from the punches in a third portion of said path, said machine being provided with separate and independent receiving compartments vertically below each of said portions, the compartment below the initial portion including an inclined bed with openings therein larger than a fruit pit and small enough to collect and separate stray pits and fruit.

2,821,228
PROTECTIVE APPARATUS FOR GRINDING MACHINES
David G. Hall, San Diego, Calif.
Application December 9, 1955, Serial No. 552,056
7 Claims. (Cl. 146—182)



1. An article of manufacture for use with a grinding machine having a bowl portion into which the substance to be ground is fed to the grinding portion of said machine, said article comprising a dome-shaped shield arranged to cover the bowl portion of said machine, said shield having an opening therein to provide limited access to said bowl portion, attachment means for securing said shield to said machine, a plunger pivotably supported within said shield, actuating means carried by said shield for moving said plunger into said bowl portion, said actuating means including a rotatable actuating member, lever arms carried by said actuating member and pivotably connected with said plunger for forcing said plunger into said bowl portion in response to rotation of said actuating member, and resilient means for automatically withdrawing said plunger from said bowl portion upon release of said actuating member.

2,821,229
STITCH LOCKED POCKET BOOK HANDLE FASTENER INSTALLATION
Daniel I. Relter, New York, N. Y.
Application November 23, 1953, Serial No. 393,778
3 Claims. (Cl. 150—12)



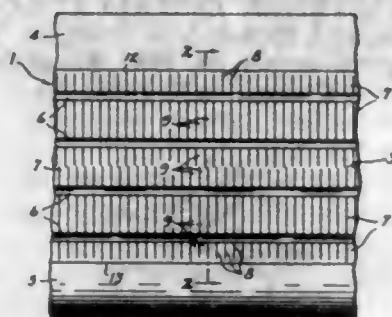
1. A one piece sheet metal strap anchor or holder for the ends of a pocketbook handle strap comprising a flat body having opposing side edges and opposing sides, on one side of which a strap for the handle of a pocketbook is adapted to axially lie, a pair of arms laterally extending in confronting relation from the side edges and spaced apart sufficiently to receive the strap therebetween, said arms having offset outer ends which are turned inwardly toward each other and arranged at an obtuse angle to the arms, said ends having free transverse edges formed with penetrating prongs adapted to penetrate a strap when the arms are bent towards each other and onto and through the strap and said body having an axially extending, through and through, slot centrally located between the arms and into which the said edges are adapted to extend, after they pass through the strap, until the edges are substantially flush with the side of the body opposite to the side on which the strap is disposed, the slot having side bounding edges paralleling the side edges of the body, the slot being slightly greater in length than the width of the arms and the slot being of a greater width than the combined thickness of the arms so that when the prongs are passed through the strap, the prongs will automatically enter the slot.

2,821,230
COVER FOR RECEPTACLES
 Louras D. May, Pikeville, Ky.
 Application June 13, 1955, Serial No. 514,897
 1 Claim. (Cl. 150—52)



A cover for a receptacle having an open mouth and having side walls, comprising a top; a continuous flexible rim attached to and depending from said top and of such perimeter as to fit over said side walls at the receptacle mouth; a reinforcing strap attached to the lower periphery of the rim and extending part-way therearound; an elastic tensioning strip joined at its ends to the ends of the strap and short in comparison with the length of the strap, said elastic strip being stretchable to permit expansion of the rim to its fullest periphery, but sufficiently contractible to gather the rim to a periphery less than that of the receptacle at its mouth; and a tab attached to the rim of the cover adjacent one end of the elastic strip and extending below the rim.

2,821,231
TRANSVERSELY-SLITTED TIRE TREAD
 Herman T. Kraft, Akron, Ohio, assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio
 Application December 31, 1954, Serial No. 479,059
 15 Claims. (Cl. 152—209)



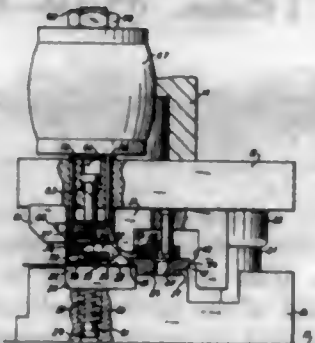
1. A pneumatic tire having laterally spaced circumferential grooves in the tread portion thereof forming a plurality of circumferential ribs, a plurality of slits extending laterally across said ribs and dividing the same into a plurality of narrow transverse fins, each slit having a length at least twice the width of each said ribs and gradually decreasing in depth at its opposite ends, the maximum depth of each slit being not substantially greater than the depth of said grooves, the bottoms of said slits being arcuate throughout their length and terminating adjacent the opposite side edges of the road-engaging surfaces of the tire.

2,821,232
RUBBER TIRE TREAD COMPOSITION CONTAINING CARBON BLACK AND SILICA AND TIRE MADE FROM SAME
 Ralph F. Wolf, Akron, Ohio, assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware
 No Drawing. Application July 8, 1954
 Serial No. 442,207
 7 Claims. (Cl. 152—330)

1. A vulcanized rubber composition comprising natural rubber and a reinforcing quantity of a mixture of carbon black and finely divided precipitated hydrated silica having an average ultimate particle size in the range of 0.02

to 0.05 micron and a surface area in the range of 50 to 200 square meters per gram and constituting 15 to 60 percent of the combined weight of the carbon black and silica and at least 10 percent of the weight of rubber.

2,821,233
SAFETY EDGE FORMING APPARATUS
 Frank Wahl, North Bergen, N. J., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
 Application January 25, 1955, Serial No. 484,025
 5 Claims. (Cl. 153—13)



1. The combination with a press having a bed and a ram reciprocable through single cycles toward and away from the bed, of upper and lower tool holders mounted respectively on the ram and bed of the press, a first forming element with a sheet material supporting surface supported by the lower tool holder for vertical movement and normally urged to position the surface in given horizontal plane, a second forming element supported by the lower tool holder, having a sheet material supporting surface lying in the plane and movable on the lower tool holder in a path parallel with the plane, a pressure pad carried by the upper tool holder and adapted to hold the sheet material on the first forming element and move the material and first forming element downwardly, a first forming member supported by the pressure pad for lateral movement relative to and having a tapered surface extending downwardly to a forming edge normally located in a forming position and cooperating with the second forming element to form a bend in the material beyond a right angle bend, a second forming member carried by the upper tool holder and having a tapered surface adapted to engage the tapered surface of the first forming member and thereby move it laterally away from the bent portion of the material and having a horizontal surface subsequently cooperating with the first forming element to finish the bend and form a closed safety edge on the material, and means movable with the upper tool holder to move the second forming element laterally free of the path of the second forming member.

2,821,234
CHANGEABLE-FACE DIE MECHANISM
 Earl B. Robbins, Cedar Grove, and Nicholas F. Luongo, Irvington, N. J.
 Application April 9, 1953, Serial No. 347,694
 5 Claims. (Cl. 153—21)



1. A bending and forming die device for use in press brakes comprising a die holder member having a die-

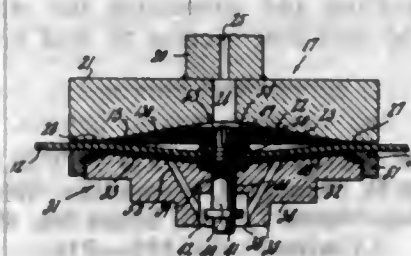
head-receiving trough defined by two faces disposed substantially at right angles to each other, a die head having faces at right angles to each other, work-engageable portions of selected shape disposed between the faces of the die head, means engageable with the end portions of said die head for removably holding said die head in said die-head-receiving trough with one of said work-engageable portions in work engaging position.

2,821,235
MAGNETIC BACK-UP ROLLS FOR ROLLER LEVELERS
 Russell T. Todd, Youngstown, Ohio, assignor to The McKay Machine Company, Youngstown, Ohio, a corporation of Ohio
 Application July 2, 1956, Serial No. 595,397
 9 Claims. (Cl. 153—107)



1. In a roller leveler for working sheet and strip stock and the like comprising a frame, elongated relatively small diametered upper and lower working rolls journaled at each end in said frame, said upper and lower working rolls arranged in offset relation to define a sinuous path for said sheet or strip stock, means for driving said rolls, back-up means for said working rolls, said back-up means including a plurality of cradles mounted on said frame and extending longitudinally thereof, said cradles being positioned in side-by-side relation above and below said upper and lower working rolls, a plurality of spindles fixedly journaled in said cradles, and some of said spindles carrying magnetic means for holding said upper working rolls to prevent sagging thereof under their own weight.

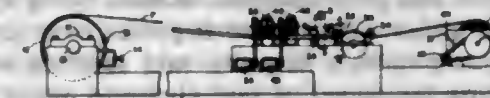
2,821,236
METHOD AND MACHINE FOR APPLYING VALVE BASES TO INNER TUBES
 Alfred N. Ikanyan, Indianapolis, and George P. McCord, Oaklandon, Ind., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
 Application October 31, 1951, Serial No. 254,164
 7 Claims. (Cl. 154—9)



1. An apparatus for applying a valve base to an inner tube, said base and tube having aligned openings therein, comprising in combination an anvil disk for supporting the tube, a comparatively flat resilient diaphragm supported in the upper surface of said anvil disk, a rigid ring extending around the periphery of said diaphragm, a projection extending upwardly from the center of said diaphragm and adapted to pass through the said openings of the inner tube and valve base when the tube and base are positioned on the anvil disk, and an applicator disk mounted above said anvil disk, the undersurface of said applicator disk being upwardly dished, fluid-actuated means for moving the applicator disk toward and away from the anvil disk, said applicator disk having an opening therethrough for application of suction, said anvil disk having a passageway therethrough in communication with the undersurface of said resilient dia-

phragm, means for applying a definite fluid pressure to said applicator disk moving means to move the applicator disk against the anvil disk, thereby pressing the valve base and inner tube between the edges of said applicator disk and the said rigid ring extending around the diaphragm at a definite pressure, control means for increasing the fluid pressure on said applicator disk moving means after a definite lapse of time to increase the pressure with which the inner tube and valve base are pressed together, and means for applying fluid pressure to the said anvil disk passageway, after said definite lapse of time, to flex the said diaphragm upwardly against the undersurface of the inner tube to press the inner tube and valve base upwardly against the dished undersurface of the applicator disk.

2,821,237
PLEATING APPARATUS FOR PLEATING TEXTILE FABRIC
 John H. Howard, Edgewood, R. I., assignor to Cranston Print Works Company, Cranston, R. I., a corporation of Rhode Island
 Application August 31, 1954, Serial No. 453,399
 4 Claims. (Cl. 154—30)

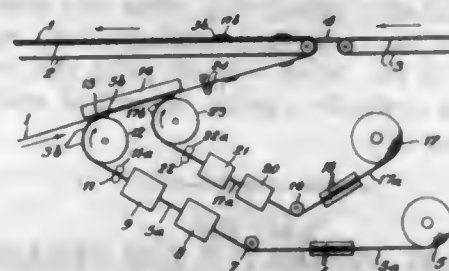


1. A pleating machine for continuously pleating an extended web of textile fabric in a direction longitudinally thereof comprising web driving and tensioning means for continuously moving and longitudinally tensioning an extended web of textile fabric, folding means for continuously folding said tensioned web to form a plurality of longitudinally extending pleats therein, said latter means comprising a plurality of cooperating folding elements positioned adjacent each of the side surfaces of said web, said elements on opposite sides of said web having their free ends in overlapping relationship both transversely of said web and perpendicular thereto, pressing means following said folding means for pressing the pleats formed by said folding means, and lateral tensioning and web selva directing means positioned in advance of said folding means for transversely tensioning and positioning said web, said lateral tensioning and web selva directing means positioned in advance of said folding means for transversely positioning said web including a pair of web contacting belt means adapted to be moved in opposite directions to contact said web at the outer portions thereof, the surfaces of said belt means each being arranged to contact opposite side portions of said web to move said side portions outwardly relatively to one another to laterally tension and position said web, and means for moving said belt means at speeds independent of one another to laterally position said web.

2,821,238
PROCESS FOR MANUFACTURING SELF-IGNITING CIGARETTES
 Georg Lakos, Hamburg-Lohbrügge, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany
 Application November 22, 1955, Serial No. 548,499
 Claims priority, application Germany February 5, 1955
 1 Claim. (Cl. 154—36)

In a process for manufacturing self-igniting cigarettes, the steps comprising continuously feeding a strip of cigarette paper to a conveyor pathway from the underside of said pathway and over one end thereof so that the lower face of said strip beneath said pathway is uppermost during its travel along said pathway, continuously feeding a band of ignition material and a band of glow material of a smaller width than said ignition band mate-

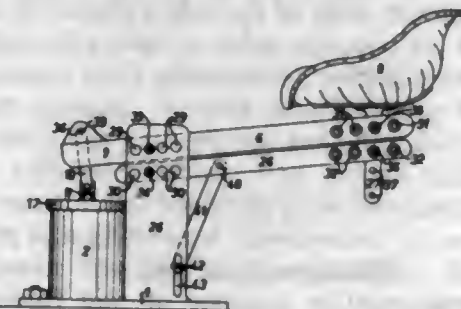
rial from separate rolls beneath said conveyor pathway, applying adhesive to one side of each of said bands during their continuous feeding movement, guiding said bands separately in spaced relation toward the underside of said continuously moving strip of cigarette paper before it passes over the end of said conveyor pathway, cutting said bands into sections of different length, the sections of ignition material being of a greater length than the cut sections of said glow material, applying a section from said ignition material band with its adhesive side to the



continuously moving strip of cigarette paper at spaced intervals equal to the length of two cigarettes, and applying a cut section of said glow material band after said cut ignition section has traveled the distance of two cigarettes centrally to the area of said ignition material band section, said ignition and glow material sections being applied to the cigarette paper strip before it passes over the end of said conveyor pathway whereby said sections will be uppermost during the travel of said cigarette paper along said pathway and will be arranged internally of a completed cigarette.

2,821,239 TRAILER SEAT

Friedrich Brendel, Homburg, Saar
Application December 18, 1953, Serial No. 399,121
Claims priority, application Germany January 20, 1953
6 Claims. (Cl. 155-9)



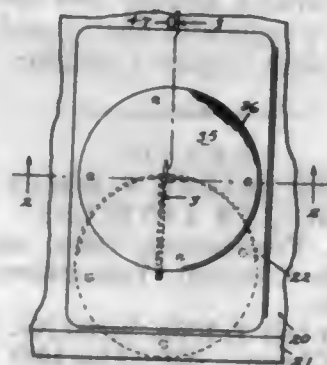
1. A seating arrangement, comprising, in combination, support means; lever means having in the region of one free end thereof a seat portion and mounted on said support means for pivotal movement about a pivot axis intermediate the free ends of said lever means between a first position wherein said seat portion occupies an uppermost position and a second position wherein said seat portion occupies a lowermost position; and combined biasing and damping means connected to said support means and to said lever means in the region of the opposite free end thereof for biasing said lever means toward said first position thereof and for damping turning movement of said lever means from said first position thereof to said second position thereof whereby said lever means will be maintained in said first position thereof when said seat portion is empty and the downward movement of said seat portion of said lever means under the influence of a weight thereon will be damped.

2,821,240 VEHICLE SEAT

Harry L. Morrill, Jr., Atlanta, Ga.
Application August 11, 1955, Serial No. 527,823
3 Claims. (Cl. 155-14)

1. A vehicle seat comprising a generally horizontal flat base, an elongated slotted transverse straight guideway

secured to the upper surface of said base in upwardly projecting relation thereto, an angularly offset straight guideway extending perpendicularly laterally from one end portion of said transverse guideway and forming a lateral extension thereof, a seat, means on said seat sup-



porting said seat on said base for sliding and rotational movement thereon, a guide pin secured to and depending from said seat into said guideway whereby said seat is guided by said guideway, and means for releasably locking said guide pin in said angularly offset guideway at the end of said transverse guideway.

2,821,241 CHAIR ATTACHMENTS FOR TABLES

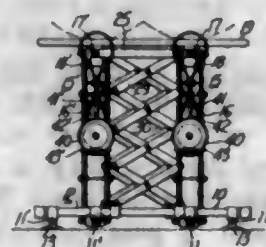
Joseph L. Schwahn, Masonville, N. J.
Application August 27, 1954, Serial No. 452,579
4 Claims. (Cl. 155-80)



1. A retractable seat unit, comprising a bracket adapted to be secured to an extraneous support, said bracket having oppositely directed lugs and an intermediate elongated aperture, an oscillatable member having an extension projecting into said aperture and an extension adapted when in engagement above said lugs to removably secure said member in either retracted or extended positions, a back section pivotally secured to the outer free end portion of said member, a seat section pivotally secured at one edge to the lower portion of said back section, and means normally supporting and connecting the otherwise free edge portion of said seat section to said bracket.

2,821,242 ELEVATABLE SELF-OPERATED INVALID CHAIR

John R. Manegold, Milwaukee, Wis.
Application March 7, 1955, Serial No. 492,417
3 Claims. (Cl. 155-91)



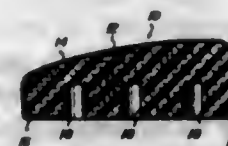
1. An invalid chair capable of having its extensible parts elevated and lowered in an unloaded condition by the occupant seated on said chair and providing the load thereon, said chair comprising a base frame, a plurality of load-supporting lazy tong means extending upward from said base frame in parallel relation to each other and capable of individually supporting the entire load on said chair, each of said tong means hav-

ing a base end and an extensible end, said base ends of said tong means being operably mounted in spaced relation to each other on said base frame, screw means for each of said tong means disposed in a median relation between said seat and said base frame and having opposed threaded connections with spaced complementary parts of said tong means, said screw means being respectively rotatable relative to said tong means to extend and contract each of said tong means, said screw means extending forward of said chair and having endless drive means operably connected thereto and accessible to the occupant of said chair for remotely turning said screw means, a seat selectively tiltable about horizontally extending spaced axes in response to extension and contraction of said tong means, pivot means for each of said tong means, said pivot means connecting said seat to said extensible ends of said tong means and extending respectively coaxially with said axes, said pivot means being spaced apart from each other a distance of from 5 1/4 to 8 inches to place each of said extensible ends of said lazy tong means in respective direct opposing relation to the central point of seating contact of each of the buttocks and thighs of the occupant of said chair whereby the occupant can transfer his entire weight through one of his buttocks to one of said lazy tongs while remaining in nonsliding contact with said seat to unload the other of said lazy tongs whereby said other of said lazy tong means is extensible and contractible in an unloaded condition.

2,821,243 CUSHION AND METHOD AND APPARATUS FOR MANUFACTURE

Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
Original application October 26, 1951, Serial No. 253,290, now Patent No. 2,785,440, dated March 19, 1957. Divided and this application June 21, 1954, Serial No. 438,028

5 Claims. (Cl. 155-179)



4. As a new article of manufacture; a seat cushion comprising a sponge rubber body, and a flexible envelope enclosing said sponge rubber body, the said sponge rubber body being bonded to the envelope and supporting the envelope, a stiffening member extending around the periphery of said cushion at its lower edge, said sponge rubber body having a recess extending upward from the lower surface into said rubber body.

2,821,244 RESILIENT CUSHION

Howard G. Beck, Wabash, Ind., assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio
Application November 23, 1955, Serial No. 548,702
15 Claims. (Cl. 155-179)

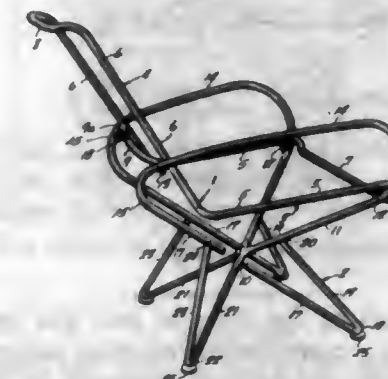


1. A soft deformable cushion comprising a sheet of flexible material having mounted thereon in side-by-side

relation a multiplicity of cups of flexible elastic rubber-like material, each cup having walls that gradually increase in thickness away from the center of the cup.

2,821,245 CHAIR FRAME

Vittorio Meneghelli, Germiston, Transvaal, Union of South Africa
Application April 2, 1956, Serial No. 575,597
3 Claims. (Cl. 155-194)



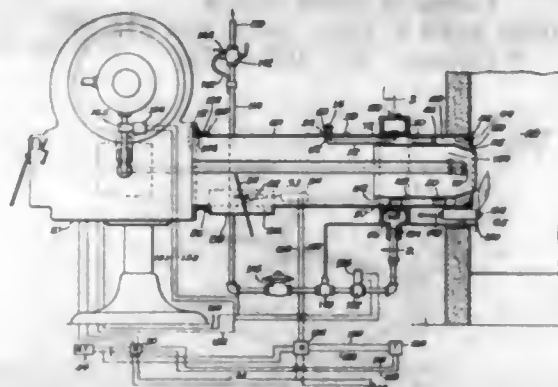
1. A chair frame comprising a seat frame having an approximately horizontal seat position and an upwardly extending back portion, and a structure supporting said seat frame above floor level, said supporting structure comprising a plurality of bars joined at a central junction disposed approximately centrally of said seat portion and between said seat portion and floor level to form a unitary bar structure comprising two symmetrical halves each comprising a first bar portion extending upwardly, forwardly and laterally outwardly from said central junction to a point of junction with a forward side portion of the seat portion of said seat frame, then curving upwardly and rearwardly to a point of junction with a side portion of the back portion of said seat frame at a level above said seat portion, then curving downwardly, laterally inwardly and forwardly and further extending downwardly, forwardly and laterally outwardly to a front foot portion, then upwardly, rearwardly and laterally inwardly to a point of junction with said first bar portion intermediate said central junction and the point of junction with said seat portion, a second bar portion extending downwardly, rearwardly and laterally outwardly to form a rear foot portion then upwardly, forwardly and laterally inwardly to a point of junction with said first bar portion at a point intermediate said front foot and said point of junction with said back portion and disposed rearwardly, upwardly and laterally outwardly from said central junction, and means joining said bar portions with one another and with said seat frame at said points of junction, said two halves of said bar structure being joined with one another at said central junction.

2,821,246 COMBINATION OIL-GAS BURNER AND GAS BURNER ADAPTER FOR GUN-TYPE OIL BURNER

Harris J. Ide, Burlington, and Louis D. Schmit, Lake Como, Wis., assignors to Synchronous Flame, Inc., Walworth, Wis., a corporation of Delaware
Application May 14, 1951, Serial No. 226,258
4 Claims. (Cl. 158-11)

4. A combustible oil and gas burner comprising a housing, an air orifice on said housing, a fan for delivering air to said orifice, a cylindrical tube mounted at one end over said orifice, a sleeve mounted within said tube so as to form a central passageway and an outer passageway, said passageways being in communication with each other at a point spaced from the open end of the tube, the cross-sectional areas of the two passageways being so proportioned to each other that each will supply

substantial secondary air to a flame burning from the other passageway, means for introducing air under pressure into one of said passageways at a point spaced from the open end of the tube, means for introducing gas into the outer passageway at a point between the open end of the tube and the point of communication between the two passageways and spaced sufficiently far



from the open end of the tube so that gas and air may mix into a primary combustible mixture before reaching the annular orifice, an oil jet mounted in the central passageway near the open end of the tube, control means for introducing fuel into only one passageway at a time, and means responsive to actuation of the control means for changing the gross quantity of air introduced under pressure.

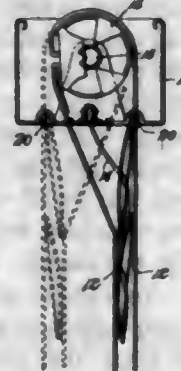
2,821,247

VENETIAN BLIND

Julius Louis Satosky, Baltimore, Md., assignor to The Eastern Venetian Blind Company, Baltimore, Md., a corporation of Maryland

Application May 24, 1954, Serial No. 431,996

2 Claims. (Cl. 160-176)



1. In a Venetian blind assembly including a plurality of slats, a head bar having a front and rear wall and a substantially flat bottom surface, the uppermost of said slats being located directly below said bottom surface, means for tilting said slats from a horizontal position to a fully tilted and raised position, said raising being accomplished after completion of the tilting operation, said tilting and raising means being located within said head bar, a pair of depressions provided on said flat bottom surface of said head bar each adapted to receive an opposite edge of said uppermost slat as the slats are tilted to the two fully tilted and raised positions each said depression extending across the length of said head bar, each of said depressions being adapted to receive the slat edge during tilting of the slats only when the fully tilted and raised position in each direction has been reached.

2,821,248

WINDSHIELD COVER

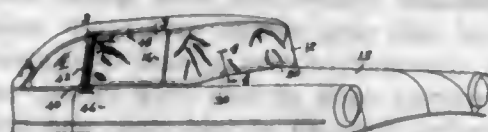
William J. Irvine, Boone, Iowa

Application January 17, 1955, Serial No. 482,139

5 Claims. (Cl. 160-368)

1. A cover for the windshield of a vehicle and for the windows in the respective doors that afford access to the

driver's compartment of said vehicle, said windshield of a type having a wiper member with a wiper arm pivotally mounted relative to the lower edge of the windshield said cover comprising, a length of flexible material having a center section for covering the windshield and two re-



spective end sections for covering the respective windows on the doors, means for securing each respective end section to the edges of a respective door, and a pocket formed in the lower edge of said center section for embracing the bottom of said wiper arm to hold said center section against flapping in a wind.

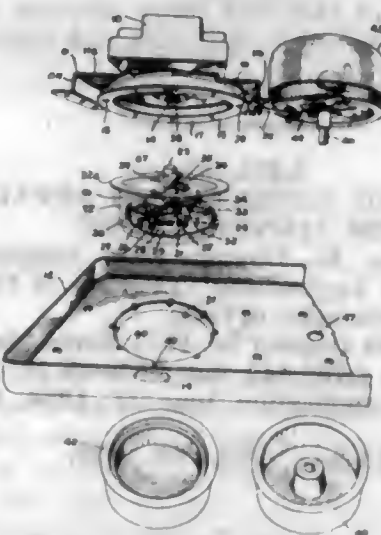
2,821,249

TIME SWITCH

Elmore Stanley Smith, Weston, Ontario, Canada, assignor to Moffats Limited, Weston, Ontario, Canada, a corporation

Application January 11, 1955, Serial No. 481,232

5 Claims. (Cl. 161-1)



1. A device for manually rotating the rotary shaft of a control apparatus to any of a plurality of selected positions and conditionable to automatically rotate said shaft to any other of the said selected positions after a predetermined lapse of time, comprising a support fixed relative to the control apparatus, a releasable detent mechanism for holding the shaft against rotation, a motor unit mounted for rotation relative to the support and including an arbor coupled to the shaft in torque transmitting relationship, a housing manually rotatable relative to the arbor, and a spring motor interposed between the arbor and the housing, the spring motor being windable by manual rotation of the housing relative to the arbor when the shaft is held against rotation by the detent mechanism, the spring motor being wound constantly urging the arbor and the housing to a predetermined angular position relative to each other, the force required to wind the spring motor being appreciably greater than that required to rotate the shaft so that when the shaft is not held against rotation by the detent mechanism it is rotatable to any of the said plurality of selected positions by the manual rotation of the housing, manually releasable means to lock the housing against rotation relative to the support when the rotor has been rotated relative to the arbor to wind the spring motor, the wound spring motor unwinding and rotating the arbor to the said predetermined angular position relative to the housing when the shaft is freed for rotation by the released detent mechanism and consequently rotating the shaft to a corresponding position, a timer having an element which shifts from

a first position to a second position when the timer is set for time measuring operation and which returns to said first position when the time measuring operation is completed, means linking the timer element and the detent mechanism to cause the detent mechanism to hold the shaft against rotation when the element is at the second position and to cause the detent mechanism to release the shaft for rotation when the element returns to the first position so that when a time measuring operation is completed by the timer the previously wound spring motor rotates the shaft from the angular position which it had prior to the winding of the spring motor by rotation of the housing to an angular position corresponding to the angular position at which the housing was locked by the manually releasable means after winding of the spring motor.

2,821,250

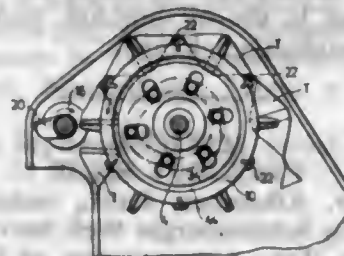
ROTATING SHEARING DEVICE

Harry Sigurd Valdemar Järund, Lund, Sweden, assignor to Hermorian Ltd., Toronto, Ontario, Canada, a company of Canada

Application April 11, 1955, Serial No. 500,584

Claims priority, application Sweden April 15, 1954

7 Claims. (Cl. 164-42)



1. A rotating shearing device for shearing off individual packages from a continuous strand of tetrahedrally formed packages with consecutively formed sealing zones between individual packages arranged in mutually perpendicular planes, comprising a shear wheel mounted for rotation, said wheel having a plurality of cutting members spaced uniformly around the circumference of said shear wheel, said cutting members extending parallel to the axis of rotation of said shear wheel and the distance therebetween being equal to the distance between successive sealing zones in the same plane on said strand of tetrahedrally formed packages, a roller mounted for rotation with and in the opposite direction of said shear wheel on an axis parallel to the axis thereof, said roller having at least one cutting member cooperating in succession with each of said cutting members on said shear wheel to effect a cutting of those sealing zones of said strand of tetrahedrally formed packages as lie parallel to and in contact with the cutting members of said shear wheel, said shear wheel also including a plurality of radially acting shearing means between each pair of adjacent axially extending cutting members on said shear wheel, said radially acting shearing means being located in alignment respectively with the other sealing zones of said strand of tetrahedrally formed packages which lie radial to the axis of said shear wheel, and means for actuating each of said radially acting shearing means in succession between successive shearing actions effected by said cutting member on said roller.

2,821,251

SAFETY DEVICE FOR CHECKING THE CORRECT POSITION OF STOCK IN A PUNCH AND DIE

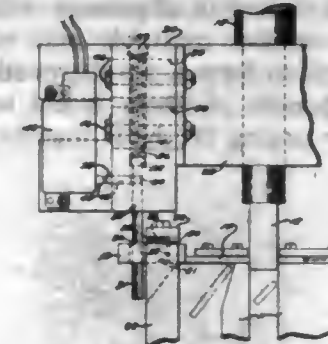
Lars O. Borke, Oak Park, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application November 10, 1954, Serial No. 467,907

8 Claims. (Cl. 164-59)

1. In a device with a movable tool for fabricating stock, a protective device for checking the position of the

stock comprising a first feeler member engaging said stock and responsive to the position of the stock, a second feeler member carried by the movable tool into cooperation with the first feeler member whereby said second



feeler member is responsive to the position of the first feeler member, and means responsive to the said second feeler member for rendering the movable tool inoperative when the stock is not in a fabricating position.

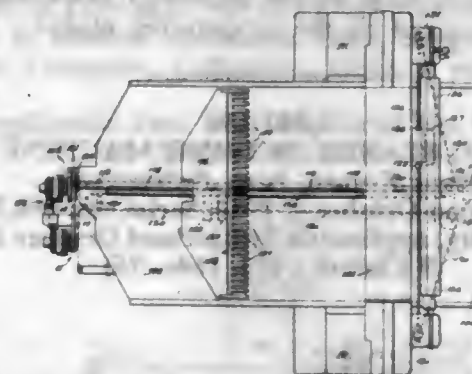
2,821,252

AUTOMATIC BACK GAUGE SPACER FOR PAPER CUTTERS

Carl Thumim, Westbury, N. Y., and Nicholas Herman, Harrington Park, N. Y., assignors to E. P. Lawson Co., Inc., New York, N. Y., a corporation of New York

Application March 14, 1956, Serial No. 571,518

12 Claims. (Cl. 164-59)



1. Spacer mechanism for a machine having a work table, a back gauge movable linearly across the work table embodying a series of stop signals for predetermining the positions of the back gauge comprising a series of signal elements arranged in succession in accordance with desired work positions and speeds of movement of the back gauge; motor means; driveable means connecting the back gauge with the output of said motor means including clutching means with first and second solenoids for controllably effecting movement of the back gauge by said motor means; and circuit means for controlling the movement of the back gauge in accordance with said series of stop signals comprising first signal responsive means arranged to engage the first solenoid to drive the back gauge forward at slow speed in response to first arrangements of said signal elements, and second signal responsive means arranged to engage the second solenoid to drive the back gauge forward at fast speed in response to second arrangements of said signal elements, said first and second signal responsive means being mechanically coupled to move with the back gauge, and said signal elements being stationary with respect to the work table.

2,821,253

FIBER CUTTER

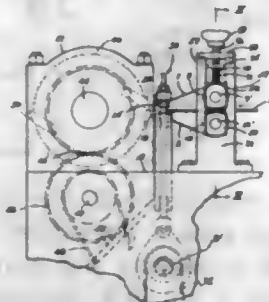
Robert D. Heffelfinger, Lansdowne, and Richard MacHenry, Prospect Park, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application April 14, 1955, Serial No. 501,224

3 Claims. (Cl. 164-68)

1. A fiber cutter comprising a rotatable cutter head mounted on a drive shaft, at least one cutting blade se-

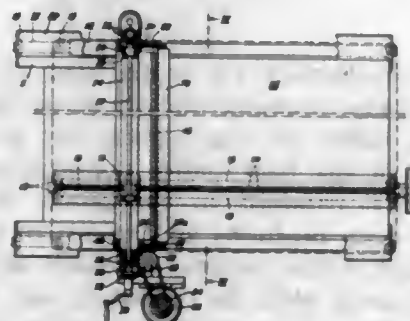
cured to the cutter head, a stationary blade mounted adjacent the cutter head, the cutting edge of the stationary blade cooperating with the cutting edge of the rotatable cutter blade, a lower endless rotatable belt mounted for rotation opposite to and in alignment with the stationary blade, an upper endless rotatable belt which cooperates with the lower belt to form a nip therewith through which nip the supply bundle of fibers is fed to the stationary blade, means for urging the belts together, the discharge



end of said cooperating belts terminating at a point immediately adjacent the cutting edge of the stationary blades, and means mounted adjacent the cutter head for holding down the supply bundle of fibers or filaments against the stationary blade as the bundle is being cut, said feeding means and holding down means operating to prevent disarrangement of the fiber or filament arrangement within the supply bundle as the bundle travels toward the cutting edge of the stationary blade and as the bundle is being cut by the cooperating blades.

2,821,254
FOAM-PLASTIC SKIVING MACHINE
Hans Kernen, Bern, Switzerland

Application October 4, 1954, Serial No. 460,156
Claims priority, application Switzerland October 10, 1953
9 Claims. (Cl. 164-75)



1. A method of cutting off foils from a foam-plastic sheet, comprising the steps of supporting the sheet in a flat superposed position on a firm supporting surface, advancing a knife having a serrated cutting edge longitudinally of the surface and through said sheet and of simultaneously subjecting said knife to longitudinal oscillations with a frequency of such rate that the sheet to be cut cannot resonate.

2,821,255
SUBFORMATION OIL PRODUCTION METHOD
Ralph Spearow, Paola, Kans.

Application March 30, 1956, Serial No. 574,816
12 Claims. (Cl. 166-10)

1. A method of producing oil from oil horizons having at least some of the original formation pressure still resident therein comprising the steps of drilling the borehole of a production well below the bottom level of the oil horizon to be produced, running a production channel to the vicinity of the bottom of the hole bore and below the bottom of the oil horizon to be produced, sealing said production channel to the well wall to produce an annular seal from a level below the bottom of the oil horizon to a level above the top thereof, forming at least one

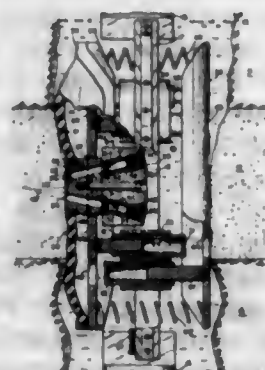
open passageway through the earth formations extending from a level below the horizon and within the well bore upwardly into the bottom of the oil horizon, producing



oil through said passageway into said well bore below the bottom of the oil horizon under the impetus of the pressure inherent in the oil horizon, and thence to the surface in said production channel.

2,821,256
PACK-OFF SHOE
Harry B. Boller, Alhambra, Calif., assignor, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas

Application March 25, 1954, Serial No. 418,650
16 Claims. (Cl. 166-100)



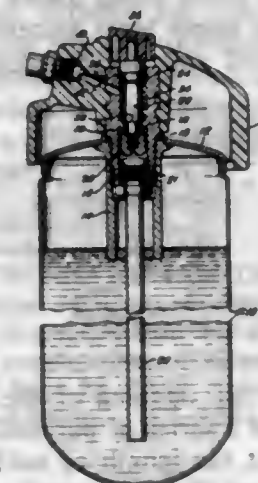
1. A pack-off shoe for use with a carrier adapted to be passed through a borehole comprising a support member selectively movable relative to the carrier between retracted and operative positions, and a sheet-like sealing element of flexible material connected substantially only at outer edge portions to said support member including a wall-engaging front surface and a rear surface, and including a substantially centrally located fore portion normally extending in a direction toward said operative position, said support having orifice means permitting any fluid in the borehole to communicate with said rear surface of said sealing element.

2,821,257
NON-CORROSIVE BROMOCHLOROMETHANE FIRE EXTINGUISHER COMPOSITION AND FIRE EXTINGUISHER CONTAINING THE COMPOSITION
Edward G. Buckley, Morris Plains, N. J., assignor, by mesne assignments, to The Fyr-Fyter Company, Dayton, Ohio, a corporation of Ohio

Application December 9, 1955, Serial No. 552,052
7 Claims. (Cl. 169-31)

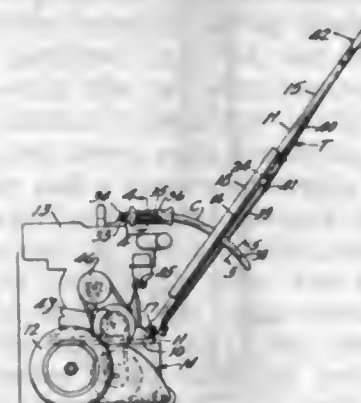
1. A fire-extinguisher composition consisting essentially

of bromochloromethane and one-half of two percent by



2,821,258
COMBINED ADJUSTING ARM AND CARRYING HANDLE
Donald O. Benson and Stanley V. Sonmore, Minneapolis, Minn., assignors to Toro Manufacturing Corporation of Minnesota, Minneapolis, Minn., a corporation of Minnesota

Application September 9, 1954, Serial No. 455,047
10 Claims. (Cl. 180-19)



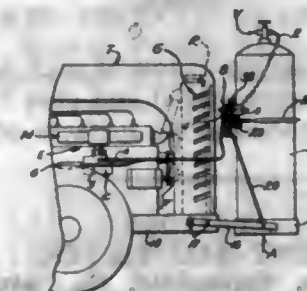
1. A guiding and driving assembly adapted to be mounted upon a ground traversing machine, said assembly comprising an adapter plate adapted to be secured to such a machine, an engine mounted on said adapter plate and adapted to be connected in driving relation with the machine when said plate is so secured, guiding handle structure pivotally connected with said plate and extending upwardly therefrom and being pivotable between guiding and storing positions, an arm having a forward portion disposed ahead of said guiding handle structure and being connected to said engine and extending rearwardly therefrom, said arm having an arcuately curved rearward portion extending through said guiding handle structure and engaging the same at various points along the length of said curved portion to permit adjustment of said guiding handle to various guiding positions, said first mentioned portion of said arm being horizontally disposed when said guiding handle is in storing position to provide effective handle means to facilitate manual carrying of the entire assembly.

2,821,259
TANK MOUNTING ADJACENT RADIATOR FOR VEHICLES BURNING GASEOUS FUELS
Owen L. Garretson, Roswell, N. Mex.

Application May 11, 1950, Serial No. 161,417
2 Claims. (Cl. 180-54)

2. In a vehicle having a liquid cooled internal combustion engine, a radiator for said engine, a storage con-

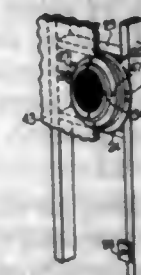
tainer for liquefied petroleum gas under pressure mounted on said vehicle in radiant heat exchange relationship with said radiator, pressure reducing regulator means mounted on said vehicle having its high pressure side connected to said container and its low pressure side connected to supply vaporized gas to said engine as fuel, a fan driven by said engine having blades arranged to move a stream of air in one direction through said radiator,



said regulator means being positioned in the air stream created by said fan downstream from said radiator, whereby said fan moves air through said radiator and then against and around said regulator means to extract heat from the liquid in said radiator and thereafter impart at least a portion of such heat to said regulator means, and said container also being positioned in the air stream created by said fan.

2,821,260
BUILT-IN SOUND SYSTEM FOR HOME
Edward E. Shaffer, Columbus, Ohio, assignor to Shaffer Music Company, Columbus, Ohio, a corporation of Ohio

Application June 28, 1956, Serial No. 594,513
22 Claims. (Cl. 181-31)



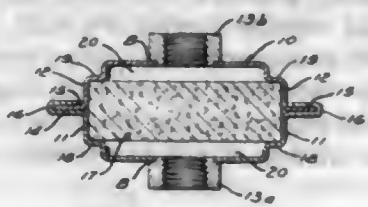
15. In a built-in sound system for homes, a novel apparatus for mounting remote speakers in walls, comprising, in combination, a combined base and speaker guard member including a first surface adapted to engage the framing members of the wall, a second surface extended outwardly to confront the edge of the finish of the wall, and a third surface extended inwardly to overlie a speaker mounted to the apparatus; fastening means for securing said base member to the framing members; a cover member overlying said base member, said cover member including an edge portion adapted to engage the finish of the wall beyond the edge of said finish, one of said members including a mount portion for mounting a speaker in said apparatus; and fastening means for securing said cover member to said base member.

2,821,261
METHOD AND MEANS FOR FILTERING GAS
Leslie F. Vixler, Rocky River, and Robert C. Weast, Cleveland Heights, Ohio

Application May 27, 1957, Serial No. 661,960
1 Claim. (Cl. 183-45)

A filter for filtering ultramicroscopic particles suspended in a gas stream comprising, a casing including inlet and outlet openings, and felted fibrous material arranged in said casing for the flow of gas therethrough, the fibers of said material having an average diameter of approximately three microns and the material having a density of approximately 1.58 grams per cubic inch and consisting essentially only of the following elements:

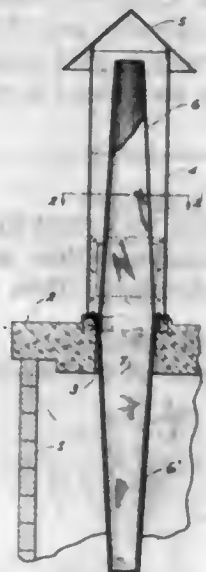
SiO₂, 46-49%; Al₂O₃, 46-49%; and additives 2-8% of dielectric adhesive, whereby filtering of such particles is



accomplished by a sieving action of such particles within the body of said filter material and also by electrostatic attraction of the particles to the surfaces of the fibers.

2,821,262 VENT BAG FILTER

Robert A. Godwin, Springfield, Pa., assignor to The Allen-Sherman-Hoff Company, Wynnewood, Pa., a corporation of Pennsylvania
Application January 23, 1956, Serial No. 560,485
3 Claims. (Cl. 183-52)



1. A filter device comprising an elongated, flexible bag filter open at one end and composed of material sufficiently porous for gases to pass therethrough but substantially impervious to fine solids, and a vertically disposed, perforated, bag supporting structure relatively rigid as compared with the bag, said structure consisting of an upper member open at its bottom end and a lower member open at its top and each member having substantially the same inside length and transverse dimensions as the bag, the open end of the bag being secured between the open ends of said members and being supported for substantially its entire length when in either of said members, said bag being movable up thru its open end and into substantial full length supported engagement with the inner surface of said upper member by the upward flow of gases therethrough and being movable down thru its open end into substantially full length supported engagement with the inner surface of said lower member by the action of gravity on the filter and solids thereon when the upward flow of gas is interrupted.

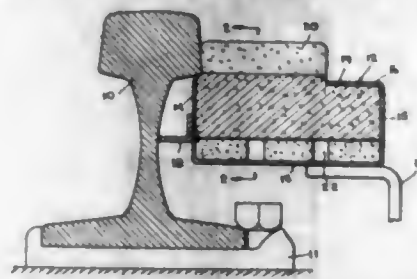
2,821,263

RAIL AND FLANGE LUBRICATOR

Philip Henry Kerler, Clifton, N. J.
Application December 9, 1954, Serial No. 474,201
4 Claims. (Cl. 184-3)

4. The combination with a lubricant reservoir comprising a tank having sides, a floor and a top wall extending the length of the tank and partially covering the top thereof so as to leave an elongated top opening, an insert in said tank, said insert comprising an elongated unitary length of cellular, oil absorbent material substantially filling said tank from one end to the other, said insert being

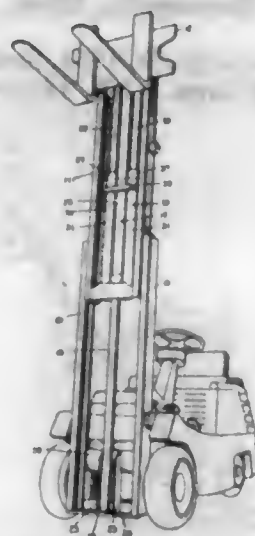
formed with two planar, horizontal levels on its upper surface, one of said levels being above the other, a vertical side wall on the upper level descending to the lower level, said upper level and said vertical side wall both



extending above the top opening of the tank, said upper level being formed of a series of parallel, transverse strips extending throughout the length of said upper level, the bottom of said insert being formed with a series of grooves.

2,821,264

RAM CONSTRUCTION FOR LIFT TRUCK
Bronislaus I. Ullinski, Chicago, Ill., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application December 30, 1954, Serial No. 478,807
3 Claims. (Cl. 187-9)

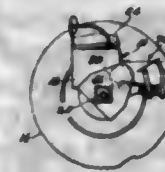


1. In a truck of the class described, primary uprights, secondary uprights mounted for vertical movement relatively to said primary uprights, a load carriage mounted for vertical movement relatively to said secondary uprights, a hydraulic ram unit comprising a pair of small rams and a large ram to which said small rams are juxtaposed with a small ram at each side of the large ram, said large ram including an extensible element and a relatively stationary element, means securing the lower end of the relatively stationary element of the large ram relatively to said primary uprights and against vertical movement relatively to said primary uprights, means securing the upper end of the relatively extensible element of said large ram to the secondary uprights whereby said large ram is held at all times between said secondary and primary uprights and when actuated will lift the secondary uprights relatively to the primary uprights, each small ram including an extensible element and a relatively stationary element, structural means securing the relatively stationary element of each small ram in integral relation to the relatively extensible element of said large ram, said means rigidly fixing the relatively stationary elements of the small rams and the relatively extensible element of the large ram to one another intermediate the ends thereof so that the three rams are held in aligned relationship to one another through said structural means and in operating position between the primary and secondary uprights only through the means that hold the elements of the large ram between the secondary uprights and primary uprights,

the construction and arrangement of the three-ram unit being such as to permit its assembly to and removal from the truck as a unit through the positioning of the large ram relatively to the primary and secondary uprights, and flexible means connected to said load carriage and actuated by the extensible elements of said small rams whereby the small rams move said load carriage relatively to the secondary uprights.

2,821,265

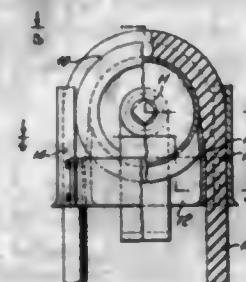
SELECTIVE BRAKE CONTROL MEANS
Charles S. Morrison, Moline, and Bernard M. Silverberg, Rock Island, Ill., assignors to Deere & Company, Moline, Ill., a corporation of Illinois
Application June 25, 1953, Serial No. 363,954
4 Claims. (Cl. 188-16)



1. Selective brake control mechanism for a vehicle having a supporting frame journaling first and second rotatable parts that are selectively braked and released by individual first and second brake means, said mechanism comprising: first and second individual brake levers connected respectively to the first and second brake means and individually rockable on the supporting frame from normal positions to brake-applying positions and biased to said normal positions with their free ends spaced apart; a brake operator member having spaced apart first and second end portions; and first and second connecting means supporting the operator member at its first and second end portions respectively on the free ends of the first and second levers, each connecting means including a fulcrum on and a force-transmitting connection to its associated lever so that the operator member may fulcrum at one end on one normally positioned lever and transmit force through its other end to rock the other lever for applying only the brake means associated with the last-mentioned lever and so that force applied to the operator member intermediate its ends will cause said member to transmit force to rock both levers simultaneously from their normal positions for applying both brake means.

2,821,266

CORD OPERATED MECHANISM
James F. Hunter, New Rochelle, N. Y., assignor to Rosemary M. Hunter
Application April 6, 1955, Serial No. 499,731
2 Claims. (Cl. 188-65.3)

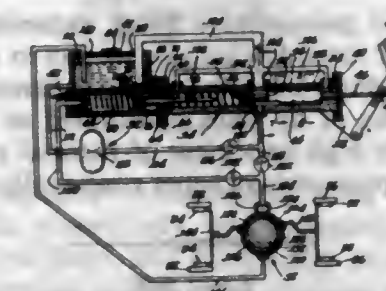


1. An operating mechanism for a window shade roller or other similar device comprising a grooved pulley mounted in a bracket and connected to said roller to move the same, an elastic cord moving in said groove to drive said roller and a control mechanism for said cord comprising a tubular member attached to said bracket and surround said cord substantially tangent to said groove and extending longitudinally along said cord, said tubular member having a maximum cross-section substantially equal to the cross-section of the free cord and

being at one point tapered down to a constricted cross-section substantially equal to the area of the cord when under tension, whereby, when the cord is pulled, it will stretch and thereby shrink in area sufficiently to pass through said constricted portion, but will bind at said constricted section when the cord is released.

2,821,267

ANTI-SKID VEHICLE BRAKE SYSTEM
Bror G. Olving, Elgin, Ill.
Application July 8, 1954, Serial No. 442,104
9 Claims. (Cl. 188-85)



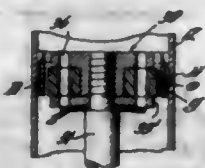
1. A safety braking system for a vehicle having hydraulic brake means comprising a reservoir for hydraulic fluid, means for returning hydraulic fluid from said brake means to said reservoir, a pump, power means for driving said pump, a hydraulic line from said reservoir to said pump, a pressure line leading from said pump, a valve cylinder, an inlet connection to said valve cylinder from said pressure line, hydraulic pressure conveying means connecting said pressure line to said hydraulic brake means, a hydraulic return line to said reservoir connected to said valve cylinder and substantially opposite to the inlet connection, a piston slidable in said cylinder and having a reduced neck portion capable of being positioned intermediate said inlet connection and said return line, means including a brake pedal for axially moving said piston to cause said reduced neck portion to by-pass hydraulic fluid from said pressure line to said return line or to block said return line for applying fluid under pressure to said hydraulic pressure conveying means for operating said brake means, a reserve cylinder aligned with said valve cylinder and in communication with said reservoir, a reserve piston in said reserve cylinder, means projecting from said reserve piston into position for engagement by said first mentioned piston upon movement past a predetermined position to cause said reserve piston to exert pressure on hydraulic fluid in said reserve cylinder, a hydraulic conduit from said reserve cylinder to said hydraulic pressure conveying means for applying pressure hydraulically to said brake means independently of said pump, means in said pressure line preventing backflow of hydraulic fluid into said pressure line from said hydraulic conduit, and means in said hydraulic conduit preventing backflow of hydraulic fluid from said pressure line into said hydraulic conduit.

2,821,268

THERMOSTATIC SHOCK ABSORBER
Christian Marie Lucien Louis Bourcier de Carbon, Neuilly-sur-Seine, France
Application December 16, 1953, Serial No. 398,594
Claims priority, application France December 22, 1952
13 Claims. (Cl. 188-100)

1. A direct acting hydraulic shock absorber for controlling the relative movements of two members comprising, in combination, a substantially cylindrical casing secured to one of said members, said casing enclosing a working chamber containing a hydraulic damping fluid, a piston adapted to reciprocate in said working chamber, and a piston rod fixed to said piston and connected to the other of said relatively reciprocating members; a plu-

ality of normally open restricted effective damping passageways, each extending through said piston independently of and in parallel with the others, and all affording means for bypassing working fluid from one side of the piston to the other upon the occurrence of compression or rebound movements of the piston within the casing,



certain of said passageways being exceedingly thin and laminar and of extended arcuate section in order to effect viscosity damping rather than kinetic damping, and having at least one of its walls constituted of material having a relatively high coefficient of thermal expansion, and other of said passageways being continually open and uncontrolled.

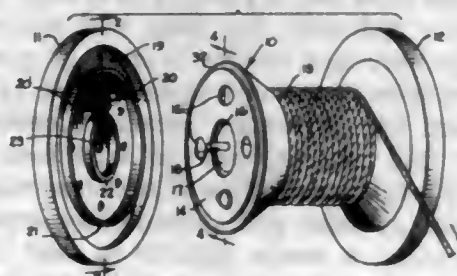
2,821,269

BRAKING MECHANISM

William E. B. Kell, Los Angeles, Calif.

Application December 12, 1956, Serial No. 627,954

5 Claims. (Cl. 188-164)



1. A braking mechanism for controlling the rotation of a reel comprising, in combination: a stationary plate; a braking disc; means for resiliently securing said disc to one end of said reel for rotation therewith; biasing means axially biasing said disc into face to face engagement with said plate; and air scoop means on said disc adapted to pass air between the opposing faces of said plate and disc upon rapid rotation of said reel such that the dynamic air pressure between said opposing faces is increased sufficiently to separate said disc from said plate.

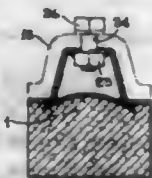
2,821,270

COMPOSITION BRAKE SHOE ASSEMBLY

George K. Newell, Pittsford, and Carl D. Wright, Jr., Pittsburgh, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application June 29, 1955, Serial No. 518,866

4 Claims. (Cl. 188-251)



1. A brake shoe assemblage for use with a vehicle wheel, said assemblage comprising a reinforcing plate longitudinally curved to conform to the circumferential curvature of the vehicle wheel, and also being concave in cross-sectional contour, a brake shoe block of molded composition material integrally secured to said plate along the edges thereof in the molding operation, a reinforcing channel member of U-shaped cross-section having longitudinal flanges conforming to the curvature of the said plate, said channel member being secured to the

exposed portion of said plate along each of the flanges of said channel member, said channel member also having a plurality of transversely extending openings there-through, and a plurality of securing pins inserted through said openings to secure said assemblage to a supporting member.

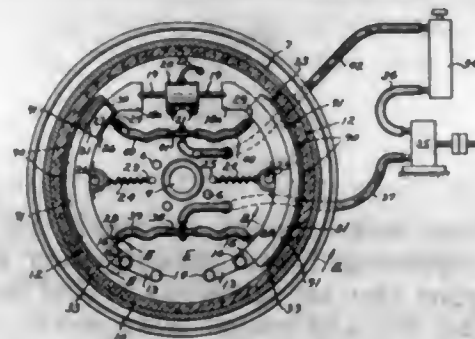
2,821,271

LIQUID COOLED BRAKE WITH COPPER FRICTION SURFACES

Roy S. Sanford, Woodbury, Conn., assignor to Roy S. Sanford, Woodbury, Roger H. Casler and James O. Eames, Washington, and Wilfred A. Eaton and Erling D. Sedergren, Woodbury, Conn.

Application May 3, 1954, Serial No. 427,210

7 Claims. (Cl. 188-264)



1. In a brake mechanism having a support and a pair of brake elements mounted for relative rotational movement thereon, the combination of a substantially non-metallic heat-insulating brake lining of relatively low heat conductivity on one of the elements, a friction facing primarily of copper of relatively high heat conductivity on the other of said elements having one surface positioned for frictional engagement with the surface of said lining, means for maintaining a circulating cooling liquid in engagement with the surface of said copper facing directly opposite said one surface, and means for bodily moving one of said elements toward the other to effect direct physical engagement of said one surface of the copper with the surface of the brake lining.

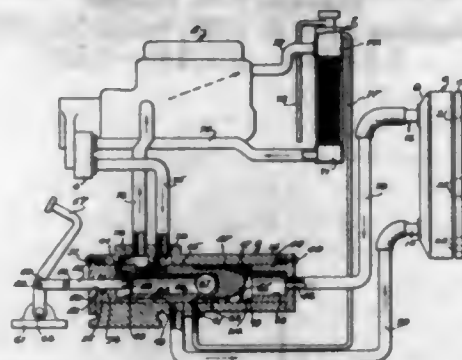
2,821,272

FLUID PRESSURE BRAKE SYSTEM

Roy S. Sanford and James O. Eames, Seymour, Conn., assignors to Roy S. Sanford, Woodbury, Roger H. Casler and James O. Eames, Washington, and Wilfred A. Eaton and Erling D. Sedergren, Woodbury, Conn.

Application December 14, 1954, Serial No. 475,017

25 Claims. (Cl. 188-264)



1. Liquid pressure operated and liquid cool frictional mechanism including a liquid circulating system comprising a pump having suction and discharge ports, a heat exchanger having inlet and outlet ports, and conduits connecting the suction and discharge ports of the pump respectively with the outlet and inlet ports of the heat exchanger, a fluid pressure operated actuator having a chamber for circulating cooling liquid therein provided with inlet and outlet ports and having a pressure responsive member responsive to the pressure of circulating liquid in said chamber, and control valve mecha-

nism connected in series in said circulating system and having separate connections with the inlet and outlet ports of said actuator for controlling the flow of liquid through said chamber and the pressure of liquid therein, said control valve mechanism including a valve operating element having a brake release position and brake applied positions and valve means operable by said element, said valve means operable when the valve operating element is in brake release position to establish the circulation of liquid in said circulating system by the operation of said pump and to prevent the circulation of liquid from said circulating system through said connections, actuator ports, and actuator chamber, and operable on movement of said valve operating element toward brake applied position to direct a portion of the liquid from said circulating system through said actuator connections, actuator ports, liquid chamber, and to said heat exchanger, and to impose a restriction on the flow of liquid from the outlet port of said actuator chamber to the circulating system to increase the pressure of liquid in said chamber to operate said pressure responsive member.

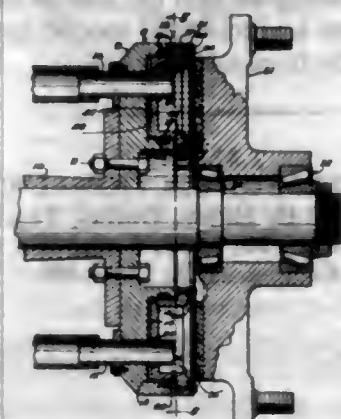
2,821,273

FLUID PRESSURE BRAKE SYSTEM

Roy S. Sanford and James O. Eames, Seymour, Conn., assignors to Roy S. Sanford, Woodbury, Roger H. Casler and James O. Eames, Washington, and Wilfred A. Eaton and Erling D. Sedergren, Woodbury, Conn.

Application December 14, 1954, Serial No. 475,072

24 Claims. (Cl. 188-264)



4. A fluid operated brake comprising a cylinder, a rigid piston in the cylinder and having a chamber formed therein, one end of said chamber being open and having an area substantially equal to the effective area of said piston, a thin and flexible metal plate secured to the open end of the piston for closing said end, a friction brake member, and means for circulating a liquid under pressure through said cylinder and chamber to cool said plate and move said rigid piston and plate bodily outwardly in said cylinder to bring the plate into engagement with the brake member, the area of said brake member being substantially equal to the area of the open end of the chamber and in alignment therewith.

2,821,274

BUILDING STRUCTURES

Anders C. Olsen, Forest Hills, N. Y.

Application December 20, 1951, Serial No. 262,555

2 Claims. (Cl. 189-34)

1. A wall structure comprising a rectilinear series of vertically disposed studs having a plurality of slots therein, a plurality of tongues adjacent an extremity of each of said slots and each directed away from the adjacent slot, wall board panels together covering the studs, means for securing said panels in position against said studs, comprising spaced securing devices each having a panel engaging portion, a stud engaging portion, and a web portion connecting said two first mentioned portions, said web portion extending through the gap between the edges

of two closely spaced panels and said stud engaging portion passing through one of said slots on the adjacent stud and having an inclined serrated edge in locking engagement with one of said tongues on said stud, the panel engaging portion of each such securing means hav-



ing surfaces engaging the marginal faces of two such adjacent panels, respectively, and oppositely facing outwardly flaring surfaces, and a vertically extending molding member covering said gap and resiliently gripping the panel engaging portions of the fastening devices extending therethrough.

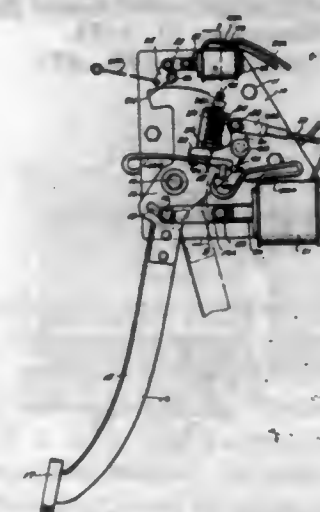
2,821,275

POWER OPERATED EMERGENCY BRAKE

Joseph F. Martin, Detroit, Mich., assignor to Mabel M. Martin, Detroit, Mich., and himself as tenants by the entirety with rights of survivorship

Application January 27, 1956, Serial No. 561,858

10 Claims. (Cl. 192-4)



1. In a motor vehicle, having an emergency brake mechanism, including a foot lever for actuating the emergency brake pull cable, and an automatic transmission speed selector mechanism, the combination of a member secured to said foot lever and moveable therewith, means connecting said last named member to said cable, power means for moving said member, means for locking said member in predetermined positions, power means for releasing said locking means, and means responsive to the movement of said automatic transmission speed selector means, for controlling each of said power means.

2,821,276

ROTARY IMPACT TOOL

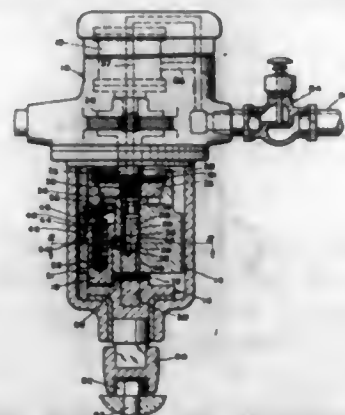
Harold C. Reynolds, Athens, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey

Application February 10, 1954, Serial No. 409,403

4 Claims. (Cl. 192-30.5)

1. An impact tool comprising a pressure fluid motor, an anvil, a hammer for connection with the motor and rotated thereby for delivering a series of rotational blows to the anvil, said hammer having a chamber, and a dog

mounted in said chamber having a pressure surface thereon and being movable into one position for engagement with the anvil and movable into a second position out of such engagement, means constantly urging the dog into one of said positions, valve means mounted on the anvil



and cooperating with the hammer to valve pressure fluid to said surface whenever the hammer is in one location relative to the anvil and to exhaust pressure fluid from said surface to the atmosphere whenever the hammer is in another location relative to the anvil, and means for supplying pressure fluid to said valve means.

2,821,277

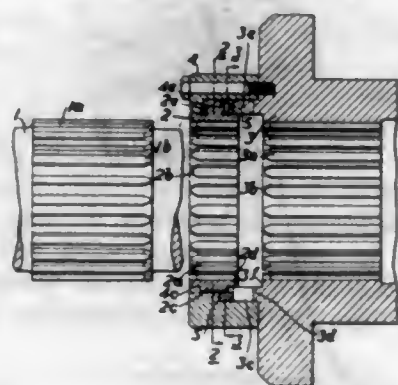
SPLINED CLUTCHES

John Oliver Philip Hughes, Leicester, England, assignor to The English Electric Company Limited, London, England, a British company

Application October 21, 1954, Serial No. 463,672

Claims priority, application Great Britain

November 11, 1953
4 Claims. (Cl. 192-67)



1. A clutch comprising in combination two co-axial main splined members axially slidable into and out of one another, having splines chamfered at the ends facing one another prior to the engagement thereof, an auxiliary member being internally splined the same way as, and being arranged with a limited angular and axial freedom relative to one of the said main splined members, the ends of the splines of said auxiliary member facing those of the other one of the said main splined members being chamfered, lozenge-shaped radial projections arranged on the circumference of the said auxiliary member, segment members mounted circumferentially slidably in the said first main splined member and having chamfered ends engaging the said lozenge-shaped projections, resilient means biasing the said segment members against the said lozenge-shaped projection firstly opposing the axial and angular movement of the said auxiliary member relative to the said first main splined member, the force for moving the said auxiliary member axially and turning the same into a position guiding the said second splined member into engagement with the said auxiliary member being then derived from the energy stored in the said resilient means, upon moving the said other main splined member axially relative to said auxiliary member, and the torque for turning the said main splined members into a mutually

engageable position being derived from the axial force shifting the same into engagement, owing to the wedge action of the engaging chamfered faces.

2,821,278

EAR AND SHELL CORN HANDLING DEVICE

Arthur E. Paschal, Vinton, Iowa

Application April 25, 1956, Serial No. 580,632

5 Claims. (Cl. 193-2)



5. In a farm product handling means, a frame, a means for securing said frame to a conduit, a horizontal bar rotatably secured to said frame, an arm extending from said bar, a bearing ear on said frame, a rod hinged at one end to said arm and having its center length slidably extending through said ear, a nut threaded onto the free end of said rod, a coil spring embracing said rod having one end bearing on said ear and its other end bearing on said nut, and a plurality of spaced apart flat fingers extending forwardly from said bar.

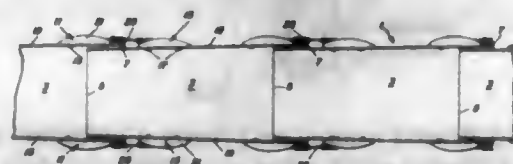
2,821,279

CONNECTORS FOR SECTIONAL CHUTES

Robert O. Hinds, Dallas, Tex.

Application May 28, 1957, Serial No. 662,111

2 Claims. (Cl. 193-30)



1. In an extensible drop chute adapted to be raised and lowered and including at least a first chute section having a front end telescoping into a rear end of a second chute section, connecting means for said sections comprising a pair of longitudinally extending channel bars on opposite sides and adjacent said end of each section, and a pair of link chains terminally fixed in the channel bars of the second section and detachably attached in the channel bars of the first section and adapted to be pulled taut when the chute is extended, said channel bars having upper and lower convex flanges extending outwardly beyond said chains and when the latter are taut to prevent said chains and flanges from catching in objects when the chute is raised and lowered.

2,821,280

FEED MECHANISM

Haaren A. Miklofsky, Prince Georges County, Md., assignor to the United States of America as represented by the Secretary of the Navy

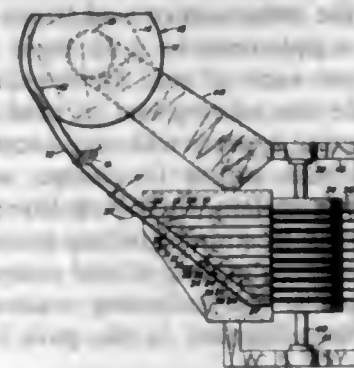
Application March 25, 1955, Serial No. 496,956

16 Claims. (Cl. 193-31)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a feed mechanism, an inclined chute, means associated with said chute for releasing articles thereon for passage down said chute at spaced intervals, a plurality of tracks intersecting said chute below said means, means

to cause each successive article released by said first mentioned means to enter a different one of said tracks, and



means connected to said first and second mentioned means to supply power thereto.

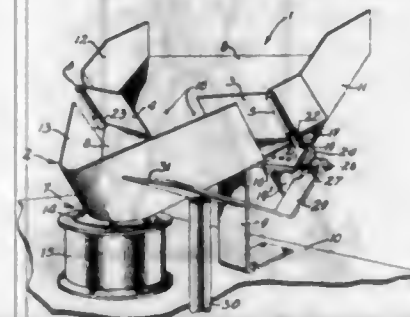
2,821,281

FLOW CHUTE FOR FILLING CONTAINERS

Walter R. Zwoyer, Maywood, N. J., assignor to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts

Application August 8, 1955, Serial No. 526,922

1 Claim. (Cl. 193-32)



A device for controlling the feed of measured charges of material to bags and the like which comprises a chute having an inclined floor adapted to receive a measured charge of material at its upper end and provided with a discharge opening at its lower end and upstanding side walls extending from said upper end convergently towards and tangentially around said discharge opening, gate members pivotally mounted on axes normal to said chute floor and at opposed sides intermediate the ends of said side walls, the pivotally mounted gates being carried by pivot posts mounted substantially in the plane of said side walls and which extend below the floor of the chute with a gear wheel fixed on each post, an operating shaft extending between said posts under the chute floor with gears fixed thereon in mesh with said post gears, said shaft having a crank lever fixed thereon and means for progressively pivoting said gates to and from a position transversely of the chute and in the latter position the ends of said gates being spaced apart, said pivoting means comprising a reciprocable actuating member engaging with the outer end of said crank lever, said reciprocating member being movable to a position which allows said gate members to move to a position in flat relation against said side walls.

2,821,282

TIPPING LOCK FOR A GARBAGE CHUTE

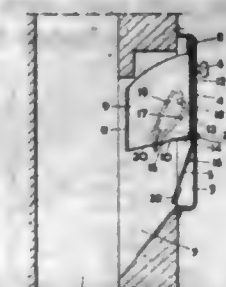
Johannes Petrus Hekelaar, The Hague, Netherlands, assignor, by mesne assignments, to N. V. Ontwerp- & Exploitebureau "Shunt," a limited liability company, The Hague, Netherlands

Application September 6, 1956, Serial No. 608,375

5 Claims. (Cl. 193-34)

1. A tipping lock for a garbage chute comprising an apertured frame plate adapted to be fitted about the tipping aperture of said lock, in which frame plate movable parts are hingedly mounted in the immediate vicinity of the lower edge of the aperture in said frame plate,

characterized in that said movable parts comprise a shaft and a bent plate, whose foremost portion is formed as a cover for the aperture in the frame plate and whose rearmost portion serves as a bottom for said shaft, the pivot of the shaft being located adjacent its foremost lower edge and the pivot of said plate being located ad-



acent its bend, the angle between the foremost and the rearmost portion of said plate being larger than the angle between the lower edge and the front wall of the shaft, the arrangement being such that when the cover is tilted forward the bottom will lie against the lower edge of the shaft and will take the shaft along.

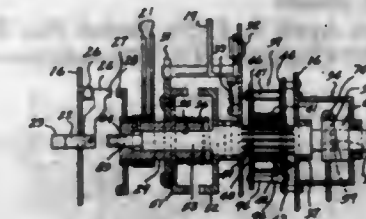
2,821,283

PARKING METER RESETTNG APPARATUS

Joseph W. Cruse, Tuscaloosa, Ala., assignor of fifty-two percent to J. P. Burchfield, twelve percent to Mrs. Nell M. Burchfield, twelve percent to Wilbur Manderson Burchfield, twelve percent to Joe Lee Burchfield, and twelve percent to Joseph Pegues Burchfield III, all of Tuscaloosa, Ala.

Application May 23, 1955, Serial No. 510,464

7 Claims. (Cl. 194-1)



1. The combination with a meter for a parking space including an indicator member urged normally toward zero position and spring drive means for progressively advancing said indicator member whereby the elapsed time is indicated, of a drive shaft connected non-rotatably to said drive means and adapted for axial movement relative thereto, a clutch interposed between said drive shaft and said indicator member and operable to connect said indicator member to said drive shaft upon axial movement of the drive shaft in one direction, an actuating member in position to be operated by a vehicle, and mechanical means operatively connecting said actuating member to said drive shaft whereby the drive shaft is moved axially in a direction to engage the clutch and connect the indicator member to the drive shaft while a vehicle is in the parking space and is moved in the opposite direction to disengage the clutch upon removal of the vehicle from said space whereupon the indicator member is free to move to zero position.

2,821,284

CARBON TRANSFER MATERIAL WITH ALARM MEANS FOR AN IMPRINTING MACHINE

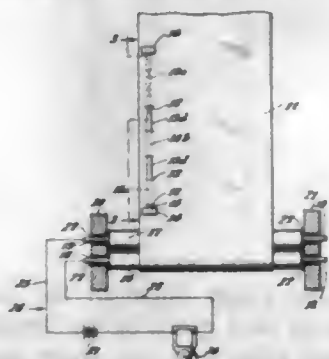
Victor William Garwood, Wallington, and Peter Ernest Goreham, London, England, assignors, by mesne assignments, to Lamson Paragon Limited, London, England, a corporation of Great Britain

Application March 15, 1954, Serial No. 416,370

5 Claims. (Cl. 197-134)

4. An imprinting machine, comprising feed means for feeding a plurality of elongated stationery webs along a

predetermined path with said stationery webs including at least one carbon transfer web interleaved between record webs and having at least one conductive contact thereon so as to traverse said path, a pair of rolls extending transversely of said path and spaced therealong so as to be traversed in succession by said conductive contact on said transfer web, said rolls each having a conductive surface, a warning device adapted to be actuated when

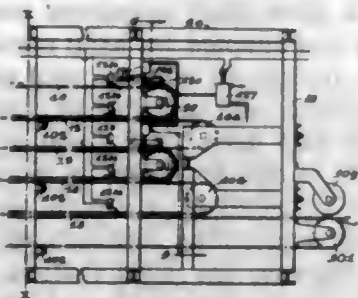
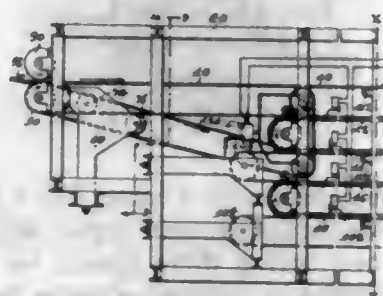


connected across a source of electromotive power, electric circuit means connecting one side of said warning device to one of said rolls and connecting the other side of said warning device to the other one of said rolls, and said conductive contact being at least long enough to bridge the space between said rolls while traversing said path and thereby conductively connect said rolls for actuating said warning device.

2,821,285

CONVEYOR SYSTEM FOR PULP DRYERS
Frederick William Hooper, Montreal, Quebec, Canada, assignor to Ross Engineering of Canada Limited, Montreal, Quebec, Canada

Application April 9, 1956, Serial No. 576,877
12 Claims. (Cl. 198—84)



1. A conveyor system for conveying a layer of pulp stock along a circuitous path through a pulp drying enclosure, comprising a supporting frame, a plurality of juxtaposed courses of aligned laterally spaced apart endless strands extending the length of said enclosure, each of said courses extending between a non-tensioned roller and a plurality of resiliently tensioned pulleys mounted on opposite ends of said supporting frame, said non-tensioned rollers and tensioned pulleys being mounted in said frame at alternative ends of said enclosure at each successive course, an arcuate guide plate of substantially equal length to said non-tensioned rollers mounted on said frame adjacent one end of each of said courses so as to at least partially surround the non-tensioned roller guiding said course in spaced apart relationship therewith and adapted to deflect said pulp layer from one course to the next succeeding course, means to drive said non-tensioned

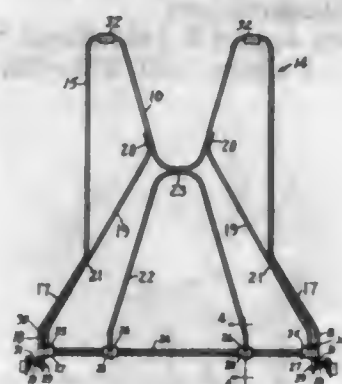
strand guiding rollers disposed adjacent one end of said frame in one direction and said non-tensioned rollers disposed adjacent the other end of said frame in the opposite direction, and supplementary pulp layer guiding means mounted adjacent each of said arcuate guide plates and adapted to guide the leading end of said pulp layer into successive deflecting contact with said arcuate guide plates as it proceeds from course to course, actuating means connected to said supplementary pulp layer guiding means adapted to move said strand guiding means towards and away from the corresponding strand courses and control means connected to said actuating means and including a contact member disposed in the path of each of said strand courses.

2,821,286

WICKET FOR SHEET CONVEYOR

James D. Russell, Cleveland, Ohio, assignor to Young Brothers Company, Cleveland, Ohio, a corporation of Michigan

Application July 12, 1954, Serial No. 442,530
11 Claims. (Cl. 198—134)



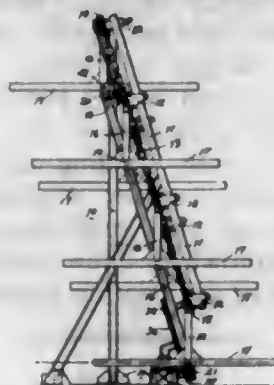
1. A wicket adapted in an inclined position thereof to support sheet material on edge with a face of the wicket in contact with a face of the material, said wicket being fabricated of thin-walled tubing having an outwardly directed rib formed along the length of the same, the rib of such tubing protruding at the face of the wicket against which the material is supported so that the latter is engaged by the rib, thus to provide substantially a line contact between the wicket and the sheet material.

2,821,287

MULTIPLE AUTOMOBILE PARKING DEVICE

Geoffrey Francis, San Francisco, Calif.

Application June 29, 1956, Serial No. 594,916
12 Claims. (Cl. 198—158)



1. In an automobile parking device of the character described, the combination of a structural supporting frame, a pallet supporting trackway formed as a closed loop having parallel portions disposed in an inclined plane at opposite sides of said supporting frame, a power transmitting means operating in a plane spaced from and parallel with said trackway, said power transmitting means being adapted and arranged to follow the closed loop contour of said trackway, a plurality of trolleys mounted in spaced relation upon said trackway having driving connections with said power transmitting means, a plurality of

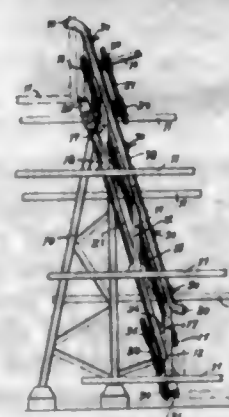
horizontally disposed load supporting pallets each having a vertical mast connected at its upper end to one of said trolleys, means forming an articulated universal connection between the upper ends of said masts and said trolleys, whereby said pallets will be carried in a suspended position about said trackway as said trolleys are moved around said trackway by said power transmitting means, a pallet stabilizing means supported by said structural frame, and means carried by each of said pallets and engaging said pallet stabilizing means, whereby said pallets will be held in a horizontal plane as they are moved along and around said trackway from one to the other side of said supporting frame by the operation of said power transmitting means.

2,821,288

CARPORT PARKING DEVICE

Geoffrey Francis, San Francisco, Calif.

Application September 27, 1956, Serial No. 612,507
10 Claims. (Cl. 198—158)



1. In an automobile parking device of the character described, the combination of a supporting frame, a power transmitting means operating along inclined paths spaced outwardly at the opposite sides of said supporting frame, a plurality of pallets having upstanding masts at their inner sides and a driving connection with said power transmitting means, a continuous guide means disposed above and outwardly in substantially parallel relation with the path travelled by said power transmitting means, means at the upper ends of the masts carried by said pallets engaging the inner side of said continuous guide means, a pair of spaced stabilizing rails disposed below and extending in spaced parallel relation with the path travelled by said power transmitting means, and means at the lower ends of said masts engaging the outer sides of said stabilizing rails, the upstanding masts of each of said pallets being connected to said driving means intermediate their ends and between said guide channel and said stabilizing rail engaging means by a universal power transmitting connection, whereby said masts will support said pallets in cantilever fashion between said guide means and said stabilizing rails as they are moved upwardly and downwardly at the sides of said supporting frame by said power transmitting means.

2,821,289

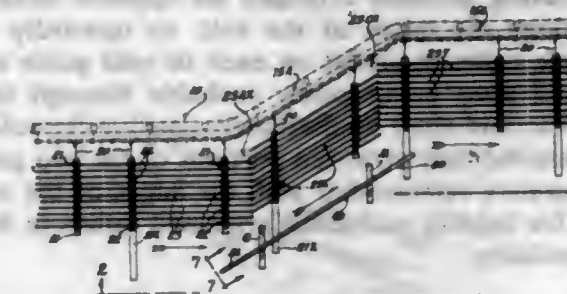
ANTI-COLLISION CONVEYOR MEANS

Nildo Castagnoli, Stone Park, and Leon J. Segli, Winnetka, Ill., assignors to Luminous Ceilings, Inc., Chicago, Ill., a corporation of Illinois

Application August 8, 1955, Serial No. 526,905
7 Claims. (Cl. 198—177)

1. In an overhead monorail conveying system for carrying pendant hanger rods loaded with objects travelled thereby along a normal path of travel which includes at least one change in level up or down, to another level, improvements in anti-collision means comprising, namely: an elongated deflector member beneath the conveyor along the span traversing the complete change in level and off-

set from the normal vertical hanging plane occupied by the hanging objects, together with hanger means for supporting said objects and carried by the conveying system, said hanger means including a pendant leg reaching fully



to the level of said deflector member to engage the latter and swing the hanger means to one side of said normal path of travel so as to be out of alignment with the plane of travel of both succeeding and preceding conveyed objects for the length of said span.

2,821,290

ENDLESS BELT TROUGH CONVEYOR

Angus Wellesley Duncan, Worcester, England, assignor to The Mining Engineering Company Limited, Worcester, England

Application October 23, 1953, Serial No. 387,958
Claims priority, application Great Britain
October 31, 1952
9 Claims. (Cl. 198—191)



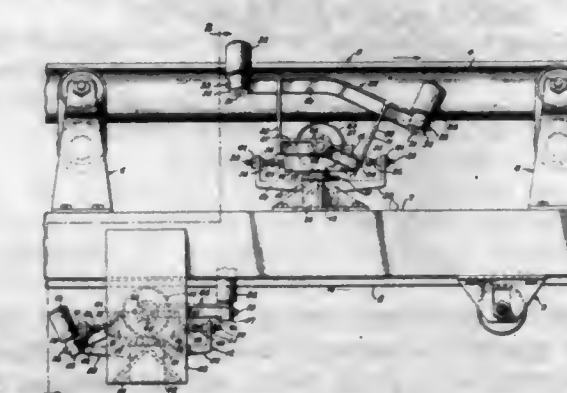
2. An endless conveyor having forward and return runs superimposed one above the other and comprising a belt forming a load-carrying element, a tension member having transverse elements of troughed form supporting said belt along its upper run, means for driving the tension member, means for twisting the tension member through 180° adjacent to each end of the conveyor and means for twisting the belt through 180° adjacent to each end of the conveyor whereby the belt is also supported on the transverse members on its lower run and has the same face uppermost on both upper and lower runs.

2,821,291

BELT TRAINING IDLER

Charles D. Schott, Indianapolis, Ind., assignor to Link-Belt Company, a corporation of Illinois

Application February 9, 1955, Serial No. 487,060
7 Claims. (Cl. 198—202)

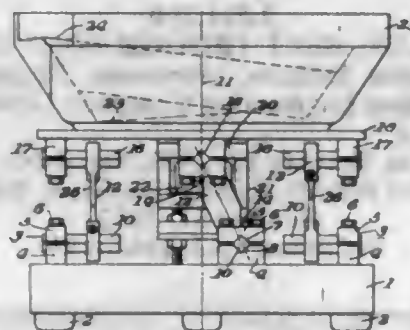


1. A training idler for a reversible belt conveyor, comprising a frame mounted for pivotal movement about an axis normal to the transverse middle portion of the belt,

a shaft journaled on said frame in normal relationship with the pivotal axis of the latter, roll means rotatably mounted on said shaft for supporting said belt, two guide arms rigidly mounted on spaced portions of said shaft and each having portions arranged on opposite sides of the shaft along the edges of the belt, an upwardly extending guide roller mounted on each of said guide arm portions, said arms being jointly rockable through their connections to said shaft to alternately position the rollers of the correspondingly arranged portions of the two guide arms in operative relationship with the edges of the belt, and means for holding said guide arms and rollers in their alternate positions.

2,821,292

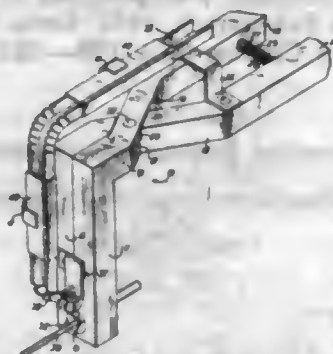
TORSION BAR MOUNTED VIBRATORY MOTORS
William V. Spurlin, Indiana, Pa., assignor to Syntro Company, Homer City, Pa., a corporation of Delaware
Application December 29, 1953, Serial No. 400,955
13 Claims. (Cl. 198-220)



1. A material handling device member supported by a plurality of springy elements from a resiliently mounted reaction base member and driven by energy impulses to reciprocate the material handling device in an inclined path of movement characterized in that said springy elements include a series of torsion bars joined by an arm to a corresponding series of connections on one of said members, and a corresponding series of sockets on said other member for receiving said torsion bars, said torsion bars and connections are movable to change the effective length of said torsion bars and tune the natural period of vibration of the mechanical vibratory system.

2,821,293

TOOLS FOR APPLYING TAPES TO STRANDS
Hobart T. Campbell, Allentown, and Walter J. Tesche, Coopersburg, Pa., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application February 15, 1955, Serial No. 488,315
3 Claims. (Cl. 205-17)



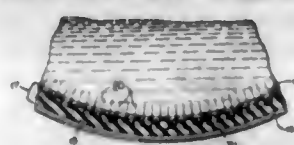
1. A tool for applying a metal tape to a wire comprising two pivotally connected elements having handle portions disposed in a given plane and die portions disposed in a plane at an angle with respect to the plane of the handle portions, die members disposed in the die portions and movable during pivotal movement of the elements relative to each other into an open position to

receive a wire and an end of a metal tape, and into a closed position to force the metal tape about the wire and into clinging engagement therewith whereby movement of the tool relative to the wire will cause bending of the tape longitudinally of the wire, and a track for the metal tape mounted on one of the elements, movable therewith during pivotal and longitudinal movement of the elements relative to the wire and curved at its exit end to guide the tape to the die and to guide the tape to the wire as it begins its bend about the wire in advance of the die.

2,821,294

TANK LININGS

Edward C. Montgomery, Cuyahoga Falls, Ohio, assignor to The Goodyear Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application January 22, 1957, Serial No. 635,456
9 Claims. (Cl. 206-2)



9. The process of preparing a container suitable for the handling of corrosive chemicals comprising (1) calendering a sheet of natural gum rubber containing about 2% by weight of sulfur to a thickness of about .025 to 1.0 inch, (2) calendering a layer of neoprene onto said natural gum rubber to a thickness of about .005 to .125 inch, (3) adhering said calendered stock to the inside of a metal tank by means of a cement and (4) curing the lining by means of steam at a temperature of about 275° F. and a pressure of about 30 p. s. i. for a period of about four hours.

2,821,295

WALL COMPARTMENT FOR GARMENT BAGS
Saul H. Marks, Brooklyn, N. Y., assignor to Phoenix Closet Accessories, Inc., New York, N. Y., a corporation of New Jersey
Application December 30, 1955, Serial No. 556,728
6 Claims. (Cl. 206-10)

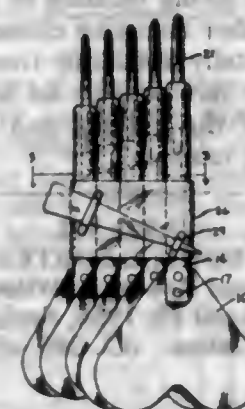


1. A garment bag including front, side and top wall portions, means forming a wall compartment in the front wall adjacent the top wall and extending between said side walls, said means comprising a sheet of transparent plastic material, folded to form a supplemental front wall and a window wall portion, the front wall proper of the bag being secured at its upper end to the folded portion of said sheet, the supplemental front wall of said sheet extending to the side and top walls and being secured at intersections of the side and top walls, the bag having a supplemental front wall portion arranged between the top wall and upper edge portion of said window wall, and a separable fastener extending between the side walls and positioned adjacent the upper edge of said window wall to give access to a compartment formed by the walls of said plastic sheet and said supplemental front wall portion of the bag.

2,821,296

TOOL HOLDER ASSEMBLY

Carl Pihl, Jamestown, N. Y., assignor of thirty-five percent to Lucius J. Seymour, Bemus Point, N. Y.
Application April 5, 1954, Serial No. 421,067
5 Claims. (Cl. 206-16)

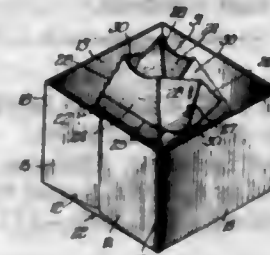


1. A container enclosing a plurality of tool holders, said holders, in cross section, being of at least two different widths, whereby when in common side by side arrangement their over-all width may be changed, said containers consisting of a flexible endless strap encircling said tool holders in their side by side contacting relation and having a normal endwise contour defined by rounded portions connected by slightly arched opposite sides, said holders, in one common side by side arrangement, loosely occupying the space within said container and in another common side by side arrangement, having an over-all width that straightens said arched sides into frictional contact with said holders.

2,821,297

ADJUSTABLE FLORAL PACKAGE

James N. Callinicos, Whitestone, N. Y.
Application October 5, 1954, Serial No. 461,990
2 Claims. (Cl. 206-46)



1. A flower package comprising a floral object and a folded paperboard unit packaging the same, said unit comprising a base panel on which said object rests, side walls integrally connected by creases to said base panel and disposed in vertically upstanding relation thereto, releasably connected end wall forming flaps hinged to ends of said side walls and spanning the adjoining end margins of said base panel in vertical relation thereto, and internal object restraining wall sections integrally connected to said adjoining end margins, said object restraining sections being disposed inwardly of said walls and being subdivided by creases into flexibly connected, inwardly cupped areas in upwardly convergent relation, surrounding and confining said floral object.

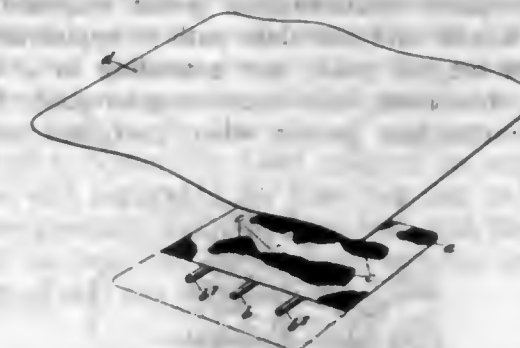
2,821,298

METHOD AND MEANS FOR TEMPORARILY STOPPING LEAKAGE

Stanley Thomas Albert Richards, Yeovil, England, assignor to Normalair Limited, Yeovil, England
Application April 7, 1954, Serial No. 421,610
4 Claims. (Cl. 206-47)

1. Method of making a device for temporarily stopping outward leakage from an inhabitable pressurised metal chamber due to a punctured chamber wall, which com-

prises attaching at least one bend-resisting rib to a sheet of gauze, forming a sheet of flexible impervious material into a roll, folding said sheet of gauze round the rolled flexible material so that the edges overlap one another, and secur-

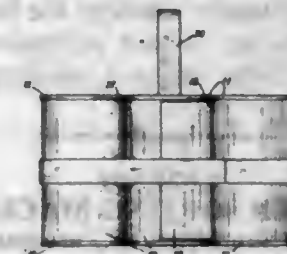


ing the overlapped edges together so as to form a leak-stopping device which can be unrolled over a puncture in a chamber wall to form a sheet of gauze with a sheet of impervious material superimposed thereon.

2,821,299

CAN PACKAGE

Jay D. Cray, Portland, Oreg.; Harold C. Holmes, executor of said Jay D. Cray, assignor to Paper Strap, Inc., Portland, Oreg., a corporation of Oregon
Application August 1, 1955, Serial No. 525,612
2 Claims. (Cl. 206-65)



1. A merchandise unit comprising six similar cylindrical cans having outstanding peripheral rims on their opposite ends arranged in side by side relation in two parallel rows, interlocking partitions including a longitudinal partition extending lengthwise between said rows and a pair of transverse partitions extending one between each of the opposite pairs of cans of said rows, said partitions being of lesser height than the height of said cans and being positioned between said rims whereby the rims overlap said partitions, said transverse partitions including portions partially encircling the side of the center can of each row facing outwardly of the row, and a relatively narrow strap encircling said cans and banding the same into a compact unit, said strap holding said partition portions against said center can sides whereby to secure the center cans in position.

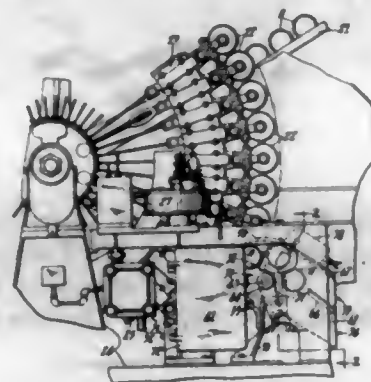
2,821,300

CAN TESTING MACHINE WITH MAGNETIC CAN SEPARATING MECHANISM

Karl Bofinger and Albert C. Schlimweg, Cincinnati, Ohio, assignors to American Can Company, New York, N. Y., a corporation of New Jersey
Application April 3, 1953, Serial No. 346,586
4 Claims. (Cl. 209-74)

1. In a machine for testing containers to determine which are acceptable and which are unacceptable, the combination of a rotatable discharge turret having a pocket for receiving a tested container and advancing it in an arcuate path, an acceptable container chute and an unacceptable container chute disposed adjacent said turret, a permanent magnet guide disposed adjacent said turret and comprising a curved portion and a tangential portion extending therefrom, said curved portion being disposed adjacent to and in substantial conformity with the inner side of said arcuate path of the container for retaining

the container in said turret pocket and said tangential portion extending toward said unacceptable container chute for stripping the container from said pocket and directing it to said unacceptable container chute, a normally energized electromagnet guide disposed on the opposite side of said container path in opposition to said permanent magnet guide and extending in a direction divergent therefrom, said electromagnet guide having a magnetic attraction greater when energized and lesser

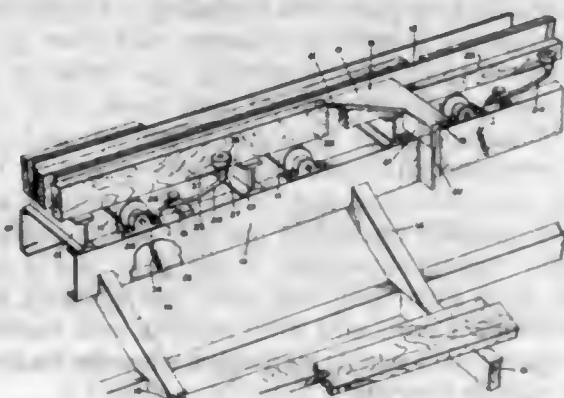


when deenergized than that of said permanent magnet guide, said energized electromagnet guide attracting acceptable containers from said permanent electromagnet guide and directing them into said acceptable container chute, and means responsive to an unacceptable container for temporarily deenergizing said electromagnet guide for an unacceptable container whereby the unacceptable container remains attracted to said permanent magnet guide and is directed thereby to said unacceptable container chute.

2,821,301

LUMBER SORTING MACHINE

Bert L. Montague, Sumter, S. C., assignor to B. L. Montague Co., Inc., Sumter, S. C., a corporation of South Carolina
Application September 15, 1954, Serial No. 456,212
4 Claims. (Cl. 209—90)



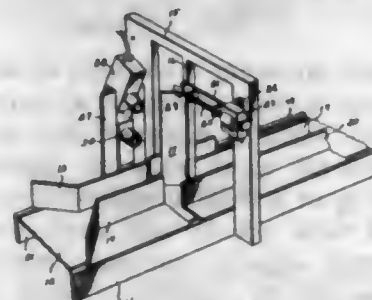
4. A lumber sorting machine, comprising a support, means mounted upon the support for supporting the lumber and holding the side faces of the lumber vertical and to feed the lumber longitudinally, said holding and feeding means having a recess extending to the top of the same, a lumber guide element arranged near and extending above the holding and feeding means and having a vertical face to contact with one vertical side face of the lumber, a stationary deflecting element arranged above the holding and feeding means at a selected spaced elevation from the holding and feeding means, said stationary deflecting element having a horizontally inclined face extending transversely of the holding and feeding means, said inclined face contacting with the lumber having a vertical dimension which will prevent the lumber passing under the deflecting element, a lumber engaging element arranged within said recess, means for pivotally supporting the lumber engaging element within the recess so that its free end may be swung both horizontally and vertically and the free end moved wholly beneath the top of the

holding and feeding means and wholly beneath the lumber, and a spring connected with the pivoted lumber engaging element and serving to raise the free end of the pivoted lumber engaging element to a point above the recess and into contact with the adjacent vertical side face of the lumber, the spring yielding to permit the free end of the pivoted lumber engaging element being moved by the lumber horizontally outwardly from the guide element and then vertically downwardly to be positioned wholly beneath the top of the holding and feeding means and wholly beneath the lumber.

2,821,302

BOTTLE SORTER

Gerald I. Fowler and Robert R. Wilson, Waterloo, Iowa
Application April 29, 1954, Serial No. 426,464
4 Claims. (Cl. 209—111)

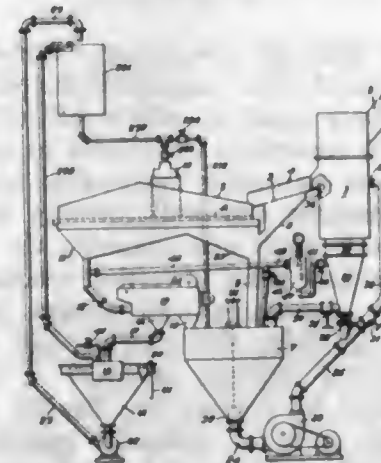


1. In a device of the class described, an endless belt, a bracket frame over said endless belt, a gate hinged to said bracket frame for selectively guiding a bottle to left or right, a bearing bracket pivoted at one end to said bracket frame and capable of being swung to extend either to the right or left of its pivot point, a means for detachably securing the said bearing bracket in either of its extended positions, a solenoid on said bearing bracket, an actuating arm extending from said solenoid and rotatably and hingedly secured to said gate, a light producing means, and a light responsive means operatively electrically connected to said solenoid.

2,821,303

METHOD FOR FLOAT AND SINK MINERAL SEPARATION

Nelson L. Davis, Chicago, Ill.
Application May 6, 1952, Serial No. 286,249
4 Claims. (Cl. 209—172.5)



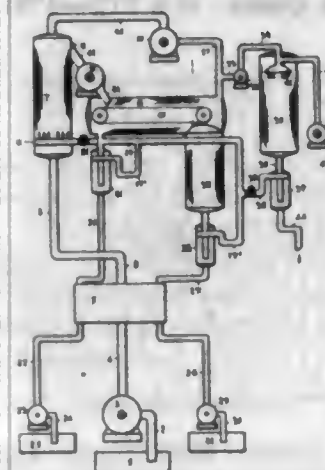
1. The method of sink and float separation which consists in circulating a magnetically susceptible medium through a sink and float bath circuit, discharging sink and float solids and medium from the bath, draining the solids, returning the medium directly for recirculation in the circuit through the bath, rinsing the drained solids in a rinsing circuit, passing the rinsing water through a magnetic separating zone, returning the magnetically susceptible media recovered in the zone directly to the bath circuit, continuously withdrawing some of the medium from the bath circuit, passing such additional medium

through a magnetic separating zone, returning directly to the bath circuit magnetically susceptible media recovered in said zone and discharging the magnetically unsuspensible solids in the additional medium withdrawn from the bath circuit for subsequent treatment.

2,821,304

METHOD FOR SEPARATING THE SOLVENT FROM THE SOLUTE OF AQUEOUS SOLUTIONS AND A PLANT FOR WORKING THE SAID METHOD

Alexander Zarchin, Tel Aviv, Israel
Application November 19, 1956, Serial No. 623,224
7 Claims. (Cl. 210—67)



1. A continuous process for the treatment of aqueous solutions for obtaining part of the solution in a concentrated state and part thereof as pure water comprising the steps of admitting into the crude solution previously cooled to near freezing point an amount of a fluid tending to expand and being inert in relation to water, such fluid owing to its expansion freezing particles of the solution into pure water ice crystals, passing the mixture consisting of said ice particles and concentrated solution into a second insulated vessel wherein higher pressure prevails than in the first one, passing the solution in said second vessel through a movable screener, separating thereby the ice crystals from the concentrated solution and at the same time removing from the crystals their outermost surface layer, compressing the gaseous fluid which had served for the freezing and bringing the compressed fluid in contact with said ice crystals, thereby lowering the temperature of the fluid and melting the crystals, redirecting the said fluid into the first named vessel so as to start the cycle anew and using the resulting pure water as well as the remaining concentrated solution for precooling new batches of crude solution.

2,821,305

BAG HOLDING MEANS

Kenneth A. Anderson, Slivis, Ill., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application April 27, 1955, Serial No. 504,243
6 Claims. (Cl. 210—455)



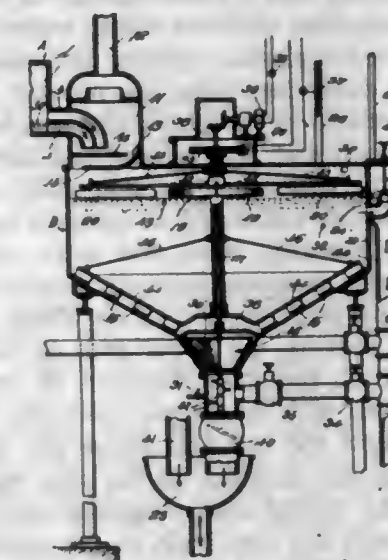
1. In a pressure filter leaf including hollow framing members and a spacing screen formed by said members,

one end of said leaf having a pipe connection extending therefrom and leading to the inside of said members; the combination of a pliable fabric filter bag having one open end adapted to be slipped over said leaf so that the open end portion of said bag extends over said one end of the leaf, means on the opposite sides of said one end of the leaf defining grooves extending along said one end of the leaf and opening generally parallel to the plane of the leaf and in the direction of said one end of the latter, and a rubber-like band adapted to engage over said open end portion of the filter bag and to be forced in a plane generally parallel of the leaf, with the engaged fabric of the bag, into said grooves to cause sealing engagement of said bag with said leaf.

2,821,306

PRE-CLARIFIER FOR SEPARATING SOLIDS AND LIQUIDS

Fernando Saldana Davila, Bayamon, Puerto Rico
Application February 7, 1955, Serial No. 486,630
3 Claims. (Cl. 210—525)



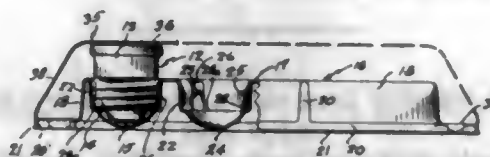
1. Apparatus for separating solids from liquids progressively with the continuous flow of liquids comprising a frusto-conical tank, means for delivering a mixture of solids and liquids through the top of said tank to a predetermined level, means for eliminating the gases evolved from said mixture, a central discharge pipe connected with the bottom of the tank, an overflow discharge receptacle connected with one side of the periphery of said tank at the predetermined level of the liquid in said tank, a discharge pipe connected with said receptacle for delivering the partially clarified liquid, a scum chute located adjacent the predetermined level of the liquid in said tank for conducting away the lighter particles floating on the surface of the liquid in said tank, means for moving the lighter particles in said tank outwardly into said chute and into the receptacle for receiving the lighter floating particles connected with said tank, a discharge pipe connected with said receptacle for receiving the lighter floating particles while the heavier particles are delivered to the discharge pipe connected with the bottom of said tank, in which said means for moving the lighter particles floating on the surface of the liquid in said tank into said chute and into said receptacle comprise a plurality of rotatably driven radially disposed blades each of which sweeps the top surface of the liquid in said tank, helicoidal blades coacting with the aforesaid blades for directing the lighter particles into said chute and into said receptacle and in which the means for moving the lighter particles floating on the surface of the liquid and the heavy sediment deposited on the bottom in said tank include an inner shaft and an outer hollow shaft, means for rotatively driving said shafts, and wherein said outer shaft has spokes thereon for mounting said radially disposed blades

and wherein said outer shaft also carries said helicoidal blades and wherein said inner shaft extends through the aforesaid hollow shaft and operates to drive an agitating means aligned with the central discharge pipe which connects with the bottom of the tank.

2,821,307

HOLDER FOR FUSES AND OTHER ARTICLES
Douglas F. Linsley, Westport, Conn., assignor to Linsley Incorporated, Westport, Conn., a corporation of Connecticut

Application January 18, 1955, Serial No. 482,633
2 Claims. (Cl. 211-13)

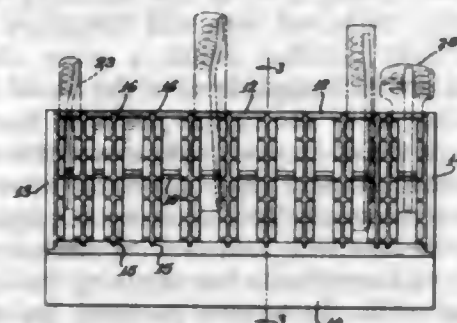


1. A holder for electrical plug type fuses including a screw shell contact and a reduced central contact below it forming a shoulder between them, comprising a body member of molded plastic material including a top wall and side walls depending from the opposite edges of the top wall, a plurality of longitudinally spaced cup-shaped sockets opening through the top wall and depending therefrom between the side walls, the side walls of the sockets being provided with a plurality of laterally spaced upright ribs projecting inwardly from said walls, with the inner edges of said ribs tapering inwardly toward their lower ends to grip the sides of the screw shells of the fuses inserted in the sockets, the upper ends of said ribs being further inclined to facilitate insertion of the plugs, said ribs also provided with transverse upwardly facing shoulders spaced below the top and above the bottom of the socket on which the shoulder on the plug rests to support the plug with the central contact spaced above the bottom of the socket, and the side walls of the sockets including the ribs being flexible and resilient to permit the ribs to yield and adjust themselves to compensate for variations in the plugs.

2,821,308

DISPLAY STAND

Sol J. Burrows, Chicago, Ill., assignor to Neo Products Co., Chicago, Ill., a corporation of Illinois
Application April 8, 1954, Serial No. 421,829
1 Claim. (Cl. 211-65)



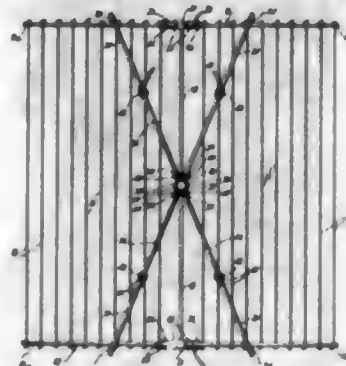
In a display stand adapted to be placed on a horizontal support and to receive and support a large number of elongated articles of relatively small cross-section in vertical position and in a vertically staggered arrangement, a plurality of separable dividers each comprised of an elongated strip having parallel longitudinal edges and a pair of parallel ends inclined to said longitudinal edges, continuous lateral integral projections extending from the opposed side surfaces of said strip and normal thereto on one of its longitudinal edges, a plurality of integral regularly spaced projections extending in pairs from and normal to the opposed side surfaces of and parallel to said inclined ends and continuously between the lon-

gitudinal edges of the strip, said lateral projecting portions forming a plurality of stepped pockets between adjacent dividers, an integral rib projecting outwardly of and parallel to the body of the divider, and a base for supporting said dividers in inclined position with their inclined ends disposed vertically, said base being formed with slotted surface portions receiving and seating said ribs.

2,821,309

COLLAPSIBLE CLOTHES DRIER

Rosario J. Rizzo, Elmont, N. Y., assignor to J. F. D. Mfg. Co., Inc., Brooklyn, N. Y., a corporation of New York
Application January 10, 1956, Serial No. 558,264
1 Claim. (Cl. 211-179)



A collapsible clothes drier comprising a center post adapted to be maintained in an upright vertical position, a sleeve vertically slidable on said post, a pair of support arms pivoted on opposite sides of said sleeve at the upper end thereof, pairs of support rods pivoted on opposite sides of said sleeve at the lower end thereof with a respective support rod located between each respective pair of support arms, brace arms each pivoted to the upper end of said post at one end of said brace arm and to the intermediate portion of a respective support arm at the other end of said brace arm, a pair of brackets, each said bracket comprising a central yoke portion pivoted to the free end of a respective support rod so as to be turnable relative thereto about an axis which extends horizontally and also laterally at right angles to said support rod, pairs of spaced and parallel ears projecting laterally and vertically from respective opposite sides of said central yoke portion, and a horizontal stop pin connecting between each pair of ears adjacent the free ends thereof, a hanger mounted on each bracket, each hanger comprising a pair of hanger arms, each of said hanger arms being pivotally mounted at one of its ends between a respective pair of bracket ears inwardly of said stop pin and so as to be turnable about a horizontal axis which is transverse to said ears, said support arms and said brace arms cooperating with said sleeve and said support rods for bringing said hangers to an extended position when said collar is raised on said center post and a collapsed position when said collar is lowered on said center post, said support rods being disposed substantially horizontally in said extended position with the hangers spaced on opposite sides of said center post, said support rods being disposed substantially parallel to and adjacent said center post in said collapsed position, with the hanger arms upstanding therefrom, each said hanger arm abutting its stop pin and being upwardly outwardly inclined when in extended position, with the extended hangers horizontally aligned.

2,821,310

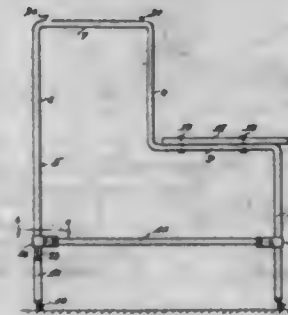
IRONING RACK

Rudolph M. Holly, Riddle, Oreg.
Application June 3, 1954, Serial No. 434,172
1 Claim. (Cl. 211-182)

An ironing rack comprising a frame formed of front and rear vertical posts, said front post being substantially shorter than said rear post, a horizontal bar extending

rearwardly from the upper end of said front post, a horizontal bar extending forwardly from the upper end of said rear post, a vertical connecting bar between and integral with said first and second named horizontal bars, a horizontal connecting bar between the lower portions of said posts, a U-shaped clamping member at each end of said horizontal connecting bar and engaging about

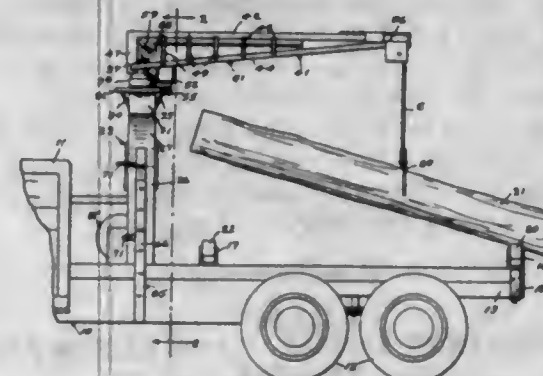
wardly through said bearing dome, said tubular shaft being secured to said crane arm, a plurality of pulleys journaled in said crane arm, a winch mounted on said frame directly beneath said tubular shaft, a cable trained over said pulleys through said tubular shaft and wound on said winch, and a grapple secured to the terminal end of said cable to grip and load logs so as to be disposed longitudinally of the truck resting on said bolsters.



2,821,311

LOG LOADING TRUCK

Gaynor L. Screws, Dublin, Ga., assignor of twenty-five percent to Hilliard T. Hicks, Wrightsville, Ga.
Application April 30, 1956, Serial No. 581,648
2 Claims. (Cl. 214-75)

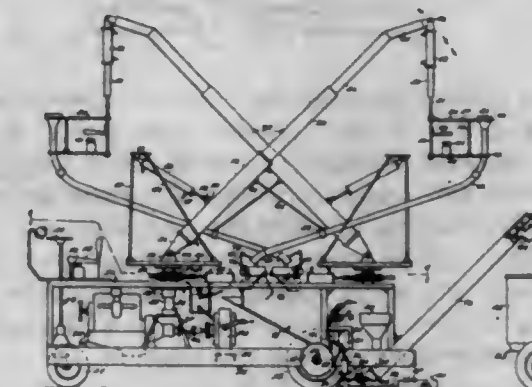


1. A log loading attachment for trucks of the type having a chassis, front and rear wheels supporting said chassis and propulsion means mounted on said chassis; comprising a horizontal frame secured to the chassis of said truck, a pair of spaced parallel transversely extending log bolsters secured to said frame, a pair of upright spaced parallel frame members secured to said horizontal frame forwardly of said bolsters, a pair of converging portions carried on the upper ends of said upright frame members, a hollow vertically extending post secured to the upper ends of said converging portions, an annular horizontal collar secured to the upper end of said post and extending radially outwardly therefrom, a circular boss integrally formed axially on said collar and projecting upwardly therefrom, a hollow bearing dome encompassing said boss, a bearing on the upper end of said boss supporting said dome, a bearing plate secured to and extending radially from said bearing dome parallel to said annular collar, a bearing interposed between said bearing plate and said collar for supporting said bearing plate, a U-shaped lock member integrally formed on the outer end of said bearing plate engaging under the peripheral edge portion of said collar, a horizontally swingable crane arm having one end thereof secured to said bearing dome, depending means on said crane arm spaced from said one end connecting said crane arm to said bearing plate, a tubular shaft journaled in said boss and extending up-

2,821,312

FRUIT PICKING APPARATUS

Louis A. Wiegand, Pine Castle, Fla., assignor to Pick-In-Rig, Inc., Orlando, Fla.
Application September 28, 1956, Serial No. 612,857
3 Claims. (Cl. 214-83.1)

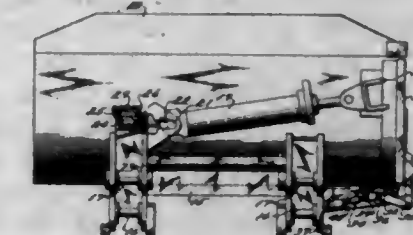


1. A fruit picking apparatus comprising a mobile base, means for moving said base, a turntable rotatably carried by said base, means for turning said turntable, a boom rockably secured at one end to said turntable, means angularly adjusting said boom relative to the vertical, a picker supporting cradle, means suspending said cradle from the other end of said boom, said suspending means including means for vertically adjusting said cradle, a flexible chute fixed at one end to said cradle and extending downwardly therefrom, a collector carried by said base, into which the other end of said chute discharges, a tubular elevator housing extending upwardly and rearwardly from said collector, the lower end of said housing communicating with said collector, a screw elevator in said housing, and means rotating said screw.

2,821,313

SIDE DUMPING LOADER

Stanley W. Warner, Wauwatosa, Wis., assignor to Caterpillar Tractor Co., Peoria, Ill., a corporation of California
Application August 2, 1956, Serial No. 601,745
4 Claims. (Cl. 214-140)

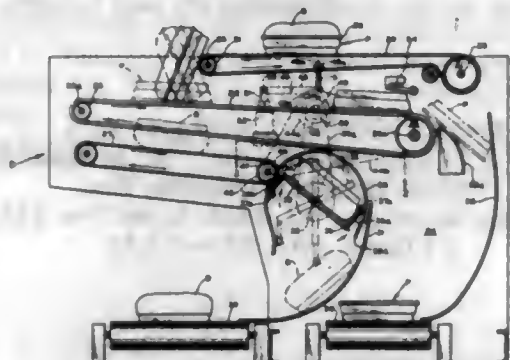


4. In a side dumping bucket for a vehicle mounted loader, a bucket supporting cradle, a hinged connection between the bucket and cradle adjacent one end of the bucket, bucket tipping means between the bucket and cradle to tip the bucket about said hinged connection, means latching the bucket against tipping, and means actuated upon energization of the bucket tipping means for releasing the latching means.

2,821,314

TURNOVER MECHANISMS FOR DEPANNING MACHINES

Charles G. Gibbons and Frank N. Sims, Saginaw, Mich.,
assignors to Baker Perkins, Inc., Saginaw, Mich.
Application July 18, 1955, Serial No. 522,686
10 Claims. (Cl. 214-311)



1. Turnover apparatus for location between a delivery means and a receiving slideway comprising, a platform having oppositely extending, hinged end walls adjacent said means and slideway, means for revolving the platform in a direction whereby the end walls extend oppositely from the direction of revolution, and means releasing said end walls during revolution of the platform when the articles thereon are adjacent said slideway and later restoring said end walls to position.

2,821,315

ONE MAN BOAT TRAILER

Walter J. Bucher, Paterson, N. J.
Application March 6, 1956, Serial No. 569,773
3 Claims. (Cl. 214-505)

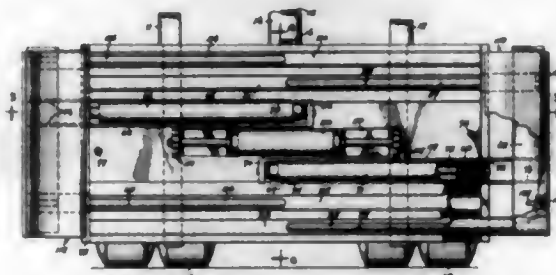


1. In a boat trailer, the combination which comprises a horizontally disposed frame having side bars connected with cross bars and having wheels carried by an axle depending from the side bars, said frame also having a hitch on the forward end, rollers rotatably mounted on the trailing end of the frame and extended upwardly therefrom, spaced parallel rails, L-shaped in cross section mounted on the cross bars of the frame and aligned with said rollers, an upper frame also having side rails, L-shaped in cross section, mounted in an inverted position and positioned to nest in the spaced parallel rails of the frame, said side rails of the upper frame being positioned to travel over the rollers, a plate connecting the rails of the upper frame at one end thereof, a bar connecting said rails of the upper frame at the opposite end thereof, a keel receiving channel bar mounted on the plate and bar and extended forwardly of the upper frame, said channel bar being positioned longitudinally of the upper frame and being on the longitudinal center thereof, a plate mounted on the under surface of the trailing ends of the side rails of the upper frame, extended rearwardly from said rails and bent upon itself and having a triangular-shaped portion extended over the end portion of the upper frame, said triangular-shaped portion of the plate leading into the channel bar of the upper frame, and pairs of transversely positioned rollers mounted on the plate connecting the side rails of the upper frame, the rollers being mounted in inclined positions providing supporting means for a boat on the upper frame and positioned with the keel in said channel bar.

2,821,316

ROLL CLAMP FOR LIFT TRUCK

James A. Saint, North Vancouver, British Columbia, Canada, assignor to Canadian Mobile Co. Ltd., a corporation of British Columbia, Canada
Application May 27, 1955, Serial No. 511,681
27 Claims. (Cl. 214-653)

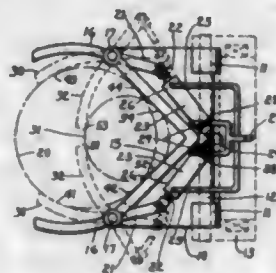


1. In combination with an industrial lift truck having a vertically movable carriage presenting vertical bars at each side drilled to receive a transverse horizontal mounting pin, a frame adapted to occupy a position to the front of the carriage and upon its back face presenting drilled vertical ribs arranged to lie alongside the side bars of the carriage with the drill-holes registering with the drill-holes of the side bars so as to receive the mounting pin therethrough, means on the carriage engaging means on the frame for fixedly locking the one to the other when the mounting pin is in place, a forwardly extending cheek member at each side of the frame carried by the frame for relative movement toward and from one another, opposed roll clamping jaws hingedly carried by said cheek members and each having its clamping face developed on an arc such as will closely fit the surface of the roll which the jaws are intended to handle, and means for actuating the cheek members, means being provided so positioning the jaws when the latter are closed upon a roll that the widest span between said jaws occurs at a point on each jaw spaced inwardly well beyond a transverse vertical plane traversing the hinge axes.

2,821,317

MATERIALS CLAMPING DEVICES FOR LIFT TRUCKS

Burton H. Locke, Framingham, Mass.
Application February 6, 1956, Serial No. 563,557
4 Claims. (Cl. 214-653)

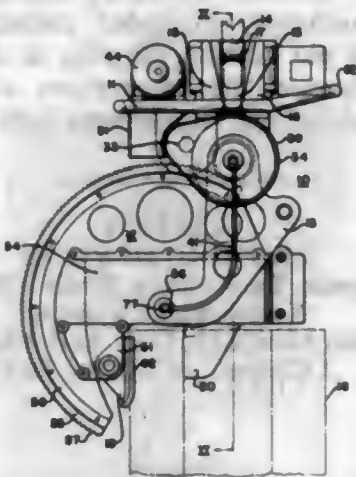


1. A materials clamping device for fork lift trucks comprising a base suitable for mounting on a fork lift truck in position of the usual lifting forks thereon, said base being in the form of a substantial stationary outwardly disposed V extending horizontally along the front of said truck, a swingable arm pivoted at each outer end of said V and normally extending outwardly therefrom, said arms being disposed to swing inwardly, each toward the other, to contact any article that may be within said V and thereby effect a 4-line embracement thereof within said V, power means from said truck to operate said arms and means on said truck to control the operation of the arms.

2,821,318 TONGS

Edgar Homer Kendall, Alliance, Ohio, assignor to Heppenstall Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application April 16, 1956, Serial No. 578,470
9 Claims. (Cl. 214-658)



1. In a tongs, apparatus comprising, in combination, a control head, a self-locking fluid drive motor mounted on said head, a longitudinally extending drive shaft rotatably mounted in said head, self-locking gearing connecting said drive motor to said drive shaft, a drive pinion secured to said drive shaft, a driven gear engaging said drive pinion, a longitudinally extending driven shaft rotatably mounted in said head and secured to said driven gear, means connected to said head for supporting said tongs adjacent and in generally balanced relation to said head, said driven shaft being generally directly below said first-named means, a rack pinion secured to said driven shaft, longitudinally spaced links swingably supported from said head about the axis of said driven shaft, an arcuate rack and body rotatably mounted in and supported from said links, the plane of said rack being vertical and passing centrally through the space intermediate said links, said rack being in engagement with said rack pinion, a transversely extending hydraulic grip cylinder, said grip cylinder being slidably mounted in said body generally between the axis of said rack body and its periphery, a plunger in said grip cylinder extending out through an end of said cylinder, said outer end of said plunger being fixed to said body, a gripping jaw fixed to the lower side of said cylinder, an opposed gripping jaw fixed to said body to cooperate with said first-named gripping jaw to grip a work object, hydraulic liquid-supplying conduit means extending between the axis of said driven shaft and the axis of said rack body to operate said grip cylinder, gravity-responsive intensifier means engaging said first-named means to increase the pressure of hydraulic liquid in said hydraulic-supplying conduit means due to the weight of said tongs and of any work object gripped thereby when lifted by said first-named means, a remotely operable motor mounted in said head, a variable delivery pump driven by said last-named motor to supply hydraulic liquid under pressure to said fluid drive motor, said grip cylinder, and said intensifier means, and remotely operable control means in said head to provide for selective actuation of said grip cylinder and said fluid drive motor.

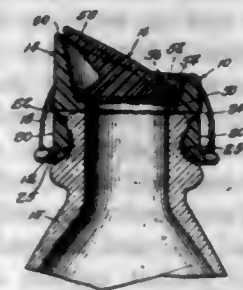
2,821,319 NOVELTY BOTTLE CAP

Walter E. Bladh, Chicago, Ill.

Application May 16, 1955, Serial No. 508,420
6 Claims. (Cl. 215-41)

1. A milk bottle cap comprising an internally hollow unitary annular body of flexible material with longitudinal corrugations at the bottom and a spout at the top, the corrugations and spout being integrally formed, a horizontal flange positioned inside the body between the spout

and bottom of the corrugations, internal lugs on the corrugations below the flange, and a unitary closure mem-

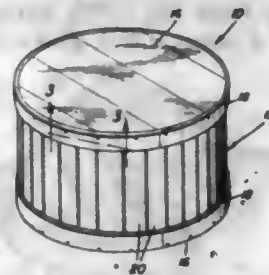


ber secured pivotally inside the spout to removably seal the spout.

2,821,320 BOX CONSTRUCTION

Bernard C. Mecier, Rutland, and Edward J. Marchinkoski, West Rutland, Vt.

Application July 1, 1955, Serial No. 519,552
1 Claim. (Cl. 217-44)

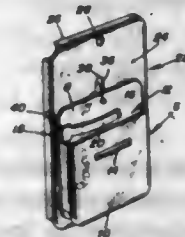


A cheese box for receiving generally cylindrical cheeses comprising a bottom member having an upstanding continuous edge flange, a top member having a depending continuous edge flange, a peripheral wall extending between the top and bottom members with the flanges telescoping over said wall, said wall including a plurality of independent panels disposed in edge to edge abutting engagement, and means releasably retaining said panels in edge to edge relation, each of said panels having a groove in each end edge thereof, said retaining means including a flexible metal strap disposed in said grooves, said strap having doubled free end portions, said groove being substantially equal in width to the thickness of the strap whereby the doubled end portions of the strap will rigidly and frictionally engage said groove when forced into the groove of remote panels for retaining the panels in assembled relation, the flexibility of said strap permitting the panels to be disposed in angular relation thus permitting the panels to form said peripheral wall.

2,821,321 CHANGE CONTAINER

Glen R. McQuiston and Harry N. Leisner, Marion, Ind.

Application November 9, 1956, Serial No. 621,274
1 Claim. (Cl. 220-18)

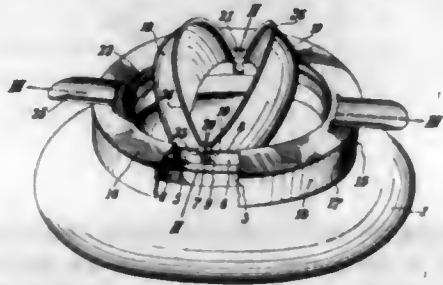


For use by a home owner, a device adapted to assist a collector to pick up money in payment for services previously rendered comprising a substantially flat base panel adapted to be attached to a stationary support and having lateral rearwardly directed marginal flanges which, when they reside in contact with a selected surface of said support, provide a chain collecting and pocketing space, an intermediate portion of said panel having a

chain slot a marginal portion of which is bevelled to featheredge thinness so that it may function as keeper means, a coin holding and dispensing pocket normally open at its upper end to assist in dumping coins therefrom into a collector's hand, said pocket having a flat wall adapted to be superimposed on the obverse face of said panel, and an elongated tethering chain of flexibly joined beads normally confined in said pocketing space, said chain having one end anchored on a marginal portion of said panel and the other end portion passing outwardly through said slot and secured to an upper portion of the wall of said pocket, certain of the flexibly joined beads of said chain being releasably connectible with edges forming a crotch portion at the bottom of said slot in a manner permitting the chain to function as the sole means for operatively connecting the coin holding pocket with said panel.

2,821,322
ASH TRAYS

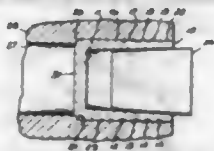
Richard Stockburger, Heutingsheim, Wurttemberg, Germany
Application June 10, 1955, Serial No. 514,595
7 Claims. (Cl. 220-20.5)



1. An ashtray comprising a body having an upper rim, fulcrum means mounted on said rim to constitute a horizontal pivot axis, a bearing ring mounted on said fulcrum means, two semicircular bowl halves each having pivotal support means projecting therefrom, means in said bearing ring above the fulcrum means and at right angles to said horizontal pivot axis receiving said pivotal support means and rockably supporting said bowl halves on said ring about horizontal axes close to and parallel to each other, and engagement means mounted on the rim of the body and cooperating with the pivotal support means for rocking the bowl halves into an emptying position when pressure is applied on the bearing ring intermediate the fulcrum means.

2,821,323
PIN PLUG

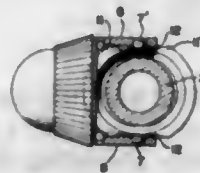
Leighton Lee II, Guilford, Conn., assignor to The Lee Company, Westbrook, Conn., a corporation of Connecticut
Application December 7, 1955, Serial No. 551,569
1 Claim. (Cl. 220-24.5)



In combination with a solid metal base member having an outwardly opening passageway provided with a cylindrical counterbore, a metal plug in said counterbore having its outer end adjacent the outer surface of the base member and having its inner end seated on the inner end of the counterbore, said plug having an outer cylindrical surface provided with a plurality of separate spaced apart non-intersecting annular grooves and initially dimensioned to provide a slip fit with the counterbore, said plug having a frusto-conical socket with its largest diameter at the outer end of the plug, said socket termi-

nating short of the inner end of the plug and extending axially throughout the portion of the plug bearing the annular grooves, and a frusto-conical metal pin in said socket driven flush with the outer end of the plug, said plug being of larger dimensions diametrically than the initial inside diametrical dimensions of the socket by a predetermined amount uniformly throughout whereby the plug is uniformly expanded radially a controlled amount by the pin causing the plug to deform and grip the inner surface of the counterbore with the grooves thereof in interlocking engagement with said inner surface.

2,821,324
CLOSURE DEVICES
Jack Hünigle, Buchenberg, Kreis Villingen, near Königsfeld, Germany
Application March 10, 1955, Serial No. 493,513
2 Claims. (Cl. 220-30.5)

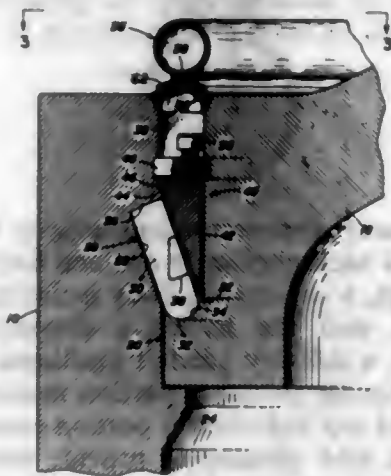


1. A closure device for containers comprising a discharge nozzle on the container, said nozzle having an exteriorly threaded end portion and an adjacent smooth cylindrical portion of smaller diameter and of greater length than the said threaded portion; a retaining ring provided with an interior circumferential bead, said bead having a notch thereacross to engage and to pass over the said threaded end portion of the nozzle and to permit said ring to turn on and slide along the said cylindrical portion thereof; and interiorly threaded cap fitting said threaded end portion of the nozzle and provided with two legs extending from said cap in opposing positions outside and in axial direction of said nozzle; a pivotal connection between the ends of said legs and said retaining ring permitting the said cap when unscrewed from the nozzle to be swung aside into a position not obstructing the discharge opening of the nozzle; and two recesses in the outer surface of said retaining ring extending in axial direction thereof and having convex cylindrical bottoms with the longitudinal axes of said cylindrical bottoms coinciding with the longitudinal axis of the nozzle; each of said recesses adapted to receive the end portion of one of said legs and provided with outwardly slanted side faces cooperating with said leg portion as locking or snapping means to hold the legs with the cap attached thereto in outswung position after the cap has been unscrewed from the nozzle.

2,821,325
CLOSURE FOR PRESSURE VESSELS
Robert A. Chapellier, Whitestone, and Einar E. Tangard, Scarsdale, N. Y., assignors to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application January 12, 1955, Serial No. 481,396
18 Claims. (Cl. 220-46)

4. A pressure vessel having an upwardly facing circular opening with a generally vertical axis provided in a wall thereof, a closure for said opening including a portion that is adapted to be positioned within said opening, the inner end of said closure having a radial flange presenting a generally outwardly facing shoulder, stop means operative to limit the inward insertion of said closure within said opening, the wall of the opening having an annular recess formed therein providing a generally inwardly facing surface, means for locking said closure within said vessel against the force developed by the internal pressure of the vessel and including a

plurality of unitary segments of a conical ring disposed about said closure and resting on said shoulder for tilting movement, when said closure is resting on said stop means, about an axis adjacent their inner edge to and from a position where they are disposed intermediate said shoulder and said surface and a position where they are entirely free of said surface and inclined slightly



toward the axis of said closure with the distance between said shoulder and said surface, when the closure is resting on the stop means, being greater than the corresponding dimension of said segments to permit such tilting movement, said segments having end faces complementary with the respective shoulder and surface and in engagement therewith when acting to lock the closure in the vessel.

2,821,326 RECEPTACLES AND OPENING MEANS THEREFOR

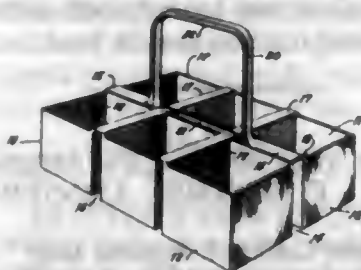
Louis Fried, Philadelphia, Pa.
Application May 12, 1955, Serial No. 507,875
8 Claims. (Cl. 220-48)



2. A receptacle having a wall thereof provided with a pour opening, the wall having a second opening adjacent to the first, an opener device embodying a portion having a cutting edge, said opener portion extending through said second opening and lying against the surface of the inner side of said wall over and closing the pour opening, a protective sheet of material of an area materially less than the area of said wall surface and greater than the wall surface area covered by the opener inner portion covering said opener inner portion and said openings, and means securing the sheet of material to said surface around said openings.

2,821,327 BOTTLE CARRIER

Irving D. Glazer, Dallas, Tex.
Application June 2, 1955, Serial No. 512,753
1 Claim. (Cl. 220-102)

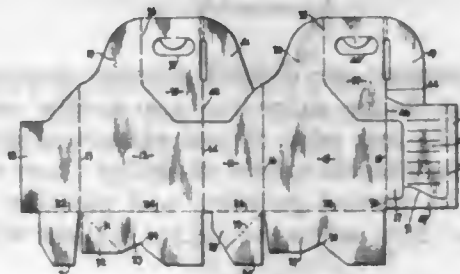


A bottle carrier including a body of molded material having a plurality of upwardly opening compartments arranged in parallel spaced relation for receiving and

supporting bottles, each compartment having upright side walls and a bottom wall, frame members extending transversely and longitudinally of the body between the compartments for connecting and spacing the upper ends of the side walls of adjacent compartments, and an inverted U-shaped handle having spaced legs upstanding from and made integral with the longitudinal frame member, said member having an opening between the legs of the handle of a length substantially equal to the length of said handle for receiving the handle of another like carrier when two or more such carriers are in stacked relation.

2,821,328 BOTTLE CARRIER

Douglas Gilmour Ramsay, Weston, Ontario, Canada, assignor to Gair Company Canada Limited, Toronto, Ontario, Canada, a corporation of Canada
Application December 3, 1956, Serial No. 625,935
Claims priority, application Canada December 10, 1955
3 Claims. (Cl. 220-113)



1. A bottle carrier comprising side walls, end walls connected between said side walls, a bottom closure secured to said end and side walls, a pair of handle section panels disposed in face to face relationship to provide a part of the handle section, each of said handle section panels being integrally connected by a vertical fold line to a side wall and an auxiliary handle section integrally connected at its upper end by a vertical fold line to one of said handle section panels, disposed as a downward extension of said handle panels and being additionally secured thereto, and means for securing a side edge of said auxiliary handle section to one of said side walls, said means for securing a side edge comprising a marginal flap for the auxiliary handle panel and a locating strip for the auxiliary handle panel extending between the marginal flap and the lower portion of the side wall to which said marginal flap is adhered.

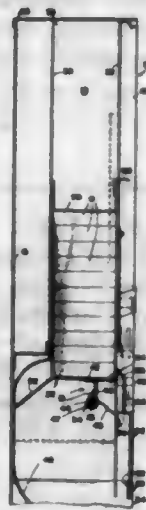
2,821,329 VENDING MACHINE

Charles L. Casey, Riverside, and Juddson B. Ryno, Chicago, Ill., assignors, by direct and mesne assignments, to Reliable Engineering Co., Chicago, Ill., a corporation of Illinois

Application December 9, 1950, Serial No. 200,042
1 Claim. (Cl. 221-243)

A vending machine comprising, in combination, a magazine adapted to contain a stack of superimposed articles having flat bottoms, a discharge chute to the rear of and extending downwardly and forwardly beneath said magazine, a horizontal rock shaft below said magazine, an ejector device loosely mounted on said rock shaft, a slot in said ejector device and a pin on said rock shaft extending through said slot, whereby said shaft may be rotated freely through a predetermined distance and continued rotation thereof will cause said pin to strike the end of said slot and rotate said ejector device, means to rotate said rock shaft thereby to tilt said ejector rearwardly, said ejector including a flat supporting plate adapted when in its normal position to support the lowermost article in the stack thereon, a coiled spring around said shaft adjacent one end thereof yieldingly maintaining said ejector in its normal position, an upstanding flange on the

forward side of said plate of a height less than the height of an article, whereby the lowermost article will be discharged rearwardly into the chute upon tilting movement of the ejector, an arcuate support member curved forwardly and downwardly from the upper edge of said upstanding flange and adapted to support the stack of articles



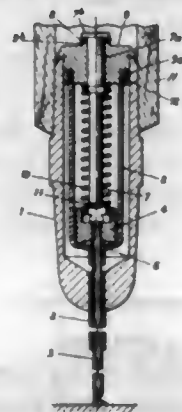
when the lowermost one thereof is being discharged, and an obstructing flange extending rearwardly and downwardly from the rear edge of said plate, said obstructing flange completely blocking said discharge chute when said ejector is in its normal position, and partially blocking said discharge chute when the ejector is tilted rearwardly.

2,821,330

PRESSURE-ACTUATED OILER WITH CAPILLARY TUBE

Bernard Meylan, Renens, Switzerland, assignor to Victor Meylan & Fils, Renens, and Jean Pierre de Trey, Lausanne, Switzerland

Application December 17, 1954, Serial No. 475,901
Claims priority, application Switzerland May 11, 1954
3 Claims. (Cl. 222—207)



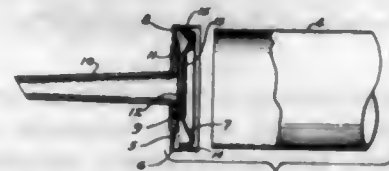
1. A pressure actuated oiler having a capillary discharge tube for application to a location to be lubricated, comprising a longitudinally displaceable plunger, a plug having a shoulder and a bore which latter forms an elongated cylindrical valve seat for said plunger, said plunger cooperating with said valve seat to open and close same, a plate-shaped head forming one end of said plunger and adapted to cooperate with said plug shoulder, a flexible and collapsible container connected to said plug and to said discharge tube, said plunger extending through said container and said bore of said plug and having an end spaced from said discharge tube within said container, said capillary tube being operatively connected to said valve plunger for longitudinal displacement thereof, and a coil spring seated about said plunger and abutting against said plug and the other end of said plunger within said container, said valve plug being held in sealing position by the action of said spring so that the cylindrical valve seat remains closed over a predetermined distance of displacement of said capillary tube and upon a deformation of said container corresponding to said distance.

2,821,331
CONDIMENT DISPENSER
John W. Kuhn, Deerfield Beach, Fla.
Application October 24, 1956, Serial No. 618,014
9 Claims. (Cl. 222—457.5)



1. A condiment dispenser comprising a hollow body provided with a neck portion at one end having an opening therethrough, a cap for the body including a neck engaging section, said cap having a dispensing aperture formed therein, a delivery conduit positioned within said neck opening having an upper portion mounted in cooperation with said cap and a lower portion extending downwardly through said opening to provide communication between the interior of the body and said aperture, said conduit having a substantially uniform bore throughout the major length thereof, said bore diminishing slightly in cross-section adjacent said lower portion and flaring outwardly adjacent said upper portion to define annular sealable orifices, and sealing means operably disposed in said upper and lower portions simultaneously cooperating with said orifices for normally sealing the same to prevent the entrance of moisture into said conduit and the interior of said body.

2,821,332
DISPENSING RECEPTACLE FOR PLASTIC MATERIALS
William A. Sherbondy, Chagrin Falls, Ohio
Application October 19, 1953, Serial No. 386,849
4 Claims. (Cl. 222—569)



1. An end cap assembly for a tubular paperboard container comprising an outer sheet metal cap member having an outer end and having a cylindrical side wall adapted to slip over the end portion of such container, such wall, between its ends, being formed with an inwardly directed bead to deform the end portion of such container as said cap member is slipped thereover, an annular sheet metal reinforcing member telescoped within said cap member and adapted to fit within such container end portion, said reinforcing member having a generally axially directed peripheral flange against which the container end portion is gripped by such side wall and bead and having a radially outwardly directed flange that is disposed between such bead and such outer end of said cap member and that is adapted to be positioned against the end of such container and against such outer end of said cap in axially spaced relation to such bead.

2,821,333
BAS-RELIEF DRESSMAKER'S MODEL AND METHOD FOR THE CONSTRUCTION THEREOF

Lello Galateri, Naples, Italy
Application November 1, 1954, Serial No. 466,185
Claims priority, application Italy October 31, 1953
1 Claim. (Cl. 223—68)

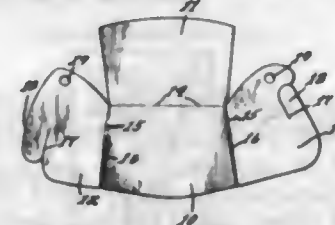
A dressmaker's display comprising a flat display board backing of predetermined dimensions, a cut out board

representing a dummy terminating in edge portions simulating an outline of a human body and secured to said display board backing at substantially the center part of said dummy, said edge portions of said dummy being slightly spaced from said display board backing, bas-relief padding secured at predetermined locations to the forward surface of said dummy remote from said backing, said padding being an approximation in cross-section of the contour of predetermined parts of the human body,



a fabric simulating a garment draped about said dummy and with a portion of said fabric folded over some of said edge portions of said dummy and secured to the latter, so that said fabric extends at least partly between said backing and said dummy, another portion of said fabric extending outwardly from the remaining edge portions of said dummy and being spaced from said backing by said padding and said dummy and forming natural folds thereat, to thereby obtain a draping effect of the fabric forwardly of said dummy and said backing.

2,821,334
HANGER JACKET
Aurelia Rella Koch, Bellevue, Wash.
Application September 30, 1955, Serial No. 537,823
2 Claims. (Cl. 223—98)

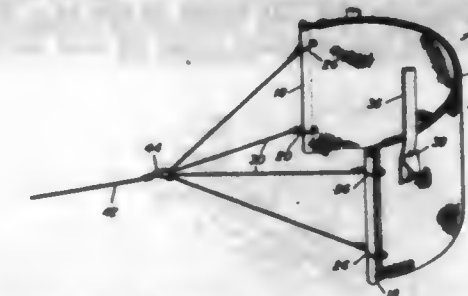


1. As a new article of manufacture, a hanger jacket shaped to include a support portion, a body portion extending from said support portion and separated therefrom by a crease line, a pair of flaps extending from opposite ends of said support portion, there being a slot between said flaps and support portion, each of said flaps being provided with a slit defining a tongue in each flap, said flaps adapted to be folded in overlapping relation with said tongues arranged in engagement with each other, there being registering apertures in said flaps, said body portion adapted to be folded to occupy a position contiguous to said support portion, a clothes hanger having a shank projecting through said apertures, inclined sections extending from said shank and projecting through said slots, said support portion and body portion occupying a curved position when the device is in use.

2,821,335
HUNTER'S IMPLEMENT
Wilmer A. White, Parkersburg, Pa., assignor of one-half to Barrie L. White, Parkersburg, Pa.
Application July 12, 1954, Serial No. 442,809
5 Claims. (Cl. 224—46)

1. A collapsible seat comprising a convertible member including first and second layers, said first and second

layers being disposed in face-to-face relation, ends of said layers being secured together by rolled hems, a pair of transversely spaced eyelets in each end portion of said layers for receiving snap fasteners, a snap fastener received in each eyelet, a flexible connector having opposed ends



connected to snap fasteners of each pair of snap fasteners, a pair of posts disposed adjacent each end of said convertible member, said posts having notched upper ends receiving intermediate portions of said flexible connectors, stakes engaging central portions of said flexible connectors to tension said flexible connectors.

2,821,336
FOLDED PACKAGING TRAY BLANK AND TRAY
Rolf A. Samsing, Braintree, Mass.
Application November 30, 1956, Serial No. 625,312
4 Claims. (Cl. 229—42)

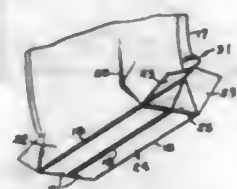


1. A folded tray blank formed from a one-piece paperboard sheet scored and cut along two spaced and parallel lines providing a rectangular body panel therebetween and two rectangular side panels integral with the sheet at said lines, the side panels being substantially equal in length and width and one side panel extending a predetermined distance beyond one end of the body panel and the other side panel extending a like distance beyond the other end of the body panel, the side panels being folded on said scored lines into overlapping contact with one face of the body panel and having a plurality of pairs of cooperating tabs cut therefrom along discontinuous lines leaving each tab integrally connected to the body panel along one of said scored lines at one marginal portion of the tab and to its side panel along a further scored line at another marginal portion of the tab, each tab being further scored along a third line right-angular to and intersecting one of the first named scored lines directly adjacent thereto, said scored lines permitting pivotal movement of the side panels to spaced upright position longitudinally of and coextensive with and above said face of the body panel and said pairs of tabs to spaced upright position transversely of the body panel and above said face with each tab of one side panel in overlapping face contact with and rearwardly of the companion tab of the other panel and with the free end of each tab disposed in interlocked relation beneath the other side panel.

2,821,337
GUSSET BOTTOM BAG
Tracy B. Morgan, Jr., Rockford, Ill., assignor, by mesne assignments, to Harold L. Bartelt and Donald E. Bartelt, both of Rockford, Ill.
Continuation of application Serial No. 291,406, June 3, 1952. This application December 6, 1954, Serial No. 473,191

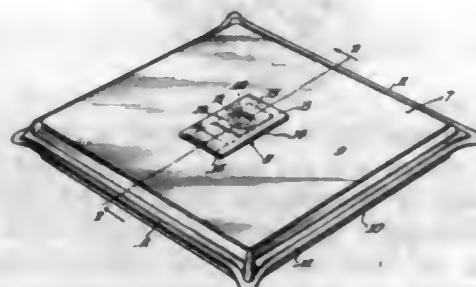
1 Claim. (Cl. 229—57)
A gusset bottom bag comprising front and back panels integrally joined together across the bag bottom and heat

sealed together along their side margins to form band-like seams, said bottom being tucked inwardly to form a W cross section between said seams composed of two outer V-shaped folds forming between them an intermediate reverse fold having side walls which are separated from each other throughout the full width of the bag, and four corner seals joining the opposed walls of said outer folds



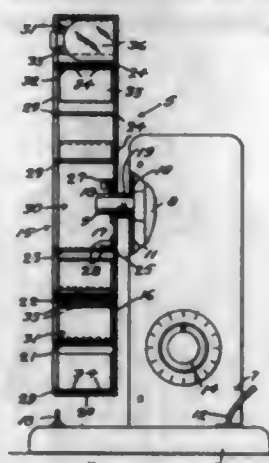
together at the ends thereof and to an inner edge extending diagonally and inwardly substantially from the intersections of the inner edge of said side seams and the apex of said reverse fold, said corner seals constituting separated flaps which, as an incident to expansion of the gusset bottom of the bag, bend upwardly automatically and initiate lateral bending of the lower ends of said side seams.

2,821,338
VALVE-EQUIPPED CONTAINER
Melvin R. Metzger, Cincinnati, Ohio
Application October 21, 1954, Serial No. 463,713
2 Claims. (Cl. 229-62.5)



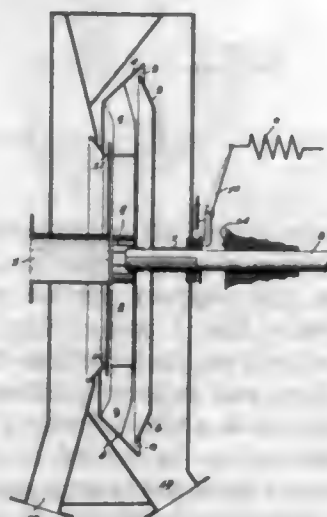
1. As a new article of manufacture, a container comprising a hollow body formed of flexible, fluid impervious, heat sealable, "plastic" film and closed throughout except for a small sized opening in one portion thereof, and a normally flat tube-like check valve positioned against said one portion of the body, embodying two elongated, superposed, separately formed, coextensive members of comparatively thin, flexible, fluid impervious, heat sealable, "plastic" film, having the side margins of its members in face contact with one another and connected together by heat seals, provided in the member thereof that is nearer to the body with an opening in registering relation with the opening in said one portion of the body, having the opening defining portion of said member that is nearer to the body in face contact with, and connected by a heat seal to, the opening defining portion of the body, and adapted when its members are spread apart to assume an open position wherein communication is established between the interior of the body and the ambient air and when its members are pressed together to assume a closed position wherein communication of the body interior and said ambient air is cut off, said check valve also embodying a thin imperforate strip of flexible, fluid impervious, non-heat sealable film that is different from, and incompatible with, the film of which the valve members are formed, said strip being positioned between said two members and so that it extends across the second mentioned opening, arranged so that it is wholly disconnected from said member that is nearer to the body, and adapted in connection with opening and closing of said check valve to move out of and into overlying and seated relation with said second mentioned opening and form an auxiliary flap type valve.

2,821,339
CENTRIFUGE
Keith D. Wyble, Silver Spring, Md., assignor to Wyble Engineering Development Corp., Silver Spring, Md., a corporation of Maryland
Application September 16, 1956, Serial No. 608,817
5 Claims. (Cl. 233-26)



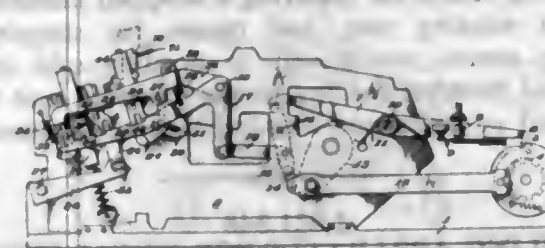
1. A centrifuge comprising a rotatably driven shaft, and a rack having a central portion fixed to said shaft and supported thereby for rotation therewith, said rack including a rear wall and a plurality of radially spaced concentric annular walls fixed to and extending from a forward side of said rear wall and having front edges defining the open front of the rack, and resilient means disposed between said annular walls and supported by certain of said annular walls and adapted to cooperate with the annular walls for supporting a plurality of containers within said rack for rotation therewith.

2,821,340
ROTARY PUMPS
Cornelis Jan van Wijngaarden, Oss, Netherlands
Application July 22, 1955, Serial No. 523,916
1 Claim. (Cl. 233-46)



In a rotary pump having a rotor, a rotary mixture collecting chamber situated substantially around the rotor, said chamber being provided with an inwardly disposed outlet for the light component, said chamber consisting of two annular parts having opposed conical walls with the periphery of one of said walls fitting within the periphery of the other of said walls and providing a peripheral gap between them, one of the parts being splined on the drive shaft of the rotor for axial movement so as to open or close said gap, and means resiliently engaging the hub of said movable part and biasing said part axially toward the other part to close the gap but to yield under the influence of the heavy material accumulated in the rotary chamber.

2,821,341
MULTI-FUNCTION REPEAT KEY FOR CALCULATING MACHINE
Harris L. Barnhardt, Asheville, N. C., assignor, by mesne assignments, to Olkon Research Corporation, New York, N. Y., a corporation of Delaware
Application September 22, 1954, Serial No. 457,594
5 Claims. (Cl. 235-60)



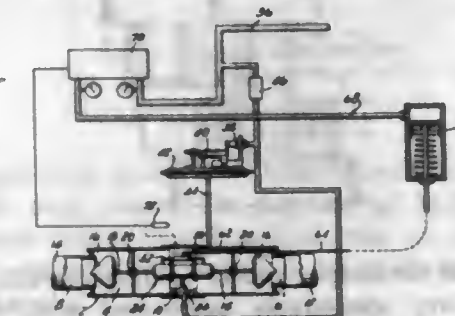
1. In a calculating machine of the type comprising a plurality of number keys, selector mechanism having a normal starting condition and actuable to various controlling conditions in response to operation of said number keys, restoring means including a restoring lever normally arranged to restore said selector to starting condition during each cycle of operation of the machine but movable to an inactive position such that the machine may be operated without causing the selector to be restored, operating means including a primary control member actuable to control said operating means to carry out an operating cycle of the machine, and add and subtract keys each disposed to be manually actuable into engagement with said member to actuate the same, the combination of a repeat key having a normal inactive position and movable to an intermediate position and a fully actuated position, means operatively connected to said repeat key constructed and arranged to maintain said restoring lever in its inactive position so long as said repeat key is actuated at least to said intermediate position, disengageable latch means operatively associated with said repeat key for latching the same in said intermediate position, and means responsive only to actuation of said repeat key to its fully actuated position for actuating said primary control member.

2,821,342
DIVIDEND-DIVISOR ALIGNING MECHANISM FOR COMPUTING MACHINES
Natale Capellaro, Ivrea, Italy, assignor to Ing. C. Olivetti & C., S. p. A., Ivrea, Italy, a corporation of Italy
Application November 15, 1954, Serial No. 468,986
Claims priority, application Italy November 17, 1953
19 Claims. (Cl. 235-60)



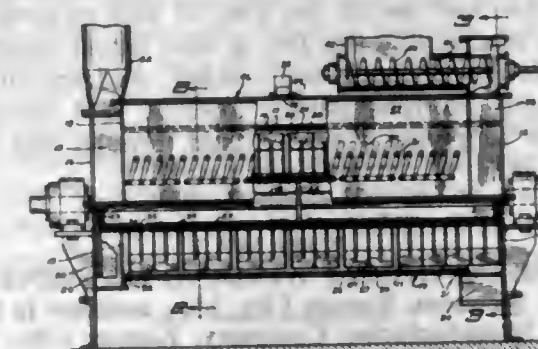
1. In a computing machine having an amount set-up means, a stationary amount representing device adapted to cooperate with said set-up means and including a set of differential elements movable from a zero position to a number of nonzero positions, traveling means for shifting the cooperative relationship of said amount set-up means and said set, a sensing device bodily movable with respect of said set for sequentially sensing the positions of said elements from the highest order toward the lower orders to detect upon a differential extent of said bodily movement the element of the highest significant order, and stop means differentially settable by said sensing device according to said extent for arresting the travel of said traveling means in predetermined constant relation to said highest significant order to align an invariable order of said amount set-up means with said highest significant order.

2,821,343
TEMPERATURE AND PRESSURE CONTROL FOR DUAL DUCT AIR CONDITIONERS
Nelson M. Payne, Farmington, Conn., assignor, by mesne assignments, to Allied Thermal Corporation, New Britain, Conn., a corporation of Connecticut
Application September 14, 1955, Serial No. 534,210
11 Claims. (Cl. 236-13)



1. Temperature and pressure control apparatus comprising a chamber having a pair of inlets for receiving gases at differential temperatures and varying pressures, support means mounted for movement relative to said inlets, a valve for each inlet mounted on said support means, pressure and temperature responsive means for automatically moving the valves simultaneously in a closing direction or simultaneously in an opening direction to vary the pressure in the chamber and automatically and simultaneously moving one of the valves in a closing direction and the other valve in an opening direction to vary the temperature in the chamber including means to move said support means.

2,821,344
SELF-CLASSIFYING PULVERIZER
Henry G. Lykken, Minneapolis, and William H. Lykken, Edina, Minn., assignors to The Microcyclomat Company, Minneapolis, Minn., a corporation of Delaware
Application June 4, 1954, Serial No. 434,468
12 Claims. (Cl. 241-5)

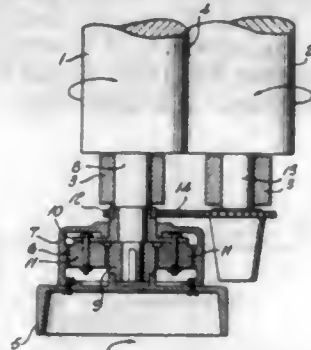


4. The combination of a substantially cylindrical horizontal mill housing, a material and air inlet to said housing at one end thereof, a grinding rotor journaled for rotation horizontally in said housing, a radial fan enclosed in a fan housing at the opposite end of the mill housing and in direct communication therewith, an axial air flow chamber mounted in said cylindrical mill housing over about one quadrant thereof and adjustable means in said flow chamber to progressively advance the grinding load.

2,821,345
AUTOMATICALLY OPERATING CONTROL ARRANGEMENT FOR PAIRS OF ROLLERS
Hans Donath, Dresden, Germany, assignor to VEB Muhlenbau, Dresden, Germany
Application October 19, 1954, Serial No. 463,261
5 Claims. (Cl. 241-35)

1. An automatic speed control for a roller mill comprising in combination: a first rotatable roller, a second rotatable roller, a differential gear including a driving element and two driven elements operatively connected with each other, and a speed reduction transmission, one of

said driven elements being operatively connected with said first roller, the other driven element being operatively connected with the input end of said speed reduction trans-



mission, and the output end of said speed reduction transmission being operatively connected with said second roller.

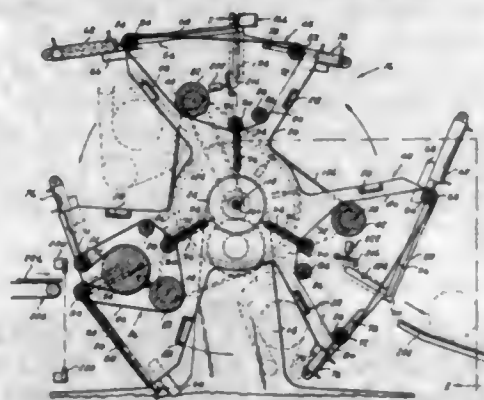
2,821,346 INJECTOR FOR IMPACT PULVERIZER OR THE LIKE

Andrew J. Fisher, Johnstown, Pa., assignor to Majac, Inc., Sharpsburg, Pa., a corporation of Pennsylvania
Application April 23, 1953, Serial No. 350,717
4 Claims. (Cl. 241-39)



2. In an injector for an impact pulverizer, in combination, a conical conduit, means for supplying solid particles to the larger end of said conduit, a barrel connected to the other end of said conduit in axial alignment therewith, a plurality of apertures positioned circumferentially and outwardly relative the opening of said conduit into said barrel, the axes of said circumferential apertures intersecting the axis of said barrel adjacent the end thereof away from said conduit, said apertures further having portions flaring towards said barrel, and means for supplying a motive fluid through said circumferential jets.

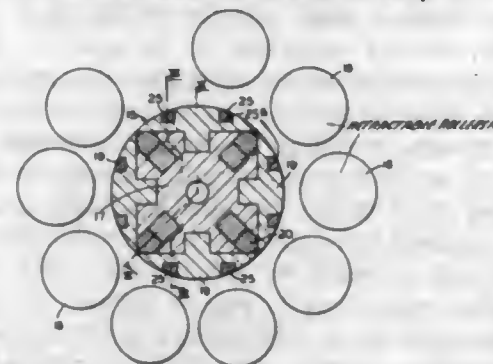
2,821,347
INDEXING MAT WINDING MACHINE
Joseph F. Stephens, Kansas City, Mo., assignor to Gustin-Bacon Manufacturing Company, Kansas City, Mo., a corporation of Missouri
Application January 18, 1955, Serial No. 482,566
12 Claims. (Cl. 242-55.1)



1. A mat winding machine for winding lengths of mat about mandrels including in combination a mat winding unit including a belt adapted to be actuated to form a pocket for receiving an empty mandrel to be wrapped and to discharge a wrapped mandrel and drive means for driving said belt to wrap a length of mat about the mandrel, movable means mounting said mat

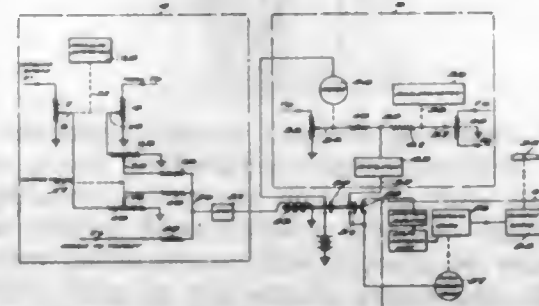
winding unit for movement therewith, means positioned adjacent said mounting means for feeding an empty mandrel to said mat winding unit, means positioned adjacent said mounting means spaced from said mandrel feeding means for feeding a length of mat to said mat winding unit, means positioned adjacent said mounting means spaced from said mandrel feeding means and said mat feeding means for receiving a wrapped mandrel from said mat winding unit, and means for stepping said mounting means successively to position said unit adjacent said mandrel feeding means and said mat feeding means and said wrapped mandrel receiving means.

2,821,348
COILING APPARATUS FOR METAL STRIP
Mathias Langen, Parkstone, England, assignor to The Loewy Engineering Company Limited, London, England, a British company
Application July 22, 1953, Serial No. 369,604
Claims priority, application Great Britain July 31, 1952
10 Claims. (Cl. 242-78.4)



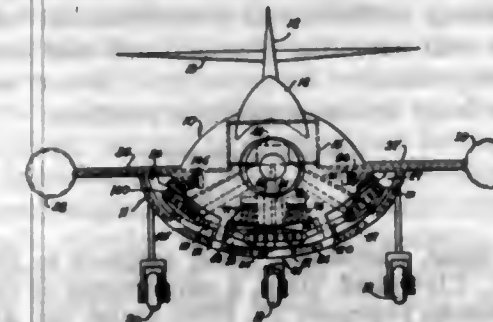
1. A coiling apparatus for metal strip, comprising a centrally disposed driven mandrel having slots through the periphery thereof, retractable guide rollers arranged around said mandrel for guiding a strip to be coiled, and elements disposed on the mandrel around its periphery and extensible through said slots in the periphery of said mandrel, said elements yielding to centrifugal action upon rotation of said mandrel whereby they are flung out towards said guide rollers and contact the metal strip being coiled on said mandrel.

2,821,349
DIVE CONTROL SYSTEM FOR PILOTLESS AIRCRAFT
Harry Sohn, Essex, Md., assignor to The Glenn L. Martin Company, Middle River, Md., a corporation of Maryland
Application November 4, 1952, Serial No. 318,589
7 Claims. (Cl. 244-14)



1. A control system for a winged aircraft comprising a gyroscope carried within said aircraft, torque producing means for precessing said gyroscope at a predetermined variable rate, means carried within said aircraft and responsive to accelerations of said aircraft due to lift produced by the wings of said aircraft for modifying the action of said torque producing means to change the rate of precession of said gyroscope, and aerodynamic means responsive to the angular position of said gyroscope with respect to the longitudinal axis of said aircraft for controlling the angle of attack of said aircraft.

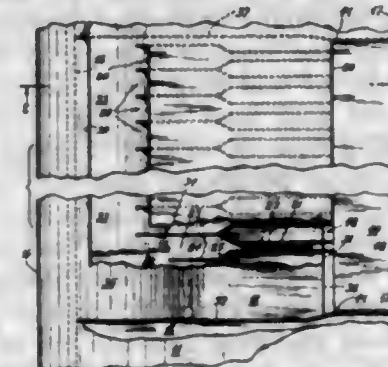
2,821,350
JET AIRPLANE CONSTRUCTION
Joseph Smurik, Fort Lee, N. J.
Application June 11, 1953, Serial No. 360,965
2 Claims. (Cl. 244-15)



1. A jet airplane comprising an elongated body, an outwardly directed fin disposed on each side of the body substantially for the length thereof, an arcuate member in spaced relationship with the bottom and contiguous side surface portions of the body depending from the fins, means for longitudinally dividing the space intermediate the body and the arcuate member into a central channel and a side channel on each side of the central channel, a burner for each channel in spaced relationship therewith, and means for conducting products of combustion of the central burner to each side burner whereby the temperature is raised to facilitate starting the side burners.

2,821,351
AIRPLANE WING STRUCTURE EMBODYING JET ENGINE

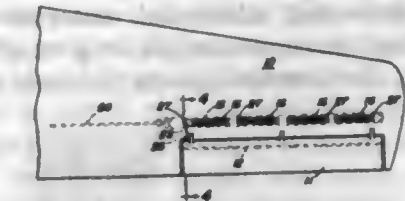
Vadym V. Utgoff, Alexandria, Va.
Application January 3, 1957, Serial No. 632,401
2 Claims. (Cl. 244-15)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In aircraft wing structure comprising top and bottom surface skins, a set of pulse-jet units positioned side-by-side inside the wing spanwise thereof and positioned along the inside of the skin of the top surface, the top surface skin comprising an intake communicating from exteriorly of the wing with the several jet units and extending spanwise of the wing in position rearwardly of the leading edge, the wing structure comprising an exhaust communicating from the several jet units to the exterior of the wing and extending spanwise of the wing positioned along the trailing edge thereof, a flap hinged at the trailing edge and extending coextensively with the exhaust of the jet units, the flap being positioned in the path of fluid flow from the exhaust and located for a major portion of the flow to be deflected below the flap with the lesser remaining portion passing over the flap.

2,821,352
SERVO-VANE CONTROL FOR AIRCRAFT
William H. Phillips, Hampton, Va.
Application April 13, 1954, Serial No. 423,002
7 Claims. (Cl. 244-90)
(Granted under Title 35, U. S. Code (1952), sec. 266)
2. In an aircraft having a wing and a control surface mounted on said wing for rotation relative thereto, about

an axis perpendicular to the line of flight of the aircraft, a servo-vane control system for said control surface comprising: a torque tube rotatably mounted in said wing; a slot in said wing; a vane pivotally mounted on said tube;



means for pivoting said vane through said slot whereby aerodynamic drag causes the rotation of said vane and said tube; and means coupling said tube to said control surface for transmitting rotation of said tube to said control surface.

2,821,353
TREE SUPPORT
Theodore W. Hasenohrl, Erie, Pa.
Application April 18, 1955, Serial No. 501,946
3 Claims. (Cl. 248-44)

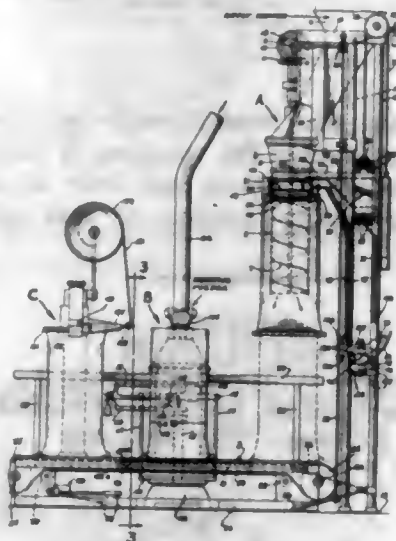


1. A tree support comprising a flat plate like member, legs attached to said plate like member at their lower ends and extending upwardly therefrom, an upper clamping ring, said legs being attached to said upper clamping ring at their upper ends, means on said upper clamping ring to engage a tree trunk, a lower clamping ring shiftably mounted on said plate like member and adapted to receive the butt of a tree trunk, a plurality of members having slots therein swingably attached to said lower clamping ring, bolts attached to said plate and extending upwardly therefrom and extending through said slots in said members, and nuts on said bolts engaging said members having slots, said bolts adapted to be loosened whereby said members may be slid on said bolts allowing said lower clamping ring to be moved over the area of said plate to various positions around the center thereof, said nuts being adapted to be tightened on said members to lock said lower clamping ring in the desired position.

2,821,354
BAG FILLING, WEIGHING, AND SEALING MACHINES
Harold V. Kindseth, Minneapolis, Minn., assignor to Bemis Bro. Bag Company, Minneapolis, Minn., a corporation of Missouri
Original application February 12, 1948, Serial No. 7,817. Divided and this application January 4, 1951, Serial No. 204,396
9 Claims. (Cl. 249-15)

1. In a bag filling and closing machine, filling means for delivering successive short weight charges into successive bags, a conveyor for receiving the partially filled bags from the filling means, a scale associated with the conveyor, means for operating said conveyor to transport bags to a scale, means for interrupting operation of said conveyor as each bag reaches a position over said scale, an electrically operated means for delivering additional material positioned adjacent to the scale, an electric circuit for said means for delivering additional material, a normally open control switch in said circuit having an operating member positioned in the path of the bags adapted to be actuated by each bag delivered onto the scale whereby said normally open switch is closed by each bag delivered onto the scale to thereby

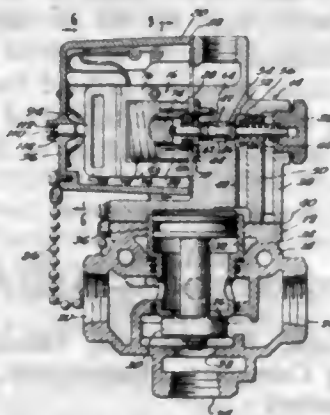
condition said circuit to subsequently supply current to said means for delivering additional material, a normally open switch in said control circuit mounted on a movable part of the scale, a manually operable member for controlling the operation of the conveyor and said means for delivering additional material simultaneously whereby when an underweight bag reaches a position on the scale, the control circuit for said means for de-



livering additional material may be closed to cause said means for delivering additional material to operate and deliver additional material into the open top of each underweight bag, and said normally open switch automatically closing by actuation of the movable part of the scale when the bag has received its full weight to thereby automatically interrupt said means for delivering additional material.

2,821,355 SOLENOID VALVES

Frederick W. Hicks, Jr., Skokie, Ill., assignor to Hannifin Corporation, Des Plaines, Ill., a corporation of Illinois
Application March 24, 1955, Serial No. 496,457
3 Claims. (Cl. 251-129)

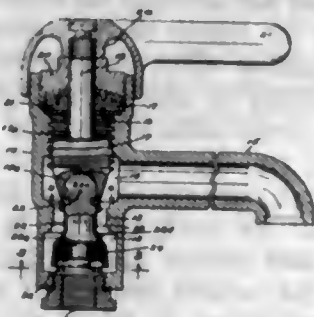


3. In a valve for controlling fluid flow, the combination comprising a valve body having a plurality of ports therein, a valve member movable in said body for selectively controlling communication through said ports, a valve spring in said valve body biasing said member in one direction to a home position, a power-actuated device having a movable actuating element engageable with said member for moving said member in the opposite direction away from said home position, guide means supporting said power-actuated device for movement toward and away from said body and in the direction of movement of said member, a hollow cover engageable with said body for enclosing said power-actuated device, means removably securing said cover to said body and around said power-actuated device, and a retaining spring mounted between said cover and said power-actuated device for retaining said power-actuated device in an operative po-

sition against said valve body, said retaining spring being substantially stronger than said valve spring to maintain said device in said operative position against the reaction of said valve spring when said device is energized, any energization of said power-actuated device with said cover removed being ineffective to overcome said valve spring and move said actuating element and said member but rather being effective to move said device away from said valve body to an inoperative position.

2,821,356 VALVE

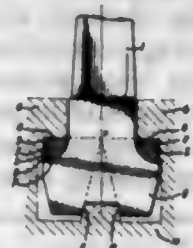
Henry J. Rand, Cleveland, Ohio, assignor to Magic Seal, Inc., Cleveland, Ohio, a corporation of Ohio
Application February 23, 1954, Serial No. 411,851
2 Claims. (Cl. 251-333)



1. A valve comprising a housing having a fluid inlet and a fluid outlet, there being a cylindrical bore in said housing intermediate said inlet and outlet and communicating with both of them, a resilient frusto-conical sealing plug having a base of smaller diameter than said bore insertable into one end of said bore and having a base of larger diameter than said bore, the diameter of said plug bases being so chosen with respect to the diameter of said bore that said plug when inserted into said one end of said bore, in substantially unstressed condition, meets said bore in annular line contact a material distance down the slanting sides of said plug from said base of smaller diameter toward said base of larger diameter, means holding said plug base of smaller diameter substantially rigid over the major portion of said base and leaving an annular non-rigid area of said plug radially outside said last named means and in the plane of said base of smaller diameter, said non-rigid annular area having a radial extent between approximately 0.005 and 0.015 inch, and means for moving said plug into and out of said one end of said bore.

2,821,357 CONNECTION OF CERAMIC AND METALLIC MACHINE PARTS

Christian Schörner, Augsburg, Germany, assignor to Maschinenfabrik Augsburg-Nürnberg A. G., Augsburg, Germany, a corporation of Germany
Application October 18, 1950, Serial No. 190,727
Claims priority, application Germany May 9, 1950
7 Claims. (Cl. 253-77)



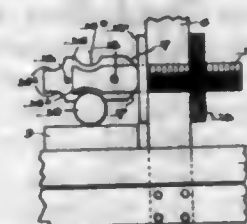
1. A differential expansion-compensating mounting for affixing a ceramic turbine blade into a recess in the rim of a metal turbine rotor throughout a range of temperature variations and substantially different thermal expansion characteristics of said ceramic blade and said metal rotor, which comprises in combination metal rim

portions in said recess forming annular metal seating surfaces having substantially linear configuration in axial cross section, linear extensions of said linear configuration intersecting the longitudinal mid-plane of said blade at an acute angle a ceramic dovetail root portion on said blade having substantially different thermal expansion characteristics than said metal rotor, ceramic shoulders on said root portion adjacent said metal shoulders in said recess forming rounded concave ceramic seating surfaces, ceramic insert members having substantially the same thermal expansion characteristics as said ceramic root portion, one side of said insert members being convexly rounded for fitting engagement with said rounded ceramic seating surfaces and another side of said insert members being linear in cross section and complementary to said annular metal seating surfaces for fitting engagement therewith, and means in the radially inner portion of said recess for maintaining firm engagement between said insert members and said metal and ceramic seating surfaces throughout said range of temperature.

2,821,358

CARPENTER'S JOINTING FULCRUMING DEVICE

Vernon L. Lassinger, Saxonburg, Pa.
Application October 27, 1954, Serial No. 464,937
4 Claims. (Cl. 254-17)

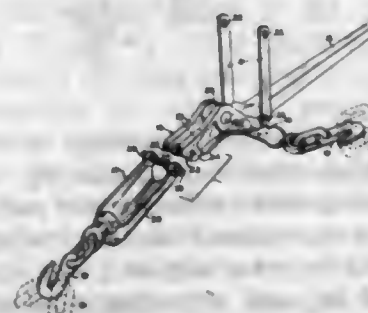


1. Apparatus for use in laying boards, comprising a lever, a body member of elongated form adapted to be placed crosswise upon a joist or the like, a pair of gripping plates disposed transversely on said member and movable longitudinally thereof, means for adjusting one of the plates to longitudinally-set positions on the body member, a camming plate pivotally mounted on the body member, in position to move the other gripping plate toward the said one plate, to thereby place them in clamping engagement with the opposite faces of a joist or the like across which the body member extends, and a bearing surface on the cam plate, engageable by the lever in position to serve as a fulcrum to cause the cam plate to shift the movable gripping plate to clamping position when the lever is placed between said surface and a board and then tilted.

2,821,359

CHAIN TIGHTENER

Earl O. Bushnell, Salem, Oreg.
Application May 20, 1954, Serial No. 431,236
4 Claims. (Cl. 254-78)



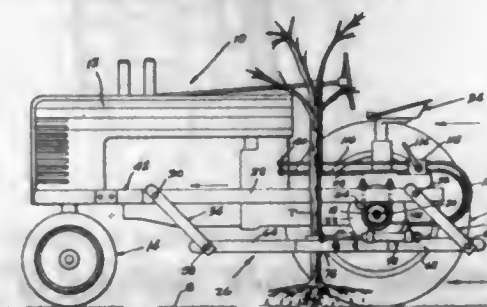
1. A tightening device comprising an elongate lever, a first link pivotally connected to said lever intermediate the ends of said lever, a second link adapted to be pivotally connected to an end of said lever, said lever end hav-

ing a slot therein defined by spaced side walls extending substantially parallel to the longitudinal direction of said lever, gudgeon means on said second link adapted slidably to be inserted and removed from said slot respectively to engage and disengage said lever and second link means, pintle means on said second link coaxial with said gudgeon means, and catch means pivotally mounted on said lever at a point spaced from said slot, and having a first position in which the catch means releasably and pivotally engages said pintle means to retain said gudgeon means within said slot to secure said lever and second link means together, said catch means being movable to a second position out of engagement with said pintle means whereby said gudgeon means may be removed from said slot to separate said lever and said second link means.

2,821,360

GRUBBING ATTACHMENT FOR TRACTION VEHICLES

Asa C. Marshall, Willis, Va.
Application January 20, 1956, Serial No. 560,298
8 Claims. (Cl. 254-132)

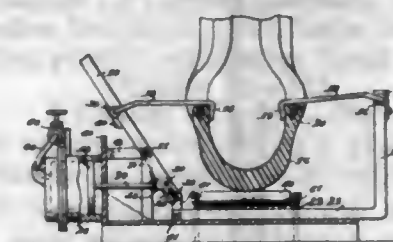


1. A grubbing attachment for traction vehicles comprising an elongated mounting bar securable on a side portion of a tractor in alignment with the longitudinal axis thereof, a pair of pivotal lift arms pivotally connected at their upper end portions to oppositely disposed end portions of the mounting bar, an elongated lift bar pivotally connected at its opposite ends to lower end portions of the lift arms, gripping means on the lift bar for engagement with a vertically disposed member to be lifted, the mounting bar, lift arms and lift bar defining an articulated parallelogram whereby after the gripping means has been engaged with the member to be lifted, forward movement of the mounting bar results in pivotal movement of the lift arms and vertical movement of the lift bar and gripping means.

2,821,361

PNEUMATIC TIRE SPREADER

Ivan R. Marks, Williams, Calif.
Application June 1, 1955, Serial No. 512,397
4 Claims. (Cl. 254-50.3)



1. A tire spreader comprising a platform, a vertically disposed lever pivotally mounted on the platform, said platform having a socket thereon extending transversely thereof and L-shaped bracket slidably mounted in the socket on the platform and pivotally connected to the lever at a point spaced below the pivotal mounting thereof, fingers attached to the bracket and adapted to extend over the edge of a wall of a tire positioned on the platform, similar fingers pivotally connected to the lever at a point spaced above the pivotal mounting thereof

and adapted to extend over the side wall of a tire positioned on the platform, and pressure means for operating the lever to actuate the fingers to spread the side walls of the tire.

2,821,362

EXTENSIBLE WHIPSTOCK

Albert J. Hatcher, Long Beach, Calif., assignor of fifty percent to Wayne A. Jones, Bellflower, Calif.
Application July 26, 1955, Serial No. 524,428
4 Claims. (Cl. 255-1.6)

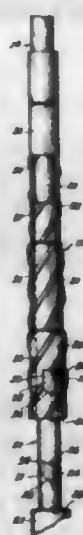


1. An extensible whipstock comprising an elongated body, a collar on the upper end of said body, said body having a longitudinally extending and tapered deflecting surface thereon, a flexible plate resting on the body and extending longitudinally thereof from below said collar to the lower edge of said body, means slidably coupling the plate to the body, said plate resting on the tapered deflecting surface of said body, a ring on the upper end of said plate, said ring being seated in said collar in one position of the plate, and a releasable latch means coupling said ring to the collar, said latch means being releasable to permit said plate to slide and project an appreciable distance below the lower edge of the body.

2,821,363

KEY SEAT CUTTER

Charles O. Van Note, Jr., Palos Verdes Estates, Calif., assignor to Servco Engineering, Ltd., Long Beach, Calif., a corporation of California
Application December 7, 1953, Serial No. 396,654
2 Claims. (Cl. 255-27)



1. A key seat enlarging tool comprising an elongated mandrel having upper and lower shoulders, a reaming

collar rotatably and slidably mounted on said mandrel, a key on said mandrel adjacent but spaced upwardly from said lower shoulder, said reaming collar being normally in engagement with said lower shoulder and having a recess wider than said key, receiving said key, and provided with a side face opposed to a side of said key to establish a rotary driving connection between said mandrel and collar, said collar having a keyway therein extending from the lower end thereof into said recess and being circumferentially offset from said side face of said recess, the length of said collar being less than the distance between said key and the upper shoulder.

2,821,364

TWO-WAY BIT

Grant Godfrey, Safford, Ariz.
Application July 1, 1954, Serial No. 440,589
1 Claim. (Cl. 255-64)



As a new article of manufacture, a drill bit adapted to fit on the end of a drill rod and having a cylindrical socketed body portion, lugs spaced around and radiating outwardly from the lower end of said body, each of said lugs having a slotted cutter socket formed in its bottom face, said slots extending into said body, a cutter bit mounted in each of said slots, divergingly and upwardly extending lugs spaced around the upper end of said body and having cutting teeth formed on their upper edges of lesser diameter in revolution than the cutters carried by the first-mentioned lugs, said upwardly extending lugs being integral with said body.

2,821,365

ELECTRICAL WIRE FENCE WITH PLASTIC POSTS

John Lach, Oak Harbor, Ohio
Application June 23, 1955, Serial No. 517,468
1 Claim. (Cl. 256-19)

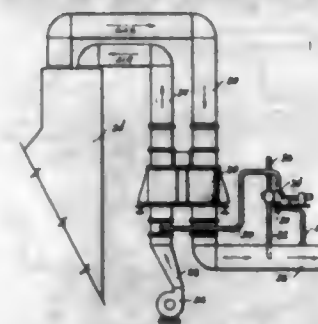


A fence construction comprising, in combination, a plurality of solid, electrically-insulating, organic plastic fence posts having slots in their upper portions to receive and support an uninsulated electrical wire, each of said posts comprising in cross section a semi-circular element having secured to, and extending outwardly from, the circumferential center of its convex surface a reinforcing rib integrally joined thereto and extending from the convex surface a distance at least equal to a radius of the concave surface of said post, and an uninsulated wire secured in and supported by said slots.

2,821,366

HEATING SURFACE CONDITION INDICATOR

Per Hlmer Karlsson, Wellsville, N. Y., assignor to The Air Preheater Corporation, New York, N. Y., a corporation of New York
Application April 8, 1954, Serial No. 421,741
4 Claims. (Cl. 257-6)

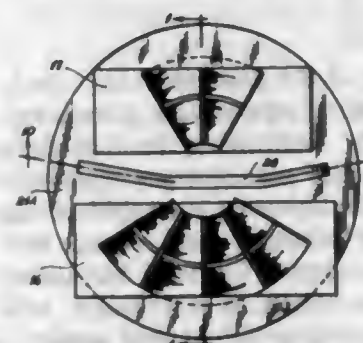


1. A primary heat exchanger enclosed in a housing having supply and discharge ducts connected thereto for directing the flow of hot gas and cool air between which heat is exchanged over metallic heat transfer elements subject to the effects of corrosive constituents of the gases flowing thereover; the combination therewith of a secondary heat exchanger substantially smaller than said primary heat exchanger and including heat transfer elements as in said primary heat exchanger; a housing enclosing the heat transfer elements and positioned at a distance from said primary heat exchanger; a conduit from the gas discharge duct of said primary heat exchanger to a gas supply duct of said secondary heat exchanger; a conduit from the air supply duct of said primary heat exchanger to an air supply duct of said secondary heat exchanger; and observation ports formed in opposite ends of the secondary heat exchanger housing so arranged that the heat transfer elements within said secondary heat exchanger housing may be observed during periods the interconnected preheaters are in operation.

2,821,367

RECOVERY OF HIGH PRESSURE FLUID IN ROTARY HEAT EXCHANGER

Robert H. Muller, Wellsville, N. Y., assignor to The Air Preheater Corporation, New York, N. Y., a corporation of New York
Application October 27, 1954, Serial No. 465,103
6 Claims. (Cl. 257-6)



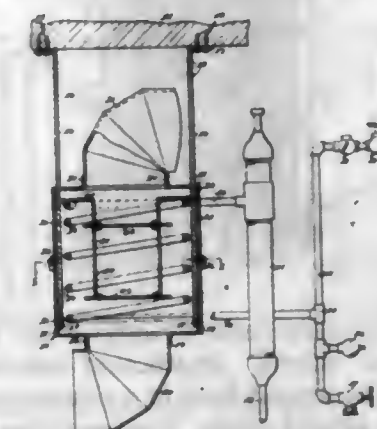
1. In heat exchange apparatus or the like having a cylindrical rotor divided by radial partitions into sector shaped compartments carrying heat transfer material, and a housing surrounding the rotor and provided at opposite ends with sector plates formed with circumferentially spaced apertures for the flow of heating gases and air to and through the heat transfer material carried by the rotor; radial sealing members cooperating with imperforate portions of said end plates to preclude fluid flow between adjacent compartments; circumferential sealing means mounted on end edges of the rotor to preclude fluid flow through the space between the rotor and rotor housing; circumferentially displaced slots formed in the sector plate to provide means for equalizing the pressure of the fluids entrained in the sector shaped compartments

which lie intermediate the circumferentially spaced apertures, said slots being displaced circumferentially whereby one slot is substantially midway between a pair of adjacent radial partitions while the other of said slots is in axial alignment with a single radial partition; and means providing a fluid passageway between slotted portions of the sector plate thereby affording communication between compartments in alignment with said slots.

2,821,368

WATER PRE-HEATER

William Esig, Bronx, N. Y.
Application June 21, 1955, Serial No. 516,929
2 Claims. (Cl. 257-229)



1. In a heater, a pair of spaced parallel bars adapted to be secured to a supporting structure, a lower bracket including a reduced diameter cylindrical portion secured to the lower end of said bars and said bracket including a lower depending collar, a lower pipe connected to said collar, an upper bracket arranged above said lower bracket and including a cylindrical reduced diameter portion defining a shoulder, a cylindrical casing including a pair of semi-cylindrical sections arranged in engagement with said reduced diameter portion, a collar of reduced diameter extending upwardly from said upper bracket, an upper pipe connected to the collar on said upper bracket, a coil positioned in said casing, conduits connected to the ends of said coil, valve means arranged in certain of said conduits, latches for maintaining the semi-cylindrical sections of said casing connected together, baffle means arranged in said casing, said baffle means comprising spaced apart arms, flanges extending outwardly from the upper ends of said arms and resting on the top of said coil, and plates extending between said arms and secured thereto.

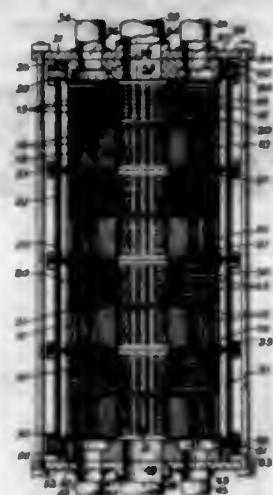
2,821,369

HEAT EXCHANGERS

Alfred Hilliard, Brockwell Park, London, England, assignor to Societe Le Carbone Lorraine, Paris, France
Application October 6, 1953, Serial No. 384,437
Claims priority, application Great Britain
October 14, 1952
8 Claims. (Cl. 257-241)

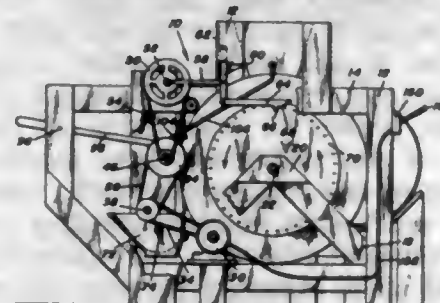
1. A heat exchanger comprising a plurality of hollow cylindrical blocks of graphite each being an integrally pressed block of monolithic construction, said blocks being arranged in axial alignment to form a column having a central hollow interior, each of said blocks having two series of holes cut therein to receive two heat exchange fluids respectively, the holes of the first series receiving the first fluid and being arranged vertically in banks which are spaced apart from each other and extend through each block from one end surface to the other and the holes of the second series receiving the second fluid and being arranged in banks of holes disposed between and transversely to the banks of the first series and extending through each block from the inner surface to the outer surface thereof, said blocks being recessed at ad-

adjacent end surfaces to form a space transversely across all the holes of the first series, removable packing means provided around each space between said end surfaces whereby fluid from the holes of the first series of one block passes into said space and then into holes of the first series of the adjacent block, a casing surrounding the column and spaced therefrom, exterior obstruction means between the casing and the blocks, interior obstruc-



tion means within said hollow interior of the column, said exterior and interior obstruction means being arranged to direct the second fluid in a sinuous path through the holes of the second series, header plates at opposite ends of the column having openings therein for conducting the two fluids into and out of the two series of holes separately, and means for holding the header plates and blocks together under compression.

2,821,370
AUTOMATIC HOG FEEDER
Garry M. Varner, Soddy, Tenn.
Application July 24, 1956, Serial No. 599,855
10 Claims. (Cl. 259-10)

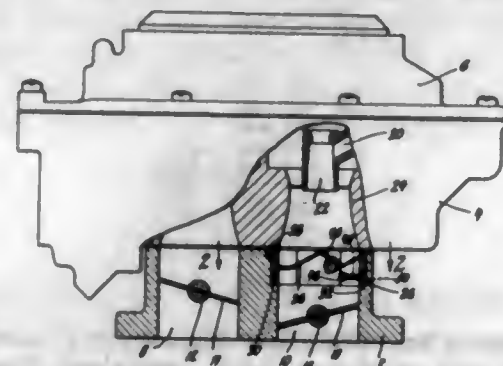


1. A device for automatically mixing liquid and dry feed and dispensing the same comprising a support frame, means for supplying dry feed, means for supplying liquid, a receptacle pivotally mounted on said frame, a powered mixer rotatable in said receptacle, a rotatable dispensing drum for receiving dry feed from the feed supply means and dumping a quantity of dry feed into the receptacle, means operated by said drum for discharging the liquid into said receptacle, and means operated by said drum for dumping said receptacle and the mixed feed therein.

2,821,371
CARBURETOR
Donald D. Stoltman, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 25, 1956, Serial No. 593,612
7 Claims. (Cl. 261-23)

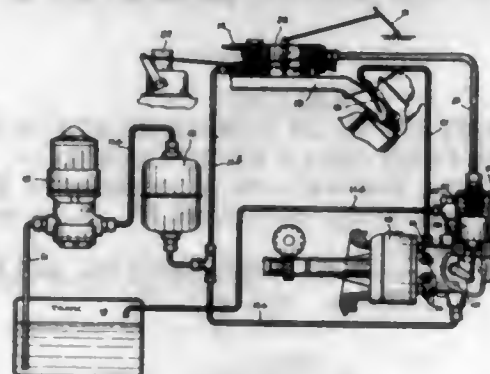
1. In a charge forming device for internal combustion engines having primary and secondary mixture passages to which fuel and air are supplied to form a properly combustible mixture therein, primary and secondary throttles in said primary and secondary passages respec-

tively, said throttles being movable to different positions to variably control the quantity of mixture supplied to the engine, a suction operated valve in the secondary mixture passage movable toward open position on opening movements of the secondary throttle, a spring opposing the opening movement of said valve in response to an increase in suction effective thereon, a lever arm connected to



said valve through which the force of said spring is communicated to said valve, and means including a sliding connection between said lever arm and said spring for reducing the effective length of said lever arm as the valve is moved toward open position whereby the force exerted by said spring in opposing the movement of said valve is reduced as the valve is opened.

2,821,372
FUEL INJECTION APPARATUS FOR SPARK IGNITION ENGINES
Carl H. Nystrom, West Springfield, Arthur E. Huse, Springfield, and John N. Humber, North Wilbraham, Mass., assignors to American Bosch Arma Corporation, a corporation of New York
Application October 12, 1955, Serial No. 539,987
4 Claims. (Cl. 261-37)

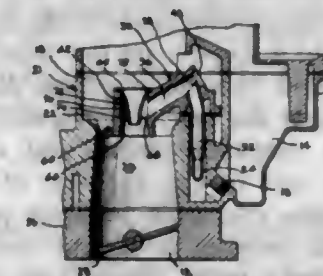


1. In a device of the character described, a fuel injection pump, a control operatively connected to said fuel injection pump for controlling the fuel delivered thereby and pressure actuated means associated with said control and adapted to be actuated by rapid changes in intake manifold vacuum whereby said pump will temporarily deliver more than normal full load fuel quantity, said control comprising a piston in a cylinder with said piston being operatively connected to said control for said fuel injection pump, and said pressure actuated means including a pressure actuated member in said cylinder and operatively connected to said piston and to said fuel injection pump control and stop means for limiting the movement of said pressure actuated member in one direction.

2,821,373
CARBURETOR FUEL FEEDING DEVICE
Elmer Olson, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 30, 1956, Serial No. 581,597
2 Claims. (Cl. 261-75)

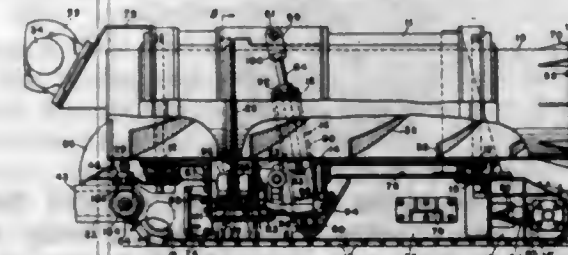
1. A carburetor comprising an induction passage, venturi means in said passage, a fuel bowl, a perforate nozzle

projecting within said fuel bowl, passage means communicating said nozzle with said venturi, and a fuel cluster, said fuel cluster including a mixture passage connected at one end with said nozzle and terminating at the other end in an open-ended cylindrical sleeve disposed within said venturi, said sleeve being disposed centrally of said venturi and having one of its open ends



terminating proximate the venturi throat, said sleeve having a portion of reduced cross-section posterior to the junction of said sleeve and fuel passage, and a nozzle supported from the other end of said sleeve and projecting therewithin in radially spaced relation to the inner wall of said sleeve, the other end of said nozzle terminating adjacent the reduced portion of said sleeve.

2,821,374
COAL MINING MACHINE HAVING A PIVOTALLY MOUNTED CUTTER TUBE
Harold H. Gardner, Fernie, British Columbia, Canada, assignor to Canadian Ingersoll-Rand Company, Limited, Montreal, Quebec, Canada, a corporation of Canada
Application November 30, 1955, Serial No. 550,188
3 Claims. (Cl. 262-26)

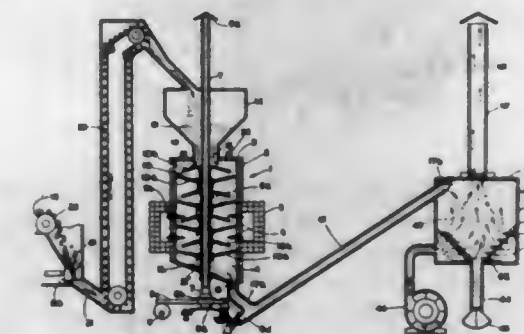


1. A mining machine comprising a self-propelled carriage provided with means for steering the course thereof, a cutter tube in front and rear sections, the rear section overlying the carriage, and the front section extending beyond the carriage and flaring conically at its outer end, cutting elements mounted on the outer end of said front section, a frame mounted on the carriage means for rotatably supporting said cutter tube within said frame with the ends of the tube projecting therefrom, horizontal pivot means on the lower side of said frame below said tube and on the rear end of said carriage about which said pivot means said frame is adapted to swing in the vertical plane, a motor for rotating said tube mounted on the frame below said tube, and flights within said tube to propel cut material therethrough upon rotation of said tube.

2,821,375
APPARATUS FOR RECLAIMING FOUNDRY SAND
Robert S. L. Andrews, Guelph, Ontario, Canada, assignor to Shell-Cast Alloys Limited, Guelph, Ontario, Canada, a corporation
Application May 2, 1956, Serial No. 582,282
1 Claim. (Cl. 263-26)

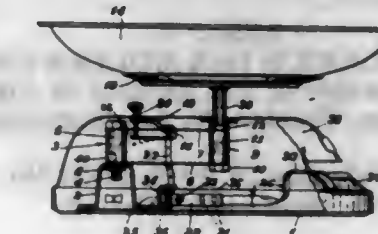
Apparatus for processing used foundry sand containing an organic binder, to recover the sand for re-use, comprising means for granulating the material, a furnace, a hopper above the furnace and opening into the top of the furnace, means for delivering the granulated material to the hopper, a vertical column slidably mounted in the

furnace for vertical movement relative to the furnace, a leaf spring under the base of the column and supporting the column, a lever reciprocable in a vertical direction and engaging the column to vibrate the column on the spring, means for reciprocating the lever, a plurality of hearth units secured to the column, each unit comprising an upper and a lower dished disc coaxially aligned with each other on the column and spaced apart from each other with their concave dished surfaces facing each other, the diameter of the lower disc being greater than that of the upper disc and the lower disc having openings in it in a ring around and near the column, a plenum chamber opening into the lower part of the furnace and providing a source of hot gases of combustion for the furnace, an opening in the bottom of the furnace, a



conduit connected to the opening, a cooling bin into which the conduit leads, pneumatic means in the conduit for transferring the material from the bottom of the furnace through the conduit to the bin, the bin having apertures in its bottom and means for introducing cooling air under pressure through the said apertures, automatic control means in the furnace responsive to a predetermined operating temperature in the furnace to start the vibrating means, timing control means stopping the vibration after a predetermined time sufficient for the material to become distributed over all the hearth units and starting the vibration after a further predetermined heating time, and control means connected to the said timing control means actuating the said pneumatic means in the conduit during periods when the furnace is being vibrated.

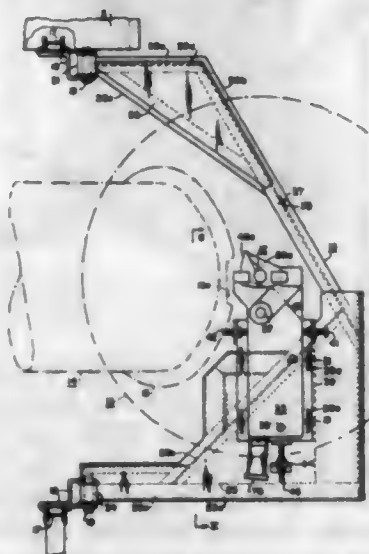
2,821,376
SPRING BALANCES
Horace Aston, West Bromwich, England, assignor to George Salter & Co. Limited, West Bromwich, England, a British company
Application April 19, 1954, Serial No. 424,190
Claims priority, application Great Britain June 26, 1953
8 Claims. (Cl. 265-68)



6. A spring balance comprising a vertically movable load supporting part; a relatively fixed part; upper and lower parallel motion load resisting blade springs connecting said load supporting part to said relatively fixed part; a spring tongue carried at one end by the upper blade spring; a screw carried by said upper blade spring, said screw being adapted adjustably to flex said spring tongue, and said screw having an upwardly presented head disposed above said upper blade spring; a pivoted indicator; and means for transmitting downward movement of the load supporting part to the pivoted indicator, said movement transmitting means comprising a depending part which is carried at its upper end by the spring

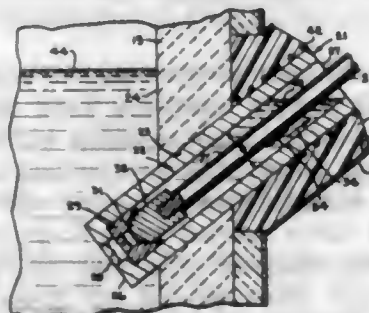
tongue in such a manner that it is caused to be tilted by the load, such tilting movement being arranged to control the movement of the indicator, said spring tongue serving to connect said tiltable part to said upper blade spring whereby the inclination of the tiltable part can be varied by flexing the tongue so that a taring adjustment of the pivoted indicator can be made.

2,821,377
VESSEL CHARGING APPARATUS
Harry L. McFeaters, New Castle, Pa., assignor to Pennsylvania Engineering Corporation, New Castle, Pa., a corporation of Pennsylvania
Application April 4, 1956, Serial No. 576,065
6 Claims. (Cl. 266—34)



2. An improved apparatus for clamping a vertical tube member and aligning it with respect to the mouth of a vessel which comprises, a support structure adapted to project outwardly above the vessel, vertically spaced-apart pairs of cooperating clamping jaws carried on said support structure, a head pivotally carrying one jaw of each pair for relative movement into and out of an interleaving relationship with respect to the other jaw of the same pair, a saddle member pivotally-adjustably mounted on said head, a pair of vertically spaced-apart integral arms pivotally carrying said saddle member on said support structure, and actuating mechanism positioned on said support structure and operatively connected to said saddle member to swing said head and thus swing the one jaw of each pair into and out of an interleaving relationship with the other jaw thereof.

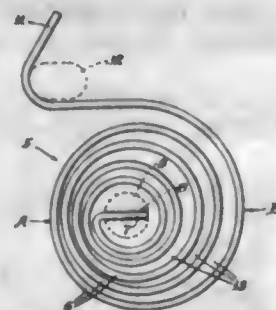
2,821,378
TAPPING DEVICE FOR MOLTEN METALS
Mario Tama, Morrisville, Pa., assignor to Ajax Engineering Corporation, Trenton, N. J., a corporation of New Jersey
Application February 28, 1955, Serial No. 490,940
5 Claims. (Cl. 266—42)



1. In a tapping device, for use in connection with a furnace for molten metal having a bottom and a side wall defining a chamber for the molten metal bath, in combination, a tube having a solid uninterrupted encircling

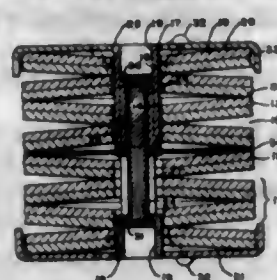
wall and being open at both ends protruding through said side wall and being inclined at an angle to the horizontal plane and adapted to extend with its lower end into the metal bath in said chamber and with its upper end to the exterior of said furnace, said tube being composed of heat resistant material and having near its lower end a constriction, a valve seat formed near said constriction on the tube interior and adapted to be immersed in the molten metal during pouring and during the time intervals between pours, and a stopper on the interior of said tube movable within said tube in opposite directions to and from said valve seat for releasably sealing the same and including a stem extending from said stopper through said open upper end to the exterior of said tube, the molten metal filling said tube between pours to a level slightly below the pouring level and below the level in the furnace, whereby upon removal of said stopper off said seat molten metal may flow upwardly through said tube and thereafter in a free constant flow emerge from the upper end of said tube.

2,821,379
TORQUE SPRING
Wilfred T. Donkin, Coldwater, Mich., and Frank G. Sabik, Berwin, Ill., assignors to Mechanical Spring Fabricators, Inc., Chicago, Ill., a corporation of Delaware
Application March 10, 1954, Serial No. 415,360
7 Claims. (Cl. 267—1)



2. A spring comprising a length of resilient metal stock in coil form having coplanar inner, outer and intermediate convolutions, a rotatable shaft secured to the inner end of the spring, a fixed member engaged to the outer end of the spring, adjacent convolutions normally being in abutting engagement at one side of said spring and spaced a substantial distance apart at the other side thereof to define therebetween a series of crescent-shaped openings to prevent frictional binding engagement of adjacent convolutions during application of normal torque loads on the spring, said convolutions being substantially equally closely spaced when the spring is torque-loaded to capacity responsive to rotation of said shaft.

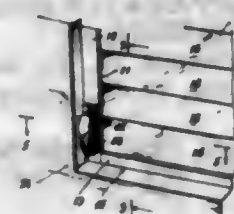
2,821,380
SPRING GROUP
Albin K. Strandberg, Latrobe, Pa., assignor to Alco Products, Incorporated, New York, N. Y., a corporation of New York
Application October 28, 1953, Serial No. 388,791
4 Claims. (Cl. 267—2)



3. A spring disc assembly having opposed end plates; a stack of uniform washer discs disposed between said

plates; and means extending through the washers connecting said plates comprising opposed jaw lugs projecting one from each plate, each of said lugs having an axial aperture therein and having fingers extending toward the opposite plate, the fingers of the lugs being disposed in intercalated sliding engagement and defining a noncircular hole coaxial with the jaw lug apertures, and a pin having the same non-circular shape as the hole defined by the fingers, said pin extending through the jaw lug apertures into a sliding fit with the hole defined by the fingers to connect the jaw lugs together and to prevent rotation of the pin relative to the lugs.

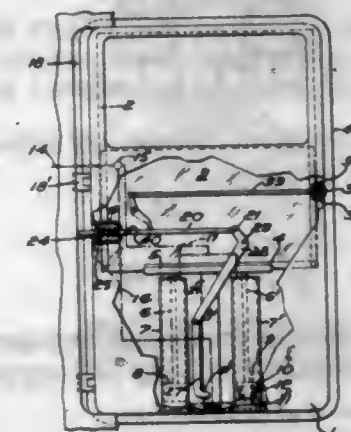
2,821,381
JALOUSIE UNITS AND OPERATING MECHANISM THEREOF
Frank J. Martin, Miami, Fla., assignor, by mesne assignments, to William E. Greene, Jr., Miami, Fla.
Application July 2, 1956, Serial No. 595,560
4 Claims. (Cl. 268—23)



4. In a jalousie unit the combination comprising a pair of right and left, upwardly-extending, laterally-spaced side jambs having upwardly-extending facing flanges with one having a longitudinally-extending slot cut therein; a plurality of transversely-extending louvers pivotally supported by and between said side jambs; a pair of right and left, upwardly-extending, longitudinally-slidable, elongated slide bars with each mounted adjacent one of said side jambs, said slide bars being pivotally connected to said louvers for swing of the latter by longitudinal translation of either of said slide bars; a reversible rotary operator comprising a symmetrically-shaped hollow housing having mounting means for securing it to such side jambs in either of two reversed orientations, said operator being mounted by said mounting means on said slotted side jamb facing flange and having a longitudinally-swingable lever arm extending from the back thereof through the jamb flange slot to the vicinity of the slide bar adjacent this side jamb, said housing having laterally-spaced inward and outward sidewalls with the upper and lower half portions of said housing being of similar appearance on opposite sides of a transverse mid-plane, a manually rotatable operating member mounted on the inward sidewall thereof at the transverse mid-plane and means operatively connecting said operating member to said lever arm; and connecting link means pivotally connected to said lever arm and the adjacent slide bar to move the latter up and down with swing of said lever arm by rotation of said member for up and down swing of said louvers, said lever arm being connectable to the other of said slide bars in a similar manner by similar connecting link means for a like purpose when said rotary operator is reversed and mounted in the same position on the facing flange of the other side jamb.

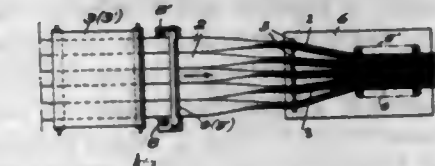
2,821,382
WINDOW OPERATOR
John R. Olsbel, Buffalo, and William C. Riester, Eggertsville, N. Y., assignors to Trico Products Corporation, Buffalo, N. Y.
Application March 10, 1955, Serial No. 493,444
8 Claims. (Cl. 268—125)

1. A vehicle window operator for closing a window member mounted in a vehicle door member for move-



ment between open and closed positions, said door member being hinged for swinging movement between open and closed positions with respect to an adjacent vehicle body part, comprising a lifting mechanism carried by said door member, said mechanism being adapted to engage said window member and said adjacent body part and

2,821,383
DEVICE FOR A CONTINUOUS SHAPING OF SUPERPOSED SHEETS OF A PACKING MATERIAL
Ludwig Clemens, Wiesbaden, Germany
Application May 18, 1954, Serial No. 430,627
Claims priority, application Germany, May 23, 1953
3 Claims. (Cl. 270—52)

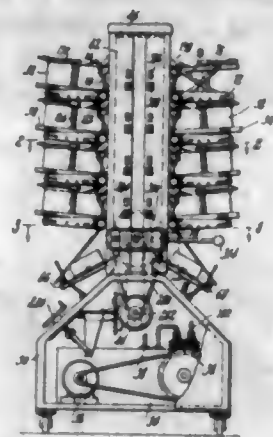


1. In a device for the continuous converting of strip shaped side-by-side packages vertically superposed into a single stack containing all of the strips by guiding and turning each of the packages 90 degrees about their longitudinal axes while advancing them and bringing each rotated package into a common plane, means operable for guiding and rotating the packages comprising a series of guide rollers located along a line extending transversely across the advance direction of said packages, the distance between said rollers being adjustable in conformity with the width and thickness of said packages to conduct the same individually upon their rotation, and a pair of vertically superposed transport bands located in pressure contact with said packages to hold the same together.

2,821,384
SHEET COLLATOR
John C. Mendes, Milton, Mass.
Application August 4, 1953, Serial No. 372,286
10 Claims. (Cl. 270—58)

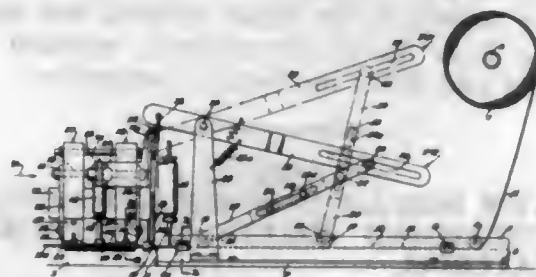
1. A collator for paper sheets, comprising a frame, an endless guide belt carried by said frame with a stretch of said belt extending vertically, means for driving said belt so that said stretch moves downward, a series of pairs of feed rolls arranged one over another adjacent to said stretch of belts, means for driving said rolls to feed single paper sheets endwise against said belt to be deflected downward thereby, a shelf mounted on said frame adjacent to each said pair of rolls, and adapted to hold a

pile of paper sheets, cupping means operable to engage the top sheet of said piles and to advance said sheets to



the corresponding feed rolls for feeding engagement thereby, and means periodically operating said cupping means.

2,821,385
BELT MAKING MACHINE
Joseph M. Hoffee, New York, N. Y.
Application October 1, 1952, Serial No. 312,549
12 Claims. (Cl. 270-61)

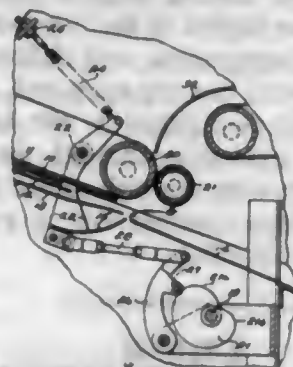


1. A folding-device which comprises a horizontal folder-plate, clamping means for clamping material to the top surface of said folder-plate, said folder-plate having opposed folder-edges, a vertical and vertically reciprocable slide mounted for vertical up-and-down movement at each said folder-edge, said folder-edges being located between said slides, guides for guiding said slides in said vertical up-and-down movement, a folding finger pivoted to each said slide at the bottom of said slide, springs which urge said folding fingers to turn inwardly toward each other to underlie said folder-plate when said slides are in lower folding position, actuating means for actuating said slides, said actuating means being operative to shift said slides to upper positions in which the pivots of said folding fingers are above said plate, said folding-fingers abutting said guides when said slides are in said upper positions, said folding fingers being held in non-folding positions by said guides when said slides are in said upper positions.

2,821,386
OPERATING MECHANISM FOR FOLDING BLADE
John R. Petre, Cincinnati, Ohio, assignor to The American Laundry Machinery Company, Cincinnati, Ohio, a corporation of Ohio
Application December 3, 1954, Serial No. 472,843
2 Claims. (Cl. 270-80)

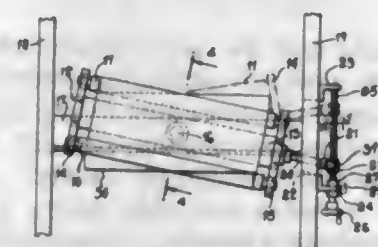
1. In a folding device wherein an article is moved along a path towards a folding zone, means for folding said article comprising a frame, a folding arm, means on said frame providing a pivot point for said arm, a swingable end of said arm having a folding blade thereon, a tension spring having one end attached to said frame and the other end to said arm and so disposed that, when otherwise unrestrained, the two ends of said spring and the pivot point of said arm assume a co-linear position on a center line, said arm being swingable away from said center line, against spring bias, either forwardly towards said folding zone or rearwardly away from said folding zone, and a

cam having a track portion abutable against said arm and effective thereon to normally maintain said arm and blade over center away from said folding zone, said track having



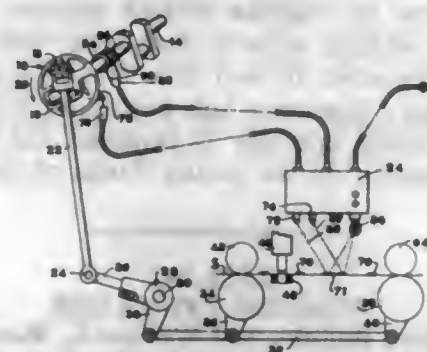
a cam-drop portion permitting said arm and blade to return over center towards an operating position in said folding zone.

2,821,387
METHODS AND APPARATUS FOR VARYING WEB SIDELAY
Harry W. Faerber, Larchmont, N. Y., assignor to Time, Incorporated, New York, N. Y., a corporation of New York
Application April 22, 1954, Serial No. 424,907
3 Claims. (Cl. 271-2.6)



1. A method for varying the sidelay of a moving web comprising the steps of passing the web through two parallel rolls in fixed relation on opposite sides thereof and with the web lead between said rolls perpendicular to the approaching and receding web leads, swinging said rolls about an axis parallel to and midway between two planes for varying the web sidelay, each of said planes being defined by the axis of one of said rolls and the direction of movement of the web, and maintaining equal tension at both edges of the web during the swinging movement of the rolls by steering the web around the rolls to its new position.

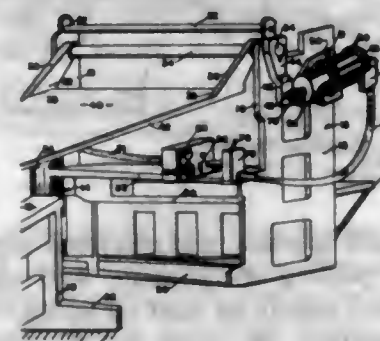
2,821,388
ROLL FEED ADJUSTMENT
Edward V. Crane and Frank P. Fehn, Sr., Canton, Ohio, assignors to E. W. Bliss Company, Canton, Ohio, a corporation of Delaware
Application January 27, 1956, Serial No. 561,764
11 Claims. (Cl. 271-2.6)



1. In a feed device for intermittently feeding sheet material into a metal working press adapted to perform work thereon, the improvement in feed adjustment means comprising: a light source adapted to project a beam of light on sheet material being fed through said machine;

photoelectric scanning means adapted to be energized by light reflected from said sheet material; a roll feed mechanism to feed a predetermined length of said sheet material at each cycle of said machine; and electric motor means adapted to vary the length of feed of said sheet material in response to a signal from said photoelectric scanning means.

2,821,389
SHEET FEEDING BOARD FOR PRINTING PRESS
Matthew A. Landers, Atlanta, Ga.
Application December 20, 1954, Serial No. 476,139
1 Claim. (Cl. 271-8)



A sheet feeding device for a printing press comprising a frame with a sheet loading and delivering mechanism mounted on an end of said frame for movement with respect thereto, a substantially flat feedboard pivotally mounted at one edge to the adjacent side of said sheet loading and delivering mechanism for vertical movement, a power cylinder mounted on one end of said loading and delivering mechanism remote from said feedboard, a power transfer arm connected at one end to the pivot for said feedboard, a piston operable in said power cylinder, a piston rod connected to said piston at one end and to the power transfer arm at its other end, whereby said feedboard may be swung to a position adjacent said printing press or elevated above the same, and a control device connected with said power cylinder.

2,821,390
SHEET CONVEYOR MECHANISM
Robert E. Norton, Twinsburg, Ohio, assignor to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware
Application August 26, 1953, Serial No. 376,624
9 Claims. (Cl. 271-45)



1. In sheet conveyor mechanism for a printing machine, a frame, a cylinder mounted therein having sprockets at its ends, an endless conveyor comprising two chains running over said sprockets, a gripper assembly carried by said chains having front and rear extremities spaced apart a distance equal to the length of at least two links of the chains, means for connecting the forward extremity of said assembly directly to opposed pins on said chains, a self-adjusting connection between the rear extremity of the assembly and other opposed pins of said chains to compensate for varying distances between pins as the assembly travels in a circular path, said assembly comprising a plurality of parallel cross members with their axes fixed relative to each other, said cross members being spaced in the direction of chain travel, the foremost cross member of said assembly being a rotatable

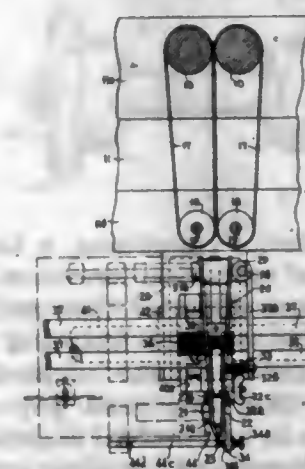
gripper shaft, means on said cylinder having a socket therein adapted to register said gripper shaft near its ends, and means for locking said gripper assembly to said cylinder during a portion of its travel therearound.

2,821,391
BUMPER PAD FOR SHEET PILING MECHANISM
Dario Buccicone, Gary, Ind., assignor to Bucciconi Engineering Company, Inc., Gary, Ind., a corporation of Indiana
Application December 13, 1955, Serial No. 552,774
9 Claims. (Cl. 271-86)



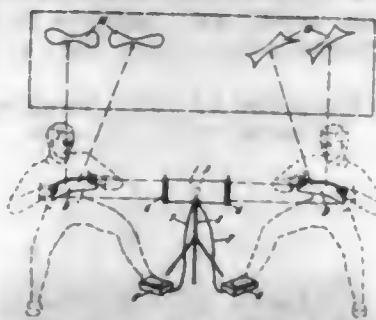
1. In a stop mechanism for piling metal sheets which are advancing in a processing line comprising a bumper positioned to be engaged by the leading edges of the sheets and receiving the initial impact thereof, and a pad on the surface of said bumper which is formed from resilient rubber-like material and which is slotted on its face with the slots extending lengthwise in a direction which is substantially normal to the plane of the sheets and said slots extending transversely in a direction which is diagonal relative to the sheet engaging face of the pad.

2,821,392
PAPER SHEET HANDLING MACHINERY
Reginald Stanley Fry, Letchworth, England, assignor to Camco (Machinery) Limited, Letchworth, England, a British company
Application July 26, 1954, Serial No. 445,634
Claims priority, application Great Britain July 30, 1953
20 Claims. (Cl. 271-87)



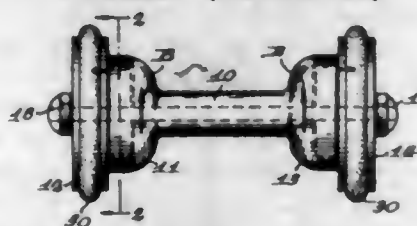
1. For a paper handling machine of the kind in which a plurality of paper sheet articles are transmitted simultaneously in downwardly directed paths which lie in mutually parallel and spaced apart vertical planes, a delivery arrangement comprising a plurality of separate receptacles, one for each of said transmitted article paths, each of said receptacles including controlled discharge means for discharging said article therefrom and having pivotal mounting means for swinging movement about a vertical axis, means for producing swinging movement of each of said receptacles from a first position which is in alignment with the transmission path of the related article to a second position which is angularly displaced with respect to said first position and means for operating said controlled discharge means when said receptacle is in said second position to cause discharge of said article from said receptacle in a plane angularly displaced from that of its transmission path.

2,821,393
PRODUCTION OF MOVING LIGHT EFFECTS
 John P. Hoppe, Morton Grove, Ill., assignor of one-fourth to Robert E. Burns, New York, N. Y.
 Application February 16, 1954, Serial No. 410,569
 Claims priority, application Great Britain February 16, 1953
 19 Claims. (Cl. 272-10)



1. In the production of animated light effects on a screen, providing a high intensity concentrated source of light, directing light from said source onto a flexible sheet projecting unit having a reflecting surface and bordering non-reflecting areas defining a reflecting area having reentrant portions and having a resemblance to an animate figure composed of a plurality of members, said non-reflecting areas having reentrant outer edge portions and being a configuration to control the relating flexibility of individual portions of said unit, projecting reflected light from said source onto said screen to produce on the screen an enlarged image of said figure, and manually moving said unit and flexing individual portions of said unit to produce both bodily movement of said image on the screen and movement of individual members of said image relative to one another.

2,821,394
SPRING ROLLER-TYPE EXERCISER
 Raymond J. M. Barbeau, Outremont, Quebec, Canada
 Application December 24, 1954, Serial No. 477,479
 7 Claims. (Cl. 272-83)

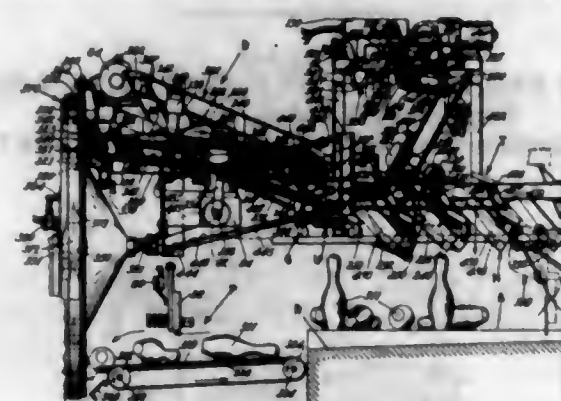


1. An exercising device comprising, a hand grip having a center portion of cylindrical formation and enlarged end portions of greater diameter than said center portion, each of said end portions including a concentric internal recess, a pair of circular supporting members of greater diameter than said hand grip end portions mounted for rotation on and in axial alignment with said hand grip one on each end, and a resilient resistance member mounted within each of said hand grip end recesses having one end connected to said hand grip end with the other end connected to the adjacent circular supporting member whereby rotation of each of said supporting members relative to said hand grip in one direction is resisted in gradually increasing degrees and rotation of said members in the opposite direction relieves said resistance accordingly.

2,821,395
CONTROL MECHANISM FOR BOWLING PIN SPOTTING MACHINE
 Roger E. Dumas, Snyder, N. Y., assignor to American Machine & Foundry Company, a corporation of New Jersey
 Application May 15, 1951, Serial No. 226,359
 6 Claims. (Cl. 273-43)

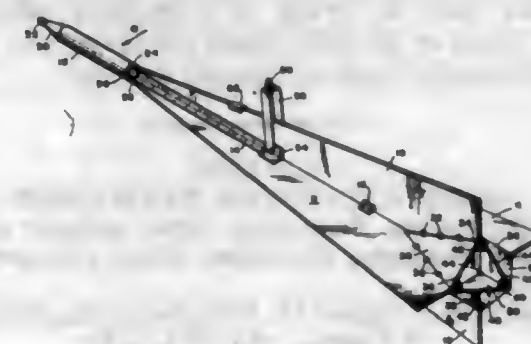
5. In a bowling pin spotting machine of the type having a movable pin spotting mechanism having a plurality

of spotters, and a travelling pin distributor constructed and arranged for movement to distribute a pin to each spotter in succession, the combination of counting means for counting pins as they are advanced toward said spotting mechanism by said distributor, a position responsive switch disposed for actuation by said distributor as said distributor is moved to a position to deliver a pin to a



given one of said spotters, and electrical means for actuating said pin spotting mechanism, said electrical means being controlled jointly by said counting means and said switch to condition the same for actuation only when said counting means has detected a predetermined number of pins and said position responsive means has been actuated by movement of said distributor to said position.

2,821,396
AERIAL TOW TARGET
 Leonard W. Seeley, China Lake, Calif., assignor to the United States of America as represented by the Secretary of the Navy
 Application October 26, 1955, Serial No. 543,043
 8 Claims. (Cl. 273-105.3)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



1. A high-speed aerial tow-target comprising a wing assembly of a plurality of rigid planar wing elements attached to one another so that they extend outwardly from a central axis, said wing assembly having a center of gravity and an aerodynamic center of known locations on said axis, a weighted extension attached to the forward end of the wing assembly at said central axis and extending forwardly thereof, said extension being of such weight and length that the combined wing assembly and extension have a center of gravity which is forward of the aerodynamic center thereof, a yoke straddling one of said wings, means for pivotally attaching said yoke to said wing assembly adjacent said central axis, and substantially at said last named center of gravity.

2,821,397
BLOW DARTS
 Edward R. Hartigan, Sr., Springfield, Mass.
 Application October 12, 1956, Serial No. 615,615
 1 Claim. (Cl. 273-106.5)

A blow dart comprising an integral plastic head concentrically formed about a central axis and having an indicium bearing face normal to said axis and defining

one end thereof, a parallel face defining the other end of the head and having a pointed metal pin carried by a central bore projecting therefrom, a cylindrical portion at the pin end of the head which extends approximately one-third the axial length of the head and has a relatively shallow annular groove formed centrally of its periphery,



an intermediate annular face parallel to the end faces and defining the inner end of said cylindrical portion, a frusto-conical section beginning at said intermediate face and flaring outwardly to a second relatively short cylindrical portion terminating at the indicium bearing face, said second cylindrical portion having the same diameter as the diameter of the first-mentioned cylindrical portion.

2,821,398
ANIMATED FIGURE GAME
 Raymond E. Armstrong, Toronto, Ontario, Canada
 Application July 30, 1956, Serial No. 600,754
 6 Claims. (Cl. 273-127)



1. A figure toy comprising a base, a figure mounted upon said base and including a movable body part pivotally supported to swing downwardly and manually holding a striking implement in an attitude to strike a weight-elevating lever when said body is swung downwardly in an operational movement, and motivating means for causing said movable body to swing downwardly in an operational movement, said motivating means comprising an impact receiving element slidably mounted in said base to retract endwise therein when subjected to an impact, a resilient device for restraining said impact receiving element to a projected position, a rotary device journaled in said base and connected to said impact receiving element so as to be turned when the impact receiving element is caused to retract, and a connecting device operatively connecting said rotary device to said movable body to cause the latter to swing downwardly when said rotary device is turned.

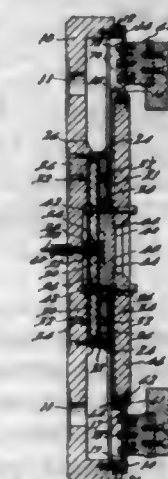
2,821,399
CARD PLAYING MACHINE
 Lauri Heinoo, Arvida, Quebec, Canada
 Application June 24, 1955, Serial No. 517,867
 34 Claims. (Cl. 273-149)



1. A card playing machine comprising in combination a table-like structure having a plurality of playing stations, a keyboard mounted in the top of said table-like structure

at each playing station, each of said keyboards including a set of key assemblies, said top having slots inwardly spaced from each keyboard towards the middle of said structure, shields normally upstanding from said top inwardly spaced from said slots, a set of main levers pivotally mounted within said structure and associated with each keyboard, each main lever of a set engageable at one end by a key assembly of the keyboard associated with said set of main levers, a card element mounted on each of said main levers and adapted to pass through one of said slots, individual lever latching means to maintain each of said main levers in a first position in which said card elements are in a first position retracted below said top, means to individually release said lever latching means to allow the unlatched main lever to pivot from said first position to a second position to raise the associated card element through a slot of said top to a second intermediate position behind one of said shields, the actuation of the key assembly associated with said main lever in its second intermediate position causing further pivotal movement of said last named main lever to raise the card element associated therewith from said intermediate position to a fully elevated position projecting above said shield.

2,821,400
DIAPHRAGM CHUCK WITH STIFFENING FLANGE
 George Hohwart, Farmington, and Ernest F. Hohwart, Detroit, Mich., assignors to N. A. Woodworth Company, Ferndale, Mich., a corporation of Michigan
 Application December 19, 1955, Serial No. 553,816
 4 Claims. (Cl. 279-1)

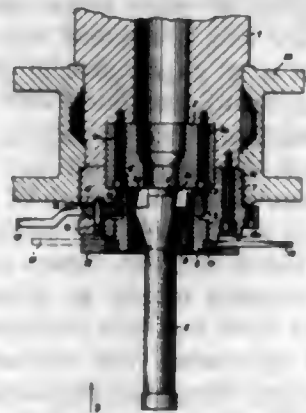


1. A diaphragm chuck having an essentially thin flexible and resilient diaphragm provided with a central opening three radially spaced, consecutively contiguous annular portions and a continuous annular stiffening flange along one edge thereof, the other edge of said diaphragm being adapted to be securely affixed to a rigid support, the central one of said three annular portions providing a mounting for work clamping jaws of said annular portions.

2,821,401
ARRANGEMENT FOR SECURING A PRESS RAM TO A PRESS PLUNGER
 Franz Eben, Dusseldorf, Wilhelm Hofmann, Dusseldorf-Oberkassel, and Wilhelm Pirwitz, Ratingen, Germany, assignors to Schloemann Aktiengesellschaft, Dusseldorf, Germany
 Application January 26, 1956, Serial No. 561,569
 Claims priority, application Germany February 24, 1955
 8 Claims. (Cl. 279-1)

1. Means for detachably securing a press ram to a plane end face on a press plunger, comprising: a rotatable securing ring surrounding the foot end of the press ram adjacent to the end face of the plunger, inwardly extending radial claws on the securing ring, bearing surfaces extending radially outwards from the foot end of the ram and

adapted to pass in an axial direction through the recesses between the claws of the securing ring and to lodge behind the said claws when the securing ring is turned through a suitable angle, and an abutment member adapted to be

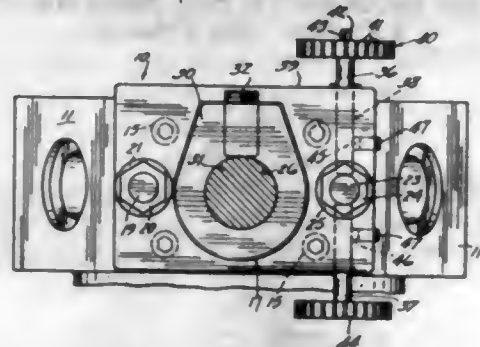


screwed into the end of the plunger and to bear against the securing ring, urging it towards the plane end face of the plunger, and thereby pressing the end of the ram against the plane end face of the plunger.

2,821,402

LATHE TOOL HOLDER

Wayne E. Schober, Minneapolis, Minn., assignor to Peter A. Rasmussen, Minneapolis, Minn., doing business as Viking Tool and Die Company, Minneapolis, Minn.
Application October 4, 1954, Serial No. 459,975
2 Claims. (Cl. 279-6)



1. A lathe tool holder adapted to provide a precise generally vertical adjustment of a tool bit comprising a mounting member adapted to be secured to the turret of a turret lathe, a supporting head having a generally horizontally disposed slot formed therein and extending therethrough, a pair of elongated generally horizontal laterally spaced parallel fastening members extending between said mounting member and said supporting head one extending through said slot whereas for connecting said supporting head to said mounting member for pivotal movement about the axis of the other of said fastening members within the limits permitted by the engagement of said one fastening member with opposite ends of said slot, and a pair of oppositely disposed generally vertically extending adjusting screws being screw threaded into said supporting member for relative longitudinal movements toward and away from said one fastening member and engaging said one fastening member to positively releasably anchor said supporting head in position, whereby the position of said supporting head may be precisely adjusted by said adjusting screws with no lost motion.

2,821,403

TOOL HOLDER

Bernard John Bevan, Highland Park, Ill., assignor to Kleinschmidt Laboratories, Inc., Deerfield, Ill., a corporation of Delaware
Application September 11, 1953, Serial No. 379,601
12 Claims. (Cl. 279-14)

3. In combination, a tool holder comprising an elongate hollow shank, an aperture in the hollow shank wall

adjacent one end of the shank, a tool having an extended straight shank and an offset projection at one end, said one end being adapted to pass into said hollow shank and have the projection extending into said aperture with a close fit, and a hollow sleeve slidable over said tool shank and of sufficient length and fit to maintain the axis of



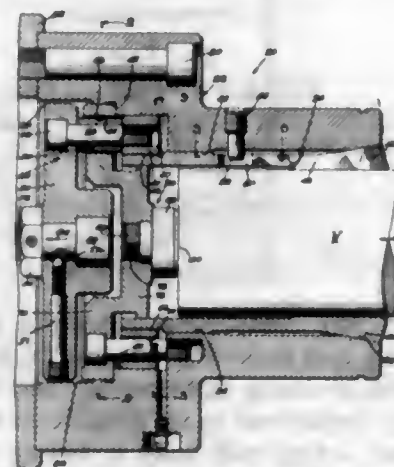
said tool shank coaxial with the axis of said sleeve and passing into said hollow shank with a sliding fit a sufficient distance to maintain the tool shank and sleeve axes coaxial with the hollow shank axis whereby the tool shank projection will be maintained in interlocked engagement with the wall of said hollow shank and the tool will be a substantially coaxial projection of the hollow shank.

2,821,404

COLLET CHUCK WITH INTERNAL WORK STOP PROVISIONS

Harry E. Sloan, Hartford, Conn., assignor to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut

Application October 21, 1953, Serial No. 387,342
11 Claims. (Cl. 279-51)



1. A collet chuck, comprising a chuck body having a longitudinal axis and aligned front and rear recesses separated by a removable apertured internal partition of which said front recess is tapered at its open end; means securing the partition in said chuck body; a sleeve-type collet contained wholly in said front recess and being axially slidable and rotatable therein, said collet having externally tapered jaws in one end to cooperate with said tapered recess end in gripping and releasing work; operating mechanism for sliding said collet, said mechanism including a part axially movable in said rear recess and a lengthwise adjustable link connection between said part and collet and extending through the aperture in said partition; and a work stop on said partition in the path of work introduced into said collet.

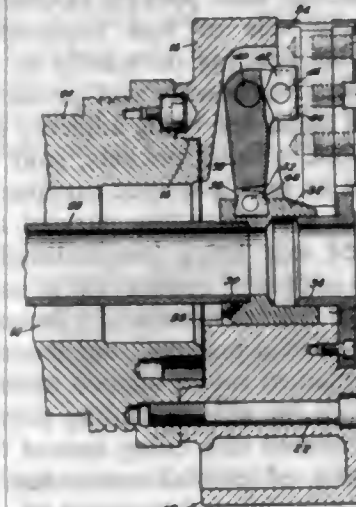
2,821,405

SELF-LOCKING DRAWBAR ASSEMBLY

Robert E. Becker, Logansport, Ind., assignor to Logansport Machine Co., Inc., a corporation of Indiana
Application August 9, 1956, Serial No. 603,007
6 Claims. (Cl. 279-119)

1. In a self-locking draw bar assembly for use on a machine tool or the like, a generally cylindrical housing having a generally open bore and adapted at one end to be mounted on a power cylinder, a draw sleeve in the bore of the housing with one end extending out of the housing away from the cylinder and adapted to be connected to a draw bar, an interiorly tapered surface

in the draw sleeve, a draw tube within and longitudinally movable with respect to the sleeve adapted to be connected to the piston rod of the power cylinder, the draw sleeve being longitudinally slotted to provide a plurality of longitudinal legs, an exteriorly tapered lock plug in the draw sleeve concentric with its interior taper, a retaining plate on the lock plug fixed in the housing and having a plurality of slots through which the legs on the draw sleeve extend, the draw tube having a plurality of

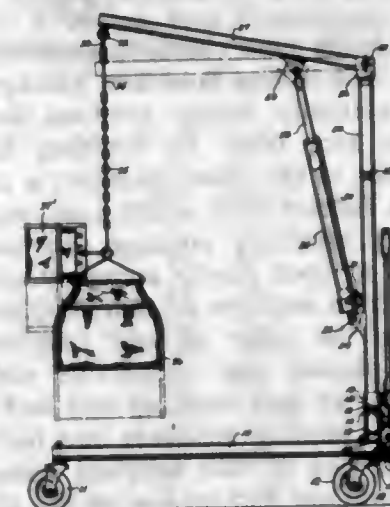


apertures disposed in the area between the exterior taper on the lock plug and the interior taper on the draw sleeve, and a plurality of draw blocks, one in each aperture, the draw blocks being constructed and tapered relative to the interior taper on the draw sleeve and the exterior taper on the lock plug such that when the draw blocks are moved by the draw tube toward the power cylinder, they will wedge and interlock between the two tapered surfaces.

2,821,406

ADJUSTABLE BASE INVALID LIFT

Theodore R. Hoyer and Victor R. Hildemann, Oshkosh, Wis., assignors to Ted Hoyer & Company, Incorporated, Oshkosh, Wis., a corporation of Wisconsin
Application July 21, 1954, Serial No. 444,764
2 Claims. (Cl. 280-34)



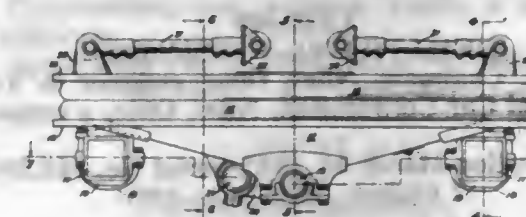
1. In a lift for transferring an invalid in a sitting posture, a U-shaped, horizontal, wheeled base member formed of a pair of complementary sides having curved adjacent inner end portions, a hinge connection between the adjacent inner end portions of the base member sides to permit relative spreading movements of the sides of the base member, an upwardly directed lever pivotally mounted adjacent said hinge connection for swinging movement in a vertical plane, a lever operator revolvably carried by the lever and normally operable to pivot the lever, bars connected directly to said lever on opposite sides of its pivotal mounting extending to rear portions of said base member sides for swinging them on said

hinge connection to spread or constrict the open end of the base member, and a latch for releasably locking said lever and the base member sides in various positions of adjustment operated by turning movements of the lever operator.

2,821,407

SIDESWAY-CONTROLLING VEHICLE FRAME SUSPENSION SYSTEM

George U. Brumbaugh, Palo Alto, Calif., assignor to Peterbilt Motors Company, Oakland, Calif., a corporation of California
Application April 26, 1956, Serial No. 580,761
5 Claims. (Cl. 280-104.5)

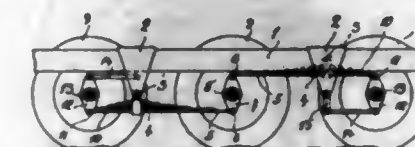


1. In a vehicle suspension system providing controlled sidesway having a load supporting frame, an axle supporting frame, and resilient load supporting spring means interposed between each of said frames, a brake and drive force applying connection between said frames which will allow said frames a limited tilting movement about each other on the longitudinal axis of the vehicle, including a cross-wise laterally extending connecting shaft member near each side of and secured to said axle supporting frame; laterally extending connecting shaft members secured to said load supporting frame and spaced away from said first mentioned shaft members; a radius rod, located near each side of said frames having bearings rotatably engaged with the aforesaid pair of shaft members adjacent its side of said frames; each said radius rod having rubber or rubber-like bushings engaging said shaft members whereby said frames at all times retain a generally aligned lateral, fore and aft, and rotational position in a horizontal plane, and yet may assume a controlled position in the same general plane and in planes at an angle to each other as road or load conditions effect a tilting of one frame in relation to the other about the longitudinal axis of the vehicle, each said radius rod having bearings of different axial lengths, with the bearing which engages the shaft member on the axle supporting frame made shorter than the bearing which engages the shaft member on the load supporting frame.

2,821,408

VEHICLE WITH A PLURALITY OF WHEEL AXLES AND SUSPENSION MEANS THEREFOR

Hans Schwab, Pfaffenhofen, Roth, near Neu-Ulm, Germany, assignor to Karl Kassbohrer Fabrikzeugwerke G. m. b. H., Ulm-Danube, Germany
Application May 14, 1956, Serial No. 584,571
Claims priority, application Germany May 18, 1955
4 Claims. (Cl. 280-104.5)



1. A vehicle frame having a group of three successively disposed wheel axles; comprising two spring sets, brackets depending from said frame and supporting said spring sets successively and on levels one above the other, but in staggered relation to each other, each of said spring sets having a relatively long base element and a relatively short top element, said top element of each spring set being located symmetrically with respect to the corre-

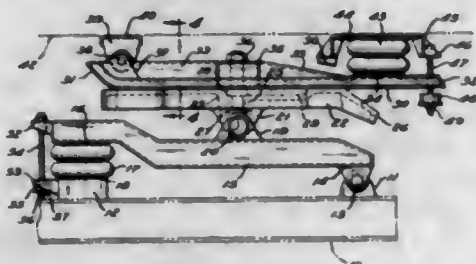
sponding bracket, said base element of each spring set being located asymmetrically with respect to the corresponding bracket, said axles being provided with respective equi-distant arm levers, and means operatively connecting the ends of the base element of each spring set with corresponding adjacent ends of said arm levers and in such manner that the outer axles are connected with the shorter ends of the respective base elements of said spring sets, the ends of the arm lever on the central axle being respectively located above and below said central axle and being pivotally connected to the longer ends of said base elements, respectively of said two spring sets.

2,821,409

FIFTH WHEEL SUSPENSION

William M. Chalmers, Niles, Ohio, assignor to Youngstown Steel Car Corporation, Niles, Ohio, a corporation of Ohio

Application March 26, 1957, Serial No. 648,554
7 Claims. (Cl. 280—440)



1. An air cushion supporting structure for a semi-trailer upon a tractor comprising a tractor frame, a cross member on said frame adjacent the forward end thereof, a plate hinged for vertical swinging movement on the rearward end of said frame, a hinge between said plate and said frame the axis thereof being horizontal and transverse said frame, an air cell intermediate said plate and said cross member, a fifth wheel member pivoted adjacent the center thereof for vertical swinging movement relative to said plate, a hinge between said plate and said fifth wheel member, the axis thereof being horizontal and transverse the major axis of the plate, a second fifth wheel member on said first fifth wheel member hinged for vertical swinging on the forward end thereof, a hinge between said first and second fifth wheel members, the axis thereof being horizontal and transverse the major axis of said fifth wheel members, a second air cell supported on the rear end of the second fifth wheel member, and a king pin in the second fifth wheel member supported for horizontal pivotal movement of the second fifth wheel member on the first named fifth wheel member.

2,821,410

TRAILER HOUSE DOLLY

Richard R. Love, Buhl, Idaho

Application September 10, 1954, Serial No. 455,176
3 Claims. (Cl. 280—476)



3. A trailer house dolly comprising spaced side frame members, said members being connected to each other at one end and spaced from each other at the opposite end, a shaft adapted for pivotal attachment about a transverse axis to the forward portion of a trailer frame extending horizontally through said members at approximately the mid point thereof, said shaft forming an A-shaped structure with said members, the other ends of said frame

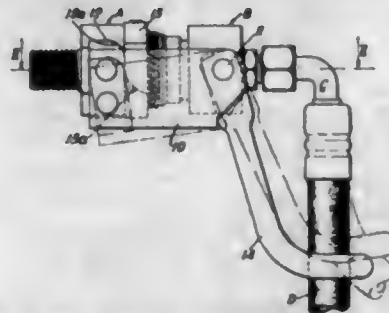
members being spaced apart, an S-shaped member positioned intermediate said other ends of said members, means pivotally connecting said S-shaped member to said side frame members for pivotal movement about a horizontal axis only which is parallel to said shaft axis, said horizontal axis being spaced a greater distance from said apex than said shaft and extending parallel to said shaft and substantially in the same horizontal plane of said frame as said shaft, said S-shaped member having two spaced pockets, one of said pockets opening outwardly laterally toward one side of said horizontal axis, the other of said pockets opening outwardly to the opposite side of said horizontal axis with said pockets lying in a common horizontal plane and being adjacent each other, a wheel received in one of said pockets, said wheel being pivotally connected to said S-shaped member for pivotal movement about an axis extending parallel to said shaft axis, the last named axis being longitudinally spaced to one side of the axis of pivotal connection of said S-shaped member to said side frame members, a second wheel received in the other of said pockets, said second wheel being pivotally connected to said S-shaped member for pivotal movement about an axis extending parallel to said shaft axis, the last named axis being spaced to the opposite side of said axis of pivotal connection of said S-shaped member to said side frame members.

2,821,411

PIPE COUPLINGS

Royston F. Thom, Edgware, England, assignor to
Exactor Limited, Edgware, England

Application March 15, 1956, Serial No. 571,629
Claims priority, application Great Britain March 16, 1955
4 Claims. (Cl. 284—16)



1. In a detachable pipe coupling assembly, two coupling members both having fluid flow passages and being provided with mutually mating portions disconnectably engageable with each other for enabling flow of fluid from one member to the other member; a coupling and locking element formed with a first cam; means on one of said coupling members pivoting said coupling and locking element to rock purely arcuately about an axis fixed with respect to said one of said coupling members; an abutment on the other of said coupling members formed with a second cam cooperable with said first cam upon rocking of said coupling and locking element for drawing said coupling members into mating engagement; a valve in one of said coupling members biased toward closed position; and means on the other of said coupling members engageable with said valve for opening the latter in response to movement of said coupling members relatively into coupling engagement.

2,821,412

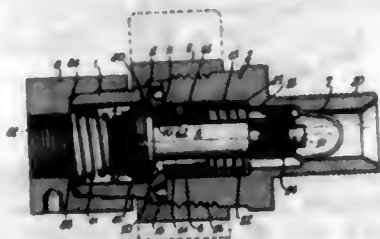
SELF-SEALING COUPLINGS

Collin M. Frye, Longlevens, England, assignor to Dowty Hydraulic Units Limited, Cheltenham, England, a British company

Application January 8, 1954, Serial No. 403,027
Claims priority, application Great Britain April 13, 1953
3 Claims. (Cl. 284—18)

1. In a coupling, two interconnected sleeves capable of being separated, and valve means in each of said

sleeves including a fixed valve seat member, a movable valve member engageable with said fixed valve seat member and reciprocable axially of its sleeve toward and away from said fixed valve seat member, and spring means urging said movable valve member toward said fixed valve seat member, the fixed valve seat member in one sleeve being positioned, when the sleeves are coupled together, to engage the movable valve member in the other sleeve and to hold it disengaged from its fixed valve seat member in opposition to its spring means, one of said members in each sleeve having a radially planar valve contact surface and its cooperating member having a frustoconical valve contact surface engageable with said radially planar valve contact surface when said sleeves are separated, and one of said valve contact surfaces having



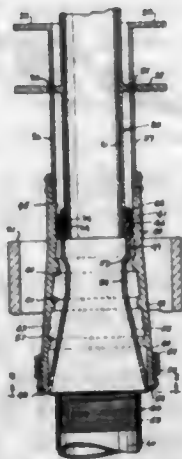
a hard circular terminal shoulder aligned axially of its sleeve with its cooperating valve contact surface and engageable about a circle with such cooperating valve contact surface, and further having a terminal cylindrical rim of resiliently deformable sealing material alongside said hard shoulder exposed at its end and on one side to define an annular corner, said corner being disposed closer than said hard shoulder to the cooperating valve contact surface of the other member and engageable therewith before said hard shoulder, said rim being narrow radially and deformable by the force of said spring means pressing one of said members against the other when said sleeves are separated to enable said hard shoulder to engage the cooperating valve contact surface following sealing engagement and deformation of said sealing material rim.

2,821,413

QUICKLY SEPARABLE COUPLING FOR CONDUITS AND THE LIKE

John T. Krapp, Port Washington, N. Y.

Application September 14, 1954, Serial No. 455,894
2 Claims. (Cl. 285-18)



1. In a coupling device of the character described, a pair of coaxial tubular bodies, one of which is movable axially relative to the other, the extremity of one of said bodies being spaced apart axially from the extremity of the other, the inner of said bodies being tubular in form and the outer of said bodies having a straight tubular portion which joins the small end of a conical portion and the outer extremity of said conical portion constituting the point of largest diameter, a generally tubular diaphragm of deformable material having one end connected in fluid tight relation to the extremity of said

inner body and having its other end connected in fluid tight relation to the large extremity of the outer member, and separate means on said bodies for moving them in directions to stretch said diaphragm prior to placing said coupling in engagement with a conduit to which said device is to be coupled, whereby the contraction of said diaphragm, when said separate means is released, effects a fluid tight connection between said device and said conduit.

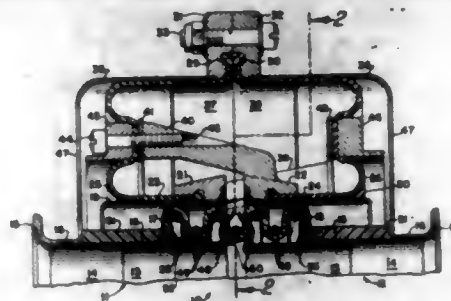
2,821,414

PRESSURE BALANCED BELLOWS TYPE FLEXIBLE COUPLING FOR CONDUITS

Raymond W. Jensen, Encino, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application July 6, 1954, Serial No. 441,483

3 Claims. (Cl. 285-47)



1. A flexible coupling for conduits comprising: first and second tubular members disposed in axial alignment and having adjacent ends in spaced relationship, an axially extendable member of heat resistant material provided with perforations and spanning the adjacent ends of said tubular members, a first diaphragm having its inner periphery sealed to the outside of said first tubular member adjacent one end of said extendable member, a second diaphragm having its inner periphery sealed to said second tubular member adjacent the other end of said extendable member, cover means mounted on the outer peripheries of said first and second diaphragms, said first and second diaphragms and said cover means forming a reinforced closed chamber surrounding the ends of said tubular members and in communication therewith through the perforations in said axially extendable member, means securing said first tubular member to the intermediate portion of said second diaphragm, and means securing said second tubular member to the intermediate portion of said first diaphragm.

2,821,415

GROOVED AND INTERNALLY REINFORCED PIPE END

Austin T. Race, Jr., Winter Haven, Fla., assignor to Race & Race, Inc., Winter Haven, Fla., a corporation of Florida

Application April 9, 1953, Serial No. 347,663

2 Claims. (Cl. 285-112)



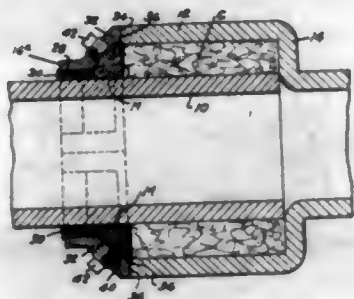
2. A pipe section having a sized and reinforced end for use with couplings of predetermined size comprising, a thin-walled cylindrical metallic tube having the major portion of its length of uniform diameter, a short cylindrical metallic insert having an outside diameter greater than the inside diameter of the major portion of the tube, said insert being pressure-fitted within the end of said

tube and thereby expanding that portion of the tube co-extensive with the insert to predetermined outside diameter, a peripherally indented region in said insert and a matching peripherally indented region in the tube seated within the indented region in the insert, said insert being held within the tube end by the conjunction of the friction fit of the insert within the tube end and the interfitting of the indented regions of the insert and tube.

2,821,416
HOUSING-FORMING CLAMP FOR BELL AND SPIGOT PIPES OF THE MOLDED JOINT TYPE

Robert M. Soehnlen, Beloit, and Eugene Alters, Fond du Lac, Wis.

Application June 10, 1954, Serial No. 435,727
4 Claims. (Cl. 285—172)

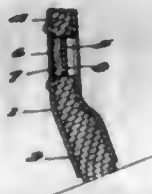


1. A sealing device for bell joint pipe comprising a collar received over the spigot end of a pipe length adjacent the bell end of the next adjacent pipe length, said collar comprising a plurality of flange members each having an outwardly flared lip, said flange members being secured together about said spigot end with said lips being positioned closely adjacent the end of the end bell, a relatively thick flexible sponge rubber gasket strip positioned between each of said flange members and said spigot end, said gasket strips being fixed to the respective flange members by adhesive means, and screw-threaded adjusting means carried by each flange member, said adjusting means being in contact with the respective gasket strips and extending radially of the respective flange members, said gasket strips permitting limited twisting movement of said collar with respect to the spigot end and said adjusting means stretching the respective gasket strips radially away from said collar and into contact with the spigot end of the pipe, said lips forming a chamber at the end bell and said chamber being substantially filled with cement.

2,821,417
CONNECTING DEVICE

Karl Joel Averstén, Lidö, Sweden, assignor to Svenska Aktiebolaget Gasaccumulator, Lidö (near Stockholm), Sweden, a corporation of Sweden
Original application March 13, 1950, Serial No. 149,436, now Patent No. 2,711,915, dated June 28, 1955. Divided and this application May 5, 1955, Serial No. 506,335

2 Claims. (Cl. 287—20.2)

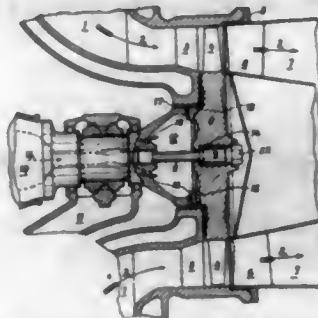


1. A connector for attachment to a metallic plate in which a stud is soldered within an aperture in the connector by stud-soldering apparatus comprising a member having an aperture therein, soldering means disposed within said aperture, said soldering means including a pair of metal plates having a melting point lower than that of the member and the stud, and flux disposed be-

tween said metal plates, said solder being adapted to melt with the stud in the aperture to secure the connector on the metallic plate.

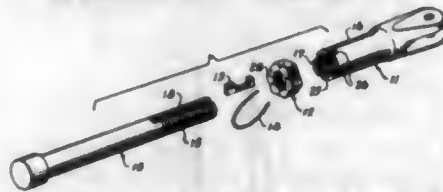
2,821,418
MACHINE UNIT INCLUDING A TURBINE AND A MACHINE DRIVEN THEREBY

Franz Schaer and Martin Allemann, Winterthur, Switzerland, assignors to Sulzer Frères, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application July 26, 1955, Serial No. 524,559
Claims priority, application Switzerland August 5, 1954
4 Claims. (Cl. 287—52)



1. A machine unit including a turbine and a machine driven thereby comprising a turbine wheel having a bore extending through the center of said wheel, a shaft for the driven machine, a bolt screwed into the end of said shaft and extending through said bore, the end of said shaft being flared to form a bell whose rim abuts against said turbine wheel, said bolt having a shoulder, a shoulder in said bore of said turbine wheel abutting against the shoulder on said bolt for pressing said wheel against the rim of the bell shaped end of said shaft upon tightening of the bolt in said wheel, said shoulders being in substantially the same plane as the rim of the bell shaped end of said shaft.

2,821,419
ROD END LOCKING ARRANGEMENT
William L. Walton, Fort Worth, Tex., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application January 19, 1954, Serial No. 404,901
3 Claims. (Cl. 287—62)

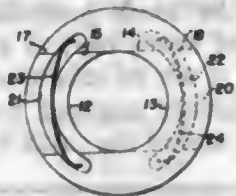


1. In combination, a rod having a threaded portion at one end, a member having an internally threaded recess adapted to be connected to said threaded end portion, locking means axially slidably mounted on said threaded end portion of said rod and adapted to be positioned for positive engagement with said rod and said member to prevent relative rotative movement therebetween, and means rotatably mounted on said threaded end portion of said rod for engagement with said locking means whereby reverse rotation of said last-mentioned means toward said end of said rod serves to urge said locking means slidably into said positive engagement with said rod and said member.

2,821,420
PACKING RING
Glenn M. Gregory, Fort Worth, Tex.
Application April 29, 1954, Serial No. 426,387
1 Claim. (Cl. 288—13)

A packing ring comprising a pair of flat circular U-shaped sections wherein the inner ends of their respective

openings are semicircular and wherein the opposing sides of said openings are parallel with each other, a shoulder projecting from one surface of each said U-shaped section at the closed end thereof, the shoulder of each of said U-shaped sections fitting slidably within the open end of the other of said U-shaped sections in comple-



mentary relationship thereto to define a two-piece segmental ring, each of said shoulders being provided with a transverse groove which extends into the adjacent portions of the complementary U-shaped section on each side of the shoulder, and a leaf spring received within each groove.

2,821,421

HAND OPERATED PORTABLE KNOT TYER

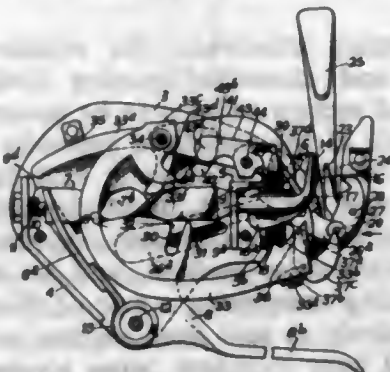
Charles Roland Smith, Fallowfield, Manchester, England, assignor to Mellor Bromley & Co. Limited, Leicester, England, a British company

Application November 4, 1955, Serial No. 545,021

Claims priority, application Great Britain

November 8, 1954

4 Claims. (Cl. 289—3)



1. A weaver's knotter comprising, in combination, two spaced side plates formed to receive two yarn ends laid across the knotter, an apertured part connecting said side plates, yarn-positioning means adjacent to each side plate for crossing the ends of yarns to be tied into a knot, an actuating member movably mounted on at least one of said side plates, means operatively connecting said actuating member and said yarn-positioning means, a typing bill rotatably mounted on and between said side plates and rotatable in the aperture of said connecting part, said actuating member comprising means for rotating the bill, said rotary bill comprising a pivoted element and relatively stationary elements, the said pivoted element being acted upon by a portion of the connecting part whereby, as the bill rotates to engage crossed yarn ends and form the same into a knot, the pivoted element is moved to draw one of the yarn ends into an additional loop which is incorporated in the knot, a stripper stripping the knot from the bill and tightening it, said stripper being in contact with and moved by said actuating member, a scissor device carried by said stripper, and means associated with said stripper operative on movement of the stripper actuating said scissor device to cut both yarn ends.

2,821,422

LOCK FOR FOLDING DOORS

Joseph C. Rainman, Tujunga, Calif., assignor to Kwikset Locks, Inc., Anaheim, Calif., a corporation of California

Application June 13, 1955, Serial No. 514,902

13 Claims. (Cl. 292—113)

1. In a door lock for a folding door, the combination of: spindle means; inner and outer actuators secured to

said spindle means; a rotatable carrier mounted on said spindle means; an elongated bolt member pivotally mounted on said carrier for free movement with respect thereto;



and a dog on said carrier for engaging said bolt member to prevent dislodgement of said bolt member from its locked position.

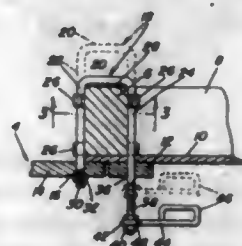
2,821,423

LATCH MECHANISM

Peter O. Petersen, Clear Lake, Iowa

Application October 4, 1955, Serial No. 538,382

1 Claim. (Cl. 292—148)



For use in conjunction with a door slidably mounted on a wall structure, said door being provided with an opening functioning as a keeper hole, said wall structure being provided with a frame member; a substantially U-shaped latch member embodying a bight portion and spaced parallel arms designed to embrace said frame member and having said arms adapted to be slidably supported on said frame member, the bight portion being located, when it is being used, on the interior side of the frame member and shiftable toward and from said frame member and one of said arms constituting a latch bolt whose outer end normally extends through and outwardly beyond said keeper hole, the terminal thereof being provided with an opening to accommodate the shackle of a padlock, the other arm being adapted to extend slidably through and beyond opening means provided therefor in said wall structure, and a separate handle adjustably mounted on the outer end of said other arm, the position of said handle relative to the surface of said wall structure being such that there is sufficient clearance to enable the handle to be pushed toward the wall structure a distance sufficient to retract the terminal end of said one of said arms from said keeper hole, a padlock, said padlock having the aforementioned shackle, said shackle being removably mounted in the opening provided therefor in said first named arm, and the outer end of the second arm being screw-threaded, and said handle being detachably and adjustably mounted on said screw-threaded outer end.

2,821,424

SHACKLE SEAL

Winfred M. Brooks, West Orange, N. J., assignor to E. J. Brooks Company, Newark, N. J., a corporation of New Jersey

Application August 2, 1955, Serial No. 525,875

5 Claims. (Cl. 292—317)

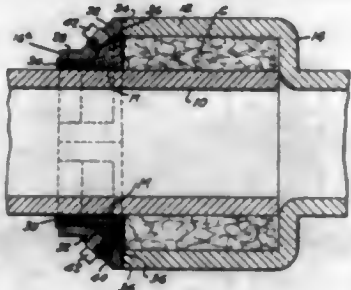


1. A shackle seal comprising an elongate bendable element adapted to be bent into a loop to form a shackle, a locking chamber at one end of said element having an external wall of a flat, single thickness of sheet metal, an

tube and thereby expanding that portion of the tube co-extensive with the insert to predetermined outside diameter, a peripherally indented region in said insert and a matching peripherally indented region in the tube seated within the indented region in the insert, said insert being held within the tube end by the conjunction of the friction fit of the insert within the tube end and the interfitting of the indented regions of the insert and tube.

2,821,416
HOUSING-FORMING CLAMP FOR BELL AND SPIGOT PIPES OF THE MOLDED JOINT TYPE

Robert M. Soehnlen, Beloit, and Eugene Alters,
Fond du Lac, Wis.
Application June 10, 1954, Serial No. 435,727
4 Claims. (Cl. 285—172)

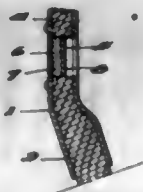


1. A sealing device for bell joint pipe comprising a collar received over the spigot end of a pipe length adjacent the bell end of the next adjacent pipe length, said collar comprising a plurality of flange members each having an outwardly flared lip, said flange members being secured together about said spigot end with said lips being positioned closely adjacent the end of the end bell, a relatively thick flexible sponge rubber gasket strip positioned between each of said flange members and said spigot end, said gasket strips being fixed to the respective flange members by adhesive means, and screw-threaded adjusting means carried by each flange member, said adjusting means being in contact with the respective gasket strips and extending radially of the respective flange members, said gasket strips permitting limited twisting movement of said collar with respect to the spigot end and said adjusting means stretching the respective gasket strips radially away from said collar and into contact with the spigot end of the pipe, said lips forming a chamber at the end bell and said chamber being substantially filled with cement.

2,821,417
CONNECTING DEVICE

Karl Joel Averstén, Lidö, Sweden, assignor to Svenska Aktiebolaget Gasaccumulator, Lidö (near Stockholm), Sweden, a corporation of Sweden
Original application March 13, 1950, Serial No. 149,436, now Patent No. 2,711,915, dated June 28, 1955. Divided and this application May 5, 1955, Serial No. 506,335

2 Claims. (Cl. 287—20.2)

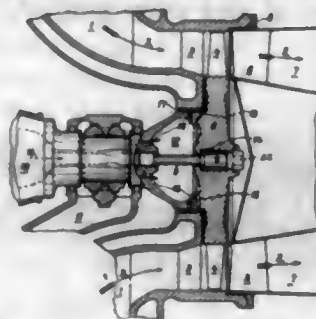


1. A connector for attachment to a metallic plate in which a stud is soldered within an aperture in the connector by stud-soldering apparatus comprising a member having an aperture therein, soldering means disposed within said aperture, said soldering means including a pair of metal plates having a melting point lower than that of the member and the stud, and flux disposed be-

tween said metal plates, said solder being adapted to melt with the stud in the aperture to secure the connector on the metallic plate.

2,821,418
MACHINE UNIT INCLUDING A TURBINE AND A MACHINE DRIVEN THEREBY

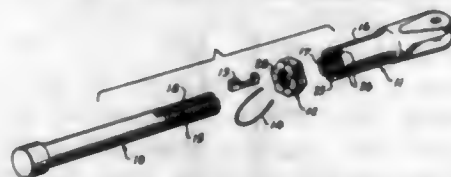
Franz Schaer and Martin Allemann, Winterthur, Switzerland, assignors to Sulzer Frères, Société Anonyme, Winterthur, Switzerland, a corporation of Switzerland
Application July 26, 1955, Serial No. 524,559
Claims priority, application Switzerland August 5, 1954
4 Claims. (Cl. 287—52)



1. A machine unit including a turbine and a machine driven thereby comprising a turbine wheel having a bore extending through the center of said wheel, a shaft for the driven machine, a bolt screwed into the end of said shaft and extending through said bore, the end of said shaft being flared to form a bell whose rim abuts against said turbine wheel, said bolt having a shoulder, a shoulder in said bore of said turbine wheel abutting against the shoulder on said bolt for pressing said wheel against the rim of the bell shaped end of said shaft upon tightening of the bolt in said wheel, said shoulders being in substantially the same plane as the rim of the bell shaped end of said shaft.

2,821,419
ROD END LOCKING ARRANGEMENT

William L. Walton, Fort Worth, Tex., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application January 19, 1954, Serial No. 404,901
3 Claims. (Cl. 287—62)



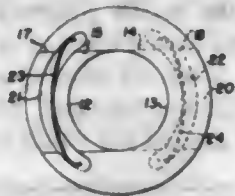
1. In combination, a rod having a threaded portion at one end, a member having an internally threaded recess adapted to be connected to said threaded end portion, locking means axially slidably mounted on said threaded end portion of said rod and adapted to be positioned for positive engagement with said rod and said member to prevent relative rotative movement therebetween, and means rotatably mounted on said threaded end portion of said rod for engagement with said locking means whereby reverse rotation of said last-mentioned means toward said end of said rod serves to urge said locking means slidably into said positive engagement with said rod and said member.

2,821,420
PACKING RING

Glenn M. Gregory, Fort Worth, Tex.
Application April 29, 1954, Serial No. 426,387
1 Claim. (Cl. 288—13)

A packing ring comprising a pair of flat circular U-shaped sections wherein the inner ends of their respective

openings are semicircular and wherein the opposing sides of said openings are parallel with each other, a shoulder projecting from one surface of each said U-shaped section at the closed end thereof, the shoulder of each of said U-shaped sections fitting slidably within the open end of the other of said U-shaped sections in comple-



mentary relationship thereto to define a two-piece segmental ring, each of said shoulders being provided with a transverse groove which extends into the adjacent portions of the complementary U-shaped section on each side of the shoulder, and a leaf spring received within each groove.

2,821,421

HAND OPERATED PORTABLE KNOT TYER

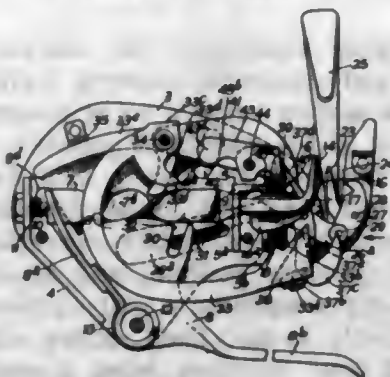
Charles Roland Smith, Fallowfield, Manchester, England, assignor to Mellor Bromley & Co. Limited, Leicester, England, a British company

Application November 4, 1955, Serial No. 545,021

Claims priority, application Great Britain

November 8, 1954

4 Claims. (Cl. 289-3)



1. A weaver's knotter comprising, in combination, two spaced side plates formed to receive two yarn ends laid across the knotter, an apertured part connecting said side plates, yarn-positioning means adjacent to each side plate for crossing the ends of yarns to be tied into a knot, an actuating member movably mounted on at least one of said side plates, means operatively connecting said actuating member and said yarn-positioning means, a typing bill rotatably mounted on and between said side plates and rotatable in the aperture of said connecting part, said actuating member comprising means for rotating the bill, said rotary bill comprising a pivoted element and relatively stationary elements, the said pivoted element being acted upon by a portion of the connecting part whereby, as the bill rotates to engage crossed yarn ends and form the same into a knot, the pivoted element is moved to draw one of the yarn ends into an additional loop which is incorporated in the knot, a stripper stripping the knot from the bill and tightening it, said stripper being in contact with and moved by said actuating member, a scissor device carried by said stripper, and means associated with said stripper operative on movement of the stripper actuating said scissor device to cut both yarn ends.

2,821,422

LOCK FOR FOLDING DOORS

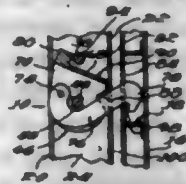
Joseph C. Rainman, Tujunga, Calif., assignor to Kwikset Locks, Inc., Anaheim, Calif., a corporation of California

Application June 13, 1955, Serial No. 514,902

13 Claims. (Cl. 292-113)

1. In a door lock for a folding door, the combination of: spindle means; inner and outer actuators secured to

said spindle means; a rotatable carrier mounted on said spindle means; an elongated bolt member pivotally mounted on said carrier for free movement with respect thereto;



and a dog on said carrier for engaging said bolt member to prevent dislodgement of said bolt member from its locked position.

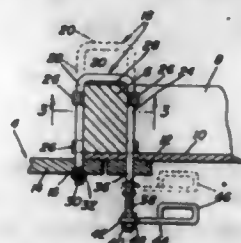
2,821,423

LATCH MECHANISM

Peter O. Petersen, Clear Lake, Iowa

Application October 4, 1955, Serial No. 538,382

1 Claim. (Cl. 292-148)



For use in conjunction with a door slidingly mounted on a wall structure, said door being provided with an opening functioning as a keeper hole, said wall structure being provided with a frame member; a substantially U-shaped latch member embodying a bight portion and spaced parallel arms designed to embrace said frame member and having said arms adapted to be slidably supported on said frame member, the bight portion being located, when it is being used, on the interior side of the frame member and shiftable toward and from said frame member and one of said arms constituting a latch bolt whose outer end normally extends through and outwardly beyond said keeper hole, the terminal thereof being provided with an opening to accommodate the shackle of a padlock, the other arm being adapted to extend slidably through and beyond opening means provided therefor in said wall structure, and a separate handle adjustably mounted on the outer end of said other arm, the position of said handle relative to the surface of said wall structure being such that there is sufficient clearance to enable the handle to be pushed toward the wall structure a distance sufficient to retract the terminal end of said one of said arms from said keeper hole, a padlock, said padlock having the aforementioned shackle, said shackle being removably mounted in the opening provided therefor in said first named arm, and the outer end of the second arm being screw-threaded, and said handle being detachably and adjustably mounted on said screw-threaded outer end.

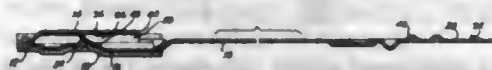
2,821,424

SHACKLE SEAL

Winfred M. Brooks, West Orange, N. J., assignor to E. J. Brooks Company, Newark, N. J., a corporation of New Jersey

Application August 2, 1955, Serial No. 525,875

5 Claims. (Cl. 292-317)



1. A shackle seal comprising an elongate bendable element adapted to be bent into a loop to form a shackle, a locking chamber at one end of said element having an external wall of a flat, single thickness of sheet metal, an

end edge of which partially defines an end opening of said chamber, a locking tongue at the other end of said element and adapted for insertion through said end opening and into said chamber and to remain in said chamber and in the latter's said opening when the seal is closed, interengageable locking means within said chamber and on said tongue adapted to hold the latter against withdrawal from said chamber, and weakening means in said external wall adjacent to said end edge adapting said wall to break upon insertion of an instrument into said chamber through the latter's said end opening while said tongue is disposed therein.

2,821,425

LOCKER HANDLE

Leon O. Vogt, Aurora, Ill., assignor to Lyon Metal Products, Incorporated, Aurora, Ill., a corporation of Illinois
Application January 6, 1955, Serial No. 480,172
12 Claims. (Cl. 292—336.3)

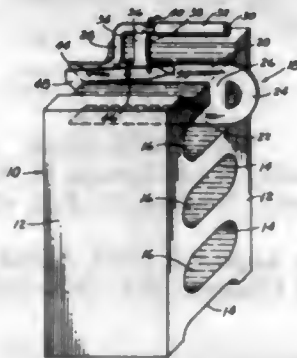


4. In a locker having a door and a locking mechanism shiftably mounted on the rear of the door, the door having an opening therein, a handle mounted in the door opening and having a plate-like portion extending over the edges of the opening at the front of the door and a finger receiving portion extending through the door opening and rearwardly thereof, means interconnecting said handle and the locking mechanism, a projection formed on the door and extending outwardly therefrom, and a staple formed integral with said handle and extending outwardly and surrounding said projection when the door is closed, said staple and said projection having apertures there-through which are aligned when the handle is in the locking position.

2,821,426

BUILDING BLOCK CARRIER

Paul J. Hanner, Nazareth, Pa.
Application September 1, 1954, Serial No. 453,489
2 Claims. (Cl. 294—26)



1. In a building block carrier, a C-shaped frame having spaced upper and lower bars, said bars having free ends and other ends, a bight portion connecting and spacing said other ends, a handle on said upper bar at an intermediate point thereof, a catch bar extending lengthwise of said upper bar, means pivoting the catch bar on

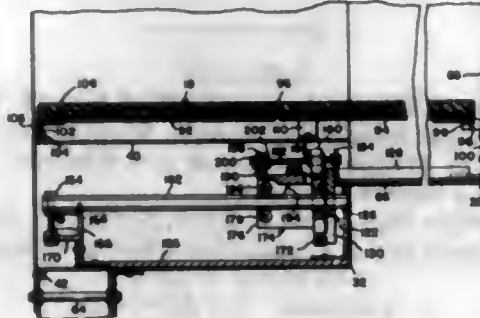
said upper bar at a point intermediate the ends of the catch bar, said catch bar having an outer end positioned in the region of the free end of the upper bar and an inner end, a tooth on the outer end of the catch bar, said tooth projecting from the catch bar toward said lower bar, and means for moving said catch bar from a locking position in which the tooth projects into the space between the upper and lower bars to a withdrawn position in which the tooth is out of said space, said means comprising a shank slidably engaged with said handle and pivoted to the inner end of the catch bar.

2,821,427

SLEEPING ATTACHMENT FOR VEHICLES

Festus Halrston, Detroit, Mich.

Application October 4, 1954, Serial No. 459,926
9 Claims. (Cl. 296—23)



1. A sleeping attachment for vehicles comprising a collapsible and extensible housing having a generally tubular fixed section adapted to be mounted in an opening in a wall of the vehicle, a generally tubular section slidable in telescopic relation to said fixed section and having a closed outer end, means for moving said movable section between extended operative position and retracted inoperative position, and an articulated floor in said housing comprising a pair of floor members pivoted respectively to said fixed section and said movable section, said floor members being pivoted together and movable to a substantially horizontal position when said housing is extended and to an upwardly folded position when said housing is collapsed, means for supporting the floor members in horizontal position when the housing is fully extended, a link at the edge of said floor member pivoted to said fixed section, and an abutment engageable by said link when said link is rocked into upper position by extension of said housing whereby collapse of said housing rocks said link away from said abutment to increase misalignment between the pivot axes of said floor members to establish forces tending to cause said floor members to be folded up upon collapse of said housing.

2,821,428

VERTICALLY TELESCOPING TRUCK BODY

Robert S. Webster, Rhinelander, Wis., assignor of one-third to Forest R. Wincentzen, Rhinelander, Wis., and one-third to Robert A. Burns, Wakefield, Mich.

Application April 7, 1955, Serial No. 499,961
4 Claims. (Cl. 296—26)



1. A trailer comprising a wheeled body including a deck and vertical walls, said vertical walls including telescoping upper and lower sections, said wall sections being hollow, vertically telescoping posts extending through said upper and lower wall sections and operatively connecting

said wall sections for vertically telescoping said sections, said posts being mounted on said deck and having the upper ends thereof secured to the upper edges of said upper sections, certain of said posts comprising fluid operated cylinder and piston assemblies for raising and lowering said upper wall sections, said upper wall sections comprising spaced outer and inner hollow wall panels straddling said lower sections, said wall panels having interior reinforcing members therein.

2,821,429

VEHICLE BODY DRAINAGE AND SEALING MEANS

Charles W. Rantala, Wyandotte, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 19, 1956, Serial No. 610,843
6 Claims. (Cl. 296—28)



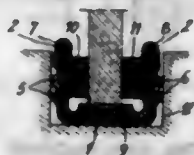
1. Automobile body sealing means of the character described, including: a clip member having a U-shaped resilient holding portion adapted to be clipped to an edge of a body panel, and a body portion extending at an angle from the clip portion, the body portion of said clip member being formed with a centrally depressed trough having an opening at its bottom; and a flap valve mounted on the body portion of said clip member, said valve having spaced slots defining a flexible flap portion covering said trough, a free edge of said flexible portion lying closely adjacent one side of said trough.

2,821,430

GUIDING AND SEALING CHANNEL SLIDEWAY FOR VEHICLE WINDOW PANES

Jean Raoul Gr  d  , Paris, France

Application December 15, 1955, Serial No. 553,373
Claims priority, application France December 17, 1954
3 Claims. (Cl. 296—44.5)



1. A substantially U-shaped glass run channel for guiding and sealing a sliding glass in a vehicle body member, said channel comprising a metal core member having a base and a pair of leg sections extending integrally from opposite sides thereof, said metal core member being coated on the inner and outer sides thereof with a synthetic rubber containing a relatively high percentage of synthetic resin, the outer extremities of said leg sections and the inner central portion of the base being covered with a densely matted fibre, the inner lateral surfaces of the leg sections being covered with a dense pile projecting at right angles to said lateral surfaces, each leg section outer surface being provided with at least one longitudinal

720 O. G.—51

nally extending rib located between the matted fibre covering the upper edge thereof and said base, said rib being provided with a lip constructed and arranged to be folded toward the outer surface of said leg section as said channel is inserted in a vehicle body member channel receiving recess and to coil away from said outer surface to resist withdrawal of said channel from its receiving recess.

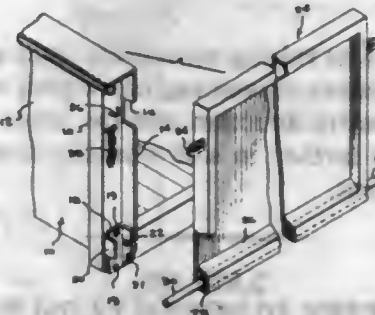
2,821,431

END GATE MOUNTING FOR TRUCK BODIES

Theodore R. Crompton, Evanston, Wyo.

Application August 24, 1956, Serial No. 606,066

1 Claim. (Cl. 296—57)



An end gate and truck bed construction comprising: side walls on said bed; vertical reinforcing channels fixedly secured to the side walls and spaced closely from the rear ends of the side walls, the side walls having notches opening upon said rear ends and extending in depth fully to the channels; angular retaining brackets fixedly secured to the channels downwardly from the notches, each bracket having one leg bearing against the adjacent side wall and another leg bearing against the adjacent channel, said brackets having, in transversely spaced relation to said one leg, a rearwardly projecting ear disposed in a plane parallel to that of said one leg, the side walls and said one leg having registering openings; an end gate extending between the side walls and formed at its lower end with a rolled flange; elongated hinge pins axially slidable within and projecting at one end beyond the corresponding ends of said housing, the inner ends of said pins being spaced apart at the midlength portion of the sleeve; a compression, coil spring in the space between the inner ends of the pins exerting pressure on the pins tending to normally bias the same outwardly of the housing through the registering openings for hingedly connecting the end gate to the truck bed, said ears being in the path of outward axial movement of the pins to provide abutments limiting the pins against outward movement beyond a predetermined position of the pins in which the end gate is supported for swinging movement between a normally closed and an open position, said gate in its closed position lying abreast of the notches of the side walls; eyes secured to the respective channels adjacent the notches; ears extending outwardly from the end gate through the notches, slotted to receive the eyes in the closed position of the end gate; and a flexible element releasably connectible between the channels in back of the closed end gate and extending through said notches.

2,821,432

TWO-STAGE LIFTING MECHANISM FOR DUMP TRAILERS

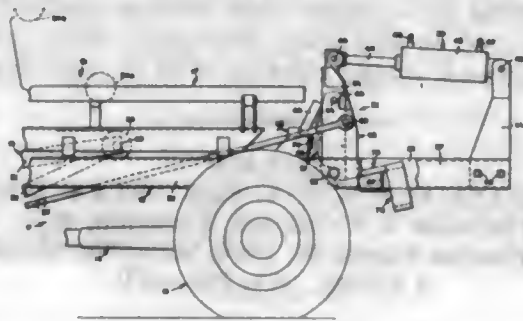
John A. Northcote, Welland, Ontario, and Douglas H. Lymburner, Fonthill, Ontario, Canada, assignors to John Deere Plow Company (Limited), Welland, Ontario, Canada, a corporation of Canada

Application November 24, 1954, Serial No. 471,018

14 Claims. (Cl. 298—22)

1. A body tilting mechanism comprising a double-acting hydraulic ram unit adapted to be extended and retracted, means actuated by a retracting movement of said ram unit to raise the body part way, said means including a

pair of pivotally interconnected parts movable together in one direction from one position to another by said retracting movement, and a second means actuated by an extending movement of said ram unit to raise the body



the remainder of its raising movement, said second means including stop means preventing movement of one of said parts in the opposite direction and the other of said parts which is moved farther in said one direction by said extending movement.

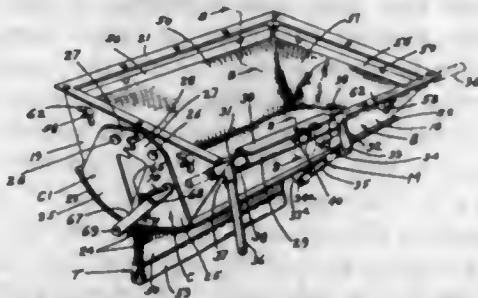
2,821,433

HOPPER DUMPING CLOSURE

Buck C. Hamlet, Bell, Calif., assignor to Cook Bros. Equipment Co., Los Angeles, Calif., a corporation of California

Application July 8, 1955, Serial No. 520,708

5 Claims. (Cl. 298—30)



4. A dumping closure, including: a hollow rigid body shaped to form a chute; a pair of sector shaped closure members pivoted on said body to open and close the lower end of the chute, said members having lips on the lower edges thereof coextensive in length therewith; mechanism for operating said members; a flexible boot secured in said body so that its lower end depends from the lower end of the chute and between said members to be clamped and closed by the lips when said members are in closed position; and means on one of said members for folding said boot upwardly about one of the lips after said members are closed.

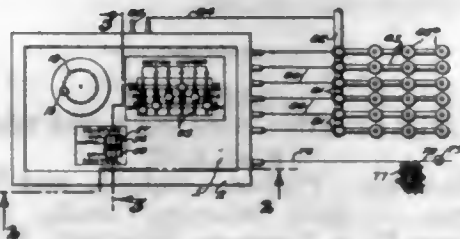
2,821,434

AUTOMATIC IRRIGATION CONTROL APPARATUS

Edwin J. Hunter and Lorenzo A. Richards,
Riverside, Calif.

Application November 21, 1955, Serial No. 548,115

8 Claims. (Cl. 299—25)



1. An automatic irrigation control apparatus for an irrigation system having a plurality of irrigation sections, and a pilot operated flow valve for each section, comprising: a bank of pilot valves, one for each flow valve; a series of control levers for operating said pilot valves; a series of cams having lobes arranged to engage said

levers for preselected periods to effect operation of said pilot valves; means for moving each of said levers independently to change the period of engagement with its cam thereby to change the operating period of the corresponding pilot valve; a cam shaft for said cams; a drive motor; a clutch for operatively connecting said cam shaft and motor; a clutch operating means normally holding said clutch disengaged; a timing means driven by said motor and periodically connected with said clutch operating means to cause periodic engagement of said clutch to effect intermittent rotation of said cam shaft thereby to cause periodic operation of said pilot valves; and a device interposed in said clutch operating means for rendering said clutch operating means ineffective to release said clutch thereby to postpone operation of said pilot valves and operation of said irrigation sections.

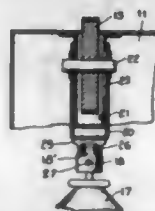
2,821,435

VALVE ALIGNING MEANS

Charles B. Wenner, Darien, Conn., assignor to Alrkem, Inc., New York, N. Y., a corporation of New York

Application February 2, 1955, Serial No. 485,711

6 Claims. (Cl. 299—82.5)



1. In a mechanically actuated aerosol dispenser having means for supporting an aerosol container equipped with a depressible valve and discharge nozzle, said dispenser including a vertically movable member for depressing said valve to discharge a spray through the nozzle thereof, the improvement that comprises an aligning device secured to said vertically movable member and registering with said valve, said aligning device including means separably interfitting with said valve to prevent relative rotation between said valve and vertically movable member.

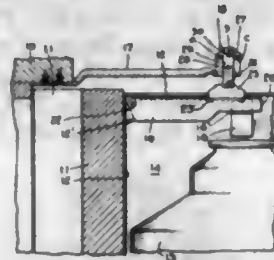
2,821,436

DOOR ACTUATED ATOMIZING DEVICES

Charles B. Wenner, Darien, Conn., assignor to Alrkem, Inc., New York, N. Y., a corporation of New York

Application June 30, 1955, Serial No. 519,153

11 Claims. (Cl. 299—82.5)



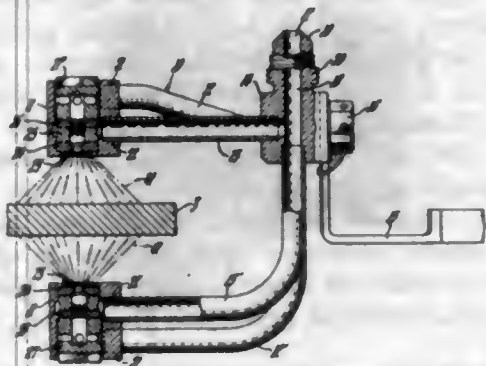
1. A valve actuating mechanism for a vertically reciprocating valve, said mechanism comprising means for positioning a vertically reciprocating valve with respect to a vertical support, a swingable valve engaging member coupled with said means and protruding laterally from said vertical support to dispose the free valve engaging end thereof in the path of reciprocation of said valve, said valve engaging end of the swingable member having valve aligning means separably interfitting with said valve to prevent rotation of said valve, a cam element protruding from said swingable member above, and at least in partial vertical alignment with, said valve aligning means, an impulse member having means for mounting on a support separate from and movable with respect to said vertical support, the path of relative movement between

and in closing relation to said central aperture, while said flange structures due to the interengagement thereof as enabled by said respective notches retain the medalion and the cover against relative turning.

ATOMIZER FOR BRAKE COOLING

2,821,439
PNEUMATIC POWDER FEEDER
George R. Spies, Jr., Murray Hill, and Harry Hooper,
Westfield, N. J., assignors to Air Reduction Company,
Incorporated, New York, N. Y., a corporation of New
York

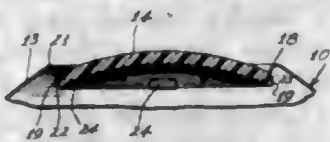
Application January 20, 1955, Serial No. 482,984
8 Claims. (Cl. 302—53)



1. A pneumatic powder feeder for entraining powdered material at variable predetermined feed rates in a flowing gas stream, comprised of a gas-tight hopper having an opening in the bottom thereof, an inductor assembly having an opening at the top thereof attached to the bottom of said hopper and arranged to receive powder from said hopper through said opening in the bottom of the hopper by the action of gravity, said inductor assembly including a small chamber for receiving powder and a tube passing horizontally and completely through said chamber at a location spaced from the bottom of said chamber, said tube having means including a vertical flow path which provide fluid communication between the interior of said tube and said chamber, a pressure-regulated gas supply line connected to said hopper by a first conduit and connected to said tube by a second conduit, said second conduit having an adjustable pressure reducing device therein whereby the pressure in said hopper can be made greater than the pressure in said tube.

WHEEL COVER

2,821,440
FLUID PRESSURE BRAKE APPARATUS WITH
MEANS FOR PREVENTING PREMATURE
CUT-OFF OF QUICK SERVICE ACTIVITY
George L. Cotter, Pittsburgh, Pa., assignor to Westing-
house Air Brake Company, Wilmerding, Pa., a corpo-
ration of Pennsylvania
Application October 27, 1955, Serial No. 543,117
5 Claims. (Cl. 303—46)



Technical drawing of a mechanical assembly, likely a pump or engine component, showing a cross-section with various parts labeled with numbers and letters. The drawing includes dimensions and a title block.

Dimensions: 60, 61, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870

1. A fluid pressure brake apparatus comprising, in combination, a brake pipe normally charged with fluid under pressure, a brake cylinder, a quick service communication through which fluid under pressure may be released from said brake pipe to said brake cylinder, means defin-

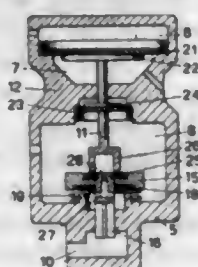
ing a chamber, another communication independent of said quick service communication through which fluid under pressure may be released from said chamber to atmosphere, an auxiliary reservoir, quick service effecting means subject to auxiliary reservoir in opposition to fluid pressure in said chamber and a spring bias, said quick service effecting means normally being urged by its spring bias to a normal position for opening said chamber to said brake pipe and responsive to a reduction in pressure in said chamber resulting from a slight reduction in brake pipe pressure below auxiliary reservoir pressure to move to a quick service position for closing off said brake pipe from said chamber and opening the latter to said other communication while also opening said brake pipe to said quick service communication for effecting a quick service reduction in brake pipe pressure, service valve means responsive to a chosen reduction in brake pipe pressure below normal full charge value, greater than that corresponding to said slight reduction, to supply fluid under pressure from said auxiliary reservoir to said brake cylinder, and other means responsive to fluid pressure in said brake cylinder in excess of a predetermined value to close off said quick service communication from said brake cylinder and also close off said other communication from atmosphere.

2,821,441

BRAKE CONTROL DEVICE

Siegfried Keller, Effretikon, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company of Switzerland

Application July 2, 1954, Serial No. 441,065
Claims priority, application Switzerland July 4, 1953
6 Claims. (Cl. 303—60)



1. In a compressed air brake in combination with a brake pipe, an air container and a brake cylinder: a connection pipe connecting the said brake pipe to the said air container, a non-return valve and a restricted orifice arranged in series in the said connection pipe, the said non-return valve opening towards the said air container, a bypass bridging over the said restricted orifice, a feeder valve controlling the said bypass and in the open position having a cross section area available to the air flow substantially exceeding that of the said first restricted orifice, the said restricted orifice and the said feeder valve forming together a first path from the said brake pipe to the said air container, a control means having a first chamber in communication with said brake cylinder, a second chamber open to the ambient atmosphere, a third chamber in communication with the said brake pipe, a fourth chamber in communication with the said air container, a movable partition member separating the said first and second chamber, a fixed partition wall separating the said second and third chamber, a valve body in the open position connecting and in the closed position separating the said third and fourth chambers, a first biasing means biasing the said valve body towards its open position, a push rod fixedly connected to said movable partition member and tightly extending through the said fixed partition wall towards the said valve body, unidirectionally operating the same towards the closed position, and second biasing means biasing the said push rod away from the

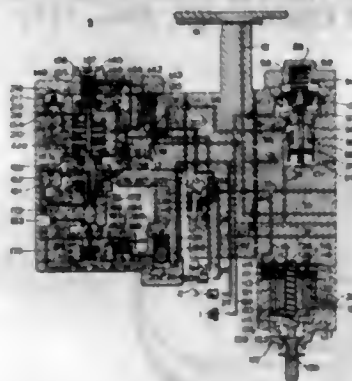
said valve body, the said control means forming a second path from the said brake pipe to the said air container in parallel to the said first path.

2,821,442

FLUID PRESSURE BRAKE APPARATUS

Earle S. Cook, Pittsburgh, Glenn T. McClure, McKeesport, and John W. Rush, Pittsburgh, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application July 19, 1956, Serial No. 598,964
8 Claims. (Cl. 303—60)



1. In a fluid pressure brake apparatus for railway cars, in combination, a normally charged brake pipe; a normally charged control reservoir; a brake cylinder device; a supply reservoir normally charged with fluid under pressure for supply to said brake cylinder device; service valve means responsive to reduction in brake pipe pressure relative to control reservoir pressure to effect supply of fluid under pressure from said supply reservoir to said brake cylinder device, responsive to degrees of restoration in brake pipe pressure relative to control reservoir pressure during a brake application to effect corresponding degrees of reduction in brake cylinder pressure by partial release of fluid under pressure from said brake cylinder device, and responsive to equalization of control reservoir pressure with brake pipe pressure during a brake application to effect continuous reduction in brake cylinder pressure to that of the atmosphere by complete release of fluid under pressure from said brake cylinder device; a normally closed vent valve controlling a vent communication from said brake pipe to the atmosphere; a normally closed direct release control valve controlling a communication from said control reservoir to said brake pipe; and a diaphragm motor assemblage operatively connected both to said vent valve and to said direct release control valve, said motor assemblage being responsive to reduction in brake pipe pressure at a rate exceeding a service rate to open said vent valve for venting fluid under pressure from said brake pipe to effect a local reduction in brake pipe pressure also at a rate exceeding a service rate of reduction, and responsive to restoration in brake pipe pressure at a rate exceeding a certain rate to open said direct release control valve to permit fluid under pressure from said control reservoir to flow to said brake pipe for equalization in pressure therebetween and increase in brake pipe pressure also at a rate exceeding said certain rate.

2,821,443

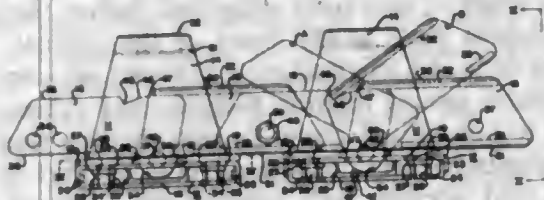
TRACTION DEVICE FOR A VEHICLE WITH TIRES OR THE LIKE

Camille P. Galanot, Alliance, Ohio

Application July 16, 1956, Serial No. 598,198
10 Claims. (Cl. 305—10)

1. In a unit for a traction device for a vehicle with tires or the like, said device comprising a plurality of such units pivotally connected in an endless order, in combination, a transversely extending shoe relatively rectangular in cross section having a channel bottom section and

a spaced channel top section in overlapping fastened relation, said top section having a central opening, a mounting plate having a central opening in registry with said first-mentioned central opening and being in rigid supported engagement with the top of said shoe, means extending between said mounting plate and into the interior of said shoe to fasten said mounting plate to said shoe, a plurality of right and left grouser lugs in differentially skewed engagement with the bottom of said shoe and in respectively laterally spaced arrangement, means extending between said grouser lugs and the interior of said shoe to fasten said grouser lugs to said shoe, a longitudinally extending guide secured to said mounting plate, said guide being ogival in end elevation and tapering upwardly in side elevation, the sides of said guide being secured to said mounting plate fore and aft of said central opening, a plurality of longitudinally extending sheath connectors having their inner ends between the sides of said guide and their outer ends projecting longitudinally outwardly of said guide, the inner ends of said sheath connectors having a downwardly extending ear projecting through said central openings and into the interior of said shoe, a plurality of longitudinally extending blade connectors having their inner ends between the sides of said guide and their outer ends projecting longitudinally outwardly



of said guide in a direction opposite to that of said sheath connectors, the inner ends of said blade connectors being respectively between the sides of the inner ends of said sheath connectors, said blade connectors having a downwardly extending ear projecting through said central openings into the interior of said shoe, a pivot passage extending in registry through the sides of said guides and said ears substantially in the plane of said central openings, a pivot pin extending through said pivot passage, means for holding said pin in said pivot passage with the inner ends of said respective connectors in horizontally interleaved relation for articulation relative to one another and to said shoe, cooperating means including an arcuate surface on the inner ends of said blade and sheath connectors to permit said articulation therebetween to a predetermined extent, means for limiting said articulation to arcs about said pivot extending upwardly from the plane of the top of said shoe toward the top of said guide for said respective connectors, means for transversely and rigidly binding blade connectors of an adjoining unit inserted in said sheath connectors and for adjusting the longitudinal extent of such insertion, the height of said blade connectors being equal to the height of the opening in said sheath connectors, and cleats having upstanding transverse edges connected to the top of said shoe offset from said guide.

2,821,444

BEARING RETAINING MEANS

Lawrence L. Brown, Peoria Heights, Ill., assignor to Caterpillar Tractor Co., Peoria, Ill., a corporation of California

Application February 23, 1955, Serial No. 489,851
2 Claims. (Cl. 308—23)

1. In bearing means which includes the combination of a two part cylindrical bearing support, two semi-cylindrical bearing shells therein, and a shaft journaled in said shells, the improvement which comprises a radially projecting flange at each end of one of said bearing shells,

and flanges formed on the opposite part of the bearing support in positions to abut the ends of the flanges on



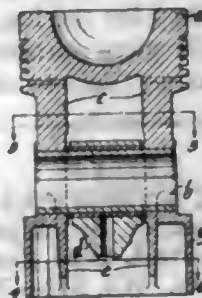
the bearing shell to prevent it from rotating in the bearing support.

2,821,445

PISTONS OF COMPRESSION IGNITION ENGINES

Joseph Hugh Stott Gardner, Patricroft, near Manchester, England, assignor to L. Gardner & Sons Limited, Patricroft, near Manchester, England, a British company

Application June 2, 1955, Serial No. 512,840
Claims priority, application Great Britain July 22, 1954
2 Claims. (Cl. 309—10)



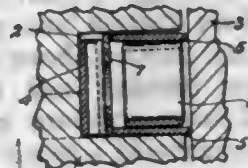
1. A piston assembly for a compression ignition engine comprising a crown, a skirt, a gudgeon pin intermediate the crown and the skirt, bosses for the gudgeon pin, two vertical walls between the crown and the gudgeon pin with the walls being straight where the same extend across the interior of the piston assembly at the opposite sides of the gudgeon pin bearing with the pressure transmitted from the crown to the gudgeon pin through such vertical walls, said vertical walls being substantially the same width as that of the bosses for the gudgeon pin, and a web-like extension on each vertical wall extending downwardly below the gudgeon pin bosses with such web-like extensions extending across the skirt in parallel straight lines and the terminal ends of the extensions merging with the skirt.

2,821,446

OIL SEALING PISTON RING

Douglas W. Hamm, Muskegon, Mich., assignor to Muskegon Piston Ring Company, Muskegon, Mich., a corporation of Michigan

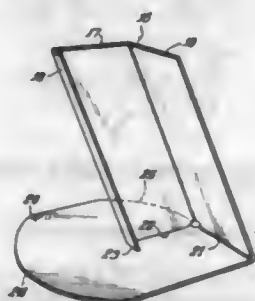
Application November 26, 1954, Serial No. 471,242
2 Claims. (Cl. 309—45)



1. In a piston ring adapted to be seated in a ring groove and having a resilient spacer and a pair of parted rails, the improvement comprising: an annular shim seated against the inner face of said ring; said shim having a width such that it forms an oil seal with the side walls of the piston ring groove.

2,821,447

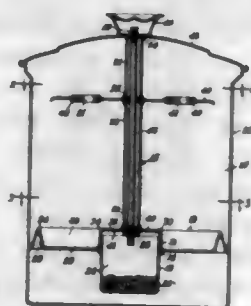
LEG CONSTRUCTION FOR PICNIC TABLE
 Frank W. Beller and Ray M. Beller, Aurora, Ill., assignors to Belson Manufacturing Company, North Aurora, Ill., a partnership
 Application September 7, 1956, Serial No. 608,479
 3 Claims. (Cl. 311-109)



1. In leg construction for picnic table, a sheet metal leg of channel form having a bottom wall, a first side wall relatively short, and a second side wall parallel to said first wall relatively long, said second side wall having an enlarged plate portion integral therewith and bent acutely angularly to said second side wall into juxtaposition with said bottom wall and said first side wall, said plate portion providing an integral foot for the leg, the end of the said bottom wall to which the plate portion is juxtaposed being also acutely angular to said second side wall.

2,821,448

PIPE RACK AND STORAGE BOX
 Julian R. Bender, Brooklyn, N. Y.
 Application November 1, 1954, Serial No. 465,882
 1 Claim. (Cl. 312-31)

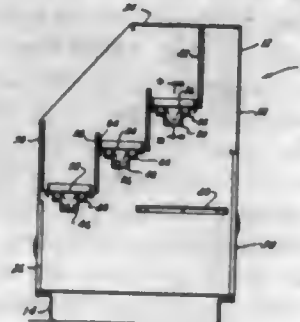


A smoking accessory comprising a pipe supporting unit, said unit including a main vertical stem, a lower platform secured to said stem and an upper rack supported by said stem with spacer means surrounding said stem to hold said upper rack in vertically spaced apart relationship with respect to said lower platform, said lower platform having a raised central portion and a peripheral rim and a continuous annular groove encircling said raised central portion for receiving the bowls of a plurality of pipes, and said upper rack being provided with a plurality of circumferentially spaced-apart apertures for receiving the stems of said plurality of pipes, means defining a chamber carried by said lower platform in said central portion on its under side and extending into the central portion for receiving means providing a dehydrating and dehumidifying atmosphere therein and means comprising apertures in said central portion above said chamber providing communication between said chamber and the upper surface of said lower platform, said accessory further comprising means defining a receptacle having a bottom, side walls and an open upper end and receiving said unit at least to a point above said upper rack, and a shielding member for said upper rack and said lower platform carried by said stem at a point above said upper rack, and spacing means to space said upper rack from said shielding member to leave said upper rack and said lower platform exposed from the sides to permit lateral access thereto, and the periphery of said shielding member extending outwardly from said stem beyond the peripheries

of said upper rack and said lower platform and being constructed to cooperate with the opening of said receptacle to form a closure therefor, and gripping means secured to said stem for lifting said shielding member and simultaneously lifting said pipe-supporting unit for selectively inserting and withdrawing said unit in relation to said receptacle.

2,821,449

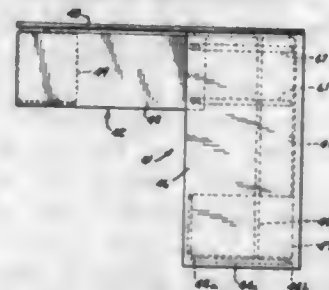
HUMIDIFICATION UNIT
 Paul Campbell Miller, Jr., Milford, Mich., assignor to Skuttle Manufacturing Company, Milford, Mich., a corporation of Michigan
 Application November 26, 1954, Serial No. 471,302
 4 Claims. (Cl. 312-31.01)



1. An humidification unit comprising a display cabinet having a series of upwardly staggered shelves therein with the lowermost shelf at the front of the cabinet, vertical partitions disposed longitudinally between adjacent shelves in horizontal spaced relation thereto, said cabinet having an open top providing access to said shelves, said shelves being mounted inward of the opening so that the edges forming said opening will substantially prevent circulation of air over said shelves, open pan-type humidifiers mounted below each of said shelves in juxtaposition thereto so that each open pan will be in communication with the spaces adjacent the shelf with which such pan is associated, and separate alarms for indicating when water in each of said pans is below a prescribed limit.

2,821,450

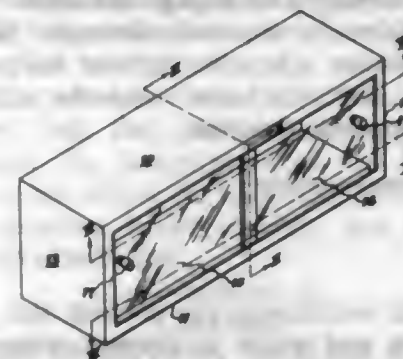
DESK STRUCTURE
 Florence S. Knoll, New York, N. Y., assignor to Knoll Associates, Inc., New York, N. Y., a corporation of New York
 Application August 9, 1956, Serial No. 603,077
 4 Claims. (Cl. 312-111)



4. Desk structure comprising a main desk including an oblong top, means defining a recess below said top and adjacent one end of the desk and opening inwardly from the front side thereof, a side desk including an oblong top, means supporting said tops in an L-shaped configuration with one end of said side desk top received within said recess and projecting therefrom substantially at right angles to the main desk top, said supporting means comprising separate supports for the ends of the tops remote from the corner of the L-shaped configuration, leg means supporting the corner end of one only of the tops, and means, including the corner end of said one top, supporting the corner end of the other top, said last-named supporting means being shiftable to adjust the position of the side desk top within the recess, to vary the accessible area of the side desk top.

2,821,451

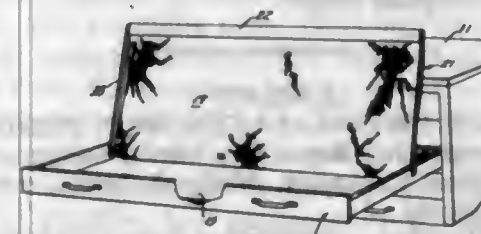
AUTOMATIC CLOSURE DEVICE FOR AN ENCLOSURE
 David B. Kaufman, Los Angeles, Calif.
 Application June 10, 1954, Serial No. 435,676
 2 Claims. (Cl. 312-138)



1. A cabinet comprising: a body member having a plurality of walls forming a cabinet chamber with a rectangular opening; a pair of vertically displaced horizontal grooves comprising guide-ways within the cabinet adjacent to the rectangular opening on the inside of vertically opposite horizontal walls thereof, one of the horizontal guide-ways having a vertical recess at each end thereof; transparent closure panel means mounted in the horizontal guide-ways, said closure panel means comprising a pair of transparent panels slidably cooperable with said horizontal guide-ways to horizontally slide into open and closed position in said horizontal guide-ways, a pair of vertically projecting members, each projecting member being connected to a different one of said pair of transparent panels and being removably retainable in one of the vertical recesses of the horizontal guide-way having a vertical recess at each end thereof when said panel is in its closed position; a pair of springs fixedly mounted in the other vertically spaced horizontal guide-way, each spring being positioned to apply vertical pressure to the adjacent edge of the adjacent panel of the closure panel means so that its vertically projecting member will be pressurably retained in the corresponding vertical recess of the horizontal guide-way having said vertical recesses at each end thereof when said panel is in its closed position, each of said springs being in vertically spaced substantially vertical alignment with respect to the corresponding vertical recess and on the vertically opposite edge of said panel therefrom; and a pair of outwardly projecting holding handles, each holding handle being connected to one of said panels of the closure panel means to provide a support for applying horizontal pressure to slide said panel to its closed position and to slide said panel to its open position by first vertically moving the panel against the biasing action of the opposing one of said springs to remove its vertically projecting member from the corresponding vertical recess vertically aligned with said opposing spring.

2,821,452

FILE DRAWER COVER AND SHEET RETAINER
 Ellwood H. May, Sheboygan, Wis.
 Application October 22, 1953, Serial No. 387,696
 8 Claims. (Cl. 312-183)



1. In a normally open top container for large sheets, said container having front, rear and side walls, a flexible cover member attached adjacent the rear portion of said

container and extending to the front thereof, a lift member attached along the front of said cover member, flat links attached to the ends of said lift member and extending rearwardly therefrom alongside said side walls, a socket extruded from each of said side walls intermediate the ends thereof, said sockets having flat faces spaced inwardly from said side walls, the ends of said links remote from said lift member extending between said flat faces and the side walls, and means for pivotally mounting said last-mentioned ends of said links on said flat faces of said sockets.

2,821,453

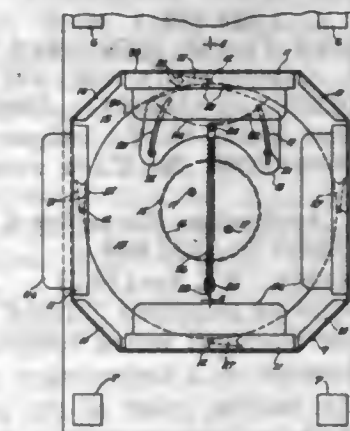
HOLDER FOR ELECTRIC SHAVER AND TAKE-UP REELS THEREFOR
 Paul J. Jensen, Kenosha, Wis.
 Application September 20, 1954, Serial No. 457,079
 3 Claims. (Cl. 312-223)



1. An electric shaver wall cabinet of the type having a take-up reel carried therein comprising, a base section including a face plate, a pair of spaced outstanding parallel bracket plates on the face plate, an outstanding partition wall carried by the upper edges of the bracket plates and the front of the face plate, and a cover section detachably secured to the base section and housing the bracket plates and the partition and defining in conjunction with the base section and the partition wall an upper electric shaver receiving compartment and a lower compartment, said take-up reel for the electric cord of the shaver supported by the bracket plates within said lower compartment and said partition wall defining a guide for the electric cord.

2,821,454

ROTARY CABINET WITH SWIVELLED DOORS
 Clair C. Gardner, Rockford, Ill.
 Application November 24, 1953, Serial No. 394,014
 20 Claims. (Cl. 312-252)



1. In a cabinet of the class described, a rotary cabinet body mounted for rotation on a vertical axis relative to a supporting base therebeneath, said cabinet having a plurality of door openings provided in the side walls thereof in circumferentially spaced relation, a door in each of

said openings swivelled on a vertical axis between its side edges, each door having on the bottom edge an operating dog of elongated form that is of the same concave curvature on each longitudinal edge and tapered toward one end and having the other end notched in the form of a V to define spaced pointed teeth, a stationary horizontal circular base plate on said base relative to the periphery of which the dogs are slidable by their one or the other curved longitudinal edge according to the position of the doors, said circular base plate having a portion of its cir-

cular periphery cut away where the dogs are movable inwardly relative to said base plate in reversing their positions with reversal of the doors, and a horizontal switch plate movably mounted over the cutout portion of said base plate having two oppositely directed teeth on one edge thereof arranged to engage the teeth on said dogs to turn the doors in sequence through 180° from one position to another when the cabinet body is turned in one direction, and vice versa when the cabinet body is turned in the opposite direction.

CHEMICAL

2,821,455

MORDANTING PROCESS AND PRODUCT
John P. Delange, Los Angeles, Calif., assignor to Technicolor Corporation, Hollywood, Calif., a corporation of Maine

No Drawing. Application August 17, 1954

Serial No. 450,549

2 Claims. (Cl. 8-4)

1. A film blank for making dye transfer color prints comprising, dispersed within a gelatin layer as a mordanting agent, an insoluble metal chelate formed by the reaction of copper sulfate and 4,4'-diphenyl methane diguanidine dihydrochloride.

2,821,456

METHOD OF INCREASING THE FILLING POWER, ETC., OF LANDFOWL FEATHERS WITH MAGNESIUM SILICOFLUORIDE AND PRODUCTS PRODUCED THEREBY

Edward R. Frederick, Pittsburgh, Pa., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Application February 16, 1956

Serial No. 566,053

4 Claims. (Cl. 8-94.10)

1. A method of treating soiled landfowl feathers to enhance their filling power and make them an acceptable substitute for waterfowl feathers which comprises immersing the soiled landfowl feathers in a solution consisting of magnesium silicofluoride in water at a concentration of 0.75% to 1.7% by weight, with the pH ranging from 2 to 3, the solution being heated in the range of 55° C. to 100° C.; stirring the mixture; continuing the immersion until the filling power of the feathers is increased and the feathers become cleansed, preserved, mothproofed, stiffened and water repellent; removing the landfowl feathers and washing them with water to remove uncombined and non-absorbed magnesium silicofluoride, dirt and foreign matter; and drying and fluffing the landfowl feathers.

2,821,457

METHOD OF HEAT STABILIZING POLYETHYLENE FABRIC COMPOSED OF FILAMENTS HAVING SPECIFIC RESIDUAL SHRINKAGE

Victor L. Erlich, New York, N. Y., assignor to Reeves Brothers, Inc., New York, N. Y., a corporation of New York

No Drawing. Application December 8, 1952

Serial No. 324,854

7 Claims. (Cl. 8-130.1)

1. Method of producing stabilized finished fabric from oriented polyethylene filaments which comprises heating the polyethylene filaments to a temperature of about 25 to 30° C. below the melting point of the polyethylene polymer for about 1 to 5 seconds to leave in them a residual shrinkage between 8 and 20% when tested at 75° C. for 20 minutes, then converting the filaments to greige fabric in which the filaments assume a wavy form, heating said greige fabric to a strictly controlled temperature between 3 and 20° C. below the melting point of the poly-

ethylene while simultaneously holding the fabric along both its length and width to prevent retraction thereof along said length and width, subjecting the fabric to said latter temperature for about 10 seconds to about 10 minutes, said time and temperature being coordinated so that the filaments straighten out by shrinking, said filaments having the capacity to shrink to the extent of their residual shrinkage, maintaining the fabric free from contact with compressing surfaces during said heating, and obtaining as a result of the foregoing steps a finished fabric which by comparison with said greige fabric has a smoother and flatter surface, has substantially the same surface area as said greige fabric, has improved stability, and exhibits breaking strength at least equal to said greige fabric.

2,821,458

PROCESS FOR PRODUCING UNIFORM POLYACRYLONITRILE FIBERS BY HEAT RELAXING SOLVENT CONTAINING UNDRAWN FIBERS, REMOVING SOLVENT AND DRAWING THE FIBERS

Evans F. Evans, West Chester, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application April 8, 1954, Serial No. 421,880

11 Claims. (Cl. 8-130.1)



1. A process for the preparation of an acrylonitrile polymer fiber from an undrawn spun polymer which contains at least 5% by weight of an inert solvent for said polymer, at least 85% of acrylonitrile with a maximum of 15% of copolymerizable monomers in the polymer molecule and which is capable of being drawn at least about two times its original length, the said process comprising heating said spun polymer, while it is in a relaxed condition, in an inert non-aqueous medium at a temperature of from about 100° C. to about 150° C. for a period of time of from about 5 seconds to about 2 hours; removing the inert solvent from spun polymer until its solvent content is no more than about 2.5% by weight; and thereafter drawing said spun polymer at least about two times its original length.

2,821,459

METHOD OF DRYING LATEX-SPUN PRODUCTS
John W. Morris, Jr., Bay City, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 17, 1955

Serial No. 516,331

4 Claims. (Cl. 18-54)

1. In a method for producing continuous thin oriented articles from aqueous latexes of normally crystalline

polymers comprising the steps of extruding a latex into an electrolyte coagulant to coagulate the latex to form a continuous thin article, washing the so-formed article, and drying and then orienting it by stretching, the improvement consisting of advancing the washed but undried article across the surface of a heated liquid bath of an organic, water-miscible material which wets but is a non-solvent for said polymer and whose boiling point at atmospheric pressure is at least 100° C., and which has a density such that said polymeric article may be floated thereon, the temperature of said bath being at least 100° C., but below the softening point of the polymer, and thereafter fusing, cooling and stretching the article to effect orientation.

2,821,460

METHOD OF PURIFYING SILICON TETRACHLORIDE AND GERMANIUM TETRACHLORIDE

James M. Whelan, Newark, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

No Drawing. Application August 31, 1955

Serial No. 531,822

10 Claims. (Cl. 23-87)

1. The method of treating volatile compounds of elements which are members of the class consisting of germanium and silicon, said compounds having phosphorus-containing impurities therein, which method comprises contacting aluminum chloride with such compounds which boil between 0° C. and 100° C. and which are less basic than is phosphorus pentachloride, maintaining such contact until the complex $AlCl_3 \cdot PCl_5$ is formed, and then separating said volatile compounds from the complex.

2,821,461

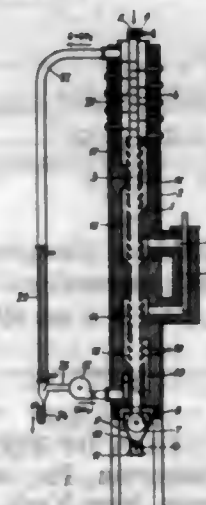
METHOD AND APPARATUS FOR DRIVING OFF VOLATILE CONSTITUENTS FROM FINELY DIVIDED SOLID MATTER

Sigurd Arthur Annerud, Thamshavn, Norway, assignor, by mesne assignments, to Pyror Limited, Pembroke, Bermuda, a corporation of Bermuda

Application September 2, 1950, Serial No. 182,936

Claims priority, application Norway January 9, 1950

1 Claim. (Cl. 23-227)



A process for treating sulfur containing ore to drive off sulfur and recover the same as liquid sulfur which consists in passing said ore while in finely divided condition continuously through a preheating zone, a heating zone, and a cooling zone, excluding air from the ore during its passage through said zones, flowing inert gas selected from the group consisting of sulfur dioxide and nitrogen counter-current to the flow of said ore, contacting said ore in the cooling zone with inert gas to extract heat from the treated ore by forcing inert gas transversely thereof stepwise and progressively upwards from the bottom of said cooling zone to the top, diverting the preheated gas from the ore and heating said gas to a temperature at which sulfur volatilizes, bringing the resultant heated gas into physical contact with the ore to be

treated in the heating zone whereby sulfur is volatilized from the ore by forcing said heated gas transversely thereof stepwise and progressively upwards from the bottom of the heating zone to the top, thereafter separating the gas and the sulfur entrained therein from the heat-treated ore material, then conducting the sulfur laden heated gas into heat exchanging relationship with the ore as it passes through the preheating zone while maintaining said sulfur laden gases out of direct physical contact with the ore entering said preheating zone whereby the ore is preheated by said sulfur laden gas without causing condensation of sulfur, and recycling the gas from the gas exit end of the preheating zone to the gas inlet end of the cooling zone in a closed circuit with the gas being cooled to condense the sulfur therein as liquid sulfur.

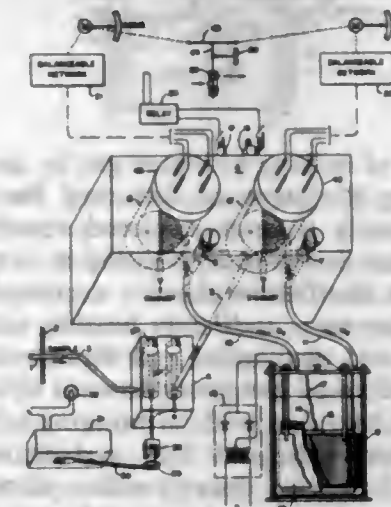
2,821,462

GAS ANALYZING DEVICES

James E. McEvoy, East Cleveland, Ohio, assignor to Bailey Meter Company, a corporation of Delaware

Application November 13, 1952, Serial No. 320,323

3 Claims. (Cl. 23-255)



1. A catalytic gas analyzing cell structure removable from and insertable into a gas sample receiving chamber in a heated block member including, a non-metallic insulating head portion supporting two similar filaments and their terminals, the filaments supported in spaced parallelism, a metallic shell having an open end closely engaging the head portion, surrounding the filaments, and having a central dividing partition extending between the filaments to form two chambers, one around one filament and the other around the other filament, and end closure structure for the other end of said shell having gas diffusing openings of different degree into the two chambers from said gas receiving chamber.

2,821,463

GASOLINE COMPOSITION

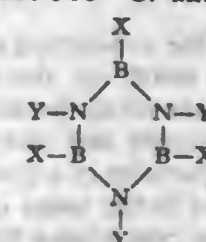
Lawrence B. Scott, Lafayette, and Rupert C. Morris, Berkeley, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 14, 1955

Serial No. 546,798

9 Claims. (Cl. 44-72)

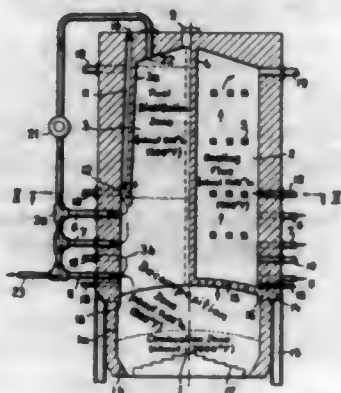
1. A gasoline composition consisting essentially of hydrocarbons boiling within the gasoline range and containing from about 0.005 to about 1.0 gram of boron, per U. S. gallon, in the form of a borazole compound boiling not higher than about 500° C. and having the formula:



wherein each X is selected from the group consisting of

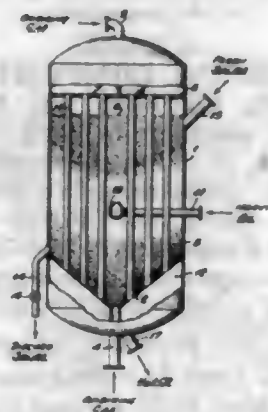
hydrogen and an organic radical having a radical atomic weight of at least 15 and attached to a ring boron atom through an atom of an element having an atomic number of from 6 to 7 inclusive, and wherein each Y is an organic radical having a radical atomic weight of at least 15 and attached to a ring nitrogen atom directly through a carbon atom.

2,821,464
METHOD AND APPARATUS FOR MAKING PRODUCER GAS
Karl Bleyer, Siegburg, Germany
Application January 17, 1955, Serial No. 482,293
15 Claims. (Cl. 48-76)



1. A method of making producer gas by gasification of fuels comprising the steps of directing the fuel to be gasified downwardly through a closed vessel and while directing said fuel downwardly causing it to pass successively through a distillation zone, a decomposition zone and a combustion zone, indirectly heating said fuel as it passes through said distillation and decomposition zones through the medium of flue gases directed upwardly from said combustion zone and without bringing said flue gases into direct contact with said fuel, and drawing off the producer gases from said decomposition zone, while circulating a portion of said producer gases over the top and downwardly through said distillation zone so as to displace the gases in the distillation zone into the decomposition zone.

2,821,465
PROCESS FOR THE PREPARATION OF CARBON MONOXIDE AND HYDROGEN FROM HEAVY OILS
Paul W. Garbo, Freeport, N. Y., assignor to Hydrocarbon Research, Inc., New York, N. Y., a corporation of New Jersey
Application March 31, 1954, Serial No. 419,967
4 Claims. (Cl. 48-215)



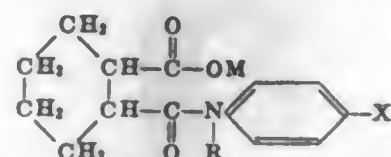
1. In a process for the production of carbon monoxide and hydrogen from a heavy oil, the improvement which comprises subjecting said oil to the action of an oxidizing gas comprising free oxygen and steam in a dense phase fluidized bed of solid particles in a gasification zone maintained at a temperature in the range of 1600 to 2000° F., injecting oxidizing gas comprising free oxygen into the gaseous products of said gasification zone comprising com-

pounds containing both carbon and hydrogen atoms in the same molecule upon discharge of said gaseous products from said fluidized bed and flowing the resulting gaseous mixture downwardly as a plurality of parallel streams in a reforming zone extending through said dense phase fluidized bed in said gasification zone and in indirect heat exchange relationship with said dense phase fluidized bed while maintaining a temperature above about 2000° F. therein thereby effecting conversion of said compounds into carbon monoxide and hydrogen.

2,821,466
NITRATE EXPLOSIVES AND METHOD OF MAKING
Edward J. Russell, South Whitehall Township, Lehigh County, Pa., assignor to Trojan Powder Company, a corporation of New York
No Drawing. Application December 28, 1954
Serial No. 478,183
3 Claims. (Cl. 52-11)

1. A detonatable explosive composition consisting essentially of granules of an inorganic nitrate selected from the group consisting of ammonium, sodium and potassium nitrates and mixtures thereof, trimethylolethane trinitrate and nitrostarch, the nitrostarch being at least in part in the form of a colloidal solution in the said trinitrate, the said solution coating the granules of the inorganic nitrate and providing sensitizing and waterproofing therefor, and the proportions by weight being about 47.5-84.5 parts of the inorganic nitrate, 5-40 of the said trinitrate and 0.5-30 of the nitrostarch.

2,821,467
2-(p-HALOPHENYL CARBAMYL)-CYCLOHEXANE CARBOXYLIC ACID HERBICIDES
Norman J. Lewis, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application December 28, 1955
Serial No. 555,788
12 Claims. (Cl. 71-2.6)

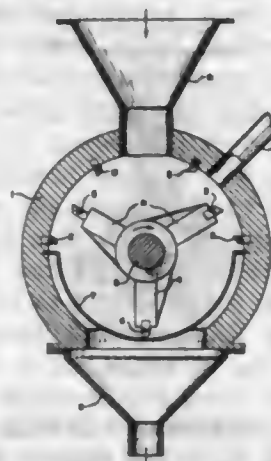


wherein M is selected from the group consisting of hydrogen, alkaline metal, ammonium and amino radicals, X is a halogen atom, and R is an alkyl radical.

2,821,468
PRODUCTION OF TITANIUM
Lester D. Grady, Palmerton, Pa., assignor to The New Jersey Zinc Company, New York, N. Y., a corporation of New Jersey
Application December 17, 1956, Serial No. 628,709
4 Claims. (Cl. 75-5)

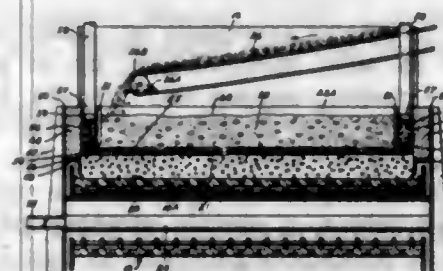
1. The method of selectively separating relatively pure and relatively impure crystals of electrolytically deposited titanium metal from a massive cathode deposit composed essentially of a mixture of titanium crystals with adhering and entrained electrolyte salts which comprises crushing the cathode deposit to form a mass of coarse aggregates not substantially smaller than that which will pass through approximately one-quarter inch screen openings, leaching the crushed mass with an aqueous medium to dissolve the electrolyte salts away from the titanium metal, disintegrating the residual mass of titanium metal predominantly into its own component crystals with a scissor-like action between cutting blades

spaced apart a distance at least as great as the maximum particle size of the individual titanium crystals and moving at sufficiently high speed so that the mass of titanium metal is disintegrated substantially exclusively by shearing impact, maintaining a chemically inert atmosphere



surrounding the mass of titanium metal while it is being disintegrated, and classifying the resulting disintegrated mass to separate a relatively pure fraction composed of the relatively coarse titanium crystals from a relatively impure fraction composed of the relatively fine titanium crystals.

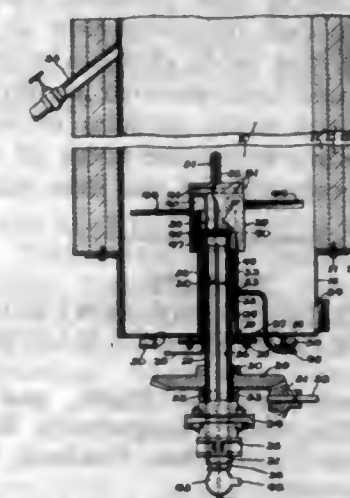
2,821,469
GRATE TYPE PELLETIZING METHOD AND APPARATUS
Edward W. Davis, Minneapolis, Minn., assignor to Regents of the University of Minnesota, Minneapolis, Minn., a corporation of Minnesota
Application February 6, 1953, Serial No. 335,539
16 Claims. (Cl. 75-5)



1. The method of burning substantially spherical ore compacts without undue flattening which comprises depositing fuel-containing ore compacts in a layer of substantially uniform thickness on the upper surface of a moving grate, igniting said layer along a transverse line across the grate as the layer is moved thereon, then depositing successively a plurality of further layers of fuel-containing compacts, blowing air upwardly through those portions of the grate upon which said successive plurality of layers are deposited for combustion of the fuel in said compacts, and then removing all of the compacts from said grate.

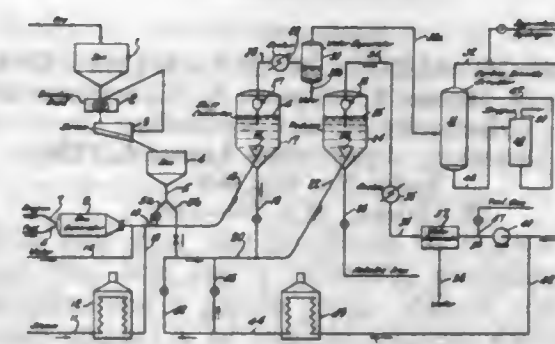
15. In an apparatus for burning ore compacts which comprises a chain grate having side walls therealong, a plurality of rollers for supporting said chain grate for a course of travel in a generally horizontal plane, means for rotating the rollers for moving the grate, means for depositing layers of compacts on the grate, an igniter, and wind box means under said grate, the improvement which resides in means for depositing vertical wall layers of granular material longitudinally along the outer edges of the grate adjacent the inside of each of the side walls thereof, means for simultaneously depositing on the grate other granular material in the space between said wall layers as said wall layers are deposited.

2,821,470
METHOD FOR OPERATING FLUIDIZATION REACTORS
John H. Calbeck and Henry B. Kilmer, Columbus, Ohio, and Richard J. Mernitz, Washington County, Iowa, assignors to American Zinc, Lead & Smelting Company, St. Louis, Mo., a corporation of Maine
Application September 29, 1953, Serial No. 382,886
3 Claims. (Cl. 75-26)



1. A method for conducting a fluidization essentially chemical reduction reaction wherein a zinciferous material is reduced and vapors rich in metallic zinc are produced by blowing a plurality of streams of gas into a mass of finely divided zinciferous materials no coarser than 10 mesh and 70% coarser than 325 mesh to maintain said solids in completely fluidized condition from the point of admission of the gas and by mechanically agitating said solids in the lower part of the fluidization zone adjacent the points of entry of said streams whereby distribution of said fluidizing gas is uneven, the step of maintaining said solids in a partially fluidized non-reacting, non-heating zone beneath the point of admission of the fluidizing gas by admitting non-combustible scavenging gas beneath the points of entry of said streams of gas with volumes ranging from one tenth to one quarter of the volumes of said streams of gas whereby downward migration of metallic vapors beneath the streams of gas is prevented and additional agitation of said solids in the partially fluidized zone is provided without heating and chemical reaction in said partially fluidized zone.

2,821,471
PROCESS FOR REDUCTION OF IRON ORE
Frederick Burton Sellers, Tarrytown, N. Y., assignor to Texaco Development Corporation, New York, N. Y., a corporation of Delaware
Application December 19, 1956, Serial No. 629,255
9 Claims. (Cl. 75-26)



8. A process for reducing iron oxide which comprises comminuting said iron oxide into particles having an average size within the range of about 100 to 3000

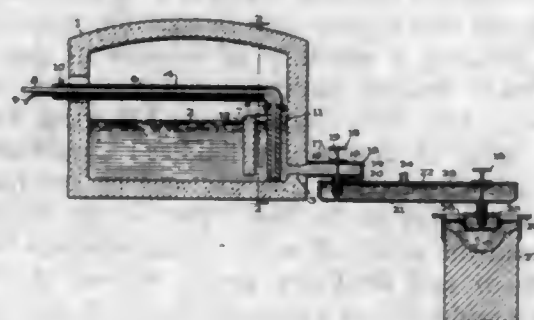
microns contacting said comminuted iron ore particles in a fluidized bed with a gas comprising carbon monoxide and steam at a temperature within the range of about 600 to 1000° F. in a shift conversion zone to produce carbon dioxide and hydrogen, withdrawing gas comprising carbon dioxide and hydrogen from said shift conversion zone, separating said carbon dioxide to produce a hydrogen-rich gas containing at least 90 percent hydrogen by volume, passing said hydrogen-rich gas to an iron oxide reduction zone, passing said particles from said shift conversion zone to said reduction zone to comprise at least a part of the iron oxide charged to said reduction zone, and passing said hydrogen-rich gas through a fluidized bed of said iron oxide particles in said reduction zone at a temperature within the range of about 700 to 1600° F. to effect reduction of said iron oxide.

2,821,472

METHOD FOR FLUXING MOLTEN LIGHT METALS PRIOR TO THE CONTINUOUS CASTING THEREOF

Warren S. Peterson, Spokane, Wash., and William A. Klemm, Cupertino, Calif., assignors to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware

Application April 18, 1955, Serial No. 501,916
17 Claims. (Cl. 75-93)



1. A method for treating light metals in a receptacle having a moisture-containing atmosphere prior to the casting thereof to provide metal free or substantially free of gas and other non-metallic impurities, comprising the steps of providing a molten metal body in the receptacle, withdrawing said metal from the receptacle in a continuous stream at a point below the surface of said molten metal body, flowing said metal past a source of fluxing material, passing the fluxing material through the metal whereby substantially only that portion of the molten metal being withdrawn from the receptacle is in intimate mixture with the fluxing material, and immediately thereafter pouring said treated metal into a conveying trough for transfer to the casting station.

2,821,473

METHOD OF MAKING NODULAR CAST IRON

William H. Moore, Larchmont, N. Y., assignor to Meehanite Metal Corporation

No Drawing. Application August 1, 1956
Serial No. 601,368

18 Claims. (Cl. 75-130)

1. The method of producing cast iron with nodular graphite comprising preparing a cast iron melt having an initial first carbide value, adding a first material to the melt which includes calcium as a carbide metastabilizer to increase the first carbide value to a second carbide value, adding a second material to the melt which includes magnesium as a carbide metastabilizer to produce a third carbide value higher than said second carbide value, and thereafter casting the melt.

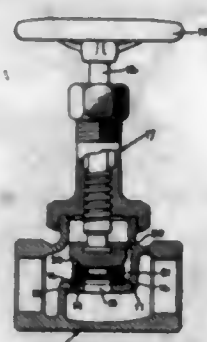
2,821,474

HARD DUCTILE ALLOY

Marvin L. Steinbuch, Cincinnati, Ohio, assignor to The Lunkenheimer Company, Cincinnati, Ohio, a corporation of Ohio

Application April 9, 1954, Serial No. 422,061

4 Claims. (Cl. 75-171)



1. A valve seat comprising a casting of an alloy consisting essentially of 1/2 to 5% copper, 6 to 12% silicon, 9 to 30% chromium, and the balance nickel.

2,821,475

TITANIUM BASE ALLOYS

Robert I. Jaffee, Worthington, and Horace R. Ogden, Columbus, Ohio, assignors, by mesne assignments, to Rem-Cru Titanium, Inc., Midland, Pa., a corporation of Pennsylvania

Application January 24, 1957, Serial No. 636,212

8 Claims. (Cl. 75-175.5)



1. An alloy consisting essentially of: about 0.5 to 8% aluminum, 10 to 40% molybdenum, up to a total of about 0.5% for carbon, oxygen and nitrogen, but not to exceed about 0.3% for carbon and 0.15% each for oxygen and nitrogen, balance substantially titanium, characterized in having as beta-quenched, a substantially all-beta microstructure, a tensile strength of at least 100,000 p. s. i., a tensile elongation of at least 2%, and a bend ductility of not over 20T.

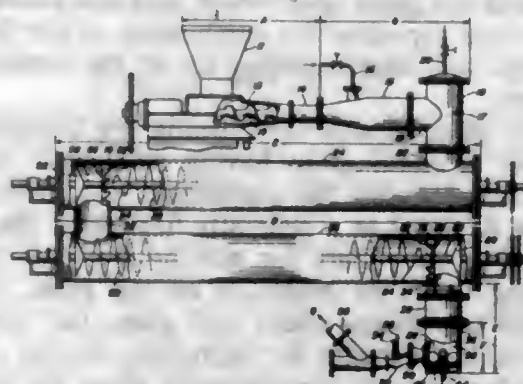
2,821,476

FLOW-EVENERS FOR WOOD CHIP DIGESTERS

Frank B. K. Green, Massapequa, N. Y., assignor to Pandia, Inc., New York, N. Y., a corporation of New York

Application April 12, 1954, Serial No. 422,377

2 Claims. (Cl. 92-6)



1. In continuous digesting apparatus of the character described including a generally horizontally extending tube having an inlet at one end for receiving cellulosic

material for treatment therein and having a downwardly extending outlet at the opposite end thereof, the combination of a screw conveyor in said tube including a shaft extending through the length of said tube and screw flights on said shaft for advancing said material from said inlet to said outlet while tending to compact said material into a generally plug-like mass adjacent said outlet, said screw flights terminating short of said outlet and being of predetermined pitch causing advance of said mass at a predetermined maximum linear rate, a plurality of arms extending generally radially from said shaft adjacent said outlet and between the outlet end of said tube and the adjacent end of said screw flights, vane-shaped fingers on the outer ends of said arms extending therefrom toward said screw flights adjacent the inner wall of said tube, said vane-shaped fingers being arranged to form fragments of screw flights of greater pitch than said conveyor screw flights and of substantial axial extent with respect to the edges of said arms nearest said conveyor screw flights to cut away the outer peripheral portion of said mass for gravity discharge through said outlet prior to the central portion of said mass by advancing said outer peripheral portion thereof at an increased rate with respect to said central portion and thereby to provide space in said tube surrounding said central portion for expansion thereof prior to reaching said outlet, said arms being formed of relatively thin and flat material and each having the forward edge thereof spaced lengthwise of the axis of said shaft from the leading end of said finger thereon to present a cutting edge, and said arms being arranged substantially uniformly in planes inclined with respect to said shaft axis for cooperation with said cutting edges to effect progressive fragmentation of said expanding central portion of said mass.

2,821,477

JELL COATED FOOD ARTICLE AND PROCESS OF MAKING

John H. Forkner, Fresno, Calif., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware

No Drawing. Application December 21, 1955

Serial No. 554,409

15 Claims. (Cl. 99-129)

1. The process of making a jell-coated edible article which consists in preparing a quantity of sticky jell-producing food, chilling the jell-producing food until it becomes frangible, comminuting the frangible chilled food and forming subdivided particles therefrom, applying the particles while still cold to the surface of a relatively warmer edible object, and simultaneously permitting the particles to become warm and adhered to the edible object.

2,821,478

FOOD COMPOSITION CONTAINING COMMINUTED JELL PARTICLES AND METHOD OF MANUFACTURE

John H. Forkner, Fresno, Calif., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware

No Drawing. Application December 21, 1955

Serial No. 554,603

7 Claims. (Cl. 99-129)

1. A food composition comprising a mass of dry pulverulent food material, and a plurality of discrete jell particles having a particle size a major portion of which lie between 3 mesh and 16 mesh; said particles and said pulverulent food material being chilled to a temperature below which said particles tend to agglomerate together.

2,821,479

FOOD COMPOSITION CONTAINING JELL PARTICLES AND METHOD OF MANUFACTURE

John H. Forkner, Fresno, Calif., assignor to Pillsbury Mills, Inc., Minneapolis, Minn., a corporation of Delaware

No Drawing. Application December 21, 1955

Serial No. 554,604

7 Claims. (Cl. 99-129)

1. A food composition comprising a mass of pulverulent food material, and a plurality of discrete, soft and incompletely cured jell particles dispersed throughout the dry mass, said particles having an aggregate weight in minor proportion compared to that of the rest of said food composition.

2,821,480

PROCESS OF MAKING FROZEN DESSERTS AND THE PRODUCT THEREOF

Luther D. Hilker, Oakdale, N. Y., assignor, by mesne assignments, to National Dairy Products Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application August 25, 1954

Serial No. 452,213

25 Claims. (Cl. 99-136)

1. In the process of preparing an oil-in-water emulsion-type homogenized, pasteurized frozen dessert including an emulsifier, which includes the steps of formulating a frozen dessert mix homogenizing, pasteurizing and freezing the mix, the improvement which comprises forming a blend consisting of a major proportion of an edible aliphatic fatty acid monoester of an aliphatic polyhydric alcohol, said monoester containing not more than about 10% nonmonoester material by weight of the monoester, and a full aliphatic fatty acid ester of an aliphatic polyhydric alcohol, said full ester being in an amount of at least 15% by weight of the blend to aid in dispersing the monoester in the mix, and then prior to homogenization and pasteurization dispersing the monoester-full ester blend in the liquid state in the mix in an amount to stabilize the oil-in-water emulsion.

2,821,481

SUCKER STICK

Ernest P. Mosio, Cleveland, Ohio
Application April 11, 1956, Serial No. 577,472
1 Claim. (Cl. 99-138)



Means for supporting a briquette of moldable edible material, and for retaining said briquette thereon during consumption thereof, comprising a handle portion adapted to protrude from said briquette and a core portion adapted to extend within the briquette, said core portion having an aperture therethrough, a statuette fixed to a peripheral edge portion of said aperture by narrow breakable lugs only, said statuette providing irregular edges around said statuette and spaced inwardly from the edges of said aperture for bonding moldable edible material securely to said core portion, a peripheral bead about the edges of said handle and core portion, said statuette being contained wholly within the planes of the outer surfaces of said bead, and said bead having a smoothly rounded end embedded in the edible material, whereby a child is pro-

ected from sharp edges while eating said briquette, after which he can break said lugs to obtain said statuette as a plaything.

2,821,482
METHOD OF PROCESSING AND CANNING PIGEON PEAS AND THE LIKE
Ferdinand Sánchez Nlewa, Río Piedras, Puerto Rico, assignor to the People of Puerto Rico
No Drawing. Application November 30, 1956
Serial No. 625,214

3 Claims. (Cl. 99—186)

3. The method of canning pigeon peas which comprises heating the pods before shelling to a temperature sufficient to inactivate the peroxidase enzymes of the peas, shelling the heated pods before cooling, cooling the shelled peas, blanching the peas, canning the peas in a brine solution, and processing the canned peas.

2,821,483
PROCESSES FOR THE DISINFESTATION OF VEGETABLE PRODUCTS BY MEANS OF TOXIC GASES

Felice Bonomi, Milan, Italy, assignor of one-half to Ernesto Buchler, Milan, Italy
No Drawing. Application October 10, 1955
Serial No. 539,697

Claims priority, application Italy October 20, 1954
5 Claims. (Cl. 99—225)

1. A process for disinfesting vegetable products which comprises enveloping said products with an artificial atmosphere consisting essentially of oxygen and nitrogen in which an atmosphere of from 50–70% oxygen is applied to insect infested products and an atmosphere of from 90–95% nitrogen is applied to larvae infested products for a period of time sufficient to enhance the physiological activity of the insects in one stage of their development and thereafter introducing toxic gases into said atmosphere in a concentration toxic to said insects but non-toxic to said products.

2,821,484
TEMPERATURE-STABLE WAXES FOR WAX PASTE

Helmut Kolling, Duisburg-Hamborn, and Friedrich Rappen, Oberhausen-Sterkrade, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany
No Drawing. Application March 30, 1954
Serial No. 419,918

Claims priority, application Germany April 1, 1953
8 Claims. (Cl. 106—270)

1. A new wax component for a substantially temperature-stable wax paste consisting of wax acid-paraffin mixtures having a molecular size of at least C_{25} , the wax acid portion of which has been obtained from paraffin hydrocarbons by chlorination, dehydrochlorination of the chlorination products, catalytic addition of water gas to the unsaturated hydrocarbon mixtures thereby formed, hydrogenation of the products obtained by the water gas addition, treatment of the hydrogenation products with molten alkali and treatment of the products of the alkali treatment with mineral acid, and has been partially saponified with calcium oxide in relation to the molecular size of the wax acid-paraffin mixture in accordance with the following table of the group consisting of (a) where the wax acid paraffin mixture has a molecular size of C_{30} – C_{40} , the acid portion thereof is saponified to an extent that about 10–20% of calcium soap is present in the mixture; (b) where the wax acid-paraffin mixture has a molecular size of C_{25} – C_{30} , the acid portion thereof is saponified with calcium oxide in amount sufficient that the wax acid-paraffin mixture has a content of about 10–30% of calcium soap, and sufficient unsaponified wax acid-paraffin mixtures having a molecular size above

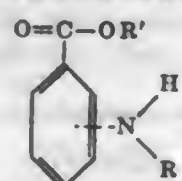
C_{30} is admixed therewith so that 0.7–3 parts by weight of the partially saponified wax acid-paraffin mixture having the molecular size of C_{25} – C_{30} is present per part by weight of said unsaponified wax acid-paraffin mixture having the molecular size above C_{30} ; (c) where the wax acid-paraffin mixture has a molecular size of C_{25} – C_{40} the partial saponification with calcium oxide is effected to the extent that the partially saponified wax acid-paraffin mixture has a calcium soap content of from more than 30% to about 50% and admixed thereto is an unsaponified wax acid-paraffin mixture of molecular size above C_{30} to an extent that 0.2–1 part by weight of said partially saponified wax acid-paraffin mixture of molecular size of C_{25} – C_{40} is present per part by weight of said unsaponified wax acid-paraffin mixture of molecular size above C_{30} .

2,821,485
STABILIZED WAXES RESISTANT TO DISCOLORATION BY LIGHT

Robert W. Provine, Lawrence T. Mehlhorn, Warren L. Thompson, and John Vernon Lawson, Tulsa, Okla., assignors, by mesne assignments, to D-X Sunray Oil Company, Tulsa, Okla., a corporation of Delaware
No Drawing. Application August 9, 1954
Serial No. 448,782

7 Claims. (Cl. 106—270)

1. A composition consisting essentially of wax, the color of which is stabilized against substantial changes caused by light, comprising wax and from about 0.0001% to about 1% of an N-substituted amino benzoic acid compound having the general structural formula



in which R and R' represent hydrogen, acyl, aryl, alkyl, alkenyl, alkyl-aryl, and aryl-alkyl groups, and in which the



group may be in the ortho, meta or para position relative to the $\text{O}=\text{C}-\text{OR}'$ group.

2,821,486
DECORATING GLASS WITH ORGANIC INK
Anna S. Naff, Bowling Green, and Robert M. Smith, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application August 30, 1954, Serial No. 452,923
8 Claims. (Cl. 117—38)

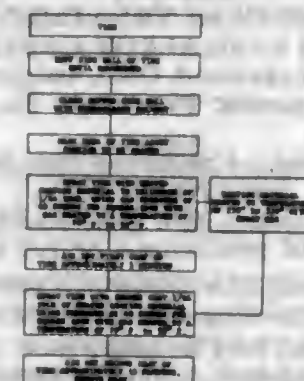
7. In a method of decorating glass by the application of a coating composition thru a silk screen, the steps of applying to the screen and the glass a coating composition consisting essentially of 10 parts of a liquid epoxy-hydroxyl polyether resin, 2.5 parts citric acid, a solvent for the citric acid and a pigment, the composition being previously compounded and aged for a period of time ranging from 24 to 72 hours prior to its application, and curing the applied composition on the glass at a temperature of from 375° F. to 475° F. for a time ranging from 30 to 10 minutes.

2,821,487
COATING SURFACE BY SPRAYING WHITE TIRE WALLS

Willie Eugene Hummel, Philadelphia, Pa.
Application September 16, 1955, Serial No. 534,864
2 Claims. (Cl. 117—38)

1. A method for applying a white wall coating to a tire side wall comprising the steps of buffing the tire

side wall until rough, wiping said buffed side wall with an aromatic hydro-carbon solvent, masking the tire to expose only the surface upon which the white side wall is to be applied, heating a white rubber emulsified coating composition to a temperature of 250° to 330° F. within a spray gun, and introducing a compressed gas heated to a



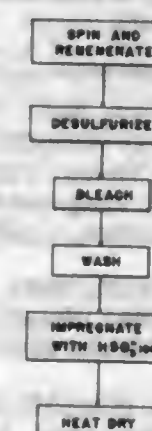
temperature of 70° to 90° F. at a pressure of 40 pounds per square inch into the spray gun and spraying two coats of rubber composition on the exposed surface of the tire, allowing the first coat to air dry until tacky before application of the second coat, allowing the second coat to air dry fifteen minutes, each coating having a thickness of 1/4 of an inch.

2,821,488
SUBSTITUTED AMMONIUM PHENATES
James L. Jezl, Swarthmore, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey
No Drawing. Application September 23, 1953
Serial No. 381,996

17 Claims. (Cl. 117—138.5)

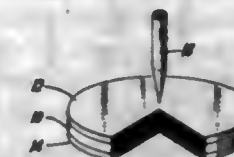
8. A new composition of matter selected from the group consisting of phenol salts of naphthenic acid esters of a hydroxyalkyl amine which esters are derived from petroleum naphthenic acids having saponification number not substantially greater than 320 mg. of KOH per gram and halophenol salts of naphthenyl amines derived from such naphthenic acids.

2,821,489
DISCOLORATION-RESISTANT REGENERATED CELLULOSE ARTICLES
Rembert D. McNeer, Drexel Hill, and Alfred W. Hunter, Garden City, Pa., assignors to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
Application March 28, 1955, Serial No. 497,472
7 Claims. (Cl. 117—144)



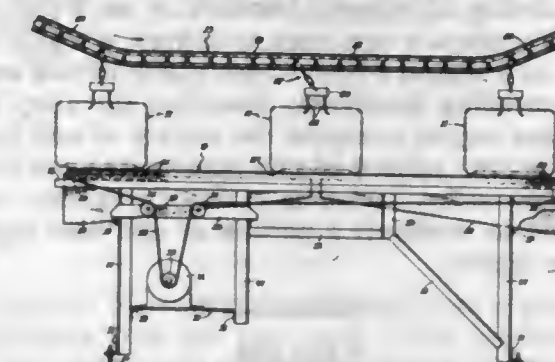
1. Process for manufacturing discoloration-resistant cellulosic articles comprising washing a preshaped regenerated cellulose article free of soluble impurities, saturating the article with a solution having a pH in the range of 3 to 6 and containing hydrogen sulfite ions and then drying the article in the presence of the hydrogen sulfite ions.

2,821,490
TITANATE RECTIFIERS
Harry C. Dunegan, Mineola, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application March 11, 1953, Serial No. 341,790
1 Claim. (Cl. 117—200)



In the manufacture of a rectifying device, the steps including preparing a ceramic body consisting essentially of partially reduced alkaline earth titanates in admixture with approximately three percent by weight of lanthanum, firing said body in a reducing atmosphere containing helium and hydrogen in the ratio of approximately eight to one at a temperature of the order of 2000° F. to 2600° F. to render said body semiconductive, superficially oxidizing a surface of said body, and applying a metallic contact to said surface.

2,821,491
COATING REMOVAL METHOD
Charles A. Fleming, Park Forest, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Original application February 18, 1952, Serial No. 272,137, now Patent No. 2,733,466, dated February 7, 1956. Divided and this application July 29, 1955, Serial No. 528,597
5 Claims. (Cl. 134—6)

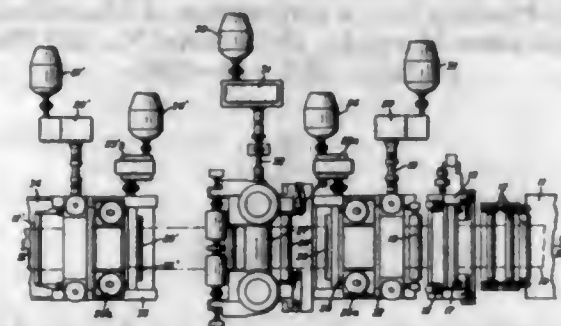


1. The method of removing a bead from a coated object where the bead is formed of the coating applied to the object and comprising passing the object over and bringing the bead into contact with a rotating roller which is partially immersed in a liquid capable of wetting the surface of the roller and dissolving the coating and rotating the roller at a peripheral speed different from the linear speed of the object such that there is relative movement between the surface of the roller and the object causing a resultant friction therebetween for stripping the bead from the object and the liquid thereafter being effective to dissolve the bead.

2,821,492
METHOD AND APPARATUS FOR PICKLING FERROUS STRIP
Albert J. Berdis, Fairless Hills, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 16, 1955, Serial No. 488,493
3 Claims. (Cl. 134—15)

1. In a strip-pickling line including an elongated solution tank, the combination therewith of a cold-rolling mill at the entry end of the tank, a back-tension bridle on the entry side of the mill and a forward-tension bridle between the mill and the tank.
2. In a method of descaling scale-coated ferrous strip, the steps of subjecting the strip to a light reduction in a cold-rolling mill, applying a restraining tension to the

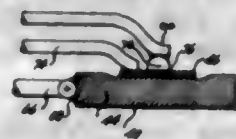
strip entering the mill, applying a forward tension to the strip leaving the mill, the combination of tensile and



compressive forces effecting an incipient fracture of the scale, and then substantially immediately introducing the strip into a pickling solution.

2,821,493 FUSED JUNCTION TRANSISTORS WITH REGROWN BASE REGIONS

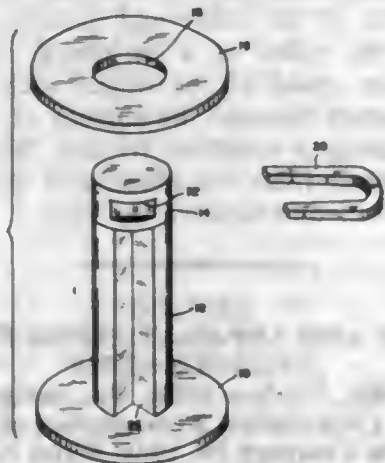
Justice N. Carman, Jr., Woodland Hills, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application March 18, 1954, Serial No. 417,081
4 Claims. (Cl. 148—1.5)



1. The method of producing a fused junction N-P-N transistor which comprises the steps of: fusing a first alloy pellet, including an acceptor impurity, to an N-type monatomic semiconductor specimen to convert a region of the specimen to a regrown P-type base region having an alloy button protruding therefrom; dissolving the alloy button off said base region to expose the surface of said base region; etching the surface of said base region; and fusing a second alloy pellet, including a donor impurity, to said base region to reconvert a portion of said base region to an N-type region.

2,821,494 METHOD FOR CONTROLLING CARBURIZATION

Robert M. Walker, Jr., Royal Oak, Mich., assignor to one-half to Angus M. Miller, Royal Oak, Mich.
Application July 3, 1953, Serial No. 366,027
9 Claims. (Cl. 148—16.5)



1. The method of carburizing a ferrous article while producing a selected surface area thereof characterized by a substantially smaller carbon content which comprises providing an enclosed space surrounding the selected surface area within which space the selected surface area is exposed, providing within said space and out of substantial area contact with the said selected surface area a dry,

rigid body comprising an intimate mixture of an oxidizing-decarburizing agent and an inert binder material, and heating the article in a carburizing atmosphere to reactive temperature.

2,821,495 BRAZING AND HEAT TREATMENT OF ALUMINUM BASE ALLOY CASTINGS

Charles H. Dulin, Lakewood, Ohio, assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application June 24, 1955
Serial No. 517,933
8 Claims. (Cl. 148—21.91)

1. The method of producing a brazed assembly having as at least one structural component thereof a cast aluminum base alloy consisting essentially of aluminum, 5 to 15% silicon and 0.1 to 3% magnesium comprising heat treating said casting at a temperature between 940 and 1010° F. for a period long enough to cause substantially complete solution of the soluble constituents, thereafter cooling the casting from said solution heat treating temperature to a temperature no higher than the boiling point of water, assembling said heat treated casting with at least one other structural component with a flux and an aluminum base alloy filler metal provided where the brazed joint is to be formed, said filler metal having a melting point below that of the heat treated casting, heating said filler metal and flux to a temperature between the melting point of the filler metal and 1060° F. but below the melting point of the structural component whereby the flux and filler metal are fused and the molten filler metal establishes a metallic bond between the structural components and thereafter cooling the bonded region to room temperature.

2,821,496 NON-EMISSIVE GRIDS

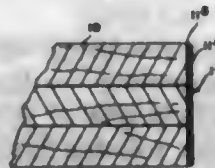
Martin L. Perl, New York, N. Y., assignor to General Electric Company, a corporation of New York
Application August 3, 1951, Serial No. 240,098
2 Claims. (Cl. 148—32)



1. A non-emissive electrode comprising a high-refractory metal core having an exterior coating of graphite and an intermediate bonding layer of a carbide of the core metal, said exterior coating comprising only substantially pure graphite at the outer surface thereof and graded into said bonding layer, and said bonding layer graded into said core metal.

2,821,497 EDGE-SURFACED WOODY PRODUCT

William R. Works, San Mateo, Calif., and Thomas R. Miles, Beaverton, Oreg., assignors to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Original application April 12, 1954, Serial No. 422,294, now Patent No. 2,748,046, dated May 29, 1956. Divided and this application January 23, 1956, Serial No. 560,527
4 Claims. (Cl. 154—45.9)

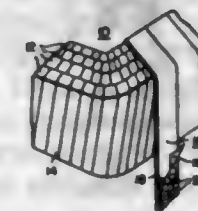


1. A woody board having at least one entire edge face surfaced with a paper strip containing a thermosetting

phenol-aldehyde resin, the particles of said resin being substantially uniformly distributed throughout said paper, said paper also having been coated with a heat-activatable adhesive having, as its major ingredient, a thermosetting, alkaline phenol-aldehyde resin and a minor proportion of a thermoplastic polyvinyl acetate resin, said paper strip being permanently united to said edge face by said adhesive and providing a smooth and uniform surface for said edge face of said woody board.

2,821,498 ELECTRICAL CONDUCTORS INSULATED WITH MICA AND COMPLETELY REACTIVE SYNTHETIC COPOLYMER RESINOUS COMPOSITIONS

John C. Botts, Penn Township, Allegheny County, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 20, 1954, Serial No. 451,289
5 Claims. (Cl. 154—80)



1. The method of preparing an insulated electrical conductor comprising wrapping the conductor with a tape comprising a pliable sheet backing member, a layer of mica flakes disposed on the backing member, and a material binding the flakes to the backing member comprising at least one unsaturated polyester resin, impregnating the wrapped conductor with a composition consisting essentially of an addition-type polymerization catalyst and a liquid unsaturated reactive monomer having only a single $>C=C<$ group, the monomer being miscible and compatible with the polyester resin whereby it readily penetrates through the applied tape wrapping and blends with the polyester to form a completely reactive polymerizable composition filling all the interstices and spaces in the wrapped conductor, and heating the wrapped conductor to polymerize the completely reactive composition to a solid, thermoset resin.

2,821,499 METHOD FOR CONTROLLING SEA LAMPREYS (PETROMYZON MARINUS)

Vernon C. Applegate and John H. Howell, Rogers City, Mich., assignors to the United States of America as represented by the Secretary of the Interior
No Drawing. Application May 9, 1956
Serial No. 583,889
7 Claims. (Cl. 167—30)

(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A composition for combatting sea lamprey in the larval stage comprising O-ethyl-S-pentachlorophenyl-thiocarbonate in an aqueous medium.

2,821,500 COATED DUSTLESS, GRANULAR INSECTICIDE FOR FLIES, THEIR LARVAE, AND OTHER INSECTS

Julian H. Jackson and Herman S. Mayeux, Jacksonville, and William J. Head, Lake Jem, Fla., assignors to Wilson & Toomer Fertilizer Co., Jacksonville, Fla., a corporation of Florida
No Drawing. Application September 6, 1956
Serial No. 608,219
20 Claims. (Cl. 167—42)

1. An insecticidal composition in granular form, characterized by inorganic, non-porous, water-insoluble granules with particle size range from 3 to 100 screen mesh,

inclusive, as a carrier coated with an oil solution of an organic toxicant for the insect, and an organic attractant for the insect, which inorganic granules constitute approximately the entire solid carrier in the granular insecticide, and which oil is substantially non-volatile at atmospheric temperatures and relatively non-drying, the said granular insecticide being relatively free of loose, unattached pulverulent particles, substantially free from clumping and readily pourable, and is relatively dustless upon being poured from a container and under normal conditions of hand distribution.

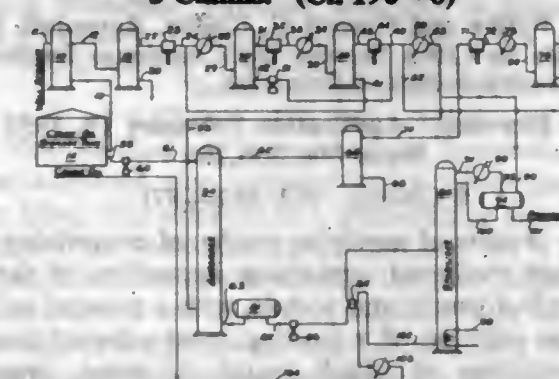
2,821,501 RECOVERY OF STARCH

Frederick J. Simpson, Saskatoon, Saskatchewan, Canada, assignor to National Research Council, Ottawa, Canada, a corporation of Canada
No Drawing. Application December 8, 1953
Serial No. 397,054
19 Claims. (Cl. 195—7)

1. In the extraction of starch from wheat containing pentosan gum, the step of degrading said gum but not the starch itself with a pentosanase enzyme.

2,821,502 TREATMENT OF WELL FLUIDS

Will H. Gillett and Daniel T. McDonald, Dallas, Tex., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., New York, N. Y., a corporation of New York
Application April 20, 1953, Serial No. 349,722
3 Claims. (Cl. 196—8)



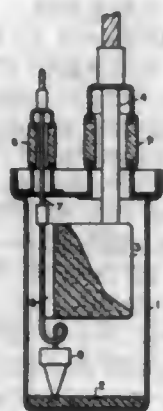
1. A process of treating the effluent from a petroleum well producing both gas and crude liquid petroleum oil comprising passing said effluent containing gas and crude liquid petroleum oil to a first separating zone, separating gas from crude liquid petroleum oil in said first separating zone, removing crude liquid petroleum oil as a separate stream from said first separating zone, increasing the pressure on said last mentioned gas in a first compression stage, passing said last mentioned gas from said first compression stage to a first cooling zone, cooling said last mentioned gas in said first cooling zone, removing cooled gas and liquid from said first cooling zone, passing said cooled last mentioned gas and liquid to a second separating zone, separating gas from liquid in said second separating zone, removing liquid as a separate stream from said second separating zone, increasing the pressure on said last mentioned gas in a second compression stage, passing said last mentioned gas from said second compression stage to a second cooling zone, cooling said last mentioned gas in said second cooling zone, removing cooled gas and liquid from said second cooling zone, passing said last mentioned cooled gas and liquid to a third separating zone, separating gas from liquid in said third separating zone, removing liquid as a separate stream from said third separating zone, admixing said last mentioned liquid with said gas passed to said first cooling zone from said first compression stage, cooling said last mentioned liquid in said first cooling zone, removing gas as a separate stream from

the combustion of hydrocarbon fuels which comprises impregnating and coating a combustible cellulose fiber textile fabric with a solution of waterglass of a density between 21° Bé to 25° Bé, thoroughly drying the fabric at a temperature not greater than 100° C., immersing it in a dilute aqueous solution of a mineral acid for a sufficient length of time for the conversion of the waterglass into silicic acid with a salt, washing the fabric to remove the formed salt, again drying the fabric at a temperature not greater than 200° C., igniting the fabric in air to cause combustion thereof, heating the residue in an atmosphere containing oxygen to a temperature between 1200 and 2000 degrees Fahrenheit sufficient to cause any carbon in the residue to combine with the silicic acid and with oxygen, and treating the residue with a platinum compound selected from the group consisting of platinum and platinum black.

2,821,511

IGNITOR FOR SPONGE CATHODES

Gerhard Lewin, West Orange, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 30, 1954, Serial No. 440,447
2 Claims. (Cl. 252—516)



2. An ignitor for a sponge cathode ignitron made of a sintered mixture of about forty-two parts of an insulative material selected from the group consisting of thallium oxide and aluminum oxide, about thirty-six and one-half parts boron carbide and about fourteen parts boron nitride.

2,821,512

CYCLOPENTADIENYL(VINYLCYCLOPENTADIENYL)IRON AND POLYMERS THEREOF

Alfred C. Haven, Jr., Hancocks Bridge, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application October 26, 1953
Serial No. 388,461
9 Claims. (Cl. 260—2.1)

4. A copolymer of cyclopentadienyl(vinylcyclopentadienyl)iron with another ethylenically unsaturated compound.

2,821,513

FOAMABLE RESINOUS COMPOSITION CONTAINING TERTIARY ALKYL AMMONIUM NITRITE AND PROCESS OF FOAMING SAME

James S. Strong, Oreland, Pa.
No Drawing. Application June 9, 1954
Serial No. 435,620
13 Claims. (Cl. 260—2.5)

1. A composition comprising a mixture of a fluid dispersion of polymerized vinyl chloride in a plasticizer therefor and a tert-alkyl ammonium nitrite of the formula $C(R')(R'')(R''')NH_2.HNO_2$ in which R' , R'' , and R''' are alkyl groups and altogether have a total of three to eight carbon atoms.

2,821,514

FIRE RESISTANT COMPOSITION OF SILICATE, REFRACTORY AND NITRILE TYPE RUBBER AND ARTICLE CONTAINING THE SAME

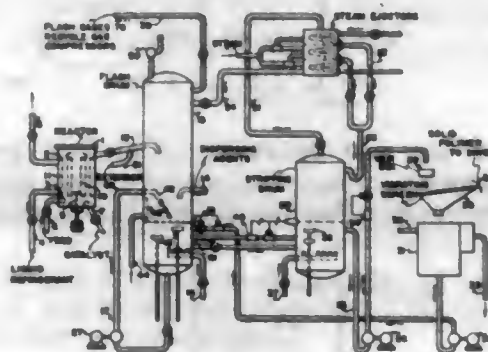
Donald V. Sarbach, Cuyahoga Falls, and Vernon G. Boger, Akron, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
No Drawing. Application August 18, 1953
Serial No. 375,069
18 Claims. (Cl. 260—29.7)

1. A composition of matter capable of forming on a base material when substantially dry an adherent, impact resistant and fire resistant coating and comprising a dispersion comprising essentially water and solids, said solids comprising as essential ingredients on a dry weight basis from 12 to 52% by weight of at least one alkali metal silicate, from 10 to 34% by weight of a rubbery polymer of at least about 50% by weight of an open chain conjugated diene hydrocarbon having from 4 to 8 carbon atoms and from 50 to 10% by weight of a monomer selected from the group consisting of acrylonitrile, methyl acrylonitrile, ethyl acrylonitrile and chloroacrylonitrile and mixtures thereof and from 21 to 74% by weight of a refractory and said water being present in said dispersion in an amount of from 70 to 500% by weight based on the combined weights of said alkali metal silicate and said rubbery polymer.

2,821,515

METHOD OF INCORPORATING OIL IN BUTYL RUBBER

Stanley E. Jaros, Watchung, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application January 11, 1955, Serial No. 481,077
8 Claims. (Cl. 260—33.6)



1. The process which comprises polymerizing isobutylene at a temperature between -40° C. and -160° C., in contact with a Friedel-Crafts catalyst dissolved in an organic non-complex forming solvent which is liquid at the reaction temperature, to form a polymer, mixing said polymer with a solution of an extender oil in a diluent, discharging said polymer into water heated to a temperature of 100° to 180° F. and containing a water-insoluble soap of a fatty acid having 16 to 18 carbon atoms per molecule and a metal selected from the group consisting of magnesium, zinc, aluminum and calcium in order to flash off the volatile reaction liquid and maintain the polymer in finely divided form, separating the polymer particles from the water, withdrawing the volatilized materials, subjecting the volatilized materials to a recovery treatment and recycling the recovered material to the polymerization.

2,821,516

BUTYL RUBBER SILICA COMPOSITION AND METHOD OF PREPARATION

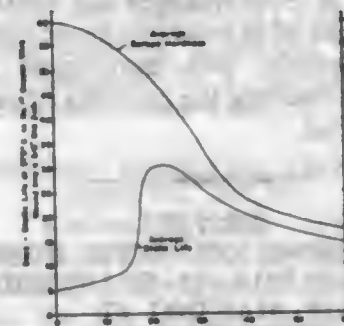
Ralph F. Wolf, Akron, Ohio, assignor to Columbia Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware
No Drawing. Application September 27, 1954
Serial No. 458,663
10 Claims. (Cl. 260—41.5)

1. A vulcanizate of a copolymer containing 70 to 99 percent by weight of isobutylene and 30 to 1 percent by weight of a diolefin, a siliceous reinforcing pigment, 0.5 to 1.5 parts by weight of elemental sulphur, and up to 2.5 parts by weight of a dimorpholine polysulfide per 100 parts by weight of the copolymer.

2,821,517

POLYESTERAMIDE-SILOXANE RESIN AND INSULATED PRODUCT PREPARED THEREFROM

Frank A. Sattler and Stanley H. Langer, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 8, 1954, Serial No. 414,772
9 Claims. (Cl. 260—45.4)



1. A resinous composition comprising the reaction product derived by admixing and heating (A) from 15 to 35 parts by weight of a polymeric siloxane derived by hydrolyzing and condensing with both water and a saturated aliphatic polyhydric alcohol having an average of from 2 to 4 hydroxyl groups per molecule, a hydrolyzable hydrocarbon silicon compound having the formula



where R represents at least one radical selected from the group consisting of phenyl and methyl groups, Y represents a readily hydrolyzable group, and x has an average value of from 1.3 to 1.9, the ratio of phenyl to methyl groups being from 3:1 to 1:2, the water added for hydrolysis being in an amount to hydrolyze at least 20%, but not over 90% of the hydrolyzable Y groups in the silanes, and the polyhydric alcohol being in an amount to provide an average of at least 0.6 hydroxyl group but not exceeding 80% of the total hydroxyl groups in each molecule thereof for each of the remaining hydrolyzable Y groups in the silanes, the resulting polymeric siloxane being characterized by both $Si-O-Si$ linkages and $-Si-O-R'$ groups wherein R' represents the residue of the polyhydric alcohol with one hydroxyl group removed, and (B) from 85 to 65 parts by weight of a polyesteramide reaction product derived by heating (a) from 25 to 45 mole percent of an acidic compound selected from the group consisting of ethylenically unsaturated dicarboxylic acids, (b) from 15 to 35 mole percent of an acidic compound having no aliphatic carbon to carbon unsaturation selected from at least one of the group consisting of dicarboxylic acids and their anhydrides having at least two non-carboxyl carbon atoms and no other reactive groups than the carboxyl and carboxyl anhydride groups, the total of the two acidic compounds being at

least 52 mole percent, (c) from 10 to 40 mole percent of a saturated hydrocarbon polyhydric alcohol, the polyhydric alcohol being an average of not over 3.5 hydroxyl groups per molecule, (d) from 4 to 35 mole percent of at least one amine alcohol selected from the group consisting of monoethanolamine and monoisopropanolamine, and (e) from 4 to 15 mole percent of a diamino compound selected from the group consisting of ethylene diamine, propylene diamine and urea, the mixture of (a), (b), (c), (d) and (e) being reacted to a polyesteramide resin having ball and ring temperature of from 40° C. to 100° C., the combined polyhydric alcohol, amine alcohol and diamine providing a stoichiometric deficiency of amine and hydroxyl groups over the amount reactable with the carboxyl groups provided by the acidic compounds in the polyesteramide resin, whereby there are unreacted carboxyl groups in the polyesteramide substantially equal to the number of unreacted hydroxyl groups in the polymeric siloxane, the reaction of the (A) polymeric siloxane and the (B) polyesteramide being carried out at temperatures between 100° C. and 200° C. until a 20% solution in cresol has a viscosity of from 30 to 60 seconds in a No. 1 Zahn cup at 30° C., and (C) an organic solvent dissolving the reaction product.

2,821,518

PROCESS OF PREPARING AN ORGANOPOLY-SILOXANE MODIFIED POLYESTER RESIN, THE PRODUCT THEREOF, AND ELECTRICAL CONDUCTOR COATED THEREWITH

Leonard E. Edelman and Sydney Robbins, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application May 25, 1954
Serial No. 432,315
5 Claims. (Cl. 260—45.4)

1. A process for preparing a resinous composition consisting of, (1) admixing only a polyhydric alcohol with an acid selected from the group consisting of isophthalic acid, terephthalic acid, and methyl esters of terephthalic acid, the alcoholic and acidic components being employed in amounts sufficient to provide at least two alcoholic hydroxyl groups for each acidic carboxyl group, (2) heating the mixture to a temperature of from 200° C. to 210° C. for a period of time sufficient to produce a resinous polyester free from oil modification having an acid number of from 23 to 27 whereby the polyester is prevented from gelling, (3) removing water of esterification formed during the reaction, (4) cooling the resinous polyester to 150° C., (5) admixing with the polyester an organopolysiloxane having an average of three silicon atoms per molecule, the siloxane having an average of from 2.5 to 3.5 hydrolyzable hydrocarbonoxy groups attached to silicon, the remaining valences of silicon other than those satisfied by oxygen being satisfied with hydrocarbon groups, the polyester resin being present in an amount sufficient to provide at least one hydroxy group for each hydrolyzable hydrocarbonoxy group on the siloxane, and (6) heating the resultant polyester-organopolysiloxane mixture at a temperature of from 130° C. to 200° C.

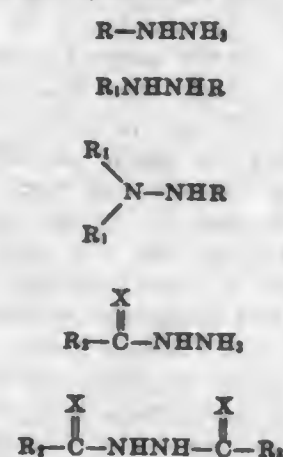
2,821,519

STABILIZATION OF POLYMERIC N-VINYL PYRROLIDONES WITH HYDRAZINO COMPOUNDS

Samuel A. Glickman, Easton, Pa., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application December 30, 1955
Serial No. 556,413
12 Claims. (Cl. 260—45.5)

1. A process of stabilizing a polymeric N-vinyl pyrrolidone against discoloration which comprises incorporating with said pyrrolidone a stabilizing amount of hydrazine

selected from the class consisting of hydrazines having the following general formulae:



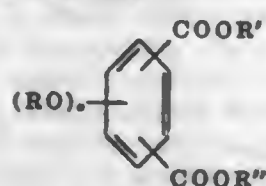
wherein R represents a member selected from the class consisting of hydrogen, alkyl, hydroxy alkyl, and ammonium lower alkanoate radicals, R_1 represents a member selected from the class consisting of alkyl, hydroxy-alkyl, and ammonium lower alkanoate radicals, R_2 represents a member selected from the class consisting of NH_2 , ONH_2 , and alkyl radicals, and X represents a member selected from the class consisting of oxygen and sulfur.

2,821,520 UNSATURATED ESTERS OF ALKOXYBENZENE DICARBOXYLIC ACIDS AND POLYMERS THEREOF

Robert E. Burnett, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
No Drawing. Application April 13, 1956
Serial No. 578,147

8 Claims. (Cl. 260-47)

1. An unsaturated ester of an alkoxybenzene dicarboxylic acid having the formula



where R is an alkyl radical containing from 1 to 4 carbon atoms, R' is a member selected from the class consisting of vinyl and allyl radicals, R'' is a member selected from the class consisting of hydrogen, vinyl radicals and allyl radicals and n is an integer equal to from 1 to 3, inclusive.

2,821,521 POLYMERS OF N-(DIALKYLAMINOPROPYL) MALEAMIC ACID

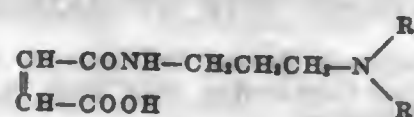
John A. Price, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application August 25, 1954

Serial No. 452,211

14 Claims. (Cl. 260-78)

1. A polymerizable composition comprising (1) a compound represented by the general formula



where R and R' each represents an alkyl radical containing from 1 to 6 carbon atoms, inclusive, and (2) a compound which is different from the compound of (1), which is copolymerizable therewith and contains a $CH_2=C<$ grouping.

2,821,522 PREPARATION OF WATER-SOLUBLE SULFONA- TION PRODUCTS OF POLYMERIC AR-VINYL- TOLUENES

William C. Bauman, Midland, Harold H. Roth, Bay City, and Hugh B. Smith, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 24, 1954

Serial No. 471,108

11 Claims. (Cl. 260-79.3)

1. A method for the preparation of water-soluble sulfonates, which method comprises admixing, at a sulfonation reaction temperature between -20° and $+40^\circ$ C. and with agitation, in the presence of an inert liquid diluent, a sulfur trioxide sulfonation agent selected from the group consisting of sulfur trioxide and ether complexes of sulfur trioxide, and a dry solid polymer of ar-vinyltoluene in a finely divided form consisting essentially of particles having average diameters not greater than about 10 microns and aggregates of such particles, the average diameter of such aggregates being not greater than about 15 microns, in amounts corresponding to at least 0.7 molecular proportion of sulfur trioxide for each molecular proportion of monomeric compound chemically combined in the polymer, said polymer being soluble and substantially free of cross-linkages and containing at least 60 percent by weight of at least one ar-vinyltoluene chemically combined therein, said inert liquid diluent being capable of at least swelling the particles of said solid polymer starting material.

2,821,523 ESTER OF USING OIL ACID, ROSIN, AND METHYL ALPHA-D-GLUCOSIDE AND PROCESS OF MAKING IT

Burton E. Lederman, Dayton, Ohio, assignor to Midland Chemical Corporation, Dayton, Ohio, a corporation of Delaware

No Drawing. Application January 19, 1954

Serial No. 405,039

2 Claims. (Cl. 260-104)

1. As a new composition of matter, a wrinkle drying coating composition consisting of fatty acid esters of methyl-alpha-D-glucoside combined with rosin and tung oil fatty acids.

2,821,524 AZO DYESTUFFS OF THE PYRAZOLONE SERIES

Piero Maderni, Hans Ruckstuhl, and Willy Steinemann, Basel, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

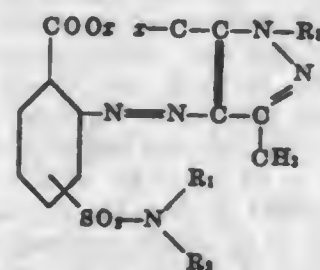
No Drawing. Application March 29, 1954

Serial No. 419,608

Claims priority, application Switzerland April 2, 1953

6 Claims. (Cl. 260-147)

1. An azo dyestuff of the pyrazolone series which corresponds to the formula

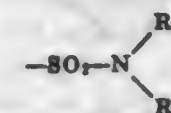


wherein R_1 stands for a member selected from the group consisting of lower alkyl, lower alkoxyalkyl, cycloalkyl, aralkyl and aryl groups of the benzene and naphthalene series, free from sulfonic acid and carboxylic acid groups, R_2 stands for a member selected from the group consisting of hydrogen, lower alkyl and, together with $-N-$ and $-R_1$, a heterocyclic radical, R_3 stands for a member se-

lected from the group consisting of naphthyl, tetrahydronaphthyl, decahydronaphthyl and



groups, x stands for a member selected from the group consisting of hydrogen and a valence bond to a chromium atom, y and z stand for members selected from the group consisting of hydrogen, chlorine, bromine, cyano, lower alkyl and lower alkoxy, and wherein the



group is in para-position to one of the substituents



and $-N=N-$, and the substituents y and z stand in one of positions 2', 3', 4' and 5' of the benzene nucleus A.

2,821,525 AZO COLORING MATTERS

George Raymond Watkins, Kirkwood, Mo., and Harold Talbot Lacey, Westfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application April 7, 1953

Serial No. 347,384

7 Claims. (Cl. 260-151)

3. A light and heat stable red to maroon pigmentary substance consisting essentially of the water-insoluble metallic salts of the azo dyestuff found upon diazotization of 3,4-dichloroanilinemonosulfonic acid and coupling of said acid with 2-hydroxy-3-naphthoic acid.

2,821,526 MONOAZO DYES

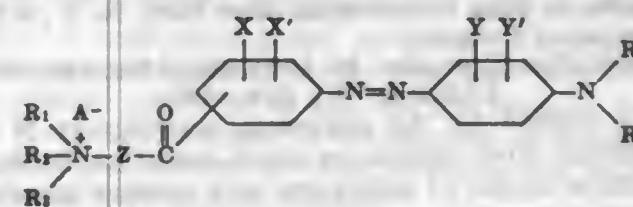
Samuel N. Boyd, Jr., Salem, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 12, 1955

Serial No. 500,991

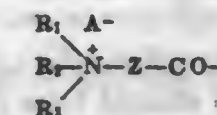
5 Claims. (Cl. 260-205)

1. A water-soluble monoazo dye having the general formula:



wherein R_1 is lower alkyl; R_2 is a radical selected from the group consisting of lower alkyl and hydroxyalkyl; R_3 is a radical selected from the group consisting of lower alkyl, hydroxyalkyl and monocyclic aralkyl and wherein R_1 , R_2 and R_3 together with the contiguous nitrogen atom may represent a monocyclic heterocyclic group; R_4 is a radical selected from the group consisting of hydrogen, lower alkyl, ethanol, acetyethyl, beta-cyanoethyl and phenyl; R_5 is a radical selected from the group consisting of hydrogen, lower alkyl, ethanol and beta-cyanoethyl; X is a radical selected from the group consisting of hydrogen, lower alkyl, chlorine, bromine and alkoxy; X' is a radical selected from the group consisting of hydrogen, lower alkyl, chlorine, bromine and alkoxy; Y is a radical selected from the group consisting of hydrogen, lower alkyl, chlorine, bromine and alkoxy; Y' is a radical selected from the group consisting of hydrogen and lower alkyl; with the

proviso that when R_1 , R_2 , R_3 , R_4 and R_5 are all methyl radicals at least one of the radicals taken from the group consisting of X, X' , Y, and Y' is a radical taken from the group consisting of lower alkyl, alkoxy, chlorine and bromine; Z is a radical selected from the group consisting of normal and branched alkylene groups having 1 to 3 carbons; A is a water solubilizing anion selected from the group consisting of organic and inorganic anions and wherein the



grouping is in meta or para position to the azo linkage.

2,821,527 FOLIC ACID INTERMEDIATES

Meyer Slettinger, North Plainfield, and Max Tishler, Westfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application May 3, 1954

Serial No. 427,333

2 Claims. (Cl. 260-251.5)

1. N-(p-[(2-acylamino-4-hydroxy-6-pteridyl)methylene]imino)benzoyl)glutamic acid, wherein the acyl group is a lower aliphatic carboxylic acid radical.

2,821,528 N²-ACETYL-N¹⁰-FORMYL PTEROYLGLUTAMIC ACID

Meyer Slettinger, North Plainfield, and Max Tishler, Westfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application May 3, 1954

Serial No. 427,334

1 Claim. (Cl. 260-251.5)

N²-acetyl-N¹⁰-formyl pteroylglutamic acid.

2,821,529 PROCESS FOR THE PREPARATION OF LINEAR QUINACRIDONES

William S. Struve, Chatham, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 22, 1955

Serial No. 523,922

11 Claims. (Cl. 260-279)

1. A process for preparing a quinacridone which comprises heating under non-oxidizing conditions a dialkyl 2,5-diarylamino-3,6-dihydro-terephthalate, having from 1-3 carbon atoms in the alkyl groups, in an inert, high boiling liquid at temperatures ranging from about 225-300° C. thereby obtaining a dihydro-quinacridone, separating said dihydro-quinacridone from the reaction mixture, and oxidizing the latter compound with a mild oxidizing agent to a quinacridone, said oxidizing agent being selected from the group consisting of nitrobenzene-sodium sulfonate, sodium polysulfide and oxygen.

2,821,530 TETRAHALOGEN SUBSTITUTED QUINACRIDONES

William S. Struve, Chatham, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

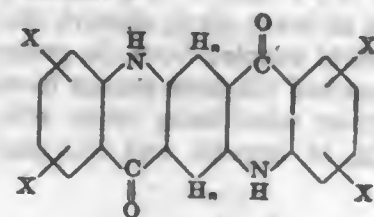
No Drawing. Application January 4, 1956

Serial No. 557,245

11 Claims. (Cl. 260-279)

1. A new composition of matter comprising a quinacridone selected from the group consisting of symmetrical tetrahalo substituted dihydro-quinacridones and symmetri-

cal tetrahalo substituted linear quinacridones of the following structural formula:



where both n 's are the same whole number of from 1 to 2 and X is a halogen selected from the group consisting of fluorine, chlorine, bromine, and iodine, and the substituents X are symmetrical with respect to their positions on the end rings.

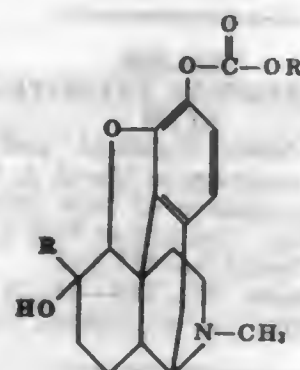
2,821,531

PREPARATION OF 3-ACYL-6-SUBSTITUTED Δ^4 -DESOXYMORPHINE

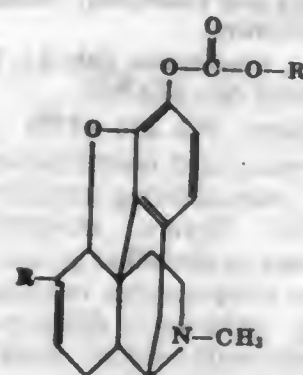
Horace D. Brown, Plainfield, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey
No Drawing. Application June 2, 1953
Serial No. 359,207

6 Claims. (Cl. 260-285)

1. The process which comprises reacting a compound of the formula—



wherein R is a hydrocarbon radical having up to eight carbon atoms with a dehydrating agent to form a compound of the formula—



wherein R is as above.

2,821,532

REDUCTION OF CARBOXYLIC RADICALS IN INDOLYL-3 COMPOUNDS

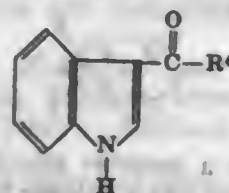
William C. Anthony, Kalamazoo Township, Kalamazoo County, and Jacob Szmuszkovicz, Portage Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application April 11, 1955
Serial No. 500,662

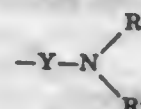
16 Claims. (Cl. 260-319)

1. In a process for the preparation of 1-hydro-3-(amino-1-hydroxyhydrocarbyl)-indoles including salts

thereof, the step of reducing with sodium borohydride a compound having the general formula:



wherein R^4 is selected from the group consisting of an N-heterocyclic amino radical attached at a carbon position and



wherein Y is selected from the group consisting of lower-alkylene and lower-alkylene substituted phenyl radicals, R^5 is selected from the group consisting of hydrogen, aryl, aralkyl, and lower-alkyl, R^6 is selected from the group consisting of aryl, aralkyl, and lower-alkyl, and additional members wherein R^5 and R^6 together with $-N<$ form a monoheterocyclic amino radical to produce a 1-hydro-3-(amino-1-hydroxyhydrocarbyl)-indole.

2,821,533

BENZANTHRONYL COMPOUNDS

Sten Moo Tsang, Middlesex Boro, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Original application August 11, 1954, Serial No. 449,267. Divided and this application November 1, 1955, Serial No. 544,370
7 Claims. (Cl. 260-364)

1. The process for preparing a substantially pure 6-Bz-1-diaminobenzanthrone which comprises heating Bz-1-bromo-6-nitrobenzanthrone in an inert solvent with an arylsulfonamide in which the aryl group is a carbocyclic radical of less than three rings until the bromo group is substantially replaced by an arylsulfonamido group, reducing the resulting Bz-1-arylsulfonamido-6-nitrobenzanthrone to the corresponding 6-amino compound, and treating the resulting sulfonamido-amino-benzanthrone with a strong acid to obtain 6-Bz-1-diaminobenzanthrone.

2,821,534

LIQUID PHASE OXIDATION OF ORGANIC COMPOUNDS

Walter N. Alexander, Verona, N. J., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Application September 16, 1954, Serial No. 456,418
4 Claims. (Cl. 260-385)

1. A method for the continuous manufacture of anthraquinone from anthracene which comprises feeding a continuous stream of anthracene to a reaction zone and contacting therewith a continuing stream of nitric acid of 3-80% concentration to form a fluid mixture, reacting the mixture at a temperature ranging from room temperature to 200° C. and at a pressure ranging from 1 to 215 pounds per square inch absolute to form a continuing stream of a fluid mixture containing anthraquinone and from 3% to 7% of unreacted anthracene, separating the anthraquinone from the mixture, passing the mixture separated from the anthraquinone to a zone containing anthracene simultaneously withdrawing from said reaction zone nitrogen oxide gases to form a new fluid mixture of anthracene, and returning the said new mixture to the reaction zone for renewed contact with said nitric acid of substantially the same content as the acid first used in contacting the anthracene feed, derived from said nitrogen oxide vapors, and repeating the said reaction and removal of anthraquinone in a yield of 93% to 98.5% of the theoretical yield per pass.

2,821,535

METHOD OF MAKING 2-SULFOETHYL ESTERS OF FATTY ACIDS

Edgar C. Britton and Arthur R. Sexton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application February 29, 1956
Serial No. 568,427
10 Claims. (Cl. 260-400)

1. In a process wherein a fatty acid chloride is reacted with a salt of isethionic acid to yield a corresponding isethionate fatty acid ester, the steps which consist in mechanically working and heating in admixture with one another under substantially anhydrous conditions, a salt of isethionic acid selected from the group consisting of ammonium, alkali metal and alkaline earth metal salts of said acid, and an acid chloride of at least one fatty acid containing from 12 to 18 carbon atoms in the molecule, in proportions corresponding to from 1 to 1.1 gram molecular proportions of the salt of isethionic acid per gram molecular proportion of the fatty acid chloride, at temperatures between 135° and 170° C. and withdrawing vapors of the by-product hydrogen chloride from the reaction at substantially the rate at which it is formed to substantially complete the reaction and thereafter neutralizing the reacted material with an alkali.

2,821,536

PRODUCTION OF WETTING, EMULSIFYING AND WASHING AGENT

Hans Feichtinger, Duisburg-Beeck, and Hans Tummes, Duisburg-Meiderich, Germany, assignors to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, a corporation of Germany
No Drawing. Application February 10, 1954
Serial No. 409,508

Claims priority, application Germany February 16, 1953
9 Claims. (Cl. 260-401)

1. Process for the production of wetting, emulsifying, and washing agents of the general formula



in which R is a member of the group consisting of saturated and unsaturated aliphatic alkyl radicals containing from 11-18 carbon atoms, and n is one of the numbers from 4 to 6, which comprises sulfo-chlorinating hydrochloric acid salts of amines of the general formula $HClH_2NC_nH_{2n+1}$ in which n is one of the numbers from 4 to 6, with gaseous chlorine and sulfur dioxide in the presence of a solvent, hydrolyzing the sulfo-chlorination product formed with water, thereafter contacting the aqueous solution formed by the hydrolysis with a fatty acid chloride containing an aliphatic hydrocarbon radical with 11-18 carbon atoms in the presence of sodium hydroxide under alkaline reaction conditions and recovering the reaction product formed.

2,821,537

CATALYTIC HYDROGENATION OF CARBON MONOXIDE WITH ADDITION OF AMMONIA OR METHYLAMINE

Walter Rottig, Oberhausen-Sterkrade-Nord, Germany, assignor to Ruhrchemie Aktiengesellschaft, Oberhausen-Holten, Germany, and Lurgi Gesellschaft fuer Waermetechnik m. b. H., Frankfurt am Main-Heddernheim, Germany, a German corporation
No Drawing. Application July 15, 1952
Serial No. 299,000

Claims priority, application Germany July 21, 1951
8 Claims. (Cl. 260-449.6)

1. In a process for the catalytic hydrogenation of carbon monoxide, the improvement which comprises intimately contacting under conditions of temperature between 170 and 300° C. and at conditions of pressure between about

1 and 100 atmospheres, a carbon monoxide hydrogenation synthesis gas containing 0.5 to 6 parts by volume of hydrogen per each part by volume of carbon monoxide and 0.5 to 2% by volume of a member selected from the group consisting of ammonia and methylamine with a precipitated iron catalyst which has been reduced to a free iron content of more than 60% and containing 0 to 25% of a carrier material and about 1 to 15% alkali oxide calculated as K_2O and based on the iron present, and recovering the carbon monoxide hydrogenation product with more than 20% oxygen containing compounds, more than 10% amines and with a high content of olefins.

2,821,538

NOVEL CARBONIC ACID DIESTERS OF AN ALIPHATIC ALCOHOL AND A POLYGLYCOL MONOETHER

Kenneth L. Dille, Robert Y. Heisler, and Stanley R. Newman, Fishkill, and Norman Alpert, Poughkeepsie, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application January 18, 1956
Serial No. 559,762
3 Claims. (Cl. 260-463)

1. Carbonic acid diesters of an aliphatic alcohol and a polyglycol monoether having the following general formula



wherein R is selected from the group consisting of alkyl and alkaryl radicals containing 6 to 18 carbon atoms, R' is a divalent saturated aliphatic hydrocarbon radical containing 2 to 3 carbon atoms, R'' is an aliphatic hydrocarbon radical containing 1 to 14 carbon atoms, and n has a value of 3 to 15.

2,821,539

NOVEL POLYMETHYLENE GLYCOL CARBONATES

Stanley R. Newman, Fishkill, Norman Alpert, Poughkeepsie, and Robert Y. Heisler, Fishkill, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware
No Drawing. Application February 24, 1956
Serial No. 567,476

4 Claims. (Cl. 260-463)

1. Pentamethylene glycol bis(glycol ether carbonates) of the general formula



wherein R' is an aliphatic hydrocarbon radical containing 1 to 12 carbon atoms and n has a value of 1 to 10.

2,821,540

PREPARATION OF HINDERED 4-ACYLAMIDO-BENZOATES

Merrill E. Speeter and John A. Hogg, Kalamazoo Township, Kalamazoo County, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application July 14, 1954
Serial No. 443,441

7 Claims. (Cl. 260-471)

1. A process for the preparation of a hindered 4-acylamidobenzoic acid which comprises azinating a hindered 4-oxo-2-cyclohexene-1-carboxylic acid ester to produce an azine of a hindered 4-oxo-2-cyclohexene-1-carboxylic acid ester, aromatizing the resulting azine to form a hindered 4-aminobenzoic acid ester, then hydrolyzing the ester group to produce a hindered 4-aminobenzoic acid and acylating the amino group of the thus produced hindered 4-aminobenzoic acid.

2,821,541

PRODUCTION OF DIALKYL 2,5-DIARYLAMINO-3,6-DIHYDROTEREPHTHALATES

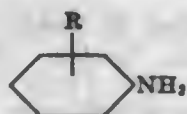
William S. Struve, Chatham, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 22, 1955

Serial No. 523,921

13 Claims. (Cl. 260—471)

1. A process for preparing diethyl diarylamino dihydro terephthalate which comprises carrying out the following steps under non-oxidizing conditions, condensing two mols of diethyl succinate to diethyl succinyl succinate in an inert high boiling liquid in the presence of an alkaline catalyst, neutralizing the reaction mixture, condensing the diethyl succinyl succinate present in the reaction mixture with 2 mols of an arylamine having the following formula



where R is selected from the group consisting of hydrogen, halogen, and alkyl and alkoxy groups containing from 1-4 carbon atoms, in the presence of an excess of the amine and a dissolved acid catalyst, neutralizing the reaction mixture thus obtained and removing the excess amine.

2,821,542

PREPARATION OF HYDROXYALKYL CARBOXYLATES

Alfred F. Schmutzler, Stamford, Conn.

No Drawing. Application February 6, 1953

Serial No. 335,583

14 Claims. (Cl. 260—475)

1. A method of preparation of a hydroxyalkyl carboxylate comprising esterifying an alkanediol and a polyacyl compound, selected from the group consisting of polycarboxylic acids, polycarboxylic acid anhydrides, and polyalkyl polycarboxylates, wherein the acid radical of said polyacyl compound is selected from the group consisting of acyclic and carbocyclic acid radicals by heating same in the presence of a volatile inert solvent amounting from 40 to 80% of the charge so that the temperature remains below 160° C. during the esterification, the alkanediol being present in an amount in excess of one mol for each acyl group.

2,821,543

PRODUCTION OF UNSATURATED ALIPHATIC ESTERS

Robert W. Etherington, Jr., Corpus Christi, Tex., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

No Drawing. Application January 10, 1955

Serial No. 481,016

12 Claims. (Cl. 260—486)

1. Process for the production of unsaturated esters which comprises reacting, in the vapor phase and at elevated temperature, formaldehyde and an ester of an alcohol and an alkanolic acid, said acid having a plurality of carbon atoms and having a plurality of hydrogen atoms on its alpha carbon atom, in the presence of a solid fluidized catalyst for the reaction, the proportions of the reactants being about 0.3 to 3 mols of formaldehyde for each mol of said alkanolic ester, to produce an ester of an α,β -ethylenically unsaturated monocarboxylic acid containing one more carbon atom than the acid of the ester used as a reactant.

2,821,544

PRODUCTION OF ALKYLISOCYANATE ESTERS OF 2-ALKENOIC ACIDS

Hans Holtschmidt, Köln-Stammheim, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application April 25, 1955

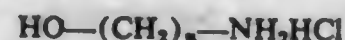
Serial No. 508,315

Claims priority, application Germany April 26, 1954

8 Claims. (Cl. 260—486)

(Filed under Rule 47(b) and 35 U. S. C. 118)

1. In the manufacture of an ester isocyanate by a process which comprises esterifying a member selected from the group consisting of 2-alkenoic acids having from 3 to 4 carbon atoms, their anhydrides and chlorides, and thereafter phosgenating the resulting ester, the step which comprises reacting the said member with a chlorohydrate of an amino alcohol having the formula



wherein n is an integer of from 1 to 4 while the two compounds are dissolved in an inert organic solvent at a temperature of from about 50° C. to about 150° C. to form a compound having the formula



wherein $\text{R}-\text{COO}$ is derived from a 2-alkenoic acid having from 3 to 4 carbon atoms and n has the same meaning as above.

2,821,545

POLYHYDRIC ALCOHOL ESTERS OF 2,2-DICHLOROBUTYRIC ACID

Herman O. Senkbell, Charles T. Pumpelly, and Harry F. Brust, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 2, 1956

Serial No. 595,060

3 Claims. (Cl. 260—487)

1. A fully esterified reaction product of 2,2-dichlorobutyric acid with an aliphatic polyhydric alcohol containing not to exceed 9 carbon atoms.

2,821,546

POLYHYDRIC ALCOHOL ESTERS OF 2,2,3-TRICHLOROPROPIONIC ACID

Herman O. Senkbell and Charles T. Pumpelly, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 2, 1956

Serial No. 595,061

4 Claims. (Cl. 260—487)

1. A fully esterified reaction product of 2,2,3-trichloropropionic acid with an aliphatic polyhydric alcohol containing not to exceed 9 carbon atoms.

2,821,547

PYROLYSIS OF MYRTENYL COMPOUNDS TO MONOCYCLES AND ACYCLICS

Eugene A. Klein, Jacksonville, Fla., assignor to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application June 12, 1953

Serial No. 361,419

10 Claims. (Cl. 260—489)

1. The process which comprises heating a myrtenyl compound of the general formula



wherein R is a monovalent radical selected from the class consisting of hydrogen and a monovalent organic

radical attached through a carbon atom thereof to the oxygen atom shown, at a temperature in the range of 225° C. to 700° C. for a time sufficient to cause isomerization thereof to monocyclics and acyclics wherein the olefinic bond retains its allylic position to the exocyclic substituent shown.

hyde with a p-nitrotoluene-2-sulfonic acid salt, having the following formula:



wherein Me represents a positive ion selected from the group consisting of alkali metal, alkali earth metal, and tetraalkylammonium ions, at a temperature of 95°-100° C. in the presence of an organic solvent selected from the class consisting of lower aliphatic alcohols, alkylol ethers, dioxane, secondary and tertiary amines and in the presence of a catalyst consisting of a secondary amine, said solvent being present in an amount ranging from one-half to twice the weight of the said salt and the said catalyst being present in an amount ranging from 2-10% by weight of said salt, the basicity of the reaction mixture being such that a small portion dissolved in water will have a pH of 9-12.

2,821,551

PROCESS FOR PRODUCTION OF AROMATIC CARBOXYLIC ACIDS

Ewald Katzschmann, Witten, Germany, assignor, by mesne assignments, to Imhausen Werke, G. m. b. H., Witten (Ruhr), Germany, a corporation of Germany

No Drawing. Application July 29, 1952

Serial No. 301,595

Claims priority, application Germany August 6, 1951

3 Claims. (Cl. 260—521)

1. The process of preparing a hydroxy methyl benzoic acid which comprises converting a tolyl alcohol into an ester and then oxidizing the ester in liquid phase with a gas containing elemental oxygen at an elevated temperature in the presence of an oxidation catalyst.

2,821,552

OXIDATION OF HYDROCARBONS WITH SULFUR DIOXIDES

Thomas H. Strickland and Alan Bell, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application June 12, 1956

Serial No. 590,809

8 Claims. (Cl. 260—524)

1. The process for oxidizing mono- and di-alkylated benzene hydrocarbons wherein the alkyl radicals contain 1 to 4 carbon atoms to form an aromatic acid which comprises contacting said hydrocarbon and sulfur dioxide, as the sole source of oxygen for the reaction, said reactants being in the gaseous phase, with a heavy metal oxide catalyst selected from the group consisting of the oxides of heavy metals in groups VA, VIA and VIII of the periodic table at an elevated temperature of at least 350° C.

2,821,553

PREPARATION OF MUOCOHLORIC ACID

Andrew P. Dunlop, Riverside, and Edward Sherman, Chicago, Ill., assignors to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey

No Drawing. Application November 23, 1954

Serial No. 470,826

3 Claims. (Cl. 260—535)

1. A process for the preparation of muochloric acid which comprises conjointly adding chlorine and furfural in a molar ratio of at least 6 to 1 to a concentrated aqueous solution of hydrochloric acid at a temperature of from 60-110° C., cooling the resulting solution to precipitate muochloric acid, and separating the precipitate from the solution.

2,821,548

METHOD OF NEUTRALIZATION OF MAHOGANY SULFONIC ACIDS

Guy M. Verley, Harvey, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 7, 1954

Serial No. 454,601

2 Claims. (Cl. 260—504)

1. In a method of neutralizing mahogany sulfonic acids in the presence of water to obtain basic barium mahogany sulfonates, the improvement which comprises continuously passing a mahogany sulfonic acid-containing liquid feed stream into contact with a solid bed of basic barium compound in the presence of water whereby said acids are partially neutralized, separating the resulting stream of partially neutralized acids from the bed of basic barium compound, heating said stream to a temperature above 280° F. in the presence of water and recovering the resulting basic barium mahogany sulfonates, the total amount of said water present being about 0.5 to 2 weight percent.

2,821,549

PRODUCTION OF NUCLEAR SULFONATED VINYL AROMATIC COMPOUNDS

Richard A. Mock, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 27, 1954

Serial No. 406,575

15 Claims. (Cl. 260—505)

1. A beta-haloethyl-aromatic sulfonic acid of the benzene series wherein the halogen atom of the beta-haloethyl radical is of the group consisting of chlorine and bromine.

6. A method of making a salt of a vinyl aromatic sulfonic acid which comprises sulfonating a beta-haloethyl aromatic compound by mixing approximately its molecular equivalent of sulfur trioxide therewith at a reaction temperature below 80° C., extracting the resulting beta-haloethyl aromatic sulfonic acid from the reaction products with water, treating the aqueous extract with an alkali in amount at least as great as that theoretically required to neutralize the same and the hydrogen halide which would result from dehydrohalogenation of the beta-haloethyl aromatic sulfonic acid by splitting of a hydrogen halide from the beta-haloethyl radical thereof, and reacting the alkali with the beta-haloethyl aromatic sulfonic acid at temperatures between 50° and 100° C. until at least 75 percent of the above-stated theoretical amount of alkali is consumed and for a time not greatly in excess of that at which said theoretical amount of alkali is consumed.

2,821,550

PROCESS OF PREPARING 4-NITRO-2-STILBENE SULFONIC ACID SALTS

Albert F. Strobel, Albany, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application December 27, 1956

Serial No. 630,729

6 Claims. (Cl. 260—505)

1. The process of preparing p-nitrostilbene-2-sulfonic acid salt which comprises condensing an aromatic alde-

2,821,554

METHANE SULFENYL BROMIDES

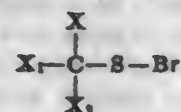
Joseph N. Ospenson, Concord, Calif., assignor to California Spray-Chemical Corporation, Richmond, Va., a corporation of Delaware

No Drawing. Application August 30, 1955

Serial No. 531,584

6 Claims. (Cl. 260—543)

2. A compound of the formula:



wherein X is chlorine, and X₁ and X₂ are members of the class consisting of hydrogen, chlorine, and bromine.

2,821,555

1-BROMO-2,3-BUTANEDIONE AND ITS 3-OXIME DERIVATIVE

Mona Phyllis Doerner, Walnut Creek, Calif., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application January 7, 1957

Serial No. 632,655

2 Claims. (Cl. 260—566)

2. A method for the preparation of 1-bromo-2,3-butanedione-3-oxime which comprises the steps of (1) introducing portionwise bromine into 2,3-butanedione which is maintained at a temperature of from 0° to 30° C. and discontinuing said addition before the amount of bromine added reaches more than one molecular proportion for each 1.4 molecular proportions of 2,3-butanedione originally present, thereby to produce a 1-bromo-2,3-butanedione intermediate, (2) recovering said intermediate by distillation when the reaction has subsided, and (3) prior to decomposition of the 1-bromo-2,3-butanedione, introducing hydroxylamine portionwise into at least an equimolar amount of the separated intermediate which is maintained under acidic conditions and at a temperature of from 0° to 20° C.

2,821,556

PROCESS FOR AMINE SALT ISOLATION

Kenneth Goodemoot, South Bound Brook, and Robert Louis Horton, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application September 26, 1956

Serial No. 612,119

10 Claims. (Cl. 260—570.6)

1. The process of recovering 1-cyclohexyl-3-diethyl-amino-1-phenylpropanol-1 hydrochloride from aqueous solutions thereof, which comprises extracting said aqueous solution with a liquid polychlorinated aliphatic hydrocarbon solvent selected from the group consisting of chloroform and tetrachloroethane.

2,821,557

PROCESS OF PREPARING DIBROMO-DI-PERINAPHTHINDANDION

Albert Bloom, Summit, and Dennis L. Deutsch, Cranford, N. J., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 13, 1955

Serial No. 508,317

3 Claims. (Cl. 260—590)

1. The process of preparing dibromo-di-peri-naphthindandion which comprises heating 3,5,8,10-tetrabromopyrene with 1-4% oleum at a temperature of 145–160° C. and isolating the said dibromo-di-peri-naphthindandion.

2,821,558

PROPIONALDEHYDE DERIVATIVES AND THEIR PREPARATION

Meyer Slettinger, North Plainfield, and Max Tishler, Westfield, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application May 3, 1954

Serial No. 427,331

9 Claims. (Cl. 260—599)

1. A 2-R"-3,3-di R propionaldehyde wherein R represents a member selected from the class consisting of lower alkoxy and benzyloxy radicals and R" is a halogen from the group consisting of chlorine and bromine.

2,821,559

PRODUCTION OF ALDEHYDES

John Habeshaw and Robin William Rae, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

Application July 18, 1952, Serial No. 299,678

Claims priority, application Great Britain July 25, 1951

15 Claims. (Cl. 260—604)

3. Process for the production of aldehydes by the Oxo synthesis reaction and wherein said aldehydes are produced in augmented yields which comprises reacting an olefinic hydrocarbon with carbon monoxide and hydrogen in the presence of a cobalt catalyst under the conditions of the Oxo synthesis reaction, distilling the product for the separation of an aldehydic fraction comprising the aldehyde constituting the main Oxo synthesis product, and of a high boiling fraction, boiling above said aldehydic fraction, subjecting said high boiling fraction to cracking conditions for the production of said aldehyde and recovering the said aldehyde from the product of the cracking treatment.

2,821,560

PREPARATION OF HALOGENATED COMPOUNDS

Albert P. Giraldis, Baton Rouge, La., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

Application May 27, 1953, Serial No. 357,860

2 Claims. (Cl. 260—659)

1. A process of producing halogenated alkanes and metal sulfates, comprising treating in a reaction zone solid metal halide selected from the class consisting of alkali metal chlorides, alkali metal bromides, alkaline earth metal chlorides, and alkaline earth metal bromides with a less halogenated alkane having up to 4 carbon atoms per molecule at a temperature of from 250° to 450° C., in the presence of sulfur trioxide and a catalytic amount of a compound selected from the class consisting of mercuric chloride, mercurous chloride, mercuric oxide, mercuric bromide, mercuric acetate, mercuric chromate, mercuric fluoride, mercuric nitrate, mercurous nitrate, mercurous cyanide, mercurous sulfate, mercuric sulfide, diphenyl mercury, cupric oxide, cuprous cyanide, cupric chloride, cuprous chloride, cuprous bromide, cupric acetate, cuprous oxide, cuprous ferricyanide, cupric fluoride, cupric palmitate, cuprous thiocyanate, cupric sulfide, tricopperphosphide (Cu₃P), ferric oxide, ferric chloride, ferric bromide, ferric acetate, ferric nitrate, ferric sulfate, ferrous oxide, ferrous fluoride, ferrous sulfate, ferrous ammonium sulfate, ferrous sulfide and ferrous cyanide, the sulfur trioxide being in the proportion of from about 0.5 mole to 8 moles to 1 mole of the alkane; separately withdrawing a gaseous product stream and a non-gaseous product stream from the reaction zone, the gaseous product stream comprising halogenated alkane, sulfur dioxide, and hydrogen halide, and the non-gaseous stream comprising metal sulfate; and recovering the halogenated alkane from the gaseous product stream.

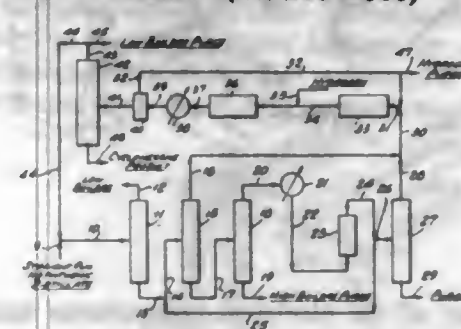
2,821,561

PROCESS FOR PRODUCTION OF CYCLOHEXANE

Ernest F. Pevere, Beacon, and George B. Arnold, Fishkill, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

Application December 9, 1954, Serial No. 474,158

2 Claims. (Cl. 260—666)



2,821,564 THERMOELECTRIC GENERATOR AND PILOT BURNER

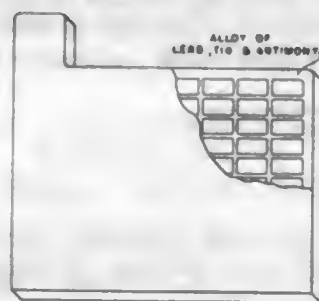
Paul A. De Leon, Jr., Brentwood, Mo., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application May 17, 1956, Serial No. 585,501
9 Claims. (Cl. 136-4)



1. In a unitary thermoelectric generator, lead and pilot burner assembly, comprising an outer tubular thermoelement, an inner thermoelement disposed within said tubular thermoelement and joined to one thereof to form a first thermojunction, tubular conductor means joined to said outer tubular thermoelement to form a second thermojunction, an inner conductor extending within said tubular conductor means and joined to said inner thermoelement to form a third thermojunction, said tubular conductor means and tubular thermoelement forming a casing, and said tubular conductor means and inner conductor forming a lead circuit connection for said thermoelements, said casing being formed with an apertured wall portion, and a fuel pipe disposed within said tubular conductor means and having one end sealingly extending through said casing aperture and terminating in a flame port disposed in coating proximity to said first thermojunction for the burning of fuel thereat.

2,821,565 BATTERY GRID AND PLATE

John J. Lander, Hyattsville, Md., Jeanne B. Burbank, Washington, D. C., and Albert C. Simon, Arlington, Va., assignors to the United States of America as represented by the Secretary of the Navy
Application October 19, 1955, Serial No. 541,549
8 Claims. (Cl. 136-65)
(Granted under Title 35, U. S. Code (1952), sec. 266)



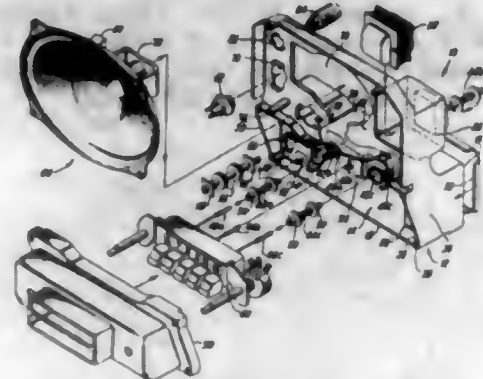
1. A storage battery grid formed of a lead base alloy consisting essentially of from 4 to 5% by weight tin, from 7 to 10% by weight antimony and the balance lead.

2,821,566 UNITARY RADIO CHASSIS

Verlis H. Wiley, Kenmore, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application August 8, 1952, Serial No. 303,277
1 Claim. (Cl. 174-52)

A chassis construction having a unitary housing comprising a mounting plate and surrounding walls, combined support and shielding means for electrical components formed as part of said mounting plate, at least one of said shielding means being of a size to house one of said electrical components, an electrical component having support members snugly engaging the walls of said

shielding means and supported within and shielded by said shielding means, and front and back cover plates over

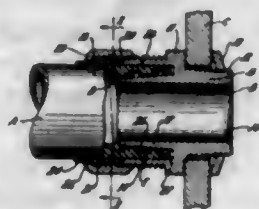


at least some of the electrical components and attached to the walls.

2,821,567 FLEXIBLE LIQUID-TIGHT CONDUIT CONNECTORS

Martin D. Bergan, Westfield, N. J., assignor to The Thomas & Betts Co., Elizabeth, N. J., a corporation of New Jersey
Continuation of application Serial No. 372,049, August 3, 1953. This application April 1, 1957, Serial No. 649,986

5 Claims. (Cl. 174-78)



1. A connector fitting for securing a fluid-tight conduit to an electrically grounded junction box, comprising an open-ended tubular body member having a screw-threaded end portion including a lock-nut thereon whereby to secure said connector fitting to said junction box, the opposite free end portion of said tubular body member being screw-threaded and its end face beveled inwardly to provide a conical seating surface therein, a raceway for electric conductors comprising a conduit having a plastic outer shield and a flexible metallic lining, said conduit having one end thereof intruded into said tubular body member with a sliding fit, a dilator carried by said body member engaging the metallic lining in said conduit and adapted to expand said lining as the conduit is forced onto said dilator, said dilator forming an electrical conductive path between said metallic lining and tubular body member, a plastic compression sleeve having a complementary beveled end face in bearing engagement with the beveled end face of said tubular body member and encircling said conduit in frictional engagement with its outer shield, and a gland nut encircling said compression sleeve in threaded engagement with the free threaded end of said tubular body member operative to force said compression sleeve axially into fluid-tight engagement with the beveled end face of said tubular body member, said compression sleeve being provided with a reduced opposite end portion between said gland nut and conduit and projecting outwardly of said gland nut to prevent contact between said conduit and gland nut.

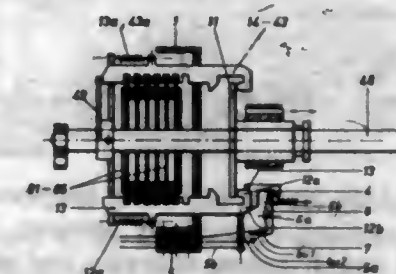
2,821,568 CUTOUT SUPPORT INSULATOR

Sidney R. Smith, Jr., Stockbridge, Mass., assignor to General Electric Company, a corporation of New York
Application April 20, 1953, Serial No. 349,648
3 Claims. (Cl. 174-139)

1. In a rigid insulating material elongated hollow cutout support insulator having a cylindrical hollow extend-

2,821,570 TRANSLATING DEVICE FOR TYPE PRINTING MACHINES

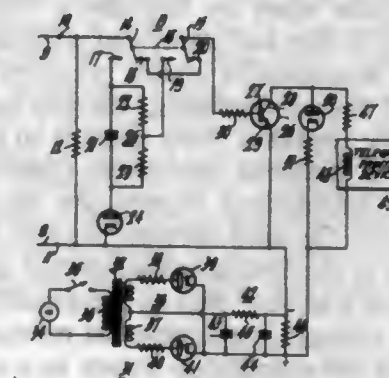
Gerhard Kratt, Nurnberg, Germany, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application November 30, 1955, Serial No. 559,023
Claims priority, application Germany December 9, 1954
7 Claims. (Cl. 178-34)



1. A translating device for a type printing receiver of the ring selecting type comprising a plurality of coaxially mounted settable code selection discs each having a plurality of radial notches extending around a peripheral surface thereof, a plurality of stop elements disposed transversely about said peripheral surfaces, each adapted to cooperate with an aligned row of notches in said discs, means to actuate said stop elements in a direction parallel to the axes of said discs, electrical contact means associated with given of said stop elements, electromagnetic control means for causing operation of particular functions of said receiver and circuit means interconnecting said contact means with said electromagnetic means.

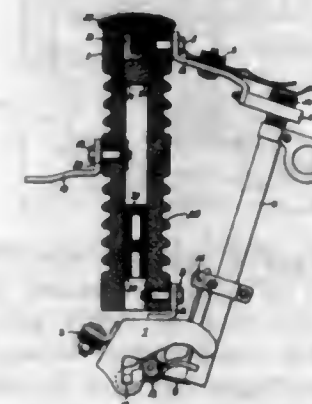
2,821,571 COMMUNICATION SYSTEM

James S. Harris, Old Greenwich, Conn., assignor to Radio Corporation of America, a corporation of Delaware
Application March 30, 1956, Serial No. 575,115
21 Claims. (Cl. 178-71)



1. A circuit arrangement for driving a load comprising, in combination, a transistor having a base electrode, a collector electrode, and an emitter electrode, a base-emitter circuit, a collector-emitter circuit, said load being series connected in said collector-emitter circuit, a switching circuit, an input circuit connected in said base-emitter circuit and including said switching circuit, means for feeding a telegraph input neutral signal to said switching circuit, means for operating said switching circuit in response to said input signal to feed said input signal as a telegraph polar signal to said input circuit, means connected in said collector-emitter circuit for biasing said emitter and collector electrodes in the proper polarities with respect to that of said base electrode to cause said transistor to operate in response to one polarity of said polar signal to produce a current flow through said load, said transistor operating in response to the other polarity of said polar signal to reduce to a negligible value the current flow through said load.

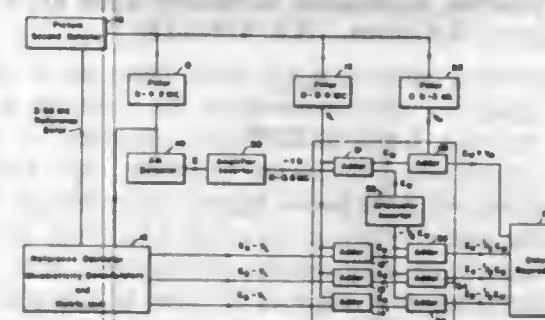
ing entirely therethrough, and through passage means in the side walls of said insulator adjacent the upper, lower, and central portions thereof for connecting hardware of different electrical potentials to said portions by through fastening means extending through said through passage means into said hollow, means for preventing internal electrical flashover amongst said fastening means within said hollow and for keeping said hollow dry comprising a rigid insulating material barrier positioned within said hollow between said upper and central through passage



means, said barrier and said support constructed out of the same insulating material, and said barrier making intimate contact with the walls of said hollow, an inverted cup like rubber plug located within said hollow positioned between said central and lower through passage means, said plug having collapsible conical walls, the outer diameter of said plug being slightly greater than the diameter of said cylindrical hollow and the collapsible walls of said plug making intimate contact with the walls of said hollow, and closure means for making the central through passage means moisture proof.

2,821,569 FOUR PARAMETER TV RECEIVERS

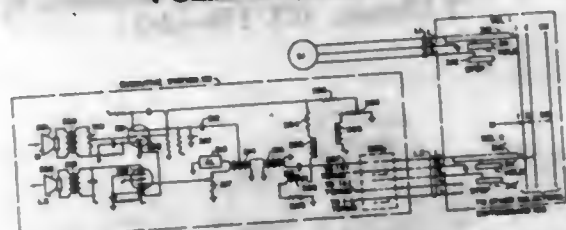
Charles H. Jones, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application July 28, 1954, Serial No. 446,221
11 Claims. (Cl. 178-54)



5. A color television receiver comprising three primary color reproducers, and a fourth color reproducer; means for providing three low frequency primary color signal voltages, a white signal voltage, and a high frequency brightness signal voltage; means for providing another voltage equal substantially to one-third of said white signal voltage; means coupling said other voltage to each of said low frequency primary color signal voltages including means for deriving voltages respectively representing the difference between each of said low frequency primary color signal voltages and said other voltage; means coupling each of said difference voltages to a corresponding primary color reproducer; means for adding the high frequency brightness signal voltage to the white signal voltage; and means coupling the sum of said last-mentioned voltages to said fourth color reproducer.

2,821,572 SELECTIVELY AMPLIFYING LOUD-SPEAKING TELEPHONE

Joseph F. Houdek, Jr., Elmhurst, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application November 12, 1954, Serial No. 468,381
4 Claims. (Cl. 179-1)

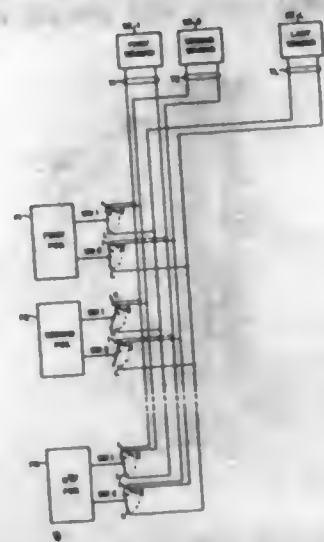


1. In a switching system including telephone lines having telephone stations respectively thereon, each station including local switch means operable and restorable between a normal position and an in-use position and means responsive to its operation to the in-use position incidental either to the initiation of a call or to the answering of a call for closing a direct-current path across the associated line, thereby altering the normal impedance of the line to an in-use value, means responsive to the closing of a direct-current path at a station for establishing a flow of direct-current over the associated line, means for rendering the flow of direct current on any line variable between a connected value and an isolated value according to whether or not another line in its in-use condition is connected therewith, means including switchboard means for directly connecting any calling line to any idle called line and for signalling the station thereon, one said station being a loud-speaking station including a microphone and a loud-speaker connected to separate circuit branches, amplifying means in at least one said branch, a local artificial line for substantially balancing the effective in-use impedance of the associated telephone line combined with the in-use impedance of another line to which such line is connected, a balanced junction at the loud-speaking station interposed between the said lines thereat providing branch terminals which are coupled to both lines and which are conjugate when an impedance balance exists between the artificial line and associated telephone line, the microphone and loud-speaker circuit branches being connected to the said branch terminals, whereby undesired regenerative acoustic feedback from speaker to microphone is avoided under a balanced impedance condition in that signals from the microphone branch are then cancelled from appearance in the loud-speaker branch, a resistance device in the line at the loud-speaking station and a circuit path for supplying a control bias to the amplifying means according to the voltage drop across the resistance device, means for biasing the amplifying means to a condition of low amplification responsive to the voltage drop across the resistance device with said isolated value of direct-current flow on the associated line, whereby the undesired regenerative acoustic feedback which would occur if a higher amplification were used under the then existing condition of impedance unbalance is prevented, and means responsive to the voltage drop across the resistance device with the said connected value of direct-current flow on the associated line for biasing the amplifying means to a condition of increased amplification at the said amplifying means for conversation.

2,821,573
DUAL-SWITCH FINDER COMBINATION
Robert V. Judy, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application July 24, 1953, Serial No. 370,114
4 Claims. (Cl. 179-18)

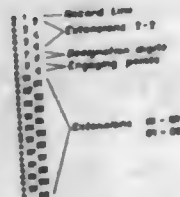
1. In a switching system, a group of first equipments and a group of second equipments, separate switching means

for said first equipments, control means in any first equipment for operating its associated switching means to extend a multi-conductor connection from such first equipment to one of said second equipments, each said switching means including a first switch and a second switch each having positions corresponding respectively to said second equipments, said control means including means for first operating said first switch step-by-step to a position



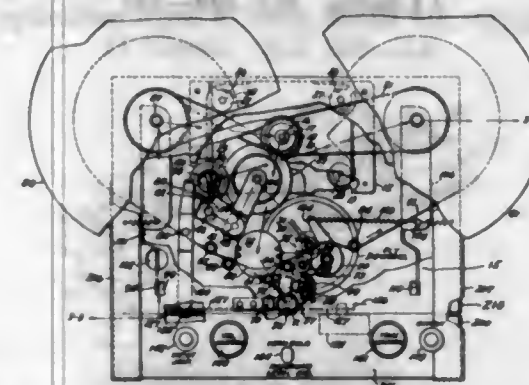
corresponding to said one second equipment, means for thereafter operating the second switch step-by-step, means for insuring that the second switch proceeds to and stops at its position corresponding to the last said second equipment, and means including the said switches in their respective last said positions for closing respective portions of the conductors of said multi-conductor connection to the last said second equipment.

2,821,574
CIRCUIT ARRANGEMENT FOR FINAL SELECTORS WITH THREE LINE GROUPS ARRANGED IN ONE PLANE
Karl Sass, Stuttgart-Stammheim, and Kurt Klinkhammer, Stuttgart-Zuffenhausen, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application March 31, 1954, Serial No. 420,165
Claims priority, application Germany April 21, 1953
3 Claims. (Cl. 179-18)



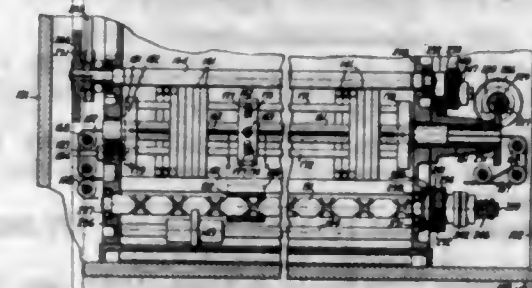
1. A circuit arrangement for final selectors comprising a final selector having a bank of contacts and wipers adapted to sweep over said contacts, said contacts being arranged in three groups, a first succession of contacts comprising the first group and a second succession of contacts comprising the second and third groups, the contacts of said second succession alternating between contacts of the second and third groups, means responsive to a first train of pulses for moving said wipers step-by-step to a contact of said first group, and means operated when said wipers reach either the next-to-the-last or the last contact of said first group for altering the operation of said wiper-moving means for causing said wipers to make two steps for each pulse of a second train of pulses, whereby said wipers are moved to a desired contact of said second or third group, depending on which of the last two contacts of the first group the wipers were resting at the end of the first train of pulses.

2,821,575
TAPE RECORDERS
Colin B. Dale, Oak Park, Ill., assignor to Webcor, Inc., a corporation of Illinois
Application October 21, 1954, Serial No. 463,639
9 Claims. (Cl. 179-100.2)



1. A magnetic tape recorder having a pair of rotatably mounted reels, means including an electric motor for selectively driving either of said reels, a capstan and guide means spaced intermediate said reels for maintaining a portion of a record tape between said reels in a predetermined path, a transducer and a pressure roller cooperating with the tape within said path, the combination of a common mounting structure for said transducer and pressure roller, means for fastening said structure allowing angular movement of said transducer and roller into and out of cooperative relation with the tape and capstan, and manually operable means for imparting to said mounting the angular movement.

2,821,576
MAGNETIC TAPE APPARATUS
Rene J. Gaubert, Oakland, Calif.
Application October 22, 1954, Serial No. 463,889
31 Claims. (Cl. 179-100.2)

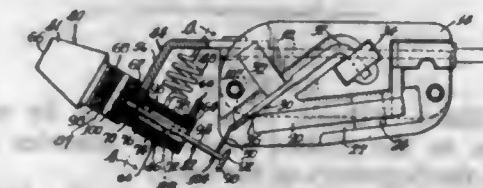


29. A magnetic tape programming apparatus comprising a plurality of magazines each carrying a magnetic tape, a magnetic transducing head adapted to operate on said tape, selective means for selectively shifting the head opposite any one of the magazines, means for bringing the head and the tape carried by the selected magazine into cooperative relationship, and means engaging the tape as the head is brought into cooperative relationship with the tape and serving to drive the tape past the head.

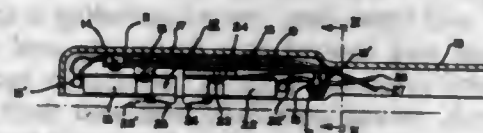
2,821,577
ELECTRICAL PHONOGRAPH TRANSDUCER
WITH MULTIPLE STYLI
Clarence F. Jensen, Racine, Wis., assignor to Webster Electric Company, a corporation of Delaware
Application August 30, 1954, Serial No. 453,061
3 Claims. (Cl. 179-100.41)

1. A phonograph transducer including a housing, a transducer element mounted in said housing, a stylus receiving chuck mounted in said housing and having an axially open end, a supporting bracket secured to and extending from said housing to one side of the chuck, said bracket having a pair of spaced apart bearings, a knob having a pair of spaced apart trunnions rotatably mounted in said bearings, said knob having a pair of index means providing flat surfaces in the space between the

trunnions, an index bracket having a flat surface engaging said knob in the region of said flats, a pair of springs at opposite ends of the index bracket secured to the supporting bracket and biasing the index bracket toward the flats on the knob and holding the knob assembled relative to the bracket, said knob also having an axially extending opening, a stylus including a shank mounted in said axially extending opening, the shank

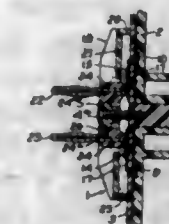


2,821,578
PHONOGRAPH TONE ARM FOR PSEUDO-STEREO-
PHONIC SOUND REPRODUCTION
George Arthur Morrell, Jr., Conneaut, Ohio, assignor to The Astatic Corporation, Conneaut, Ohio, a corporation of Ohio
Application October 22, 1954, Serial No. 463,947
10 Claims. (Cl. 179-100.41)



4. A tandem cartridge phonograph tone arm assembly for pseudo-stereophonic sound reproduction comprising in combination a tone arm, a first pick-up cartridge assembly mounted in said tone arm, and a second pick-up cartridge mounted in said tone arm in floating relation to said first cartridge assembly, said cartridge assemblies having separate spaced stylus members arranged to track the same convolution of a recording disc sound groove in time-displaced relation whereby one of said separate spaced stylus members is movable a predetermined distance from the other during tracking across the record disc.

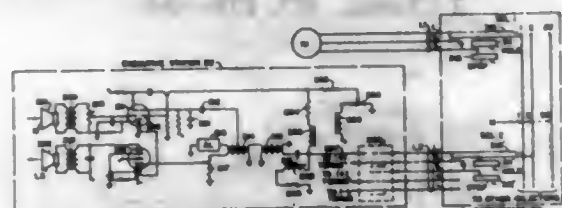
2,821,579
ELECTRICAL OUTLET CONNECTOR TYPE
CORD REEL
David Benjamin, Cleveland, Ohio, assignor to Benjamin Reel Products, Inc., a corporation of Ohio
Application March 15, 1956, Serial No. 571,636
7 Claims. (Cl. 191-12.4)



5. In a reel for an electric cord, a pulley for the cord, a case in which said pulley is journaled, a cap on a side of said case, a pair of contact prongs, pin means journaling said contact prongs on said cap for movement from a position flush against said cap to an operative position extending normally therefrom, a pair of brushes secured

2,821,572 SELECTIVELY AMPLIFYING LOUD-SPEAKING TELEPHONE

Joseph F. Houdek, Jr., Elmhurst, Ill., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application November 12, 1954, Serial No. 468,381
4 Claims. (Cl. 179-1)

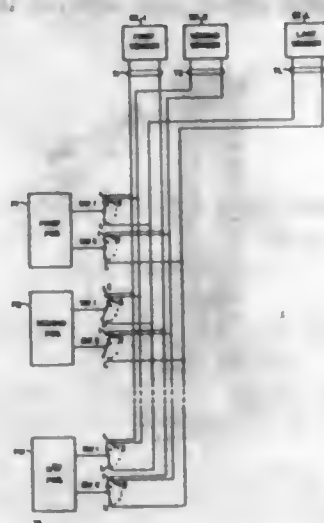


1. In a switching system including telephone lines having telephone stations respectively thereon, each station including local switch means operable and restorable between a normal position and an in-use position and means responsive to its operation to the in-use position incidental either to the initiation of a call or to the answering of a call for closing a direct-current path across the associated line, thereby altering the normal impedance of the line to an in-use value, means responsive to the closing of a direct-current path at a station for establishing a flow of direct-current over the associated line, means for rendering the flow of direct current on any line variable between a connected value and an isolated value according to whether or not another line in its in-use condition is connected therewith, means including switchboard means for directly connecting any calling line to any idle called line and for signalling the station thereon, one said station being a loud-speaking station including a microphone and a loud-speaker connected to separate circuit branches, amplifying means in at least one said branch, a local artificial line for substantially balancing the effective in-use impedance of the associated telephone line combined with the in-use impedance of another line to which such line is connected, a balanced junction at the loud-speaking station interposed between the said lines thereat providing branch terminals which are coupled to both lines and which are conjugate when an impedance balance exists between the artificial line and associated telephone line, the microphone and loud-speaker circuit branches being connected to the said branch terminals, whereby undesired regenerative acoustic feedback from speaker to microphone is avoided under a balanced impedance condition in that signals from the microphone branch are then cancelled from appearance in the loud-speaker-branch, a resistance device in the line at the loud-speaking station and a circuit path for supplying a control bias to the amplifying means according to the voltage drop across the resistance device, means for biasing the amplifying means to a condition of low amplification responsive to the voltage drop across the resistance device with said isolated value of direct-current flow on the associated line, whereby the undesired regenerative acoustic feedback which would occur if a higher amplification were used under the then existing condition of impedance unbalance is prevented, and means responsive to the voltage drop across the resistance device with the said connected value of direct-current flow on the associated line for biasing the amplifying means to a condition of increased amplification at the said amplifying means for conversation.

2,821,573
DUAL-SWITCH FINDER COMBINATION
Robert V. Judy, Chicago, Ill., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application July 24, 1953, Serial No. 370,114
4 Claims. (Cl. 179-18)

1. In a switching system, a group of first equipments and a group of second equipments, separate switching means

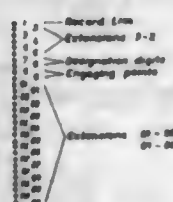
for said first equipments, control means in any first equipment for operating its associated switching means to extend a multi-conductor connection from such first equipment to one of said second equipments, each said switching means including a first switch and a second switch each having positions corresponding respectively to said second equipments, said control means including means for first operating said first switch step-by-step to a position



corresponding to said one second equipment, means for thereafter operating the second switch step-by-step, means for insuring that the second switch proceeds to and stops at its position corresponding to the last said second equipment, and means including the said switches in their respective last said positions for closing respective portions of the conductors of said multi-conductor connection to the last said second equipment.

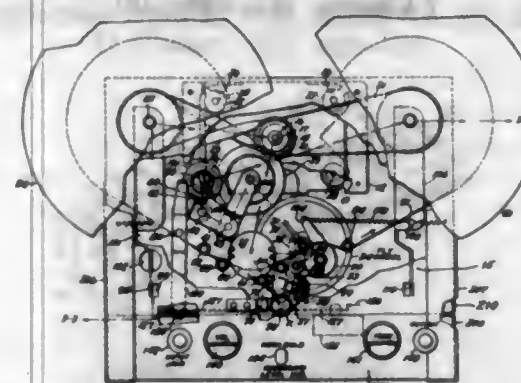
2,821,574 CIRCUIT ARRANGEMENT FOR FINAL SELECTORS WITH THREE LINE GROUPS ARRANGED IN ONE PLANE

Karl Sass, Stuttgart-Stammheim, and Kurt Klinkhammer, Stuttgart-Zuffenhausen, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application March 31, 1954, Serial No. 420,165
Claims priority, application Germany April 21, 1953
3 Claims. (Cl. 179-18)



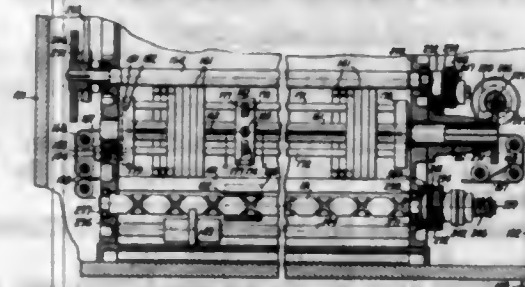
1. A circuit arrangement for final selectors comprising a final selector having a bank of contacts and wipers adapted to sweep over said contacts, said contacts being arranged in three groups, a first succession of contacts comprising the first group and a second succession of contacts comprising the second and third groups, the contacts of said second succession alternating between contacts of the second and third groups, means responsive to a first train of pulses for moving said wipers step-by-step to a contact of said first group, and means operated when said wipers reach either the next-to-the-last or the last contact of said first group for altering the operation of said wiper-moving means for causing said wipers to make two steps for each pulse of a second train of pulses, whereby said wipers are moved to a desired contact of said second or third group, depending on which of the last two contacts of the first group the wipers were resting at the end of the first train of pulses.

2,821,575 TAPE RECORDERS Colin B. Dale, Oak Park, Ill., assignor to Webcor, Inc., a corporation of Illinois Application October 21, 1954, Serial No. 463,639 9 Claims. (Cl. 179-100.2)



1. A magnetic tape recorder having a pair of rotatably mounted reels, means including an electric motor for selectively driving either of said reels, a capstan and guide means spaced intermediate said reels for maintaining a portion of a record tape between said reels in a predetermined path, a transducer and a pressure roller cooperating with the tape within said path, the combination of a common mounting structure for said transducer and pressure roller, means for fastening said structure allowing angular movement of said transducer and roller into and out of cooperative relation with the tape and capstan, and manually operable means for imparting to said mounting the angular movement.

2,821,576 MAGNETIC TAPE APPARATUS Rene J. Gaubert, Oakland, Calif. Application October 22, 1954, Serial No. 463,889 31 Claims. (Cl. 179-100.2)

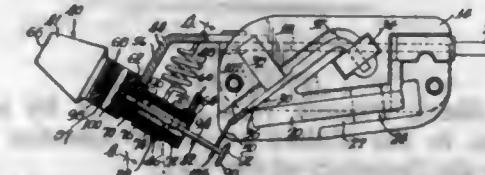


29. A magnetic tape programming apparatus comprising a plurality of magazines each carrying a magnetic tape, a magnetic transducing head adapted to operate on said tape, selective means for selectively shifting the head opposite any one of the magazines, means for bringing the head and the tape carried by the selected magazine into cooperative relationship, and means engaging the tape as the head is brought into cooperative relationship with the tape and serving to drive the tape past the head.

2,821,577 ELECTRICAL PHONOGRAPH TRANSDUCER WITH MULTIPLE STYLI Clarence F. Jensen, Racine, Wis., assignor to Webster Electric Company, a corporation of Delaware Application August 30, 1954, Serial No. 453,061 3 Claims. (Cl. 179-100.41)

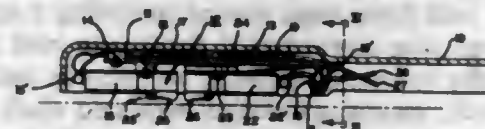
1. A phonograph transducer including a housing, a transducer element mounted in said housing, a stylus receiving chuck mounted in said housing and having an axially open end, a supporting bracket secured to and extending from said housing to one side of the chuck, said bracket having a pair of spaced apart bearings, a knob having a pair of spaced apart trunnions rotatably mounted in said bearings, said knob having a pair of index means providing flat surfaces in the space between the

trunnions, an index bracket having a flat surface engaging said knob in the region of said flats, a pair of springs at opposite ends of the index bracket secured to the supporting bracket and biasing the index bracket toward the flats on the knob and holding the knob assembled relative to the bracket, said knob also having an axially extending opening, a stylus including a shank mounted in said axially extending opening, the shank



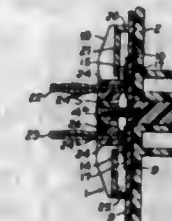
having an eye at its end within said opening, a resilient mounting strip encircling at least said eye for mounting the shank in said knob, an anchoring pin extending through the knob, resilient mounting strip and eye, a pair of stylus points mounted at the end of said shank outside of the knob, and stylus guide member encircling the shank adjacent said stylus points and having an end detachably received in said chuck to couple the stylus to the transducer.

2,821,578 PHONOGRAPH TONE ARM FOR PSEUDO-STEREO- PHONIC SOUND REPRODUCTION George Arthur Morrell, Jr., Conneaut, Ohio, assignor to The Astatic Corporation, Conneaut, Ohio, a corporation of Ohio Application October 22, 1954, Serial No. 463,947 10 Claims. (Cl. 179-100.41)



4. A tandem cartridge phonograph tone arm assembly for pseudo-stereophonic sound reproduction comprising in combination a tone arm, a first pick-up cartridge assembly mounted in said tone arm, and a second pick-up cartridge mounted in said tone arm in floating relation to said first cartridge assembly, said cartridge assemblies having separate spaced stylus members arranged to track the same convolution of a recording disc sound groove in time-displaced relation whereby one of said separate spaced stylus members is movable a predetermined distance from the other during tracking across the record disc.

2,821,579 ELECTRICAL OUTLET CONNECTOR TYPE CORD REEL David Benjamin, Cleveland, Ohio, assignor to Benjamin Reel Products, Inc., a corporation of Ohio Application March 15, 1956, Serial No. 571,636 7 Claims. (Cl. 191-12.4)

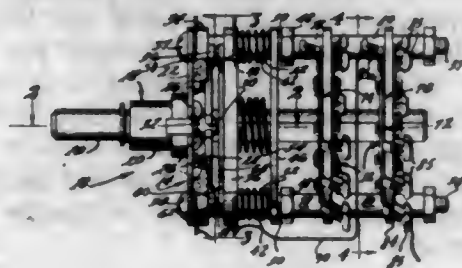


5. In a reel for an electric cord, a pulley for the cord, a case in which said pulley is journaled, a cap on a side of said case, a pair of contact prongs, pin means journaling said contact prongs on said cap for movement from a position flush against said cap to an operative position extending normally therefrom, a pair of brushes secured to the cap and engaging the contact prongs.

to said case for resilient engagement with the inner ends of said contact prongs when swung to operative positions, said pin means bearing on said cap to limit movement of said contact prongs to a position of substantially normal to said cap, and contact means on said pulley for engaging said brushes, said brushes being resiliently forced against said contact means by said contact prongs when operatively positioned.

2,821,580 SWITCH

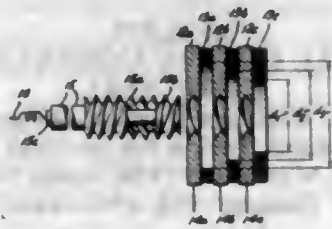
George S. Black, Pittman, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 31, 1955, Serial No. 543,901
8 Claims. (Cl. 200-17)



1. A switch comprising a front insulating ring and a rear insulating ring, said front ring having a plurality of rearwardly extending electrical contacts fixed thereon, said rear ring having a plurality of forwardly extending contacts fixed thereon oppositely disposed with respect to said plurality of rearwardly extending contacts fixed in said front ring, a rotatable shaft disposed transversely to said rings, a base plate disposed around said shaft and in front of said front ring, means including a spring urging said rear ring toward said front ring and said base plate whereby to cause opposing contacts in each of said rings to touch, means associated with said shaft and base plate to urge said rear ring away from said front ring in predetermined angular positions of said shaft, and said last-mentioned means comprising means to maintain said rear ring in parallel alignment with respect to said front ring in all positions of said rear ring.

2,821,581

MULTIPLE CONTACT ELECTRIC SWITCH
Louis W. Parker, Oyster Bay Cove, and Paul Smith, Cambria Heights, N. Y.; said Smith assignor to said Parker
Application January 18, 1957, Serial No. 634,918
18 Claims. (Cl. 200-16)

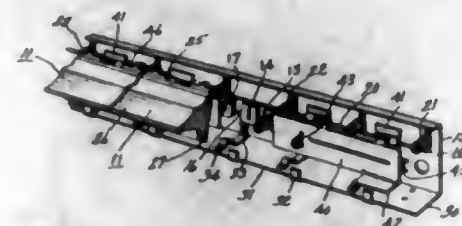


1. A multiple contact electric switch comprising a stack of one common and at least two insulated threaded conducting contact members alternating with insulating spacing members, means including end pressure members, to normally compress said stack, a rotatable screw member forming a cooperating contact and arranged for progressive engagement with an disengagement from said insulated contact members, to effect selective electric insulated contact connections with said contact members, and means to create unilateral resilient contact pressures between said screw member and the contact members intermediate the end contact members of the stack adjacent to said pressure members.

2,821,582

PIANO KEY SWITCH

Donald G. Kimball, Stratford, and Albert J. Gartland, Jr., Shelton, Conn., assignors to General Electric Company, a corporation of New York
Application September 3, 1957, Serial No. 681,552
7 Claims. (Cl. 200-18)

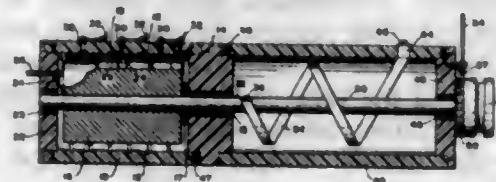


1. A key-operated electric switch comprising in combination a multiple push button switch supported on an elongated mounting bracket, the push button switch being operated by a plurality of parallel push rods arranged in one wall of the switch in close side-by-side relation, the push rods extending through openings in the bracket, a plurality of keys pivotally mounted about a common axis on the side of the bracket opposite the push button switch, the keys being relatively wide and covering a much greater expanse than the push rods, some of the keys bearing directly on a separate push rod, at least one key at one end being positioned off to the side of the push rods, a pivoted lever supported on the common pivotal axis of the keys and extending under said one end key, the said lever having an oversized slot for receiving the push rod that is operated by the key that is adjacent said end key, the end of the lever remote from the said end key bearing against a push rod of reduced length, so that each key will control the operation of a separate push rod of the push button switch.

2,821,583

INTERVALOMETER

Leo L. Kielman, China Lake, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application April 12, 1956, Serial No. 577,900
6 Claims. (Cl. 200-24)
(Granted under Title 35, U. S. Code (1952), sec. 266)

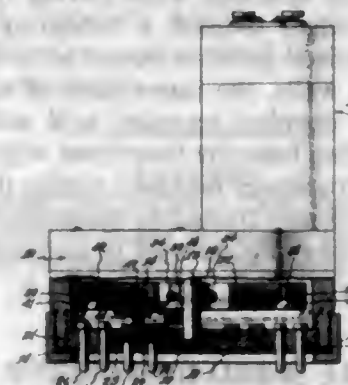


1. An intervalometer comprising a hollow cylindrical housing of electrically insulating material, a shaft supported for rotation along the axis of the housing, a drum of electrically conductive material fixed to one end of the shaft in coaxial relationship thereto, a straight track formed in and extending axially of the drum, a helical groove formed in the inner wall of the housing, a single collector shoe slidable in said track and having a portion guided in said groove, a plurality of contacts longitudinally spaced along said groove, a contactor slidably engaging said drum, and a self-powered drive means for rotating said shaft and drum, the arrangement being that rotation of the drum causes said shoe portion to traverse said groove whereby to sequentially engage said contacts and sequentially complete the circuits between said contactor and contacts.

2,821,584

ROTARY SWITCHING DEVICE AND CONTACT ELEMENTS THEREFOR

Albert J. Monack, Rutherford, N. J., and Martin V. Klebert, Jr., Indianapolis, Ind., assignors to Mycalex Electronics Corporation, Clifton, N. J., a corporation of New York
Application April 8, 1954, Serial No. 421,882
11 Claims. (Cl. 200-28)

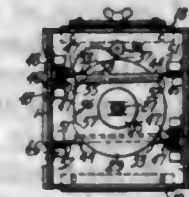


1. In a commutator, rotary switching means comprising in combination a wiper arm having an aperture transversely therethrough midway thereof and attachable thereby to a rotary shaft, and at least one brush-carrier attached to said arm, said brush-carrier comprising a first springy arm bearing a first brush at one end thereof, a second springy arm having a different vibratory period from said first arm and in contact with said first arm at each end but spaced apart therefrom at the middle, and a third springy arm spaced apart from said first arm and bearing a second brush at one end thereof, said first and third arms being in electrical contact at the ends opposite said brushes.

2,821,585

CONTROL DEVICE

John L. Harris, Whitefish Bay, Wis.
Original application July 28, 1949, Serial No. 107,219.
Divided and this application June 24, 1954, Serial No. 439,014
9 Claims. (Cl. 200-38)



1. In a rotary control mechanism, the combination of, a shaft, a cam carried by said shaft, a movable member extending across said cam, said movable member being pivoted at one point and riding the cam at another point, said points being located on opposite sides of the cam and below the surface of at least a portion of the cam so that the cam is interposed between said points, and control means operated by said movable member.

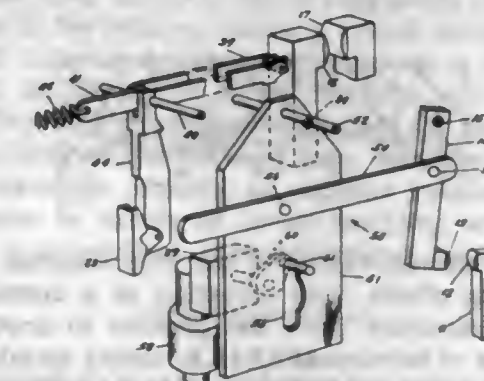
2,821,586

MOTOR OPERATED CIRCUIT BREAKER AND DISCONNECT SWITCH

Donald I. Bohn, Asheville, N. C., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania
Application March 7, 1956, Serial No. 570,013
9 Claims. (Cl. 200-50)

1. In a circuit interrupting device comprising a circuit breaker and a disconnect switch; said circuit breaker having cooperating contacts and means to automatically disengage said cooperating contacts in response to pre-

determined conditions in the circuit protected by said circuit interrupting device; said disconnect switch comprising cooperating contacts; said disconnect switch cooperating contacts connected in series with said circuit breaker cooperating contacts; a single motor operated means operatively connected to said circuit breaker and

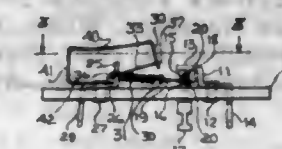


to said disconnect switch for operating said circuit breaker cooperating contacts into engagement and subsequently said disconnect switch main contacts into engagement and interlock mechanism to maintain said disconnect switch cooperating contacts engaged when said circuit breaker contacts are engaged.

2,821,587

SNAP-ACTION SWITCH

Walter L. Cherry, Jr., Highland Park, Ill., assignor to Cherry Electrical Products Corporation, Highland Park, Ill., a corporation of Illinois
Application February 2, 1955, Serial No. 485,710
1 Claim. (Cl. 200-67)

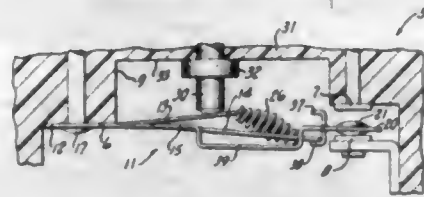


A snap-action switch comprising a mounting plate formed of non-conductive material, a substantially rigid arm carried by the plate and having an integral end portion bent to extend in parallel spaced relation with respect to one side of said plate, confronting contact members, one carried by said end portion and the other by said plate, a substantially rigid bracket carried by said plate and bent to provide an arm extending laterally from said one side of the plate and in spaced relation to said end portion of the first-mentioned arm, a flexible blade extending between said arms along said one side of the plate, means supportingly connecting one end portion of the blade to said laterally extending arm, said blade having a free end portion located between said contact members and having contact elements adapted for alternate engagement with said contact members, a flexible actuating member having an integral reversely bent end portion providing a flange for attachment to said rigid bracket to support the medial portion of said actuating member in spaced parallel relation with respect to said plate, said actuating member having a free end portion extending downwardly substantially midway between said arms, a substantially U-shaped link having a bight portion having pivotal bearing relation with respect to the arm of said bracket and having spaced apart parallel extending limbs extending from opposite sides of said arm of said rigid bracket, with the outer end portions of said limbs pivotally connected to the free end portion of said actuating member, and spring tension means having connection with the bight portion of said link and with the blade at its free end portion.

2,821,588

SNAP ACTING ELECTRIC SWITCH

Hardin Y. Fisher, Hillside, Ill., assignor, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware
Application April 29, 1955, Serial No. 504,967
10 Claims. (Cl. 200-67)

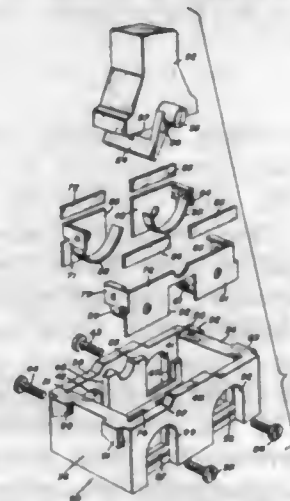


1. In an electric switch of the type wherein an over-center spring effects snap actuation of a contact member in one direction from one position to another as a consequence of movement of an actuating member in the opposite direction to shift the spring to and slightly beyond a critical position of maximum stress: characterized by the provision of a third switch member having a portion movable back and forth in the same directions as said actuating and contact members; and further characterized by the fact that said spring is operatively connected in overcenter relation between said actuating member and the third switch member to snap the latter from one position to another during operation of the switch, and by means providing a motion transmitting connection between said third member and the contact member whereby snap actuation of the former from one position to the other will contact the latter and cause snap action thereof from one position to another.

2,821,589

THREE-WAY TOGGLE SWITCH

Francis Leo Needham, Wilkes-Barre, Pa.
Application November 29, 1955, Serial No. 549,721
2 Claims. (Cl. 200-67)



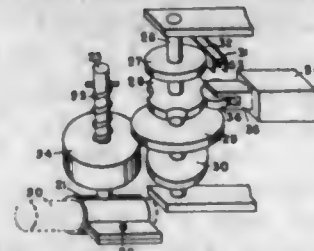
1. In a toggle switch which has a case, an actuator mounted for pivotal movement in said case, a rocker contact, and a spring which drivingly connects said rocker contact and said actuator, the improvement comprising a first pair and a second pair of contacts, means mounting said contacts in said case in the path of travel of said rocker contact, stops located between individual contacts of said pairs of contacts and having inclined surfaces against which said rocker contact is adapted to come to bear, and portions of said pairs of contacts protruding beyond the inclined surfaces of said stops in order to be touched by said rocker contact when said rocker contact is resting upon said inclined surfaces, said case having sides in which there are upwardly opening slots, said means mounting said contacts in said case including electrically conductive plates having lateral offsets to which said contacts are secured, there being one plate and one offset for each contact, two of said plates having a bridge which connects them for

electrical conductivity, said electrically conductive plates being disposed in said slots, electrically insulating strips in said slots in addition to said plates for preventing said plates from being separated from said slots, the case having apertures therein which expose parts of said plates, and electrical terminals carried by said plates and located in said apertures, said case having end walls attached to said side walls, a bottom wall attached to said end walls and said side walls, said side walls having raised portions along the upper edges thereof, a mounting plate having correspondingly raised portions nested with the raised portions of said side walls, the inner parts of said side walls having upwardly opening recesses, said actuator having trunnions protruding laterally therefrom with the outer extremities of said trunnions disposed within the confines of said side walls, and said trunnions mounted for oscillation in said upwardly opening recesses in said side walls.

2,821,590

ROTATIONAL SPEED RESPONSIVE DEVICE

Helmut Maerker, Los Angeles, Calif.
Application July 7, 1954, Serial No. 441,762
3 Claims. (Cl. 200-80)

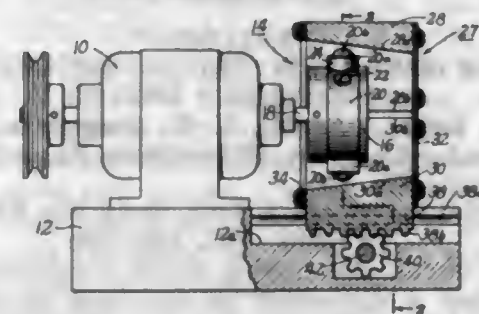


1. A rotational speed responsive device for a machine having a rotatable shaft, said device comprising: a support member connected to rotate with the shaft; a spring connected to the support member; a weight member connected to the spring whereby said weight member will move in a perpendicular direction away from the shaft due to centrifugal force on said weight member when the shaft is rotatively accelerating; and means responsive to the position of the weight member, said means including a fixed support, a collar supporting means journaled to the fixed support, a first collar fixedly connected to the collar supporting means and engageable by the weight member at a first predetermined position of the weight member to rotate the collar supporting means to a first predetermined position of the collar supporting means, and a second collar fixedly connected to the collar supporting means and engageable by the weight member at a second predetermined position of the weight member to rotate the collar supporting means to a second predetermined position of the collar supporting means; and positioning means cooperable to accurately position the collar supporting means in its first and second predetermined positions.

2,821,591

GOVERNOR FOR ELECTRIC MOTORS

Christiaan J. Van Eyk, Byram, Conn., assignor to Seaboard Electric Company, New York, N. Y.
Application October 3, 1955, Serial No. 538,014
2 Claims. (Cl. 200-80)



1. A governor for an electric motor comprising a rotor, a first contact carried by said rotor, spring means urging

said first contact inwardly but being yieldable to permit said first contact to be moved outwardly by centrifugal force to a radial distance from the axis of said rotor varying with the angular speed of said rotor, a second contact mounted around said rotor and having a conical inner surface coaxial with said rotor, said second contact being mounted for movement along the axis of said rotor whereby to vary the radial spacing between said first contact and the opposing portion of said second contact and thereby vary the angular speed of said rotor at which said contacts are closed.

2,821,592

PRESSURE ACTUATED SWITCH

Paul B. Sagar, Portland, Oreg.
Application February 20, 1956, Serial No. 566,443
4 Claims. (Cl. 200-81.9)

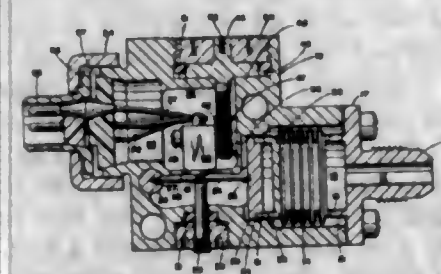


1. A pressure actuated switch comprising a housing having a passage therethrough, a plate having a normal position in which said plate extends across and substantially closes said passage, said plate being pivoted about an axis extending transversely of said passage and adjacent one edge of said plate, a stop preventing movement of said plate in one direction past said normal position, said plate being movable in the other direction about said axis between said normal position and a second position, a mercury switch element mounted directly on said plate adjacent said axis for closing an electric circuit when said plate is in one of said positions and opening said circuit when said plate is in the other of said positions, said plate being of magnetic material, a permanent magnet supported in said housing adjacent the other edge of said plate and positioned to urge said plate in said one direction against said stop, means to adjust said stop and said magnet relative to each other to vary the distance between said magnet and said plate when said plate is in said normal position so that said plate is moved from said normal position to said second position when the pressure differential in said other direction between opposite sides of said plate reaches a predetermined value depending upon said distance.

2,821,593

SWITCH

John J. Sogorka, Jr., Glendora, and Joseph J. Peterson, Altadena, Calif., assignors, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio
Application September 2, 1952, Serial No. 307,430
3 Claims. (Cl. 200-83)



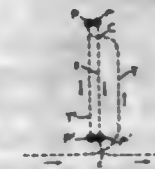
1. A pressure actuated switch comprising a bellows means adapted to receive pressure from a receptacle

whose pressure is to actuate the switch device, a fixed support for said bellows means, a substantially flat resilient buckling strip having two opposite sides and having two opposite edges at respective opposite ends thereof, means supporting one of said edges in fixed position relative to said fixed support, means supporting the other of said edges in the bellows means, a switch having an actuator, said actuator being placed adjacent a side of the strip, and an adjustable screw disposed on the side of the buckling strip opposite the actuator for producing an initial buckling of the buckling strip, whereby movement of the bellows in response to pressure buckles the strip to a degree in excess of initial buckling whereby the actuator is actuated at a predetermined pressure in the bellows.

2,821,594

ELECTRODYNAMIC COMPENSATION DEVICE FOR PRESSURE CONTACTS

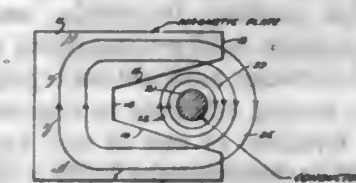
André Latour, Grenoble, France, assignor to Etablissements Merlin & Gerin, Grenoble, France
Application January 10, 1955, Serial No. 480,952
Claims priority, application France February 4, 1954
19 Claims. (Cl. 200-87)



1. In an electric switch, the combination of a stationary and a movable contact, and of a stationary and a movable conductor respectively ending at said contacts and having respectively substantially rectilinear length portions extended parallel and close to each other when the switch is closed, said movable conductor constituting the carrying arm of said movable contact and being disposed in position to react magnetically in closed position of the contacts with said stationary conductor in a direction to urge said movable contact against said stationary contact, the two conductors, at least upon initial opening movement of the contacts and formation of an arc, forming with their ends, nearest to the contacts, said contacts and said arc a loop, whereby the magnetic forces of the current tend to expand said loop and thus to repel the arc.

2,821,595

ELECTROMAGNETIC DELATCHING MEANS
William Deans, Ridgewood, N. J., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa.
Application January 8, 1954, Serial No. 402,950
15 Claims. (Cl. 200-88)



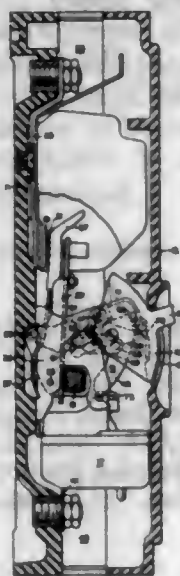
6. An electromagnetic latch operating mechanism comprising a magnetic plate formed with a notch tapering inwardly from an outer edge thereof, a conductor disposed in said notch in non-contacting relationship with and substantially perpendicular to said magnetic plate and arranged for movement substantially in the direction of said taper, and means for directing electric current through said conductor for establishing a magnetic field partially extending through said magnetic plate, said conductor operatively connected to a latch mechanism to cause operation thereof at a predetermined point.

2,821,596

TRIP DEVICE FOR CIRCUIT BREAKERS

Alexander C. Bires, Jr., and Thomas W. Slebodnik, Beaver, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 21, 1954, Serial No. 438,061
10 Claims. (Cl. 200—88)



1. A circuit breaker comprising relatively movable contacts, a trip device for effecting automatic opening of said contacts, said trip device comprising a trip member movable to effect opening of said contacts, thermally responsive means comprising a bimetal element extending along one side of said trip member and operable when heated in response to overload currents to engage a portion on said trip member and move said trip member in tripping direction, means comprising a pair of springs biasing said trip member in opposite directions for opposing false movement of said trip member and opening of said contacts in response to sudden shocks, and adjusting means for adjusting one of said springs to thereby vary the initial position of said trip member.

2,821,597

REGISTER RELAY

Charles E. Germanton, Summit, and John W. Oliver, Metuchen, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 18, 1955, Serial No. 495,144
10 Claims. (Cl. 200—93)



1. In a multiunit switching device, a plurality of adjacently disposed switching units, each including a pair of armature-engageable contact terminals, and polarizing means for said switching device comprising a permanent magnet interposed between adjacent switching units, each permanent magnet having one pole in engagement with a particular contact terminal of one of said switching units and the other pole in engagement with a different contact terminal of an adjacent switching unit.

2,821,598

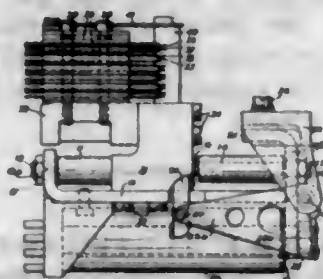
ELECTROMAGNETIC SWITCHES

Frederick Emil Rommel, West Dulwich, London, England, assignor to Telephone Manufacturing Company Limited, London, England

Application August 23, 1954, Serial No. 451,374
Claims priority, application Great Britain August 24, 1953
8 Claims. (Cl. 200—104)

1. An electromagnetic switch device comprising a main operating magnet, a contact set, an operator for the

contacts of the contact set, a finger magnet having an armature carrying an interference piece arranged to be moved in an interfering direction upon operation of said finger magnet so as to be interposed between said operator and an actuator arranged to be moved in an actuating direction by the armature of said main magnet, and



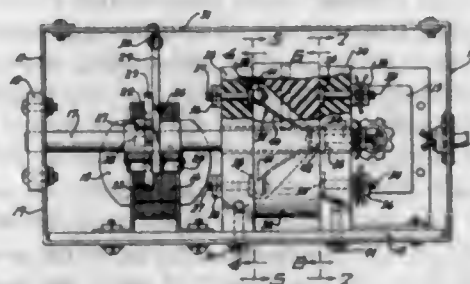
guide means providing guide surfaces effective over the range of movement of said interference piece in the interfering direction to limit movement of said piece in directions at a substantial angle to the interfering direction without impeding movement of said piece in the interfering direction.

2,821,599

SOLENOID ACTUATED SWITCH

Bert W. Piper, Detroit, Mich., assignor to Kepley Manufacturing Co., Detroit, Mich., a corporation of Michigan

Application January 23, 1956, Serial No. 560,749
2 Claims. (Cl. 200—105)



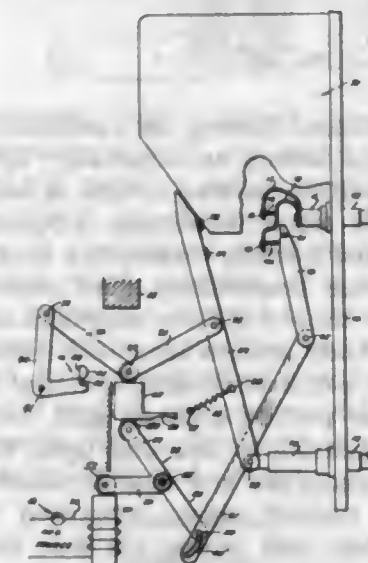
1. A switch mechanism comprising a mounting plate, a pair of spaced members mounted on said mounting plate, shaft means rotatably projecting through said spaced members, a drum member carried by said shaft means axially interposed between said spaced members, actuating means operatively connected to said shaft means for imparting unidirectional step by step motion to said drum member, said actuating means comprising a solenoid means, a reciprocable plate movable by said solenoid means, a toothed member carried by said shaft means, a first abutment means carried by said reciprocable plate engageable with said toothed member tooth by tooth to impart said step by step motion to said shaft means and said drum member, resilient means restoring said reciprocable plate member to its normal rest position after each movement thereof, a second abutment means carried by said plate member engageable with said toothed member between two adjacent teeth thereof for aligning said toothed member to ensure proper engagement of said first abutment means with the next tooth to be engaged thereby, said second abutment means being positioned between said two teeth on restoration of said plate member to said normal rest position, one of said spaced members having a plurality of input current contact members adapted to be connected in pairs to a source of alternating current, the other of said spaced members having a plurality of output current contact members, and contact means carried by said drum effective in a first step position thereof to provide a current bridge between a first combination of input and output current contact members whereby the current flow occurs in a predetermined manner through a first grouping of output current contact members, said contact means in a second step position of said drum

being ineffective to provide a current bridge, and said contact means in a third step position of said drum being effective to provide a current bridge between a second combination of input and output current contact members whereby the current flow occurs in an alternate predetermined manner through a second grouping of output current contact members.

2,821,600

CIRCUIT BREAKER OPERATING MECHANISM
Cornelius J. Ridgley, deceased, late of Philadelphia, Pa., by Charlotte H. Ridgley, administratrix, Philadelphia, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application August 14, 1953, Serial No. 374,384
10 Claims. (Cl. 200—106)



1. In a circuit breaker for protecting an electric circuit; said circuit breaker comprising a first movable contact mechanism having a contact open first position and a contact closed second position; a second movable contact mechanism having a contact open third position and a contact closed second position; a closing mechanism; a first connection from said closing mechanism to said first movable contact mechanism and a second connection from said closing mechanism to said second movable contact mechanism for respectively operating said first contact mechanism from its contact open first position to said contact closed second position in one direction and for operating said second movable contact mechanism in the opposite direction from its contact open third position to said contact closed second position after said first contact mechanism has reached the contact closed second position; biasing means individual to each of said contact mechanisms for biasing said contact mechanisms to their individual open first and third positions; a fault current responsive mechanism energized by fault current in the electric circuit protected by said circuit breaker and having a latch mechanism connected to said first movable contact mechanism for holding said first movable contact mechanism in its contact closed position against the action of its bias, said latch mechanism operating in response to the energization of said current responsive mechanism for releasing said first movable contact mechanism to permit its biasing means to operate said first movable contact to its contact open first position; a lock connected to said second contact mechanism when said first and second contact mechanisms are in the contact closed second position for locking said second contact mechanism in said contact second position only while both said first and second contact mechanisms are in the contact closed second position and for releasing said second contact mechanism to be operated by its biasing means to said contact open third position when said first contact mechanism has left said contact closed second position, each of said contact mechanisms having

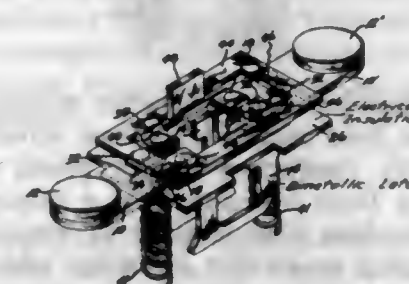
circuit connections for providing connections to the electric circuit to be protected by said circuit breaker for closing at least its portion of the electric circuit when said first and second contact mechanisms are in the circuit closed second position, the circuit connection for said second contact mechanism forming a loop with electric circuit for effecting a blow-on action of said second contact mechanism to said first contact mechanism resulting from the magnetic forces due to current flowing in the electric circuit, said blow-on action urging said second contact mechanism to its locked position.

2,821,601

ELECTRIC OVERLOAD CIRCUIT BREAKER WITH BI-METALLIC LATCH OPERABLE ON LOW AMPERAGE

Richard C. Ingwersen, Jackson, Mich., assignor to Mechanical Products, Inc., Jackson, Mich., a corporation of Michigan

Application April 28, 1954, Serial No. 426,111
2 Claims. (Cl. 200—116)



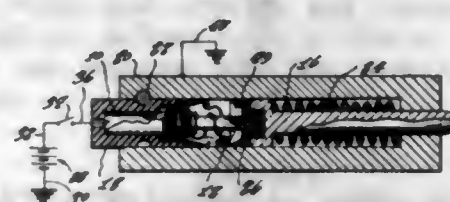
1. In an electric circuit breaker having overload protection, a combined bi-metallic and movable contact assembly comprising a laterally spaced separate pair of U-shape bimetallic parts each having inturned flanges at the ends of the legs thereof and a contact carrying arm connected to one said flange of each U-shape part, a common conductor frame connected with the other flange of each U-shape part so that current flow takes place serially through said parts, said conductor frame connecting the diagonally opposite flanges of said U-shape bimetallic parts, an insulator frame, and link means connecting said other flanges with said insulator part to afford lateral stability to said other flanges.

2,821,602

TRIGGER MEANS

John F. Hordechuck, Forest Hills, N. Y., assignor to The W. L. Maxson Corporation, New York, N. Y., a corporation of New York

Application March 23, 1955, Serial No. 496,246
12 Claims. (Cl. 200—123)

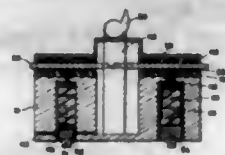


1. A fusible release mechanism comprising, in combination, a fixed body member, a movable member guided for movement relative to the body member, a spring stressed to urge such movement of the movable member relative to the body member, detaining means acting in opposition to the spring for holding the movable member against movement, comprising a conductive first detaining member permanently fixed against movement relative to the body member, a second detaining member movable by and with and parallel to the aforesaid movable member, said first detaining member and second detaining member being capable of being telescoped with respect to each other, a solder joint uniting the detaining

members to secure them against relative movement, electrical means for melting the solder including a circuit which comprises a source of electrical energy, a heating element located in proximity to the solder joint surrounding the outer surface of said first detaining member adapted to transfer heat to said first detaining member to melt said solder joint, and a circuit closing switch, and means responsive to movement of said movable member which occurs when the solder joint gives way, to break the circuit and thereby avoid the wasting of electrical energy.

2,821,603 FUSE HOLDER

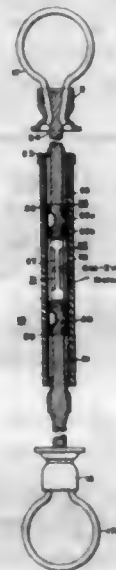
Clayton C. Shepherd, Jr., Downey, Calif., assignor to North American Aviation, Inc.
Application December 23, 1955, Serial No. 554,952
9 Claims. (Cl. 200—133)



1. A fuse link holder combination adapted to be used in a corrosive fluid comprising a base structure, at least two electrically conductive contact points spaced apart and extending from said structure, a removable chemically etchable fuse link adapted in contact with said points, clamping means for clamping said link against said points and sealing means insulating said spaced contact points from corrosive action in the fluid.

2,821,604 FUSE CONSTRUCTIONS

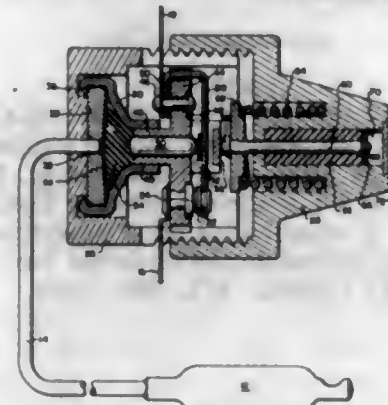
James M. Wallace, Montclair, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 29, 1952, Serial No. 323,185
2 Claims. (Cl. 200—135)



1. A fusible interrupting device wherein a fuse link assembly electrically interconnects a pair of spaced fuse terminals and wherein overload protection is obtained by fusion of the fuse link assembly, characterized by the combination of a strain element composed of conducting sheet material through which current may pass, an elongated fuse secured adjacent the ends of the strain element in electrical parallel thereto, the conducting strain element having at least one widened clamping end portion embracingly clamping the inner end of one of the fuse terminals, said widened clamping end portion being an integral part of the strain element and formed of the same conducting sheet material as the strain element, and the current passing through the strain element after the fuse melts.

2,821,605 CONTROL DEVICE

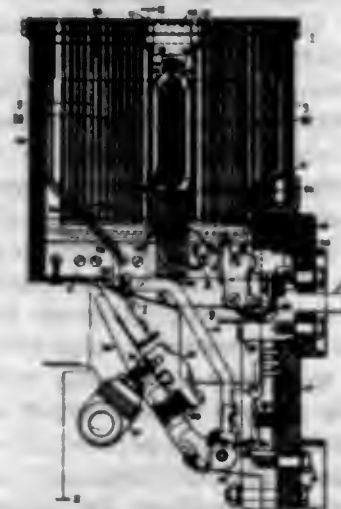
William E. Baker, Wellesley, Mass., assignor to Standard-Thomson Corporation, Waltham, Mass., a corporation of Delaware
Application October 11, 1955, Serial No. 539,793
12 Claims. (Cl. 200—140)



12. A transducer having, in combination, a pair of frame members having an adjustably threaded connection, a body portion secured to one of said frame members, a flexible metal diaphragm supported within the body portion and forming therewith a hermetically sealed space, a pressure transmitting fluid entirely filling said space, first and second slidable members each received in a wall of the body portion separated from said space by the diaphragm, a first deformable material filling the space within the body portion adjacent said slidable members, spring means bearing at one end upon the other frame member and urging the first slidable member toward said body portion, resilient means supported by one of said slidable members and urging the first slidable member toward said body portion relative to the second slidable member, and a second deformable body supported in position to act as a stop for said spring means, whereby ambient changes in said first body are compensated for by corresponding responsive movements of said stop to tend to prevent relative movement between said slidable members.

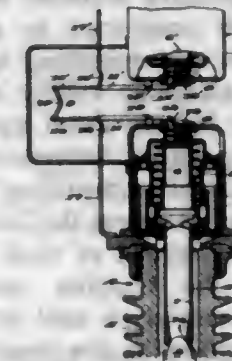
2,821,606 CIRCUIT INTERRUPTER

John J. Mikos, Chicago, Ill., and Charles E. Moss, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 23, 1953, Serial No. 381,836
9 Claims. (Cl. 200—147)



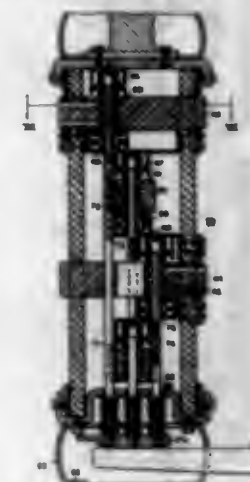
1. A circuit interrupter including a pair of contacts co-operable to establish an arc therebetween, at least one of the contacts having a pair of magnetic bars disposed in a generally V-shape adjacent the contact surface to assist arc terminal movement along said one contact, and the plane containing said magnetic bars being substantially parallel to said contact surface.

2,821,607
GAS BLAST CIRCUIT BREAKER
Paul Baltensperger, Baden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application January 27, 1956, Serial No. 561,872
Claims priority, application Switzerland January 29, 1955
18 Claims. (Cl. 200—148)



1. The combination with a circuit breaker of the gas blast type comprising at least one set of relatively movable nozzle and pin contacts, means providing a chamber in which said contacts are disposed and an exhaust valve controlling flow of compressed gas through said chamber and through said nozzle contact, of a conductor loop through which passes the current to be interrupted by said contacts, and means controlling said valve and actuating the same to a more open position by physical movement of said loop in accordance with an increase in the electro-dynamic forces developed in said loop by a corresponding increase in said current.

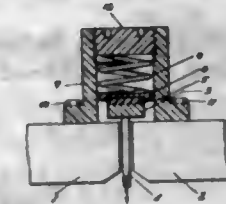
2,821,608
CIRCUIT INTERRUPTERS
Winthrop M. Leeds, Forest Hills, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application December 8, 1954, Serial No. 473,938
5 Claims. (Cl. 200—150)



1. A circuit interrupter including an interrupting tube, a movable contact assembly including three or more movable contact rods, a cross bar for mechanically connecting together the adjacent ends of the three or more movable contact rods, at least one of the contact rods having an insulating rod portion, a current collecting structure for the movable contact rod having an insulating rod portion, a plurality of arc-extinguishing units each providing venting exteriorly of the interrupting tube, at least one of the arc-extinguishing units having venting occurring only at one end thereof with the other end of the interrupting unit reduced in size to clear adjacent contact rods and serving a guiding function, and at least said one of the arc-extinguishing units being mounted in the side wall of the interrupting tube and laterally removable therefrom.

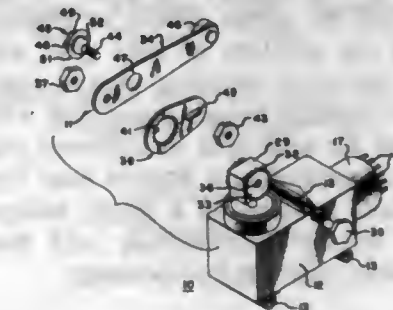
726 O. G.—54

2,821,609
RECTIFIER CONTACT STRUCTURE
Fritz Kesselring, Zollikon, Zurich, Switzerland, assignor to FKG Fritz Kesselring Geratebau A. G., Bachtobel-Weinfelden, Switzerland, a corporation of Switzerland
Application May 3, 1954, Serial No. 427,018
Claims priority, application Switzerland May 7, 1953
7 Claims. (Cl. 200—166)



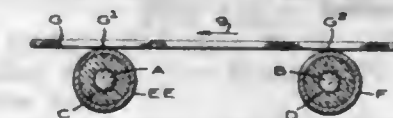
1. In a switching device for a rectifier comprising a pair of stationary contacts and a movable contact having an engaged and disengaged position with respect thereto, means to effect said contact engagement and disengagement between said stationary and movable contacts; non-metallic resilient material fastened to said movable contact and positioned between said movable contact and said contact engaging means to prevent contact chattering and bouncing when said contacts are moved to said engaged position.

2,821,610
ACTUATING MECHANISM
Ian F. Thomson, San Diego, and Loyal S. Baker, La Jolla, Calif., assignors to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware
Application March 7, 1957, Serial No. 644,592
11 Claims. (Cl. 200—166)



1. A switch operating assembly for an electric switch having an operating lever associated therewith, said switch operating assembly comprising an actuator arm, means pivotally mounting said actuator arm on said operating lever, means on said operating lever projecting to a side thereof, said actuator arm and said latter means each having an opening therein, which openings are adapted to be placed in opposition, and an adjusting member receivable within said openings and having a camming action with the defining edges of one of said openings to move said actuator arm into various positions of adjustment.

2,821,611
ARCUATE, CYLINDRICAL AND CUP-SHAPED COMPOSITE R. F. ELECTRODES
Julius W. Mann and George F. Russell, Tacoma, Wash.
Application March 18, 1954, Serial No. 417,069
7 Claims. (Cl. 219—10.61)



1. A composite R. F. electrode comprising: a live electrode adapted to be connected to a source of high frequency current; a layer of a high loss dielectric material contacting a portion of the live electrode; and a metallic idling electrode contacting the layer of dielectric material.

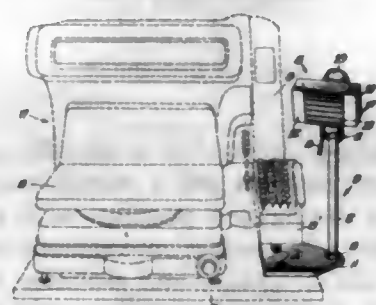
and thereby being separated from the live electrode; said idling electrode having an outer surface that is convex in shape.

2,821,612

LABEL ACTIVATOR

Hilmar O. Schuetze, Chicago, Ill., assignor to Great Lakes Stamp & Mfg. Co., Inc., Chicago, Ill., a corporation of Illinois

Application October 19, 1955, Serial No. 541,490
16 Claims. (Cl. 219-19)



1. A device for use in activating thermo-responsive adhesive coatings on relatively thin flexible label backings, said device including a housing, a surface of said housing having mounted therein a grid formed from a plurality of spaced bars defining therebetween a series of laterally spaced slots, heating means in said housing and cooperating with said grid to heat the outer surface thereof sufficiently to activate thermo-responsive labels brought into contact therewith, air inducing means in said housing to draw air through the slots of said grid to thereby retain labels in contact with said grid during the activation thereof, said inducing means being so arranged with respect to said grid to retain labels in contact therewith notwithstanding the position of said grid, electric motor driving means for said inducing means carried by said housing, and positioning means associated with said housing to move and fix said grid in different positions, said positioning means including a fixable base for supporting the same and said housing as a single independent unit, and adjustable means intermediate said base and said housing to variably position said housing.

2,821,613

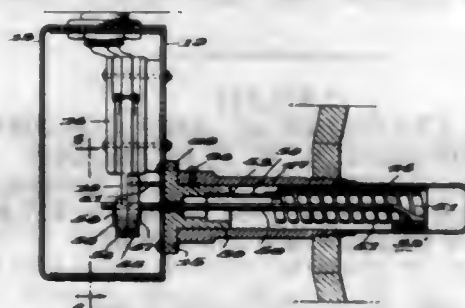
ELECTRICAL SAFETY CONTROL APPARATUS

Timothy J. Sullivan, Butte, Mont., assignor to Sullivan Valve and Engineering Company, Butte, Mont., a corporation of Montana

Original application March 22, 1954, Serial No. 417,862, now Patent No. 2,778,917, dated January 22, 1957.

Divided and this application October 23, 1956, Serial No. 624,185

1 Claim. (Cl. 219-38)



The combination with a boiler having electrically energized means for heating the same, and a permanently connected electrical network for supplying power to said electrically energized means, said network including a switch with an operating lever biased for movement to open said switch to de-energize said electrically-energized

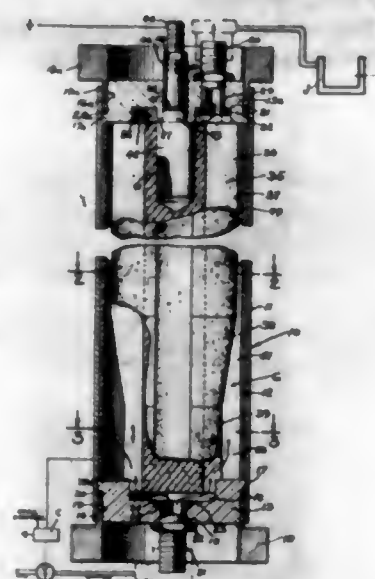
means; of an over-temperature safety control comprising a heat responsive member, means for supporting said member on said boiler in position to be subject to over-heating within the same, said supporting means comprising a mounting tube set in the boiler wall, said heat responsive member comprising a helical bimetallic strip mounted within said tube; a linkage connected at one end to said heat responsive member and carrying at its opposite end a knob positioned to engage and block movement of said switch operating lever, said linkage comprising a rod extending axially of said mounting tube with said knob loosely fitted upon the outer end thereof and in the path of movement of said switch operating lever, said knob comprising two cam-like elements and means for securing the same to each other with a desired angular spread of their larger radius sections to determine the tripping temperature of the switch; and means secured to said rod to constitute a one-way drive connection to the knob upon movement of the rod in response to increasing temperature, said one-way drive means comprising a pin friction fitted into a bore through said rod and engaging a pin secured in one of said cam-like elements at the side thereof which provides a driving connection upon movement of said bimetallic strip in response to increasing temperature; whereby said knob is not reset by said rod upon movement of the same due to cooling of said bimetallic strip.

2,821,614

ELECTRICAL STEAM GENERATOR AND METHOD OF STEAM GENERATION

Janis Jansons, New York, N. Y., assignor, by mesne assignments, to Carbon Heater Corporation, New York, N. Y., a corporation of New York

Application July 22, 1955, Serial No. 523,808
5 Claims. (Cl. 219-40)



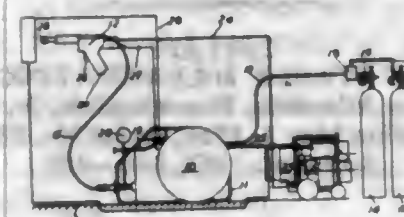
3. Apparatus for heating water by electric conduction to generate steam comprising a heater assembly including a tubular electrode, end closure members for said tubular electrode, a core electrode supported by a first of said end closure members and extending axially of the tubular electrode and in spaced relationship therewith, said core electrode having a plurality of successively arranged portions of different dimensions to provide successively differing variations in spacing between respective of the said portions and said tubular electrode and grooves in said core electrode, said first of said end closure members having an outlet for steam generated in said apparatus and the other of said end closure members having an inlet for water and said grooves providing entrance and exit communications respectively with the inlet for water and the outlet for steam.

2,821,615

CUTTING OF METALS AND ALLOYS

Robert Leydon Fannon, London, England, assignor to The British Oxygen Company Limited, a corporation of Great Britain

Application April 22, 1955, Serial No. 503,153
Claims priority, application Great Britain April 26, 1954
6 Claims. (Cl. 219-69)



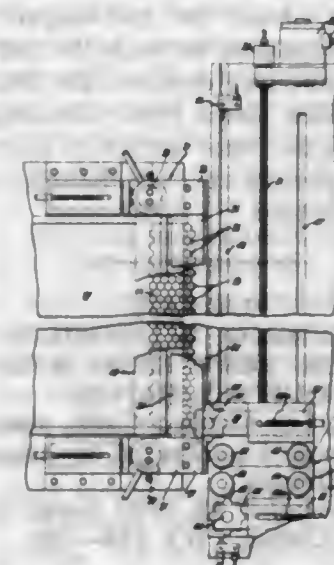
1. Process for cutting metals and alloys which comprises feeding a consumable electrode in the form of a ferrous wire to a high density electric arc struck between the wire and the workpiece to be cut, feeding nitrogen in admixture with an amount of oxygen not substantially greater than 10% by volume of the total gas mixture to surround the arc, and moving the electrode relative to the workpiece along the line of cut, so as to maintain the arc and cut through the workpiece.

2,821,616

METHOD AND APPARATUS FOR MAKING HONEYCOMB MATERIAL

Louis H. Spott, Walnut Creek, Calif.

Application August 15, 1955, Serial No. 528,276
21 Claims. (Cl. 219-78)



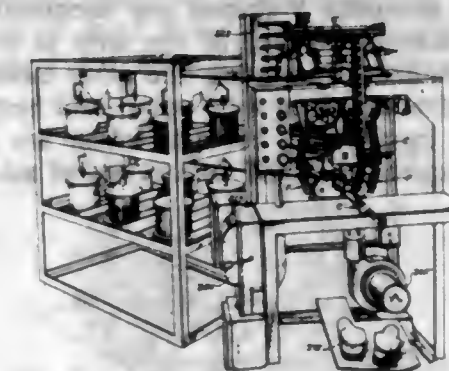
1. A method of forming a metal foil cellular structure comprising training a strip of metal foil back and forth across the forwardmost surfaces of a pair of rows of forming fingers adapted to nest with each other, forming said foil strip around the fingers of the forwardmost row of fingers to form a row of cells, fastening the portions of the foil strip between the fingers of the forwardmost row of fingers to the previous layer of foil adjacent the forwardmost surface of the fingers of the rearmost row, withdrawing the fingers of the rearmost row from the completed cells and advancing them forwardly of the other row of fingers, moving the forwardmost row of fingers and the row of cells just completed rearwardly of the forwardly advancing fingers to the rearmost position between each of the back and forth movements of the foil strip.

2,821,617

MODULE ASSEMBLER

Wallace N. Knutsen, Alexandria, and Charles C. Rayburn and James G. Black, Jr., Falls Church, Va., and Herman A. Schmidt, Washington, D. C., assignors to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey

Application August 17, 1956, Serial No. 604,752
60 Claims. (Cl. 219-85)



1. In a module assembling machine, means for intermittently feeding a plurality of groups of spaced ceramic wafers to soldering stations, each of said wafers having areas containing deposits of solder, means for feeding and applying conductors into position to engage the soldered areas of said ceramic wafers, means for holding the conductors in contact with said soldered areas, means for heating the conductors at said soldering stations, and means controlled by the intermittent feeding mechanism for actuating said heating means.

2,821,618

WELDING DEVICE

Clyde H. Haynes, Elyria, Ohio, assignor to Gregory Industries, Inc., Detroit, Mich., a corporation of Michigan

Application April 19, 1955, Serial No. 502,405
3 Claims. (Cl. 219-98)



1. A stud welding device comprising, a guide housing having a ferrule end, said ferrule end having gas vent recesses, the housing having guide surfaces defining a stud slide path extending through said ferrule end, a weld stud mounted in said slide path, resilient means positioned to urge the stud to move along said path toward said ferrule, a fuse link member holding said resilient means ineffective to so urge the stud, and electrical circuit means including said link and stud for applying an electrical welding potential between said stud and any conducting workpiece positioned across the said ferrule end, whereby said fuse may be selected to release said resilient means upon passage of a predetermined amount of welding power through the stud.

2,821,619

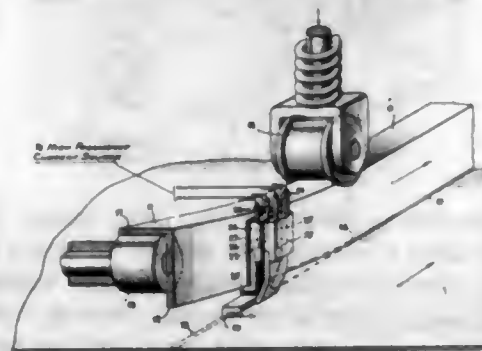
CONTINUOUS WELDING OF STRIPS AND THE LIKE

Wallace C. Rudd, Larchmont, N. Y., assignor to Magnetic Heating Corp., New Rochelle, N. Y., a corporation of New York

Application December 7, 1955, Serial No. 551,566
2 Claims. (Cl. 219-107)

1. Method for welding an edge of an elongated strip-like member along a line on another metal member, the dimensions and compositions of said members being such that the capability of the strip to distribute heat applied

to points along said edge into other portions of the strip is substantially different from the capability of said other member to distribute heat applied to points along said line into other portions of said other member, such method comprising: uniformly moving said strip and said other member to come together at a weld point located on the desired line of welding, while maintaining said members spaced apart in advance of the weld point by a narrow generally V-shaped gap terminating at the weld point; heating an edge of the strip in advance of the weld point; and also heating said other member along said line in advance of the weld point, said heating being accomplished by applying contacts which are connected to a radio frequency current source, one of said contacts



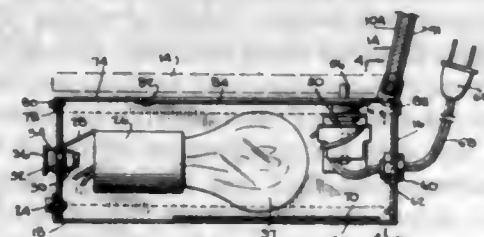
engaging the strip at or adjacent said edge at a point in advance of the weld point and the other of said contacts engaging said other member at a point on said line in advance of the weld point, the contact which engages the member having the greater heat distributing capability being located at a distance from the weld point sufficiently greater than the distance of the other contact from the weld point, whereby opposed points of welding on the two members when they reach the weld point will be heated approximately to welding temperature, said current being of such radio frequency that the lowest impedance path therefor between the contacts extends from the contacts to and from the weld point along the opposed sides of said gap, and the resulting resistance heating being substantially concentrated along said gap.

2,821,620

PORTABLE ILLUMINATED MIRROR

Stanford Pavenick, South Orange, N. J., assignor to Aljen Manufacturing Corp., New York, N. Y., a corporation of New York

Application June 2, 1955, Serial No. 512,661
2 Claims. (Cl. 240-4.2)



1. A portable mirror comprising a hollow casing and a panel, the panel including a mirror on its undersurface, means hinging the panel to the casing to swing from a concealed position in which the mirror is juxtaposed with the top of the casing to an exposed position in which the mirror is spaced from the top of the casing, the casing having a first opening in the top thereof and a second opening, a light bulb socket disposed in the casing, said socket being substantially in line with said first opening, a plug receptacle mounted on a wall of the casing and having an operative face accessible from the outside of the casing, a plug disposed externally of the casing, a wire running from the plug through said second opening to the socket and receptacle and connect-

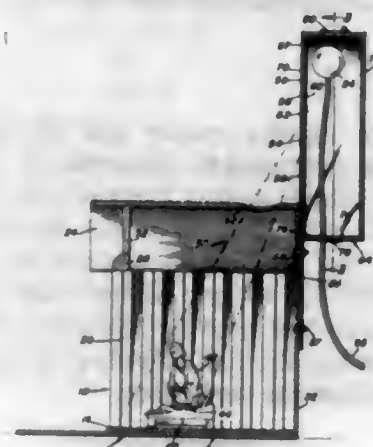
ing the socket and receptacle in parallel, a normally closed momentary switch, said switch being connected in series between the plug on the one hand and the plug receptacle and light bulb socket on the other hand, said switch including an actuating pin protruding from the top of the casing, said panel being arranged to degrees said pin and thereby open the switch on being juxtaposed to the upper surface of said top.

2,821,621

CHRISTMAS STABLE ILLUMINATING DEVICE

John Allunario, Bloomingdale, N. J.

Application May 1, 1956, Serial No. 581,996
2 Claims. (Cl. 240-10)



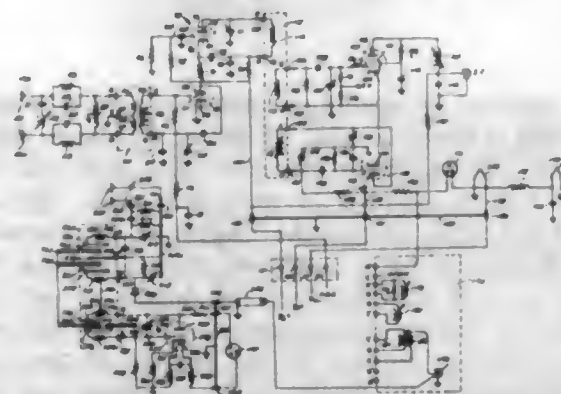
1. In combination, a Christmas stable having a back and roof provided with an aperture therein adjacent said back, a closed receptacle fixed to and upstanding from said back above said roof in the rear of said aperture and having a vertical front wall provided with a star shaped aperture therein above and in the rear of the roof aperture and in a vertical plane therewith, an electric light in the receptacle directly above the star-shaped aperture and from which light rays pass through the star-shaped aperture and the roof aperture downwardly into the stable to illuminate said stable, and a light reflecting liner in said receptacle covering the inner surface of the receptacle and having a light ray passing aperture therein registering with the star-shaped aperture.

2,821,622

BAND SWITCHING TELEVISION TURRET TUNER FOR VERY HIGH AND ULTRA-HIGH FREQUENCY BANDS

Edwin Paul Thias, Los Angeles, Calif., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois

Application November 18, 1953, Serial No. 392,950
4 Claims. (Cl. 250-20)



1. In combination, a V. H. F. tuner, a shaft, said tuner being mounted on and rotatable with said shaft, a U. H. F. tuner, a second shaft, said U. H. F. tuner being mounted and rotatable with said second shaft, a cam mounted on and rotatable with said first V. H. F. shaft, a cam follower for said cam mounted on and rotatable with said

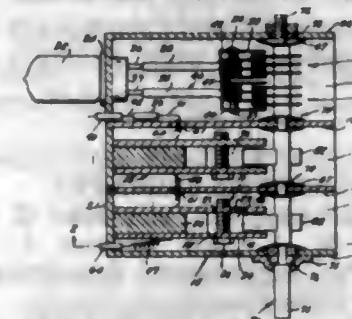
U. H. F. tuner shaft, a second cam follower, said U. H. F. tuner shaft being rotatable with respect to said second cam follower, said first cam follower being sometimes in non-operative relation with respect to said second cam follower when said U. H. F. tuning shaft is in a predetermined non-operating position, rotation of said V. H. F. shaft having no effect during such positioning on said second cam follower, said U. H. F. turret and the first cam follower on the one hand, and said second cam follower, on the other hand, being movable angularly relative to each other to bring said second follower into operative relation with respect to said first cam follower, said V. H. F. shaft, when thereafter rotated, operating said second cam follower radially in the predetermined angular position of the V. H. F. shaft.

2,821,623

END-LOADED LONG-LINE SUPERHETERODYNE TUNER HAVING TRACKING MEANS

Edwin P. Thias, Los Angeles, Calif., assignor to Standard Coil Products Co., Inc., Los Angeles, Calif., a corporation of Illinois

Application January 20, 1954, Serial No. 405,133
2 Claims. (Cl. 250-20)



1. A U. H. F. continuous tuner comprising a preselector for selecting incoming U. H. F. signals, said preselector comprising a pair of transmission lines each terminated with capacitor loading, a source of heterodyning signals comprising an electron tube and a pair of conductors terminated with a capacitor load, one of said conductors being connected to the grid of said tube, the other of said conductors being connected to the plate of said tube, a converter for converting the frequency of the incoming U. H. F. signals to a fixed frequency, means for inductively coupling said preselector and said heterodyning source to said converter, the capacitors loading said lines and said conductors comprising stator plates and rotor plates, a shaft for mounting said rotor plates for simultaneous operation, means for adjusting the spacing between the stator plates of each of said capacitors to determine the maximum capacity of said capacitors and correspondingly the lowest frequency of operation of said tuner, said means comprising an individual screw engaging stator plates of each of said loading capacitors, means for adjusting the minimum capacitance of said capacitors and controlling the upper frequency of operation of said tuner, said last-mentioned means comprising a leaf spring mounted in proximity to the stator plates of each of said capacitors, said leaf springs being connected to chassis ground, a screw for varying the separation between each of said leaf springs and its corresponding set of stator plates, the free unloaded ends of each of said transmission lines being secured in electrical and mechanical connection with the tuner chassis.

2,821,624

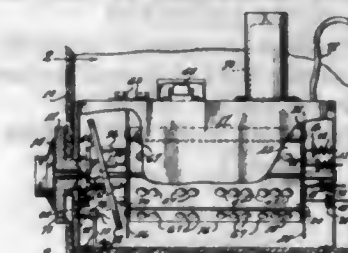
ULTRA-HIGH FREQUENCY TELEVISION CONVERTER WITH DECADE-TUNING TURRET HAVING UNIT-TUNING VERNIER

Winfield R. Koch, Marlton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 4, 1954, Serial No. 460,104
7 Claims. (Cl. 250-20)

1. A U. H. F. television converter comprising in combination, a tuner having a plurality of groups of gang

tuned circuits located on tuning strips positioned on a cylindrical rotatable turret, said groups of circuits being tunable in different decades of U. H. F. channels, a signal converter circuit, means selectively connecting said signal converter circuit and one of said groups of gang tuned circuits, a control means for rotating said turret tuner to select different ones of said groups of gang tuned circuits, means providing movable tuning elements for said groups of gang tuned circuits, an axially movable tuning control rod for each of said groups of circuits,



said rods positioned parallel to the axis of said rotatable turret, said circuits being tunable in response to axial movement of said control rods, a tuning control means for controlling the movement of said tuning control rods to select a desired channel in the decade covered by a selected group of circuits, and indicating means connected with said control means and said tuning control means whereby said control means controls the indication of the decade to which said converter is tuned and said tuning control means controls the indication of the channel setting within that decade.

2,821,625

MINIATURE SUPER-REGENERATIVE RADIO RECEIVER USING TRANSISTORS

Harry L. Price, Astoria, N. Y.

Application December 20, 1956, Serial No. 629,593
7 Claims. (Cl. 250-20)



1. A super-regenerative receiver, comprising a tuned regenerative detector circuit, said detector circuit including a transistor having base, emitter and collector electrodes, the circuit between said base and emitter electrodes being of low impedance and asymmetrically conductive, a quench oscillator circuit having a frequency of oscillation determined by a tank circuit, said tank circuit consisting of an inductor and two serially connected capacitors, the series combination of said capacitors being connected in multiple with said inductor, and a connection extending between a point in said tank circuit intermediate said capacitors and a point in said detector circuit included in the base-emitter electrode circuit thereof, whereby there is a minimum of loading of said detector circuit by said quench oscillator and vice versa.

2,821,626

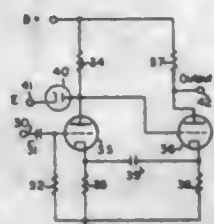
PULSE AMPLITUDE DISCRIMINATOR

Melvin B. Freedman, Roxbury, Mass., assignor to Tracerlab, Inc., Boston, Mass., a corporation of Massachusetts

Application August 11, 1953, Serial No. 373,560
7 Claims. (Cl. 250-27)

1. A pulse height discriminating circuit having a short recovery time and adapted to generate an output pulse of uniform character for each positive input pulse applied thereto in excess of a predetermined threshold amplitude comprising, first and second electron tubes each having

at least an anode, a cathode and a control grid, a direct connection between the anode of said first tube and the control grid of said second tube, a capacitor connected between the cathodes of said tubes, means energizing said tubes so as to be quiescently conducting, a diode connected between the anode of said first tube and a source of reference potential so as to be normally conducting and maintaining the gain of said tube below unity in the quiescent condition of said circuit, said reference potential being of such a magnitude that said diode is cut off upon the application to the grid of said first tube of a

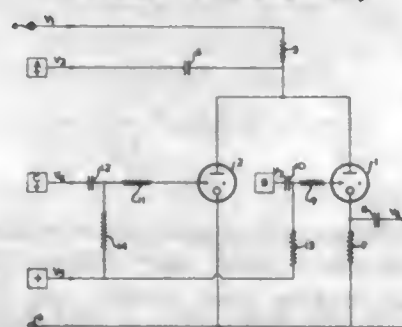


positive pulse in excess of said threshold amplitude thereby permitting the gain of said tube to increase beyond unity and causing regeneration of said circuit, means for deriving an output pulse from the anode of said second tube, the time constant determining said output pulse being the product of the capacitance of said capacitor and the series terminal resistances of said first and second tubes in their conducting condition, and an input circuit for said first tube comprising a capacitor and resistance the time constant of which is shorter than the combined output pulse duration and recovery time of said circuit.

2,821,627

ELECTRICAL GATING CIRCUITS

Ronald Pritchard, Ickenham, Uxbridge, England, assignor to The National Cash Register Company, Dayton, Ohio, a corporation of Maryland
Application April 2, 1954, Serial No. 420,688
4 Claims. (Cl. 250-27)



1. An inhibitor gate circuit comprising a pair of electronic devices interconnected for operation one at a time, a plurality of input circuits for applying impulses to said devices, a certain combination of said input circuits being connected to operate only a first one of said devices upon a coincidence of impulses on said certain combination of input circuits, a further combination of said input circuits being connected to operate a second one of said devices upon a coincidence of impulses on said further combination, an output circuit connected to the second one of said devices for supplying an output only when said second one of the devices is operated, and timing means in the input circuits to cause the first one of said devices to be preferentially operated upon a coincidence of impulses on all of the input circuits thereby inhibiting the output.

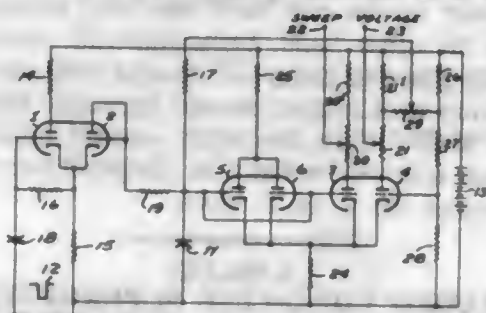
2,821,628

BALANCED SWEEP CIRCUIT

Ellison S. Purlington, Gloucester, Mass.
Application March 9, 1955, Serial No. 493,226
9 Claims. (Cl. 250-27)

1. A sweep circuit comprising a pair of electric discharge paths, each having cathode, control and anode ele-

ments, separate resistance elements having terminals connected to said anode elements, another resistance element having a terminal connected in common to said cathode elements, means to apply energizing potential between the other terminals of said resistance elements, means connecting one of said control elements to the other terminal of said other resistance element, a capacitor coupled between the other control element and the other

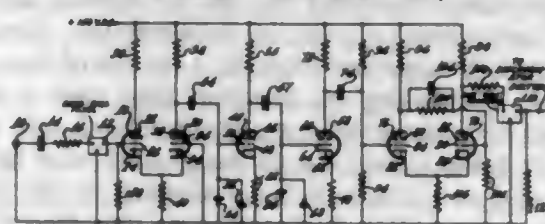


terminal of said other resistance element, means coupled to said capacitor to discharge the same in response to applied pulse energy, a resistance component connected between a point on one of said separate resistance elements and said other control element, and means connected to points on said separate resistance elements to derive output voltages varying oppositely while having a substantially constant sum.

2,821,629

LIMITER CIRCUIT

Leonard Finkel, Haddonfield, and John S. Piontkowski, Collingswood, N. J., and Charles J. Weldknecht, Philadelphia, Pa., assignors to Tele-Dynamics Inc., a corporation of Pennsylvania
Application August 31, 1955, Serial No. 531,752
1 Claim. (Cl. 250-27)



A limiter circuit comprising a band pass filter, means for applying a complex electrical signal from a receiver to said band pass filter, a cathode coupled clipper amplifier, means for applying the electrical output signals from said band pass filter to said cathode coupled clipper amplifier, a limiter amplifier having input and output circuits, a pair of parallel semi-conductor diodes connected with their polarities reversed in said input circuit of said limiter amplifier, said diodes being normally substantially non-conductive and being relatively highly conductive upon the application of a voltage of a predetermined amplitude, means for applying the output signals from said clipper amplifier to said input circuit of said limiter amplifier, a bistable circuit having two relatively stable operating states, means for operating said bistable circuit at a point intermediate said two relatively stable operating states, means for applying the output signals from said limiter amplifier to said bistable circuit to provide a square wave voltage, a sine wave restorer, means for applying said square wave voltage to said sine wave restorer, and means for applying the output voltage from said sine wave restorer to a discriminator circuit.

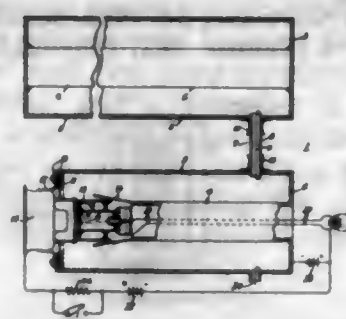
2,821,630

FREQUENCY SHIFTABLE OSCILLATOR

Rudolph A. Dehn, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application November 30, 1949, Serial No. 130,235
2 Claims. (Cl. 250-36)

1. An ultra-high frequency oscillator comprising an electron discharge device of a type having an oscillation

frequency dependent upon the operating voltage applied to its electrodes, a resonant system comprising a plurality of resonators each tuned to the same resonant frequency, said resonators being tightly coupled together to produce a plurality of resonant frequencies for said resonant sys-

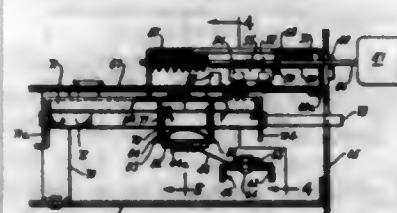


tem, one of said resonators being coupled to said discharge device to excite said resonant system, and means applying to said device operating voltages of values corresponding to desired ones of said resonant frequencies to cause said oscillator to operate at such desired ones of said plurality of resonant frequencies.

2,821,631

SIGNAL-SEEKING DEVICE

Jesse H. Lofton, Feasterville, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application May 23, 1955, Serial No. 510,461
8 Claims. (Cl. 250-40)

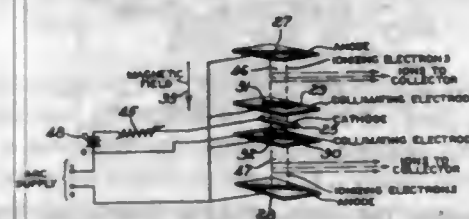


1. In switching apparatus wherein a first contact element can be moved in predetermined directions by a power means, relative to a second, normally stationary contact element which is adjustable in said directions, an adjustment selector for the second element, comprising: track means for the adjustable contact element, extending parallel to said directions; means for inter-engaging and disengaging the first and second contact elements so that the power means may effect movement of the inter-engaged elements, along the track means; means for stopping such movement; and engagement control means, operable after such stopping to move the track means and a part of the adjustable contact element relative to one another, transversely of the track means, and for thereby fixing the adjustable contact element in the position established by said stopping.

2,821,632

APPARATUS FOR PRODUCING IONS OF VAPORIZABLE MATERIALS

Byron T. Wright, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application September 25, 1944, Serial No. 555,615
13 Claims. (Cl. 250-41.9)



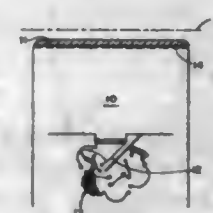
1. An ion source comprising a hollow arc-block, means for establishing a magnetic field through said arc-block,

said arc-block having a region for receiving gas to be ionized and having at least one elongated slit in the wall thereof aligned with said magnetic field and communicating with said region, means for supplying gas to be ionized into said region through an opening in said arc-block, gas ionizing means for producing a pair of collinear arc discharges in said region aligned with said magnetic field, and means for withdrawing ions from said region through said slit.

2,821,633

SCINTILLATOR

Herbert Friedman, Arlington, Va.
Application June 30, 1955, Serial No. 519,299
9 Claims. (Cl. 250-71)
(Granted under Title 35, U. S. Code (1952), sec. 266)

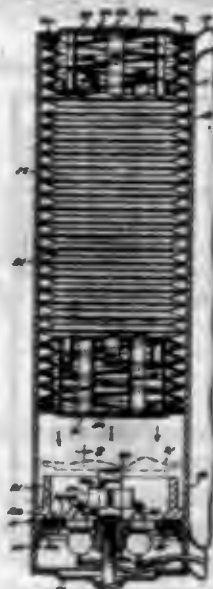


6. A radiation detector comprising a scintillant glass element operative under penetrating radiation to generate secondary radiation, photoelectrically responsive means positioned to receive the secondary radiation from said glass scintillator element, electron multiplier means positioned to receive emission from the cathode means and electrically pulse responsive means fed by said electron multiplier.

2,821,634

X-RAY TUBE HEAD FOR HAZARDOUS LOCATIONS

George B. Myers, Chesterland, and Richard W. Cobean, Clarendon Hills, Ohio, assignors to Picker X-Ray Corporation Waite Manufacturing Division, Inc., a corporation of Ohio
Application September 1, 1953, Serial No. 377,868
4 Claims. (Cl. 250-87)



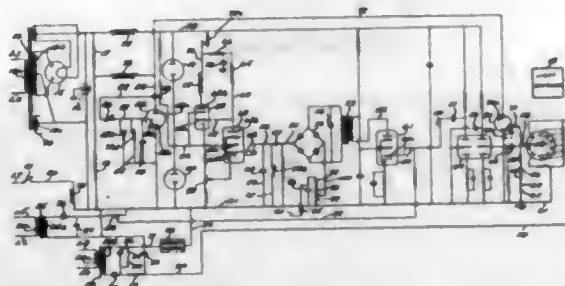
1. In combination, an X-ray tube head including a liquid-tight housing, an X-ray tube within said housing, an electrical energizing circuit for said tube including a switch normally enabling said circuit and movable to a circuit disabling position, a dielectric liquid substantially filling said housing around said tube, means providing a chamber in communication with said liquid-

containing portion of said housing whereby said chamber is filled with liquid, said last named means including a movable wall of said chamber, means urging said movable wall against said liquid in said chamber, and means responsive to predetermined movement of said wall into said chamber by said urging means for causing movement of said switch to said disabling position.

2,821,635

PHOTO TIMING CIRCUIT

Jack Ball, Chesterland, and Gunter G. Wilkens, Shaker Heights, Ohio, assignors to Picker X-Ray Corporation Waite Manufacturing Division, Inc., Cleveland, Ohio, a corporation of Ohio
Application December 21, 1954, Serial No. 476,818
5 Claims. (Cl. 250-95)



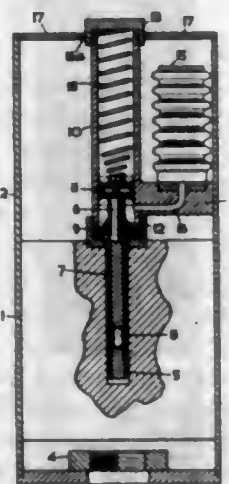
1. Means for timing an X-ray photograph including a photoelectric cell adapted to receive light from a fluorescent surface, the output of said cell responsive to light of wave form including a substantially constant dark current component and an alternating current component, electric circuit means connected in the output circuit of said cell for electrically separating said components, and electrical circuit means responsive to said alternating current component only for terminating an X-ray exposure.

2,821,636

GO-DEVILS

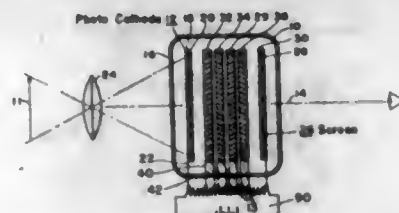
Sidney Jefferson, Abingdon, England, assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

Application April 18, 1955, Serial No. 502,176
4 Claims. (Cl. 250-106)



1. A device for housing a source of radio-activity to be associated with a go-devil for a pipeline comprising a screening pot, a holder for said source, means providing for relative displacement of said pot and said holder between a screened and an exposed condition of the source, means for effecting displacement towards the screened condition and means sensitive to the hydraulic pressure in the pipeline for effecting displacement towards the exposed condition.

2,821,637
LIGHT IMAGE REPRODUCTION DEVICES
William L. Roberts, Monroeville, and Andrew P. Kruper, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 30, 1953, Serial No. 395,044
6 Claims. (Cl. 250-213)

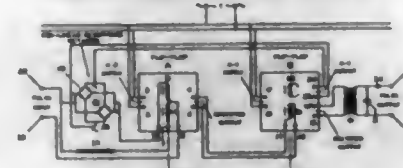


2. A light amplifier comprising a photoemissive cathode, a fluorescent screen and one or more auxiliary electrodes having the property of high secondary electron emission, each of said auxiliary electrodes consisting of a structure extending transversely across the tube and having a plurality of apertures inclined with respect to the axis of said light amplifier.

2,821,638

BINARY COUNTING SYSTEM

Alan S. FitzGerald, Mill Valley, Calif.
Application June 15, 1956, Serial No. 591,631
19 Claims. (Cl. 307-88)

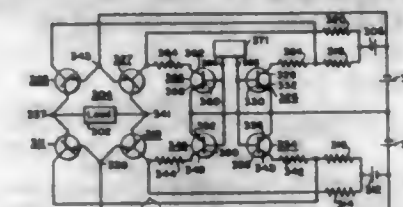


6. A binary counter comprising a first bi-stable system and a second bi-stable system, each of said bi-stable systems having two conditions of stability a high output condition and a low output condition, means whereby when said first bi-stable system is in the high output condition said second bi-stable system is caused to assume the low output condition and whereby when first bi-stable system is in the low output condition said second bi-stable system is caused to assume the high output condition, a pair of bridge-type rectifiers having their A.-C. connections paralleled and having their D.-C. outputs connected in series additively to form a closed circuit, means including said rectifiers for supplying a series of count signal impulses to said first bi-stable system, means for deriving A.-C. output from second bi-stable system, and means for energizing said rectifiers with said A.-C. output.

2,821,639

TRANSISTOR SWITCHING CIRCUITS

Richard L. Bright, Hempfield Township, Westmoreland County, and George H. Royer, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 28, 1954, Serial No. 465,322
5 Claims. (Cl. 307-88.5)



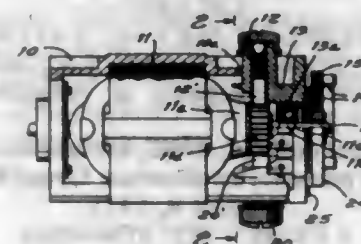
1. Apparatus for connecting a 2-terminal unidirectional voltage source to a pair of load terminals comprising: first and second p-n-p junction transistors the emitters of which are connected to a first source terminal and

the collectors of which are respectively coupled to first and second load terminals; first and second n-p-n junction transistors, the emitter electrodes of which are coupled to a second source terminal and the collector electrodes of which are respectively connected to said first and second load terminals; means for simultaneously applying a potential of one polarity between the emitter and base electrodes of said first p-n-p transistor and of said first n-p-n transistor, and a potential of the opposite polarity between emitter and base electrodes of said second p-n-p transistor and said second n-p-n transistor; and means for simultaneously reversing the polarity of the potential applied between each of said emitter and base electrodes.

2,821,640

ELECTRIC MOTOR

Hans Fleckenstein and Günter Steinert, Oldenburg, Germany, assignors to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application February 7, 1955, Serial No. 486,611
7 Claims. (Cl. 310-68)

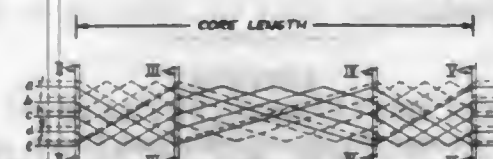


1. An electric motor comprising, in combination, a U-shaped support frame having a base portion and two leg portions, each of said leg portions being formed at the free end thereof with a recess; a stator stationarily supported by said support frame between said leg portions thereof; a rotor mounted for rotation within said stator and having a shaft member; collector means mounted on said shaft member for rotation therewith; rotational speed responsive control means also mounted on said shaft member for rotation therewith; and a support member connected to said support frame at the free ends of said leg portions thereof and supporting a first and a second pair of brushes for contacting said collector means and said rotational speed responsive control means respectively during rotation thereof together with said shaft member, said first pair of brushes being received at least partially within said recesses formed at said free ends of said leg portions.

2,821,641

STRAND TRANSPOSITION

William L. Ringland, West Allis, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application April 16, 1956, Serial No. 578,520
9 Claims. (Cl. 310-213)

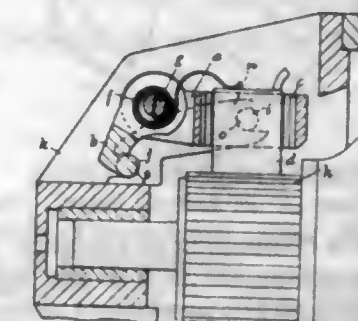


1. In a dynamoelectric machine having a core with a slot, a conductor disposed in said slot, said conductor comprising a plurality of conductor strands arranged in two rows having an equal number of strands in said rows, said strands being transposed by rotation to occupy each slot position in said rows for substantially equal portions of said slot length and to occupy reversed top to bottom slot positions at opposite ends of said slot.

2,821,642

BRUSH HOLDERS FOR DYNAMO ELECTRIC MACHINES

George Sydney Tooke, Edgbaston, Birmingham, England, assignor to Joseph Lucas (Industries) Limited, Birmingham, England
Application June 18, 1956, Serial No. 592,117
Claims priority, application Great Britain June 23, 1955
1 Claim. (Cl. 310-246)

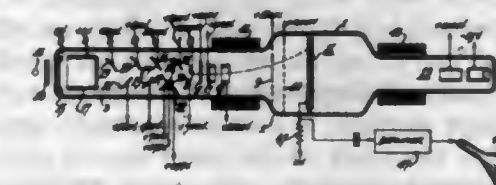


A dynamo electric machine brush holder and supporting means therefor, comprising in combination a pair of toggle-like links having adjacent forked ends pivotally connected together, at least one spring acting on the links to urge the other ends thereof towards each other, one of the links being provided with a brush-receiving socket, a pair of lateral projections on each link, and a support having thereon a pair of ramps provided at their ends with recesses for accommodating the lateral projections on the links, the projections on one of the links being initially engageable with the recesses at one end of the ramps, and the projections on the other link being then slidable along the ramps under pressure exerted on the pivotally interconnected ends of the links to stress the spring until the last mentioned projections are caused by the spring to engage the recesses at the other end of the ramps.

2,821,643

LIGHT SENSITIVE STORAGE TUBE AND SYSTEM

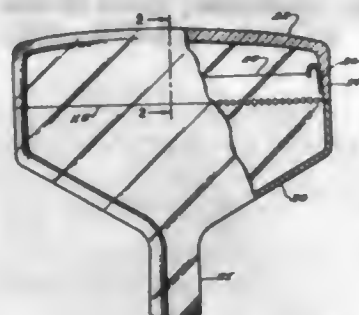
George A. Morton, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Continuation of application Serial No. 224,302, May 3, 1951. This application June 21, 1954, Serial No. 438,211
5 Claims. (Cl. 313-67)



1. An electrical storage tube comprising an evacuated envelope containing a storage electrode, photomultiplier means for emitting electron beam currents produced in response to the occurrence of certain light producing phenomena to be recorded, control means for controlling the flow of said electron current to said storage electrode, electron gun means adjacent said photomultiplier means for injecting an electron beam into an advanced stage of amplification of said photomultiplier means for producing a predetermined electron charge upon said storage electrode thereby providing a reference axis through said recorded phenomena, and electron beam source means disposed in a spaced relation to said storage electrode for scanning said storage electrode and reading the information stored thereon.

2,821,644

MOUNTINGS FOR PICTURE TUBE GRIDS
Kenneth M. Henry and Harvard B. Vincent, Toledo, Ohio, assignors to Owens-Illinois Glass Company, a corporation of Ohio
Application November 10, 1954, Serial No. 467,960
11 Claims. (Cl. 313-78)



1. A picture tube comprising an envelope, a grid therein and means for attaching the grid to the walls of the envelope, the attaching means comprising strips of thin sheet material extending along the said walls with a major portion of each strip lying flat against the side walls, and means for anchoring said strips to said walls, the grid comprising a multiplicity of narrowly spaced fine strands anchored to said strips, the said major portions of said strips being substantially perpendicular to the grid strands.

2,821,645

ION TRAP ELECTRON GUN
Lloyd E. Swedlund, Dewitt, N. Y., assignor to Radio Corporation of America, a Delaware corporation
Original application December 2, 1949, Serial No. 130,775, now Patent No. 2,744,208, dated May 1, 1956. Divided and this application November 16, 1955, Serial No. 547,118
9 Claims. (Cl. 313-82)



3. A cathode ray tube comprising, an envelope having a tubular portion, an electron gun within said tubular envelope portion, said electron gun including at one end thereof a cathode electrode and at least one other electrode spaced therefrom along said tubular envelope portion, said electrodes being offset from the axis of said tubular envelope portion, a tubular electrode spaced from the said other electrode at the other end of said electron gun and mounted coaxially within said tubular envelope portion, the end of said tubular electrode adjacent to said other electrode being offset from said other electrode.

2,821,646

ENCASED ELECTROLUMINESCENT DEVICE
Cyril H. Walker, Rugby, England, assignor to General Electric Company, a corporation of New York
Application February 23, 1954, Serial No. 411,997
Claims priority, application Great Britain June 25, 1953
1 Claim. (Cl. 313-108)

An electroluminescent device comprising a flat sealed casing having front and back sides with linear dimensions substantially greater than the depth of said casing, said front side being light transmitting and at least part of said casing being of plastic material not entirely impervious to diffusion of moisture therethrough, a first transparent

conductive film on the inner surface of the front side, a layer thereover of an electroluminescent phosphor of a type adversely affected by moisture, a second conductive film thereover, lead wires sealed into said casing and connected to said conductive films, said casing having a depth



providing an air space between said second film and said back side, and a desiccant non-reactive with said electroluminescent layer and conductive films and the material of the casing enclosed within said casing and filling a portion of said air space to reduce the deleterious effects of moisture on the electroluminescent layer.

2,821,647

HIGH PRESSURE METAL VAPOR LAMP
Sydney A. R. Rigden, London, England, assignor to General Electric Company, a corporation of New York
Application July 16, 1952, Serial No. 299,127
Claims priority, application Great Britain August 9, 1951
1 Claim. (Cl. 313-184)



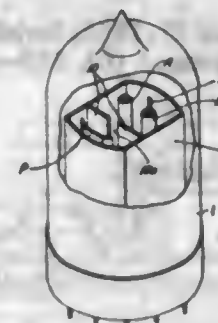
A high pressure metal vapor lamp operable at kilowatt loadings comprising a sealed envelope containing an ionizable medium including an inert starting gas and vaporizable metal including mercury in an amount sufficient to furnish a pressure in the range of approximately 1 atmosphere and above during operation of the lamp, a pair of main operating electrodes sealed into said envelope and having relatively closely spaced conjugate terminal surfaces defining a short arc gap, at least one of said electrodes comprising a molybdenum rod having fastened to its inner end a relatively massive hollow block of tantalum containing in the interior thereof activating material comprising a mixture of approximately 2.5 parts barium oxide, 1 part calcium oxide and 3 parts thorium oxide by molecular weight and a tungsten powder in an amount of about 3 percent by weight of the said oxides, said tantalum block being provided with an aperture through its terminal surface exposing the activating material within it and allowing diffusion of activating material to its terminal surfaces, and a coil of tungsten wire wound around said molybdenum rod and extending up to said tantalum block.

2,821,648

ION DEFLECTION THYRATRON
George W. Baker, Stamford, Conn.
Application April 15, 1953, Serial No. 348,981
7 Claims. (Cl. 313-196)

1. In controlling a thyratron type tube which has an envelop containing an ionizable medium, an anode, an electron emitting cathode, and at least two conductively unconnected cathode emission control electrodes respectively having portions interposed between the anode and cathode and spaced to opposite sides of the path of positive ion flow from the anode region to the cathode vicinity and at least one of which control electrodes may

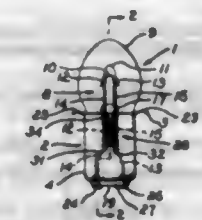
be at or above a critical potential inducing a degree of electron emission from the cathode and consequent formation of positive ions of said medium adequate on flow in said path to the cathode vicinity to initiate tube firing; the method of further controlling tube firing which consists in electrostatically deflecting the positive ion flow from said path and away from the cathode vicinity by producing



an electrostatic force across said portions of the electrodes and transversely of said path through the imposition of a suitable potential difference between said electrodes, whereby tube firing is restrained until the deflection force is reduced by decreasing the potential difference between the electrodes sufficiently to enable adequate flow of the positive ions along said path to the cathode vicinity to initiate tube firing.

2,821,649

ELECTRIC LAMP BASE
Walter J. Gelger, Cleveland Heights, Ohio, assignor to General Electric Company, a corporation of New York
Application November 19, 1953, Serial No. 393,103
6 Claims. (Cl. 313-316)



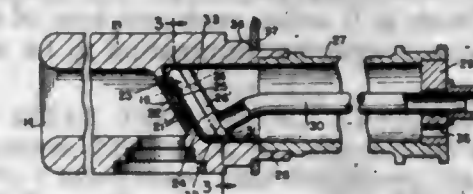
1. An electrical device comprising an envelope, an electrical energy translation element mounted within said envelope, lead-in wires sealed through said envelope and connected to said energy translation element, and a base secured to said envelope and comprising a generally smooth walled cylindrical metal shell having an open inner envelope-receiving end and having an outwardly deformed portion extending longitudinally of the shell from its inner end to provide a keying rib thereon, said rib having a slot therein extending longitudinally of the rib from the open inner end of the shell, and one of said lead-in wires extending through said slot to the outer side of the shell and being electrically connected thereto.

2,821,650

METHOD OF OBTAINING VACUUM TIGHTNESS IN CAST METAL STRUCTURES OF THIN SECTION AND RESULTING PRODUCTS
Michael J. Zanick, Greensfield, and John E. Illingworth, Waukesha, Wis., assignors to General Electric Company, New York, N. Y.
Application September 28, 1951, Serial No. 248,766
2 Claims. (Cl. 313-330)

1. An anode comprising a casting of cuprous material having a wall forming an electron target on one side thereof and defining a chamber for the circulation of a cooling medium on the opposite side of the wall, said

casting including an integral fin forming a partition dividing said chamber into compartments communicating one



with another between an edge of the fin and said wall of the chamber.

2,821,651

GRID CONSTRUCTION
Leo C. Werner, Cedar Grove, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Original application June 4, 1951, Serial No. 229,778, now Patent No. 2,648,797, dated August 11, 1953. Divided and this application March 30, 1953, Serial No. 345,596
2 Claims. (Cl. 313-350)



1. A support post for the control electrode of an electrical discharge tube comprising a linear member having L-shaped tongues struck up therefrom, said tongues having portions constituting ledges and having portions constituting retaining means extending substantially parallel to the longitudinal central axis of said member, and said ledges being spaced apart along said member to receive successive turns of wire constituting said control electrode.

2,821,652

MULTIHELIX TRAVELING WAVE TUBES
George H. Robertson, Summit, and Edward J. Walsh, Morristown, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 6, 1952, Serial No. 313,252
10 Claims. (Cl. 315-3.6)



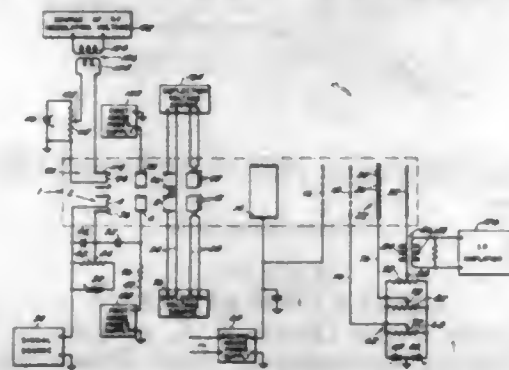
4. A traveling wave tube comprising an envelope, a plurality of helices positioned in parallel in said envelope, each of said helices having a different mid-band frequency along its interaction region, means for projecting a distinct beam of electrons along each of said helices, means for applying an input signal to said helices, and means for removing an output signal from said helices.

2,821,653

ELECTRICAL STORAGE SYSTEM
John N. Dyer, Oyster Bay Cove, N. Y., assignor to Airborne Instruments Laboratory, Inc., Mineola, N. Y., a corporation of Delaware
Application October 19, 1949, Serial No. 122,350
24 Claims. (Cl. 315-11)

1. The method of storing electrical information in the form of distributed electrical charges comprising the steps of forming a beam of electrons, accelerating said beam

of electrons, deflecting said beam so as to cause it to repeatedly scan an insulating storage surface, decelerating said electrons, controlling the energy level of said electrons in said beam as it strikes each unit area of said surface in accordance with the information to be stored at

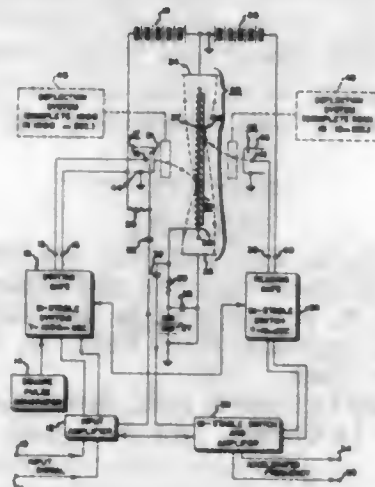


said unit area of said surface, and building up the electrical charges distributed at each unit area of the surface by said repeated scanning until the amount of charge at each respective unit area is proportional to the energy level of the electrons in said beam as it strikes said respective unit area.

2,821,654

INFORMATION RATE ACCELERATOR AND DECELERATOR OR THE LIKE

Lance R. Jacobsen, Lynwood, and Theodore B. Wood, Burbank, Calif., assignors to Hoffman Electronics Corporation, a corporation of California
Application October 24, 1955, Serial No. 542,399
2 Claims. (Cl. 315-12)



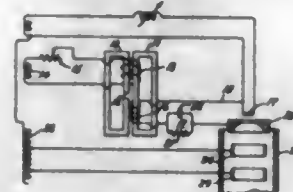
1. In combination, a storage tube having a writing gun, a reading gun, a storage portion, a writing gun deflection means, and a reading gun deflection means; a first input circuit coupled to said writing gun; a second input circuit coupled to said reading gun; a first deflection system means coupled to said writing gun deflection means for impressing a complete voltage scan upon said writing gun deflection means over a chosen first time period; a second deflection system means coupled to said reading gun deflection means for impressing a complete voltage scan upon said reading gun deflection means over a chosen second time period shorter than and following said first time period; an output impedance coupled to said storage portion of said storage tube; a bistable electronic switch means coupled to said first and second input circuits for simultaneously opening said first input circuit and closing said second input circuit over said first time period and, subsequently, simultaneously closing said first input circuit and opening said second input circuit over said second time period; an output circuit; closeable circuit means coupled to said bistable electronic switch means and electrically interposed between said output impedance and said output circuit for selectively passing output signals from said storage tube during said second time period;

and a signal source coupled through at least a portion of said bistable switch means to said first input circuit of said electron writing gun.

2,821,655

BIAS FOR ELECTRON BEAM EQUIPMENT

Willem F. Westendorp, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application June 27, 1955, Serial No. 518,199
11 Claims. (Cl. 315-14)

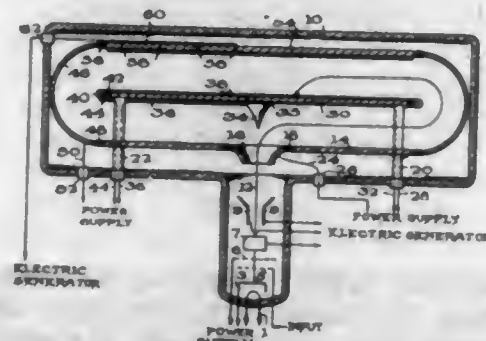


1. Apparatus for biasing electron beam equipment, comprising an electron gun having a control electrode means supplying cyclically varying voltage to said equipment for accelerating electrons from said gun, said means supplying to said control electrode peaked voltage having proper phase, amplitude and periodicity with respect to said accelerating voltage so that electrons flow in the beam during a short portion only of a cycle of the applied accelerating voltage providing a beam of electrons having substantially the same energy.

2,821,656

ELECTRONIC DEVICE

Leigh Curtis Foster, Westmount, Quebec, Canada, assignor, by mesne assignments, to Kaiser Industries Corporation, a corporation of Nevada
Application April 18, 1955, Serial No. 502,109
23 Claims. (Cl. 315-23)



1. An electron discharge device comprising an electron sensitive target, means for delivering an electron beam along a path in a direction toward said target, means for deflecting the beam from said path prior to advance of same to the plane of said target to a second path which extends adjacent and in spaced relation with a first surface of the target, means for deflecting the beam from said second path to a third path which extends adjacent and in spaced relation with a second surface of the target, and means for deflecting the beam successively at different positions from said third path into impingement with various portions of said second surface of the target.

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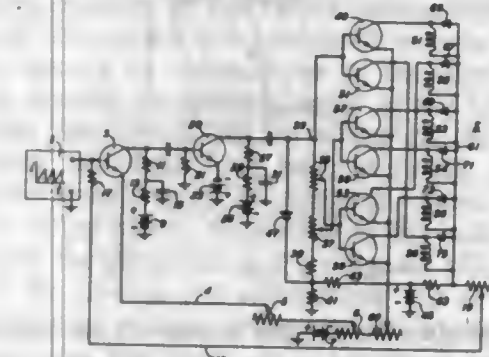
DEFLECTING SYSTEM

Russell C. Newhouse, Short Hills, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 16, 1955, Serial No. 508,609
10 Claims. (Cl. 315-27)

1. In a system for deflecting the electron beam of a cathode ray tube along each of a plurality of rectilinear coordinate axes in response to a particular deflecting signal for each of said axes, the combination of a plurality

of amplifiers for each of said axes, a plurality of deflection coils respectively connected to said amplifiers, the coils connected to the amplifiers for any one of said axes being adapted to collectively establish an electromagnetic

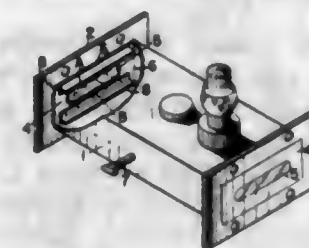
field for deflecting said electron beam along that one axis, and means for respectively applying each one of said deflecting signals to all of the amplifiers for the corresponding one of said axes.



2,821,658

ARC-LIMITING SHIELDS FOR HIGH FREQUENCY GASEOUS ELECTRIC DISCHARGE SWITCHING TUBES

Albert W. Naugler, Brookline, Mass., assignor to Bomac Laboratories, Inc., Beverly, Mass., a corporation of Massachusetts
Application July 1, 1954, Serial No. 440,717
2 Claims. (Cl. 315-39)

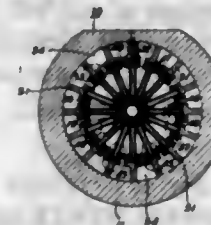


1. A high frequency gaseous electric discharge switching device comprising a gas-filled envelope of hollow pipe waveguide having a transverse metal plate hermetically sealed at an end thereof, said metal plate defining a central opening covered by a dielectric material, a pair of L-shaped metal shields mounted on opposed sides of said opening at an intermediate point between the edges of said opening and the outer edge of said plate, said shields defining wall structure extending beyond the plane of said plate in mutually parallel relationship, each shield having an overall length greater than the width of said opening.

2,821,659

MAGNETRON

Joseph Feinstein, Morristown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application November 18, 1954, Serial No. 469,644
18 Claims. (Cl. 315-39.77)

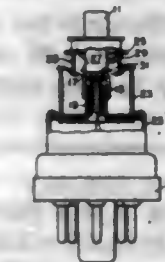


12. A conductive circuit element comprising a plurality of hollow conductive members, means mounting said conductive members circumferentially, adjacent ones of said conductive members defining resonant cavities, and a pair of conductive elements mounted on each of said hollow

2,821,660

HEAT TREATMENT APPARATUS

Vert Upshaw, Elmira, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 14, 1955, Serial No. 467,886
5 Claims. (Cl. 315-57)

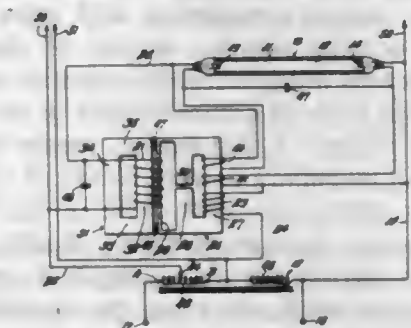


1. In an electron discharge device having an envelope and an electrically conductive member, the combination of a primary current inducing member, a continuous circuit member having a first portion positioned relative to said current inducing member so that a current may be induced into said first portion from said current inducing member, said continuous circuit member having a second portion positioned relative to said electrically conductive member so that currents are induced into said electrically conductive member when current flows through said second portion of said continuous circuit member.

2,821,661

APPARATUSES AND CIRCUITS FOR DIMMING GASEOUS DISCHARGE DEVICES

Arthur L. Bastian, Yonkers, N. Y., assignor to Ward Leonard Electric Company, a corporation of New York
Application June 8, 1954, Serial No. 435,170
12 Claims. (Cl. 315-98)



1. Apparatus for starting a gaseous discharge lamp comprising electromagnetic means adapted to be connected in series with a gaseous discharge lamp to limit the arc current therethrough and electromagnetic means for producing high voltage pips of short duration in said first means for starting a gaseous discharge lamp.

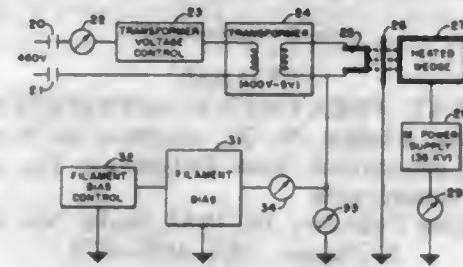
2,821,662

ION SOURCE

William A. Bell, Jr., and Leon O. Love, Oak Ridge, and Willis K. Prater, Fountain City, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application July 29, 1955, Serial No. 525,413
5 Claims. (Cl. 315-111)

1. In an ion source, a container provided with walls defining a chamber for receiving a charge of material to be vaporized, a thermionic filament disposed adjacent to said container, a grid structure disposed between said filament and said container, and provided with a plu-

ality of apertures arranged to form discrete beams of electrons directed towards said walls adjacent said chamber, means for heating said filament to cause it to emit electrons, and an adjustable potential source connected

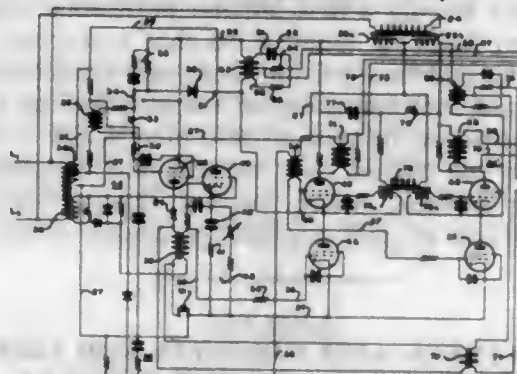


between said grid and filament for accelerating said electrons from said filament through said grid to strike said container walls, thereby heating said chamber to vaporize said material.

2,821,663

ELECTRONIC TIMER AND POWER REGULATOR FOR THREE PHASE SEAM WELDER

Joseph J. Riley, Warren, and Clayton E. Stambaugh, Girard, Ohio, assignors to The Taylor-Winfield Corporation, Warren, Ohio, a corporation of Ohio
Application June 24, 1955, Serial No. 517,802
8 Claims. (Cl. 315-144)



1. In a timing and control circuit for regulating the flow of three phase currents the combination of first and second pairs of ignitron valves connected in anti-parallel relation in first and second phases of a three phase power source, first and second pairs of primary and secondary control valves, means connecting said pairs of control valves in anti-parallel relation in one of the phases of said source whereby anode-cathode potential is alternately furnished to said pairs of control valves in predetermined relation to the phases of said source, means conditioning the primary and secondary control valves of said first pair for conduction during one half cycle of said one phase, means conditioning the control valves of said second pair for conduction during the following half cycle of said one phase, means interconnecting the secondary control valves of both pairs thereof with the ignitron valves for said first phase, means interconnecting the primary control valves of both pairs thereof with the ignitron valves for said second phase, and phase shifting means associated with corresponding ones of said control valves of both pairs thereof whereby in response to conductivity in said corresponding ones of said valves during alternate half cycles of said one of said phases the ignitron valves of one of the pairs thereof are rendered conductive in time delayed relation to pass current in another of the three phases.

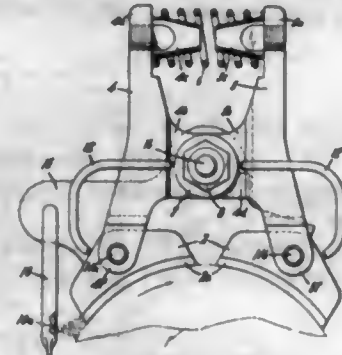
2,821,664

GROUNDING DEVICE TO PREVENT STRAY CURRENTS IN SHAFT BEARINGS

Firm L. Weaver, Lynnfield Center, and Vladimir T. Dimitroff, Jr., Stoneham, Mass., assignors to General Electric Company, a corporation of New York
Application October 28, 1955, Serial No. 543,339
6 Claims. (Cl. 317-2)

1. A grounding device for a shaft including a brush, grounded means supporting the brush relative to the shaft,

means resiliently biasing the brush into contact with the shaft, and lubricating means providing a film of lubricating oil on the order of .0001" thick between the

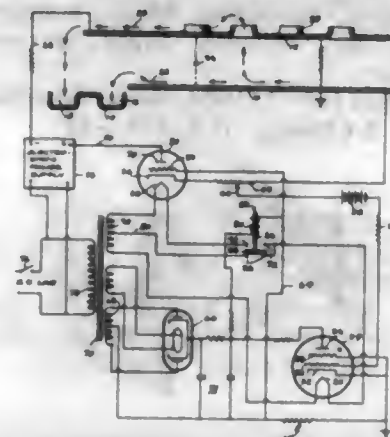


brush and shaft whereby the brush will be lubricated and any currents generated in the shaft will pass through the oil film and to ground without arcing.

2,821,665

CUTOFF CIRCUIT FOR ELECTROSTATIC DEVICES

William A. Brastad, Edward R. Van Krevelen, and Earl F. Diekhoff, Minneapolis, Minn., assignors to General Mills, Inc., a corporation of Delaware
Application February 24, 1956, Serial No. 567,510
6 Claims. (Cl. 317-9)



1. A cutoff circuit for electrostatic devices having a pair of spatially disposed electrodes between which a difference in electrical potential is normally maintained, the circuit comprising an electrostatic power supply for said electrodes, a vacuum tube provided with a plate, cathode and grid, a sensing resistor, said plate, cathode and resistor being in series with said power supply, a gaseous tube provided with a plate, cathode and grid, circuit means connecting the grid of said gaseous tube to said sensing resistor so that said grid is triggered by the voltage across said resistor to fire said gaseous tube upon passage of a predetermined amount of current between said electrodes and through said sensing resistor, a cathode resistor, a source of power in circuit with said cathode resistor and the plate and cathode of said gaseous tube, circuit means connecting the grid of said vacuum tube to said cathode resistor so that said vacuum tube is biased by the voltage across said cathode resistor to increase the tube resistance of said vacuum tube when said gaseous tube is fired, thereby to limit the passage of current through the vacuum tube and hence between said electrodes to a value no greater than said predetermined amount of current.

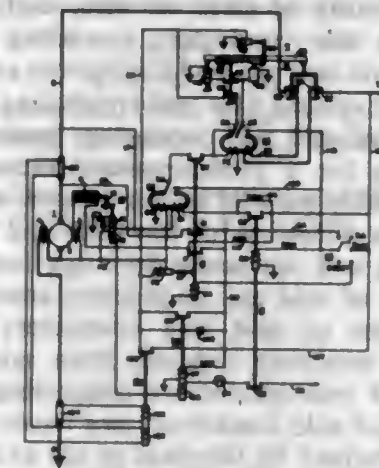
2,821,666

CONTROL AND PROTECTION OF ELECTRIC POWER SYSTEMS

Bascom O. Austin, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application February 19, 1954, Serial No. 411,469
19 Claims. (Cl. 317-13)

13. A control and protective system for a direct-current generator having a field winding, said system includ-

ing switch means for connecting the generator to a load bus, the switch means having a closing coil for closing the switch, a holding coil effective when energized for holding the switch in closed position, and tripping means for effecting opening of the switch independently of the holding coil, the switch being adapted to open more rapidly when opened by energization of the tripping means than when opened by deenergization of the holding coil, a field relay for controlling the circuit of the generator field winding, said field relay being normally closed and having electrically energized tripping means, polarized differential relay means responsive to the voltage difference between the generator and the bus for effecting energization of the closing coil and holding coil of the switch means when said voltage difference has a predetermined

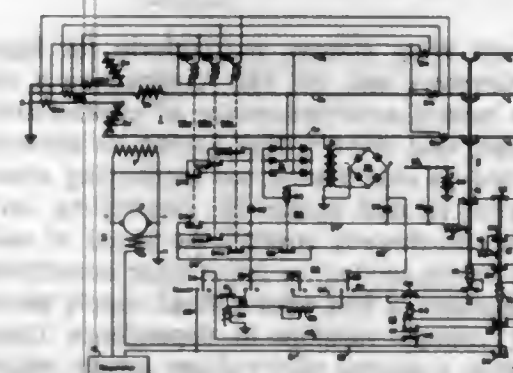


magnitude and direction, the closing coil being deenergized upon closure of the switch, said differential relay means also being responsive to reverse current flowing from the bus to the generator for effecting deenergization of the holding coil to allow the switch to open, a second polarized relay responsive to a higher value of reverse current for energizing both the tripping means of the switch and the tripping means of the field relay, a voltage relay responsive to the generator voltage and adapted to be actuated when said voltage exceeds a predetermined value, and a fault responsive relay adapted to be actuated in response to a fault in the generator, said voltage relay and fault responsive relay each being connected to effect energization of both the tripping means of the switch and the tripping means of the field relay.

2,821,667

GENERATOR CONTROL AND PROTECTIVE SYSTEM

Bascom O. Austin and Alfred A. Lighty, Lima, Ohio, assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 19, 1954, Serial No. 451,019
14 Claims. (Cl. 317-13)



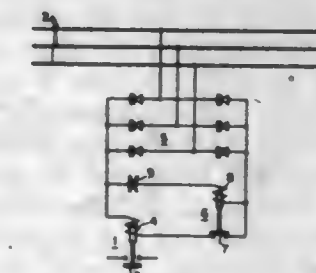
7. A control and protective system for an alternating current generator having a field winding and an exciter connected to supply direct current to the generator field winding, the exciter having a field winding, said system comprising electrically operated switch means for con-

necting the generator to a load bus, a generator control relay for controlling the circuit of the exciter field winding and the operation of said switching means, an energizing circuit for the control relay, means for connecting the energizing circuit to an external source of direct current, rectifier means connected to supply direct current to the energizing circuit from the output voltage of the generator, the control relay having closing means for actuating the relay to closed position and having tripping means for actuating the relay to open position, manual switch means having a first position for energizing said closing means from the energizing circuit, the control relay having contact means connected to effect completion of the exciter field winding circuit and partial completion of an energizing circuit for said electrically operated switch means from said rectifier means when the control relay is in closed position, and the manual switch means having a second position for completing said last-mentioned energizing circuit to effect closing of the electrically operated switch means, and relay means responsive to a fault in the generator or generator leads for energizing said tripping means from the first-mentioned energizing circuit, said fault-responsive relay means also including means for connecting the first-mentioned energizing circuit to the exciter to be energized thereby, said contact means of the control relay effecting interruption of the exciter field winding circuit when the control relay is in open position, and the control relay also having contact means connected to effect opening of said switch means when the control relay is actuated to open position.

2,821,668

TIME DELAY RELAY MEANS

Bascom O. Austin, Lima, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 3, 1954, Serial No. 454,111
6 Claims. (Cl. 317-49)



5. In combination, a relay having an operating coil, means for energizing said coil from a direct current voltage, a second relay having contacts connected to control the energization of said coil, and means responsive only to rapid change of said voltage for effecting actuation of the second relay to prevent energization of the first-mentioned relay for the duration of such change, said last-mentioned means being non-responsive to direct current.

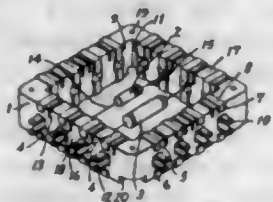
2,821,669

MOUNTING ELECTRICAL CIRCUIT COMPONENTS

David Adam Christian, Charlton, London, England, assignor, by mesne assignments, to Siemens Edison Swan Limited, a British company
Application June 26, 1956, Serial No. 594,025
Claims priority, application Great Britain July 8, 1955
7 Claims. (Cl. 317-101)

1. A circuit assembly, incorporating circuit components of a circuit arrangement and mounting and electrical interconnecting arrangements for these components, including a plurality of component-containing units each comprising in combination a frame formed of insulating material and framing a space for the accommodation of circuit components and having in each of its two op-

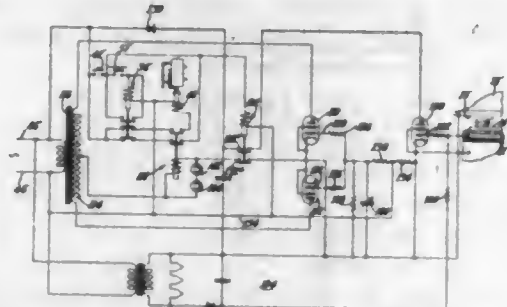
positely facing framelike faces locating grooves defining a plurality of component terminal positions on the frame, a locating groove being disposed in each of said two framelike faces at each of these component terminal positions, a plurality of terminal parts carried by said frame at such component terminal positions, each said terminal part being in the form of a clip having a contact-making portion which is located in a said locating groove in a framelike face of said frame, said terminal part standing proud of this face and having a tab portion which protrudes from the side of said frame, a number of circuit



components supported in said space, and wires constituting terminal wires of these circuit components of the unit and secured to and electrically connected to said tab portions of said terminal parts, said component-containing units being assembled together serially with adjoining units having a framelike face of the frame of one unit face to face with a framelike face of the frame of the other unit and having said contact-making portions of terminal parts occupying corresponding component terminal positions on the frames of the two units in contact with each other.

2,821,670 ELECTRONIC CONTROLS FOR CUTTING MACHINES

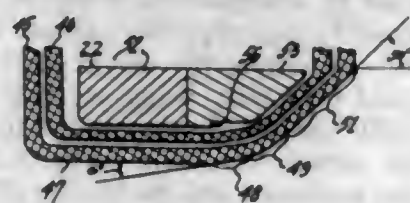
Robert W. Bradley, Marblehead, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application February 11, 1955, Serial No. 487,553
1 Claim. (Cl. 317-142)



Electrical timing apparatus comprising, in combination, a first gaseous discharge tube having an anode, a cathode and a control electrode, an input circuit for said tube including a source of D. C. bias voltage effective to maintain said tube normally nonconductive, said bias source including substantial effective series resistance whereby the bias voltage may be reduced to the critical value by a conductance path of moderate resistance shunted across the source, an output circuit for said tube comprising a D. C. source and a series resistor, a time constant circuit comprising a resistor element and a capacitance element connected in series across said resistor whereby said capacitance element is arranged for charging upon conduction by said tube, two thyratrons connected in a full-wave rectifier stage, the cathodes and the control grids of said thyratrons being connected for negative biasing by the voltage across said capacitance element, a transformer having a center-tapped secondary, and a relay having its coil connected in series between the cathodes of said thyratrons in the center-tap of said secondary, said relay being thereby arranged normally to be energized and to be deenergized in response to the initiation of discharge through said discharge tube after an interval determined by said time constant circuit.

2,821,671 DEFLECTION YOKE

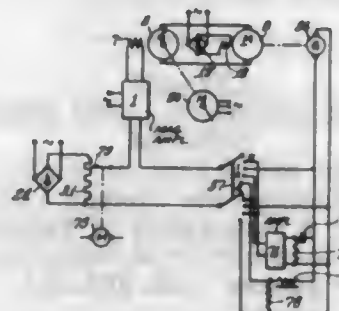
Jerrold K. Kratz, Haddonfield, and Maximilian J. Obert, Merchantville, N. J., assignors to Radio Corporation of America, a corporation of Delaware
Application March 18, 1953, Serial No. 343,068
13 Claims. (Cl. 317-200)



1. A deflection yoke coil for a cathode ray tube comprising, a plurality of turns of wire, each of said turns including two side conductors extending longitudinally of a central axis and two end conductors extending transversely of said central axis and connecting said side conductors, each of said side conductors having a main portion extending for a predetermined distance along and lying substantially parallel to said central axis and an extended portion extending for less than said predetermined distance along and outwardly deviating from said central axis, and one of said end conductors connecting the extended portions of said side conductors being spaced more than a minimum distance from said central axis, such that said end conductors connecting the extended portions of said side conductors are located radially outside a circle defined by the ends of the extended portions of said side conductors and by points symmetrically located with respect to said ends on the opposite side of said central axis.

2,821,672 ELECTRIC CONTROL SYSTEMS FOR ELEVATORS, PARTICULARLY HIGH-SPEED PASSENGER ELEVATORS AND THE LIKE

Georg Schilling, Erlangen, Wilhelm Kafka, Tennenlohe, near Erlangen, and Hellmut Watzinger, Erlangen, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Berlin-Siemensstadt, Germany, a German corporation
Application August 19, 1953, Serial No. 375,256
Claims priority, application Germany August 25, 1952
19 Claims. (Cl. 318-146)

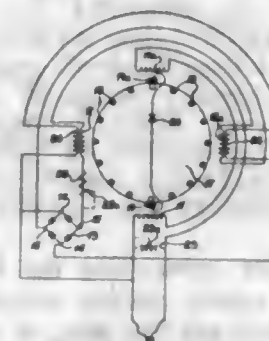


15. A hoist drive system, particularly for high-speed passenger elevators and the like, comprising a variable-speed drive motor, a power source of controllable energizing voltage, said drive motor having an armature circuit connected to said source, an amplifying control device connected to said source for controlling said energizing voltage to thereby control the speed of said drive motor, said device having an input stage constituted by a magnetic amplifier, a first pilot-voltage supply means having a pilot voltage variable in dependence upon hoist travel distance, a second pilot-voltage supply means comprising a circuit member connected across said armature circuit to derive from the armature voltage a pilot voltage variable in dependence upon motor speed, a third pilot-voltage supply means connected to said second pilot-voltage supply means to derive therefrom a pilot voltage variable in dependence upon acceleration, selective

control means connecting one of said pilot-voltage supply means at a time with said amplifier input stage, a compensating circuit having a member series connected in said armature circuit and being connected to said magnetic amplifier for providing a corrective voltage for compensating the IR drop of said armature circuit, reference-voltage supply means having adjustable reference voltage and being connected with said amplifier input stage in differential relation to said respective pilot voltages whereby said motor is jointly controlled by a selected one of said pilot voltages jointly with said reference voltage and said corrective voltage, voltage control means for adjusting said reference voltage, and programming means connected with said selective control means and said voltage control means for correlated control of both in accordance with a desired program.

2,821,673 A. C. MOTOR

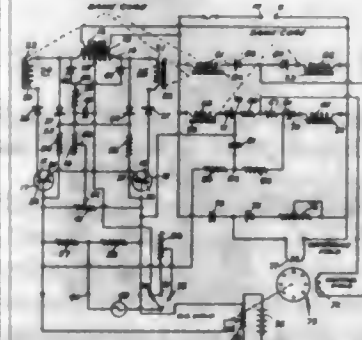
Harris Shapiro, Oradell, N. J., assignor, by mesne assignments, to Safety Industries, Inc., Hamden, Conn., a corporation of Delaware
Application December 31, 1956, Serial No. 631,799
7 Claims. (Cl. 318-194)



1. An A. C. motor comprising terminals adapted for connection to an A. C. current source, a stator power winding connected across said terminals, a stator field winding, a rectifier connecting said last winding across the terminals for supplying D. C. current to said field winding, a wound armature disposed within the fields of said stator windings, brushes engaging the armature for commutating the voltages induced in the armature winding by said fields, and a one-half wave rectifier connected across said brushes to prevent reversal of current in the armature winding.

2,821,674 MOTOR CONTROL CIRCUITS

Gerald E. Hughes, Waltham, Mass., assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application July 8, 1954, Serial No. 441,977
6 Claims. (Cl. 318-220)

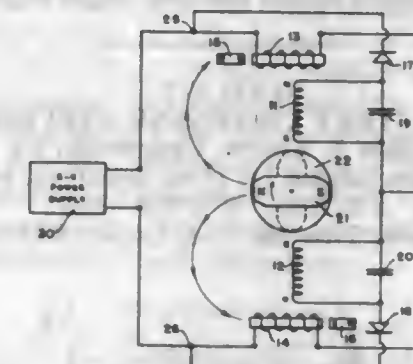


1. A control circuit comprising two outputs and three inputs, magnetic amplifier means under control of a direct current adapted to control the amount of an alternating current potential applied to a first of said inputs that is applied to a first of said outputs, transistor means controlling the amount of direct current supplied to said

magnetic amplifier means, means for applying alternating current and a varying direct current to the input of said transistor to control the amount of direct current applied to the magnetic amplifier means, means to apply a fixed alternating voltage and a fixed direct current to the second output and means to apply a unidirectional voltage proportional to the current flowing through the first output in such polarity as to counteract any variation in said current in excess of a predetermined value comprising two windings, one on each magnetic amplifier connected in series with a pair of rectifiers connected in opposing polarity, and a pair of resistors across the source of alternating current, the two resistors of the said circuit being connected between the bases of the transistors through a filter circuit.

2,821,675 SATURABLE REACTOR MOTOR DRIVE

Arthur S. Ostenson, China Lake, and Henry Newburgh, Ridgecrest, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application March 7, 1957, Serial No. 644,698
2 Claims. (Cl. 318-254)
(Granted under Title 35, U. S. Code (1952), sec. 266)



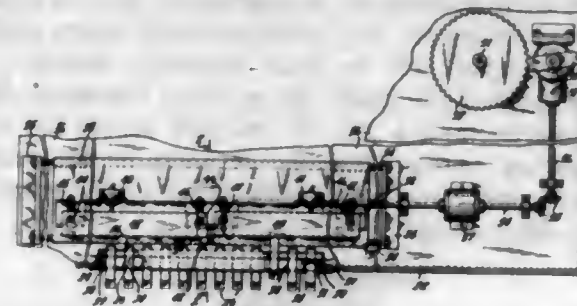
1. A saturable reactor motor drive for driving a rotor about an axis of rotation comprising an armature consisting of a permanent magnet mounted on a rotor, said permanent magnet having its poles located so that a straight line through the poles substantially intersects the axis of rotation of said armature, an A. C. power supply having first and second output terminals, a first diode having its anode connected to the first of said power supply terminals, a first drive coil and a first filter condenser connected together in parallel and connected between the cathode of said first diode and a common point, a first saturable reactor connected between the first of said power supply terminals and said common point, a second diode having its anode connected to the second of said power supply terminals, a second drive coil and a second filter condenser connected together in parallel and connected between the cathode of said second diode and said common point, a second saturable reactor connected between the second of said power supply terminals and said common point, said first and second saturable reactors being used for sensing the orientation of said permanent magnet and for directly energizing said first and second motor drive coils respectively to cause said armature to rotate, and a bias magnet mounted near each of said saturable reactors for biasing said saturable reactors to substantially mid-point flux density.

2,821,676 CHANNEL SELECTOR SERVOSYSTEM

Leo Belser, Flushing Manor, N. Y., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York
Application June 6, 1956, Serial No. 589,686
6 Claims. (Cl. 318-467)

3. In automatic tuner apparatus, the combination of an array of actuatable push-buttons representing a plurality of tuning positions, respectively, a member

mounted for movement with respect to said push-buttons, normally open starting switch means carried by said member, starting switch actuator means on said member actuable by depression of any push-button in said array lying between a fixed reference location on said member and one end of said array to actuate said starting switch means, normally closed stop switch means

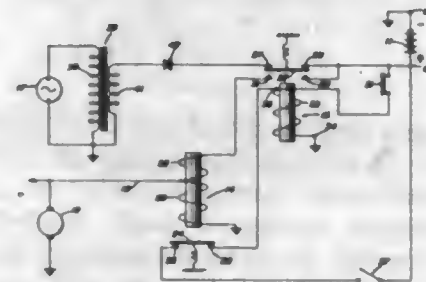


carried by said member, said stop switch means being actuable by contact with said depressed push-button during transverse movement of said member, tuning position adjusting means, motive means for driving said tuning position adjusting means and said member, and an energizing circuit for said motive means and including said starting switch means and said stop switch means.

2,821,677 BATTERY CHARGING SYSTEM

Milton A. Knight, Centerville, Va.
Application August 14, 1956, Serial No. 604,049
6 Claims. (Cl. 320-56)

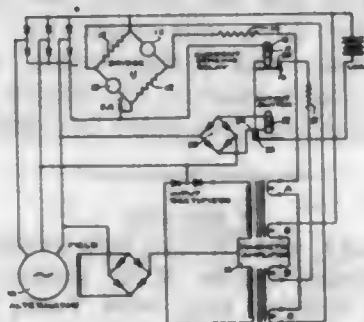
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A battery charging system comprising: an A. C. electrical system, a D. C. electrical system, a battery, and means for selectively connecting said battery to said A. C. system to be charged therefrom or to said D. C. electrical system to supply energy thereto in response to a voltage differential between said battery and said D. C. electrical system.

2,821,678 REGULATOR FOR THREE PHASE ALTERNATOR

Russell B. Hussey, East Longmeadow, Mass., assignor to American Bosch Arma Corporation, a corporation of New York
Application December 4, 1956, Serial No. 626,262
14 Claims. (Cl. 322-25)



1. In a device of the character described, comprising an alternator having a field winding and output conductors, a voltage sensing network comprising a bridge circuit including a pair of fixed resistors and a pair of non-

linear resistors, a rectifier connected across said output conductors, means for connecting the output of said rectifier to said voltage sensing network, means responsive to the current output of said alternator comprising a current sensing network, a self saturating reactor means having control windings and output windings, means for connecting said voltage sensing means and said current sensing means respectively to said control windings and for connecting said output windings to said alternator field winding.

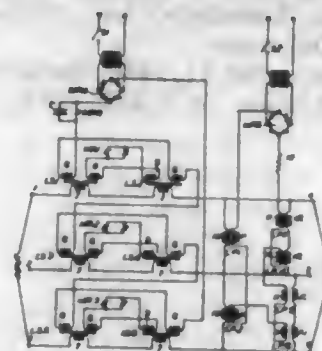
2,821,679

ELECTRICAL CONTROL CIRCUITS

Thomas Philip Robinson and Bertram Walter Glover, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application February 25, 1954, Serial No. 412,593
Claims priority, application Great Britain
February 27, 1953

9 Claims. (Cl. 323-89)



1. Equipment for controlling the flow of alternating current in power supply circuits which comprises a pair of saturable reactors per live lead, in which each pair of said reactors have their main windings connected in series in the corresponding lead, and their control windings connected in opposition to each other, in which further the control windings of the pairs of reactors are connected in series to D. C. supply terminals, and in which each pair of reactors also comprise a pair of third windings connected in closed circuit in opposition via a resistance variable inversely with current flow in said third windings.

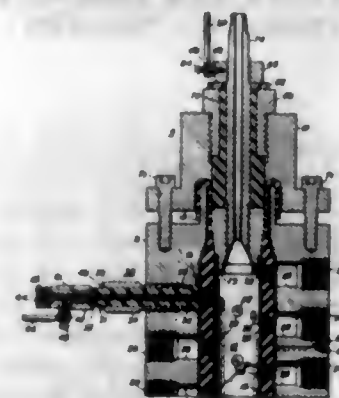
2,821,680

APPARATUS FOR USE IN DETERMINING CHARACTERISTICS OF POROUS MATERIAL

Marion L. Slusser, Douglas K. McLean, and Harry A. Barclay, Dallas, Tex., assignors, by mesne assignments, to Socony Mobil Oil Company, Inc., New York, N. Y., a corporation of New York

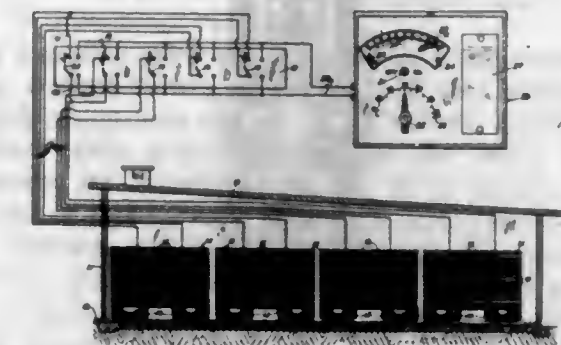
Application April 12, 1956, Serial No. 577,764

14 Claims. (Cl. 324-13)



10. Apparatus of the character described comprising a body provided with a chamber adapted to hold a sample of porous material and having a conduit leading to the inner wall of said chamber, said chamber having two open opposite ends, a flexible sleeve positioned within said chamber and extending over the ends of said body, a plurality of contact elements secured through the wall

of said sleeve to permit communication through said wall at selected points along the length of said sleeve, each of said contact elements being cylindrical in form and provided with an aperture and a concave inner face, a plurality of pressure-potential taps secured through the walls of said body to said contact elements, each of said taps having an electrically insulated conduit leading to a contact element, means secured to each of said taps for connecting electrical and fluid pressure measuring means thereto, a first closure assembly secured to one end of said body and fitting within said sleeve at one end of said chamber, said first closure assembly having at least one electrically insulated conduit leading into said chamber, electrical lead connecting means secured to said conduit in said first closure assembly, a second closure assembly secured to the other end of said body, said second closure assembly including longitudinally adjustable means adapted to fit within said sleeve, said longitudinally adjustable means being provided with at least one conduit leading into said chamber, and electrical lead securing means connected to said second closure assembly.



is projected from said cylindrical member, said electrodes of each of said pairs of wires being positioned for insertion at spaced points in a single board of said lumber in said kiln, a plurality of switches positioned at an instrument station located exteriorly of said kiln, the outer ends of each of said pairs of wires being connected to one of said switches, a pair of conductors having a plurality of terminals arranged to be selectively engaged by said switches, and a moisture testing instrument at said instrument station and connected to said conductors.

2,821,681 RESISTANCE METERS

John Charles Baker, Hayes, England, assignor to The Fairley Aviation Company Limited, Hayes, England, a British company

Application May 26, 1955, Serial No. 511,307

Claims priority, application Great Britain May 27, 1954

2 Claims. (Cl. 324-62)



1. A resistance meter for measuring the resistance of an explosive conductor comprising a four arm resistance bridge of which the resistance of one arm is to be constituted by the explosive conductor whose resistance is to be measured, a photo-voltaic cell connected across one diagonal of the bridge and an indicating galvanometer connected across the other diagonal, a lamp positioned to illuminate the cell and a battery connected to illuminate said lamp.

2,821,682 MOISTURE TESTING APPARATUS FOR LUMBER DRY KILN

Leo H. Bauer, Prineville, Oreg.

Application December 3, 1954, Serial No. 472,958

1 Claim. (Cl. 324-65)

A lumber drying kiln comprising a structure in which lumber to be treated may be placed, a plurality of pairs of conductor wires leading from within the structure to the exterior thereof, the inner ends of said wires of each of said pairs terminating adjacent each other in said kiln and the inner ends of said pairs of wires terminating at positions spaced from each other in said kiln, an electrode comprising a lumber piercing needle connected to the inner end of each of said wires, a cylindrical member, a plunger longitudinally guided within said member and supporting said lumber piercing needle at one end in position to be projected from said cylindrical member, said

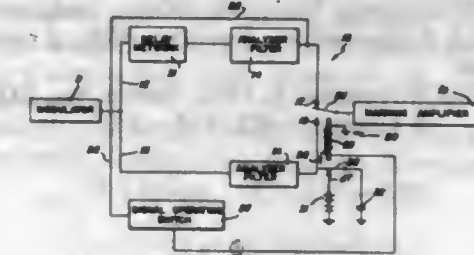
2,821,683

WAVEFORM DISTORTION COMPENSATOR

Walter Koenig, Jr., Clifton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application November 25, 1952, Serial No. 322,423

6 Claims. (Cl. 324-77)

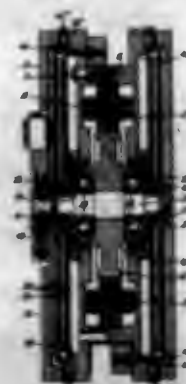


1. A waveform distortion compensated filter arrangement comprising: a signal source; substantially identical first and second filter means; the significant time of distortion of each of said filter means on signal energy passing therethrough, each time said signal energy rises or falls sharply, being known; a delay network connected between the output end of said signal source and the input end of said first filter means; said delay network being operative to delay signal energy from said signal source for a period of time at least equal to said significant time of distortion of said filter means; the input end of said second filter means connected to the output end of said signal source; signal utilizing means; means including switch means normally connecting said signal utilizing means to the output end of said first filter means; and means connected between the output end of said first filter means and said means including switch means and operative in response to a sharp rise or fall in the output from said first filter means to cause said switch means to disconnect said signal utilizing means from the output end of said first filter means and to connect said signal utilizing means to the output end of said second filter means.

2,821,684

NOISE ELIMINATION SYSTEM FOR CAPACITIVE SCANNING APPARATUS

Louis G. Gltzendorfer, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 25, 1949, Serial No. 106,631
4 Claims. (Cl. 333-24)



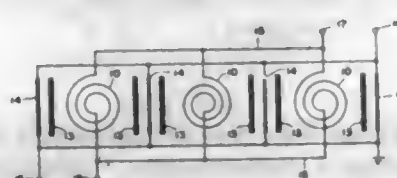
1. In a scanning apparatus of the capacitive coupling type, a pair of proximately located scanning members, a motor having at least one bearing member and having a driving shaft journaled in said bearing member out of electrically conductive relation therewith, said shaft being connected to at least one of said scanning members for the relative spaced rotation of said scanning members, and electrically conducting members covering a substantial portion of the adjacent surfaces of each of said relatively rotatable scanning members, said conducting members of one of said pair of scanning members being electrically connected to said shaft, said conducting members of the other of said scanning members being electrically connected to said bearing member to provide a low impedance capacitive path across said bearing member for electrical noise electrostatically coupled to said shaft.

2,821,685

TRANSMISSION LINE FOR PULSE FORMING NETWORKS

Richard M. Whitehorn, Concord, Mass., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware

Application November 3, 1952, Serial No. 318,416
2 Claims. (Cl. 333-31)

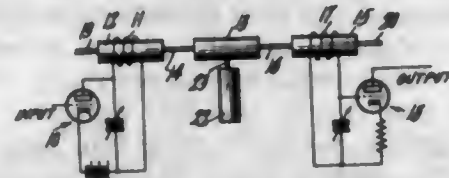


1. A three terminal transmission line comprising three spirally wound coils of conductive tape, the turns of each of said coils being insulated from each other, insulating material covering each of said coils, said coils being assembled in side-by-side coaxial relation with the sense of the winding of the central coil reversed with respect to that of the outside coils, a conductive plate positioned between said central coil and each of said outside coils and covering the lateral surfaces thereof, a conductive plate juxtaposed to and covering the free lateral surface of each of said outside coils, said coils, material and plates being compactly arranged, means conductively connecting said plates, means conductively connecting the inner terminals of said coils, and means conductively connecting the outer terminals of said coils, the terminals of said line being constituted by said means conductively connecting said plates, and said inner and outer terminals of said coils.

2,821,686

MECHANICAL FILTERS INCLUDING REJECTORS
Leslie L. Burns, Jr., Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Continuation of application Serial No. 351,696, April 28, 1953. This application July 15, 1955, Serial No. 522,267

17 Claims. (Cl. 333-71)

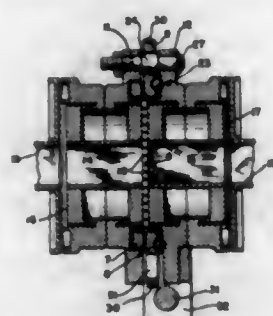


11. A mechanical filter comprising a plurality of resonators dimensionally tuned to the same frequency and coupled together in a chain to provide a band-pass characteristic about said frequency, and a separate rejector resonator dimensionally tuned to a frequency just outside said pass band and mechanically coupled at one end to one of said resonators in the chain, said resonators in the chain and said rejector resonator all oscillating in the same mode.

2,821,687

GRID-TYPE WAVE GUIDE ATTENUATOR

William O. Smith, Silver Spring, Md., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 12, 1946, Serial No. 661,598
3 Claims. (Cl. 333-81)



1. An adjustable attenuator for a wave guide transmission line carrying microwave energy comprising, a ring of rectangular cross section, a circular bearing member, a grid formed by a plurality of parallel wires of resistive material, said ring and said bearing member coacting to mount said grid in a screen assembly, input and output sections of rectangular wave guide, a clamping flange mounted on one extremity of one of said wave guide sections, a bearing flange mounted on one extremity of the second of said wave guide sections, means for supporting said screen assembly in rotational relationship transverse to said wave guide sections between said clamping flange and said bearing flange, means for coupling said wave guide sections into said wave guide transmission line, and means for rotating said screen assembly with respect to the direction of the electric field of said microwave energy being carried by said wave guide transmission line to vary the degree of attenuation provided thereby.

2,821,688

THREE PHASE SPLIT LEG AND YOKE TYPE STACKED MAGNETIC CORE SECTION

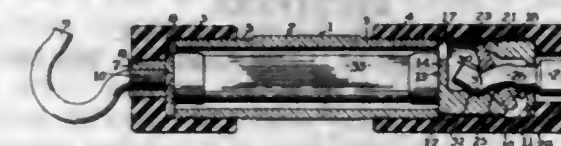
Thomas D. Gordy, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application September 16, 1954, Serial No. 456,569
3 Claims. (Cl. 336-5)

1. In a three phase laminated magnetic core comprising a plurality of rectangular shaped flat stacked layers, each of said layers having three parallel spaced legs and four yokes which extend from the ends of the outer legs toward the ends of the central leg to define a pair of

2,821,690

TROLLEY WIRE TAP AND CABLE CLAMP THEREFOR

Harry E. Miller, St. Albans, W. Va., assignor to Wallace M. Hale, St. Albans, W. Va.
Application June 1, 1956, Serial No. 588,720
12 Claims. (Cl. 339-109)

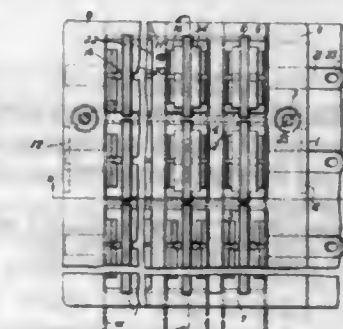


1. In a trolley wire tap, comprising a non-conductive housing, contact means at one end of said housing for removably connecting the tap to an electric trolley wire, conductive cable gripping means at the other end of said housing for connecting the tap to an electric cable, and means in said housing for establishing electrical connection between said contact means and said cable gripping means, that improvement wherein the cable gripping means includes a jaw member, a pressure member disposed in spaced relation to said jaw member, with one of said members being movable towards and away from the other member, and a washer-like element intermediate said members and having an opening therethrough for axially receiving the cable aforesaid with the end of the cable overlapping upon the jaw member, said cable gripping members respectively having parts engageable with said washer-like element at opposite sides of the axis of the latter to cant the washer-like element responsive to movement of the movable member aforesaid towards the other member, and means on said housing for forcing one of said cable-gripping members towards the other to cant said washer-like element relatively to the axis of the cable end extending axially therethrough and thereby cause the latter to grip the cable in the opening therein and force the cable into gripping engagement between the canted washer and said jaw member.

2,821,691

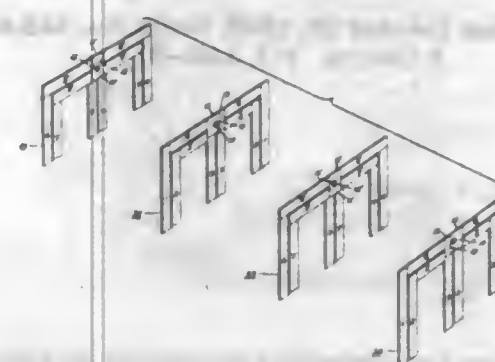
MATRIX FOR DETACHABLY MOUNTING ELECTRICAL COMPONENTS

Raoul Alfred André and Louis Jacques Ghislain Nys, Antwerp, Belgium, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application August 30, 1954, Serial No. 453,060
Claims priority, application Belgium November 7, 1953
10 Claims. (Cl. 339-150)



1. A matrix for mounting a plurality of electrical components, comprising a first group of substantially parallel conductors, each of said conductors extending first in one direction, then extending a given distance in another direction approximately perpendicular to said one direction, being folded back on itself for the same distance to form a perpendicular extension and then continuing in said one direction, each of said conductors having a plurality of such spaced perpendicular extensions; a second group of substantially parallel conductors extending transverse to the conductors of said first group, each of said conductors having resilient portions opposing the perpen-

rectangular shaped window openings, the corresponding edges of all of said layers and their window openings being aligned with each other, all of said legs and yokes being grain oriented and split and separated in their lengthwise direction into spaced strips of equal width, a pair of rectangular shaped inserts in each layer for joining said four yokes and central leg, said inserts being grain oriented and split but unseparated in their lengthwise direction, all of said legs, yokes and inserts

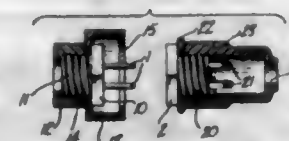


having equal overall widths, all of the inserts having lengths which are different from said overall widths, the inserts at corresponding ends of the central legs of adjacent layers being aligned in their lengthwise direction alternately with the lengthwise direction of the yokes and central legs, the yokes and outer legs of the layers meeting each other at joints which are aligned with the lengthwise direction of said legs and yokes and in offset relationship in corresponding corners of adjacent layers.

2,821,689

PLUG AND JACK KEEPERS

Jack A. Meeker, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application November 19, 1954, Serial No. 470,009
5 Claims. (Cl. 339-61)

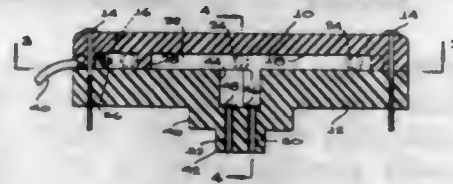


1. Keeper mechanism comprising members interengageable by approach movement and each having a base and a threaded boss projecting from said base, cup means having an aperture in its bottom received on one of said threaded bosses with the sides of said cup element encircling the base of said one boss, having an inwardly flanged rim and having threads screwed on such one boss securing said cup means thereto, means having an annular rib and an aperture received on the other of said threaded bosses, having an outer periphery of a size great enough so as not to pass the inwardly flanged rim of said cup means without deformation and having threads screwed on such other boss securing said annular rib means thereto, the depth of said cup means being sufficiently great so that its rim interferes with the circumference of said annular rib as the bases of said members are moved toward each other and prior to their abutment, and one of said means being sufficiently yieldable to enable said annular rib and the inwardly flanged rim of said cup means to pass in one direction during approach movement of said members into full engagement, and being sufficiently resilient to create substantial resistance to separation of said members which requires said annular rib and the rim of said cup means to pass in the opposite direction.

dicular extensions of the conductors in said first group, whereby the components may be mounted between a pair of conductors, one from each group.

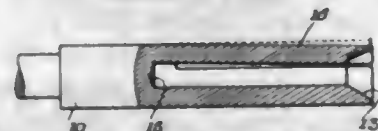
2,821,692 UTILITY POWER CORD FOR TELEVISION RECEIVERS

Jesse A. Marcel, Houma, La.
Application April 15, 1955, Serial No. 501,565
1 Claim. (Cl. 339-163)



An electrical outlet comprising: an elongated housing including a base having a central recess, and a cover formed with an elongated longitudinal recess and with a pair of elongated transversely spaced slots of a length closely approximating the length of the second recess, said slots communicating with the second named recess, said cover including a pair of abutments spaced longitudinally of and extending transversely of the second named recess; means fixedly connecting the base and cover to each other; a pair of elongated stationary bus bars coextensive with the slots and extending within the second named recess in engagement with and at opposite sides of said abutments; a convenience cord having leads connected to the respective stationary bars; angular tongues rigid with said stationary bars and engaged in the first-named recess; plug elements rigid with said tongues and embedded in the base to cooperate with the abutments in holding said bus bars against movement within the housing; elongated, movable bus bars extending in the second named recess adjacent the respective stationary bars, said movable bars being coextensive with the slots and stationary bars; and springs mounted in the cover and bearing against the respective movable bars, said springs being tensioned to bias the movable bars into longitudinal contact with the stationary bars, the slots extending in substantial alignment with the longitudinally contacting stationary and movable bars, for extension of the prongs of an electrical plug through the slots between the contacting bars at any of a plurality of locations along the length of the slots and bars, the length of each slot being such that corresponding prongs of a plurality of plugs are simultaneously engaged in a single one of the slots.

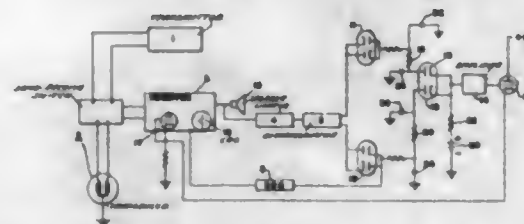
2,821,693
SOCKET-TYPE ELECTRICAL CONTACT MEMBER
Leonard E. Daum and Edward A. Sprigg, East Orange, N. J., assignors to Breeze Corporations, Inc., Newark, N. J., a corporation of New Jersey
Application September 22, 1953, Serial No. 381,652
1 Claim. (Cl. 339-258)



A socket type electrical contact member comprising an elongated electrically conductive body member, a lead receiving portion at one end thereof, a pin contact receiving portion at the other end, said contact receiving portion being longitudinally bored and slit from the pin receiving end thereof so as to divide it into a main contact receiving member describing an arc of more than 180° about the bore, said slit being inclined to and offset from the longitudinal axis of the contact member

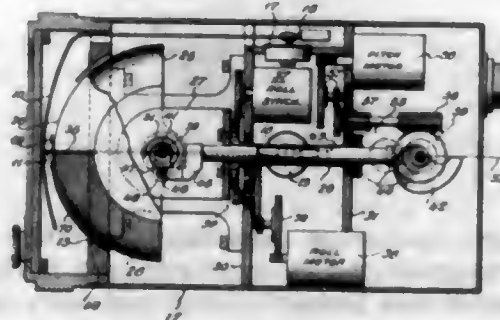
and a spring finger member, said spring finger being inwardly bent and longitudinally tapered by reason of the offset slit to constrict the bore.

2,821,694
DOPPLER CONTROLLED GAIN FOR ECHO RANGING EQUIPMENT
Paul B. Sebring, Cambridge, Mass., assignor to the United States of America as represented by the Secretary of the Navy
Application October 29, 1945, Serial No. 625,425
6 Claims. (Cl. 340-3)



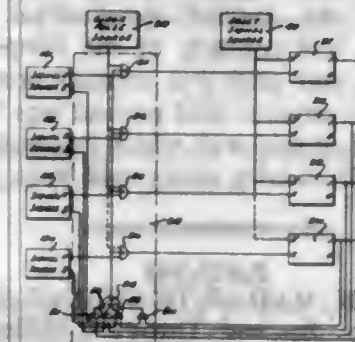
1. Apparatus for controlling the gain of an echo ranging receiver having an electronic variable gain amplifier including a discriminator having substantially zero output at a predetermined center frequency of operation and having a positive output for signals of other frequencies, means to amplify the output of said discriminator and to produce a negative D. C. potential which increases in magnitude as the frequency of signal input to said discriminator departs from said center frequency, a control tube normally biasing said electronic variable gain amplifier to reduce the gain thereof, and means to apply said negative D. C. potential to said control tube.

2,821,695
AIRCRAFT NAVIGATION INSTRUMENT
Richard R. Strock, Levittown, and Edward R. Dayton, Huntington Station, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware
Application June 17, 1954, Serial No. 437,485
7 Claims. (Cl. 340-27)



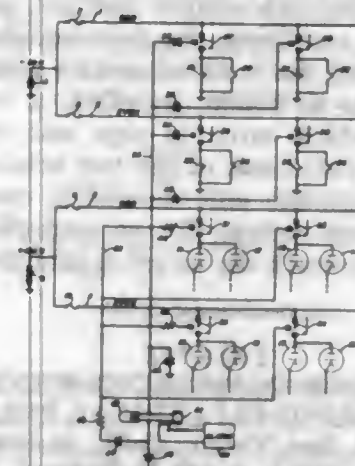
4. An attitude indicator for aircraft comprising a housing having an opening in a wall thereof through which the indicating elements may be viewed, a substantially hemispherical member having a horizon-defining line thereon normally subdividing said opening into upper and lower areas, a gimbal ring for pivotally supporting said member for rotation about an axis normally parallel to the pitch axis of said aircraft, an elongated, hollow trunnion pivotally supporting said gimbal in said housing for rotation about an axis parallel to the fore and aft axis of said aircraft and aligned with the center of said opening, motive means connected with said gimbal for positioning the same in accordance with the roll attitude of said aircraft, a shaft slidably and translationally fitted within said hollow trunnion and radially supported thereby, coupling means between said shaft and said spherical member for rotating said member about said pitch axis, a cam supported for rotation about a fixed axis in said housing and engaging said shaft for positioning said shaft axially within said trunnion, and motive means for driving said cam in accordance with the pitch attitude of said aircraft.

2,821,696
ELECTRONIC MULTIPLE COMPARATOR
Marc Shlowitz and Howard M. Robbins, Los Angeles, Calif., assignors, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware
Application November 25, 1953, Serial No. 394,439
8 Claims. (Cl. 340-149)



1. A system for comparing and indicating the relative magnitudes of a plurality of binary numbers expressed as a corresponding plurality of bivalued electrical signal sets, respectively, each signal set including at least one digit signal for each digit of the number represented, said system comprising: a plurality of bistable elements, one element for each signal set; first means coupled to said bistable elements for setting all of said bistable elements to a predetermined one of their stable states; second means coupled to said bistable elements and responsive to corresponding digit signals of said signal sets to change the setting of each one of said bistable elements to the other of its stable states when the digit signal associated with said one bistable element is dissimilar in one sense from another corresponding digit signal; and third means coupled to said second means for rendering said second means responsive to digit signals associated with a bistable element whose setting has not been changed and nonresponsive to digit signals associated with a bistable element whose setting has already been changed.

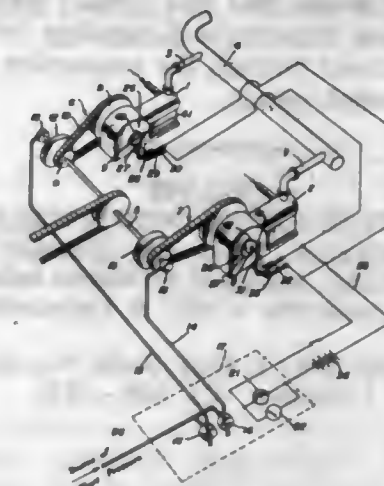
2,821,697
FUSE ALARM SYSTEMS
Floyd A. Mink, Chester, N. H., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application May 29, 1956, Serial No. 588,106
6 Claims. (Cl. 340-250)



1. In combination, a pair of feeder busses each supplying a direct potential of one polarity to a plurality of low impedance loads, a pair of main feeder fuses connected in series with respective ones of said pair of feeder busses and carrying the combined currents of the loads associated therewith, a third feeder bus supplying a direct potential of the opposite polarity to a plurality of

other loads, a separate alarm fuse connected between each of said loads and the associated one of said feeder busses, each of said alarm fuses being adapted when blown to disconnect its load from the feeder bus and connect the feeder bus to an alarm bus, a common alarm circuit for all of said alarm fuses including at least one signaling device and a pair of alarm busses, a first of said alarm busses being connected between the alarm fuses associated with said pair of feeder busses and one side of said signaling device and the second of said alarm busses being connected between the alarm fuses associated with said third feeder bus and the other side of said signaling device, oppositely poled asymmetrically conducting devices connected between respective sides of said signaling device and a point of predetermined reference potential to ensure that alarm currents from all of said feeder busses not only pass through said signaling device but also pass through in the same direction, and a separate asymmetrically conducting device connected between each alarm fuse associated with said pair of feeder busses and said first alarm bus to prevent alarm currents from flowing through some of said low impedance loads when one of said pair of main feeder fuses is open and an alarm fuse is blown on each of said pair of feeder busses.

2,821,698
SYNCHRONIZING MEANS FOR RECIPROCATING PUMPS
Eugene M. Richardson, Houston, Tex., assignor, by mesne assignments, to The Youngstown Sheet and Tube Company
Application June 27, 1955, Serial No. 518,239
10 Claims. (Cl. 340-268)



1. In a system for operating in synchronism a pair of pumps each having a power receiving shaft: a pair of rotary switch means, adapted to be connected to said shafts, each switch means being arranged so that it will be closed during 180 degrees of rotation of the shaft to which it is connected and open during the remaining 180 degrees of rotation of the shaft; means connecting said rotary switch means to said shafts of said pumps so that when the shafts are being simultaneously rotated in pre-determined phase relation, one of said switch means will be closed during 180 degrees of each rotation of said shafts and the other of said switch means will be closed during the remaining 180 degrees of rotation of said shafts; power means for rotating said shafts including a drive shaft and a pair of power transmissions respectively connecting said power receiving shafts with said drive shaft, at least one of said transmissions including a clutch means for enabling relative rotation of said power receiving shafts so as to bring them into said predetermined phase relation; an electroresponsive indicating means; and circuit means including a source of electric energy for connecting said switch means in parallel with said indicating means.

2,821,699

BURGLAR ALARM

Manfred W. Muchter, Nutley, N. J., assignor to American District Telegraph Company, Jersey City, N. J., a corporation of New Jersey
Application December 30, 1955, Serial No. 556,633
4 Claims. (Cl. 340-276)



1. In an electrical protection system, the combination of a pair of signaling devices at a central station connected in series relation with one responsive to increase in current therethrough above a predetermined upper value and the other responsive to decrease in current therethrough below a predetermined lower value, a slow-release relay and contact means governed by said relay, at least one protection device in a protected area and a single pole double throw switch means governed thereby and normally completing through one of its contacts a series circuit between said signaling devices and said relay through said contact means, a power supply connected in said circuit with the current flow normally ranging between said predetermined values, said switch means in its actuated position providing a connection to ground through its other contact, actuation of said protection device and the switch means governed thereby serving to open the circuit between said power supply and said relay thereby reducing the current flow through said signaling devices substantially below said lower value, said relay being adapted after a predetermined delay period to actuate said contact means, and said contact means with said relay de-energized shunting said signaling devices around said relay to ground through the connection thereto provided by said switch means.

2,821,700

BLOCK TYPE PANEL INDICATOR LIGHT

Frank A. Harrington, Brea, and Thomas W. Jentges, Santa Ana, Calif., assignors to Marco Industries Company, Inc., Anaheim, Calif., a corporation of California
Application May 7, 1956, Serial No. 583,094
3 Claims. (Cl. 340-381)



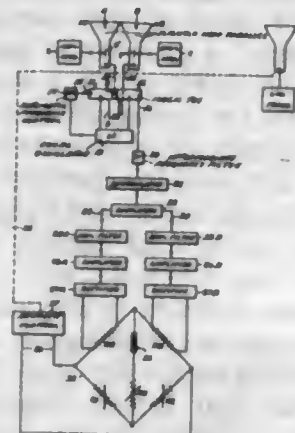
1. A casing and socket assembly for a multiple lamp block indicator panel light, utilizing a plurality of lamps each having a ground contact base capsule, a live contact at one end thereof and a light transmitting bulb at the other end thereof, said casing and socket assembly comprising: a multiple socket assembly; an elongated, narrow casing comprising a base section of open U-shape, consisting in an elongated back panel and arms projecting forwardly from the respective ends of said back panel and at right angles thereto, and a shallow cap of light transmitting material, including a front display panel to overlie said lamps and to be illuminated thereby, including end walls arranged to embrace said arms of the base section and to interengage therewith so as to secure said cap to said base section, and including side walls cooperating with said end walls to circumscribe an elongated, narrow, shallow space to receive said base section, said socket assembly and said lamps; said multiple socket assembly comprising a sheet metal ground terminal unit secured to said back panel, said terminal unit having a web and ground contact legs to embrace and to establish common ground contact with the base capsules of said plurality of lamps and to support the lamps in positions

wherein their longitudinal axes lie in a common plane parallel to said back panel; a live terminal unit having live contact arms positioned to engage said live contacts of the respective lamps and to determine positions of said lamps wherein said bulbs project in opposite directions from the center of said panel and wherein each is substantially centered with reference to a respective half of the area thereof; said lamps being disposed on a common axis constituting the median longitudinal axis of the casing, with said live contacts of the lamps in adjacent opposed relation and said live contact arms interposed between said live contacts; said ground legs being formed at respective ends of said web which integrally joins them and extends longitudinally along said back panel.

2,821,701

AUTOMATIC RADAR TRACKING-SYSTEM

Clyde E. Vogeley, Jr., and Theodore Miller, Pittsburgh, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 1, 1948, Serial No. 18,344
4 Claims. (Cl. 343-7.4)



1. A target-tracking echo-wave device, comprising a transmitter-system, a directional antenna-system for aiming a transmitted wave from said transmitter-system to a target and for receiving an echo-wave from said target, at least the receiving part of said directional antenna-system including means, aimed slightly off-center with respect to each other in a given plane, for receiving two echo-waves from said target, modulator-means for in effect separately modulating said two echo-waves at different modulator-frequencies, and means for demodulating said two modulated echo-waves and for separately responding to, and rectifying, the two modulator-frequencies and comparing the rectified signals with each other in such a way as to obtain, in effect, a unidirectional control-voltage which varies in sign and magnitude in accordance with which one of the two echo-waves is the stronger, and automatic antenna-aiming means, responsive to said control-voltage, for so controlling said antenna-system as to track the target in said given plane.

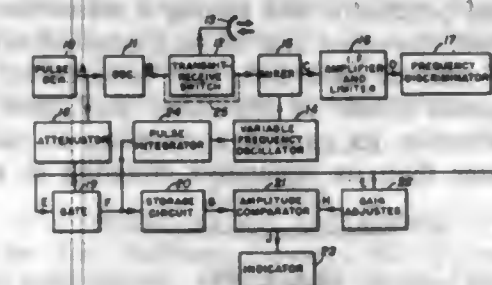
2,821,702

APPARATUS FOR COMPARING SUCCESSIVELY OCCURRING ELECTRICAL PULSES

James L. Russell, Sun Valley, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application May 23, 1955, Serial No. 510,142
9 Claims. (Cl. 343-7.7)

1. Apparatus for indicating frequency differences between two successively occurring pulses of A. C. comprising: frequency discriminating means for converting said successive pulses of A. C. to first and second D. C. pulses of amplitudes proportional to the respective frequencies of said A. C. pulses; means for deriving from

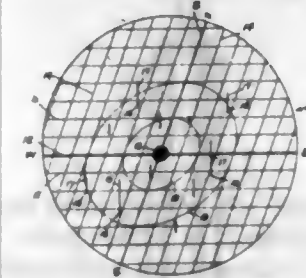
said first D. C. pulse a D. C. potential continuing for the time interval between said first and second pulses; and



amplitude comparator means for comparing said second pulse with said D. C. potential.

2,821,703

THREE COORDINATOR INDICATING DISPLAY
Homer C. Knauss, Lexington, Mass., assignor to Raytheon Manufacturing Company, Newton, Mass., a corporation of Delaware
Application December 16, 1953, Serial No. 398,532
6 Claims. (Cl. 343-7.9)

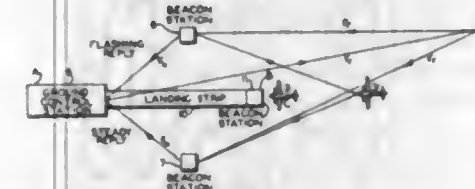


1. Apparatus for simulating a three dimensional display comprising a cathode ray tube having deflecting elements, beam intensity control means, and a luminescent screen, sweep generating circuits controlling two of said deflecting elements to produce displacements of the electron beam representative of two of the dimensions, reference marking circuits for electronically producing reference indicia on the display, means for producing a unidirectional pulse of electrical energy proportional in amplitude to the third dimension, and means for applying this pulse to the third deflecting means to produce a deflection proportional to the third dimension.

2,821,704

NAVIGATION SYSTEM

Marcus D. O'Day, Arlington, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 30, 1945, Serial No. 631,952
6 Claims. (Cl. 343-15)



1. In an aircraft landing approach system having a control station at one end of the landing strip and first and second beacon stations equally spaced from said control station on opposite sides of said landing strip, the combination of means at said control station for radiating a directional beam of pulses of a first radio frequency toward said aircraft, means carried by said aircraft responsive to the detection of said pulses for reradiating similar pulses of the same radio frequency toward said beacons, means at both beacons responsive to the detection of said last-mentioned pulses for radiating pulses of a second radio frequency toward said con-

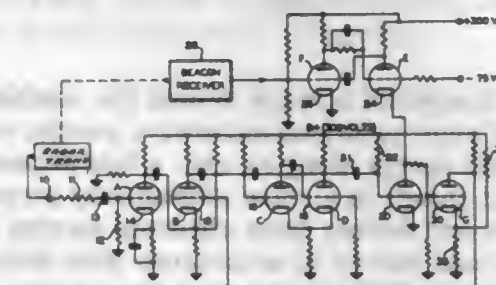
trol station, and means at said control station for detecting pulses of said second radio frequency and for indicating the time difference in arrival of corresponding pulses of said second radio frequency radiated by said beacons, said time difference indicating the relative azimuthal position of said aircraft with respect to the center line of said landing strip.

3. Apparatus for determining the altitude and distance of an aircraft which is lined up with the center line of a landing strip at one end of which is located a control station and at the other end of which is located a beacon station comprising, means at said control station for simultaneously radiating pulses of a first radio frequency in the directional beam toward said aircraft and relatively low power pulses of a second radio frequency toward said beacon station, means at said beacon station responsive to the detection of said low power pulses of said second radio frequency for radiating pulses of said first radio frequency toward said aircraft, means in said aircraft responsive to the detection of radio frequency pulses of said first frequency for reradiating similar pulses of the same frequency toward said control station, and means at said control station for providing an indication of the time intervals between the radiation of a particular low power pulse and the subsequent detection by said control station of the next pair of pulses of said first radio frequency.

2,821,705

CONTROL CIRCUIT FOR A BEACON TRANSPONDOR

George P. Wachtell, Princeton, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 27, 1946, Serial No. 650,694
12 Claims. (Cl. 343-101)



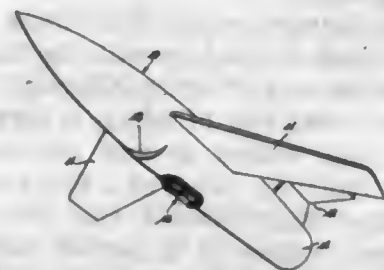
1. The combination with a beacon system having a receiver and a responder stage coupled thereto of a suppressor circuit for said stage comprising, means for coupling a voltage pulse from a locally located radar system to said beacon system, means normally responsive to said pulse for disabling the responder stage for the duration of said pulse including a normally closed electronic switch for coupling said voltage pulse from said locally located radar system to said disabling means for effecting the disablement of said responder stage, and means for opening said electronic switch and rendering said disabling means inoperative during periods of operation of said beacon responder stage already initiated in response to voltage pulses from a remotely located radar system.

2,821,706

ANTENNA MOUNTING FOR A GUIDED MISSILE
Herbert J. Rels and William V. Foley, Middle River, Md., assignors to The Glenn L. Martin Company, Middle River, Md., a corporation of Maryland
Application September 9, 1954, Serial No. 454,899
13 Claims. (Cl. 343-705)

1. An antenna assembly for a guided missile that comprises stub pattern antennas for transmitting radiant energy to a remote location, and for receiving radiant energy therefrom for guiding the missile in flight, a fair-

ing, said fairing being substantially dish-shaped, means to mount said fairing to the fuselage of said missile at approximately the lowest point on the fuselage, the fuselage having openings therein registering with the interior of said fairing which openings provide passage there-through for the electrical feed connections for said an-



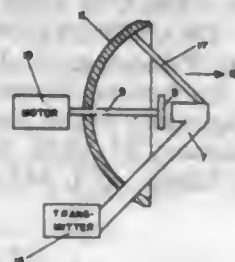
tennas, the bottom of said fairing being provided with openings therein and means to mount said antennas in said openings, said fairing forming a ground plane for said antennas whereby the radiation from said antennas extends above a horizontal plane passing through said antennas.

2,821,707

DIRECTIONAL ANTENNA

Jesse L. Butler, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Inc., Nashua, N. H., a corporation of Delaware

Application May 11, 1954, Serial No. 428,933
6 Claims. (Cl. 343-756)



1. In a directional antenna system the combination of a source of plane-polarized microwave energy; means for directing said energy along an axis; a lens disposed in the path of said energy in a plane substantially perpendicular to said axis and having three elements varying in transparency to said energy in accordance with their angular positions in said plane; and means for rotating said lens about said axis, said elements being so disposed as to cause the resultant beam of said energy to rotate about said axis at a frequency three times that of the rotation of said lens.

2,821,708

COUPLING CONNECTION FOR SLOT ANTENNA

Donald W. Blancher, Van Nuys, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware

Application June 1, 1954, Serial No. 433,725

5 Claims. (Cl. 343-767)



1. In combination: a slot antenna consisting of a conductive wall member defining an elongated slot closed at its ends and having juxtaposed side walls; a transmission line terminating adjacent one end of said slot and having a grounded conductor connected to said wall member, and having a high potential conductor; and a coupling conductor in said slot electrically connecting said high potential conductor to one wall of said slot at a point spaced from said one end thereof, said coupling con-

ductor comprising a longitudinal section having one end adjacent said one end of said slot and connected to said high potential conductor and having a transverse section extending from the other end of said longitudinal section to said one wall of said slot, said longitudinal section being positioned closer to the other wall than to said one wall, whereby its capacitive coupling to said other wall is greater than its capacitive coupling to said one wall.

2,821,709

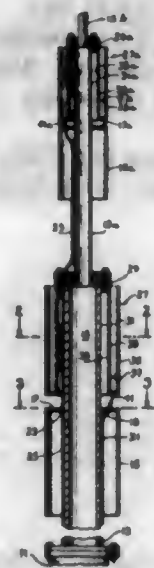
ANTENNAS

Salvatore Fucci, New London, Conn.

Application March 21, 1952, Serial No. 277,889

7 Claims. (Cl. 343-793)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An ultra-high-frequency antenna for a high-frequency energy transducer comprising a support, a first tubular radiator mounted on said support, a second tubular radiator mounted on said support coaxially with said first radiator, conductive elements coupling one end of each radiator to said support, high-frequency isolating means between said support and one of said radiators, and transmission line means connecting said radiators to such transducer.

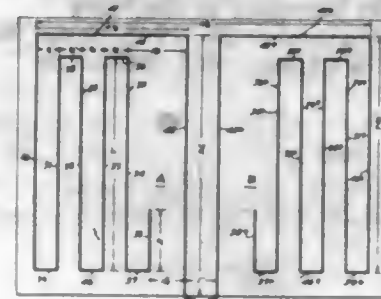
2,821,710

TELEVISION ANTENNA

Phillip D. Hale, Dallas, Tex., assignor of five percent to George H. Ferriman, Artesia, N. Mex.

Application August 6, 1954, Serial No. 448,167

4 Claims. (Cl. 343-806)



4. In a television antenna, a pair of laterally displaced, coplanar antennas, each antenna consisting of a wire fifty-three inches long, each wire providing a narrow inner loop, a narrow outer loop, and a wider loop, said narrow loops having spaced parallel legs seven inches long connected at one end by connections $\frac{3}{4}$ of an inch long, a leg of the inner loop terminating in a lateral connector, said lateral connector terminating in a wire portion two inches long, said wide loop having an outer leg parallel to and spaced laterally outwardly from said outer narrow loop and connected at one end to a leg of the outer loop, said wider loop having a connecting portion $\frac{4}{5}$ inches

long reaching across and spaced from said narrow loops, said connecting portion terminating in an inner leg spaced laterally inwardly from the inner narrow loop, the inner leg of the wide loop terminating in a terminal for connection to the lead-in wire of a television set, the antennas being otherwise unconnected to each other.

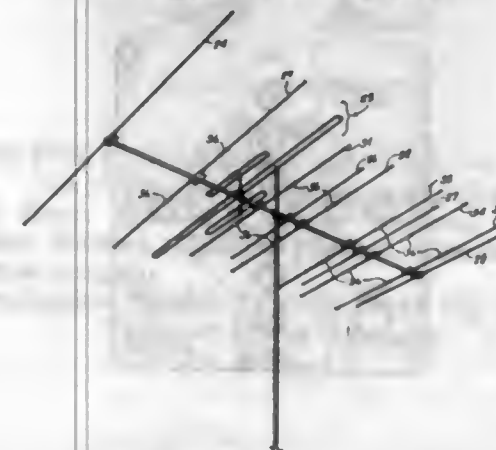
2,821,711

WIDE BAND ANTENNA

Yuen Tze Lo, Sullivan County, N. Y., assignor, by mesne assignments, to Channel Master Patent Corp., Greensboro, N. C., a corporation of North Carolina

Application September 17, 1954, Serial No. 456,799

11 Claims. (Cl. 343-819)



2. An antenna arrangement for both low and high frequency bands comprising a wide-band active element adapted to receive both said bands, a low-band parasitic reflector element parallel to and horizontally spaced from said active element, a high-band parasitic reflector element parallel to and interposed between said low-band reflector element and said active element, a plurality of sets of parasitic director elements parallel to and horizontally spaced from said active element on the side

opposite to said reflector elements, each of said director element sets comprising a low-band director element and at least one high-band director element, one high-band director element of each set being between said active element and the low-band director element of such set, all but one of said director element sets consisting of a low-band director element between two high-band elements, each of said high-band parasitic reflector and director elements being formed as a set of three co-linear conductive segments and a rigid insulator supporting each of the end segments from the center segment.

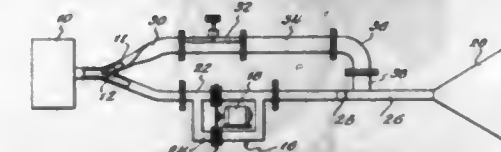
2,821,712

MICROWAVE ANTENNA LOBING DEVICE

Kiyo Tomiyasu, Flushing, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application July 19, 1954, Serial No. 443,996

9 Claims. (Cl. 343-854)



2. Apparatus for radiating a radio beam having an asymmetrical space pattern, said apparatus comprising a source of microwave energy, a section of rectangular wave guide dimensioned to propagate the TE₁₀ and TE₂₀ modes of propagation at the frequency of the source, means for coupling a first component of energy in the TE₁₀ mode to the wave guide section from the source, means including mode converting means for simultaneously coupling a second component of energy in the TE₂₀ mode to the wave guide section from the source, the first and second components of energy in the wave guide section being in phase quadrature, and means coupled to the wave guide section for simultaneously radiating the first and second components of energy.

DESIGNS

JANUARY 28, 1958

181,952

ANTENNA HOUSING

Daniel M. Adams, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

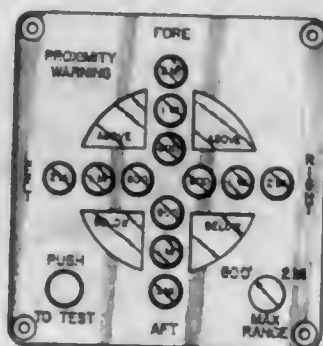
Application December 29, 1955, Serial No. 39,521
Term of patent 7 years
(Cl. D14-6)



181,956

PROXIMITY WARNING INDICATOR

John F. Beckerich, Dallas, Tex.
Application September 10, 1956, Serial No. 42,885
Term of patent 14 years
(Cl. D52-1)



181,953

EXPANSIBLE CHAIN FOR A BRACELET OR SIMILAR ARTICLE

Karl C. Augenstein, Cranston, R. I., assignor to Spedel Corporation, Providence, R. I., a corporation of Rhode Island

Application May 1, 1957, Serial No. 45,958
Term of patent 14 years
(Cl. D45-4)



181,954

EXPANSIBLE CHAIN FOR A BRACELET OR SIMILAR ARTICLE

Karl C. Augenstein, Cranston, R. I., assignor to Spedel Corporation, Providence, R. I., a corporation of Rhode Island

Application May 1, 1957, Serial No. 45,959
Term of patent 14 years
(Cl. D45-4)



181,955

EXPANSIBLE CHAIN FOR A BRACELET OR SIMILAR ARTICLE

Karl C. Augenstein, Cranston, R. I., assignor to Spedel Corporation, Providence, R. I., a corporation of Rhode Island

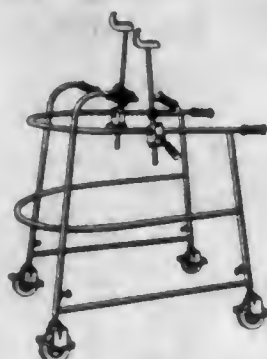
Application May 14, 1957, Serial No. 46,155
Term of patent 14 years
(Cl. D45-4)



181,957

WALKER

James P. Callahan, Memphis, Tenn.
Application April 11, 1956, Serial No. 41,019
Term of patent 14 years
(Cl. D83-1)

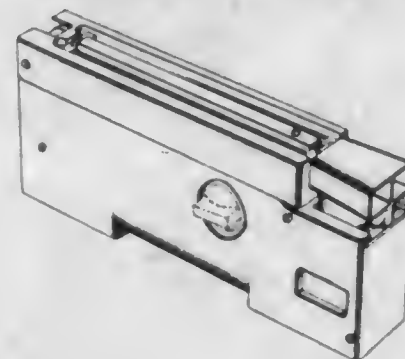


181,958

PORTABLE MOTOR-ASPIRATED PSYCHROMETER

Rutger B. Colt and Alexander Uchuck, Baltimore, Md., assignors to Bendix Aviation Corporation, Baltimore, Md., a corporation of Delaware

Application August 22, 1956, Serial No. 42,702
Term of patent 14 years
(Cl. D52-7)



JANUARY 28, 1958

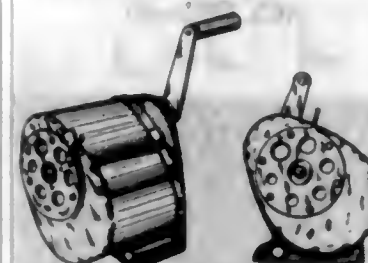
U. S. PATENT OFFICE

827

181,959

PENCIL SHARPENER

Gerald Dahle, Coburg, Germany
Application December 26, 1956, Serial No. 44,337
Term of patent 14 years
(Cl. D74-1)

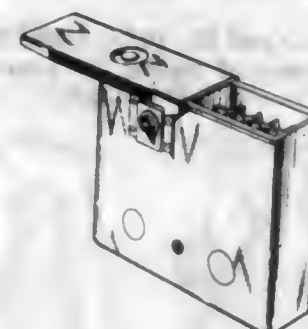


181,960

CASE FOR CARRYING AND STORING DETONATORS OR SIMILAR ARTICLE

William Harry Donkin, London, England, assignor to Godfrey Holmes (Plastics) Limited, Lincoln, England, a British company

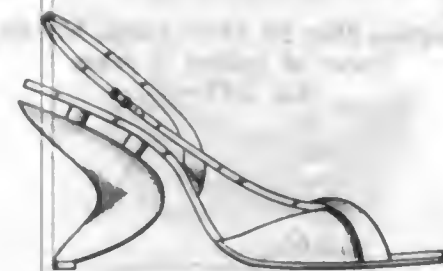
Application October 22, 1954, Serial No. 32,792
Term of patent 14 years
(Cl. D58-13)



181,961

SHOE

Nicé D'Or, Union City, N. J.
Application June 12, 1957, Serial No. 46,571
Term of patent 14 years
(Cl. D7-7)

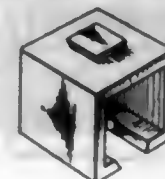


181,962

TOY BUILDING BLOCK OR SIMILAR ARTICLE

Ralph Rudolf Mathias Ehrmann, London, England, assignor to Nikocraft Limited, London, England, a British company

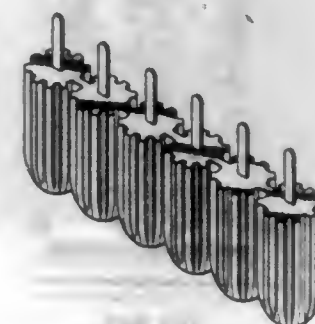
Application July 27, 1956, Serial No. 42,417
Claims priority, application Great Britain January 30, 1956
Term of patent 14 years
(Cl. D34-15)



181,963

FROZEN CONFECTION

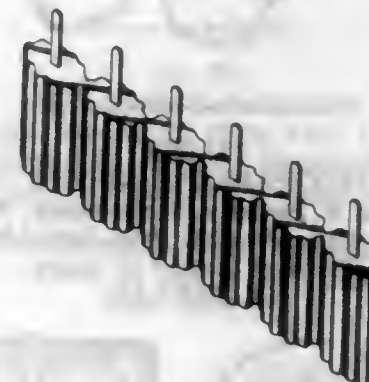
Arthur S. Ensler, Scarsdale, and Aaron Friedman, New York, N. Y., assignors to Joe Lowe Corporation, New York, N. Y., a corporation of Delaware
Application October 23, 1956, Serial No. 43,477
Term of patent 14 years
(Cl. D82-2)



181,964

FROZEN CONFECTION

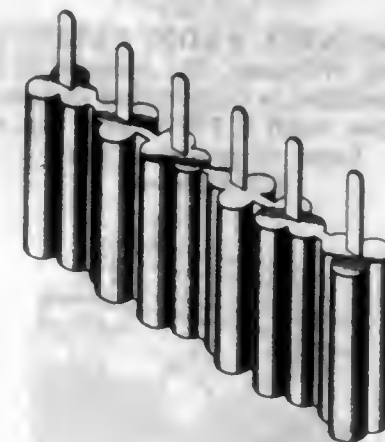
Arthur S. Ensler, Scarsdale, and Aaron Friedman, New York, N. Y., assignors to Joe Lowe Corporation, New York, N. Y., a corporation of Delaware
Application October 23, 1956, Serial No. 43,478
Term of patent 14 years
(Cl. D82-2)



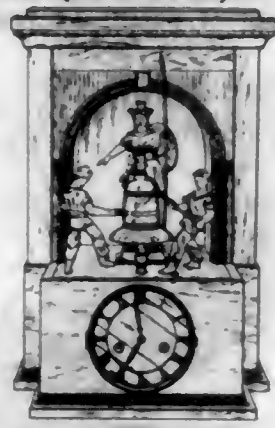
181,965

FROZEN CONFECTION

Arthur S. Ensler, Scarsdale, and Aaron Friedman, New York, N. Y., assignors to Joe Lowe Corporation, New York, N. Y., a corporation of Delaware
Application October 23, 1956, Serial No. 43,481
Term of patent 14 years
(Cl. D82-2)



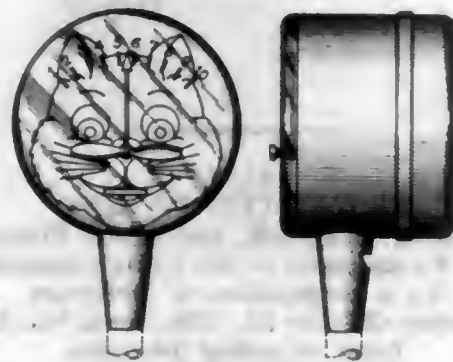
181,966
CLOCK OR SIMILAR ARTICLE
Alexander J. Esch, Pittsburg, Kans.
Application December 19, 1956, Serial No. 44,253
Term of patent 14 years
(Cl. D42—7)



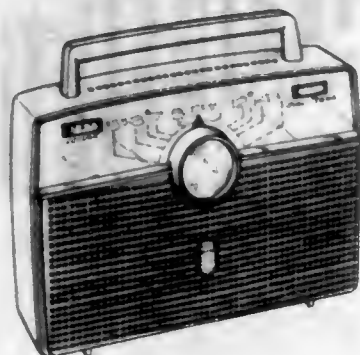
181,967
PAIR OF SUNGLASSES
Jack F. Fleming, Summit, N. J., assignor to Curtiss-Wright Corporation, a corporation of Delaware
Application April 28, 1955, Serial No. 35,719
Term of patent 7 years
(Cl. D57—1)



181,968
TOY PARKING METER
Lillian E. Fortney, Menomonee, Wis.
Application September 24, 1956, Serial No. 43,060
Term of patent 7 years
(Cl. D34—15)



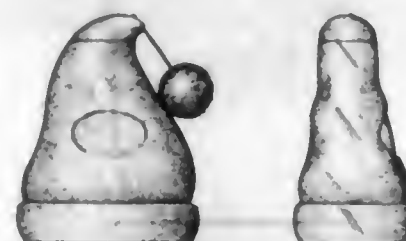
181,969
PORTABLE RADIO CABINET
James K. Gerrie, Wilmette, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
Application April 5, 1957, Serial No. 45,604
Term of patent 7 years
(Cl. D56—4)



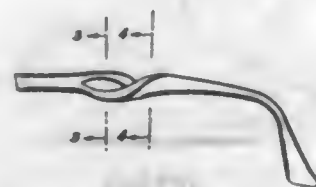
181,970
PUFFED TEXTILE FABRIC
Henry E. Goforth, Winstonsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application February 25, 1957, Serial No. 44,980
Term of patent 14 years
(Cl. D92—1)



181,971
BOTTLE OR SIMILAR ARTICLE
Daniel Goldstein, New York, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application April 18, 1957, Serial No. 45,792
Term of patent 14 years
(Cl. D58—6)



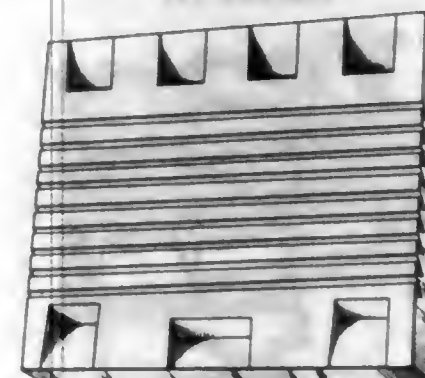
181,972
TEMPLE FOR AN EYEGLASS FRAME
Herman Goodman, New York, N. Y., assignor to Zylite Products Co., Inc., New York, N. Y., a corporation of New York
Application May 29, 1957, Serial No. 46,394
Term of patent 7 years
(Cl. D57—1)



181,973
SHOE POLISH CONTAINER
Bruce B. Gordon, Glen Rock, and Emil W. Kimmig, Rutherford, N. J., assignors to Continental Can Company, Inc., New York, N. Y., a corporation of New York
Application April 6, 1956, Serial No. 40,945
Term of patent 14 years
(Cl. D58—11)



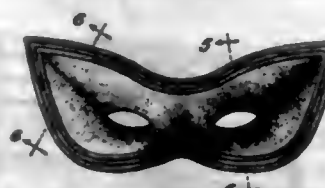
181,974
GAME BOARD
Frank N. Gurnsey, Manchester, N. H.
Application May 16, 1956, Serial No. 41,509
Term of patent 14 years
(Cl. D34—5)



181,975
HIGH CHAIR
Robert L. Hall and Alice L. Hall, Colorado Springs, Colo.
Application July 27, 1955, Serial No. 37,142
Term of patent 14 years
(Cl. D15—1)



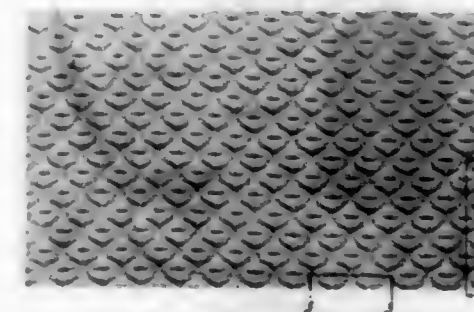
181,976
MASK
George Hanft, deceased, late of Irvington, N. J., by Susan M. Hanft, administratrix, Irvington, N. J.
Application December 30, 1955, Serial No. 39,525
Term of patent 14 years
(Cl. D34—15)



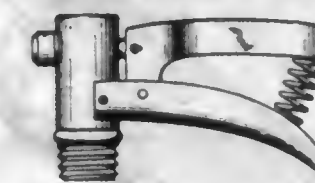
181,977
AUTOMOBILE FLOOR MAT
Urban S. Hirsch, Beverly Hills, and Dewey Latin, Glendale, Calif., assignors to Royal Accessories, Inc., Los Angeles, Calif., a corporation of California
Application June 18, 1956, Serial No. 41,932
Term of patent 3 1/2 years
(Cl. D9—2)



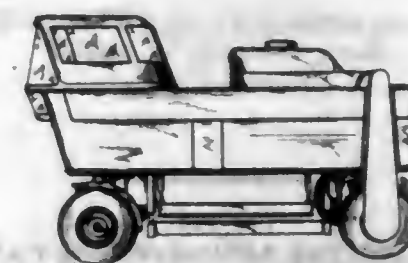
181,978
PUFFED TEXTILE FABRIC
Clement R. Howell, Winstonsboro, S. C., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application September 17, 1956, Serial No. 42,951
Term of patent 14 years
(Cl. D92—1)



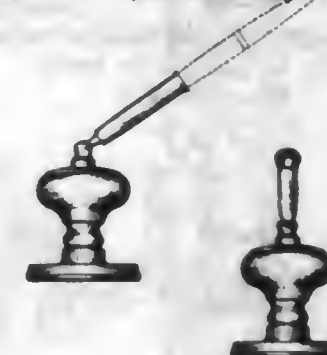
181,979
SPRAY NOZZLE
William Hungate, Houston, Tex.
Application June 25, 1956, Serial No. 42,039
Term of patent 14 years
(Cl. D62—2)



181,980
STRADDLE CARRIER
Frank A. Ilenin, Bloomfield Hills, Paul J. Petlewski, Detroit, and James G. Balmer, Birmingham, Mich., assignors to Clark Equipment Company, a corporation of Michigan
Application November 15, 1956, Serial No. 43,771
Term of patent 14 years
(Cl. D14—3)

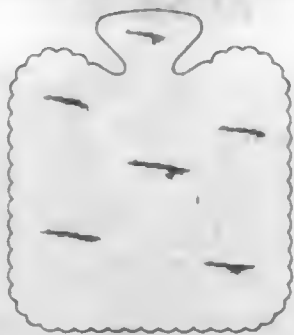


181,981
PEN-HOLDER
Charles L. Ingersoll, Wheaton, Ill.
Application May 9, 1957, Serial No. 46,079
Term of patent 14 years
(Cl. D74—1)

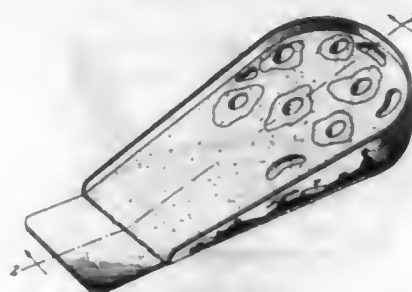


181,982
BIB

Joseph A. Kitterman, Alameda, Calif.
Application September 13, 1956, Serial No. 42,922
Term of patent 14 years
(Cl. D3—27)



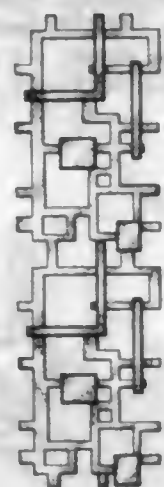
181,983
GAME APPARATUS
Hyman B. Lasting, Portsmouth, Va.
Application April 23, 1957, Serial No. 45,861
Term of patent 14 years
(Cl. D34—5)



181,984
PAIR OF SPECTACLES
Frank W. Lindblom, Warwick, R. I.
Application November 30, 1956, Serial No. 44,000
Term of patent 14 years
(Cl. D57—1)



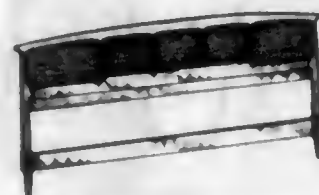
181,985
ORNAMENTAL METAL-WORK PANEL
Leonard M. Logan III, Fort Worth, Tex., assignor to
McKinley Iron Works, Fort Worth, Tex., a partnership
Application May 23, 1957, Serial No. 46,304
Term of patent 14 years
(Cl. D54—2)



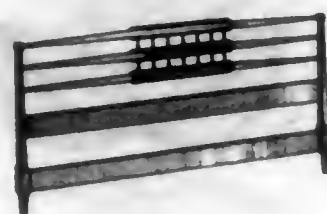
181,986
ORNAMENTAL METAL-WORK PANEL
Leonard M. Logan III, Fort Worth, Tex., assignor to
McKinley Iron Works, Fort Worth, Tex., a partnership
Application May 23, 1957, Serial No. 46,305
Term of patent 14 years
(Cl. D54—2)



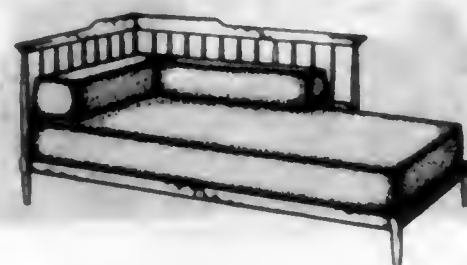
181,987
HEADBOARD OR THE LIKE
John J. Lubberts and Lambert J. Mulder, Grand Rapids,
Mich., assignors to Tomlinson of High Point, High
Point, N. C., a corporation of North Carolina
Application March 8, 1957, Serial No. 45,152
Term of patent 14 years
(Cl. D5—4)



181,988
HEADBOARD OR THE LIKE
John J. Lubberts and Lambert J. Mulder, Grand Rapids,
Mich., assignors to Tomlinson of High Point, High
Point, N. C., a corporation of North Carolina
Application March 8, 1957, Serial No. 45,153
Term of patent 14 years
(Cl. D5—4)



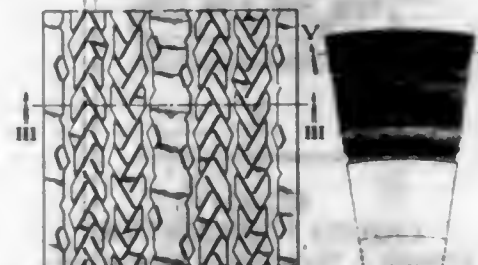
181,989
SOFA
John J. Lubberts and Lambert J. Mulder, Grand Rapids,
Mich., assignors to Tomlinson of High Point, High
Point, N. C., a corporation of North Carolina
Application April 9, 1957, Serial No. 45,648
Term of patent 14 years
(Cl. D15—11)



181,990
HEADBOARD OR THE LIKE
John J. Lubberts and Lambert J. Mulder, Grand Rapids,
Mich., assignors to Tomlinson of High Point, High
Point, N. C., a corporation of North Carolina
Application April 16, 1957, Serial No. 45,757
Term of patent 14 years
(Cl. D5—4)



181,991
PNEUMATIC TIRE
Louis Marick, Grosse Pointe Farms, Norman G. Sprock,
Detroit, and James F. Newman, St. Clair Shores, Mich.,
assignors to United States Rubber Company, New
York, N. Y., a corporation of New Jersey
Application March 4, 1957, Serial No. 45,089
Term of patent 14 years
(Cl. D90—20)



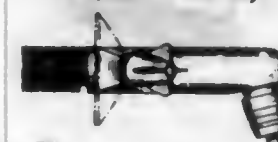
181,992
SHOE SHINE BOX
Paul S. Mazloom, Utica, N. Y.
Application September 9, 1957, Serial No. 47,677
Term of patent 7 years
(Cl. D9—2)



181,993
MAIL BOX OR THE LIKE
Leonard F. Moran, Santa Monica, Calif.
Application July 5, 1956, Serial No. 42,148
Term of patent 7 years
(Cl. D74—9)



181,994
DIVERTER FOR A SHOWER OR THE LIKE
Rene Mornard, St. Lambert, Quebec, Canada
Application May 23, 1957, Serial No. 46,306
Term of patent 14 years
(Cl. D91—3)

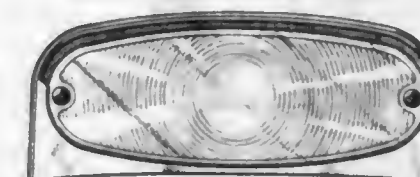


728 O. G.—58

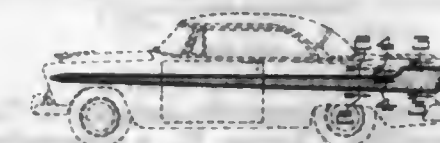
181,995
LOUNGING CHAIR
Ralph K. Odor, Jr., Edmond, Okla., assignor to R. K.
Odor Research Company, Edmond, Okla., a corpora-
tion of Oklahoma
Application February 20, 1956, Serial No. 40,235
Term of patent 14 years
(Cl. D15—1)



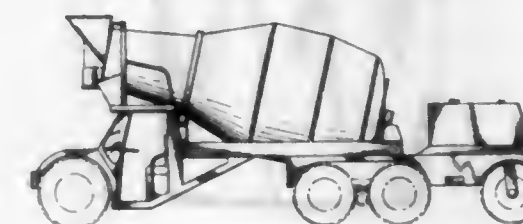
181,996
COMBINATION DIRECTION SIGNAL AND
PARKING LAMP
Theodore Ornas, Jr., Fort Wayne, Ind., assignor to Inter-
national Harvester Company, Chicago, Ill., a corpora-
tion of New Jersey
Application March 12, 1957, Serial No. 45,234
Term of patent 7 years
(Cl. D48—32)



181,997
AUTOMOBILE
Harold W. Pilkey, Detroit, Mich., assignor to Chrysler
Corporation, Highland Park, Mich., a corporation of
Delaware
Application June 11, 1956, Serial No. 41,824
Term of patent 7 years
(Cl. D14—3)

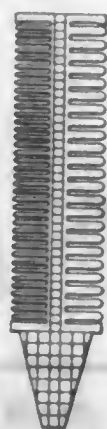


181,998
TRANSIT CONCRETE MIXER
Evan S. Prichard, La Canada, Calif., assignor to Cook
Bros. Equipment Co., Los Angeles, Calif., a corpora-
tion of California
Application October 10, 1955, Serial No. 38,314
Term of patent 14 years
(Cl. D14—3)



181,999
COMB

Samuel R. Pruyn, Eagle Rock, Calif.
Application March 22, 1957, Serial No. 45,399
Term of patent 14 years
(Cl. D86—8)



182,000
COMBINED BOTTLE AND CLOSURE CAP
Ray R. Reed, Blythe, Calif.
Application March 12, 1956, Serial No. 40,573
Term of patent 14 years
(Cl. D58—8)



182,001
WEIGHING SCALE
Jean O. Reinecke, Chicago, Ill., assignor to Continental Scale Corporation, Chicago, Ill., a corporation of Delaware
Application October 30, 1956, Serial No. 43,598
Term of patent 14 years
(Cl. D52—10)



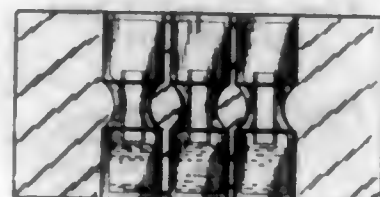
182,002
POWER HANDLE FOR A BARBECUE SPIT OR THE LIKE
Jean Otis Reinecke, Oak Park, and John Mercer Sherrer, Barrington, Ill., assignors to Blairco Industries, Inc., Olney, Ill., a corporation of Delaware
Application June 17, 1957, Serial No. 46,622
Term of patent 14 years
(Cl. D81—10)



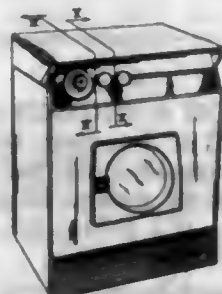
182,003
FINGERNAIL BRUSH
Ledy G. Scholl, Lansdale, Pa.
Application September 28, 1956, Serial No. 43,135
Term of patent 14 years
(Cl. D86—10)



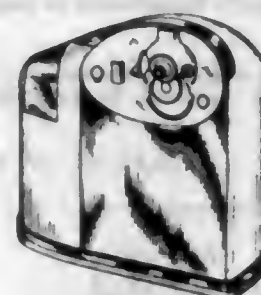
182,004
LIQUID FLOWMETER
Francis J. Spreitzer, Chicago, Ill.
Application May 14, 1957, Serial No. 46,164
Term of patent 14 years
(Cl. D91—1)



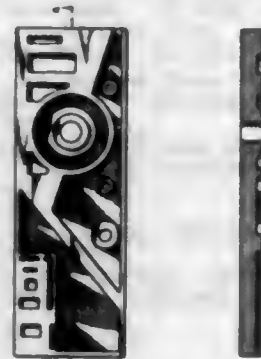
182,005
COMBINED WASHING MACHINE AND DRIER CABINET OR SIMILAR ARTICLE
Carl W. Sundberg, Birmingham, Mich., assignor to Whirlpool Corporation, a corporation of Delaware
Application August 13, 1956, Serial No. 42,591
Term of patent 14 years
(Cl. D49—1)



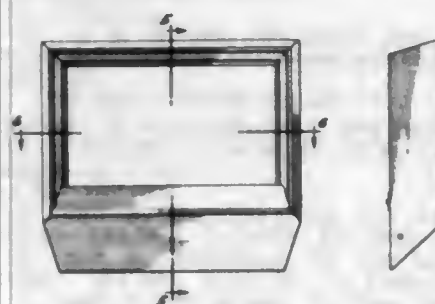
182,006
COMBINED CAN OPENER AND CUTLERY SHARPENER
Henry J. Talge, Kansas City, Mo., and Frank E. Aberer, Kansas City, Kans., assignors to John C. Hockery, trustee, Kansas City, Mo.
Application May 13, 1957, Serial No. 46,144
Term of patent 14 years
(Cl. D37—1)



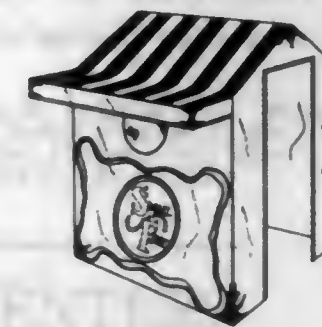
182,007
ESCUTCHEON FOR A DOOR LOCK
Van Day Truex, New York, N. Y., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn., a corporation of Connecticut
Application May 4, 1956, Serial No. 41,342
Term of patent 7 years
(Cl. D50—6)



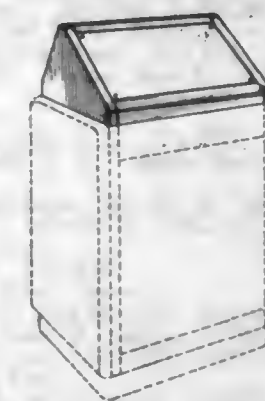
182,008
ILLUMINABLE PICTURE FRAME
Jack Vizny, Los Angeles, Calif.
Application July 2, 1956, Serial No. 42,104
Term of patent 14 years
(Cl. D29—20)



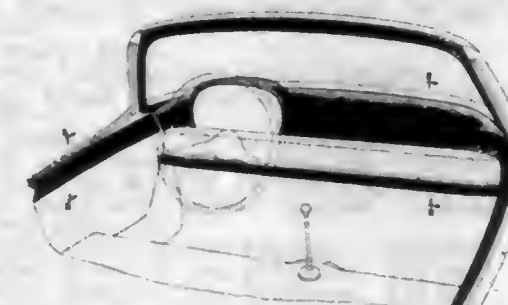
182,009
PLAY TENT
Earl C. Wallace, Andrews, and James J. Meekin, Huntington, Ind., assignors to The Hettrick Manufacturing Company, Toledo, Ohio, a corporation of Ohio
Application October 29, 1956, Serial No. 43,550
Term of patent 14 years
(Cl. D34—15)



182,010
ELECTRONIC CABINET
James G. Wells, Chicago, and Herbert C. Golz, Aurora, Ill., assignors to Elgin Metalformers Corporation, Elgin, Ill., a corporation of Illinois
Application May 25, 1956, Serial No. 41,647
Term of patent 14 years
(Cl. D26—5)



182,011
AUTOMOBILE
Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application May 4, 1956, Serial No. 41,358
Claims priority, application Germany November 15, 1955
Term of patent 7 years
(Cl. D14—3)



LIST OF REISSUE PATENTEEES

TO WHOM

PATENTS WERE ISSUED ON THE 28TH DAY OF JANUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Fielden, John E., to Robertshaw-Fulton Controls Co. Measurement of conductivity of liquids. Re. 24,420, 1-28-58, Cl. 324-65.
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- Bateman, Robert E. Fish lure. 2,821,044, 1-28-58, Cl. 43-12.16.
- Bauer, Leo H. Moisture testing apparatus for lumber dry kiln. 2,821,682, 1-28-58, Cl. 324-65.
- Bauman, William C., H. H. Roth, and H. B. Smith, to The Dow Chemical Co. Preparation of water-soluble sulfonate products of polymeric ar-vinyltoluenes. 2,821,522, 1-28-58, Cl. 260-79.3.
- Beach, John G., to the United States of America as represented by the United States Atomic Energy Commission. Process of coating metals with bismuth or bismuth-base alloys. 2,821,505, 1-28-58, Cl. 204-37.
- Bean, Arthur I., to The Fellows Gear Shaper Co. Gear measuring instrument. 2,821,025, 1-28-58, Cl. 33-179.5.
- Beck, Howard G., to The General Tire and Rubber Co. Resilient cushion. 2,821,244, 1-28-58, Cl. 155-179.
- Becker, Robert E., to Logansport Machine Co., Inc. Self-locking drawbar assembly. 2,821,405, 1-28-58, Cl. 279-119.
- Beecher, Eugene L. Apparatus for making projectiles. 2,821,099, 1-28-58, Cl. 80-23.
- Beiser, Leo, to Columbia Broadcasting System, Inc. Channel selector servosystem. 2,821,676, 1-28-58, Cl. 318-467.
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- Bendix Aviation Corp.: See—
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- Benjamin Reel Products, Inc.: See—
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- Benner, Paul R., to Caterpillar Tractor Co. Auxiliary control for internal combustion engines. 2,821,091, 1-28-58, Cl. 74-482.
- Benson, Donald O., and S. V. Sonmore, to Toro Mfg. Corp. of Minnesota. Combined adjusting arm and carrying handle. 2,821,258, 1-28-58, Cl. 180-19.
- Berdis, Albert J., to United States Steel Corp. Method and apparatus for pickling ferrous strip. 2,821,492, 1-28-58, Cl. 134-15.
- Bergan, Martin D., to The Thomas & Betts Co. Flexible liquid-tight conduit connectors. 2,821,507, 1-28-58, Cl. 174-78.
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260— 45. 4: 2,821,518 45. 5: 2,821,519 47: 2,821,520 78: 2,821,521 79. 3: 2,821,522 104: 2,821,523 147: 2,821,524 151: 2,821,525 205: 2,821,526 251. 5: 2,821,527 270: 2,821,529 2,821,530 285: 2,821,531 319: 2,821,532 364: 2,821,533 385: 2,821,534 400: 2,821,535 401: 2,821,536 449. 6: 2,821,537 463: 2,821,538 2,821,539 471: 2,821,540 2,821,541 475: 2,821,542 486: 2,821,543 2,821,544 487: 2,821,545 2,821,546 489: 2,821,547 504: 2,821,548 505: 2,821,549 2,821,550 521: 2,821,551 524: 2,821,552	260— 535: 2,821,553 543: 2,821,554 566: 2,821,555 570. 6: 2,821,556 590: 2,821,557 599: 2,821,558 604: 2,821,559 659: 2,821,560 666: 2,821,561 671: 2,821,562 261— 23: 2,821,571 37: 2,821,572 78: 2,821,573 262— 26: 2,821,574 263— 26: 2,821,575 265— 68: 2,821,576 266— 34: 2,821,577 42: 2,821,578 1: 2,821,579 2: 2,821,580 268— 23: 2,821,581 125: 2,821,582 52: 2,821,583 61: 2,821,585 80: 2,821,586 271— 2. 6: 2,821,587 8: 2,821,589 45: 2,821,590 86: 2,821,591 87: 2,821,592 10: 2,821,593 83: 2,821,594	273— 43: 2,821,595 105. 3: 2,821,596 106. 5: 2,821,597 127: 2,821,598 149: 2,821,599 279— 1: 2,821,600 6: 2,821,602 14: 2,821,603 51: 2,821,604 119: 2,821,605 34: 2,821,606 104. 5: 2,821,607 2,821,608 440: 2,821,609 476: 2,821,610 16: 2,821,611 18: 2,821,612 284— 18: 2,821,613 47: 2,821,614 112: 2,821,615 172: 2,821,616 287— 20. 2: 2,821,617 52: 2,821,618 62: 2,821,619 288— 13: 2,821,620 289— 3: 2,821,621 292— 113: 2,821,622 148: 2,821,623 317: 2,821,624 336. 3: 2,821,625 294— 26: 2,821,626 296— 23: 2,821,627 26: 2,821,628	296— 28: 2,821,629 44. 5: 2,821,630 57: 2,821,631 298— 22: 2,821,632 30: 2,821,633 299— 25: 2,821,634 82. 5: 2,821,635 2,821,636 115: 2,821,637 301— 37: 2,821,638 302— 53: 2,821,639 303— 46: 2,821,640 60: 2,821,641 2,821,642 305— 10: 2,821,643 307— 88: 2,821,638 88. 5: 2,821,639 308— 23: 2,821,644 309— 10: 2,821,645 45: 2,821,646 310— 68: 2,821,640 213: 2,821,641 246: 2,821,642 311— 109: 2,821,647 312— 31: 2,821,648 31. 01: 2,821,649 111: 2,821,650 138: 2,821,651 183: 2,821,652 223: 2,821,653 252: 2,821,654 313— 67: 2,821,643 78: 2,821,644 82: 2,821,645	313— 108: 2,821,646 184: 2,821,647 196: 2,821,648 316: 2,821,649 330: 2,821,650 350: 2,821,651 315— 3. 6: 2,821,652 11: 2,821,653 12: 2,821,654 14: 2,821,655 23: 2,821,656 27: 2,821,657 39: 2,821,658 39. 77: 2,821,659 57: 2,821,660 96: 2,821,661 111: 2,821,662 144: 2,821,663 317— 2: 2,821,664 9: 2,821,665 13: 2,821,666 2,821,667 49: 2,821,668 101: 2,821,669 142: 2,821,670 200: 2,821,671 318— 146: 2,821,672 194: 2,821,673 220: 2,821,674 254: 2,821,675 467: 2,821,676 320— 56: 2,821,677 322— 25: 2,821,678 323— 89: 2,821,679	324— 13: 2,821,680 62: 2,821,681 65: Re. 24, 420 2,821,682 77: 2,821,683 24: 2,821,684 31: 2,821,685 71: 2,821,686 81: 2,821,687 5: 2,821,688 336— 61: 2,821,689 339— 109: 2,821,690 150: 2,821,691 163: 2,821,692 258: 2,821,693 3: 2,821,694 27: 2,821,695 149: 2,821,696 250: 2,821,697 268: 2,821,698 276: 2,821,699 381: 2,821,700 343— 7. 4: 2,821,701 7. 7: 2,821,702 7. 9: 2,821,703 15: 2,821,704 101: 2,821,705 705: 2,821,706 756: 2,821,707 767: 2,821,708 793: 2,821,709 806: 2,821,710 819: 2,821,711 854: 2,821,712
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CLASSIFICATION OF DESIGNS

D 3—25: Des. 181,982 D 5— 4: Des. 181,987 Des. 181,988 Des. 181,990 D 7— 7: Des. 181,991 D 9— 2: Des. 181,992 6: Des. 181,977 D14— 3: Des. 181,990 Des. 181,997 Des. 181,998	D14— 3: Des. 182,011 6: Des. 181,982 D15— 1: Des. 181,975 Des. 181,995 11: Des. 181,989 D26— 5: Des. 182,010 D29—20: Des. 182,008 D34— 5: Des. 181,974 Des. 181,983 15: Des. 181,982	D34—15: Des. 181,988 Des. 181,976 Des. 182,009 D37— 1: Des. 182,006 D42— 7: Des. 181,966 D45— 4: Des. 181,953 Des. 181,954 Des. 181,955 D48—32: Des. 181,996 D49— 1: Des. 182,005	D50— 6: Des. 182,007 D52— 1: Des. 181,956 7: Des. 181,958 10: Des. 182,001 D54— 2: Des. 181,985 Des. 181,986 D56— 4: Des. 181,969 D57— 1: Des. 181,967 Des. 181,972 Des. 181,984	D58— 6: Des. 181,971 8: Des. 182,000 11: Des. 181,973 13: Des. 181,960 D62— 2: Des. 181,979 D74— 1: Des. 181,950 Des. 181,981 9: Des. 181,993 D81—10: Des. 182,002 D82— 2: Des. 181,963	D82— 2: Des. 181,964 Des. 181,965 D83— 1: Des. 181,987 D86— 8: Des. 181,999 10: Des. 182,003 D90—20: Des. 181,991 D91— 1: Des. 182,004 3: Des. 181,994 D92— 1: Des. 181,970 Des. 181,978
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE
January 28, 1958

Volume 726

Number 4

TRADEMARKS
NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 102,661 (CANADIAN CLUB), Hiram Walker & Sons, Ltd., Whisky, filed Apr. 24, 1957, D. C. N. J. (Newark), Doc. 352/57, *Hiram Walker & Sons, Inc. v. Samuel Billik et al.* Consent judgment for injunction filed for defendants Samuel Billik, Morris R. Sprung, Joseph Billik, Max Holtz, Joseph Kanengiser and Popper-Morson Corp.; dismissal of action as to defendants Famous Brands, Inc. and Irving Rice (notice Dec. 12, 1957).

TM 434,317 (DAVY CROCKETT FRONTIERSMAN), The Schwartz Mfg. Co., Outer wearing apparel for men, women, and children—namely, socks, jackets, etc., filed July 14, 1955, D. C., S. D. N. Y., Doc. 102/98, *Davy Crockett Enterprises, Inc. v. Allison Mfg. Co., Inc.* Stipulation and order of discontinuance Dec. 13, 1957.

TM 568,873. (See TM 574,936.)

TM 574,936 (IMMUNOL), Haas Miller Corp., Rust preventive, wetting agent, surface tension reducer, grease solvent,

and removers of oils and greases from metal; **TM 568,873**, same, Cleaners for textiles, plastics, wood, linoleum, ceramics, and rubber and hand cleaner, filed Mar. 13, 1957, D. C. N. J. (Newark), Doc. 191/57, *Harry Miller Corp. v. Croton Soap Co.* Cause dismissed Dec. 9, 1957.

TM 592,888 (PELLON AND DESIGN), Pellon Corp., Sheet or roll made of coated and bonded staples for use as lamination, reinforcement etc. for backing on furniture covers, articles of clothing, etc.; **TM 594,573 (PELLON)**, same, non-woven fabric for use as on interlining for clothing and for stiffening purposes in relation to other fabrics; **TM 599,211**, same, filed May 10, 1955, D. C., S. D. N. Y., Doc. 100/298, *Pellon Corp. v. Teile Fabrics*. Order and judgment for injunction Dec. 13, 1957.

TM 594,573. (See TM 592,888.)

TM 599,211. (See TM 592,888.)

TM 649,886 (THE LIFE AND LEGEND OF WYATT EARP), Wyatt Earp Enterprises, Inc., Title of a television program—namely, western type stories, filed Dec. 11, 1957, D. C., S. D. N. Y., Doc. 127/336, *Wyatt Earp Enterprises, Inc. v. Leslie Henry Co., Inc. et al.*

CONDITION OF TRADEMARK APPLICATIONS AS OF NOVEMBER 30, 1957

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]..... 10,934
Date of oldest new application..... Apr. 17, 1957
Date of oldest amended application..... May 1, 1957

J. H. MERCHANT, Director, Trademark Examining Operation		Oldest Application	
TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION		New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation			
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50		4-17-57	5-13-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200; and Certification Marks (Services) Class B		6-10-57	8-20-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks (Goods) Class A		5-16-57	5-1-57
Renewals (All Classes).....		10-28-57	11-26-57
Sec. 12 (c) Publications (All Classes).....		10-17-57	11-22-57

Applications Filed During the Month of November 1957—1,672

Registrations Issued..... 339—No. 657,582 to No. 657,920
Renewals Issued..... 63

For the quarter October 1, 1957 through December 31, 1957

Applications filed..... 5187
Registrations issued..... 4422
Renewals issued..... 782
Cancellations under Sec. 8..... 1515

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5. As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 698,635. Perlon-Warenzeichenverband E. V., Frankfurt (Main), Germany. Filed Nov. 21, 1955. COLLECTIVE MARK.

PERLON

Owner of German Reg. No. 627,729, dated Oct. 6, 1952. For Nylon Fibers, Filaments, Strands, Bristles, and Wires for Use in the Fabrication of Threads, Yarns, Textile Fabrics, Brushes, Strings, Fishing Lines and the Like.

SN 698,636. Perlon-Warenzeichenverband E. V., Frankfurt (Main), Germany. Filed Nov. 21, 1955. COLLECTIVE MARK.

perlon

Owner of German Reg. No. 627,812, dated Oct. 7, 1952. For Nylon Fibers, Filaments, Strands, Bristles, and Wires for Use in the Fabrication of Threads, Yarns, Textile Fabrics, Brushes, Strings, Fishing Lines and the Like.

SN 11,103. Orchids of Hawaii, Inc., New York, N. Y. Filed June 27, 1956.

KA HULA

The English equivalent of the words "Ka Hula" is "The Dance." For Foliage Plants. First use June 20, 1956.

SN 18,604. United States Rubber Company, New York, N. Y. Filed Nov. 1, 1956.

LITEFOOT

For Cellular Sheet Material Formed of Natural or Synthetic Rubber, Plastic Latices, or Combinations Thereof. First use July 19, 1956.

SN 19,824. H. C. Spinks Clay Co., Inc., Paris, Tenn. Filed Nov. 23, 1956.

HC

For Clay Materials. First use June 19, 1955.

TM 110

SN 27,818. The Rudy-Patrick Seed Company, Kansas City, Mo. Filed Apr. 9, 1957.



Owner of Reg. No. 69,433. For Field Seeds. First use Feb. 15, 1957.

SN 28,038. Dreher Leather Mfg. Corp., New York, N. Y. Filed Apr. 12, 1957.

BRUSHPIG

For Leather. First use Mar. 1, 1957.

SN 28,105. Capital Plastics, Inc., Rochester, N. Y. Filed Apr. 15, 1957.

TECHPERL

For Sheets and Blanks of Plastic Composition for the Production of Buttons and Other Plastic Articles. First use Nov. 30, 1950.

SN 28,816. L. Teweles Seed Co., Milwaukee, Wis. Filed Apr. 24, 1957.

DURA-STAN

For Alfalfa Seed. First use Apr. 9, 1957.

SN 29,324. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed May 2, 1957.



For Clay, Mineral Rubber, Pyrophyllite, Talc, for Use in the Industrial Arts. First use October 1920 on clay.

JANUARY 28, 1958

U. S. PATENT OFFICE

TM 111

SN 31,487. Hercules Powder Company, Wilmington, Del. Filed June 6, 1957.

SN 31,925. Goodyear Plastics Specialty Co., Inc., Staten Island, N. Y. Filed June 13, 1957.

PAMITE

For Rosin. First use Apr. 23, 1957.

SN 31,679. Missouri Charcoal Fuel Co., Meta, Mo. Filed June 10, 1957.

RED HOT

For Charcoal in Lump and Briquet Form. First use Oct. 10, 1953.

Class 2—Receipts

SN 9,496. R. P. Scherer Limited, Windsor, Ontario, Canada. Filed June 1, 1956.

PAK-A-STRIP

Owner of Canadian Reg. No. 121, folio N. S. 31,140, dated Sept. 10, 1948. For Gelatine Capsules.

SN 23,083. Olin Mathieson Chemical Corporation, East Alton, Ill. Filed Jan. 23, 1957.

FROSTKRAFT

For Paper Bags, Cartons, and Boxes. First use about Feb. 15, 1956.

SN 31,325. Donald Josephs Limited, London, England. Filed June 4, 1957.

LUBRETTE

Owner of British Reg. No. 752,032, dated Mar. 16, 1956. For Oilcans.

SN 31,411. Micro-Master, Inc., Kansas City, Mo. Filed June 5, 1957.

MICRO-MASTER

For Storage Envelopes and Transparent Storage Sleeves. First use Mar. 30, 1954, on storage envelopes.

SN 31,633. Chow Mat Inc., Rye, N. Y. Filed June 10, 1957.

CHOW-MAT

For Feeding Bowls and Mats, Sold as a Unit, Used for Cats and Dogs. First use Feb. 5, 1957.

SN 31,669. Litterex Company, Long Beach, Calif. Filed June 10, 1957.

LITTEREX

For Waste Containers for Automobiles. First use May 23, 1957. Subj. to Intf. with SN 34,573.



For Plastic Bags for Garments, Shoes, and Other Wearing Apparel. First use in October 1956.

SN 34,573. Western Metal Crafts, San Francisco, Calif. Filed July 29, 1957.

LITTERETTE

For Automobile Waste Basket. First use May 20, 1957. Subj. to Intf. with SN 31,669.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 32,982. Prince Gardner Company, Inc., St. Louis, Mo. Filed July 1, 1957.

PERSIAN PRINCESS

For Matching Billfolds and Key Cases. First use June 1954.

Class 6—Chemicals and Chemical Compositions

SN 8,438. Albert I. Rappaport, d. b. a. Fire Box Industries, Long Island City, N. Y., to Fire Box Industries Inc., Long Island City, N. Y. Filed May 16, 1956.

Fire Defy-er

For Aerosol Type Fire Extinguishers. First use Mar. 29, 1956.

SN 10,536. International Harvester Company, Chicago, Ill. Filed June 19, 1956.



For Chemical Composition Used as an Ingredient of an Anti-Freeze Solution To Inhibit Attack Thereof on Metals.
First use July 7, 1954.

SN 12,485. American Cyanamid Company, New York, N. Y. Filed Nov. 20, 1957.

3·A·T

For Defoliant.
First use July 11, 1956.

SN 20,431. Mississippi Lime Company, Alton, Ill. Filed Nov. 15, 1956.



Applicant makes no claim to the words "Brand" and "Lime" apart from the mark shown.
For Lime as Used for Chemical Purposes.
First use prior to Oct. 25, 1947.

SN 24,492. Cappel Laboratories, Inc., West Chester, Pa. Filed Feb. 15, 1957.

CALSOPLASTIN

For Desiccated Thromboplastin for Use in the Laboratory for Prothrombin Determinations.
First use in or about June 1954.

SN 29,331. W. R. Grace & Co., New York, N. Y. Filed May 2, 1957.



For Thermoplastic Polyolefins for General Industrial Use.
First use Oct. 31, 1956.

SN 29,888. Ensenat & Company, Inc., d. b. a. Agricultural Pesticide Export Company, New Orleans, La. Filed May 13, 1957.

AGRIPES

For Insecticides for Agricultural Use.
First use Aug. 14, 1955.

SN 30,340. Hukill Chemical Corporation, Cleveland, Ohio. Filed May 20, 1957.

HUVILON

For Synthetic Resin Prepolymer for Making Polyurethane Foam.
First use May 2, 1957.

SN 32,170. Ciba Limited, Basel, Switzerland. Filed June 18, 1957.

CIBACRON

Priority is claimed under Sec. 44(d) on Swiss Reg. No. 165,173, dated Apr. 28, 1957. Owner of U. S. Reg. Nos. 99,914 and 530,634.
For Coal Tar Colors.

SN 33,314. Witco Chemical Company, New York, N. Y. Filed July 5, 1957.

WITCO

Owner of Reg. No. 644,991.
For Carbon Blacks; Metallic Salts of Fatty Acids, Especially of the Following Acids—Stearic, Oleic, 2 Ethyl Hexoic, Iso Octoic, Tall Oil, Rosin, and Naphthenic; Oxidized Asphalt Known as Hard Hydrocarbon; Esters of Organic Acids; Fatty Acids; Stabilizers for Vinyl Resins; Calcium Carbonate and Cobalt Hydrate.
First use in or about June 1937.

Class 8—Smokers' Articles, Not Including Tobacco Products

SN 33,283. Philip M. Rose, Bradford, Pa. Filed July 5, 1957.

ROSEART

For Ash Trays and Table Lighters.
First use in October 1956.

Class 10—Fertilizers

SN 32,747. Florida East Coast Fertilizer Company, Homestead, Fla. Filed June 27, 1957.



No claim is made to the outline representation of the State of Florida apart from the mark shown.
For Fertilizers.
First use Sept. 1, 1949.

Class 11—Inks and Inking Materials

SN 18,362. Sun Chemical Corporation, Long Island City, N. Y. Filed Oct. 29, 1956.

AQUAFLEX

For Printing Inks.
First use Aug. 30, 1956.

SN 18,974. Sun Chemical Corporation, Long Island City, N. Y. Filed Nov. 8, 1956.

HI-FI

For Printing Inks.
First use Aug. 27, 1956.

SN 21,821. Lawter Chemicals, Inc., Chicago, Ill. Filed Dec. 28, 1956.

IMPACT

For Printing Inks and Components Thereof, Including Pigments and Dye-stuffs.
First use Nov. 13, 1956.

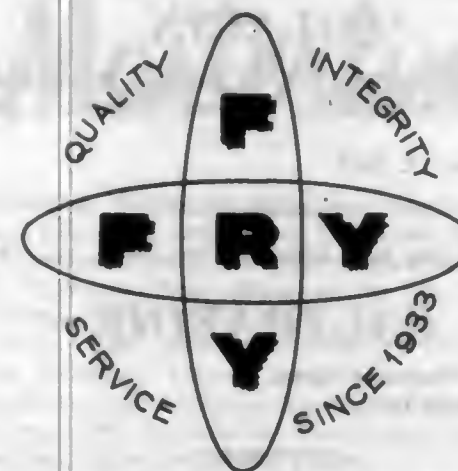
SN 22,794. Columbia Ribbon & Carbon Manufacturing Company, Inc., Glen Cove, N. Y. Filed Jan. 18, 1957.

EXECU-TAPE

For Non-Textile Printing Tapes for Use in Typewriting Machines.
First use Dec. 10, 1956.

Class 12—Construction Materials

SN 28,136. Lloyd A. Fry Roofing Co., Summit, Ill. Filed Apr. 15, 1957.



Applicant disclaims the words "Quality, Integrity, Service, Since 1933" apart from the mark as shown, for the purpose of this registration.

For Composition Roofing and Shingles.
First use on or about Jan. 1, 1957; about July 11, 1955, as to the word "Fry."

SN 30,027. Material Service Corporation, Chicago, Ill. Filed May 14, 1957.

MATERIALITE

For Aggregate, for Use in Making Materials Such as Concrete, Ceramic Products, Insulation Materials, and Heat-Resistant Materials.
First use on or about Jan. 31, 1957.

SN 32,305. Gets Bros. & Co., San Francisco, Calif. Filed June 20, 1957.

For Plywood.
First use Nov. 15, 1956.

Class 15—Oils and Greases

SN 24,790. John E. Malloy, Kenosha, Wis. Filed Feb. 20, 1957.

AQUALENE

For Petroleum Products; Specifically Gasoline.
First use Mar. 15, 1956.

SN 34,409. Dow Corning Corporation, Midland, Mich. Filed July 26, 1957.



Owner of Reg. Nos. 571,013 and 570,630.
For Lubricants for Relatively Moving Metallic Parts and for Plastic-Bearing Surfaces, Lubricating Oils and Greases, Valve Lubricants, Stopcock Greases, High Vacuum Greases for Use in Sealing and Lubricating Joints in Vacuum Systems, Oils for Diffusion Pumps.
First use May 31, 1951.

Class 16—Protective and Decorative Coatings

SN 10,292. The Chandler Mfg. Co. Incorporated, East Taunton, Mass. Filed June 15, 1956.

KLING KONA

For Wall Size.
First use at least as early as Jan. 1, 1923.

SN 31,657. Ralph E. Grossman, Decatur, Ill. Filed June 10, 1957. Sec. 2(f).

PICTURE CRAFT

Owner of Reg. No. 438,369.
For Painting Kits.
First use at least as early as Jan. 1, 1941.

SN 34,260. Seymour of Sycamore, Inc., Sycamore, Ill. Filed July 23, 1957. Sec. 2(f).

LUSTRE CHROME

Owner of Reg. No. 559,730.
For Ready Mixed Paints.
First use in May 1949.

SN 34,328. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed July 24, 1957.

Holland-Kote

For Paints, Paint Primers, Paint Enamels, Stains, Varnishes, Asphalt Products, and Paint Colors.
First use February 1957.

Class 17—Tobacco Products

SN 31,150. Rembrandt Tobacco Corporation (Overseas) Limited, Stellenbosch, Cape Province, Union of South Africa. Filed May 31, 1957.

PIERRE RENOIR

For Cigarettes and Cut Tobacco.
First use Feb. 8, 1957; in commerce Feb. 8, 1957.

SN 31,922. G. H. P. Cigar Co., Inc., New York, N. Y. Filed June 18, 1957.

NURICA

For Cigars.
First use Nov. 14, 1953.

Class 18—Medicines and Pharmaceutical Preparations

SN 690,558. Jenkins Laboratories Inc., Auburn, N. Y. Filed June 30, 1955.

JEN-HEARTS

For Children's Medications—Namely, Alkalizers and Antacids, Alteratives, Analgesics, Tonics, Anodynes, Anthelmintics, Antiasthmatics, Antifebrile Agents, Antipyretics, Antiseptics, Antispasmodics, Bactericides, Cathartics, Correctives, Cough Tablets, Vitamin Products, Digestants, Expectorants, Diuretics, Placebos, Sedatives, Sulfas Products, and Throat Lozenges.
First use May 31, 1955.

SN 13,186. Barker, Moore & Mein Company, Philadelphia, Pa. Filed Aug. 1, 1956.

BAR-DAB

For Preparation for the Prevention of Cannibalism in Poultry.
First use June 18, 1956.

SN 16,839. Syracuse Pharmacal Co., Inc., Syracuse, N. Y. Filed Oct. 2, 1956.

FOUR DEE (D D D D)

For Veterinary Preparation for the Treatment of Any Swelling Which Indicates Absorption in Cattle, Including Puffs, Bog Spavin, Splints, and Curbs.
First use January 1921.

SN 20,968. Slenderella Systems, Inc., d. b. a. Slenderella International, Stamford, Conn. Filed Dec. 12, 1956.

SLENDERELLA

Owner of Reg. Nos. 386,714, 635,811, and others.
For Dietary Supplement Supplying Vitamins and Minerals.
First use Sept. 10, 1951.

SN 24,598. Kinney & Company, Inc., Columbus, Ind. Filed Feb. 18, 1957.

CHEL-IRON

For Dietary Supplement for the Treatment of Iron Deficiency Anemia.
First use Jan. 16, 1957.

SN 29,816. Olin Mathieson Chemical Corporation, New York, N. Y. Filed May 10, 1957.

VESPRIN

Owner of Reg. No. 548,797.
For Ataractic Agent.
First use Mar. 28, 1957.

SN 30,379. Vick Chemical Company, New York, N. Y. Filed May 20, 1957.

THERMO STICK

Without waiving any common law rights thereto, and for the purpose of registration, applicant disclaims exclusive right to the word "Stick" apart from the mark shown.
For Analgesic Preparation for External Use.
First use Aug. 28, 1956.

SN 32,408. Chas. Pfister & Co., Inc., Brooklyn, N. Y. Filed June 21, 1957.

EYEBON

For Therapeutic Ophthalmic Preparation.
First use Feb. 13, 1957.

SN 33,464. Carter Products, Inc., New York, N. Y. Filed July 10, 1957.

SOLACIN

For Medicinal Preparation To Remedy Headaches and Relieve Tension, Nervousness, Fatigue, Depression, and Sleeplessness.
First use May 17, 1957.

SN 33,478. Hardy Salt Company, St. Louis, Mo. Filed July 10, 1957.

SALTRAZINE

For Animal Worming Agent.
First use June 1957.

SN 33,531. Alex G. Bournia, d. b. a. AGB, Warren, Ohio. Filed July 11, 1957.

AGB

For Liniment.
First use May 15, 1957.

SN 33,674. B. F. Ancher & Company, Inc., Kansas City, Mo. Filed July 15, 1957.

MOBISYL

For Tablets for Relief of Pain and Muscular Spasm in Arthritic and Rheumatic Conditions.
First use Oct. 8, 1956.

SN 33,802. Chicago Pharmacal Company, Chicago, Ill. Filed July 17, 1957.

BEXIBEE

For Multiple Vitamin Preparation for Intravenous and Intramuscular Uses.
First use Mar. 16, 1957.

Class 20—Linoleum and Oiled Cloth

SN 34,400. Congoleum-Nairn Inc., Kearny, N. J. Filed July 26, 1957.

VINYLCREST

For Plastic Coverings of the Smooth Surface, Resilient Type for Surfaces Such as Floors, Walls, Countertops, and the Like in the Form of Rolls, Rugs, and Tiles.
First use July 2, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 20,819. Blonder-Tongue Laboratories, Inc., Westfield, N. J. Filed Dec. 11, 1956.

Masterline

For Electronic Radio and Television Apparatus—Namely, Electric and Electronic Oscillators, Detectors, Amplifiers, Pre-Amplifier Boosters, Converters, Mixer Separators and Weather-proof and Radiation-Proof Housings for the Same; Power-Supply Systems; Electrical Connectors, Plugs, Cables, Transmission Lines, Line and Cable Couplers, Outlets, Tap-Off Connectors, Mounting Plates, Control Boxes, Isolation and Outlet Networks, Line Splitters, Impedance-Matching Devices, Filters, Attenuators, Attenuation Equalizers, Duplexers, Directional Couplers, Wave Traps, and Filters.
First use on or about May 1, 1954.

Class 22—Games, Toys, and Sporting Goods

SN 20,266. Gotham Metal Works, Inc., Hempstead, N. Y. Filed Dec. 3, 1956.

GOTHAM

For Whistles.
First use during the year 1910.

SN 25,556. The Murray Ohio Manufacturing Company, Cleveland, Ohio. Filed Mar. 5, 1957.



Applicant disclaims the word "Frame." The lining represents the colors red, blue, and gold. Color is not claimed as a feature of the mark.
For Tricycles.
First use Feb. 26, 1957.

SN 33,174. Selchow & Righter Company, New York, N. Y. Filed July 3, 1957.

LITTLE BENNY

For Board Game and Playing Accessories.
First use Mar. 4, 1957.

SN 33,175. Selchow & Righter Company, New York, N. Y. Filed July 3, 1957.

CAP-IT

For Cartoon Game and Playing Accessories.
First use Mar. 4, 1957.

SN 33,176. Selchow & Righter Company, New York, N. Y. Filed July 3, 1957.

TRAP-EM!

For Boardgame With Playing Accessories.
First use Mar. 4, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 21,244. Bucyrus Blades, Inc., Bucyrus, Ohio. Filed Dec. 18, 1956. Sec. 2(f).

**BUCYRUS
BLADES**

For Replaceable Cutting Edges for Earth Bulldozing and Scraping Equipment.
First use November 1951.

SN 25,289. White Cap Company, Chicago, Ill. Filed Feb. 28, 1957.

VAPOR VACUUM

Owner of Reg. No. 382,376.
For Machines for Automatically Applying Closure Caps to Containers.
First use Feb. 10, 1936.

SN 33,853. Ferrostaal A. G., Essen, Germany. Filed June 11, 1957.

FERROSTAAL

Owner of German Reg. No. 673,127, dated Mar. 17, 1955.
For Auxiliary Units; Motor Driven Pumping Sets, Portable and Stationary; Cranes and Hoisting Appliances; Machines for Manufacture of Chemical Products and for Treatment of Products of the Iron and Metal Industry and the Processing of Wood and Leather; Textile Machines; Machines for the Manufacture of Electrical Products; Combustion Engines; Building Machines; Mining Machinery; Track Tools; Pumps; Machine Tools; Material Handling Equipment and Similar Constructions; Crossings; Switches; Turntables; and Traverses.

SN 37,141. Comfort Equipment Company, Kansas City, Mo. Filed Sept. 13, 1957.



Owner of Reg. Nos. 573,769, 574,957, and 607,908.
For Farm Equipment—Namely, Fertilizer Spreading Machines, Post Hole Augers, Hay Bale Loaders, Land Levelers, Adjustable Links for Tractor Hitches and Parts Thereof.
First use Sept. 1, 1952.

Class 26—Measuring and Scientific Appliances

SN 684,619. American Machine and Metals, Inc., New York, N. Y. Filed Mar. 31, 1955. Sec. 2(f).



Owner of Reg. Nos. 618,184 and 627,784.
For Testing Machines for Determining Mechanical Properties of Construction Materials.
First use July 22, 1942.

SN 19,775. W. & L. E. Gurley, Troy, N. Y. Filed Nov. 23, 1956. Sec. 2(f).

GURLEY

Owner of Reg. No. 633,148.
For Engineering Instruments and Surveying Instruments—i. e., Theodolites, Transits, Levels, Compasses, Alidades, Plane

Tables, Leveling Rods, Stadia Rods, Range Poles; Accessories and Field Equipment for Surveyors—Namely, Hand Levels and Plummets; Hydrological Instruments—i. e., Water Level Recorders, Water Level Indicators, Current Meters and Hook Gages; Testing Instruments for Papers and Textiles; Standard Weights and Measures; Meteorological Instruments—i. e., Anemometers, Wind Direction Instruments, Wind Direction and Velocity Recorders and Pilot Balloon Theodolites; and Optical Instruments—i. e., Bore Inspection Telescopes, Collimators and Telescopes; Lenses, Prisms, Mirrors, Flats and Reticles.
First use 1918.

SN 23,360. Streeter-Amet Company, Grayslake, Ill. Filed Jan. 28, 1957.



No claim is made to the terms "Speed" and "Accuracy" apart from the mark as shown.
For Weighing Apparatus, Counters and Recording and Printing Devices.
First use Jan. 1, 1937.

SN 25,205. Veb Feinoptisches Werk Görlitz, Gorlitz, Germany. Filed Feb. 27, 1957.

TELEMEGOR

For Photographic Objectives, Mounted and Unmounted Lenses—Namely, Lenses for Still Cameras, Lenses for Movie Cameras, Lenses for Enlargers, Lenses for Slide Projectors, Lenses for Movie Projectors, Supplementary Lenses, Wide-Angle Lenses, and Telephoto Lenses.
First use December 1929; in commerce July 3, 1930.

SN 25,206. Veb Feinoptisches Werk Görlitz, Gorlitz, Germany. Filed Feb. 27, 1957.

PRIMAGON

For Photographic Objectives, Mounted and Unmounted Lenses—Namely, Lenses for Still Cameras, Lenses for Movie Cameras, Lenses for Enlargers, Lenses for Slide Projectors, Lenses for Movie Projectors, Supplementary Lenses, Wide-Angle Lenses, and Telephoto Lenses.
First use March 1956; in commerce Apr. 19, 1956.

SN 29,133. B & H Instrument Company, Inc., Fort Worth, Tex. Filed Apr. 30, 1957.

TAKCAL

Owner of Reg. No. 641,008.
For Frequency Detecting and/or Measuring Devices.
First use Apr. 19, 1954.

SN 20,548. Omega Louis Brandt & Frere, S. A., Bienne, Switzerland. Filed May 7, 1957.



OMEGA

Owner of Swiss Reg. No. 132,656, dated Mar. 1, 1950; and U. S. Reg. Nos. 25,036 and 578,041.

For Automatic Recording Machines and Apparatus for Use in Determining the Results of Sporting Events—Namely, Electrical or Mechanical Equipment for Determining Elapsed Times in Games or Sporting Events Comprising a Plurality of Instruments for Placement at the Starting and Finishing Lines of a Racing Course, the Same Being Electrically Operated and Connected to and Actuated by the Starting Gun or Other Signal so as to Automatically Provide a Permanent Visible Record of the Order in Which One or More Contestants Finish the Race and of the Corresponding Elapsed Times.

SN 29,681. Texas Instruments Incorporated, Dallas, Tex. Filed May 6, 1957.



For Rectilinearly Galvanometric Recorders for the Recording of Electrical Phenomena in Rectilinear Form in Ink on a Paper Strip Chart.
First use May 1956.

SN 29,862. John D. Bolecky, d. b. a. Motek Controls Company, Mansfield, Ohio. Filed May 13, 1957.



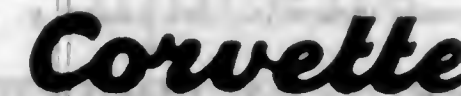
For Thermostatically Operated and Thermally Responsive Electric Controls.
First use Dec. 19, 1956.

SN 30,028. Saburo Matsumoto, d. b. a. Asahi Optical Co., Ltd., Chuo-ku, Tokyo, Japan. Filed May 14, 1957.

JUPITER

For Binoculars and Telescopes.
First use Dec. 1, 1948; in commerce Dec. 1, 1948.

SN 30,232. Cormac Industries, Inc., New York, N. Y. Filed May 17, 1957.



For Photocopying Machines.
First use Nov. 30, 1957.

Class 29—Brooms, Brushes, and Dusters

SN 24,736. Tupper Corporation, North Smithfield, R. I. Filed Feb. 19, 1957.



Owner of Reg. No. 635,270.
For Molded Plastic Combination Massage and Hair Brushes.
First use Nov. 1, 1954.

TM 726 O. G.—11

SN 28,122. Devoe & Reynolds Company, Inc., Louisville, Ky. Filed Apr. 15, 1957.

STYLECRAFT

Owner of Reg. No. 576,058.
For Paint and Varnish Applicators, Specifically, Paint Rollers.
First use January 1956.

SN 34,345. E. I. du Pont de Nemours and Company, Wilmington, Del. Filed July 25, 1957.

COMBO

For Synthetic Sponges.
First use on or about June 17, 1957.

Class 31—Filters and Refrigerators

SN 36,362. The Cuno Engineering Corporation, Meriden, Conn. Filed Aug. 28, 1957.



For Straining and Filtering Apparatus and Components Thereof.
First use Jan. 25, 1957.

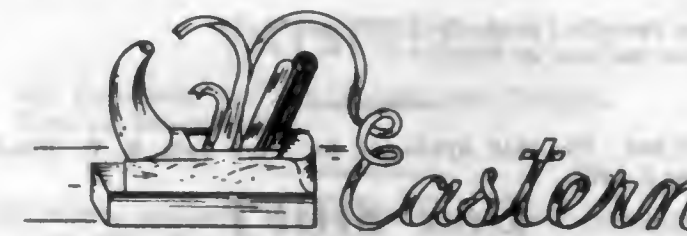
Class 32—Furniture and Upholstery

SN 14,664. Hampden Specialty Products, Inc., Easthampton, Mass. Filed Aug. 27, 1956.

ALUMINAIR

For Bridge Sets—Namely, Tables and Chairs.
First use May 7, 1956.

SN 33,868. Eastern Cabinet Company, Inc., Brooklyn, N. Y. Filed July 17, 1957.



For Cabinets, Show Cases, Display Cases, Counters, and Store Fixtures and Parts Thereof.
First use Apr. 24, 1951.

SN 34,715. Metalcraft Corp., Chicago, Ill. Filed July 31, 1957.

METALCRAFT

For Photograph Frames.
First use in June 1933.

Class 37 — Paper and Stationery

SN 17,268. Joseph Dixon Crucible Company, Jersey City, N. J. Filed Oct. 11, 1956. Sec. 2(f).

rubacore

For Rubber Erasers.
First use May 7, 1948.

SN 28,146. Globe Ticket Company, Philadelphia, Pa. Filed Apr. 15, 1957.

PARKONTROL

For Tickets or Checks for Use in Automobile Parking Operations.
First use July 20, 1956.

SN 29,123. Zephyr American Corporation, New York, N. Y. Filed Apr. 29, 1957.

ZEPHYR AMERICAN
Lettadex

Owner of Reg. No. 502,366.
For Letter Openers.
First use Mar. 27, 1957.

Class 38 — Prints and Publications

SN 22,663. Raymond E. Danielson, d. b. a. Ordan Publishing Company, La Porte, Ind., to Ordan Publishing Company, Inc., La Porte, Ind. Filed Jan. 16, 1957.

Homes of Distinction

For Periodic Publication of House Plans.
First use Nov. 29, 1956.

SN 31,561. The Hall Syndicate, Inc., New York, N. Y. Filed June 7, 1957.

DAY SHIFT

For Comic Drawings of a Fictitious Character, Published in Daily Newspapers.
First use Mar. 30, 1953.

SN 32,118. Pocket Books, Inc., New York, N. Y. Filed June 17, 1957.

POCKET LIBRARY

For Books.
First use May 7, 1954.

SN 32,205. NEA Service, Inc., Cleveland, Ohio. Filed June 18, 1957.

TIZZY

For Comic Drawings of a Fictitious Character, Published in Daily Newspapers.
First use May 27, 1957.

SN 32,449. Automatic Canteen Company of America, Chicago, Ill. Filed June 24, 1957.



Owner of Reg. No. 546,649.
For Magazine Published Periodically.
First use Sept. 15, 1951.

Class 39 — Clothing

SN 698,502. Jordan Colton Company Inc., New York, N. Y. Filed Nov. 18, 1955.

Win'jamas

For Women's and Misses' Intimate Apparel—Namely, Pajamas, Pajamas and Matching Robes.
First use June 30, 1954.

SN 9,172. Poirette Corsets, Inc., New York, N. Y. Filed May 28, 1956.

FIREFLY BY POIRETTE

For Girdles and Foundation Garments Consisting of a Combination Girdle and Brassiere.
First use May 23, 1956.

SN 12,340. Casual-Aire, Inc., New York, N. Y. Filed July 18, 1956.

CASUAL-AIRE

Owner of Reg. No. 558,334.
For Men's Suits, Overcoats, Topcoats, Sport Coats, Trousers, Golf Trousers, Walking Shorts, Swimming and Play

Trunks, Hosiery, Raincoats, Dress Shirts, Sport Shirts, Neckties, Belts, Suspenders, Garters, Sweaters, Berets, Caps, Hats, Underwear, Dressing Gowns, Bathrobes, Handkerchiefs, Dress and Sport Vests, Scarfs, Mufflers, and Leather, Cotton and Woolen Gloves.
First use Feb. 15, 1950.

SN 15,190. Lane Bryant, Inc., New York, N. Y. Filed Sept. 6, 1956.

Lillian Drake

"Lillian Drake" is a professional name of Ann Anderson, consent of record.
For Women's Blouses, Skirts, and Dresses.
First use July 24, 1956.

SN 21,588. Superba Cravats, Inc., Rochester, N. Y. Filed Dec. 24, 1956.

L'ULTRA

For Neckwear.
First use Dec. 7, 1956.

SN 21,942. Primrose Foundations, Inc., New York, N. Y. Filed Dec. 31, 1956.

PRISCILLA

For Foundation Garments—Namely, Brassieres, Corsets, Corsets, Bandeaux, Panties, Girdles, and Garter Belts.
First use June 24, 1924.

SN 22,534. Goldstone Bros., San Francisco, Calif. Filed Jan. 14, 1957.

COW PUNCHERS

Owner of Reg. No. 426,256.
For Men's and Boys' Work and Play Clothing—Namely, Jeans (Also Known as Waist Overalls and Dungarees).
First use in the year 1944.

SN 22,979. The Stayform Company, Chicago, Ill. Filed Jan. 22, 1957.

STAYFORMEN

Owner of Reg. No. 595,580.
For Posture Aiding Foundation Garment for Men.
First use October 1950.

SN 23,041. Dijon Lingerie Co., Inc., New York, N. Y. Filed Jan. 23, 1957.

dijonette

For Lingerie—Namely, Ladies' Slips, Peignoirs, Coats, Negligees, Panties, and Nightgowns.
First use May 1956.

SN 25,880. F. Norton & Son Limited, Irthlingborough, England. Filed Mar. 11, 1957.

Old Oak

For Shoes.
First use Dec. 1, 1955; in commerce July 1, 1956.

SN 27,398. Sapphire Corporation, New York, N. Y. Filed Apr. 2, 1957.

SABER HEEL

No claim is made to the word "Heel" apart from the mark as shown.
For Hosiery.
First use Mar. 5, 1957.

SN 27,707. Midwest Footwear, Inc., Sullivan, Mo. Filed Apr. 8, 1957.

LEIS-AIRES

For Women's Shoes and Slippers Made of Fiber, Leather, Cloth, Plastic, Rubber, and Combinations Thereof.
First use Mar. 14, 1957.

SN 27,708. Midwest Footwear, Inc., Sullivan, Mo. Filed Apr. 8, 1957.

RESORT-AIRES

For Women's Shoes and Slippers Made of Fiber, Leather, Cloth, Plastic, Rubber, and Combinations Thereof.
First use Mar. 14, 1957.

SN 28,993. Ball Brassiere Co., Inc., New York, N. Y. Filed Apr. 29, 1957.



Owner of Reg. Nos. 349,997 and 553,151.
For Brassieres, Bandeaux, and Corsets.
First use September 1956.

SN 29,471. Norwegian-American Knitting Mills, Inc., Bennington, Vt. Filed May 6, 1957.

VALHALLA

For Underwear for Men, Women, and Children.
First use Jan. 31, 1957.

SN 29,916. Johnson, Stephens & Shinkle Shoe Company, St. Louis, Mo. Filed May 13, 1957.

Tropicanas
BY RHYTHM STEP

Owner of Reg. Nos. 343,459, 607,333, and others.
For Shoes.
First use Apr. 12, 1957.

SN 30,270. Sapphire Corporation, New York, N. Y. Filed May 17, 1957.

GUARDOL

For Hosiery.
First use Apr. 15, 1957.

SN 30,716. Beautiful Bryans, Inc., Chattanooga, Tenn. Filed May 27, 1957.

Fabriganza

For Ladies' Nylon Hosiery.
First use Dec. 15, 1956.

SN 31,222. The James Company of Hickory, N. C., Inc., Hickory, N. C. Filed June 3, 1957.

FULLINE

For Hosiery, Underwear, and Shirts for Men, Women, Children, and Infants, Handkerchiefs, Belts, Neckties, Brassieres, Gloves, and Slippers.
First use May 15, 1957.

SN 31,223. The James Company of Hickory, N. C., Inc., Hickory, N. C. Filed June 3, 1957.

PEDESTAL

For Hosiery, Underwear, and Shirts for Men, Women, Children, and Infants, Handkerchiefs, Belts, Neckties, Brassieres, Gloves, and Slippers.
First use May 15, 1957.

SN 31,310. Joseph H. Cohen & Sons, Inc., New York, N. Y. Filed June 4, 1957.

CAPACHINI

For Men's and Boys' Outer Garments—Namely, Coats, Suits, Sport Coats, Jackets, Top Coats, Overcoats, Slacks, Trousers, and Vests.
First use May 1, 1957.

SN 31,423. E. E. Taylor Corporation, Freeport, Maine. Filed June 5, 1957.

RUNNING MATES

For Shoes.
First use Apr. 10, 1957.

SN 31,540. G. H. Bass & Co., Wilton, Maine. Filed June 7, 1957.

WEEJUNETTES

Owner of Reg. No. 338,753.
For Women's Shoes of the True Moccasin Slip-On Type With Wedge Heels.
First use Jan. 21, 1957.

SN 31,564. Hartman Shoe Manufacturing Co., Haverhill, Mass. Filed June 7, 1957.

Pgmys

For Shoes for Women and Girls.
First use May 17, 1957.

SN 31,636. Craddock-Terry Shoe Corporation, Lynchburg, Va. Filed June 10, 1957.

SLENDERLINE

For Shoes.
First use in 1933.

SN 31,696. Kent Scott, Inc., Easton, Pa. Filed June 10, 1957.



Applicant disclaims the word "Slack" apart from the mark as shown.
For Men's Trousers and Slacks.
First use Apr. 8, 1957.

SN 32,056. Cluett, Peabody & Co., Inc., New York, N. Y. Filed June 17, 1957.

WHIP

Owner of Reg. No. 200,722.
For Collars and Outer Shirts.
First use July 1, 1921, on collars.

SN 32,098. Maiden Form Brassiere Company, Inc., New York, N. Y. Filed June 17, 1957.

OVERLASTIC

Owner of Reg. No. 384,683.
For Brassieres.
First use May 31, 1957.

SN 32,136. J. Schoeneman, Incorporated, Baltimore, Md. Filed June 17, 1957.

SPORTREND

For Suits, Coats, Vests, and Trousers for Men.
First use in February 1931.

SN 32,244. Geissler Knitting Mills, Inc., Hasleton, Pa. Filed June 19, 1957.

SMARTEX

For Men's Athletic Shirts and Men's Briefs; Boys' Athletic Shirts and Boys' Briefs; Men's, Boys', and Children's Pajamas; Infants' Sleepers; and Men's and Boys' Polo and Placket Shirts; All Made From Knit Fabrics.
First use Feb. 25, 1933.

SN 32,289. Cluett, Peabody & Co., Inc., New York, N. Y. Filed June 20, 1957.

LANABRIO

For Outer Shirts.
First use May 24, 1957.

SN 32,290. Cluett, Peabody & Co., Inc., New York, N. Y. Filed June 20, 1957.

TRIMWAY

For Outer Shirts.
First use May 24, 1957.

SN 32,685. Liberty Hosiery Mills, Inc., Gibsonville, N. C. Filed June 26, 1957.

HIT PARADE

For Ladies' Nylon Hosiery.
First use June 20, 1957.

SN 32,829. The Londontown Manufacturing Company, Baltimore, Md. Filed June 28, 1957.

CALIBRE

For Men's, Women's, and Children's Raincoats, Rain Jackets, and Rain Hats.
First use May 16, 1955.

SN 32,832. P. Carlisle MacIntyre, Memphis, Tenn. Filed June 28, 1957.

PLUSH

For Hosiery for Ladies, Men, Children, and Misses.
First use May 3, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 656,574. The Joseph & Feiss Company, Cleveland, Ohio. Filed Nov. 18, 1933.

Kasiri Cloth

The word "Cloth" is disclaimed apart from the mark.
For Fabrics Sold in Men's Tailored Suits—Namely, Coats, Vests, and Trousers, Sports Coats, and Slacks.
First use Dec. 1, 1952.

SN 23,838. Sears, Roebuck and Co., Chicago, Ill. Filed Feb. 5, 1957.

DURA-BRAID

For Plastic Fibre Rugs.
First use Aug. 4, 1954.

SN 30,410. Dan River Mills, Incorporated, Danville, Va. Filed May 21, 1957.

PLAYETTE

For Cotton Piece Goods.
First use May 8, 1957.

SN 30,438. North American Rayon Corporation, New York, N. Y. Filed May 21, 1957.

NARCO-PLUS

Owner of Reg. Nos. 340,465 and 375,096.
For Knitted Fabrics Composed Wholly or in Part of Yarn of Artificial Origin.
First use at least as early as January 1945.

SN 30,509. Massachusetts Textile Inc., New York, N. Y. Filed May 22, 1957.

Isongare

For Cashmere Fabrics in the Piece.
First use Jan. 17, 1957.

SN 31,184. Beacon Looms, Inc., New York, N. Y. Filed June 3, 1957.

DOVELON

For Window Curtains and Netting for Window Curtains Made of Silk, Cotton, Rayon and Synthetic Fibers and Mixtures Thereof.
First use May 1, 1957.

SN 31,185. Beacon Looms, Inc., New York, N. Y. Filed June 3, 1957. Sec. 2(f).

BEACON-NETS

Owner of Reg. No. 346,838.
For Window Curtains and Netting for Window Curtains Made of Silk, Cotton, Rayon and Synthetic Fibers and Mixtures Thereof.
First use in January 1936.

Class 43—Thread and Yarn

SN 30,445. Rayflex Fabrics, Inc., New York, N. Y. Filed May 21, 1957.

PLYFLEX

For Yarns.
First use May 14, 1956.

SN 31,821. Hess, Goldsmith & Co., Inc., New York, N. Y. Filed June 4, 1957. Sec. 2(f).

ATWATER

For Yarns.
First use Sept. 14, 1936.

Class 46—Foods and Ingredients of Foods

SN 677,749. Joseph C. Ulick, d. b. a. Maison Roches, Los Angeles, Calif. Filed Dec. 3, 1954. Sec. 2(f) as to "Old English."



The words "Brand" and "Tom & Jerry" and "Egg Nog Butter" are disclaimed apart from the mark as shown. Owner of Reg. No. 863,767.
For Non-Alcoholic Egg Base Batter To Be Used as a Base for Preparing Drinks Such as Tom and Jerry.
First use on or about Sept. 25, 1936.

SN 693,469. Mona Lisa, Inc., Dallas, Tex. Filed Aug. 22, 1955. SN 21,972. Empacadora de Chihuahua, S. A., Chihuahua, Chih., Mexico. Filed Dec. 26, 1956.



MONA LISA

For Candy and Cake.
First use June 24, 1955.

SN 17,323. Trenton Milling Company, Trenton, Ill. Filed Oct. 11, 1956.

TRENTON

The drawing is lined for red and blue, but no claim to color is made. Owner of Reg. No. 606,282.
For Flour and Self-Rising Flour, and Prepared Cake Mixes.
First use Sept. 7, 1956.

SN 17,470. Reymor & Brothers, Incorporated, Pittsburgh, Pa. Filed Oct. 17, 1956.

Nellie Price

For Packaged Candies.
First use about June 1939.

SN 18,483. Aro Dairy Co., St. Louis, Mo. Filed Oct. 31, 1956.

ARO

For Dairy Products—Namely, Milk, Creams, Butter, Cottage Cheese, Buttermilk, Chocolate Milk, Skim Milk, Eggnog and Chocolate Drink and Orange Drink for Use as Foods.
First use in June 1925 on butter.

SN 19,294. California Artichoke & Vegetable Growers Corporation, Castroville, Calif. Filed Nov. 15, 1956.

CAL-ART

For Fresh Vegetables.
First use Sept. 16, 1955.

SN 19,452. The Great Western Sugar Company, Denver, Colo. Filed Nov. 19, 1956.

TA-HSI
大西

GREAT WESTERN

The Chinese characters appearing in occidental letters at the top and in Chinese characters directly below are translated as "Great Western." Owner of Reg. Nos. 561,343, 591,336, and 601,096.

For Monosodium Glutamate, Used To Intensify the Natural Flavor of Foods.
First use Oct. 18, 1956.

chi-mex

For Fresh, Frozen, Cured, Salted, Dried, Smoked, Cooked, and Canned Beef and Pork; Sausage; Chili Con Carne; Meat Stew; Meat Loaves; and Fresh, Frozen, and Smoked Poultry.
First use in 1949 on canned beef; in commerce in 1949.

SN 23,995. Gottfried P. Koepsell, d. b. a. Park Cheese Company, Mayville, Wis. Filed Feb. 7, 1957.

LUNA

For Cheese.
First use Nov. 5, 1946.

SN 24,590. I. N. Hagan Ice Cream Company, Uniontown, Pa. Filed Feb. 18, 1957.

BONNIE BAR

For Chocolate Coated Ice Cream Bars.
First use Feb. 1, 1950.

SN 25,115. Pepperidge Farm Incorporated, Norwalk, Conn. Filed Feb. 26, 1957.

**PEPPERIDGE FARM
CHAMPAGNE**

Owner of Reg. No. 360,512.
For Cookies.
First use on or about Feb. 13, 1957.

SN 27,514. The Page Dairy Company, Toledo, Ohio. Filed Apr. 4, 1957.

BINGO

Owner of Reg. No. 370,047.
For Chocolate Coated Ice Cream Bars.
First use Jan. 1, 1938.

SN 27,858. William W. Haas, d. b. a. Nelson Packing Company, San Francisco, Calif. Filed Apr. 10, 1957.

DINETTE

For Canned Salad Vegetables, Canned Vegetables, and Canned Bean Salad.
First use on or about August 1927.

SN 28,195. The Rhode Island Society for the Prevention of Cruelty to Animals, Providence, R. I. Filed Apr. 15, 1957.

S.P.C.A.
DOG FOOD



The words "Dog Food" are disclaimed.
For Dog Food.
First use Mar. 10, 1957.

SN 28,655. Sun Best Fruit Distributors, Fresno, Calif. Filed Apr. 22, 1957. Sec. 2(f). SN 33,946. W. B. Camp & Sons, Inc., Bakersfield, Calif. Filed July 18, 1957.

COCOLA

For Fresh Fruits.
First use in July 1939.

SN 29,424. G. C. Bear, & Company, Detroit, Mich. Filed May 6, 1957.



Lady Orchid

For Flavor for Food Purposes.
First use July 28, 1949.

SN 29,851. Alamo Products Company, Alamo, Tex. Filed May 9, 1957.

ORCHARD GARDEN

Owner of Reg. No. 419,959.
For Canned Citrus Juices, Canned Vegetables, Tomato Juice, Dried and Fresh Peas.
First use September 1937 on canned citrus juices.

SN 29,868. Cal-Compac Foods, Inc., Santa Ana, Calif. Filed May 13, 1957.

AMERICAN GEM

For American Paprika in Bulk.
First use Aug. 2, 1955.

SN 33,405. Douwe Egberts Koninklijke Tabaksfabriek-Koffie-branderijen-Theehandel N. V., Slachtedijk, Joure, Netherlands. Filed July 9, 1957.

MOCCANA

Owner of Dutch Reg. No. 118,118, dated Mar. 27, 1954.
For Coffee and Tea.

SN 33,578. Tenderfrost, Inc., Brockport, N. Y. Filed July 11, 1957.

TENDERFROST

For Frozen Meats—Namely, Frozen Veal Steaks.
First use June 27, 1957.



For Potatoes in Their Natural State.
First use Apr. 10, 1944.

SN 34,872. Sun Crown Food Corporation, San Francisco, Calif. Filed Aug. 2, 1957.

HAWAIIAN CROWN

For Canned Pineapple.
First use Oct. 23, 1956.

SN 34,938. The Frenchette Co., Inc., New York, N. Y. Filed Aug. 5, 1957.

ROQUETTE

For Low Calorie Salad Dressing.
First use July 24, 1957.

SN 35,058. Pratt-Low Preserving Corporation, Santa Clara, Calif. Filed Aug. 6, 1957. Sec. 2(f).

PRATT-LOW

Owner of Reg. Nos. 249,358 and 249,359.
For Canned Fruits, Canned Vegetables, Canned Fruit Juices, Canned Vegetable Juices, Canned Apple Sauce, Canned Tomato Aspic, Canned Fruit Cocktail, Canned Tomato Sauce, Canned Tomato Paste, Canned Tomato Catsup, Salad Dressings, Table Syrup, Fruit Preserves, Jellies, and Chili Sauce.
First use Mar. 25, 1905, on canned fruits and vegetables.

SN 35,238. Castroville Marketing Co-Operative, Inc., Castroville, Calif. Filed Aug. 9, 1957.

PACIFIC MISS

Owner of Reg. No. 560,989.
For Fresh Vegetables, Frozen Fresh Vegetables, and Marinated Vegetables.
First use Sept. 6, 1951, on fresh vegetables.

SN 35,766. General Mills, Inc., Minneapolis, Minn. Filed Aug. 19, 1957.

SUREROASTER

For Poultry Feed.
First use June 14, 1957.

SN 35,987. Dixie Club Coffee Inc., Birmingham, Ala. Filed Aug. 22, 1957.

DIXIE CLUB

For Coffee.
First use April 1920.

SN 39,265. Osceola Foods, Inc., Osceola, Ark. Filed Oct. 21, 1957.

CINDY LOU

For Oleomargarine.
First use Oct. 1, 1957.

Class 47—Wines

SN 677,482. Chandon Champagne Corporation, New York, N. Y. Filed Nov. 30, 1954.



Owner of Reg. Nos. 204,410, 204,498, and 319,515.
For Champagne Wines.
First use 1886.

SN 19,727. American B. D. Company, Paterson, N. J. Filed Nov. 23, 1956. Sec. 2(f).

OPICI

Owner of Reg. Nos. 337,005 and 401,295.
For Wines.
First use May 2, 1942.

Class 50—Merchandise Not Otherwise Classified

SN 21,011. Frank P. Mitten, d. b. a. Mitten's Display Letters, Redlands, Calif. Filed Dec. 13, 1956.

DIRECTORAMA

For Three-Dimensional Font Assortments of Letters and Figures and Illustrating Accessories for Use in Making Up Changeable or Permanent Signs.
First use Aug. 12, 1956.

SN 21,013. Frank P. Mitten, d. b. a. Mitten's Display Letters, Redlands, Calif. Filed Dec. 13, 1956.

SUPER-WALL

For Three-Dimensional Font Assortments of Letters and Figures and Illustrating Accessories for Use in Making Up Changeable or Permanent Signs.
First use Aug. 17, 1956.

Class 51—Cosmetics and Toilet Preparations

SN 3,515. Chesebrough-Pond's Inc., New York, N. Y. Filed Feb. 28, 1956. Sec. 2(f).

CHESEBROUGH-POND'S

Owner of Reg. Nos. 503,219 and 530,393.
For Cologne, Cosmetic Facial and Body Creams, Cosmetic Facial and Body Lotions, Lipsticks, Rouge, Facial Powders, Facial Lotions and Liquids Used as a Foundation Base and Also as a Powder Substitute, Pomade, Hair Conditioning Creams and Lotions, Hair Tonic, Hair Dressing Creams and Lotions.
First use Jan. 20, 1956.

SN 22,231. Union Pharmaceutical Co., Inc., Bloomfield, N. J. Filed Jan. 7, 1957.

SURGI-GLOVE

Owner of Reg. No. 634,186.
For Protective Skin Cream.
First use Oct. 31, 1956.

SN 23,706. Imperial Relampago Corporation, New York, N. Y. Filed Feb. 4, 1957.

PELUSTRE

For Hair Pomades.
First use July 16, 1956.

SN 26,299. Sales Affiliates, Inc., New York, N. Y. Filed Mar. 15, 1957.

MAGICWRAP

For Permanent Waving Lotion, Wrapping Lotion, and Neutraliser.
First use Feb. 18, 1957.

SN 31,992. Macleans Limited, Brentford, England. Filed June 14, 1957. Sec. 2(f).

MACLEANS

Owner of U. S. Reg. No. 390,421.
For Toothpaste.
First use in or about November 1927; in commerce in or about April 1938.

Class 52—Detergents and Soaps

SN 2,788. Kandu Chemicals, Inc., New York, N. Y. Filed Feb. 16, 1956.

FUR-FEEL

For Preparation for Cleaning and Conditioning Synthetic Pile Fabrics.
First use Oct. 18, 1955.

SN 13,612. William T. Smith, d. b. a. Borgard, Fanwood, N. J. Filed Aug. 8, 1956.

**BORGARD**
THE NITRO SOLVENT OF LASTING PROTECTION

For Cleaning, Protecting Against the Influence of the Atmosphere and Chemical Influences and Lubricating Compound for Firearms, Fishing Reels, and Small Precision Tools.
First use Aug. 22, 1953.

SN 16,074. Spartan Chemical Company, Inc., Toledo, Ohio. Filed Sept. 20, 1956.



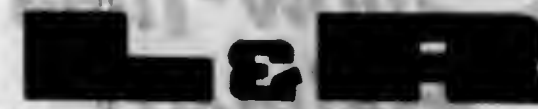
For Liquid Cleaning Preparation for Cleaning Surfaces Such as Floors, Linoleum, Leather, Painted Surfaces, and Glass.
First use Sept. 15, 1956.

SN 22,252. Garratt-Callahan Co. of Illinois, Chicago, Ill. Filed Jan. 8, 1957.

MAGIC

Owner of Reg. No. 538,832.
For Boiler Cleaning Compounds.
First use Mar. 1, 1906.

SN 22,492. Mortimer Wootton, d. b. a. The Wootton Co., Coffeyville, Kans. Filed Jan. 11, 1957.



For Watch Cleaning Solution, Watch Rinsing Solution, Silver Cleaner, Silver Polish, Jewelry Cleaner, and Fabric Spot Remover.
First use Aug. 10, 1948.

SN 24,622. Albert W. Pendergast, d. b. a. Albert W. Pendergast Safety Equipment Company, Philadelphia, Pa. Filed Feb. 18, 1957.

MYSTIC SHEEN

For Lens Cleaner.
First use Mar. 20, 1956.

SN 32,288. Caled Products Company, Inc., Brentwood, Md. Filed June 20, 1957.

CALED

Owner of Reg. No. 378,350.
For Spotters and Pre-Spotters for Removing Spots and Stains From Garments, Soaps and Soap Preparations for Dry Cleaning and Wet Cleaning of Fabrics, and Rug Shampoos.
First use Sept. 23, 1931.

SN 33,690. Continental Chemical Corporation, Buffalo, N. Y. Filed July 15, 1957.

CORALITE

For Chemical Powder, Used for Cleaning Metal Surfaces.
First use Apr. 30, 1957.

SERVICE MARKS**Class 100—Miscellaneous**

SN 20,733. John T. Doran, Silver Spring, Md. Filed Dec. 10, 1956.



The words "Rental Tools and Equipment Co." are disclaimed apart from the mark as shown.
For Rental of Industrial and Construction Equipment.
First use May 7, 1951.

SN 24,070. Parsons Corporation, Traverse City, Mich. Filed S. R. Feb. 8, 1957. Am. P. R. May 6, 1957. Sec. 2(f) as to "Parsons."



Applicant disclaims, apart from the mark as shown, the words "Aircraft Division," "Traverse City, Mich.," and "U. S. A." Owner of Reg. No. 560,274.

For Electronic Engineering and Testing of Aircraft Components for Others, and the Devising of Electronic Systems Therefor.
First use Sept. 1, 1954; Oct. 2, 1946, as to "Parsons."

Class 101—Advertising and Business

SN 16,438. Arnold J. Fochs, Duluth, Minn. Filed Sept. 26, 1956.



For Advertising and Promoting Banking Services of Others Through Newspaper, Outdoor Posters, Television, and Radio Mediums.
First use June 21, 1956.

Class 103—Construction and Repair

SN 659,569. Red-E-Gas Company, Webster Groves, Mo. Filed Jan. 15, 1954.



The lines represent actual lines appearing in the mark. For Checking, Cleaning, Adjusting, and Repairing of Gas-Burning Equipment, Made by Various Manufacturers and Sold and Installed by Various Firms, Persons, and Corporations.

First use July 1952.

SN 16,919. Vestaglas, Inc., Chicago, Ill. Filed Oct. 3, 1956.



For Remodeling and Repairing Residential Buildings. First use Nov. 2, 1954.

SN 23,710. E. A. Irish, Contractor, Los Angeles, Calif. Filed Feb. 4, 1957.



For General Contracting, Including Construction of Pipe Lines, Underground Utilities Such as Gas, Water, and Telephone Conduit Systems, and Flood Control or Storm Drain Projects. First use July 9, 1956.

SN 31,932. Kerr-McGee Oil Industries, Inc., Oklahoma City, Okla. Filed June 13, 1957.

KERMAC

Owner of Reg. Nos. 648,512 and 649,983. For Contract Drilling of Petroleum Wells. First use in January 1948.

Class 104—Communication

SN 33,267. Mid-West Radio-Television, Inc., Minneapolis, Minn. Filed July 5, 1957.

GOOD NEIGHBOR TO THE NORTHWEST

For Radio Program Broadcasting Services. First use in September 1944.

Class 105—Transportation and Storage

SN 15,932. Aacon Contracting Co., Inc., Brooklyn, N. Y. Filed Sept. 19, 1956.

AACON

Owner of Reg. No. 417,817. For Services of Packaging, Transportation, and Storage. First use during the year 1939.

SN 19,276. Western Air Lines, Inc., Los Angeles, Calif. Filed Nov. 14, 1956.

Show-Time Holiday!

For All Expense Package Tours—Namely, Arranging for Hotel Accommodations, Entertainment, Air Transportation, and Meals.

First use Sept. 20, 1956.

SN 22,815. Hotel Corporation of America, New York, N. Y. Filed Jan. 18, 1957.



For Services Rendered to Travelers—Namely, Providing Confirmed Reservations of Rooms and Other Accommodations and Services in Hotels Located in Various Cities Upon Telephonic Request to Any One Such Hotel.

First use May 10, 1956.

SN 22,816. Hotel Corporation of America, New York, N. Y. Filed Jan. 18, 1957.

I.R.S.

For Services Rendered to Travelers—Namely, Providing Confirmed Reservations of Rooms and Other Accommodations and Services in Hotels Located in Various Cities Upon Telephonic Request to Any One Such Hotel.

First use May 10, 1956.

Class 106—Material Treatment

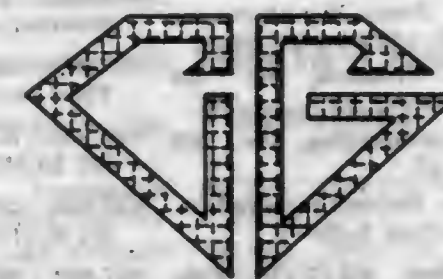
SN 27,457. Oxford Textile Finishing Co., Inc., Oxford, N. J. Filed Apr. 3, 1957.

PERMADURE

For Processing Fabrics of Others, Such as by Dyeing or Applying Finished Coatings, Etc. First use Dec. 1, 1956.

COLLECTIVE MEMBERSHIP MARKS**Class 200**

SN 13,796. American Gem Society, Los Angeles, Calif. Filed Aug. 13, 1956.



The drawing is lined for gold, but color is not claimed as a feature of the mark.

For Membership in a Jeweler's Society To Indicate a Grade of Membership in the Society.

First use April 1942.

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

- 657,582. BARB-Q-DISKS. Associated Fuels Ltd. SN 9,427. Pub. 11-12-57. Filed 6-1-56.
657,583. VAPOILSORB. The C. M. Kemp Manufacturing Company. SN 12,034. Pub. 7-30-57. Filed 7-12-56.
657,584. KITTY-MUM. Happy Pet Products, Inc. SN 14,880. Pub. 11-12-57. Filed 8-30-56.
657,585. FLOWER FAIR. J & J Landscaping, Inc. SN 25,177. Pub. 11-12-57. Filed 2-27-57.
657,586. BOLTONIA BARK STREET. Bolton Leathers Limited. SN 27,175. Pub. 11-12-57. Filed 3-29-57.
657,587. RULL. Bolton Leathers Limited. SN 27,176. Pub. 11-12-57. Filed 3-29-57.
657,588. DESIGN OF MISCELLANEOUS FIGURE. American Enka Corporation. SN 28,315. Pub. 11-12-57. Filed 4-17-57.

Class 2—Receptacles

- 657,589. LACRIVIAL. The Iso-Sol Company, Inc. SN 5,776. Pub. 11-12-57. Filed 4-4-56.
657,590. EVERFULL. Plastic Metal Mfg. Co. SN 27,975. Pub. 11-12-57. Filed 4-11-57.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

- 657,591. TOUCH 'N GO! Nash Inc. SN 28,178. Pub. 11-12-57. Filed 4-15-57.

Class 4—Abrasives and Polishing Materials

- 657,592. BRUSHLESS SCUFF-KOTE. Knomark Manufacturing Co., Inc. SN 654,555. Pub. 4-3-56. Filed 10-12-53.

Class 6—Chemicals and Chemical Compositions

- 657,593. DESIGN OF SHIELD AND BANDS. Schering Aktiengesellschaft. SN 697,856. Pub. 11-12-57. Filed 11-7-55.
657,594. TURCO. Turco Products, Inc. SN 3,782. Pub. 11-12-57. Filed 3-2-56.
657,595. BARDAHL. Bardahl Manufacturing Corporation. SN 5,384. Pub. 11-12-57. Filed 3-29-56.
657,596. JEM FLO. Ajem Laboratories, Inc. SN 5,958. Pub. 11-12-57. Filed 4-9-56.
657,597. NU-GLAS. Thatcher Glass Manufacturing Company, Inc. SN 11,884. Pub. 11-12-57. Filed 7-10-56.
657,598. HOT SPOT. E. H. Leitte Company. SN 16,231. Pub. 11-12-57. Filed 9-24-56.
657,599. AIR FLOATE. Barium Reduction Corporation. SN 16,412. Pub. 11-12-57. Filed 9-26-56.
657,600. REV O CON. John P. Beck Company, now by change of name Revocon, Inc. SN 16,660. Pub. 11-12-57. Filed 10-1-56.

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- 657,601. AEH. Celanese Corporation of America. SN 16,873. Pub. 11-12-57. Filed 10-3-56.
657,602. NADONE. Allied Chemical & Dye Corporation. SN 16,928. Pub. 11-12-57. Filed 10-4-56.
657,603. A AND DESIGN OF CAT. Argus Chemical Corporation. SN 17,540. Pub. 11-12-57. Filed 10-16-56.
657,604. MIDAS. Midas, Inc. SN 18,089. Pub. 11-12-57. Filed 10-24-56.
657,605. NACCONATE. Allied Chemical & Dye Corporation. SN 19,837. Pub. 11-12-57. Filed 11-26-56.
657,606. CONOCO AND DESIGN. Continental Oil Company. SN 20,712. Pub. 11-12-57. Filed 12-10-56.
657,607. MIRACLE SPIN AND DESIGN. George R. Tjaden, d. b. a. The Commercial Products Co. SN 21,400. Pub. 11-12-57. Filed 12-20-56.
657,608. ZE-RE-NU. J. Wm. Eder, d. b. a. Water Consultants. SN 22,071. Pub. 11-12-57. Filed 1-14-57.
657,609. LIFETIME CHARGE. Magnaflo Company, Inc. SN 22,535. Pub. 11-12-57. Filed 1-14-57.
657,610. TRITHION. Stauffer Chemical Company. SN 25,725. Pub. 11-12-57. Filed 3-7-57.
657,611. HIDUX. Ciba Limited. SN 26,775. Pub. 11-12-57. Filed 3-25-57.
657,612. DOLOROC CRYSTALYME. The Woodville Lime Products Company. SN 26,908. Pub. 11-12-57. Filed 3-25-57.
657,613. HOME SWEET HOME. Daggett & Ramadell, Inc. SN 28,928. Pub. 11-12-57. Filed 4-26-57.
657,614. POWER TWINS AND DESIGN. Union Petroleum Corporation. SN 30,122. Pub. 11-12-57. Filed 5-15-57.
657,615. PERMAGEN. General Aniline & Film Corporation. SN 30,763. Pub. 11-12-57. Filed 5-27-57.

Class 9—Explosives, Firearms, Equipments, and Projectiles

- 657,616. BENOIT'S SHUR-WAK. Peter Benoit. SN 4,691. Pub. 11-12-57. Filed 3-16-56.
657,617. ACCOMITE. American Cyanamid Company. SN 30,546. Pub. 11-12-57. Filed 5-23-57.
657,618. HUNTSMAN. Harrington & Richardson, Inc. SN 31,115. Pub. 11-12-57. Filed 5-31-57.

Class 10—Fertilizers

- 657,619. LIQUILIZER AND DESIGN. Liquilizer Corporation. SN 691,701. Pub. 11-12-57. Filed 7-21-55.
657,620. WEED-NIX. F. H. Woodruff & Sons, Inc. SN 23,436. Pub. 11-12-57. Filed 1-29-57.
657,621. WEED-NIX ETC. AND DESIGN. F. H. Woodruff & Sons, Inc. SN 23,437. Pub. 11-12-57. Filed 1-29-57.
657,622. HYCON. The Carac Corp. SN 29,271. Pub. 11-12-57. Filed 5-2-57.
657,623. BRELLIN. S. B. Penick and Company. SN 29,381. Pub. 11-12-57. Filed 5-3-57.
657,624. MORGANIC. Washington Organic Fertilizers, Inc. SN 29,507. Pub. 11-12-57. Filed 5-6-57.
657,625. BOOSTABBS. Plantabbs Corporation. SN 30,680. Pub. 11-12-57. Filed 5-24-57.

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Class 11—Inks and Inking Materials

- 657,626. NYLO-RITE. William Skinner & Sons. SN 27,992. Pub. 11-12-57. Filed 4-11-57.
657,627. METACOLOR. Phillips Process Co., Inc. SN 29,479. Pub. 11-12-57. Filed 5-6-57.

Class 12—Construction Materials

- 657,628. RAINBOARD. Rainier Plywood Company. SN 5,132. Pub. 11-12-57. Filed 3-23-56.
657,629. T LOCK AND DESIGN. Amercoat Corporation. SN 18,394. Pub. 11-12-57. Filed 10-30-56.
657,630. MUFFLESTONE. The Celotex Corporation. SN 18,713. Pub. 11-12-57. Filed 11-5-56.
657,631. SUPER-SEAL. Globe Roofing Products Co., Inc. SN 19,138. Pub. 11-12-57. Filed 11-13-56.
657,632. PRESIDENTIAL AND DESIGN. Presidential Homes, Inc. SN 23,508. Pub. 11-12-57. Filed 1-30-57.
657,633. FORESTWALL AND DESIGN. Vaughn Millwork Co. SN 24,019. Pub. 11-12-57. Filed 2-7-57.
657,634. SURFTONE. The Celotex Corporation. SN 24,680. Pub. 11-12-57. Filed 2-19-57.
657,635. F FORESTER AND DESIGN. Lanadale Forest Products Corp. SN 24,786. Pub. 11-12-57. Filed 2-20-57.
657,636. LAN-SLIDE. Lanadale Forest Products Corp. SN 24,789. Pub. 11-12-57. Filed 2-20-57.
657,637. FENCO. Owens-Corning Fiberglass Corporation. SN 24,866. Pub. 11-12-57. Filed 2-21-57.
657,638. PROSUL. Poor & Company. SN 25,116. Pub. 11-12-57. Filed 2-26-57.
657,639. BEAR BRAND. Bear Brand Roofing, Inc. SN 26,675. Pub. 11-12-57. Filed 3-22-57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

- 657,640. TWIN PIN. Page Engineering Company. SN 11,104. Pub. 11-12-57. Filed 6-27-56.
657,641. DUO-EQUALIZING. Zallee Brothers. SN 15,253. Pub. 11-12-57. Filed 9-6-56.

Class 14—Metals and Metal Castings and Forgings

- 657,642. NORANDA ETC. AND DESIGN. Noranda Copper and Brass Limited. SN 699,818. Pub. 11-12-57. Filed 12-12-55.
657,643. HI-TENSILE. Danforth Anchors. SN 2,228. Pub. 11-12-57. Filed 2-7-56.
657,644. CAMET. Chicago Powdered Metal Products Co. SN 15,265. Pub. 11-12-57. Filed 9-7-56.
657,645. RIVESTIMENTO DALMINE. Dalmine S. P. A. SN 23,876. Pub. 11-12-57. Filed 1-14-57.
657,646. "S" NICKEL. The International Nickel Company, Inc. SN 27,209. Pub. 11-12-57. Filed 3-29-57.
657,647. INCO 8 AND DESIGN. The International Nickel Company, Inc. SN 29,724. Pub. 11-12-57. Filed 5-9-57.

Class 16—Protective and Decorative Coatings

- 657,648. BOURGES KLEERSPRAY. Bourges Color Corporation. SN 31,746. Pub. 11-12-57. Filed 6-11-57.
657,649. COMAPON. Coating Materials Laboratories, Inc. SN 32,376. Pub. 11-12-57. Filed 6-21-57.
657,650. METRO. Metro-Atlantic, Inc. SN 32,398. Pub. 11-12-57. Filed 6-21-57.

- 657,651. EXQUISITE-TONES AND DESIGN. Parity Paint Products Corp. SN 32,531. Pub. 11-12-57. Filed 6-24-57.
657,652. SILEXINE AND DESIGN. Société Anonyme dite: Etablissements L. Van Malderen. SN 32,566. Pub. 11-12-57. Filed 6-21-57.

Class 17—Tobacco Products

- 657,653. OASIS ETC. AND DESIGN. Liggett and Myers Tobacco Company. SN 29,805. Pub. 11-12-57. Filed 5-10-57.

Class 18—Medicines and Pharmaceutical Preparations

- 657,654. APPECURE. Helena Rubinstein, Inc. SN 699,747. Pub. 11-12-57. Filed 12-9-55.
657,655. DELFEN. Ortho Pharmaceutical Corporation. SN 509. Pub. 4-16-57. Filed 1-11-56.
657,656. CHESEBROUGH-POND'S. Chesebrough-Pond's Inc. SN 7,487. Pub. 11-12-57. Filed 5-2-56.
657,657. ANDERIN. Larx Pharmatetic Corp. SN 9,651. Pub. 12-11-56. Filed 6-5-56.
657,658. HARMONYL. Abbott Laboratories. SN 12,480. Pub. 6-11-57. Filed 7-20-56.
657,659. CALMAVESH. Miles Laboratories, Inc. SN 14,465. Pub. 11-12-57. Filed 8-23-56.
657,660. COLD SNAP. Smith-Macaulay Company. SN 16,150. Pub. 11-12-57. Filed 9-21-56.
657,661. VOGUE. Standard Merchandising Co., Inc. SN 20,569. Pub. 11-12-57. Filed 12-6-56.
657,662. TIME-TABS. Table Rock Laboratories, Inc. SN 22,392. Pub. 11-12-57. Filed 1-10-57.
657,663. BETADINE. International Latex Corporation. SN 24,162. Pub. 11-12-57. Filed 2-11-57.
657,664. METASHAL. Stiefel Laboratories, Inc. SN 25,038. Pub. 11-12-57. Filed 2-25-57.
657,665. SUROMATE. The E. L. Patch Company. SN 29,231. Pub. 11-12-57. Filed 5-1-57.
657,666. VELMOL. The E. L. Patch Company. SN 29,232. Pub. 11-12-57. Filed 5-1-57.
657,667. MENAR. Armour and Company. SN 29,257. Pub. 11-12-57. Filed 5-2-57.
657,668. ARCOFAC. Armour and Company. SN 29,260. Pub. 11-12-57. Filed 5-2-57.
657,669. ARLOFAC. Armour and Company. SN 29,262. Pub. 11-12-57. Filed 5-2-57.
657,670. REGNAR. Armour and Company. SN 29,263. Pub. 11-12-57. Filed 5-2-57.
657,671. PANLITAR. Armour and Company. SN 29,264. Pub. 11-12-57. Filed 5-2-57.
657,672. LEDAMOX. American Cyanamid Company. SN 29,410. Pub. 11-12-57. Filed 5-6-57.
657,673. RACEMISTAT. Pascal Company, Inc. SN 29,478. Pub. 11-12-57. Filed 5-6-57.
657,674. SCOT-TUSSIN. Scotti Pharmaceuticals, Inc. SN 29,492. Pub. 11-12-57. Filed 5-6-57.
657,675. TENA-BOV. Texas Phenothiazine Company. SN 29,503. Pub. 11-12-57. Filed 5-6-57.
657,676. SAFF. Abbott Laboratories. SN 29,579. Pub. 11-12-57. Filed 5-8-57.
657,677. RESION. The National Drug Company. SN 29,649. Pub. 11-12-57. Filed 5-8-57.
657,678. ZACTIRIN. American Home Products Corporation, d. b. a. Wyeth Laboratories Division of American Home Products Corporation. SN 29,688. Pub. 11-12-57. Filed 5-9-57.
657,679. ARGIVENE. Gray Pharmaceutical Co., Inc. SN 29,719. Pub. 11-12-57. Filed 5-9-57.
657,680. KL-8. Lanadale Pharmaceutical Company, Inc. SN 29,922. Pub. 11-12-57. Filed 5-18-57.

- 657,681. LIPEXAL. The Wander Company, d. b. a. Smith-Dorsey. SN 29,979. Pub. 11-12-57. Filed 5-13-57.
- 657,682. FEOTRIL. Smith Kline & French Laboratories. SN 30,045. Pub. 11-12-57. Filed 5-14-57.

Class 19—Vehicles

- 657,683. JAMES. James Motor Cycles Limited. SN 9,270. Pub. 11-12-57. Filed 12-13-56.

Class 20—Linoleum and Oiled Cloth

- 657,684. VINYL-TEX. Mannington Mills, Incorporated. SN 28,531. Pub. 11-12-57. Filed 4-19-57.
- 657,685. CONCERT. Fibreboard Paper Products Corporation. SN 29,049. Pub. 11-12-57. Filed 4-29-57.

Class 21—Electrical Apparatus, Machines, and Supplies

- 657,686. FOSTORIA AND DESIGN. The Fostoria Pressed Steel Corporation. SN 2,620. Pub. 11-12-57. Filed 2-13-56.
- 657,687. TURBOSWITCH. Koonts-Wagner Electric Company, Inc. SN 17,475. Pub. 11-12-57. Filed 10-15-56.
- 657,688. JENAER SUPRAX GLAS. Jenaer Glaswerk Schott & Gen. SN 17,644. Pub. 11-12-57. Filed 10-17-56.
- 657,689. ELDORADO. Bantam-Lite, Inc. SN 18,490. Pub. 11-12-57. Filed 10-31-56.
- 657,690. FLEX-A-PLUG. General Electric Company. SN 19,307. Pub. 11-12-57. Filed 11-15-56.
- 657,691. TRAMAG. Burroughs Corporation. SN 27,572. Pub. 11-12-57. Filed 4-5-57.
- 657,692. JET SHAVER. Waring Products Corporation. SN 27,648. Pub. 11-12-57. Filed 4-5-57.
- 657,693. SHAVER JET. Waring Products Corporation. SN 27,649. Pub. 11-12-57. Filed 4-5-57.
- 657,694. PREM-O-RAK. Premier Metal Products Company. SN 27,816. Pub. 11-12-57. Filed 4-9-57.
- 657,695. POLYVAR. The Acme Wire Company. SN 27,833. Pub. 11-12-57. Filed 4-10-57.
- 657,696. FIBREX. Simplex Wire & Cable Company. SN 28,068. Pub. 11-12-57. Filed 4-12-57.
- 657,697. CASLODE. The Plessey Company Limited. SN 28,186. Pub. 11-12-57. Filed 4-15-57.
- 657,698. REVOLV-A-LITE. Midwest Lamp Company. SN 28,261. Pub. 11-12-57. Filed 4-16-57.
- 657,699. TRU-NOTE AND DESIGN. Andrew J. Raffia and Harry J. Raffia. SN 28,280. Pub. 11-12-57. Filed 4-16-57.
- 657,700. DYNACOR. Dynacor Inc. SN 28,691. Pub. 11-12-57. Filed 4-23-57.

Class 22—Games, Toys, and Sporting Goods

- 657,701. MATTEL-O-MATIC. Mattel, Incorporated. SN 12,443. Pub. 11-12-57. Filed 7-19-56.
- 657,702. TRY BIKE. D. P. Harris Hardware & Manufacturing Co., Inc. SN 13,835. Pub. 11-12-57. Filed 8-13-56.
- 657,703. SHORT-STRIKER. Floyd C. Hibbs, d. b. a. Hibbs Tackle Company. SN 13,841. Pub. 11-12-57. Filed 8-13-56.
- 657,704. SKI RITE AND DESIGN. The Alva T. Smith Company. SN 17,317. Pub. 4-2-57. Filed 10-11-56.
- 657,705. MODEL 'N MOLD AND DESIGN. The Absorene Manufacturing Company, d. b. a. Model 'N Mold Co. SN 21,098. Pub. 11-12-57. Filed 12-17-56.

- 657,706. STURCKEN'S MIGHTY MITE AND DESIGN. Irving J. Starcken. SN 24,808. Pub. 11-12-57. Filed 2-20-57.
- 657,707. PORTA-WELD. Austin Fence Company, Inc. SN 27,171. Pub. 11-12-57. Filed 3-29-57.
- 657,708. "SEMI-PRECISION." The Cleveland Skate Co., Inc. SN 27,419. Pub. 11-12-57. Filed 4-3-57.
- 657,709. PLAYDOME. Matrix Structures Inc. SN 27,962. Pub. 11-12-57. Filed 4-11-57.
- 657,710. WEAVE-RITE. Hassenfeld Bros., Inc. SN 29,361. Pub. 11-12-57. Filed 5-3-57.
- 657,711. SEW-RITE. Hassenfeld Bros., Inc. SN 29,364. Pub. 11-12-57. Filed 5-3-57.
- 657,712. LOK-A-SKI AND DESIGN. Sno-Cat Corporation of New Hampshire. SN 29,965. Pub. 11-12-57. Filed 5-13-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 657,713. KWIKSTRIP. Newaygo Engineering Company. SN 4,977. Pub. 11-12-57. Filed 3-21-56.
- 657,714. CONTRAPLEX. Alpine Aktiengesellschaft Maschinenfabrik und Eisengleiserel. SN 17,147. Pub. 11-12-57. Filed 10-9-56.
- 657,715. FLUX. Flux Geräte G. m. b. H. SN 19,669. Pub. 11-12-57. Filed 11-21-56.
- 657,716. WEED SHOOTER. H. D. Hudson Manufacturing Company. SN 21,693. Pub. 11-12-57. Filed 12-27-56.
- 657,717. ROTA-RAKE. Graver Tank & Mfg. Co., Inc. SN 22,188. Pub. 11-12-57. Filed 1-7-57.
- 657,718. WASHINGTON SQUARE. Welling Ware, Inc. SN 26,137. Pub. 11-12-57. Filed 3-13-57.
- 657,719. TIDE-RIDE. Jerome W. Baer. SN 30,139. Pub. 11-12-57. Filed 5-10-57.
- 657,720. IN-DUS-TRONIC. H. Boker & Co., Inc. SN 30,226. Pub. 11-12-57. Filed 5-17-57.
- 657,721. POWER TOWER. Power Tower Co. SN 30,264. Pub. 11-12-57. Filed 5-17-57.
- 657,722. GRIP-SLIDE. Threadmill Corporation. SN 30,283. Pub. 11-12-57. Filed 5-17-57.
- 657,723. PERFECTA. Taco Heaters, Incorporated. SN 30,371. Pub. 11-12-57. Filed 5-20-57.
- 657,724. SWEETHEART. Wallace Silversmiths, Inc. SN 31,292. Pub. 11-12-57. Filed 6-3-57.
- 657,725. CPM. California Press Manufacturing Company, d. b. a. California Pellet Mill Co. SN 31,308. Pub. 11-12-57. Filed 6-4-57.
- 657,726. SPHERE PAK AND DESIGN. British Manufactured Bearings Co. Limited. SN 31,462. Pub. 11-12-57. Filed 6-6-57.
- 657,727. THE BIG SQUEEZE. D and J Press Company, Inc. SN 31,546. Pub. 11-12-57. Filed 6-7-57.
- 657,728. UJS. Leo Gibrich Company. SN 31,558. Pub. 11-12-57. Filed 6-7-57.
- 657,729. NE. The Aetna-Standard Engineering Company. SN 31,619. Pub. 11-12-57. Filed 6-10-57.
- 657,730. FILTER-FUME. International Parts Corp. SN 31,843. Pub. 11-12-57. Filed 6-12-57.
- 657,731. CAH. Pneumafil Corporation. SN 32,411. Pub. 11-12-57. Filed 6-21-57.
- 657,732. STARFLITE. Outboard Marine Corporation. SN 32,525. Pub. 11-12-57. Filed 6-24-57.
- 657,733. ROTEX. Rotex Mfg. Co. SN 32,540. Pub. 11-12-57. Filed 6-24-57.
- 657,734. DOG BAR. Julius C. Jacob, Sr. SN 32,681. Pub. 11-12-57. Filed 6-26-57.
- 657,735. ORSA AND DESIGN. Järnborger Aktiebolag. SN 32,682. Pub. 11-12-57. Filed 6-26-57.
- 657,736. HYDRA-DISC. Industrial Metal Products Corporation. SN 32,760. Pub. 11-12-57. Filed 6-27-57.
- 657,737. HOPPERVATOR. KDI Corporation. SN 32,763. Pub. 11-12-57. Filed 6-27-57.

- 657,738. LONG-LYFE. Wheelabrator Corporation. SN 32,794. Pub. 11-12-57. Filed 6-27-57.

- 657,739. PRESAIRE. Yeomans Brothers Company. SN 33,022. Pub. 11-12-57. Filed 7-1-57.

- 657,740. CHRIS-CUT AND DESIGN. Air Electric Machine Company, Inc. SN 33,035. Pub. 11-12-57. Filed 7-2-57.

Class 26—Measuring and Scientific Appliances

- 657,741. APECO AUTO-STAT. American Photocopy Equipment Company. SN 673,322. Pub. 6-28-55. Filed 9-17-54.
- 657,742. MAUREB. J. A. Maurer, Inc. SN 9,998. Pub. 11-12-57. Filed 6-11-56.
- 657,743. LINE SCALE AND DESIGN. Line Scale Company, Inc. SN 11,862. Pub. 11-12-57. Filed 7-10-56.
- 657,744. PROJECTO-PRINTER. General Aniline & Film Corporation. SN 19,769. Pub. 11-12-57. Filed 11-23-56.
- 657,745. FILTONE. Rochester Manufacturing Co., Inc. SN 21,203. Pub. 11-12-57. Filed 12-17-56.
- 657,746. HUMI-PLUG. Culligan, Inc. SN 24,425. Pub. 11-12-57. Filed 2-14-57.
- 657,747. HUMI-CARD. Culligan, Inc. SN 24,426. Pub. 11-12-57. Filed 2-14-57.
- 657,748. INSTRUCT-O-MATIC. Viewlex, Inc. SN 25,486. Pub. 11-12-57. Filed 3-4-57.
- 657,749. TRAVELITE. Quick-Set, Incorporated. SN 25,639. Pub. 11-12-57. Filed 3-6-57.
- 657,750. FAIRFAX. Quick-Set, Incorporated. SN 25,640. Pub. 11-12-57. Filed 3-6-57.
- 657,751. REACTOMETER. The Aetna Casualty and Surety Company. SN 25,672. Pub. 11-12-57. Filed 3-7-57.

Class 27—Horological Instruments

- 657,752. GREENWICH. General Time Corporation. SN 24,308. Pub. 11-12-57. Filed 2-11-57.
- 657,753. CORTEBERT. R. Gsell & Co. Inc. SN 26,460. Pub. 11-12-57. Filed 3-19-57.
- 657,754. PENROD. Benrus Watch Company, Inc. SN 27,079. Pub. 11-12-57. Filed 3-28-57.
- 657,755. TARGET. Benrus Watch Company, Inc. SN 27,080. Pub. 11-12-57. Filed 3-28-57.
- 657,756. DESIGN OF CROWN. Montres Rolex S. A. (Rolex Uhren Ag.), (Rolex Watch Co. Ltd.). SN 27,385. Pub. 11-12-57. Filed 4-2-57.
- 657,757. TRUMP. Benrus Watch Company, Inc. SN 27,928. Pub. 11-12-57. Filed 4-11-57.
- 657,758. CORTINA. Robanne Corporation. SN 28,284. Pub. 11-12-57. Filed 4-16-57.
- 657,759. FRONTENAC. Benrus Watch Company, Inc. SN 28,321. Pub. 11-12-57. Filed 4-17-57.
- 657,760. FRILL. General Time Corporation. SN 28,507. Pub. 11-12-57. Filed 4-19-57.
- 657,761. COQUETTE. General Time Corporation. SN 28,509. Pub. 11-12-57. Filed 4-19-57.

Class 28—Jewelry and Precious-Metal Ware

- 657,762. CYPRESS. Georg Jensen Inc. SN 22,680. Pub. 11-12-57. Filed 1-16-57.
- 657,763. FAMILY TREE. Danecraft Incorporated. SN 24,429. Pub. 11-12-57. Filed 2-14-57.
- 657,764. COLUMBINE. Towle Manufacturing Company. SN 27,403. Pub. 11-12-57. Filed 4-2-57.
- 657,765. PELTANUM. Barclay Company. SN 27,660. Pub. 11-12-57. Filed 4-8-57.
- 657,766. DESTINO. Ralph Destino, Ltd. SN 28,497. Pub. 11-12-57. Filed 4-19-57.

Class 29—Brooms, Brushes, and Dusters

- 657,767. BIG PUSH. Rubon Incorporated. SN 23,941. Pub. 11-12-57. Filed 2-6-57.

Class 30—Crockery, Earthenware, and Porcelain

- 657,768. NOBILITY PERMAWARE. Empire Crafts Corporation. SN 27,023. Pub. 11-12-57. Filed 3-27-57.

Class 31—Filters and Refrigerators

- 657,769. ELECTRIGAS. Camley International Co., Inc. SN 31,748. Pub. 11-12-57. Filed 6-11-57.
- 657,770. BULL DOG. Refrigeration Research, Incorporated. SN 32,015. Pub. 11-12-57. Filed 6-14-57.
- 657,771. BATCH-MISER. American Machine and Metals, Inc. SN 32,279. Pub. 11-12-57. Filed 6-20-57.
- 657,772. 'RED' WOOD AND FIGURE OF WORKMAN. J. F. Pritchard & Co. of California. SN 32,412. Pub. 11-12-57. Filed 6-21-57.
- 657,773. GOURMET. Revco, Inc. SN 32,988. Pub. 11-12-57. Filed 7-1-57.
- 657,774. PERMACOLD. Permacold Industries Inc. SN 33,095. Pub. 11-12-57. Filed 7-2-57.

Class 32—Furniture and Upholstery

- 657,775. SATIN GLIDE. Williams Products, Inc. SN 15,503. Pub. 11-12-57. Filed 9-11-56.
- 657,776. ERECTOMATIC. Standard Pressed Steel Co. SN 22,978. Pub. 11-12-57. Filed 1-22-57.
- 657,777. MARFLEX. Marspring Corporation. SN 23,614. Pub. 11-12-57. Filed 2-5-57.
- 657,778. CARLTON. Bedding Manufacturers Associates Inc. SN 28,676. Pub. 11-12-57. Filed 4-23-57.
- 657,779. SERENDIPITY AND DESIGN. Tomlinson of High Point. SN 29,566. Pub. 11-12-57. Filed 5-7-57.
- 657,780. SIM-MATIC. Simmons Company. SN 33,378. Pub. 11-12-57. Filed 7-8-57.

Class 33—Glassware

- 657,781. MADORA. Arkwright Incorporated. SN 27,006. Pub. 11-12-57. Filed 3-27-57.
- 657,782. IKORA. Württembergische Metallwarenfabrik. SN 27,069. Pub. 11-12-57. Filed 3-27-57.
- 657,783. SOLARGRAY. Pittsburgh Plate Glass Company. SN 27,231. Pub. 11-12-57. Filed 3-29-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

- 657,784. INCIN-O-GRILL. Incin-O-Grill, Inc. SN 28,708. Pub. 11-12-57. Filed 4-23-57.
- 657,785. NEWPORT AND DESIGN. Warren Webster & Company. SN 28,908. Pub. 11-12-57. Filed 4-25-57.
- 657,786. HYMONOGAS. Westinghouse Electric Corporation. SN 28,909. Pub. 11-12-57. Filed 4-25-57.
- 657,787. PROFILE. McGraw-Edison Company. SN 28,953. Pub. 11-12-57. Filed 4-26-57.
- 657,788. O & S. Orr & Sembower, Incorporated. SN 29,091. Pub. 11-12-57. Filed 4-29-57.

- 657,789. SELECT-AIRE. Metzger Machine and Engineering Co. SN 29,162. Pub. 11-12-57. Filed 4-30-57.
 657,790. MINIVEIL. Minkay Limited. SN 32,201. Pub. 11-12-57. Filed 6-18-57.

Class 36—Musical Instruments and Supplies

- 657,791. DOWNBEAT. Raymond D. Langham, d. b. a. Downbeat Record Company. SN 12,640. Pub. 11-12-57. Filed 7-23-56.
 657,792. "JET-TONE." Bill Ratsenberger, d. b. a. Jet-Tone Musical Products. SN 30,192. Pub. 11-12-57. Filed 5-16-57.
 657,793. PAR AND DESIGN. Par Records, Inc. SN 30,824. Pub. 11-12-57. Filed 5-27-57.

Class 37—Paper and Stationery

- 657,794. HONEST. Platinum Industry Co., Ltd. SN 12,290. Pub. 11-12-57. Filed 7-17-56.

Class 38—Prints and Publications

- 657,795. HAPPINESS UNLIMITED. A. Lucille Talley, d. b. a. Happiness House. SN 19,640. Pub. 11-12-57. Filed 11-19-56.
 657,796. SONG CRAZE. Modern Music Publications, Inc. SN 28,866. Pub. 11-12-57. Filed 4-17-57.
 657,797. EXPLORER. Scholastic Magazines, Inc. SN 28,645. Pub. 11-12-57. Filed 4-22-57.
 657,798. THE COTTON GINNERS' JOURNAL. Texas Cotton Ginniers' Association, Inc. SN 28,894. Pub. 11-12-57. Filed 4-25-57.
 657,799. DELL BASKETBALL. Dell Publishing Company, Inc. SN 29,039. Pub. 11-12-57. Filed 4-29-57.
 657,800. AMERICAN BUILDER. Simmons-Boardman Publishing Corporation. SN 29,107. Pub. 11-12-57. Filed 4-29-57.

Class 39—Clothing

- 657,801. COOLMASTER. Fox-Knapp Mfg. Company. SN 695,475. Pub. 11-12-57. Filed 9-28-55.
 657,802. BRIANTI. Brandt Millinery Co., Inc. SN 18,298. Pub. 11-12-57. Filed 10-29-56.
 657,803. VARSITY CLUB. Harry Epstein, d. b. a. Harry Epstein & Co. SN 26,229. Pub. 11-5-57. Filed 3-15-57.
 657,804. WHEELER ETC. AND DESIGN. Wheeler Protective Apparel, Inc. SN 26,418. Pub. 11-12-57. Filed 3-18-57.
 657,805. GAY LEGS. Sapphire Corporation. SN 26,975. Pub. 10-29-57. Filed 3-26-57.
 657,806. LADY JANET. Rothman Stores, Inc. SN 27,396. Pub. 11-12-57. Filed 4-2-57.
 657,807. TRAIL CHIEF ETC. AND DESIGN. Hope Hosiery Mills. SN 27,501. Pub. 11-12-57. Filed 4-4-57.
 657,808. QUOTATIONS. International Shoe Company. SN 27,607. Pub. 11-12-57. Filed 4-5-57.
 657,809. LAUNDEZE. F. Jacobson & Sons, Inc. SN 28,945. Pub. 11-12-57. Filed 4-26-57.
 657,810. HILTON PARK. Blum Trouser Co., Inc. SN 29,007. Pub. 11-12-57. Filed 4-29-57.
 657,811. HANGOVER. Budd & Votaw. SN 29,011. Pub. 11-12-57. Filed 4-29-57.
 657,812. DANNY BOY AND DESIGN. A. J. Schwartz' Son Mfg. Corp. SN 34,497. Pub. 11-12-57. Filed 7-31-57.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

- 657,813. OJAYS' PLYMOUTH. Ostow & Jacobs, Inc. SN 27,813. Pub. 11-12-57. Filed 4-9-57.
 657,814. LADY CHARLOTTE. Shapiro & Son Curtain Corporation. SN 28,387. Pub. 11-12-57. Filed 4-17-57.
 657,815. ARTIFLEX FABRICS AND DESIGN. Artflex Fabrics. SN 28,424. Pub. 11-12-57. Filed 4-18-57.
 657,816. LAN-O-STRETCH. Artflex Fabrics. SN 28,425. Pub. 11-12-57. Filed 4-18-57.
 657,817. HEATHCOAT. John Heathcoat & Co., Inc. SN 29,209. Pub. 11-12-57. Filed 5-1-57.
 657,818. SECURA-SET. Security Mills, Inc. SN 29,495. Pub. 11-12-57. Filed 5-6-57.
 657,819. LUXURELLA. M. Lowenstein & Sons, Inc. SN 29,686. Pub. 11-12-57. Filed 5-6-57.

Class 43—Thread and Yarn

- 657,820. ESCALON. Kraemer Textiles Inc. SN 25,866. Pub. 11-12-57. Filed 3-11-57.
 657,821. CINDERELLA SLIPPER. Kaminow Bros. SN 29,367. Pub. 11-12-57. Filed 5-3-57.

Class 44—Dental, Medical, and Surgical Appliances

- 657,822. WENDTON. Wendton Werner Wendt K. G. SN 17,974. Pub. 11-12-57. Filed 10-22-56.
 657,823. PULSE-A-RYTHM. Pulsation Enterprises, Inc. SN 33,639. Pub. 11-12-57. Filed 7-12-57.

Class 46—Foods and Ingredients of Foods

- 657,824. IT'S A REAL "TAIL WAGGER." Allied Mills, Inc. SN 696,517. Pub. 11-12-57. Filed 4-29-55.
 657,825. PRESTIGE. Florida Citrus Exchange. SN 692,322. Pub. 5-15-56. Filed 8-2-55.
 657,826. R. B. RICE'S AND DESIGN. R. B. Rice Sausage Co., Inc. SN 692,866. Pub. 11-12-57. Filed 8-11-55.
 657,827. EUROPE'S FINEST. European Import Corporation. SN 1,577. Pub. 11-12-57. Filed 1-27-56.
 657,828. SHED PAK. Oliver Brothers Farms. SN 3,113. Pub. 11-12-57. Filed 2-21-56.
 657,829. FARM FOLKS. H. Reck Company. SN 4,362. Pub. 11-12-57. Filed 3-12-56.
 657,830. CHEF ALEX'S AND DESIGN. Alex Hanos. SN 9,686. Pub. 11-12-57. Filed 6-6-56.
 657,831. SUNSHINE KRISPY. Sunshine Biscuits, Inc. SN 10,263. Pub. 11-12-57. Filed 6-14-56.
 657,832. WILSMOR FROZEN DONUTS AND DESIGN. Wilsamor Company, d. b. a. Wilsamor & Co. SN 10,824. Pub. 11-12-57. Filed 6-22-56.
 657,833. SIX O'CLOCK AND REPRESENTATION OF 8 CLOCK DIAL. Holleb & Company. SN 15,964. Pub. 11-12-57. Filed 9-19-56.
 657,834. PEL-FALFA DIXON ETC. AND DESIGN. Dixon Dryer Co. SN 16,878. Pub. 11-12-57. Filed 10-3-56.
 657,835. KIRBY AND DESIGN. Compania de Alimentos Kirby de Cuba, S. A. SN 23,030. Pub. 11-12-57. Filed 1-23-57.
 657,836. T & G ETC. AND DESIGN. Warren E. Wagner, d. b. a. Warren Wagner Shed. SN 24,407. Pub. 11-12-57. Filed 2-14-57.
 657,837. SOAVE. Standard Brands Incorporated. SN 25,277. Pub. 11-12-57. Filed 2-28-57.

- 657,838. CLINTEX. Standard Brands Incorporated. SN 25,278. Pub. 11-12-57. Filed 2-28-57.
 657,839. NEW ACE. Sunshine Pecan Company. SN 25,575. Pub. 11-12-57. Filed 3-5-57.
 657,840. SUNDABEST. Sunshine Pecan Company. SN 25,576. Pub. 11-12-57. Filed 3-5-57.
 657,841. MING CHA. Heublein, Inc., d. b. a. The Ming Tea Company. SN 25,701. Pub. 11-12-57. Filed 3-7-57.
 657,842. MARIE HAREL. The Borden Company. SN 26,058. Pub. 11-12-57. Filed 3-13-57.
 657,843. SHELTER COVE. Tom Lasso Fish Company, Inc. SN 26,146. Pub. 11-12-57. Filed 3-11-57.
 657,844. COP-E-CAT. Usen Canning Co., d. b. a. Irving Canning Co. SN 29,243. Pub. 11-12-57. Filed 5-1-57.
 657,845. CHURCH. Bruce Church, Inc. SN 29,270. Pub. 11-12-57. Filed 5-2-57.
 657,846. CAMPSIDE. H. J. Heinz Company. SN 30,903. Pub. 11-12-57. Filed 5-28-57.
 657,847. PRO CAN AND DESIGN. Producer Cannery Co-operative Inc. SN 30,944. Pub. 11-12-57. Filed 5-28-57.
 657,848. INSTOMELT. General Capsule Corporation. SN 31,208. Pub. 11-12-57. Filed 6-3-57.
 657,849. BEKO AND DESIGN. Ben E. Keith Company. SN 31,230. Pub. 11-12-57. Filed 6-3-57.
 657,850. SWEET ALICE. The Surrey Biscuit Company Limited. SN 31,360. Pub. 11-12-57. Filed 6-4-57.

Class 47—Wines

- 657,851. GOLD SEAL ETC. AND DESIGN. Urbana Wine Company, Inc., now by change of name Gold Seal Vineyards Incorporated. SN 28,397. Pub. 11-12-57. Filed 4-17-57.
 657,852. G & D. Italian Swiss Colony, d. b. a. Gambarelli & Davitto. SN 29,912. Pub. 11-12-57. Filed 5-13-57.

Class 48—Malt Beverages and Liquors

- 657,853. LUCKY LAGER AND DESIGN. Lucky Lager Brewing Company. SN 28,167. Pub. 11-12-57. Filed 4-15-57.

Class 49—Distilled Alcoholic Liquors

- 657,854. BARREL DESIGN AND HUMAN FIGURES. St. Croix Sugar Cane Industries, Inc. SN 17,043. Pub. 11-12-57. Filed 10-5-56.
 657,855. OLD MOOREHEAD. Schenley Industries, Inc. SN 24,455. Pub. 11-12-57. Filed 2-14-57.
 657,856. N D ETC. AND DESIGN. National Distillers Products Corporation, now by change of name National Distillers and Chemical Corporation. SN 26,188. Pub. 11-12-57. Filed 3-14-57.
 657,857. N D ETC. AND DESIGN. National Distillers Products Corporation, now by change of name National Distillers and Chemical Corporation. SN 26,190. Pub. 11-12-57. Filed 3-14-57.
 657,858. OFFICERS' CLUB. Brown-Forman Distillers Corporation, d. b. a. Labrot & Graham. SN 27,667. Pub. 11-12-57. Filed 4-8-57.
 657,859. CORN TASSEL. Brown-Forman Distillers Corporation, d. b. a. Old Kentucky Distillery. SN 27,668. Pub. 11-12-57. Filed 4-8-57.
 657,860. BALLANTINE'S. George Ballantine & Son Limited. SN 27,767. Pub. 11-12-57. Filed 4-9-57.
 657,861. JAMAICA DIAMOND. Joseph S. Finch and Company. SN 29,691. Pub. 11-12-57. Filed 5-13-57.
 657,862. LUCKY COIN. Joseph S. Finch and Company. SN 29,692. Pub. 11-12-57. Filed 5-13-57.

Class 50—Merchandise Not Otherwise Classified

- 657,863. KOOL-STRAWS. Perkins Products Company, now by merger, General Foods Corporation. SN 15,725. Pub. 11-12-57. Filed 9-14-56.
 657,864. WHITE WAY. The General Tire & Rubber Company. SN 27,307. Pub. 11-12-57. Filed 4-1-57.

Class 51—Cosmetics and Toilet Preparations

- 657,865. ANGEL MAGIC. Chesebrough-Pond's Inc. SN 484. Pub. 2-26-57. Filed 1-11-56.
 657,866. SET PLUS NET. Coty, Inc. SN 7,325. Pub. 11-12-57. Filed 4-30-56.
 657,867. POLYCOLOR. Therachemie Chemisch-Therapeutische G. m. b. H. SN 14,020. Pub. 5-28-57. Filed 8-15-56.
 657,868. DANIELLE ROCHES. Madame Louis Maitrejean, d. b. a. Laboratoires Danielle Roches. SN 14,253. Pub. 11-12-57. Filed 8-20-56.
 657,869. POLYSIL. Coty, Inc. SN 24,572. Pub. 11-12-57. Filed 2-18-57.
 657,870. POLYSILK. Coty, Inc. SN 25,076. Pub. 11-12-57. Filed 2-26-57.
 657,871. SEVEN WONDERS. Revlon, Inc. SN 29,100. Pub. 11-12-57. Filed 4-29-57.
 657,872. BODYGUARD. Bonne Bell Inc. SN 29,522. Pub. 11-12-57. Filed 5-7-57.

Class 52—Detergents and Soaps

- 657,873. SPRINKLE ON ETC. AND DESIGN. Von Schrader Manufacturing Company. SN 697,873. Pub. 11-12-57. Filed 11-7-55.
 657,874. LEODENT. Leo-Werke G. m. b. H. SN 4,033. Pub. 11-12-57. Filed 3-7-56.
 657,875. GRIMARVEL AND DESIGN. Magnet Litho Supply Corp. SN 26,714. Pub. 11-12-57. Filed 3-22-57.
 657,876. PMMC. The Diversey Corporation. SN 28,929. Pub. 11-12-57. Filed 4-26-57.
 657,877. SOLJENT. Hagan Chemicals & Controls, Inc. SN 29,630. Pub. 11-12-57. Filed 4-8-57.
 657,878. PARAGON. Hagan Chemicals & Controls, Inc. SN 29,631. Pub. 11-12-57. Filed 4-8-57.
 657,879. EXONE. Franklin Research Company. SN 30,323. Pub. 11-12-57. Filed 5-20-57.

Service Marks

Class 100—Miscellaneous

- 657,880. TOPS. Tops Club, d. b. a. Tops. SN 666,076. Pub. 11-12-57. Filed 5-10-54.
 657,881. ATRONICS AND DESIGN. General Atronics Corp. SN 10,996. Pub. 11-12-57. Filed 6-26-56.
 657,882. WIMPY. Wimpy International Inc. SN 16,922. Pub. 11-12-57. Filed 10-3-56.

Class 101—Advertising and Business

- 657,883. MASON CONTRACTORS' ASSOCIATION OF AMERICA ETC. AND DESIGN. Mason Contractors Association of America. SN 13,304. Pub. 11-12-57. Filed 8-2-56.
 657,884. GALCO. Waples-Platter Company. SN 19,999. Pub. 11-12-57. Filed 11-27-56.

Class 102—Insurance and Financial

657,885. CCC AND DESIGN. Certified Credit Corporation. SN 27,086. Pub. 11-12-57. Filed 3-28-57.

Class 103—Construction and Repair

657,886. H. W. MOORE AND DESIGN. H. W. Moore Equipment Company. SN 8,684. Pub. 11-12-57. Filed 5-21-56.

Class 105—Transportation and Storage

657,887. PORTA-VALT ETC. AND DESIGN. Omaha Cartage & Warehousing Co. SN 361. Pub. 11-12-57. Filed 1-9-56.

657,888. STRAT-O-VAN. Santini Bros. Inc. SN 26,876. Pub. 11-12-57. Filed 3-25-57.

Class 106—Material Treatment

657,889. FOR THE ONLY PAIR OF EYES YOU WILL EVER HAVE. The White-Haines Optical Company. SN 685,794. Pub. 11-12-57. Filed 4-18-55.

657,890. MOLD-O-MIZE. Ekco Products Company. SN 10,306. Pub. 11-12-57. Filed 6-15-56.

657,891. PLASTI-GARD. Rubber Millers, Inc. SN 16,371. Pub. 11-12-57. Filed 9-25-56.

657,892. VACUUMATE. Vacuumate Corporation. SN 26,656. Pub. 11-12-57. Filed 3-21-57.

Class 107—Education and Entertainment

657,893. PUTT-PUTT GOLF COURSE. Donald E. Clayton, d. b. a. Clayton and Associates. SN 12,341. Pub. 11-12-57. Filed 7-18-56.

Collective Membership Mark**Class 200**

657,894. NATIONAL PANHELLENIC CONFERENCE AND DESIGN. National Panhellenic Conference. SN 23,166. Pub. 11-12-57. Filed 1-24-57.

Certification Marks**Class A—Goods**

657,895. PANOGENIZED ETC. AND DESIGN. Panogen, Inc. SN 14,824. Pub. 11-12-57. Filed 8-29-56.

Class B—Services

657,896. ATA AMERICAN TRAVEL ASSN. ETC. AND DESIGN. American Travel Association, Inc. SN 32,658. Pub. 11-12-57. Filed 6-26-57.

SUPPLEMENTAL REGISTER

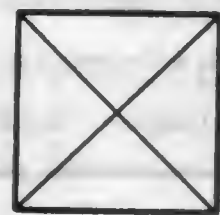
These registrations are not subject to opposition.

Class 12—Construction Materials

657,897. The Mosaic Tile Company, Zanesville, Ohio. SN 695,331. Filed P. R. 9-26-55. Am. S. R. 9-18-57.

Class 17—Tobacco Products

657,899. Philip Morris Incorporated, New York, N. Y. SN 15,286. Filed 10-14-57.



TUFTED

For Floor, Wall, and Ceiling Tiles of Clay Hardened by Firing To Produce a Ceramic Material for Interior and Exterior Purposes.

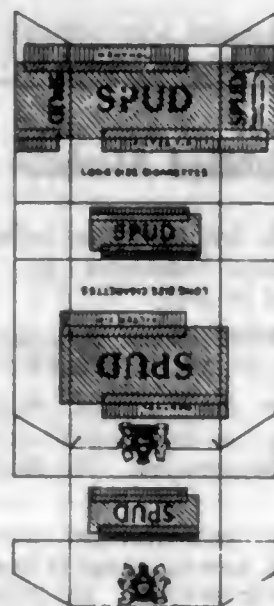
First use Oct. 19, 1953.

657,898. David Eugene Cuckler, d. b. a. Cuckler Manufacturing Company, Monticello, Iowa. SN 22,607. Filed P. R. 1-15-57. Am. S. R. 11-19-57.

CUCKLER

For Prefabricated Buildings and Parts Thereof.

First use May 8, 1954.



The drawing is lined for red, brown, and green, and these colors are used and claimed as features of the mark.

For Cigarettes.

First use July 2, 1956.

Class 21—Electrical Apparatus, Machines, and Supplies

657,900. New England Tape Co., Inc., Hudson, Mass. SN 3,764. Filed P. R. 3-2-56. Am. S. R. 11-22-57.

TACK-E-TAPE

For Insulating Tape.

First use Feb. 6, 1956.

657,901. Midwest Lamp and Novelty Company, Milwaukee, Wis. SN 16,241. Filed P. R. 9-24-56. Am. S. R. 10-2-57.

657,907. The Date Watchband Co., Inc., Omaha, Nebr. SN 18,503. Filed P. R. 10-31-56. Am. S. R. 7-9-57.



The drawing is lined for gold.
For Electrical Table Lamps and Floor Lamps.
First use Jan. 15, 1956.

Class 22—Games, Toys, and Sporting Goods

657,902. Wilson Sporting Goods Co., River Grove, Ill. SN 20,343. Filed P. R. 12-8-56. Am. S. R. 12-2-57.

SHOK-GARD

For Protective Athletic Equipment.
First use Oct. 8, 1956.

657,903. Earnest Haecker, d. b. a. Haecker Industries, Philadelphia, Pa. SN 25,583. Filed P. R. 3-6-57. Am. S. R. 11-18-57.

SPIN-IT

For Teetotum and Marble Game.
First use Dec. 1, 1955.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

657,904. Shawnee Manufacturing Company, Inc., Topeka, Kans. SN 16,754. Filed P. R. 10-1-56. Am. S. R. 11-27-57.

PUSH PULL POWER

For Materials Handling Equipment—Namely, Backhoes.
First use July 20, 1956.

657,905. Clayton Mark & Company, Evanston, Ill. SN 30,738. Filed P. R. 5-27-57. Am. S. R. 12-6-57.

3-WAY JET

For Water Pumps.
First use Sept. 1, 1955.

Class 28—Jewelry and Precious-Metal Ware

657,906. Marvella Pearls, Inc., New York, N. Y. SN 10,896. Filed P. R. 4-25-56. Am. S. R. 7-2-57.

Kushon Klip

For Earrings.
First use June 4, 1956.

the
**day
date
WATCHBAND**

For Calendar Watch Band Attachments.
First use June 26, 1956.

Class 39—Clothing

657,908. Maskuline Underwear Company, Inc., New York, N. Y. SN 674,828. Filed P. R. 10-14-54. Am. S. R. 11-27-57.

Maskuline

For Men's and Boys' Knitted and Woven Underwear, Hosiery of All Types, Outer Wear, Pajamas, Bathing Trunks, and Shirts, Including Sweat-Shirts and Others Made of Flannel or the Like.

First use Jan. 5, 1933.

Subj. to Intf. with SN 677,580.

657,909. The May Department Stores Company, New York, N. Y. SN 695,326. Filed P. R. 9-26-55. Am. S. R. 5-31-57.

Westminster

For Men's Clothing—Namely, Suits, Jackets, Slacks, Topcoats, and Overcoats.
First use November 1948.

657,910. Brilliant Brothers Co., Boston, Mass. SN 17,338. Filed P. R. 10-12-56. Am. S. R. 6-20-57.

Webster

For Shoes.
First use Jan. 2, 1931.

Class 46—Foods and Ingredients of Foods

657,911. Simpson Andrews Company, Marietta, Ga. SN 681,908. Filed P. R. 2-16-55. Am. S. R. 12-17-56.

X-LENT

The drawing is lined to indicate the coloring of the plaid background design forming part of the mark.

For Canned Foods—Namely, Vegetables, Pork and Beans, Sauerkraut, Rice, Fruits, Fruit Juices, Tomato Juice, Vienna Sausage, Corned Beef Hash, Beef Stew, Beef and Gravy, Potted Meat, Fish, Evaporated Milk, and Oysters; Dried Vegetables, Catsup, Maraschino Cherries, Peanut Butter, Fruit Preserves, Jellies, Olives, Tea, Oleomargarine, Salt, and Shredded Coconut.

First use October 1950.

657,912. Samuel M. Gertman Co., Inc., Boston, Mass. SN 17,460. Filed P. R. 10-15-56. Am. S. R. 12-6-57.

**GERTMAN'S FLAVOR
SEALED**

For Fresh and Frozen Beef, Lamb, Veal, Pork, and Poultry.
First use Feb. 15, 1956.

657,913. Matt E. Holmes, d. b. a. M. E. Holmes Co., Virginia, Minn. SN 20,273. Filed P. R. 12-3-56. Am. S. R. 8-23-57.



For Wild Rice.
First use Oct. 10, 1955.

**Class 50—Merchandise Not Otherwise
Classified**

657,914. Russell Sheldow, d. b. a. Sheldow Bronze Company, Brooklyn, N. Y. SN 698,553. Filed P. R. 11-18-55. Am. S. R. 11-21-57.



For Mausoleum Doors and Memorial Markers.
First use Nov. 12, 1954.

657,915. Simond Rankin, d. b. a. Accessories for Interiors Company, New York, N. Y. SN 4,477. Filed P. R. 3-13-56. Am. S. R. 7-3-57.

walldécor

For Wall Decorations and Household Mural Ornaments.
First use July 1945.

Class 51—Cosmetics and Toilet Preparations

657,916. Juliette Marglen Inc., Ridgely, N. J., now by merger and change of name Juliette Marglen, Inc. SN 22,693. Filed 1-16-57.

DUFY RED

For Lipsticks and Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Base Coating Materials, Liquid Top Coating or Sealer, Clear and Colored Enamels, Liquid Adhesives for Mending and Repairing Broken Nails, Thinners for Same, Removers for Same, and Liquid Cuticle Removers.
First use July 16, 1955.

Service Marks**Class 100—Miscellaneous**

657,919. Edgar Steiner & Company Incorporated, New York, N. Y. SN 699,678. Filed P. R. 12-8-55. Am. S. R. 10-31-57.

**ALL PROGRESS BEGINS
WITH AN IDEA**

For Research Engineering in the Fields of Package Engineering and Product Development.
First use Apr. 20, 1955.

Class 102—Insurance and Financial

657,920. Conger Life Insurance Company, Miami, Fla. SN 22,514. Filed P. R. 1-14-57. Am. S. R. 7-12-57.

**"MIAMI'S OWN AND
OLDEST"**

For Insurance Underwriting—Namely, Ordinary, Industrial, Group, Life, Hospitalization, and Health and Accident.
First use January 1954.

DA VINCI ROSE

For Lipsticks and for Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Base Coating Materials, Liquid Top Coating or Sealer, Clear and Colored Enamels, Liquid Adhesives for Mending and Repairing Broken Nails, Thinners for Same, Removers for Same, and Liquid Cuticle Removers.
First use July 16, 1955.

657,918. Juliette Marglen Inc., Ridgely, N. J., now by merger and change of name Juliette Marglen, Inc. SN 22,697. Filed 1-16-57.

MANET MAUVE

For Lipsticks and for Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Base Coating Materials, Liquid Top Coating or Sealer, Clear and Colored Enamels, Liquid Adhesives for Mending and Repairing Broken Nails, Thinners for Same, Liquid Removers for Same, and Liquid Cuticle Removers.
First use July 16, 1955.

TRADEMARK REGISTRATIONS RENEWED

- | | |
|--|--|
| 118,246. THE WELDING ENGINEER. Cl. 38. 8-21-17. | 353,486. DEMPSTER DUMPSTER. Cl. 23. 1-11-38. |
| 119,296. CLORITAL. Cl. 6. 11-13-17. | 353,501. WORMSWEEP. Cl. 18. 1-11-38. |
| 119,428. BUCKEYE. Cl. 46. 11-20-17. | 353,590. CUTTY SARK. Cl. 49. 1-11-38. |
| 119,771. PIONEER JUNIOR. Cl. 39. 12-11-17. | 353,752. ELECTROL. Cl. 34. 1-18-38. |
| 119,807. RIZ LA LIF AND DESIGN. Cl. 8. 12-11-17. | 353,823. DISPOSALL. Cl. 23. 1-18-38. |
| 120,032. MARCHIONESS. Cl. 39. 1-1-18. | 354,021. BLUE JACKET AND DESIGN. Cl. 22. 1-25-38. |
| 120,033. MARCHIONESS. Cl. 39. 1-1-18. | 354,022. WHITE JACKET AND DESIGN. Cl. 22. 1-25-38. |
| 120,060. THE ATLANTIC REFINING CO. AND DESIGN. Cl. 6. 1-8-18. | 354,098. WAVE-OF-THE WAND. Cl. 42. 2-1-38. |
| 121,045. C. G. CONN. Cl. 36. 4-2-18. | 354,143. BUCKSHOT. Cl. 42. 2-1-38. |
| 121,108. V AND DESIGN. Cl. 37. 4-2-18. | 354,479. CHOC BITE. Cl. 46. 2-15-38. |
| 121,198. DESIGN OF STAR WITHIN CIRCLE. Cl. 39. 4-16-18. | 354,586. GLUTAN H-C-L AND DESIGN. Cl. 18. 2-15-38. |
| 345,056. VAPYRE. Cl. 6. 4-13-37. | 354,608. ZATEX. Cl. 16. 2-15-38. |
| 350,218. SANIPAK AND DESIGN. Cl. 29. 9-21-37. | 354,663. SWADEROY. Cl. 42. 2-15-38. |
| 350,287. SIM-TROL. Cl. 34. 9-21-37. | 354,804. CHOICE OF THE ARTISTS. Cl. 36. 2-22-38. |
| 351,132. INITIAL LINE AND DESIGN. Cl. 18. 10-19-37. | 354,816. STAFFABS. Cl. 18. 2-22-38. |
| 351,948. SINCERELY YOURS SANDY NEVIN AND DESIGN. Cl. 39. 11-16-37. | 354,896. COURTLIGH AND DESIGN. Cl. 37. 3-1-38. |
| 351,968. KEEP IN TRIM. Cl. 45. 11-16-37. | 354,928. SNOW LILY AND DESIGN. Cl. 46. 3-1-38. |
| 351,980. PEP-ER-UP. Cl. 39. 11-16-37. | 355,115. VANDERBILT AND DESIGN. Cl. 37. 3-8-38. |
| 352,222. ALUMALLOY. Cl. 12. 11-23-37. | 355,176. CONTINENTAL COLONIAL AND DESIGN. Cl. 36. 3-8-38. |
| 352,287. POLYMERIN. Cl. 16. 11-23-37. | 355,177. CONTINENTAL. Cl. 36. 3-8-38. |
| 352,294. HASACAIN. Cl. 18. 11-23-37. | 355,330. CONN AND DESIGN. Cl. 36. 3-15-38. |
| 352,303. TOWN HALL. Cl. 46. 11-23-37. | 355,369. STANCOR AND DESIGN. Cl. 21. 3-15-38. |
| 352,654. TOWN HALL. Cl. 46. 11-23-37. | 355,545. GALLEON SEABOARD LEMON ASSN. AND DESIGN. Cl. 46. 3-22-38. |
| 352,695. RADIOORGAN AND DESIGN. Cl. 21. 12-7-37. | 355,716. STRAND. Cl. 46. 3-29-38. |
| 352,759. DESIGN OF CHAIN. Cl. 23. 12-14-37. | 355,857. VORTRAP AND DESIGN. Cl. 23. 4-5-38. |
| 352,760. DESIGN OF CHAIN. Cl. 21. 12-14-37. | 356,210. GARLOCK. Cl. 35. 4-19-38. |
| 352,761. MORGANITE. Cl. 23. 12-14-37. | 356,255. BURPEE'S. Cl. 1. 4-19-38. |
| 352,762. MORGANITE. Cl. 21. 12-14-37. | 356,346. LUCKY TIGER MEDI-KOOL AND DESIGN. Cl. 18. 4-26-38. |
| 353,119. CHARLES & CO. BON VOYAGE LINE AND DESIGN. Cl. 46. 12-28-37. | 356,481. TECHBICHORD. Cl. 36. 4-26-38. |
| 353,251. W AND DESIGN OF SHIELD. Cl. 46. 12-28-37. | 356,513. VEGETAL. Cl. 51. 5-3-38. |
| 353,482. LAMCOTE. Cl. 2. 1-11-38. | 356,558. GARLOCK AND DESIGN. Cl. 35. 5-3-38. |
| | 356,574. FLIGHT BY CUSTOMCRAFT. Cl. 39. 5-3-38. |

TRADEMARK REGISTRATIONS CANCELED**Section 8**

The following registrations issued Dec. 11, 1951

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|--|---|
| 380,962. SIDEWALK SCAMPS! AND DESIGN. Cl. 39. 9-10-40. | 551,863. FITSALL DISPLAYS. Cl. 32. |
| 421,291. RED CROWN. Cl. 16. 5-28-48. | 551,865. USED-COW ETC. AND DESIGN. Cl. 46. |
| 551,501. SNOWHITE. Cl. 12. 12-4-51. | 551,871. AIRSECO. Cl. 28. |
| | 551,873. A DOUBLE CIRCLE WITH A BAR. Cl. 2. |

- 551,878. GRIMLOK. Cl. 2.
551,881. GERBEAUD ETC. AND DESIGN. Cl. 46.
551,889. WEAR THE GAINOR TROUSERS TO GAIN MORE WEAR AND DESIGN. Cl. 39.
551,891. ACROMINIUM. Cl. 50.
551,894. C. S. A. TABLETS. Cl. 18.
551,896. SEALRIGHT -ALSERVIS-. Cl. 2.
551,899. STACK-A-DOOR. Cl. 32.
551,905. RAWHIDE KRAFT AND DESIGN. Cl. 2.
551,912. PANCOTHERM. Cl. 6.
551,913. PRIZE SELECTOR. Cl. 38.
551,918. ENCHANTMENT. Cl. 38.
551,921. DIAMOND QUALITY ETC. AND DESIGN. Cl. 2.
551,922. CHEERFUL CHARLIE. Cl. 32.
551,923. GEM-O-GRAPH. Cl. 50.
551,924. FOLDA. Cl. 8.
551,928. MANDURO. Cl. 42.
551,931. PED-LO AND DESIGN. Cl. 18.
551,932. THE CELLAR SHOPS. Cl. 8.
551,944. TECH LOKPLY AND DESIGN. Cl. 35.
551,945. THRIFTMASTER. Cl. 32.
551,947. BELLANCA AND DESIGN. Cl. 19.
551,948. POLY-FLOR. Cl. 20.
551,949. CHILDREN'S PLAY MATE MAGAZINE. Cl. 38.
551,959. PRESSURE X-RAY. Cl. 26.
551,963. SMOKEY JOE. Cl. 22.
551,964. PEGGY LEONARD. Cl. 51.
551,966. CONSTELLATION. Cl. 46.
551,967. LITTLE OSCAR. Cl. 22.
551,968. IRENE MELFI. Cl. 51.
551,971. IRMA HARDING AND DESIGN. Cl. 14.
551,975. ROYAL QUALITY. Cl. 39.
551,979. ARTKO. Cl. 24.
551,989. RELAXALOUNGE. Cl. 32.
551,991. DOTTY. Cl. 51.
551,994. TOP-FLIGHT. Cl. 26.
551,995. STRIPE MATE. Cl. 42.
551,996. NM AND DESIGN. Cl. 14.
551,997. VILLAGE TOWER AND DESIGN. Cl. 46.
551,998. LANAWAY. Cl. 18.
552,002. DO-RE-MI AND DESIGN. Cl. 46.
552,004. ETERNAL CROSSWORDS. Cl. 38.
552,005. DREAM PUFFS. Cl. 32.
552,006. SPE-D-RULE. Cl. 26.
552,008. IX. Cl. 42.
552,009. S AND DESIGN. Cl. 42.
552,010. BACTIMYCIN. Cl. 32.
552,011. DUOLIN. Cl. 51.
552,015. ASCOT AND DESIGN. Cl. 8.
552,017. LONDOLLEUM AND DESIGN. Cl. 20.
552,019. CLIPPER SHIP. Cl. 32.
552,025. MAKING EYES. Cl. 51.
552,028. SCULPTO-FOTO. Cl. 38.
552,038. CERAMA. Cl. 38.
552,042. WEATHER BEARS AND DESIGN. Cl. 38.
552,053. KAYWOODIE. Cl. 51.
552,055. CYCLEMASTER. Cl. 19.
552,058. CAMI-PET. Cl. 39.
552,061. HEIRLOOM AND DESIGN. Cl. 22.
552,062. DU-PAK. Cl. 22.
552,067. REGAL SERVICE. Cl. 103.
552,073. INLAND AIR LINES AND DESIGN. Cl. 105.
552,076. ACCORDI-O-TAPE SYSTEM AND DESIGN. Cl. 107.
552,077. SILOOETTE AND DESIGN. Cl. 100.
552,084. KILRAY AND DESIGN. Cl. 19.
552,085. SUPER FLY CASTER. Cl. 22.
552,094. TY-DOWN. Cl. 19.
552,096. CHOW CHOW TRAIN. Cl. 2.
552,097. KARDEK. Cl. 19.
552,098. REPRESENTATION OF A TRACTOR. Cl. 21.
552,105. BRITE-KNITE. Cl. 39.
552,106. FASHIONMAKER. Cl. 39.
552,107. DOVERTWIST. Cl. 42.
552,110. ALUM-A-FENCE. Cl. 13.
552,111. TOAST-EZY. Cl. 21.
552,112. E-Z-OUT. Cl. 2.
552,116. ELECTROFILM. Cl. 21.

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INDEX OF REGISTRANTS

JANUARY 28, 1958

(Registered; Renewed; Canceled; Amended, Disclaimed, Corrected, etc.; New Certificates; 12c Publications.)

- Abbott Laboratories, North Chicago, Ill. 657,658, pub. 6-11-57. Cl. 18.
Abbott Laboratories, North Chicago, Ill. 657,676, pub. 11-12-57. Cl. 18.
Absorene Mfg. Co., The, d. b. a. Model 'N' Mold, St. Louis, Mo. 657,705, pub. 11-12-57. Cl. 22.
Accessories For Interiors Co.: See—
Rankin, Simond.
Accordio-Tape System: See—
McCormick, John G.
Acme Wire Co., The, Hamden, Conn. 657,695, pub. 11-12-57. Cl. 21.
Acrow (Engineers) Ltd., London, England. 551,891, can. Cl. 50.
Adjustable Blind Co., to Kilray Blind Co., Atlanta, Ga. 552,084, can. Cl. 19.
Aetna Casualty and Surety Co., The, Hartford, Conn. 657,751, pub. 11-12-57. Cl. 26.
Aetna-Standard Engineering Co., The, Pittsburgh, Pa. 657,729, pub. 11-12-57. Cl. 23.
Air Electric Machine Co., Inc., Lohrville, Iowa. 657,740, pub. 11-12-57. Cl. 23.
Airseco, Paris, France. 551,871, can. Cl. 26.
Ajem Laboratories, Inc., Livonia, Mich. 657,596, pub. 11-12-57. Cl. 6.
Allied Chemical & Dye Corp., New York, N. Y. 657,602, pub. 11-12-57. Cl. 6.
Allied Chemical & Dye Corp., New York, N. Y. 657,605, pub. 11-12-57. Cl. 6.
Allied Mills, Inc., Chicago, Ill. 657,824, pub. 11-12-57. Cl. 46.
Alphine Aktiengesellschaft Maschinenfabrik und Eisengieserei, Augsburg, Germany. 657,714, pub. 11-12-57. Cl. 23.
Amercoat Corp., South Gate, Calif. 657,629, pub. 11-12-57. Cl. 12.
American Cyanamid Co.: See—
Calco Chemical Co., Inc., The.
American Cyanamid Co., New York, N. Y. 657,617, pub. 11-12-57. Cl. 9.
American Cyanamid Co., New York, N. Y. 657,672, pub. 11-12-57. Cl. 18.
American Enka Corp., Enka, N. C. 657,588, pub. 11-12-57. Cl. 1.
American Foam Rubber Corp., Burlington, N. J., and New York, N. Y. 552,010, can. Cl. 32.
American Home Products Corp., d. b. a. Wyeth Laboratories Division of American Home Products Corp., New York, N. Y. 657,678, pub. 11-12-57. Cl. 18.
American Machine and Metals, Inc., Wilmington, Del. 657,771, pub. 11-12-57. Cl. 31.
American Pharmaceutical Co.: See—
Aspirin Co. of America.
American Photocopy Equipment Co., Chicago, Ill. 657,741, pub. 6-28-55. Cl. 26.
American Safety Razor Corp., Brooklyn, N. Y. 552,015, can. Cl. 8.
American Travel Association, Inc., Appleton, Wis. 657,896, pub. 11-12-57. Cl. B.
Amieur-Maroc, Casablanca, French Morocco. 551,966, can. Cl. 46.
Anderson and Johnson, Chicago, Ill. 551,967, can. Cl. 22.
Andrews, Simpson, Co., Marietta, Ga. 657,911, Cl. 46.
Argus Chemical Corp., Brooklyn, N. Y. 657,603, pub. 11-12-57. Cl. 6.
Arkwright Inc., New York, N. Y. 657,781, pub. 11-12-57. Cl. 33.
Armour and Co., Chicago, Ill. 657,667-71, pub. 11-12-57. Cl. 18.
Artifex Fabrics, Brooklyn, N. Y. 657,815-16, pub. 11-12-57. Cl. 42.
Artko Mfrs.: See—
Rubin, Samuel L.
Arvey Corp.: See—
Lamcote, Inc.
Aspirin Co. of America, New York, N. Y., to American Pharmaceutical Co. 551,894, can. Cl. 18.
Associated Fuels Ltd., Vancouver, British Columbia, Canada. 657,582, pub. 11-12-57. Cl. 1.
Associated Products, Inc., Chicago, Ill. 552,053, can. Cl. 51.
Atlantic Refining Co., The, Philadelphia, Pa. 120,060, ren. 1-8-58. Cl. 6.
Atlas Powder Co., Wilmington, Del., to The Glidden Co., Cleveland, Ohio. 354,608, ren. 2-15-58. Cl. 16.
Ault & Wiborg Corp., Cincinnati, Ohio, and New York, to Interchemical Corp., New York, N. Y. 352,287, ren. 11-23-57. Cl. 16.
Austin Fence Co., Inc., Bellmore, N. Y. 657,707, pub. 11-12-57. Cl. 22.
B W Photo Utilities, Inc., Pasadena, Calif. 552,096, can. Cl. 2.
Baer, Jerome W., Miami Beach, Fla. 657,719, pub. 11-12-57. Cl. 23.
Ballantine, George, & Son Ltd., Dumbarton, Scotland. 657,860, pub. 11-12-57. Cl. 49.
Bantam-Lite, Inc., Hempstead, N. Y. 657,689, pub. 11-12-57. Cl. 21.
Barclay Co., Providence, R. I. 657,765, pub. 11-12-57. Cl. 28.
Bardahl Mfg. Corp., Seattle, Wash. 657,595, pub. 11-12-57. Cl. 6.
Barium Reduction Corp., South Charleston, W. Va. 657,599, pub. 11-12-57. Cl. 6.
Barrett, Raymond W., Freeport, N. Y. 552,110, can. Cl. 13.
Bear Brand Roofing, Inc., Bearden, Ark. 657,639, pub. 11-12-57. Cl. 12.
Beck, John P., Co., Colorado Springs, Colo., now by change of name Revocon, Inc. 657,600, pub. 11-12-57. Cl. 6.
Bedding Manufacturers Associates Inc., Philadelphia, Pa. 657,778, pub. 11-12-57. Cl. 32.
Belgau, Robert C., d. b. a. Bell Distributing Co., Tawas City, Mich. 552,097, can. Cl. 19.
Bell Distributing Co.: See—
Belgau, Robert C.
Bellanca Aircraft Corp., New Castle, Del. 551,947, can. Cl. 19.
Belnap & Thompson, Inc., Chicago, Ill. 551,913, can. Cl. 38.
Benolt, Peter, Alexandria, Ontario, Canada. 657,616, pub. 11-12-57. Cl. 9.
Benrus Watch Co., Inc., New York, N. Y. 657,754-5, pub. 11-12-57. Cl. 27.
Benrus Watch Co., Inc., New York, N. Y. 657,757, pub. 11-12-57. Cl. 27.
Benrus Watch Co., Inc., New York, N. Y. 657,759, pub. 11-12-57. Cl. 27.
Berenice Co., Brooklyn, N. Y. 552,002, can. Cl. 46.
Berry Bros. & Co., to Berry Bros. & Rudd Ltd., London, England. 353,590, ren. 1-11-58. Cl. 49.
Berry Bros. & Rudd Ltd.: See—
Berry Bros. & Co.
Beverly Mattress Co., Inc., Salem, Mass. 552,019, can. Cl. 32.
Biele, Irene A., Newark, N. J. 552,005, can. Cl. 32.
Bireley's, Inc., Hollywood, Calif., to General Foods Corp., White Plains, N. Y. 351,968, ren. 11-16-57. Cl. 46.
Blum Trouser Co., Inc., Baltimore, Md. 657,810, pub. 11-12-57. Cl. 39.
Boker, H., & Co., Inc., New York, N. Y. 657,720, pub. 11-12-57. Cl. 23.
Bolton Leathers Ltd., Bolton, England. 657,586-7, pub. 11-12-57. Cl. 1.
Bondi, Emanuel, d. b. a. Imperial Pharmaceutical Co., Richmond Hill, N. Y. 551,931, can. Cl. 18.
Bonne Bell Inc., Lakewood, Ohio. 657,872, pub. 11-12-57. Cl. 51.
Borden Co., The, New York, N. Y. 657,842, pub. 11-12-57. Cl. 46.
Bourges Color Corp., New York, N. Y. 657,648, pub. 11-12-57. Cl. 16.
Brandt Millinery Co., Inc., New York, N. Y. 657,802, pub. 11-12-57. Cl. 39.
Brenner, Raymond: See—
Brenner, Raymond, Inc.
Brenner, Raymond, Inc., also d. b. a. Raymond Brenner, Youngstown, Ohio. 551,932, can. Cl. 8.
Brilliant Brothers Co., Boston, Mass. 657,910, Cl. 39.
British Manufactured Bearings Co. Ltd., Crawley, Sussex, England. 657,726, pub. 11-12-57. Cl. 23.
Brown-Forman Distillers Corp., d. b. a. Labrot & Graham, Louisville, Ky. 657,858, pub. 11-12-57. Cl. 49.
Brown-Forman Distillers Corp., d. b. a. Old Kentucky Distillery, Louisville, Ky. 657,859, pub. 11-12-57. Cl. 49.
Brunswick-Balke-Collender Co., The, Chicago, Ill. 421,291, can. Cl. 16.
Brunswick-Balke-Collender Co., The, Chicago, Ill. 552,062, can. Cl. 22.
Buckeye Cellulose Corp.: See—
Buckeye Cotton Oil Co., The.
Buckeye Cotton Oil Co., The, to The Buckeye Cellulose Corp., Cincinnati, Ohio. 119,428, ren. 11-20-57. Cl. 46.
Budd & Votaw, San Francisco, Calif. 657,811, pub. 11-12-57. Cl. 39.
Buhler Mills, Inc.: See—
Ennis Milling Co., The.
Burlington Mills Corp., Greensboro, N. C. 551,995, can. Cl. 42.
Burpee, W. Atlee, Co., Philadelphia, Pa. 356,255, ren. 4-19-58. Cl. 1.
Burroughs Corp., Detroit, Mich. 657,691, pub. 11-12-57. Cl. 21.
Calco Chemical Co., Inc., The, Bound Brook, N. J., to American Cyanamid Co., New York, N. Y. 354,586, ren. 2-15-58. Cl. 18.
California Pellet Mill Co.: See—
California Press Mfg. Co.
California Press Mfg. Co., d. b. a. California Pellet Mill Co., San Francisco, Calif. 657,725, pub. 11-12-57. Cl. 23.
Camley International Co., Inc., Los Angeles, Calif. 657,769, pub. 11-12-57. Cl. 31.
Canterbury Press: See—
Parnell, Wallace R.
Carac Corp., The, Mountain View, N. J. 657,622, pub. 11-12-57. Cl. 10.

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Celanese Corp. of America, New York, N. Y. 657,601, pub. 11-12-57. Cl. 6.
 Celotex Corp., The, Chicago, Ill. 657,630, pub. 11-12-57. Cl. 12.
 Celotex Corp., The, Chicago, Ill. 657,634, pub. 11-12-57. Cl. 12.
 Certified Credit Corp., Columbus, Ohio. 657,885, pub. 11-12-57. Cl. 102.
 Chadbourne Hosiery Mills, Inc., Charlotte, N. C. 551,975, can. Cl. 39.
 Charles & Co., to Charles & Co., Inc., New York, N. Y. 353,119, ren. 12-28-57. Cl. 46.
 Charles & Co., Inc.: See—
 Charles & Co.
 Chesebrough-Pond's Inc., New York, N. Y. 657,656, pub. 11-12-57. Cl. 18.
 Chesebrough-Pond's Inc., New York, N. Y. 657,865, pub. 2-26-57. Cl. 51.
 Chicago Powdered Metal Products Co., Schiller Park, Ill. 657,644, pub. 11-12-57. Cl. 14.
 Chicago Standard Transformer Corp.: See—
 Standard Transformer Corp.
 Church, Bruce, Inc., Salinas, Calif. 657,845, pub. 11-12-57. Cl. 46.
 Ciba Ltd., Basel, Switzerland. 657,611, pub. 11-12-57. Cl. 6.
 Clayton and Associates: See—
 Clayton, Donald E.
 Clayton, Donald E., d. b. a. Clayton and Associates, Fayetteville, N. C. 657,893, pub. 11-12-57. Cl. 107.
 Cleveland Skate Co., Inc., The, Cleveland, Ohio. 657,708, pub. 11-12-57. Cl. 22.
 Coating Materials Laboratories, Inc., Nutley, N. J. 657,649, pub. 11-12-57. Cl. 16.
 Commercial Products Co., The: See—
 Tjaden, George R.
 Compania de Alimentos Kirby de Cuba, S. A., Marianao, Cuba. 657,835, pub. 11-12-57. Cl. 46.
 Conger Life Insurance Co., Miami, Fla. 657,920, Cl. 102.
 Conn. C. G., Ltd., Elkhart, Ind. 121,045, ren. 4-2-58. Cl. 36.
 Conn. C. G., Ltd., Elkhart, Ind. 354,804, ren. 2-22-58. Cl. 36.
 Conn. C. G., Ltd., Elkhart, Ind. 355,176, ren. 3-8-58. Cl. 36.
 Conn. C. G., Ltd., Elkhart, Ind. 355,177, ren. 3-8-58. Cl. 36.
 Conn. C. G., Ltd., Elkhart, Ind. 355,330, ren. 3-15-58. Cl. 36.
 Continental Oil Co., Ponca City, Okla. 657,606, pub. 11-12-57. Cl. 6.
 Coty, Inc., New York, N. Y. 657,866, pub. 11-12-57. Cl. 51.
 Coty, Inc., New York, N. Y. 657,869-70, pub. 11-12-57. Cl. 51.
 Cranston Print Works Co., Cranston, R. I. 354,663, ren. 2-15-58. Cl. 42.
 Crompton Co., West Warwick, R. I., to Crompton Co., New York, N. Y. 354,098, ren. 2-1-58. Cl. 42.
 Crompton Co., West Warwick, R. I., to Crompton Co., New York, N. Y. 354,143, ren. 2-1-58. Cl. 42.
 Cuckler, David E., d. b. a. Cuckler Mfg. Co., Monticello, Iowa. 657,898, Cl. 12.
 Cuckler Mfg. Co.: See—
 Cuckler, David E.
 Culligan, Inc., Northbrook, Ill. 657,746-7, pub. 11-12-57. Cl. 26.
 Cyclemaster Ltd., South Kensington, London, England. 552,055, can. Cl. 19.
 D and J Press Co., Inc., North Tonawanda, N. Y. 657,727, pub. 11-12-57. Cl. 23.
 Daggett & Ramadell, Inc., New York, N. Y. 657,613, pub. 11-12-57. Cl. 6.
 Dahl, Inc., Minneapolis, Minn. 552,006, can. Cl. 26.
 Daimler S. P. A., Milan, Italy. 657,645, pub. 11-12-57. Cl. 14.
 Danecraft Inc., Providence, R. I. 657,763, pub. 11-12-57. Cl. 28.
 Danforth Anchors, Berkeley, Calif. 657,643, pub. 11-12-57. Cl. 14.
 Date Watchband Co., Inc., The, Omaha, Nebr. 657,907. Cl. 28.
 Dell Publishing Co., Inc., New York, N. Y. 657,799, pub. 11-12-57. Cl. 38.
 Delta Food Packers, Inc., Hammon, N. J. 551,907, can. Cl. 46.
 Dempster Brothers, Inc., Knoxville, Tenn. 353,486, ren. 1-11-58. Cl. 23.
 Destino, Ralph, Ltd., New York, N. Y. 657,766, pub. 11-12-57. Cl. 28.
 Diamond Match Co., The, New York, N. Y. 551,921, can. Cl. 2.
 Diversay Corp., The, Chicago, Ill. 657,876, pub. 11-12-57. Cl. 52.
 Dixon Dryer Co., Dixon, Calif. 657,834, pub. 11-12-57. Cl. 46.
 Dotty Products, Milwaukee, Wis. 551,991, can. Cl. 51.
 Du-Liat Products Corp., New York, N. Y. 551,899, can. Cl. 32.
 Duraloom Carpet Mills, Inc., New York, N. Y. 552,107, can. Cl. 42.
 Dynastor Inc., Kensington, Md. 657,700, pub. 11-12-57. Cl. 21.
 Eder, J. Wm., d. b. a. Water Consultants, Rome City, Ind. 657,608, pub. 11-12-57. Cl. 6.
 Ekco Products Co., Chicago, Ill. 657,890, pub. 11-12-57. Cl. 106.
 Electrofilm Inc.: See—
 Hall, E. R., Co.
 Electrol Inc., Kingston, N. Y. 353,752, ren. 1-18-58. Cl. 34.
 Empire Crafts Corp., Newark, N. Y. 657,768, pub. 11-12-57. Cl. 30.
 Empire Parlor Furniture Co., Chelsea, Mass. 551,945, can. Cl. 32.
 Ennis Milling Co., The, Inman, to Buhler Mills, Inc., Buhler, Kans. 354,928, ren. 3-1-58. Cl. 46.
 Epstein, Harry, d. b. a. Harry Epstein & Co., Baltimore, Md. 657,803, pub. 11-5-57. Cl. 39.
 Epstein, Harry, & Co.: See—
 Epstein, Harry.
 European Import Corp., Clayton, Mo. 657,827, pub. 11-12-57. Cl. 46.
 Fargo Battery & Mfg. Co., Fargo, N. Dak. 552,098, can. Cl. 21.
 Feltsman & Curme Shoe Stores Co., The, Chicago, Ill. 380,962, can. Cl. 39.
 Fibreboard Paper Products Corp., San Francisco, Calif. 657,685, pub. 11-12-57. Cl. 20.
 Finch, Joseph S., and Co., New York, N. Y. 657,861-2, pub. 11-12-57. Cl. 40.
 Fittsall Display Co.: See—
 Martino, Peter V.
 Florida Citrus Exchange, Tampa, Fla. 657,825, pub. 5-15-56. Cl. 46.
 Flux, Gerate G. m. b. H., Stuttgart-Botnang, Germany. 657,715, pub. 11-12-57. Cl. 23.
 Fostoria Pressed Steel Corp., The, Fostoria, Ohio. 657,686, pub. 11-12-57. Cl. 21.
 Fox-Knapp Mfg. Co., New York, N. Y. 657,801, pub. 11-12-57. Cl. 39.
 Franklin Research Co., Philadelphia, Pa. 657,879, pub. 11-12-57. Cl. 52.
 Gale Hall Engineering: See—
 Universal Chemists, Inc.
 Gambarelli & Davitto: See—
 Italian Swiss Colony.
 Garlock Packing Co., The, Palmyra, N. Y. 356,210, ren. 4-19-58. Cl. 35.
 Garlock Packing Co., The, Palmyra, N. Y. 356,556, ren. 5-3-58. Cl. 35.
 Gem-O-Graph Co., The, New York, N. Y., to The Gem-O-Graph Corp. of America, Inc. 551,923, can. Cl. 50.
 Gem-O-Graph Corp. of America, Inc., The: See—
 Gem-O-Graph Co., The.
 General Aniline & Film Corp., New York, N. Y. 657,615, pub. 11-12-57. Cl. 6.
 General Aniline & Film Corp., New York, N. Y. 657,744, pub. 11-12-57. Cl. 26.
 General Atronics Corp., Bala Cynwyd, Pa. 657,881, pub. 11-12-57. Cl. 100.
 General Capsule Corp., Fraser, Mich. 657,848, pub. 11-12-57. Cl. 40.
 General Electric Co., Schenectady, N. Y. 657,690, pub. 11-12-57. Cl. 21.
 General Electric Co., Schenectady, N. Y. 353,823, ren. 1-18-58. Cl. 23.
 General Foods Corp.: See—
 Bireley's, Inc.
 Perkins Products Co.
 General Laboratories, Madison, Wis., to Pennsalt Chemicals Corp., Philadelphia, Pa. 119,296, ren. 11-13-57. Cl. 6.
 General Time Corp., New York, N. Y. 657,752, pub. 11-12-57. Cl. 27.
 General Time Corp., New York, N. Y. 657,760, pub. 11-12-57. Cl. 27.
 General Time Corp., New York, N. Y. 657,761, pub. 11-12-57. Cl. 27.
 General Tire & Rubber Co., The, Akron, Ohio. 657,864, pub. 11-12-57. Cl. 50.
 Gertman, Samuel M., Co., Inc., Boston, Mass. 657,912, Cl. 46.
 Gibrich, Leo, Co., Chicago, Ill. 657,728, pub. 11-12-57. Cl. 23.
 Gidden Co., The: See—
 Atlas Powder Co.
 Globe Roofing Products Co., Inc., Whiting, Ind. 657,631, pub. 11-12-57. Cl. 12.
 Goldman & Co.: See—
 Sanpak Wiper Co.
 Gold Seal Vineyards Inc.: See—
 Urbana Wine Co., Inc.
 Graver Tank & Mfg. Co., Inc., East Chicago, Ind. 657,717, pub. 11-12-57. Cl. 23.
 Gray Pharmaceutical Co., Inc., Newton, Mass. 657,879, pub. 11-12-57. Cl. 18.
 Greenough, Henry V., Jr., Brookline, Mass. 356,481, ren. 4-26-58. Cl. 36.
 Grimlok Sales, Chicago, Ill. 551,878, can. Cl. 2.
 Gsell, R., & Co., Inc., New York, N. Y. 657,753, pub. 11-12-57. Cl. 27.
 Haacker, Earnest, d. b. a. Haacker Industries, Philadelphia, Pa. 657,903, Cl. 22.
 Haacker Industries: See—
 Haacker, Earnest.
 Hagan Chemicals & Controls, Inc., Pittsburgh, Pa. 657,877-8, pub. 11-12-57. Cl. 52.
 Hall, E. R., Co., to Electrofilm Inc., Los Angeles and North Hollywood, Calif. 552,116, can. Cl. 21.
 Halstead, James, Ltd., Whitefield, Manchester, England. 551,948, can. Cl. 20.
 Hanos, Alex, Craig, Colo. 657,830, pub. 11-12-57. Cl. 46.
 Happiness House: See—
 Talley, A. Lucille.
 Happy Pet Products, Inc., Cassopolis, Mich. 657,584, pub. 11-12-57. Cl. 1.
 Hargo Sales Corp., New York, N. Y. 551,924, can. Cl. 8.
 Harrington & Richardson, Inc., Worcester, Mass. 657,618, pub. 11-12-57. Cl. 9.
 Harris, D. I., Hardware & Mfg. Co., Inc., New York, N. Y. 657,702, pub. 11-12-57. Cl. 22.
 Hartman, A. F., Co.: See—
 Hartman, Alfred F.

Hartman, Alfred F., d. b. a. A. F. Hartman Co., Kansas City, Mo. 552,112, can. Cl. 2.
 Haskell, Chas. C., & Co., Inc., Richmond, Va. 352,294, ren. 11-23-57. Cl. 18.
 Hassenfeld Bros., Inc., Central Falls, R. I. 657,710-11, pub. 11-12-57. Cl. 22.
 Heathcoat, John, & Co., Inc., New York, N. Y. 657,817, pub. 11-12-57. Cl. 42.
 Helms, H. J., Co., Pittsburgh, Pa. 657,846, pub. 11-12-57. Cl. 46.
 Heublein, Inc., d. b. a. The Ming Tea Co., Hartford, Conn. 657,841, pub. 11-12-57. Cl. 46.
 Hibbs, Floyd C., d. b. a. Hibbs Tackle Co., Des Moines, Iowa. 657,703, pub. 11-12-57. Cl. 22.
 Hibbs Tackle Co.: See—
 Hibbs, Floyd C.
 Holleb & Co., Chicago, Ill. 657,833, pub. 11-12-57. Cl. 46.
 Holmes, M. E., Co.: See—
 Holmes, Matt E.
 Holmes, Matt E., d. b. a. M. E. Holmes Co., Virginia, Minn. 657,913, Cl. 46.
 Hope Hosiery Mills, Adamstown, Pa. 657,807, pub. 11-12-57. Cl. 39.
 Hudnut, Richard, New York, N. Y. 552,025, can. Cl. 51.
 Hudson, H. D., Mfg. Co., Chicago, Ill. 657,716, pub. 11-12-57. Cl. 23.
 Huenelator Corp., Beverly Hills, Calif. 552,011, can. Cl. 51.
 Hurd Lock & Mfg. Co., Detroit, Mich. 552,085, can. Cl. 22.
 Imperial Pharmaceutical Co.: See—
 Bondi, Emanuel.
 Incl-O-Grill, Inc., Freehold, N. J. 657,784, pub. 11-12-57. Cl. 34.
 Industrial Metal Products Corp., Lansing, Mich. 657,736, pub. 11-12-57. Cl. 23.
 Inland Air Lines, Inc., Los Angeles, Calif. 552,073, can. Cl. 105.
 Interchemical Corp.: See—
 Ault & Wiborg Corp.
 International Harvester Co., Chicago, Ill. 551,971, can. Cl. 14.
 International Latex Corp., Dover, Del. 657,663, pub. 11-12-57. Cl. 18.
 International Nickel Co., Inc., The, New York, N. Y. 657,646-7, pub. 11-12-57. Cl. 14.
 International Parts Corp., Chicago, Ill. 657,730, pub. 11-12-57. Cl. 23.
 International Shoe Co., St. Louis, Mo. 657,808, pub. 11-12-57. Cl. 39.
 Irving Cannling Co.: See—
 Usen Cannling Co.
 Iso-Sol Co., Inc., The, Brooklyn, N. Y. 657,589, pub. 11-12-57. Cl. 2.
 Italian Swiss Colony, d. b. a. Gambarelli & Davitto, San Francisco, Calif. 657,852, pub. 11-12-57. Cl. 47.
 J & J Landscaping, Inc., Great Neck, N. Y. 657,585, pub. 11-12-57. Cl. 1.
 Jacob, Julius C., Sr., Freeport, N. Y. 657,734, pub. 11-12-57. Cl. 23.
 Jacobson, F., & Sons, Inc., New York, N. Y. 657,809, pub. 11-12-57. Cl. 39.
 James Motor Cycles Ltd., Greet, Birmingham, England. 657,683, pub. 11-12-57. Cl. 19.
 Jarnbinger Aktiebolag, Orsa, Sweden. 657,735, pub. 11-12-57. Cl. 23.
 Jenaer Glaswerk Schott & Gen., Mainz, Germany. 657,688, pub. 11-12-57. Cl. 21.
 Jensen, Georg, Inc., New York, N. Y. 657,762, pub. 11-12-57. Cl. 28.
 Jet-Tone Musical Products: See—
 Ratsenberger, Bill.
 KDI Corp., Rochester, N. Y. 657,737, pub. 11-12-57. Cl. 23.
 Kaminow Bros., New York, N. Y. 657,821, pub. 11-12-57. Cl. 43.
 Kauder, Louis G., Riverside, N. J. 552,105, can. Cl. 39.
 Keith, Ben E., Co., Fort Worth, Tex. 657,849, pub. 11-12-57. Cl. 46.
 Kemp, C. M., Mfg. Co., The, Baltimore, Md. 657,583, pub. 7-30-57. Cl. 1.
 Kilray Blind Co.: See—
 Adjustable Blind Co.
 Knomark Mfg. Co., Inc., Brooklyn, N. Y. 657,592, pub. 4-3-58. Cl. 4.
 Koontz-Wagner Electric Co., Inc., South Bend, Ind. 657,687, pub. 11-12-57. Cl. 21.
 Kraemer Textiles Inc., Nazareth, Pa. 657,820, pub. 11-12-57. Cl. 43.
 Laboratoires Danielle Roches: See—
 Maitrejean, Madame Louis.
 Labrot & Graham: See—
 Brown-Forman Distillers Corp.
 Lamcote, Inc., to Arrev Corp., Chicago, Ill. 353,482, ren. 1-11-58. Cl. 2.
 Langham, Raymond D., d. b. a. Downbeat Record Co., Los Angeles, Calif. 657,791, pub. 11-12-57. Cl. 36.
 Lansdale Forest Products Corp., Lansdale, Pa. 657,635-6, pub. 11-12-57. Cl. 12.
 Lansdale Pharmaceutical Co., Inc., Kansas City, Mo. 657,680, pub. 11-12-57. Cl. 18.
 Larx Pharmaceutical Corp., New York, N. Y. 657,657, pub. 12-11-58. Cl. 18.
 Lario, Tom, Fish Co., Inc., Eureka, Calif. 657,843, pub. 11-12-57. Cl. 46.
 Lee, James S.: See—
 Stephenson, William B.
 Lettite, E. H., Co., Minneapolis, Minn. 657,598, pub. 11-12-57. Cl. 6.
 Leo-Werke G. m. b. H., Frankfurt am main, Germany. 657,874, pub. 11-12-57. Cl. 52.
 Lennick, Louis, and Son, Philadelphia, Pa. 551,889, can. Cl. 39.
 Lewis, Edgar P., & Sons, d. b. a. Town Hall Chocolate Co., Malden, Mass., to McCrory Stores Corp., New York, N. Y. 352,303, ren. 11-23-57. Cl. 46.
 Liggett and Myers Tobacco Co., New York, N. Y. 657,653, pub. 11-12-57. Cl. 17.
 Line Scale Co., Inc., Oklahoma City, Okla. 657,743, pub. 11-12-57. Cl. 26.
 Liqulizer Corp., Indianapolis, Ind. 657,619, pub. 11-12-57. Cl. 10.
 Lowe, Joe, Corp., New York, N. Y. 354,479, ren. 2-15-58. Cl. 46.
 Lowenstein, M., & Sons, Inc., New York, N. Y. 657,819, pub. 11-12-57. Cl. 42.
 Lucky Lager Brewing Co., San Francisco, Calif. 657,853, pub. 11-12-57. Cl. 48.
 Lucky Tiger Mfg. Co., Kansas City, Mo. 356,846, ren. 4-26-58. Cl. 18.
 Macy, R. H., & Co., Inc.: See—
 Macy, R. H., & Co.
 Macy, R. H., & Co., Inc., New York, N. Y. 354,021, ren. 1-25-58. Cl. 22.
 Macy, R. H., & Co., Inc., New York, N. Y. 354,022, ren. 1-25-58. Cl. 22.
 Macy, R. H., & Co., to R. H. Macy & Co., Inc., New York, N. Y. 120,032, ren. 1-1-58. Cl. 39.
 Macy, R. H., & Co., to R. H. Macy & Co., Inc., New York, N. Y. 120,033, ren. 1-1-58. Cl. 39.
 Magnado Co., Inc., Youngstown, Ohio. 657,609, pub. 11-12-57. Cl. 6.
 Magnet Litho Supply Corp., New York, N. Y. 657,875, pub. 11-12-57. Cl. 52.
 Maitrejean, Madame Louis, d. b. a. Laboratoires Danielle Roches, Paris, France. 657,868, pub. 11-12-57. Cl. 51.
 Mande Fabrics, Inc., New York, N. Y. 551,928, can. Cl. 42.
 Manning Mills, Inc., Salem, N. J. 657,684, pub. 11-12-57. Cl. 20.
 Marglen, Juliette, Inc., now by change of name to Juliette Marglen, Inc., Ridgefield, N. J. 657,916-18. Cl. 51.
 Mark, Clayton, & Co., Evanston, Ill. 657,905. Cl. 23.
 Marapring Corp., Los Angeles, Calif. 657,777, pub. 11-12-57. Cl. 32.
 Martino, Peter V., d. b. a. Fittsall Display Co., Long Island City, N. Y. 551,863, can. Cl. 32.
 Marvella Pearls, Inc., New York, N. Y. 657,906. Cl. 28.
 Maskuline Underwear Co., Inc., New York, N. Y. 657,908. Cl. 39.
 Mason Contractors Association of America, Chicago, Ill. 657,883, pub. 11-12-57. Cl. 101.
 Matrix Structures Inc., Cambridge, Mass. 657,709, pub. 11-12-57. Cl. 22.
 Mattel, Inc., Los Angeles, Calif. 657,701, pub. 11-12-57. Cl. 22.
 Maurer, J. A., Inc., Long Island City, N. Y. 657,742, pub. 11-12-57. Cl. 28.
 May Department Stores Co., The, New York, N. Y. 657,909. Cl. 39.
 McCormick, John G., d. b. a. Accordio-Tape System, Minneapolis, Minn. 552,076, can. Cl. 107.
 McCrory Stores Corp.: See—
 Lewis, Edgar P., & Sons.
 McCrory Stores Corp., New York, N. Y. 354,896, ren. 3-1-58. Cl. 37.
 McCrory Stores Corp., New York, N. Y. 355,115, ren. 3-8-58. Cl. 37.
 McDonald, James W., Wichita Falls, Tex. 551,865, can. Cl. 46.
 McGraw-Edison Co., Chicago, Ill. 657,787, pub. 11-12-57. Cl. 34.
 Melb, Veto, Jamaica, N. Y. 551,968, can. Cl. 51.
 Metal Products Engineering, Inc., Los Angeles, Calif. 552,111, can. Cl. 21.
 Metro-Atlantic, Inc., Centredale, R. I. 657,650, pub. 11-12-57. Cl. 16.
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Adjudicated Patent

(D. C., S. D. N. Y.) Sparks Design Patent No. 178,081 (Cl. 42-8), for design for a watch. Held valid and infringed. *Vacheron & Constantin-Le Coultre Watches, Inc. v. Benrus Watch Co., Inc.* 155 F. Supp. 932; 115 USPQ 115.

Patents Available for Licensing or Sale

2,714,202. Recording System Utilizing a Single Control Signal Capable of Controlling Two Characteristics of the Signal (Adaptable To Control Tape Speed). Cook Electric Co., Patent Counsel, 6401 Oakton St., Morton Grove, Ill.

2,804,840. Automatic Immersion Apparatus. Patrick T. Dolan, 412 N. Lake St., Aurora, Ill.

2,814,401. Vehicle Loading Assembly. Bernardo Mendez, Box 406, San Sebastian, Puerto Rico.

2,815,023. Rupture Support. Charles T. Hammersley, 108 Spring St., Jeffersonville, Ind.

2,815,225. Trailer Hitch With Auxiliary Safety Device. John Barcafer, Box 278, Shattuck, Okla.

General Electric Company is prepared to grant non-exclusive licenses under the following 14 patents on reasonable terms to domestic manufacturers.

Applications for licenses may be addressed to: General Electric Company, Housewares and Radio Receiver Division, 1285 Boston Ave., Bridgeport 2, Conn.

2,275,878. Household Mixing Device.

2,501,549. Flatiron Supporting Means.

2,557,732. Water Supply Means for Steam Iron Steam Generators.

2,557,765. Speed Control Mechanism.

2,566,907. Mixer Beater Ejector.

2,644,256. Retractable Stand for Flatiron.

2,737,603. Trigger-Controlled Switch Speed Governor and Indicator for Food Mixers and the Like.

2,769,061. Concentric Switch and Thermostat Control.

2,777,226. Water and Power Supply for Steam Irons.

2,778,913. Temperature Control and Signal Circuit.

2,781,467. Household Mixer Chassis.

2,798,637. Compressor.

2,801,319. Control for Cooking Appliances.

2,803,396. Compressor.

General Electric Company is prepared to grant non-exclusive licenses in the field of radio purposes under the following 8 patents upon reasonable terms to domestic manufacturers.

Applications for licenses may be addressed to: Patent Counsel, Electronic Components Division, General Electric Company, Syracuse, N. Y.

2,778,966. Support Strap for Electron Gun Assemblies.

2,802,160. Intermediate Zone Locating Servosystem.

2,805,404. Tube Socket.

2,805,689. Gas Charging Apparatus.

2,808,527. Cathode Support Strap.

2,809,373. Component Parts Placement.

2,813,226. Concentric Type Electrode.

2,814,735. Semiconductor Device.

Patent Removed From Register

The following patent, which was listed by General Electric Company in the Register Section of the OFFICIAL GAZETTE, March 13, 1951, as being available for non-exclusive licensing, is hereby withdrawn from the Register.

2,379,774. Control Apparatus.

New Applications Received During December 1957

Patents	6,609
Designs	361
Plant Patents	12
Reissues	27
Total	7,009

Issue

Patents	830—No. 2,821,713 to No. 2,822,542, incl.
Designs	44—No. 182,012 to No. 182,055, incl.
Plant Patents	4—No. 1,677 to No. 1,680, incl.
Reissues	5—No. 24,422 to No. 24,426, incl.
Total	883

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1957

Total number of pending applications (excluding Designs)	212, 606
Total number of pending Design applications	6, 654
Total number of applications awaiting action (excluding Designs)	94, 856
Total number of Design applications awaiting action	3, 138
Date of oldest new application	Dec. 20, 1956
Date of oldest amended application	Aug. 1, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	16, 26, 37, 41, 42, 44, 48, 51, 54, 69, 70.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	4-12-57	1-11-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	4-1-57	1-8-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	4-4-57	1-2-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	4-8-57	1-2-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors, Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	3-25-57	12-13-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	5-2-57	5-2-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics, Photographic Apparatus	4-1-57	1-18-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles	5-24-57	1-28-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	4-1-57	1-17-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	4-3-57	2-20-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	5-6-57	5-2-57
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	4-4-57	1-17-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	4-8-57	1-22-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes	4-4-57	2-20-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	4-2-57	1-30-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	12-20-56	10-16-56
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	4-1-57	1-2-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	4-1-57	1-11-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating	4-10-57	2-11-57
20. (V) KAMPE, A. H., (acting), Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	4-1-57	1-2-57
21. (III) MADER, R. C., Textiles	1-16-57	12-12-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	4-1-57	1-2-57
23. (VI) SMILOW, L., Cash and Fare Registers; Calculators and Counters; Education	2-19-57	8-1-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	5-6-57	3-4-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	1-31-57	1-7-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms	5-31-57	5-2-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	5-2-57	5-1-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	4-1-57	1-8-57
29. (V) FRITZ, M. M., (acting), Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	2-19-57	12-14-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	4-1-57	11-21-56

12, 606
6, 654
94, 856
3, 138
0, 1956
1, 1956

IONS

3, 46, 60,
63, 64,
41, 42, 44,
69, 70,

4, 21, 24,
Designs.

7, 24, 35,

9, 33, 36,

18, 22, 23,

5, 30, 32,

IV, V.

Application

Amended

1-11-57

1-8-57

1-2-57

1-2-57

12-13-56

5-2-57

1-13-57

1-28-57

1-17-57

2-20-57

5-2-57

1-17-57

1-22-57

2-20-57

1-30-57

10-16-56

1-2-57

1-11-57

2-11-57

1-2-57

12-12-56

1-2-57

8-1-56

3-4-57

1-7-57

5-2-57

5-1-57

1-8-57

12-14-56

11-21-56

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION

(Roman numerals in parentheses indicate Examining Group)

Oldest Application

New Amended

31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils.....	1-11-57	1-11-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers.....	5-7-57	3-4-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering, Roads and Pavements.....	4-9-57	1-14-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements.....	4-1-57	3-1-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding.....	6-4-57	6-3-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales.....	1-22-57	1-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits.....	4-9-57	3-21-57
38. (I) MARMELESTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols.....	6-3-57	5-20-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows).....	5-7-57	4-23-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages.....	6-4-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television.....	1-7-57	12-17-56
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part).....	1-2-57	1-8-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles.....	4-8-57	1-3-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes.....	4-1-57	1-2-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part).....	4-5-57	2-12-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part).....	4-23-57	1-9-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles.....	6-14-57	4-24-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers.....	4-1-57	12-10-56
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring.....	4-15-57	3-12-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber.....	6-5-57	6-10-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices.....	3-14-57	3-14-57
52. (V) NEFF, P. R., Supports and Racks.....	4-8-57	1-30-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators.....	5-16-57	4-25-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications.....	3-18-57	2-13-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators.....	12-31-56	12-24-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry.....	6-4-57	3-27-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending.....	5-13-57	4-4-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spilltoons; Boring and Drilling; Paper Manufactures; Packaging (part).....	4-2-57	1-11-57
59. (I) BRINDISI, M. A. (acting), Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating.....	4-1-57	12-27-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products.....	5-6-57	4-1-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths.....	4-4-57	1-9-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination.....	8-6-57	8-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds.....	4-1-57	12-7-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions.....	4-2-57	1-14-57
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures.....	4-1-57	1-3-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification.....	4-2-57	1-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators.....	5-1-57	2-14-57
70. (II) BREWRINK, J. L., Security Laws Administration.....		
I—BAILEY, J. S., Laminated Fabrics.....	4-20-57	2-18-57
II—LADY, J. E., Oscillators; Amplifiers.....	4-2-57	2-13-57
CLASS. DIVS. III—WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres.....	4-1-57	1-3-57
IV—BERLOWITZ, W., Harrows and Diggers; Plows.....	4-10-57	1-17-57
V—ANGEL, C. D., Refrigeration; Roots.....	4-1-57	4-1-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part).....	4-19-57	2-3-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts.....	6-10-57	7-2-57
B—GRAY, M. A., Household, Personal and Fine Arts.....	6-3-57	6-3-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents..... Numbers 2,227,418 to 2,230,217, inclusive
Plant Patents..... Numbers 437 to 444, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals District of Columbia Circuit

APPLETON ELECTRIC COMPANY v. ROBERT C. WATSON,
COMMISSIONER OF PATENTS

No. 13,985. Decided January 3, 1938

[— U. S. App. D. C. —; — F.2d —; — USPQ —]

Appeal from the United States District Court for the District of Columbia. [District Court opinion reported at 148 F. Supp. 69, 112 USPQ 250]

AFFIRMED.

Edward W. Osann, Jr., of the bar of the Supreme Court of Illinois, *pro hac vice*, by special leave of Court, with whom Andrew B. Beveridge and Joseph A. DeGrandi were on the brief, for Appleton Electric Company.

Clarence W. Moore (S. William Cochran of counsel) for Robert C. Watson, Commissioner of Patents.

Before EDGERTON, Chief Judge, and BAZELON and FAHY, Circuit Judges

PER CURIAM:

An applicant for a patent appeals from an adverse decision in an action under U. S. Code, Title 35, § 145. We find no error affecting substantial rights.

AFFIRMED.

In the United States Patent Office Commissioner's Decision

IN RE JOYCE

Patent No. 2,813,863. Decided September 17, 1957

1. STATUTES—35 U. S. C. 121—THIRD SENTENCE OF SEC. 121 IS APPLICABLE TO ELECTION OF SPECIES CASES.

"There is no language in Section 121 which makes it inapplicable when a requirement for restriction is imposed upon an applicant who is claiming a plurality of species, and the prohibition set forth in the third sentence of that section is clearly applicable in any instance in which the claim of the divisional application is for a species and is presented in that application after having been removed from a parent application in response to a requirement for restriction."

2. PRACTICE—REQUIREMENT TO RESTRICT TO FIVE SPECIES—EFFECT OF 35 U. S. C. 121 ON DIVISIONAL APPLICATION TO NON-ELECTED SPECIES.

Where applicant was required to restrict the claims of his parent application to five species and he complied by cancelling a claim to a sixth species Held that the Patent Office is precluded by 35 U. S. C. 121 from using as a reference, in a divisional application claiming the non-elected sixth species, the patent which eventuated from the parent application.

ON REFERENCE by the Examiner.

Robert Ames Norton and J. Randolph Newman for Joyce.

WATSON, Commissioner of Patents:

The Examiner has referred the above identified application to the Commissioner for instructions.

The present application is a division of a prior application which has resulted in Patent No. 2,720,038. During the prosecution of the parent application the Examiner required the applicant to restrict the claims to five species. Applicant complied by cancelling the claim to the sixth species claimed, and filed the present divisional application disclosing and claiming the non-

elect species of the parent case. The Examiner has rejected the claim of this application as unpatentable over one of the species claimed in the parent patent. The question raised is whether, under the third sentence of 35 U. S. C. 121, such a rejection can be made.

[1] There is no language in Section 121 which makes it inapplicable when a requirement for restriction is imposed upon an applicant who is claiming a plurality of species, and the prohibition set forth in the third sentence of that section is clearly applicable in any instance in which the claim of the divisional application is for a species and is presented in that application after having been removed from a parent application in response to a requirement for restriction.

[2] The Patent Office, having required restriction in the parent application, is now precluded by section 121 of the statute from using as a reference the patent which eventuated from the parent application. The Examiner is accordingly instructed to withdraw the rejection.

In the United States Patent Office Commissioner's Decision

IN RE HERRICK ET AL.

Patent No. 2,816,900. Decided September 17, 1957

PRACTICE—REQUIREMENT FOR RESTRICTION IN APPLICATION WITH CLAIMS TO MORE THAN FIVE SPECIES—CONSIDERATION OF PATENTABLE DISTINCTNESS.

In an application containing claims specifically directed to more than five species in which applicant had been required to restrict the claims to five Held that "If the Examiner is of the opinion that the various species now standing non-elected are obviously unpatentable over the other species claimed in the case, he should * * * withdraw the requirement completely" and that "If the Examiner, after considering the matter, is of the opinion that he would be prepared to allow a divisional application claiming the non-elected species over the species claimed in the parent case, he may insist on the requirement for restriction."

ON PETITION.

Norton S. Johnson and Samuel B. Walker for Herrick et al.

WATSON, Commissioner of Patents:

The application as filed contained claims specifically directed to more than five species; the applicant has been required to restrict the claims to five and this requirement has been made final. The applicant has filed a petition to the Commissioner seeking to clarify the nature of the requirement for restriction in a case of this kind, and the consequences which follow from such a requirement.

It has been held in connection with another application that, if the Examiner makes a requirement for restriction with respect to species, and the applicant files a divisional application in consonance with the requirement, the species claimed in the divisional application cannot be rejected as unpatentable over any of the species claimed in the parent application. The Examiner is instructed to reconsider the requirement for restriction made in this case in the light of

this conclusion. If the Examiner is of the opinion that the various species now standing non-elected are obviously unpatentable over the other species claimed in the case, he should, and he is authorized to, withdraw the requirement completely. On the other hand, if the Examiner, after considering the matter, is of the

opinion that he would be prepared to allow a divisional application claiming the non-elected species over the species claimed in the parent case, he may insist on the requirement for restriction and write a letter to the applicant indicating that the requirement for restriction will not be withdrawn and is insisted upon.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,100,501, F. J. Oslus, Disintegrating mixer for producing fluent substances, filed Mar. 30, 1954, D. C. Conn. (New Haven), Doc. 4838, *Waring Products Corp. v. Landers, Frary & Clark*. Patent held valid and infringed (notice Dec. 19, 1957).

2,438,173, Johnson and Harvey, Portable and collapsible scaffolding unit; **2,619,390**, W. J. S. Johnson, Scaffolding and span therefor, filed Dec. 18, 1957, D. C. Minn. (Minneapolis), Doc. 457/147, *Up-Right Corp. et al. v. Aluminum Safety Products, Inc.*

2,451,077, S. Emsig, Molded integral sewing hole button of thermosetting synthetic resinous materials, filed Jan. 22, 1957, D. C., S. D. N. Y., Doc. 116/343, *Emsig Mfg. Co. v. The Frank Parizek Mfg. Co.* Stipulation and order of dismissal Dec. 20, 1957.

2,492,870, H. T. Kelsh, Stereoscopic projection map-making instrument, filed Dec. 19, 1957, D. C. Md. (Baltimore), Doc. 10231, *O. M. I. Corp. of America et al. v. Kelsh Instrument Co., Inc.*

2,576,791, R. J. Jackson, Pile fabric floor covering, filed July 3, 1957, D. C., N. D. Calif. (San Francisco), Doc. 36595, *Bigelow-Sanford Carpet Co. v. Edward J. Roberts Co., Inc.* Consent decree; injunction granted Dec. 16, 1957.

2,594,006, A. G. Getz, Cellular core for heat exchange units, filed Dec. 19, 1952, D. C., W. D. N. Y. (Buffalo), Doc. 5532, *The Bishop & Badcock Mfg. Corp. v. Fedders-Quigan Corp.* Patent held invalid (notice Dec. 27, 1957).

2,610,557, C. W. Bros et al., Pneumatic roller compactor, filed June 24, 1954, D. C., N. D. Ohio (Cleveland), Doc. 31158, *Wm. Bros Boiler & Mfg. Co. v. Gibson-Stewart Co., Inc.* Final judgment; claims 1, 2, 3 and 4 held valid; defendant infringed Dec. 16, 1957. Same, filed Dec. 26, 1957, D. C., N. D. Texas (Dallas), Doc. 7608, *Bros Inc. v. W. E. Grace Mfg. Co. et al.*

2,619,390. (See 2,438,173.)

2,628,354, M. Laguzzi, Foundation garment; **2,628,355**, same, filed Aug. 27, 1956, D. C., S. D. N. Y., Doc. 112/241, *Figure Builder Foundations, Inc. v. Poirrette Corsets, Inc.* Stipulation and order of dismissal Dec. 23, 1957.

2,628,355. (See 2,628,354.)

2,603,102, K. B. Olander, Ironing table, filed May 12, 1954, D. C., E. D. Wis. (Milwaukee), Doc. 6296, *J. R. Clark Co. et al. v. Geuder, Paeschke & Frey Co.* Claim 1 of patent held valid and infringed Dec. 19, 1957.

2,701,308, J. C. Kay, Television antenna, filed Dec. 20, 1957, D. C., N. D. Ga. (Atlanta), Doc. 1061, *James C. Kay et al. v. Goode T. Mosteller*. Same, filed Dec. 23, 1957, same, Doc. 6274, *James C. Kay et al. v. J. F. D. Mfg. Co., Inc.* Same, filed Dec. 23, 1957, same, Doc. 6275, *James C. Kay et al. v. J. F. D. Mfg. Co., Inc.*

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2,787,308, S. J. Popell, Food chopper, filed Dec. 20, 1957, D. C., E. D. Pa. (Philadelphia), Doc. 23797, *Popell Brothers, Inc. v. Lat Brothers, Inc.*

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2,791,041, J. E. Hancock, Earth handling apparatus, filed Dec. 20, 1957, D. C., N. D. Texas (Lubbock), Doc. 2418, *James E. Hancock et al. v. Johnson Mfg. Co. et al.*

2,794,449, R. R. Matthews, Woven pile fabric, filed Dec. 23, 1957, D. C. N. J. (Trenton), Doc. 1275/57, *The Firth Carpet Co., Inc. v. Hightstown Rug Co.*

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REISSUES

FEBRUARY 4, 1958

Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,422 IRRIGATION FLUID FOR CYSTOSCOPY AND TRANSURETHRAL PROSTATECTOMY

Waldo R. Hardie, Walnut Creek, Calif., assignor to Cutter Laboratories, Berkeley, Calif., a corporation of California

No Drawing. Original No. 2,721,825, dated October 25, 1955, Serial No. 303,842, August 11, 1952. Application for reissue September 24, 1957, Serial No. 686,550
2 Claims. (Cl. 167—50)

2. In the method of performing urological and gynecological surgery, the step of irrigating the surgical field with a non-hemolytic, nontoxic, optically clear 3.27 [4.6] percent to 5.46 [46] percent aqueous solution of a hexitol selected from the group consisting of sorbitol and mannitol.

24,423 VOTIVE CANDLE

Frank D. Oesterle, West Englewood, N. J., and Laurier Baillargeon, St. Constant, Quebec, Canada

Original No. 2,713,256, dated July 19, 1955, Serial No. 432,848, May 27, 1954. Application for reissue July 19, 1957, Serial No. 674,005
6 Claims. (Cl. 67—21)



3. In a votive candle, the combination of: an open topped container having a bottom wall and an imperforate transparent side wall; means in the bottom of the container defining a centrally disposed upstanding socket which projects upwardly from the bottom of the container a distance considerably less than the height of the container side wall and is spaced inwardly of the side wall; a body of fuel in the container with a portion thereof received in the socket; a wick in the body of fuel extending all the way down through that portion of the fuel body which is received in the socket; said body of fuel having a height less than that of the container side wall; and the socket having an air inlet port leading to the bottom thereof to conduct air for combustion into the socket to assure that the socket will be empty upon completion of combustion.

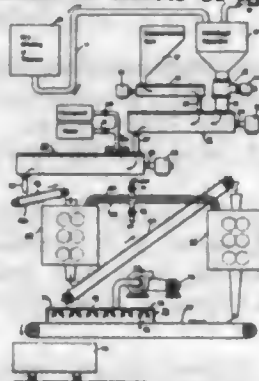
24,424 COMPOSITION OF MATTER CONSISTING CHIEFLY OF FRAGMENTED TOBACCO AND GALACTO- MANNAN PLANT GUM

Max Marcus Samfield, Brantley Armstead Brock, and Earl Everett Locklair, Durham, N. C., assignors to Liggett & Myers Tobacco Co., New York, N. Y., a corporation of New Jersey

Original No. 2,708,175, dated May 10, 1955, Serial No. 433,062, May 28, 1954. Application for reissue March 1, 1956, Serial No. 568,956
9 Claims. (Cl. 131—17)

1. A composition of matter suitable for smoking consisting by weight of a minor proportion, about 1% to 20%, of a plant gum consisting essentially of galactomannan, approximately 9% to 13% of moisture, and the balance essentially all dry-ground tobacco with the individual

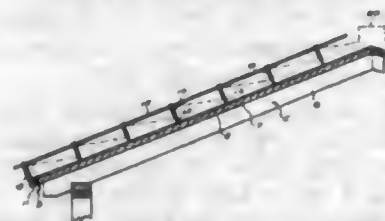
finely-divided fragments thereof cohered together so as to have, when formed in sheets of about the thickness of



natural leaf tobacco, a tensile strength approximately equal to the tensile strength of such leaf tobacco.

24,425 FORM AND METHOD OF CASTING A CONCRETE ROOF

Donald K. Thomas, West Hollywood, Fla.
Original No. 2,798,279, dated July 9, 1957, Serial No. 491,867, March 3, 1955. Application for reissue August 5, 1957, Serial No. 677,190
3 Claims. (Cl. 25—118)



1. A form for pouring a one-piece concrete roof slab and wherein the form constitutes longitudinally extending troughs, the form embodying a plurality of substantially identical form devices having flat sides and with an upper edge of each form device being at a right angle, spacing legs formed upon the lower edge of each form device whereby to support the form with its lower edge in spaced parallel relation to a roof surface to be covered, a fascia board detachably connected with the free edge of the roof and projecting thereabove and a plurality of straps connected with the fascia board and with the form devices, each of the straps being provided with spaced longitudinal slots and hook bolts that engage through the slots and have hooked and clamping engagement with angled upper edges of the form devices whereby the several form devices are adjustably held at a predetermined angularity with respect to the roof surface to be covered and in a predetermined spaced parallel relation to each other and to the fascia board.

24,426 DOOR LATCHING MECHANISM

Bert A. Quinn, St. Paul, Minn.
Original No. 2,796,272, dated June 18, 1957, Serial No. 537,789, September 30, 1955. Application for reissue July 29, 1957, Serial No. 675,519
4 Claims. (Cl. 292—67)

3. In a lock of the class described, a mounting plate adapted to be secured to a door, a rotary hand grip, means mounting said hand grip on said mounting plate for rotation on a horizontal axis perpendicular to said

FEBRUARY 4, 1958

U. S. PATENT OFFICE

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door, said hand grip including an axially extended portion adjacent said mounting plate and a generally radi-



ally extended portion in spaced relation to said mounting plate, opposite sides of said axially extended portion de-

fining a guideway, a cross sectionally U-shaped latch bolt mounted in said guideway for linear movements therein transversely of said axially extended portion, said latch bolt having a latching surface at one end thereof adapted to engage a strike on the frame on which the door is mounted, a spring yieldingly urging said latch bolt in a direction of its linear movement toward latching engagement with said strike when said lock is mounted on the door, and means carried by opposite sides of said U-shaped latch bolt and engageable with said axially extended portion and positively limiting movements of said latch bolt in the direction imparted thereto by said spring, said latch bolt rotating with said hand grip on said horizontal axis, whereby to be moved into and out of engagement with said strike.

PLANT PATENTS

GRANTED FEBRUARY 4, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,677 RED ROSE PLANT

Paul F. De Vor, Pleasanton, Calif., assignor to Clarence Amling Roses, Inc., Santa Ana, Calif., a corporation of California

Application June 25, 1957, Serial No. 668,006
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant, substantially as herein described, characterized by the high-centered, urn-shaped narrow bud, its large number of rose-red flowers per cluster, the slow opening of the bud and flower, its relative thornlessness, its spreading and willowy habit of growth, and the lasting quality of the blooms on the plant and as cut flowers.

1,678 PINK ROSE PLANT

Paul F. De Vor, Pleasanton, Calif., assignor to Clarence Amling Roses, Inc., Santa Ana, Calif., a corporation of California

Application June 25, 1957, Serial No. 668,007
1 Claim. (Cl. 47—61)

A new and distinct variety of rose plant, substantially as described, being characterized as to novelty by the depth, brilliance and Rhodamine Pink color of the blooms, its profuse blooming habit early, midseason and late, the size of the flowers and the large number of flowers per cluster, the good keeping quality of the flowers, its high-centered and urn-shaped bud, the healthy, vigorous growth of the plant, and its relative thornlessness.

1,679 CHRYSANTHEMUM PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application May 27, 1957, Serial No. 661,984
1 Claim. (Cl. 47—60)

A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by the attractiveness of its plant and flowers, the large-size and firmness of its flowers, the long and narrow form of its flower petals, and the distinctive Pale Rhodonite Pink general color tonality of its flowers, with the margins of the individual petals edged with Rhodonite Pink.

1,680 CHRYSANTHEMUM PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application May 27, 1957, Serial No. 661,985
1 Claim. (Cl. 47—60)

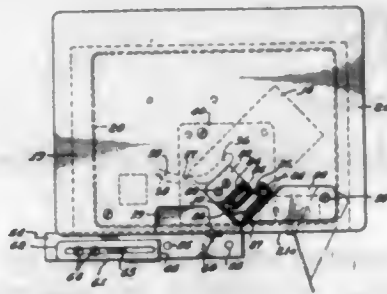
A new and distinct variety of chrysanthemum plant of the decorative type, substantially as herein shown and described, characterized particularly as to novelty by its vigorous and hardy habits of growth, the attractiveness of its plant and flowers, and the distinctive Carmine general color tonality of its flowers.

PATENTS

GRANTED FEBRUARY 4, 1958

GENERAL AND MECHANICAL

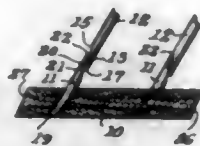
2,821,713
DRAPERY HOOK DISPENSING AND INSERTING APPARATUS
 Morris A. Saltz, Los Angeles, Calif.
 Application November 22, 1955, Serial No. 548,502
 21 Claims. (Cl. 1-1)



1. In apparatus for inserting hooks in drapes and the like: a support having a surface upon which the drape can be held with its plait in a folded condition and the seam of the drape facing rearwardly of the support; a drive member adapted to receive and be coupled to a drapery hook having a pin portion, said drive member being disposed in a plane generally parallel to and offset from the plane of said support surface; cam means operatively connected to said drive member to guide said drive member and hook from a position in which the pin portion is inclined to the drape to enable such portion to be forced by the drive member into the drape, said cam means then guiding said drive member along a path lengthwise of the drape to substantially fully dispose the pin portion in the drape.

2,821,714
METHOD OF MAKING A CARPET ANCHOR STRIP
 Samuel J. Kent, Van Nuys, and Albert J. Sower, Burbank, Calif., assignors to Ace Tackless Corporation, Brooklyn, N. Y., a corporation of New York
 Original application October 25, 1954, Serial No. 464,305, now Patent No. 2,752,597, dated July 3, 1956. Divided and this application April 2, 1956, Serial No. 575,584

8 Claims. (Cl. 1-82)



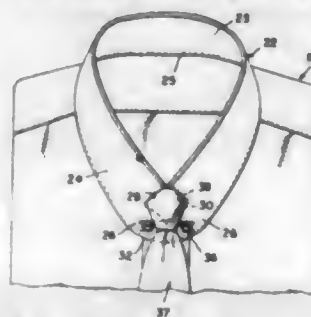
1. The method for providing a strip with carpet-anchoring barbs that consists in moving said strip longitudinally in uniform intermittent steps, driving the sharpened end of a wire into one face of the strip and at least to the opposite face during each stationary period between such movements and anchoring the wire in the strip, and cutting through the wire above the said one face at such an angle as to provide the new end of the wire with a sharp end similar to its initial sharp end and to leave anchored in the strip a barb of complementary form to the wire end.

2,821,715
ARM ATTACHED PROTECTIVE DEVICE FOR USE BY DANCERS
 Otto H. Thiemig, Van Nuys, Calif.
 Application October 16, 1956, Serial No. 616,191
 5 Claims. (Cl. 2-46)



1. A device for protecting the dress of a female dancer from damage by contact with an embracing hand of a male dancer, said device comprising a supporting hand of the wearer with the supporting bracket disposed interiorly of the wrist, a reel mounted on said supporting bracket, a flexible member wound upon said reel, and means on the free end of the flexible member for engagement with a finger of the hand, thus retaining the flexible member in overlying relation to the palm of the hand to prevent contact of the palm of the hand with the dress of a female dancer.

2,821,716
SHIRT COLLARS
 Judson H. Salter, Jr., Opelika, Ala.
 Application November 21, 1955, Serial No. 547,934
 1 Claim. (Cl. 2-116)



A shirt collar comprising joined inner and outer neck encircling parts, the outer part having an upper folded edge, a lower edge and a pair of oppositely disposed end edges, the portions of the outer part adjacent to the end edges forming wings, said oppositely disposed end edges being parallel from said lower edge through a substantial portion of the length of the end edges and being substan-

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tially in abutting relation when the collar is worn, the remaining portions of said end edges above said parallel portions having opposing complementary recesses therein forming an opening for receiving a tie knot when the collar is worn, the portions of the wings bordered by the lower portions of the recesses, the parallel edges and the lower edges of said outer parts defining tongues, each of said tongues having a button hole therein, and means for coupling together and holding said tongues in joined edge to edge relation when the collar is worn, said means comprising an elastic tape positioned behind said tongues across and having a width less than the length of said parallel edges and buttons on the tape adjacent to the ends thereof for engagement through said button holes, said button holes being so positioned between the said lower portions of the recesses and lower edges of said outer parts and so spaced transversely of said parallel edges that the holding tape will be fully hidden behind the tongues and the buttons will be exposed to view on opposite sides of a tie knot in said opening.

2,821,717

KNITTED NECKTIES

Dietz J. Sickerott, Philadelphia, Pa., assignor to Nickels and Nickels, Inc., Philadelphia, Pa., a corporation of Pennsylvania

Application September 11, 1956, Serial No. 609,130

3 Claims. (Cl. 2—147)



1. A necktie comprising a flat knitted fabric tube whereof the longitudinal section which constitutes the face of the necktie is composed in its entirety of crochet or like stitch fabric of relatively high bulk and extensibility and the longitudinal section which constitutes the back of the necktie is composed at least in part of a plain stocking or like stitch fabric of relatively low bulk and dimensional stability, the plain stocking stitch fabric embracing at least a major part of the major width of the necktie.

2,821,718

RUBBER GLOVE WITH REINFORCED TURNBACK CUFF

Samuel S. Hall and Judd B. Hall, Carrollton, Ohio, assignors to The Surety Rubber Company, Carrollton, Ohio, a corporation of Ohio

Application August 15, 1956, Serial No. 604,158

4 Claims. (Cl. 2—162)

1. A glove of rubber or the like provided with a tubular sleeve having an annular grooved portion spaced from its end, the tubular sleeve being outwardly flared immediately adjacent to said annular grooved portion and terminating in a straight portion, whereby said flared portion and straight terminal portion of the sleeve may be turned up at said annular grooved portion to form a trough around the remainder of the tubular sleeve, and

an annular shoulder on said tubular sleeve immediately above said annular grooved portion for preventing the end portion of the sleeve from being turned up above said annular groove, said annular shoulder comprising a band



of longitudinal corrugations molded in said tubular sleeve and terminating immediately above said annular grooved portion, the wall thickness of said corrugations being equal to the wall thickness of the tubular sleeve.

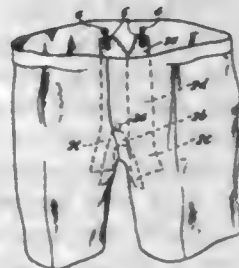
2,821,719

GARMENT PROTECTORS

Benjamin Meaker, London, England

Application October 4, 1955, Serial No. 538,497

1 Claim. (Cl. 2—231)



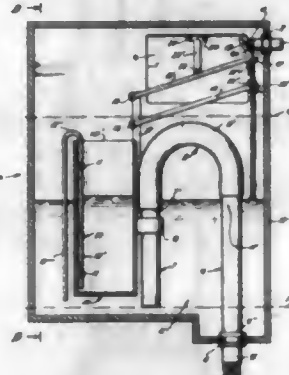
A trouser protector comprising a strip of cloth with absorbent properties, said strip of cloth being symmetrical about the longitudinal axis thereof and having front and rear portions and a body portion merging with said front and rear portions, said body portion tapering with a progressively decreasing width toward said rear portion, attaching means at said front and rear portions, securing means on the front and rear of said trouser cooperating with said attaching means to secure said strip of cloth to said trouser so that the former is held closely overlying the crotch of said trouser thereby preventing soiling and staining of the latter without interfering with the freedom of movement and comfort of the wearer, said front portion having a substantially W-shaped marginal front edge, said front portion comprising an axially projecting tab on said front edge to which said attaching means at said front portion is provided and comprising two substantially identical flaps each extending forwardly outwardly from said body portion at an obtuse angle relative to said longitudinal axis of the latter with each of said flaps having a rearwardly directed marginal edge substantially parallel to said front edge and rounded at the end thereof adjacent said body portion to merge therewith, said trouser protector when in position in said trouser having a contour conforming substantially to the contour of said crotch of said trouser with said flaps smoothly folded downwardly relative to said body portion and extending substantially vertically one in each of the legs of said trouser and with said flaps transversely arcuately bent so that said flaps are stiffened and maintain said strip of cloth in central position adjacent the crotch of said trouser.

2,821,720

**AUTOMATIC TANK FOR WASH OUT CLOSETS,
WATER DRAINS AND THE LIKE**Tullo Humberto Antonio Cornalba, Buenos Aires,
Argentina

Application May 4, 1954, Serial No. 427,628

1 Claim. (Cl. 4-42)



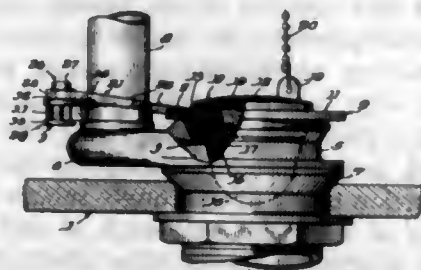
In a flushing device, in combination, a tank adapted to hold a liquid and having a top portion; inlet means communicating with said tank adjacent the top portion thereof for supplying liquid thereto; a first siphon mechanism within said tank for discharging liquid therefrom and having a tubular member movable from a first non-discharging position to a second liquid discharging position; a float in said tank having an open top end and a bottom wall and fixedly connected to said tubular member; operating means carried by said tank and connected to said float for lowering the same so that a liquid in said tank may float through said open top end into said float to prevent the same from floating on the liquid, whereby when said float is lowered said tubular member is moved from said first position to said second position; valve means carried by said operating means and operatively connected to said float and being in a first inlet-closing position when said movable member is in its first position and being in a second inlet-opening position when said movable member is in said second discharging position; and a second siphon mechanism carried by said float and leading from a location within said float and near the bottom wall thereof over said open top end to the outside of said float to a location below said bottom wall for automatically discharging liquid in the float from the interior thereof into said tank as liquid in said tank is discharged therefrom by said first siphon mechanism.

2,821,721

TANK DISCHARGE VALVE MOUNTINGAxel B. Nelson, Chicago, Ill., assignor to Crane Co.,
Chicago, Ill., a corporation of Illinois

Application February 21, 1955, Serial No. 489,553

3 Claims. (Cl. 4-57)



1. In a flush tank for water closet or the like including a ported seat and an overflow tube, a valve closure engageable with said ported seat in the closed valve position, said valve closure having means extending therefrom, means securing said valve closure to said overflow tube for swinging movement into the open and closed positions, the latter securing being effective through the extending means of the closure, said securing means comprising a supporting portion engaging said extending means of the closure

in support thereof for the opening and closing movement of the closure and a spring element of flat material extending therefrom, said supporting portion being positioned on one side of the overflow tube and including a projecting part terminating in a substantially arcuate surface contacting the exterior of the overflow tube on that side, said spring element of flat material extending around said supporting portion on three sides and resiliently engaging the side of said overflow tube opposite to that contacting the arcuate surface of the supporting portion whereby to hold said arcuate surface firmly against the overflow tube, said spring element terminating in inwardly directed end portions formed so as to apply the ends thereof against the overflow tube for the engagement of said spring element with the side of the overflow tube opposite to that in contact with the arcuate surface of said supporting portion, said supporting portion having upper and lower flange portions and a reduced portion therebetween, said flat spring element being received within the reduced portion and positioned therewithin by the flange portions, said reduced portion being provided with oppositely disposed retaining means past which opposite portions of the spring element extend, said opposite portions of the spring element being formed to spring into retentive engagement with the said retaining means at opposite sides when the spring element is placed between the aforesaid flanges and moved into fully received position within the reduced portion therebetween whereby to resiliently retain the spring element and supporting portion in the assembled relation relative to each other prior to mounting on the overflow tube, said projecting part of the supporting portion extending directly from the spring element receiving portion in solid block-like form for directing the arcuate surface against the overflow tube.

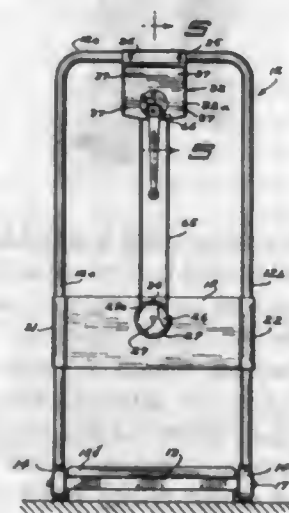
2,821,722

BED LIFTING DEVICE

Victor E. Benson, Minneapolis, Minn.

Application September 17, 1953, Serial No. 380,841

3 Claims. (Cl. 5-328)



1. A bed lifting device having in combination, a pair of upstanding bars, a member connecting said bars, means for movably supporting said bars, a member engaging said bars and movable thereon, and having spaced portions extending outwardly therefrom for supporting a bed frame, a pulley secured to said last mentioned member, a cable running over said pulley, a member carried by said connecting member, a shaft journaled in said last mentioned member, gears actuated by said shaft, a pawl contacting one of said gears, a drum actuated by said gears, said cable having one end secured to said last mentioned member and having its other end secured to said drum, and means for rotating said shaft whereby said second mentioned member can be moved along said bars and be held in any given position.

2,821,723

**BUTTON-ON SHEETS FOR BLANKETS,
COMFORTERS, AND QUILTS**

Samuel Gluck, Chicago, Ill.

Application April 20, 1954, Serial No. 424,346

2 Claims. (Cl. 5-335)



1. A bedsheet suitable for covering one side of a bed cover, being folded over the marginal edges of the cover, and being capable of being secured to the other side of said cover comprising: a bedsheet having a covering portion generally conforming to the shape of a right-angled parallelogram and marginal flaps extending outwardly therefrom; each of said flaps having a fold line extending substantially parallel to its adjacent marginal edge so that each flap may be folded inwardly along said line; one group of opposed flaps being rectangularly shaped; each of the other opposed flaps being formed in trapezoidal shape by folding the opposite ends on a bias, the base of the trapezoids of said trapezoidal flaps being defined by their respective fold lines; a fold corner at each intersection of intersecting fold lines of adjacent, substantially perpendicularly positioned flaps; said fold corner being positioned at the apex of an obtuse angle formed by the adjacent ends of said perpendicularly positioned flaps; all of said flaps adapted to be folded over one side of a cover, secured to the other side of the cover, and said adjacent ends of said perpendicularly positioned flaps to at least partially overlap each other; and buttoning means positioned adjacent the marginal edge of each of the flaps.

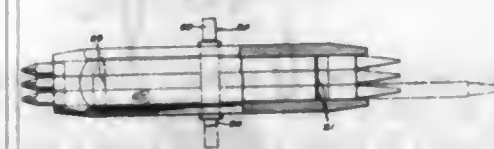
2,821,724

**SLIDABLY HOUSED MULTI-BLADED TOOL WITH
RELEASE SELECTOR**

Robert L. Wurgalt, Anaheim, Calif.

Application March 2, 1955, Serial No. 491,576

3 Claims. (Cl. 7-15)



1. In a tool, a handle having a longitudinal bore, a plurality of blades longitudinally slidable in said bore and having non-circular shafts between their respective ends fitting against one another to prevent relative rotation of said blades, each of said shafts having at least two transverse channels for receiving the hereinafter mentioned selector member, each shaft having one of said channels so disposed as to lie in a transverse plane with one channel of each of the other shafts when said blades are gathered principally within said handle, and a selector member disposed in said transverse plane of said handle and endwise reciprocable between a position in which it engages a channel of every blade having a channel aligned in said plane, to arrest longitudinal movement of said blade, and selective positions in which it releases one of said blades while retaining the others, said released blade being movable to a position in which another channel is aligned with said selector member.

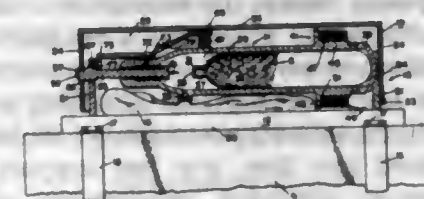
2,821,725

FLOTATION DEVICE

James T. Harper, Memphis, Tenn.

Application August 20, 1956, Serial No. 604,952

7 Claims. (Cl. 9-9)



1. A flotation device comprising a container including a container body, a lid hinged to said body, said body and lid being bored to provide aligned apertures therein, attachment means connected to said container for attaching said container to an object, a hollow casing removably carried in said container, a coiled securing means connected at one end to said container and at the other end to said casing, an inflatable envelope coupled to said casing and in communication with the interior of said casing, a cartridge carried in the hollow interior of said casing, said cartridge being sealed and containing compressed gas therein, a spring loaded pointed plunger shiftably mounted in said casing in alignment with the seal of said cartridge, said plunger being shiftable from and to an extended cocked position and to and from a retracted puncturing position, spring means urging said plunger towards said puncturing position, said plunger when in said extended cocked position extending through said aligned apertures to lock said lid in closed condition, said plunger when in said puncturing position being withdrawn from said aligned apertures to permit opening of said lid, triggering means engaging and maintaining said plunger in said extended cocked position against the force of said spring means, actuating means coupled to said triggering means for releasing said triggering means from said plunger to permit said plunger to shift under influence of said spring means to said puncturing position in which the point of said plunger pierces said cartridge and releases the gas therefrom to inflate said envelope, said actuating means being liquid-soluble, whereby when said flotation device is immersed in liquid said actuating means dissolves to start the chain of action which unlocks said lid and inflates said envelope, whereupon the envelope, being released from the container, floats and said securing means is uncoiled.

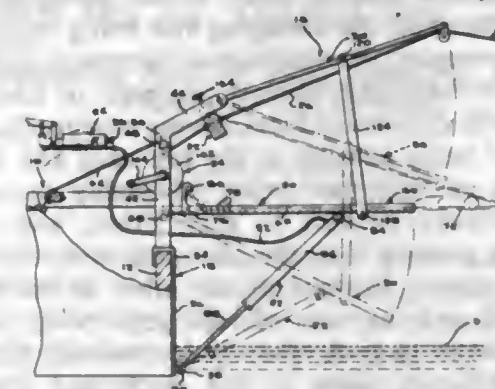
2,821,726

**WATER SKIER LAUNCHER AND RETRIEVING
APPARATUS**

Weldon R. Correll, Ellensburg, Wash.

Application June 15, 1956, Serial No. 591,653

6 Claims. (Cl. 9-21)



1. Water skier launching and retrieving apparatus comprising a support member including means for mounting

the same in vertically extending relationship on the stern of a boat, a ski launching platform arranged in trailing relationship with respect to said support member and having one end pivotally mounted on said support member for vertical pivotal movement of said platform about a horizontal axis, power means in engagement with the ski launching platform for pivoting the trailing end of the launching platform toward and away from the surface of a body of water for retrieving and launching water skis, a winch assembly on said support member including a convolutely disposed tow line, tow line support means arranged in spaced overlying relationship with respect to said platform and having one end pivotally mounted on said support member for vertical pivotal movement of said tow support means about another horizontal axis, said tow line support means including journal means in engagement with an intermediate portion of the tow line as it is payed out and retrieved, and linkage means extending between the tow line support means and launching platform affording simultaneous vertical pivotal movement thereof.

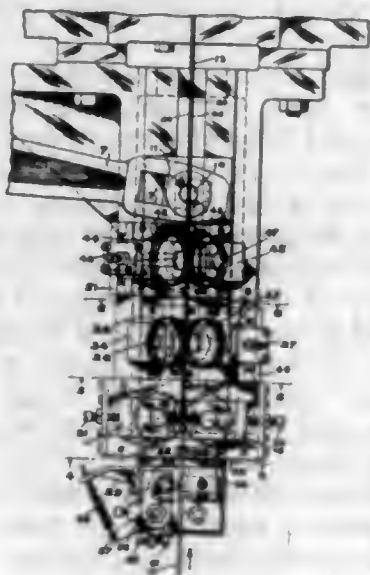
2,821,727

CORRUGATED NAIL MAKING MACHINE HAVING A COMBINED WIRE FEEDING AND ROLLING MEANS

John C. Corckran, Baltimore, Md.

Application May 16, 1955, Serial No. 508,405

6 Claims. (Cl. 10-46)



1. In a nail making machine for forming corrugated sided nails from wire stock having a fixed heading and holding stock clamping vise for holding the wire stock in position in the machine, a reciprocating carriage unit carried on the machine and means for reciprocating the carriage unit for feeding stock to the clamping vise in forward movement, the clamping vise being released during such movement, in combination therewith and mounted on said carriage unit, at least two pairs of freely rotatable rolls with cylindrical faces having corrugations therein, the faces being parallel to the roll axes and the faces of the rolls of each pair being adjustably spaced from and substantially parallel to each other, and gripping the stock in passing it to the clamping vise, one pair of rolls being spaced forward of the other in the direction of wire feed and the axes of said pairs being angularly disposed relative to each other to successively flatten and corrugate different sides of the stock and change its cross-sectional form as it passes therethrough, each pair of rolls reducing the wire stock cross-section and extending its length when gripped in the clamping vise on reverse movement of the carriage unit.

2,821,728

METHODS OF SEWING WELTS TO STITCHDOWN SHOES

Fred Ashworth, Wenham, and Joseph R. Ioannilli, Beverly, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application November 29, 1955, Serial No. 549,753
3 Claims. (Cl. 12-142)



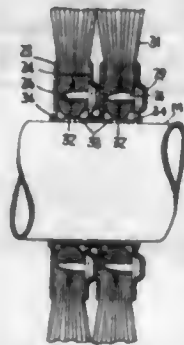
1. The method of operating upon a stitchdown shoe having untrimmed projecting marginal portions of its outflanged upper and its sole member attached together while supported on a last, which comprises sewing the untrimmed projecting marginal portions of the shoe together with a seam spaced a variable distance from the crease formed between the bulging surface of the upper supported by the last and the projecting marginal portion of the upper, pressing a welt into the crevice formed by the crease in advance of the sewing point and thereafter trimming the projecting marginal portions of the upper, sole member and welt at a variable distance from the crease to produce an ornamental appearance along the seam.

2,821,729

MEANS FOR LOCKING BRUSH BRISTLES IN RETAINING STRUCTURES

William C. Van Clief, Jr., Baltimore, Md., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

Application February 16, 1955, Serial No. 488,499
9 Claims. (Cl. 15-181)



1. A rotary brush structure comprising an axially extending core of circular section having bristle material projecting radially therefrom, holding means extending around the core and holding the bristles in place upon the core, locking means for said holding means also extending around the support, said locking means comprising a radially projecting sheet metal element contiguous to and paralleling the holding means and projecting substantially radially from the core and having a series of peripherally spaced teeth projecting longitudinally of the core, said teeth engaging the outer circumference of said holding means, said sheet metal element further having depressions corresponding to the teeth formed therein with an edge of each depression forming the roots of the corresponding tooth and projecting upon the side of the sheet metal opposite the teeth, the roots of the teeth being integral with and blended into the walls of the depressions.

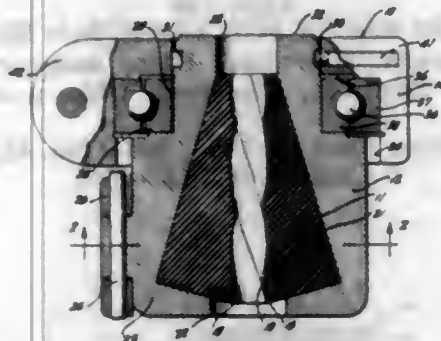
2,821,730

CABLE WIPER

Roy K. Shellman, Compton, Calif., assignor to Macclatchie Manufacturing Company, Compton, Calif., a corporation of California

Application July 27, 1956, Serial No. 600,535

2 Claims. (Cl. 15-210)



1. A cable wiping device for wiping and cleaning stranded cable comprising: an elastomeric wiper body, said body defining a longitudinal opening therethrough, said opening having an internal configuration substantially equal to the external configuration of said stranded cable, said body being split throughout its length, whereby said body may be placed upon said cable; a rigid housing for said body, said housing comprising two radially hinged sections, said housing defining a longitudinal cavity having an internal configuration substantially equal to the external configuration of said body, said housing defining a longitudinal opening therethrough coextensive with said cavity, said opening having a diameter substantially greater than the diameter of said cable; a collar stationarily mounted surrounding said cable and means for rotatably mounting said housing in said collar.

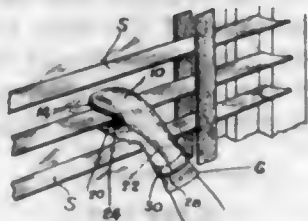
2,821,731

CLEANING MITTEN

Naomi C. May, Philadelphia, Pa., assignor of one-half to Joseph A. Sutton, Philadelphia, Pa.

Application April 25, 1955, Serial No. 503,394

4 Claims. (Cl. 15-227)



1. A cleaning mitten capable of being used on either hand comprising: a one piece front panel of non-absorbent material; a one piece back panel of non-absorbent material; and a one piece wiping panel of an absorbent material backed by a non-absorbent material, said wiping panel being foldable into a relatively wide thumb section and a finger section longer and wider than said thumb section; the back panel having a forward section corresponding in shape with the finger section of said wiping panel and having also a rearward section, the forward section of the back panel and the finger section of the wiping panel being stitched together by a peripheral seamline extending along the entire length of their peripheral edges, the front panel having a forward section corresponding in shape with the thumb section of said wiping panel, and a rearward section corresponding in shape with the rearward section of said back panel, the thumb section of the wiping panel and the forward section of the front panel being stitched together by a peripheral seamline extending along the entire length of their peripheral edges, and the rearward sections of the front and back panel being stitched together by peripheral seamlines extending the length of their side edges, there-

by forming a generally enclosed mitten having an elongated wrist enclosing opening between the peripherally stitched rearward sections of the front and back panels, a single wide thumb-enclosing pocket between the peripherally stitched forward section of the front panel and thumb section of the wiping panel, and a single wide finger enclosing pocket between the peripherally stitched forward section of the back panel and thumb-section of the wiping panel with the non-absorbent backing of the wiping panel being disposed inside the mitten.

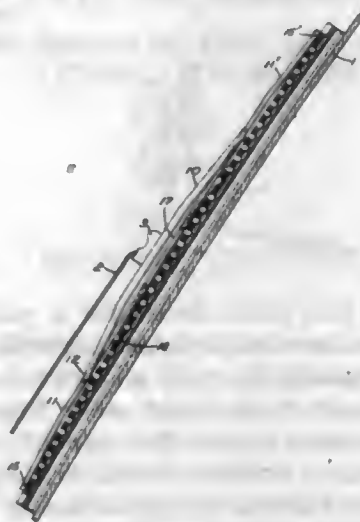
2,821,732

WINDSHIELD WIPER

Anthony C. Scinta, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.

Application September 20, 1954, Serial No. 456,934

12 Claims. (Cl. 15-245)



1. In a wiper blade adapted for curved window surfaces and having an elongated flexible blade body, a pressure distributing structure comprising primary pressure distributing means including first yoke means adapted for attachment to an actuating arm, secondary pressure distributing means for transmitting wiping pressure from said first yoke means to the opposite end portions of said blade body including rigid levers pivoted intermediate their ends on said first yoke means at longitudinally spaced points therealong and having connection with said blade body end portions, and tertiary pressure distributing means for transmitting wiping pressure from said secondary means to a portion of said blade body intermediate said end portions thereof including rigid anchor yoke means interconnecting said levers and attached to said intermediate blade body portion at spaced points therealong.

2,821,733

FLOOR POLISHER ATTACHMENT

Elmer J. Kasper, Cleveland, Ohio, assignor to Royal Appliance Mfg. Co., Cleveland, Ohio, a corporation of Ohio

Application April 13, 1954, Serial No. 422,816

3 Claims. (Cl. 15-246)



1. A floor polisher attachment for a suction cleaner nozzle having a downwardly opening elongated mouth provided with aligned grooves in the bottom of each end wall, the attachment including an elongated felt polishing pad, an elongated rib secured to and projecting from one side of the pad, the rib extending longitudinally centrally of the elongated pad throughout the greater portion of the length of the pad, the pad having a plurality of apertures disposed along the longitudinal axis thereof,

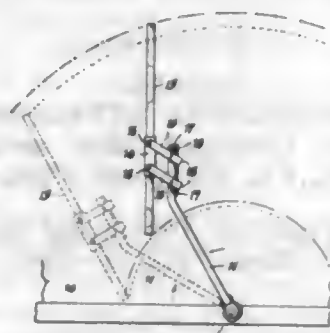
the rib having a generally U-shaped transverse cross section forming an elongated inverted channel which opens toward the apertures, one of the U-legs being spaced from the pad, and the upper wall of the rib between the legs thereof tapering downward outward from the center of the rib to the extremities thereof to permit shifting of the attachment laterally of the nozzle and the end wall grooves when the rib is disposed within the mouth of a suction cleaner.

2,821,734
PAINT BRUSH GUARD
Joseph J. Carrabine, Chicago, Ill.
Application May 4, 1954, Serial No. 427,509
2 Claims. (Cl. 15-248)



1. In a guard and guide device for a paint brush having a handle structure and bristles connected therewith, a support plate pivotally mounted on said handle for lateral swinging movement toward and away from the bristles, means on said support plate for manually swinging the same away from the bristles, means biasing said support plate toward the bristles in opposition to said manual swinging of the support plate, an oval guard plate to accommodate guarding during curvilinear movement of the brush having a narrow end with a small radius of curvature adjacent the bristle ends and its opposite end swingably carried by said support plate for swinging movement in a plane generally parallel to said bristles, said oval plate being a solid plate extending the full length of the bristles, and resilient means yieldably urging the major axis of said oval plate into alignment with the bristles.

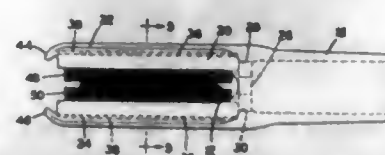
2,821,735
WINDSHIELD WIPER
Warren E. Perkins and Albert G. Perkins,
Grand Island, N. Y.
Application December 24, 1953, Serial No. 400,320
3 Claims. (Cl. 15-255)



1. In a windshield wiper, a swinging arm member, means pivotally supporting said arm member to swing about a fixed axis, a wiper blade member arranged generally parallel with said arm member, one of said members being arranged in advance of the other, a pair of links pivotally connecting said wiper blade member and arm member to swing in a direction lengthwise of said members whereby said wiper blade member is constrained to move lengthwise of said arm member to one position each time said arm member is swung in one direction and

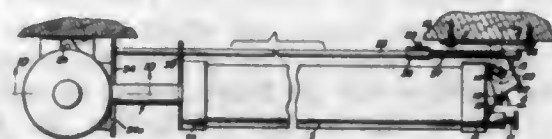
to move lengthwise of said arm member to another position each time said arm member is swung in the opposite direction, and stop means limiting the longitudinal movement of said arm and wiper blade member longitudinally with respect to each other.

2,821,736
SUCTION BRUSH FOR VENETIAN BLINDS
Elmer J. Kasper, Cleveland, Ohio, assignor to Royal Appliance Mfg. Co., Cleveland, Ohio, a corporation of Ohio
Application April 13, 1954, Serial No. 422,815
7 Claims. (Cl. 15-394)



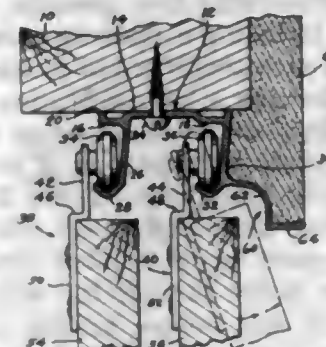
1. A suction cleaning brush for slat blinds comprising a head having a tubular portion at one end and having a bifurcated portion at the other end, the head also having a partition wall separating the bifurcated portion from the tubular portion, the furcations having a longitudinal channel in each of their confronting faces, each furcation having a resilient lipped end portion remote from the tubular portion extending inwardly toward the longitudinal axis of the bifurcated portion and normally overlapping the end of its corresponding channel, brush elements including head and bristle portions, each end portion being movable between overlapping and non-overlapping positions, one of said brush head portions being detachably mounted in each channel, the bristles of each brush element extending towards the other and terminating in spaced relationship with respect to each other, the brush elements being endwise insertable in and removable from said channels by moving the lips outwardly from overlapping positions, the partition wall having a pair of passages therethrough, each passage communicating between one of the channels and the tubular portion, and the greater portions of the sides of each brush element being spaced from the sides of the corresponding channel, whereby the sides of the brush elements are within range of air currents movable through the passages.

2,821,737
PNEUMATIC DOOR CHECK AND CLOSER
William M. Simsch, Murray, Utah
Application December 27, 1954, Serial No. 477,767
4 Claims. (Cl. 16-84)



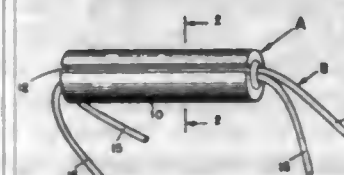
1. In a door check and closer, the combination of pneumatic means adapted for attaching to a door and door frame for closing the door in a dash-pot action, a spring loaded valve for relieving pressure in the pneumatic means, a rod slidably carried by the pneumatic means and including a rear end movable into engagement with a relatively stationary structure upon a predetermined closing movement of the door to slide the rod forwardly, and lever means actuated by the rod and engaging the valve to open the same.

2,821,738
TRACK FOR ROLLING DOOR
William W. McDonald, Tacoma, Wash., assignor to Washington Steel Products, Inc., Tacoma, Wash., a corporation of Washington
Application July 25, 1955, Serial No. 524,248
2 Claims. (Cl. 16-96)



1. A track for rolling doors equipped with wheels, comprising an elongated horizontal base, a track member depending from the base and terminating in an inwardly directed traction section for the wheels of a rolling door, means projecting downwardly from the base and positioned vertically above the traction section for preventing derailment from the traction section of the wheels of a rolling door when the latter is moved in a vertical direction, and a web on the track member adjacent the traction section and extending laterally outward and downward from the latter a distance sufficient to afford clearance for the adjacent outer edge of a rolling door when the door is tilted and moved in an oblique direction during installation and removal thereof, said web having means thereon for supporting plaster and the like whereby the traction section is concealed.

2,821,739
HANDLE REMOVABLY APPLICABLE TO THE BAILS OF CONTAINERS
Frank C. Mohs, Minneapolis, Minn.
Application March 14, 1956, Serial No. 571,562
1 Claim. (Cl. 16-114)



A handle for a bail structure substantially of a given normal thickness, said handle comprising an elongated body having a bore therein and having therein a slot for the sidewise reception of the bail structure, the slot communicating with the bore, both bore and slot extending longitudinally of the body, a cylindrical core of substantially the same length as that of the body, said core having a bail-receiving groove therein extending longitudinally thereof, said core being slightly greater in diameter than the diameter of said bore in said body, the body being circumferentially resilient, the core being fitted into said bore for longitudinal slidable movement and for rotational movement relative to the body, the body being circumferentially expanded by the core, said core being longitudinally slidable along said bore into an extended position relative to said body and back again, said core in such extended position thereof having one of its end portions projecting beyond the corresponding end of the body, said core being rotatable into a preliminary position and into a service position angularly of said body by the fingers of a user applied to the projected end portion of the core, the groove in said core in said preliminary position thereof opening into the slot in the body for

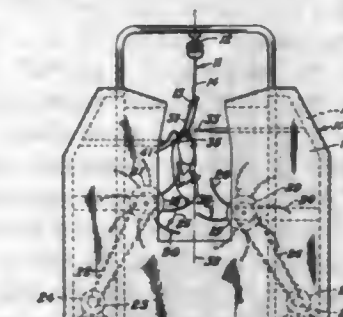
sidewise reception in said groove and for sidewise withdrawal from the groove of the bail structure, via said slot, the groove in said core in said service position thereof being bridged and closed by a wall portion of the bore in said body for confinement between core and body of the bail structure occupying the groove in said core, the depth of said groove in said core being less than the normal thickness of the confined bail structure, said circumferentially resilient body and core co-acting with each other and with a bail structure in the groove of the core and yieldingly gripping said bail structure between said body and said core in said service position of said core relative to said body.

2,821,740
HOUSEWARE ARTICLES AND MEANS TO FACILITATE HANDLING THE SAME
Jacob Heller, White Plains, N. Y., assignor to Heller Hostess-Ware, Inc., White Plains, N. Y., a corporation of New York
Application January 18, 1956, Serial No. 559,918
8 Claims. (Cl. 16-127)



4. A can cover having a top curved wall, said cover being formed at opposite sides of the center thereof with a pair of spaced slots, a ferrule made of hollow sheet metal and comprising a top wall spaced above the top wall of said cover, an annular skirt extending downwardly from the top wall of said ferrule and having lower edges contacting the upper surface of the top wall of the cover, and prongs extending from said annular skirt and passing through said slots and bent at an angle to the skirt and engaging the underside of said top wall on said cover, said skirt being formed with notches extending upwardly from the lower edges thereof, and an annular closed ring passing through said notches and swingably mounted on said ferrule.

2,821,741
POULTRY PICKING METHOD
Delos B. Van Dolah and Irvin R. Lentz, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois
Original application December 17, 1951, Serial No. 261,998, now Patent No. 2,716,257, dated August 30, 1955. Divided and this application October 20, 1954, Serial No. 463,436
6 Claims. (Cl. 17-45)



1. The method of picking fowl with a flexible fingered dual drum-type picking machine to produce a stroking action, said method including the steps of supporting the fowl by the legs and the neck, subjecting one side of the fowl to said stroking action at a given rate, and simultaneously subjecting another side of the fowl to said stroking action at a lesser rate than the stroking action on said one side.

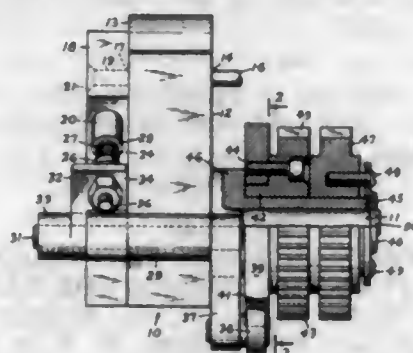
2,821,742

VARYING DENIER PRODUCING PUMPS AND DRIVES

William B. Miller, Rome, Ga., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware

Application December 17, 1952, Serial No. 326,469

11 Claims. (Cl. 18-8)



1. In apparatus for producing artificial filaments having variations in denier along the length thereof by extruding a spinning liquid, means, including a spinning pump, for extruding said spinning liquid, said spinning pump having substantially parallel sides with an inlet and rotating drive shaft on one side and an outlet for spinning liquid on the other side, a cylinder block mounted on the outlet side of said spinning pump, said cylinder block having a delivery passage therethrough directly connected with said outlet for delivering spinning liquid from said outlet, a cylinder communicating with said delivery passage, a reciprocating piston closely fitting in said cylinder along substantially the whole length of said cylinder, the end of said piston reaching substantially to the delivery passage at one extreme of its reciprocating movement, spring means around said piston for urging said piston out of said cylinder, a cam, a wheel for driving said cam, a wheel for driving said drive shaft, said cam and wheel being mounted around said drive shaft with said cam wheel rotating independently of said drive shaft wheel, a tappet arm adapted to engage said piston, a cam follower arm having means adapted to engage said cam, a rocking shaft operatively connecting said tappet arm and said cam follower arm, means for driving said drive shaft wheel at a constant speed and means for driving said cam at a continuously variable speed.

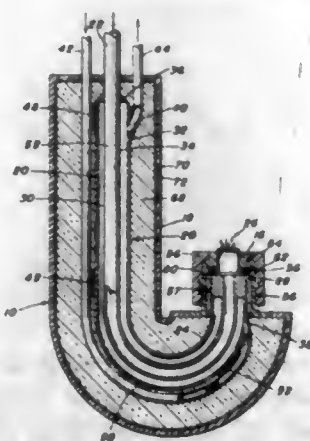
2,821,743

SPINNING DEVICE

Witold R. Kocay, Stamford, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

Application June 16, 1955, Serial No. 515,911

2 Claims. (Cl. 18-8)



1. A spinnerette assembly adapted to be immersed in a cold liquid coagulating bath, said assembly including a spinnerette; a spinnerette header comprising an elongated body member provided with a central duct for the passage

of a viscous spinning solution to a spinnerette, said body member curving vertically upwards at its lower end so as to permit the vertically upward extrusion of said spinning solution and terminating at said lower end in a support for said spinnerette, and the upper and lower ends of said elongated body member being in approximately the same vertical plane; means for detachably mounting said spinnerette, face upwards, upon said support, said means including a male threaded member and a female coupling each comprised of molded, heat-insulating resin; walls defining a hollow heating unit surrounding said central duct, the said unit being rigidly attached and sealed to the main body portion of said central duct; an inlet conduit for introducing a hot fluid medium to said hollow heating unit through an inlet in the lower end of said elongated body member close to its lower extremity and an outlet conduit for withdrawing a hot fluid medium from said hollow heating unit through an outlet in the upper end of said body member close to its upper extremity, said inlet and outlet conduits being positioned closely, and rigidly attached, to the said elongated body member; and a jacket of heat-insulating material comprised of a main layer of foamed insulation, a protective layer of adhesive tape covering said main layer, and an outer layer comprised of synthetic resin which effectively seals the said main and protective layers against the entrance of moisture and, also, adds strength to the unit, said heat-insulating material surrounding said hollow heating unit and the aforesaid inlet and outlet conduits that are adjacent thereto.

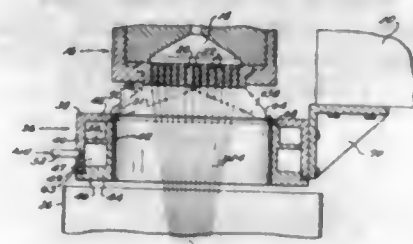
2,821,744

PREVENTION OF DIE-FACING OF THERMOPLASTIC FILAMENTS

James E. Spohn, Norristown, and Floyd E. Wiley, Royersford, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application February 13, 1956, Serial No. 565,027

2 Claims. (Cl. 18-8)



1. An apparatus for melt-spinning a thermoplastic resin into filaments, comprising a die having a plurality of orifices, means for supplying fused resin to said die under pressure to force the fused resin through the orifices to form the resin into an array of filaments, and an annular nozzle disposed concentrically of the face of said die and closely adjacent to the periphery thereof, and surrounding said array of filaments and arranged to direct a jet of air radially inwardly from all sides of said die and upwardly against said die in the region of the emergence of said filaments from said die.

2,821,745

PLASTIC TUBE EXTRUDER

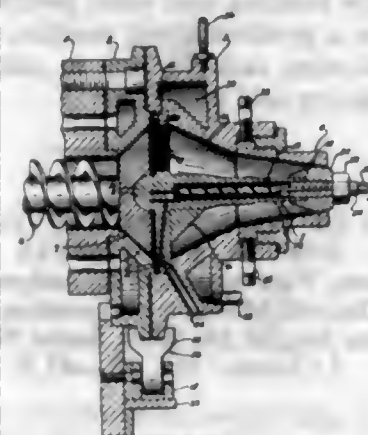
John D. Patton, Walpole, Mass., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application December 11, 1953, Serial No. 397,605

7 Claims. (Cl. 18-14)

4. In an extruder for shaping rubbery material the combination of a barrel having a feed end, a delivery end, a screw rotatably mounted in said barrel and adapted to advance said material from said feed end to said delivery end, a head assembly including a chamber communicating with said barrel attached to the delivery end

thereof and adapted to receive material from said barrel, a shaping orifice in said head, a mandrel positioned in said orifice and in spaced relation to the sides thereof, a strainer plate arranged to partition said barrel from said chamber, said strainer plate provided with a substantially axial hemispherical protrusion on the feed



side thereof, said screw provided with an axially relieved portion in the general configuration of a socket adapted to engage said hemispherical protrusion in journal bearing engagement, and an extension shaft integral with said plate extending through the chamber and supportingly engaging the mandrel.

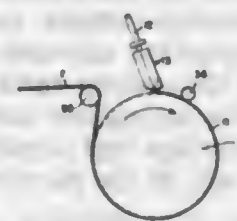
2,821,746

APPARATUS FOR EXTRUDING FILMS

Leo B. Blicher, Jr., Hackensack, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application January 25, 1954, Serial No. 405,710

13 Claims. (Cl. 18-15)



1. An apparatus comprising an extrusion die having a narrow rectangular slot orifice, one lengthwise lip thereof defining such orifice being straight and the other being straight except for two spaced bead-forming slots of small cross-section, a revolvable casing drum beneath said die and adjacent said drum a bead-shaping roll having circumferential spaced bead-shaping grooves, said roll being adapted to press against a film extruded through said orifice and carried by said drum.

11. The process which comprises extruding a film of thermoplastic polymer, in the form of a sheet having one smooth surface and having two spaced beads of small cross-section on the other surface, onto a casting drum and shaping said beads by rotating, in contact with said extruded film, a bead-shaping roll having similarly shaped grooves, said latter grooves contacting the beads on the outer surface of the film.

2,821,747

MOLDING PRESS

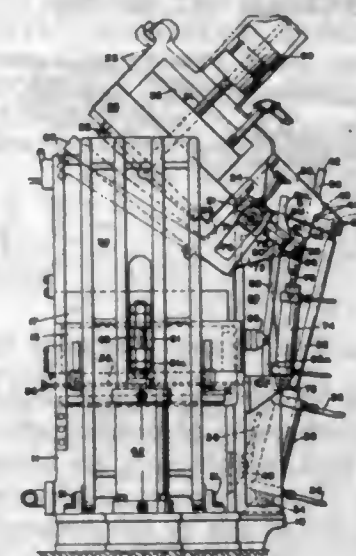
Paul H. Rossiter, Cuyahoga Falls, Ohio, assignor to The Aetna-Standard Engineering Company, Pittsburgh, Pa., a corporation of Ohio

Application July 27, 1955, Serial No. 524,752

7 Claims. (Cl. 18-16)

4. A tilting head press comprising a base, a ram cylinder supported by the base, a ram in the cylinder, a lower platen carried by the ram, an upright, a tilting head supported by the upright, side clamps for releasably securing the head in operative position, fluid pressure cylinder

means for controlling the tilting of said head, an intermediate press plate disposed between said lower platen and said tilting head, means for mounting said intermediate press plate for limited vertical and tilting move-



ment, means for controlling the tilting of said intermediate press plate, power means for separating said intermediate press plate from said lower platen and power means for separating said intermediate press plate from said head.

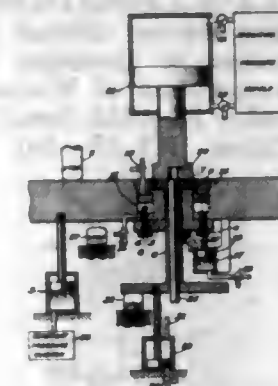
2,821,748

APPARATUS FOR COMPACTING AND EJECTING FLANGED ARTICLES BY SINGLE PLUNGER ACTION

Richard B. Will, Norristown, Pa., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania

Application May 8, 1953, Serial No. 353,830

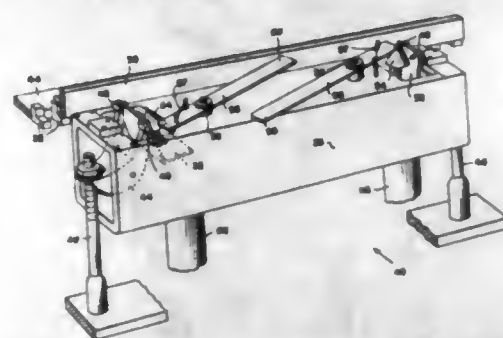
4 Claims. (Cl. 18-16.7)



1. A pressing apparatus for forming from powdered material an article having a body and a flange comprising, in combination, a die platen having an axially extending die cavity, having two portions of different diameter joined by a stationary lateral shoulder against which the flange of the article is to be formed, a plunger extending into the smaller diameter portion of the cavity from the end thereof remote from said shoulder to compress one end of the article body, a plunger receivable in the larger diameter end of the die cavity in opposed relation to said shoulder to compress the entire flange against said shoulder and to compress the other end of the body, means for effecting an axial stripping movement relatively between the die and flange while the underside of the flange is supported by said shoulder until the flange is free within the die cavity thereby preventing the possibility of any bending or shearing forces being induced in the flange during subsequent ejection of the article, and means for ejecting the formed article from the die cavity by moving said plunger which is in the smaller diameter portion of the cavity as an actuating ejection element.

2,821,749 CAPSULE FORMING MACHINE

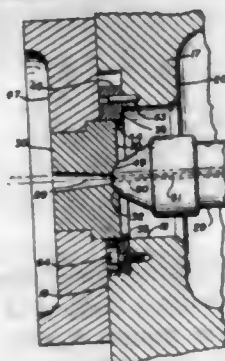
Daniel Figlio, Philadelphia, Pa., assignor to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania
Application July 6, 1955, Serial No. 520,198
5 Claims. (Cl. 18—25)



5. In a machine for forming capsules flat bars carrying pins extending substantially perpendicularly of flat faces thereof and on which capsule parts are formed, elevating means for raising successive pairs of horizontally extending pin bars lying flat in side by side arrangement, means for rotating the bars of pairs of raised pin bars in opposite directions around their longitudinal axes to position the bars on edge with their pins extending in opposite directions, means for receiving and supporting pin bars rotated by said rotating means, and means for longitudinally moving rotated pairs of pin bars from said supporting means for delivery of the bars to next successive receiving means in the machine, said rotating means being mounted on said elevating means and including means for raising adjacent longitudinal edges of pairs of bars carried by said elevating means and means for moving the upper edges of raised pairs of bars horizontally apart to insure movement of said bars into said receiving and supporting means.

2,821,750 NOZZLE LOCATING DEVICE

Donald A. Huelskamp, Mount Gilead, Ohio, assignor, by mesne assignments, to Koehring Company, Milwaukee, Wis., a corporation of Wisconsin
Application November 24, 1954, Serial No. 470,848
5 Claims. (Cl. 18—30)



3. In an injection molding machine, a frame; an injection nozzle mounted on said frame for separable engagement with a mold part; a die head mounted on said frame for holding a mold part in position for engagement by said nozzle; a die ring positionable on said die head in a desired position relative to said nozzle, said die ring including means engageable with a mold part for effecting accurate positioning thereof on said die head relatively to said nozzle; and means for fixedly attaching said die ring to said die head in said desired position.

5. The method of locating a mold part positioning surface on the die head of an injection molding machine with respect to an injection nozzle which extends through a bore in the die head, said method comprising the steps of providing a mold part locating die ring having an inner peripheral surface for effecting mold part positioning, placing said die ring against said face of said die head,

providing a locator having outer surface means engageable with said die ring and having nozzle engaging surface means engageable with a portion of said nozzle, placing said nozzle engaging surface means of said locator into engagement with said nozzle and said outer surface means thereof into engagement with respective portions of said die ring, thereby locating said inner peripheral surface of said die ring in a predetermined position relative to said nozzle, and securing said die ring to said die head and thereafter removing said locator.

2,821,751 METHOD OF FORMING INDENTATION IN INSULATING SHEETS

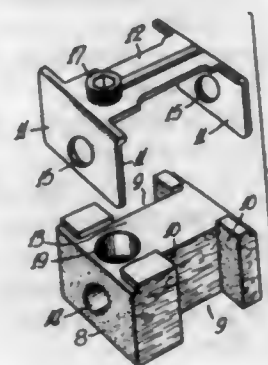
Paul H. Bonness, Wauwatosa, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan
Application August 24, 1954, Serial No. 451,933
2 Claims. (Cl. 18—47.5)



1. In a method of forming a single indentation having a predetermined configuration in a top surface of a flat piece of post-formable resin-impregnated material, the steps comprising: heating the piece to a temperature sufficient to render the piece plastic, forming a plurality of circular openings in the piece extending from the top of the piece through a second surface, forcing the surface thereof through a second surface, forcing the material of the top surface adjacent the openings into the openings toward the second surface thereby enlarging the openings at the top surface and closing the openings in the second surface and simultaneously forming a single indentation out of the plurality of openings.

2,821,752 NEB

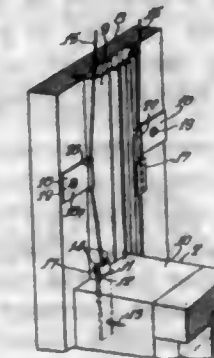
Richard K. Whitehead, Atlanta, Ga.
Application June 2, 1953, Serial No. 359,053
4 Claims. (Cl. 19—134)



1. A neb including a non-metallic core, a housing of generally open U-shaped cross section extending over the top and two sides of said core, said core having a bore therethrough, the legs of said generally open U-shaped housing having apertures registering with said bore, the top of said U-shaped housing having an aperture over and at substantially right angles to said bore, said core having a bore registering with said last mentioned aperture and intersecting said first mentioned bore, whereby a set screw in said last mentioned aperture may engage a cap-bar finger extending through said first bore in said core to hold the neb in place on said finger.

2,821,753 DETACHABLE MECHANISM FOR DOUBLE HUNG WINDOW STRUCTURE

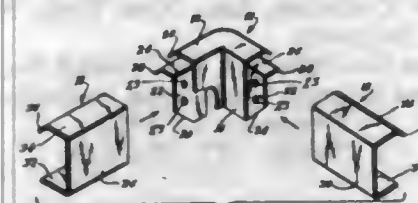
Charles K. Sitterly, Dubuque, Iowa, assignor to Carr, Adams & Collier, Inc., a corporation of Iowa
Application March 7, 1955, Serial No. 492,528
5 Claims. (Cl. 20—52.2)



5. A window construction comprising, in combination, a frame including side jambs, a window sash having stiles, means for slidably mounting the sash in said frame, counterbalance means for said sash secured adjacent to the top of said frame and including an upwardly-urged movable cable extending vertically adjacent said sash, means for releasably engaging said sash to said counterbalance means including a tab member and a hook member engageable in hooked relation with the tab member, one of said members being secured to said sash stile adjacent to the top thereof and the other being secured to the lower end of said cable, the member secured to the sash stile being outwardly deflectable away from the sash stile, and means for disengagement of said tab member from said hook member upon upward movement of the sash and reengagement of said hook member with said tab member on downward movement of the sash including a cable-guide and retaining member in the form of a vertical guide sleeve secured to one of said jambs adjacent to, but away from the path of movement of said cable, said guide and retaining member being formed to selectively receive said cable and deflect it and the member secured to the lower end thereof out of the vertical straight line path of movement and for retaining said cable and member secured thereto immobile after disengagement from said other member secured to the sash stile.

2,821,754 PREFABRICATED INSIDE AND/OR OUTSIDE CORNER INSERT FOR EDGE MOLDING STRIPS

Frank Hillson, Irvington, N. J.
Application January 14, 1955, Serial No. 481,759
5 Claims. (Cl. 20—74)

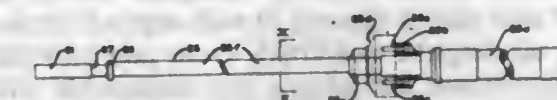


3. A corner insert for molding strips comprising a body portion including angularly related, substantially vertical walls, a substantially horizontal, correspondingly angular top flange on the upper edges of said walls, and tongue elements secured to the respective walls and to the flange and projecting beyond the outer side edges of the walls, for engagement under a pair of molding strips abutted against the flange and said walls, said flange being of sectional formation, said tongue elements being integrally formed upon one section of the flange and the walls being integral with a second section of the flange, the sections of the flange abutting along a line

extending diagonally of the flange, said line substantially intersecting with the apex of the angle defined between said walls.

2,821,755 MOLDING APPARATUS HAVING MANDREL WITH ECCENTRIC PORTION

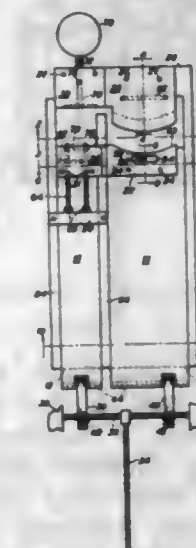
John A. Lasater, Chattanooga, Tenn., assignor to Herman Pneumatic Machine Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 1, 1955, Serial No. 544,219
3 Claims. (Cl. 22—22)



1. Molding apparatus comprising a rotary hollow flask, means for rotating the flask, a freely rotatable undriven slender flexible mandrel adapted to be disposed within the flask and to rotate therein as the flask rotates to compact mold forming material against the inside of the flask and means for relatively adjusting at will the distance between the axis of the flask and the axis of the mandrel, the mandrel having an eccentric portion which strikes the mold forming material with successive blows as the mandrel and flask rotate and the mandrel moves relatively to the flask away from the axis of the flask, such striking of the eccentric portion of the mandrel against the mold forming material compacting the mold forming material against the inside of the flask and rotating the mandrel, the mandrel intermediate blows against the mold forming material being substantially relieved of bending stress, whereby a mold of small diameter may be formed using a slender flexible mandrel with the mold being substantially free of distortion which would result from bending of the mandrel.

2,821,756 DIE CASTING APPARATUS

Harry E. Ponell, Logansport, Ind.
Application October 14, 1954, Serial No. 462,220
8 Claims. (Cl. 22—58)



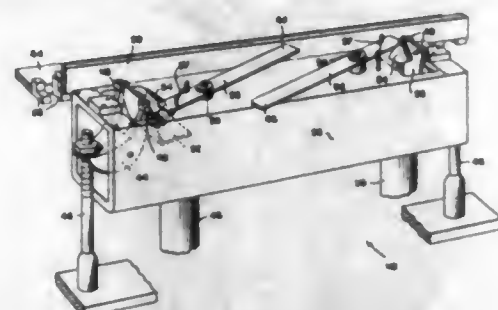
1. A die casting apparatus for making wheel balance weights having mounting clips, said apparatus comprising in combination: a supporting bed, two distinct tables on said bed, a die carrier reciprocable on one of said tables, a feeder block carrier reciprocable on the other of said tables, a plurality of rails for guiding said carriers, a movable die fastened to said die carrier, said movable die being provided with a die face having a recess formed therein, a stationary die provided with a recess in a portion thereof, said stationary and movable dies having engageable surfaces which surround a die cavity formed by the recesses in said fixed and movable dies, a feeder block mounted on said feeder block carrier and being

2,821,749

CAPSULE FORMING MACHINE

Daniel Figlio, Philadelphia, Pa., assignor to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

Application July 6, 1955, Serial No. 520,198
5 Claims. (Cl. 18-25)



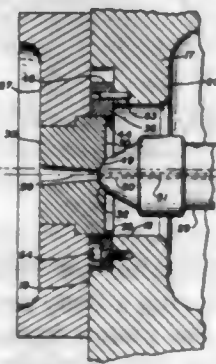
5. In a machine for forming capsules flat bars carrying pins extending substantially perpendicularly of flat faces thereof and on which capsule parts are formed, elevating means for raising successive pairs of horizontally extending pin bars lying flat in side by side arrangement, means for rotating the bars of pairs of raised pin bars in opposite directions around their longitudinal axes to position the bars on edge with their pins extending in opposite directions, means for receiving and supporting pin bars rotated by said rotating means, and means for longitudinally moving rotated pairs of pin bars from said supporting means for delivery of the bars to next successive receiving means in the machine, said rotating means being mounted on said elevating means and including means for raising adjacent longitudinal edges of pairs of bars carried by said elevating means and means for moving the upper edges of raised pairs of bars horizontally apart to insure movement of said bars into said receiving and supporting means.

2,821,750

NOZZLE LOCATING DEVICE

Donald A. Huelskamp, Mount Gilead, Ohio, assignor, by mesne assignments, to Koehring Company, Milwaukee, Wis., a corporation of Wisconsin

Application November 24, 1954, Serial No. 470,848
5 Claims. (Cl. 18-30)



3. In an injection molding machine, a frame; an injection nozzle mounted on said frame for separable engagement with a mold part; a die head mounted on said frame for holding a mold part in position for engagement by said nozzle; a die ring positionable on said die head in a desired position relative to said nozzle, said die ring including means engageable with a mold part for effecting accurate positioning thereof on said die head relatively to said nozzle; and means for fixedly attaching said die ring to said die head in said desired position.

5. The method of locating a mold part positioning surface on the die head of an injection molding machine with respect to an injection nozzle which extends through a bore in the die head, said method comprising the steps of providing a mold part locating die ring having an inner peripheral surface for effecting mold part positioning, placing said die ring against said face of said die head,

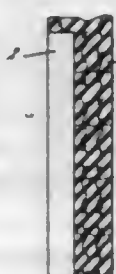
providing a locator having outer surface means engageable with said die ring and having nozzle engaging surface means engageable with a portion of said nozzle, placing said nozzle engaging surface means of said locator into engagement with said nozzle and said outer surface means thereof into engagement with respective portions of said die ring, thereby locating said inner peripheral surface of said die ring in a predetermined position relative to said nozzle, and securing said die ring to said die head and thereafter removing said locator.

2,821,751

METHOD OF FORMING INDENTATION IN INSULATING SHEETS

Paul H. Bonness, Wauwatosa, Wis., assignor to Square D Company, Detroit, Mich., a corporation of Michigan

Application August 24, 1954, Serial No. 451,933
2 Claims. (Cl. 18-47.5)

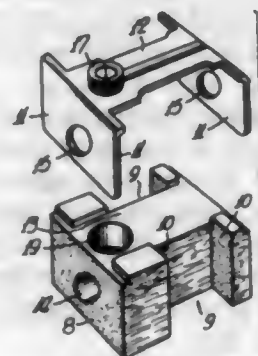


1. In a method of forming a single indentation having a predetermined configuration in a top surface of a flat piece of post-formable resin-impregnated material, the steps comprising: heating the piece to a temperature sufficient to render the piece plastic, forming a plurality of circular openings in the piece extending from the top surface thereof through a second surface, forcing the material of the top surface adjacent the openings into the openings toward the second surface thereby enlarging the openings at the top surface and closing the openings in the second surface and simultaneously forming a single indentation out of the plurality of openings.

2,821,752

NEB

Richard K. Whitehead, Atlanta, Ga.
Application June 2, 1953, Serial No. 359,053
4 Claims. (Cl. 19-134)

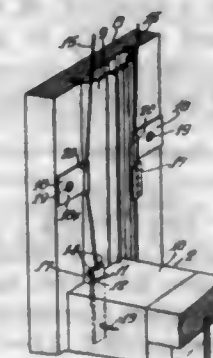


1. A neb including a non-metallic core, a housing of generally open U-shaped cross section extending over the top and two sides of said core, said core having a bore therethrough, the legs of said generally open U-shaped housing having apertures registering with said bore, the top of said U-shaped housing having an aperture over and at substantially right angles to said bore, said core having a bore registering with said last mentioned aperture and intersecting said first mentioned bore, whereby a set screw in said last mentioned aperture may engage a cap-bar finger extending through said first bore in said core to hold the neb in place on said finger.

2,821,753

DETACHABLE MECHANISM FOR DOUBLE HUNG WINDOW STRUCTURE

Charles K. Sitterly, Dubuque, Iowa, assignor to Carr, Adams & Collier, Inc., a corporation of Iowa
Application March 7, 1955, Serial No. 492,528
5 Claims. (Cl. 20-52.2)



5. A window construction comprising, in combination, a frame including side jambs, a window sash having stiles, means for slidably mounting the sash in said frame, counterbalance means for said sash secured adjacent to the top of said frame and including an upwardly-urged movable cable extending vertically adjacent said sash, means for releasably engaging said sash to said counterbalance means including a tab member and a hook member engageable in hooked relation with the tab member, one of said members being secured to said sash stile adjacent to the top thereof and the other being secured to the lower end of said cable, the member secured to the sash stile being outwardly deflectable away from the sash stile, and means for disengagement of said tab member from said hook member upon upward movement of the sash and reengagement of said hook member with said tab member on downward movement of the sash including a cable-guide and retaining member in the form of a vertical guide sleeve secured to one of said jambs adjacent to, but away from the path of movement of said cable, said guide and retaining member being formed to selectively receive said cable and deflect it and the member secured to the lower end thereof out of the vertical straight line path of movement and for retaining said cable and member secured thereto immobile after disengagement from said other member secured to the sash stile.

2,821,754

PREFABRICATED INSIDE AND/OR OUTSIDE CORNER INSERT FOR EDGE MOLDING STRIPS

Frank Hillson, Irvington, N. J.
Application January 14, 1955, Serial No. 481,759
5 Claims. (Cl. 20-74)



3. A corner insert for molding strips comprising a body portion including angularly related, substantially vertical walls, a substantially horizontal, correspondingly angular top flange on the upper edges of said walls, and tongue elements secured to the respective walls and to the flange and projecting beyond the outer side edges of the walls, for engagement under a pair of molding strips abutted against the flange and said walls, said flange being of sectional formation, said tongue elements being integrally formed upon one section of the flange and the walls being integral with a second section of the flange, the sections of the flange abutting along a line

extending diagonally of the flange, said line substantially intersecting with the apex of the angle defined between said walls.

2,821,755

MOLDING APPARATUS HAVING MANDREL WITH ECCENTRIC PORTION

John A. Lasater, Chattanooga, Tenn., assignor to Herman Pneumatic Machine Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application November 1, 1955, Serial No. 544,219
3 Claims. (Cl. 22-22)

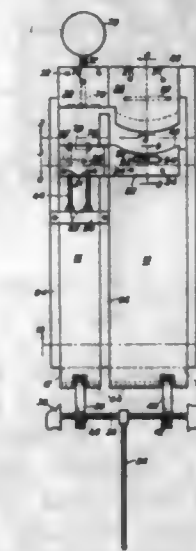


1. Molding apparatus comprising a rotary hollow flask, means for rotating the flask, a freely rotatable undriven slender flexible mandrel adapted to be disposed within the flask and to rotate therein as the flask rotates to compact mold forming material against the inside of the flask and means for relatively adjusting at will the distance between the axis of the flask and the axis of the mandrel, the mandrel having an eccentric portion which strikes the mold forming material with successive blows as the mandrel and flask rotate and the mandrel moves relatively to the flask away from the axis of the flask, such striking of the eccentric portion of the mandrel against the mold forming material compacting the mold forming material against the inside of the flask and rotating the mandrel, the mandrel intermediate blows against the mold forming material being substantially relieved of bending stress, whereby a mold of small diameter may be formed using a slender flexible mandrel with the mold being substantially free of distortion which would result from bending of the mandrel.

2,821,756

DIE CASTING APPARATUS

Harry E. Powell, Logansport, Ind.
Application October 14, 1954, Serial No. 462,220
8 Claims. (Cl. 22-58)



1. A die casting apparatus for making wheel balance weights having mounting clips, said apparatus comprising in combination: a supporting bed, two distinct tables on said bed, a die carrier reciprocable on one of said tables, a feeder block carrier reciprocable on the other of said tables, a plurality of rails for guiding said carriers, a movable die fastened to said die carrier, said movable die being provided with a die face having a recess formed therein, a stationary die provided with a recess in a portion thereof, said stationary and movable dies having engageable surfaces which surround a die cavity formed by the recesses in said fixed and movable dies, a feeder block mounted on said feeder block carrier and being

reciprocable against and along the side of the movable die and having a recess formed therein, a stationary companion feeder block which is engageable with said feeder block to define a feeder chamber therebetween, means for injecting molten metal into said feeder chamber, means controlling said metal-injecting means responsively to positioning of said carrier members, a passage between said die cavity and feeder chamber, a stepped connection between said movable die and feeder block, means for cooling the metal in the die cavity and feeder chamber, means for withdrawing the movable die prior to said feeder block whereby solidified metal in the vicinity of said gate is sheared at said stepped connection, means for ejecting the cast article from said movable die, said ejection means including a pin engageable with the mounting clip of the cast article, and a lever carried by said die carrier which is cammed upwardly to force the pin against the clip of the cast article as the die carrier is withdrawn from the stationary die, means for dislodging the sprue from said feeder chamber, said means being inclusive of knock-out pins which are movable relatively to said feeder block while the feeder block is withdrawn from the stationary companion feeder block, and means for reciprocating said carrier members.

2,821,757

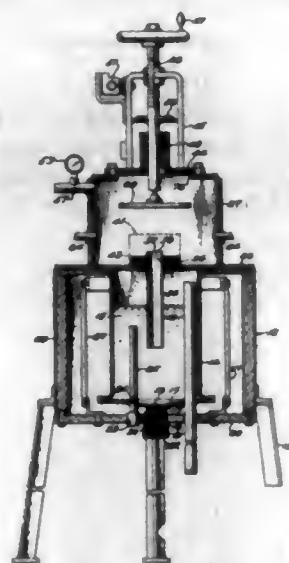
APPARATUS FOR THE PRECISION CASTING OF SOFT METAL MOLDS

Edson L. Wood, Springfield, Mass., assignor to the United States of America as represented by the Secretary of the Army

Application July 17, 1951, Serial No. 237,271

3 Claims. (Cl. 22-69)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In apparatus for sectionally casting soft metal molds against a master pattern in a flask, the combination of a heating chamber, a receptacle depending from the top of said heating chamber and adapted to hold a quantity of liquefied soft metal alloy, a plurality of electrical heating elements vertically disposed in radial equispaced relation to surround said receptacle and maintain the interior thereof at a substantially uniform temperature several degrees above the solidus of the liquefied metal, a casting chamber mounted directly on the top of said heating chamber, a nozzle secured in the top of said heating chamber in communication with the liquefied metal and with said casting chamber, means for seating the flask in said casting chamber over the projecting end of said nozzle, a high vacuum line extending into said receptacle and said casting chamber to evacuate the atmosphere simultaneously therefrom, clamp means for depressing the flask to seal the evacuated interior thereof from said casting chamber, a high pressure line extending vertically through the liquefied

metal to direct the high velocity air passing therethrough against an interior wall surface of said receptacle whereby the subsequent diffusion of the air imparts a high degree of pressure uniformly along the entire upper surface of the liquefied metal, and valve means for closing said vacuum line and simultaneously opening said high pressure line to force a quantity of liquefied metal into the flask with sufficient rapidity to prevent any solidification thereof during passage through the portion of said nozzle extending into said casting chamber.

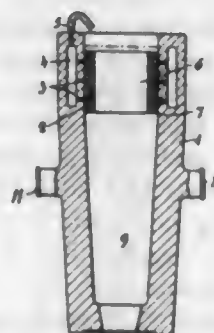
2,821,758
HOT TOPS

Enn Vallak, Geneva, Switzerland

Application November 21, 1956, Serial No. 623,629

Claims priority, application Germany January 25, 1956

13 Claims. (Cl. 22-147)



11. A hot top, for use in connection with a chill mold for casting materials and adapted to be disposed near the upper portion of said chill mold during the casting, said hot top being composed of combustible material including from 50 to 100 percent pulverized coke and from 50 to 0 percent saw dust, respectively, and a binding agent and having a through porosity of from 25 to 60 percent by volume.

12. A hot top as claimed in claim 11, said binding agent comprising material taken from a group consisting of sulphite lye, sulphite lye and water in equal proportions by volume, water glass 38° Beaumé, and molasses.

13. A hot top as claimed in claim 11, and a protective coating comprising a mixture of aluminum and iron oxide powder in sulphite lye.

2,821,759

METHOD OF MANUFACTURING PERMANENT MAGNETS FROM AN IRON-BASE ALLOY CONTAINING NI, AL, AND CO AS PRINCIPAL ELEMENTS

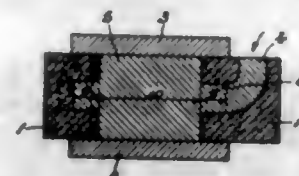
Adolf Johannes Jacobus Koch, Eduard Maria Henricus Lips, and Krijn Jacobus de Vos, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application December 11, 1953, Serial No. 397,658

Claims priority, application Netherlands

December 17, 1952

3 Claims. (Cl. 22-213)



1. In a method of manufacturing a magnetically anisotropic magnet from an iron base alloy containing as principal elements Ni, Al, and Co. the steps comprising introducing said alloy in a molten state into a mold of a heat retardant material having a central annular recessed portion, said molten alloy being introduced into the mold through an aperture connecting directly with said annular recessed portion, placing cooling plates in

thermal contact with both ends of said molten alloy to extract heat therefrom in one direction while heat loss is retarded in a transverse direction by an annular ring of metal formed in said recessed portion, whereby a casting is obtained after cooling which contains crystals predominantly oriented in the [100] direction.

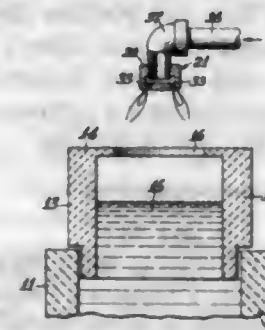
2,821,760

FLAME HEATING OF METAL CASTINGS TO REDUCE SHRINKAGE CAVITIES

Edward F. Kurzinski, Cranford, N. J., assignor to Union Carbide Corporation, a corporation of New York

Application December 24, 1956, Serial No. 630,419

3 Claims. (Cl. 22-216)



1. In the process of treating a freshly poured molten metal casting to keep the top of the casting molten while said casting solidifies from the bottom to the top thereof to reduce the size of the shrinkage cavity therein, wherein an oxy-fuel flame is directed against the top surface of said casting during such cooling, the improvement which comprises in combination therewith positioning a burner nozzle above the top surface of said casting and vertically spaced therefrom a distance such that overheating of the nozzle is avoided, and applying from said burner nozzle against said top surface an oxy-fuel gas mixture having an oxygen to fuel gas ratio of from 1.3:1 to 1.8:1 and a velocity of from 200 feet per second to 1000 feet per second, to burn said mixture with a stable blow-off flame by continuous ignition thereof by the molten casting.

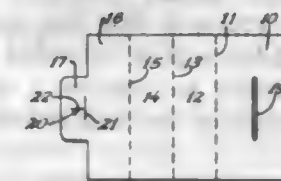
2,821,761

PAPER BOARD LOCKS

Harold S. Meyers, Minneapolis, Minn., assignor to Waldorf Paper Products Company, Ramsey County, Minn., a corporation of Minnesota

Application February 9, 1955, Serial No. 487,155

6 Claims. (Cl. 24-73)



1. A lock for anchoring a tab extending at right angles to a panel, the structure including a tab, and a panel having a slot therein through which the tab may extend, said tab having a generally T-shaped slit arranged with the cross bar portion of the slit extending along a surface of the panel, said slit defining two triangular portions which may be flexed out of the plane of the tab.

2,821,762

CLAMPS

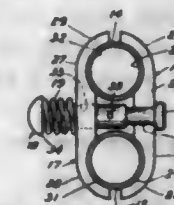
George W. Foote, Reno, Nev.

Application June 21, 1955, Serial No. 516,970

1 Claim. (Cl. 24-81)

In a device for holding spaced supports, and the like, in fixed relation, the combination of a first clamping member having jaw portions at each end thereof shaped to engage said supports, a second clamping member in opposed

relation to said first clamping member having second jaw portions at each end thereof and shaped to engage said spaced supports at positions in opposition to said first jaw portions, said opposed jaw portions being in spaced relation when engaging said members, one of said members having an opening between said jaw portions, the other of said members having a slot between said jaw portions opening on one edge to define spaced shoulders, a pin shaped to extend through said opening and said slot, said pin having an enlarged head at one end shaped to be manipulated, and having a reduced portion at its opposite



end shaped to be received in said slot and to define an abutment to engage said shoulders defined by said slot on said other member to hold said members in assembled relation, and spring means acting between said pin and one member and said shoulders to apply a force between said opposed jaw portions when said members engage said supports whereby said spaced supports are positively held in fixed relation, said spring means being yieldable upon application of manual force to said pin whereby said other member may be manually removed from association with said pin without the use of tools upon release of pressure between said clamping members.

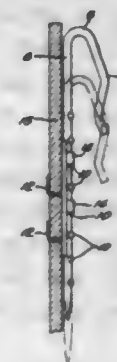
2,821,763

DRAPERY SUPPORT

Edward W. Dances, Newport Beach, Calif.

Application August 18, 1955, Serial No. 529,270

3 Claims. (Cl. 24-86)



1. A drapery support comprising a hook having an elongated shank, a plurality of spaced detents on one side of said shank, a plate having means for attachment to a drapery, and a plurality of vertically spaced and aligned bridges on said plate having each a major dimension and a minor dimension, said bridges permitting passage of said shank therethrough when said detents are turned in the direction of said major dimension and preventing passage of said shank when said detents are turned in the direction of said minor dimension.

2,821,764

PLASTIC GROMMETS AND A METHOD FOR FORMING THEM

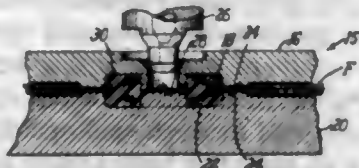
James F. Leahy, Beverly, and Charles B. Noonan, Newburyport, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application March 11, 1954, Serial No. 415,654

4 Claims. (Cl. 24-142)

1. An article of manufacture comprising a plastic grommet formed on two or more layers of flexible sheet material, said grommet comprising two annular sections one

on each side of said sheet material, said sections being interconnected by an integrally formed barrel and by integrally formed legs surrounding and adjacent to said barrel, said barrel and legs passing through holes in said



sheet material, at least one layer of said sheet material being deflected toward the outer surface of one of said annular sections and another layer of material being deflected toward the outer surface of the other of said annular sections.

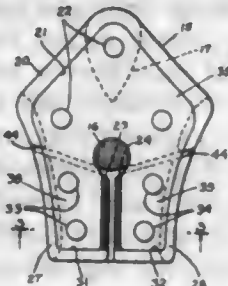
2,821,765

NON-JAMMING SLIDER

Louis H. Morin, Bronx, N. Y.

Application December 23, 1952, Serial No. 327,496

7 Claims. (Cl. 24-205.15)



1. A slider for separable fastener stringers comprising a main slider body having a wide end and a narrow end, said body comprising a flanged long wall joined to a short wall at the wide end of the slider, said short wall having a recessed outer surface, a plurality of rivet members extending outwardly with respect to the short wall and disposed within said recess, two wall parts forming continuations of said short wall, said parts and the short wall being flanged to help define channels in the slider, outer surfaces of the wall parts being recessed and having projecting integral rivet members, a spring plate arranged in the recessed portions of the short wall and wall parts, the plate being apertured to receive said rivet members for securing the plate to said parts and short wall, said spring plate being divided to form spring arms on which said parts are mounted, and said spring arms enabling said parts to move with respect to said main slider body.

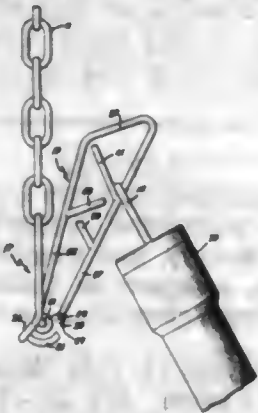
2,821,766

SAFETY CATCH

Jack A. Moosman, Glendale, Calif., assignor, by mesne assignments, to Johnston Testers, Inc., Houston, Tex., a corporation of Texas

Application May 7, 1953, Serial No. 353,642

1 Claim. (Cl. 24-242)



A safety catch of the class described comprising, an elongated continuous loop adapted to be connected to a

chain or the like at one end and having an angularly disposed end portion at the other end, a pivot bar secured to opposite side portions of said angularly disposed end portion, an arcuate channel having said pivot bar as its center of curvature secured at one end thereof to said angularly disposed end portion, a discontinuous loop adapted to be releasably connected to an eye or the like and having first and second end portions separated to provide a gap, a pin on said first end portion for releasable engagement in said arcuate channel, means pivotally securing said second end portion to said pivot bar for pivotal movement of said discontinuous loop between a closed position with said pin engaged in said arcuate channel and a released position with said pin and said first end portion spaced from the other end of said arcuate channel, said first end portion abutting said angularly disposed end portion in said closed position to limit travel of said pin in said arcuate channel, and means on said discontinuous loop defining a tortuous path to prevent accidental release of the eye or the like.

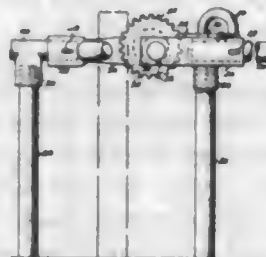
2,821,767

PIPE LIFTING HOLDER

Asa A. Payne, Chippewa Falls, Wis.

Application November 3, 1954, Serial No. 466,597

2 Claims. (Cl. 24-249)



1. In a pipe holder, the combination which comprises a one piece hook-like body having a longitudinally positioned socket extended from one end portion and having a transversely disposed stud extended from the opposite end, a roller having an annular groove in the peripheral surface rotatably mounted and eccentrically positioned on said stud and said stud being positioned whereby the roller urges a pipe extended within the bight of the hook-like body against the inner surface of the hook-like portion thereof, a hub having a handle receiving socket in the extended end pivotally mounted on said stud, said hub having a threaded socket extended from the lower surface adapted to receive a first leg, and a leg attachment having a threaded socket extended from the lower surface thereof adapted to receive a second leg, and adapted to be mounted in the socket extended from the hook-like body.

2,821,768

CLAMPING BAND FOR PIPE JOINTS

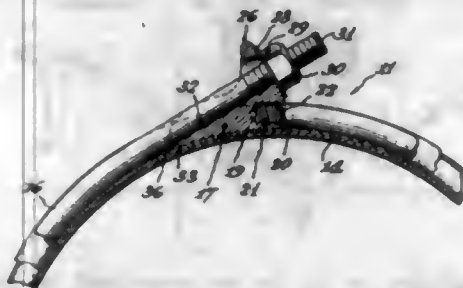
Joe W. Beckham and Ray Cyrus Yeoman, Lufkin, Tex., assignors to Texas Foundries, Inc., Lufkin, Tex., a corporation of Texas

Application December 13, 1954, Serial No. 474,958

7 Claims. (Cl. 24-276)

1. A shoe for joining the ends of a rod strap adapted to bind corrugated pipe joints, said shoe comprising a block having a curved bottom surface adapted to fit snugly in the valleys of the pipe corrugations, said bottom surface being convexly curved transversely and concavely curved longitudinally, said block having an opening therein extending longitudinally of said block at one end thereof for receiving one end of the rod strap, means on said block in said opening for retaining the one end of the strap, an upwardly extending lug on said block immediately overlying and vertically aligned with said open-

ing, said lug having an aperture therethrough extending generally longitudinally of said block and inclined downwardly from said one end toward the opposite end of said block for receiving the opposite end of the rod strap, said aperture being vertically aligned with said opening, said lug having a flat inclined abutment surface disposed around said aperture at said one end of said block, said



block having an upwardly facing concave surface disposed behind said lug and sloping downwardly therefrom toward said opposite end of said block to support the rod strap adjacent said opposite end thereof, and a pair of upwardly projecting flanges on said block extending longitudinally thereof on opposite sides of said upwardly facing surface to retain the rod strap thereon in longitudinal alignment with said block.

2,821,769

TUBULAR KNITTED FABRIC DRYER

Manuel G. Fernandez, Havana, Cuba

Application November 1, 1955, Serial No. 544,308

1 Claim. (Cl. 26-56)



A dryer for tubular fabric comprising a vertical elongated tubular member having an open upper end and an insulated upper portion, a platform on the lower end of the tubular member for supporting a quantity of tubular fabrics adapted to be pulled upwardly around said tubular member, fan means communicating with the lower end of the tubular member and forcing a column of cool air under pressure upwardly through the tubular member to pass out of its upper end, a heating coil in the upper insulated portion of the tubular member for heating the column of air in said insulated portion prior to its passage out of said upper end, vertically spaced discharge vents in said tubular member below said insulated portion for discharging air from said column before it is heated out of the tubular member against fabrics to initially dry the same and prevent the fabrics from engaging said tubular member, and an inverted conical deflector on said tubular member above its upper end deflecting heated air issuing from said upper end downwardly between the tubular member and fabrics to further dry the fabrics.

2,821,770

DOUBLE-ACTION CLOSURE LATCH FOR DIVIDED LID CASKETS

Leslie G. Gruber, Memphis, Tenn.

Application July 13, 1953, Serial No. 367,523

17 Claims. (Cl. 27-17)



12. In a casket, a casket body, a closure frame hinged to the casket body, a partial closure mounted on said frame, a second partial closure hinged to said frame, and cooperating latching means carried by said frame, said body and said second closure, part of said latching means being longitudinally shiftable relative to the remainder of said latching means, said latching means having an intermediate position in which said frame is latched to said body, one end position in which said second closure is latched to said frame and said frame is unlatched from said body and another end position in which said second closure is latched to said frame and said frame is latched to said body, the shiftable part of said latching means being shifted to said one end position in one direction beyond said intermediate position and being shifted to the other end position in the opposite direction beyond said intermediate position.

2,821,771

METHOD OF MAKING A PAPERMAKER'S FELT

John D. Skeer, Albany, N. Y., assignor to F. C. Huyck & Sons, Rensselaer, N. Y., a corporation of New York

No Drawing. Application April 5, 1957

Serial No. 650,832

4 Claims. (Cl. 28-72)

1. The method of making papermakers' wet felts from yarn composed substantially entirely of thermoplastic synthetic resin fibers having crimps which are stable below a predetermined temperature and are capable of taking and retaining a set in addition to said crimps at a temperature below said predetermined temperature and above the temperatures ordinarily encountered in using papermaker's wet felt, comprising the steps of weaving a fabric tightly from said yarn, immersing said tightly woven fabric in hot water to shrink the same transversely of the felt, applying tension to said tightly woven fabric during said shrinking step to prevent shrinkage of the same longitudinally of the felt, and drying and heating the shrunken fabric under longitudinal tension and at a temperature below said predetermined temperature and above the temperatures ordinarily encountered in using papermaker's wet felt to set the fibers in said shrunken fabric in the positions and conformations existing during said drying and heating step while retaining substantially all of the original crimps therein.

2,821,772

METHOD OF MAKING FLUID-TIGHT HEAT EXCHANGE TUBES

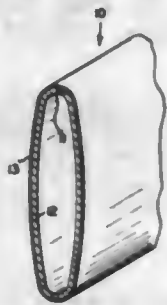
Halton A. Billetter, Youngstown, Ohio, assignor, by mesne assignments, to Sawhill Tubular Products, Inc., a corporation of Pennsylvania

Application March 29, 1952, Serial No. 279,422

1 Claim. (Cl. 29-157.3)

The method of making a fluid-tight heat exchange tube comprising the steps of providing a strip of ductile nonferrous metal having a fusible coating integrally bonded to one side thereof, forming said strip into a generally tubular shape with the abutting edge portions thereof bent outwardly of the main body of the tube and with said coating on the exterior wall of said tube, homogene-

ously bonding the abutting uncoated edge portions of said strip to form a fluid-tight tube, bending said outwardly bent portions into substantially flush relation with the



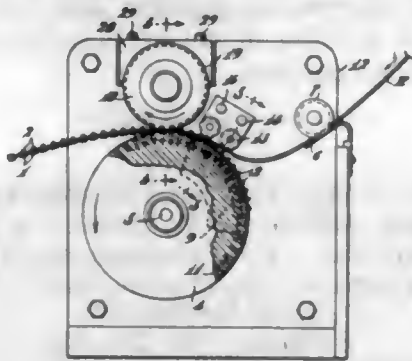
outer contours of said tube, and heating said tube sufficiently to fuse said coating to provide a layer thereof about said exterior wall.

2,821,773

MACHINE FOR INSERTING PINS INTO A PERFORATED RIBBON

Harold Peasgood, Slough, England, assignor to Technicolor Corporation, Hollywood, Calif., a corporation of Maine

Application November 22, 1955, Serial No. 548,514
4 Claims. (Cl. 29-211)



1. For inserting into a ribbon having a row of openings, pins having shanks projecting through the openings with heads seating on one side of the ribbon around the openings, a machine comprising a support, movably mounted on the support a carrier having a row of seats for supporting said pins with their heads bearing on the seats and their shanks projecting therefrom, the spacing of the seats approximating that of the openings in the ribbon, means for detachably holding the pins on their seats, said row extending in a predetermined direction, means for moving the carrier in said direction, means for feeding the ribbon to the carrier synchronously with the carrier so that said shanks enter said openings sequentially, and means on said support for pressing the ribbon toward the carrier to seat the ribbon against said heads.

2,821,774

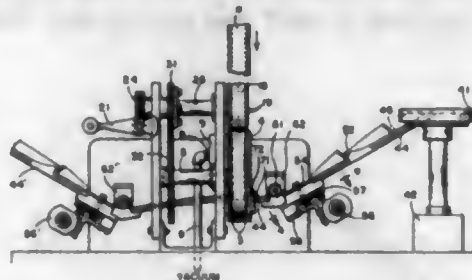
MACHINE FOR INSERTING PINS INTO A PERFORATED RIBBON

John H. Francis, Hounslow, England, assignor to Technicolor Corporation, Hollywood, Calif., a corporation of Maine

Application November 22, 1955, Serial No. 548,515
7 Claims. (Cl. 29-211)

1. For inserting into a ribbon having a row of openings pins having shanks projecting through the openings with heads seating on one side of the ribbon around the openings, a machine comprising a support, journaled on the support a rotor having on its periphery a circumferential row of seats for supporting said pins with their heads bearing on the seats and their shanks projecting radially, the circumferential spacing of the seats approximating that of the openings in the ribbon, journaled on said support a second rotor for feeding pins to said seats, the two rotors having parallel axes and

tangential peripheries and equal peripheral speeds in the same direction at the point of tangency, the periphery of the second rotor having a circumferential row of recesses spaced substantially the same as the seats and shaped to receive the shanks of pins with the pin heads



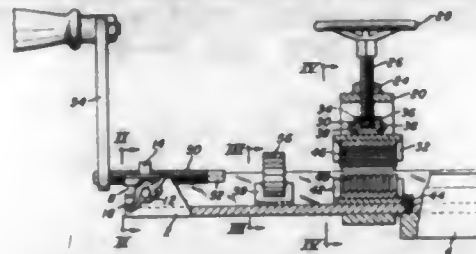
directed radially so as to be presented to said seats at said point, means for detachably holding the pins on said seats, means for feeding the ribbon to the first rotor tangentially so that said shanks enter said openings, and means for pressing the ribbon toward the first rotor to seat the ribbon against said heads.

2,821,775

APPARATUS FOR INSERTING CONNECTING NIPPLES INTO HOSE

Jerry Pavelka, Gary, Ind., assignor to United States Steel Corporation, a corporation of New Jersey

Application March 29, 1955, Serial No. 497,718
3 Claims. (Cl. 29-237)



1. Apparatus for inserting a connecting nipple into hose having a ferrule fitted on one end which comprises an elongated V-shape bed, a vise mounted on said bed adjacent one end thereof, said bed having a longitudinal slot in each leg thereof at its end remote from said vise, a bearing having a pair of spaced studs projecting angularly therefrom mounted on said remote end of said bed with said studs fitting into said slots and projecting from said bed, means on said studs for detachably retaining said bearing on said bed in alignment with said vise, a feed shaft having a wrench-engaging end threaded through and supported by said bearing with its wrench-engaging end extending toward said vise, means attached to said feed shaft for rotating the same, and a wrench ring mounted on said bed between and aligned with said vise and said bearing, said wrench ring being fixed against rotational movement and adapted to rigidly engage said ferrule.

2,821,776

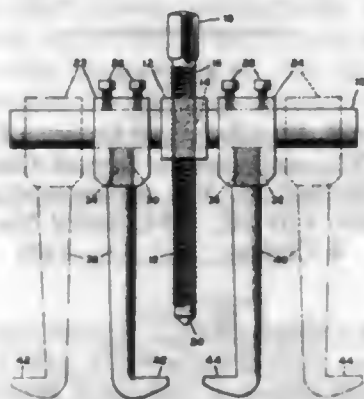
UNIVERSALLY ADJUSTABLE MECHANICAL PULLER

Harold E. Keister, Rockford, Ill.

Application June 7, 1954, Serial No. 434,810
1 Claim. (Cl. 29-259)

A mechanical puller comprising a cylindrical cross-bar, a screw-threaded bore centrally located in said bar, said bore extending through said bar substantially perpendicularly of the longitudinal axis of said bar, a screw-threaded rod adjustably positioned in said bore, said rod being provided with wrench-gripping means at one end with abutment means at the opposite end, a pair of brackets having cylindrical bores extending therethrough, said last mentioned bores encompassing said bar in slid-

able and rotatable engagements, means to lock said brackets in individually adjusted positions on said bar, and a gripping means releasably connected to each of said



brackets and extending generally perpendicularly to the longitudinal axis of said bar, said gripping means being adjustable to vary the distance to which it extends from its respective bracket.

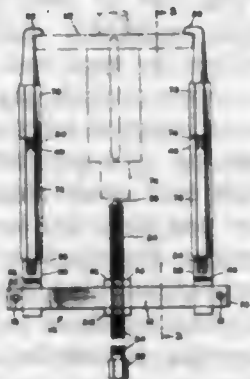
2,821,777

SLIDING CENTER MECHANICAL PULLER

Harold E. Keister, Rockford, Ill.

Application June 7, 1954, Serial No. 434,811

1 Claim. (Cl. 29—259)



A mechanical puller comprising an elongated cross-beam consisting of a pair of parallel bars, a spacing abutment at each end of said bars and a securing bolt extending transversely of said bars through each of said spacing abutments holding said bars in secure, spaced apart rigid relationship, a pair of gripping members adjustably slidable on said cross-beam between said spaced apart bars thereof intermediate said spacing abutments, said gripping members each including an H-shaped block having its web fitting snugly yet slidably between said bars and its flanges riding slidably on the top and bottom of said bars each said H block having an upwardly extending threaded bore portion, a connecting arm having a threaded male end complementary to said threaded bore of said H block at one end and a similar threaded bore at its other end, and a hook member having a similar threaded male end, and a third H-shaped block slidably riding between and on said bars intermediate said first two H-shaped blocks, said third block having a threaded opening there-through, and a threaded pressure member extending through said opening, said pressure member extending in the same longitudinal direction as said gripping members.

2,821,778

FIXTURE FOR ASSEMBLING BLOWER WHEELS

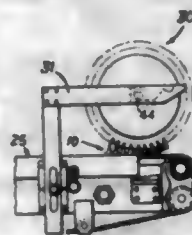
Carl E. Wilken, New Lebanon, Ohio, assignor to The Lau Blower Company, Dayton, Ohio, a corporation of Ohio

Application March 7, 1957, Serial No. 644,621

3 Claims. (Cl. 29—286)

1. A fixture of the character described for assembling and holding a predetermined number of blower blades of predetermined thickness in circumferential alignment about a central axis, comprising a center support, a pair

of generally circular disks of the same diameter mounted on said center support in axially spaced relation, each said disk having in the periphery thereof a plurality of slots equal to said blade number and of slightly greater width than said blade thickness to receive the edge of one of said blades freely therein, means securing said disks to said support with said slots therein axially aligned, a third disk substantially identical to said pair of disks mounted on said support intermediate said pair of disks, means securing said third disk to said support with said slots therein



angularly offset from the associated said slots in said outer disks by a predetermined small extent imparting to a blade received in said associated slots a slightly bowed shape creating tension in said blade effective to hold the same in said slots, and the outer end of each of said slots including relatively diverging cam portions having a maximum dimension circumferentially of said disks greater than said angular offset of said slots to guide each said blade into said associated slots in response to relative radial movement of disks.

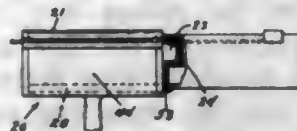
2,821,779

MAGAZINE SHAVING IMPLEMENT

Jacob L. Kleinman, Arverne, N. Y.

Application February 4, 1952, Serial No. 269,782

11 Claims. (Cl. 30—40)



1. A shaving implement comprising a head structure and a handle, a platform for a double edged razor blade within said head structure, movable guards associated with said head structure, said guards having means for engaging the end portions of each of the cutting edges of said blade to hold said blades in position and to gauge the space between each of said cutting edges and the outer edge of its adjoining guard when said guard is in normal position, movable means for flexing said blade within said head structure to tilt said cutting edges into desired position for shaving purposes, in combination, a finger, said finger insertable between said movable guards and engageable with said movable means for moving said guards and said movable means out of their normal position for the removal of said blade from the said platform and the replacing of a fresh blade, and upon the removal of said finger said movable means and said guards reverting back to normal position tilting the cutting edges of the blade into desired position and properly gauging said edges away from the outer edge of said guard for shaving purposes.

2,821,780

MAGAZINE SAFETY RAZORS

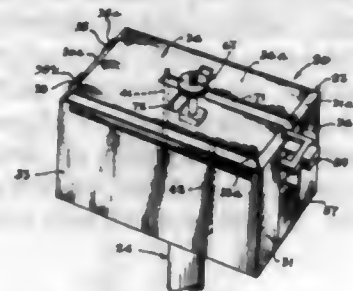
William P. Billich, Chicago, Ill.

Application July 18, 1955, Serial No. 522,580

16 Claims. (Cl. 30—40)

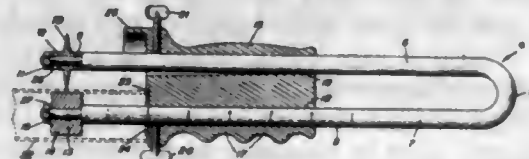
1. A magazine type safety razor comprising a container, a plurality of blades mounted in said container, means within said container for retaining said blades in stacked formation with portions of the topmost blade in said stack spaced from the blade disposed immediately therebelow, clamping means carried by said container for

clamping a blade in a position of use, and elevating means insertible between the topmost one of said blades



and the blade disposed immediately therebelow and movable vertically in said container for raising said topmost blade into engagement with said clamping means.

2,821,781
TUBING CUTTER
Ward H. Zeller, Holyoke, Colo.
Application November 23, 1956, Serial No. 624,115
3 Claims. (Cl. 30-102)



1. A tubing cutter comprising: an elongated handle having longitudinal bores therethrough, one of said bores being tapered, a substantially U-shaped resilient frame including legs extending slidably through the bores, a cutting disk on the free end portion of one of the legs operable about the tube to be cut, a roller journaled on the free end portion of the other leg engageable in the tube and cooperable with the cutting disk, one end of the handle being engageable with the tube to provide a stop therefor and having therein a recess defining a projection engageable in the tube for supporting same in conjunction with the roller, and a feed screw threadedly mounted in one end portion of the handle and engaged with said one leg in the large end portion of the tapered bore for bending said one leg within the confines of the handle for engaging the cutting disk with the tube.

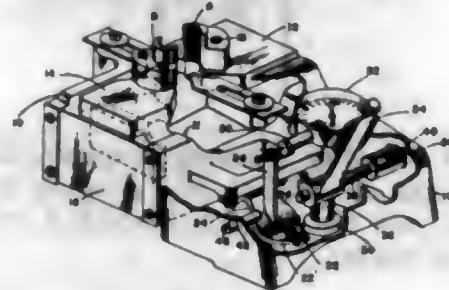
2,821,782
MAP MEASURING INSTRUMENT
Johannes Kallweit, Hamburg, Germany
Application January 25, 1955, Serial No. 483,953
6 Claims. (Cl. 33-141)



2. A map measuring instrument comprising a hollow pencil casing having a window through the wall thereof, a pair of rollers rotatably mounted within the casing, a graduated strip which is wound around the rollers, and passes behind said window, a spring for each roller to rotate the roller, the spring of one roller being more powerful than of the other roller, a pawl and ratchet mechanism to hold the roller having the more powerful spring against rotation, means to release the pawl and ratchet mechanism for rotation of its roller, a disc to engage the map surface and which is rotated when the instrument is moved over the map, and a driving mechanism

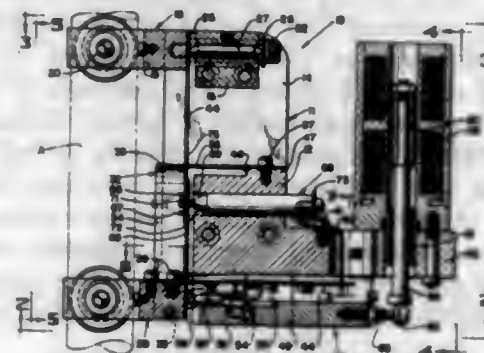
connecting said disc with the strip so that with rotation of the disc the strip is moved past said window from the roller controlled by the ratchet mechanism to the other roller.

2,821,783
GAGES
Jeffrey M. Cargill, Weathersfield Bow, and Hugh M. Taft, Springfield, Vt., assignors to Bryant Chucking Grinder Company, Springfield, Vt., a corporation of Vermont
Application July 20, 1954, Serial No. 444,414
8 Claims. (Cl. 33-148)



1. A gage comprising a pair of gage element supporting members, gage elements on each of said supporting members, a pair of reeds arranged in parallel relation, one end of each of said reeds being secured to one end of each of said members, said reeds forming the sole means for supporting one of said members to provide yielding substantially rectilinear motion relative to the other of said members to open and closed positions of said gage elements and to provide gaging pressure on said gage elements, means interposed between said supporting members for displacing said supporting members from gaging position with said reeds slightly displaced from a neutral position in one direction to non-gaging position with said reeds further displaced in the same direction, means for selectively positioning said means interposed between said supporting members to move said supporting members in opposite directions from a neutral point to reverse the direction of movement from gaging to non-gaging position of said supporting members, and indicating means responsive to the relative displacement of said supporting members.

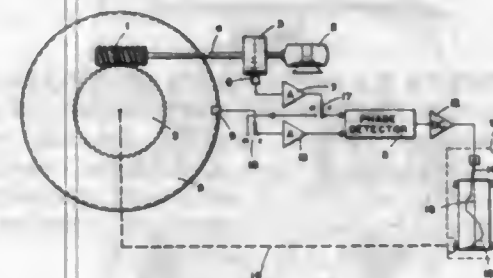
2,821,784
INSTRUMENT
Francis C. Huyser, Moline, Ill., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application September 11, 1956, Serial No. 609,117
15 Claims. (Cl. 33-148)



1. In an extensometer, the combination including upper and lower clamps adapted to grip a specimen at spaced apart locations along the latter, supporting means for said clamps, means pivotally mounting one of said clamps on said supporting means to move relative to the latter about a fixed axis, means mounting the other of said clamps on said supporting means for pivotal movement relative to said one clamp about an axis that is always parallel to said fixed axis of said one clamp and for bodily movement toward and away from said one clamp along a sub-

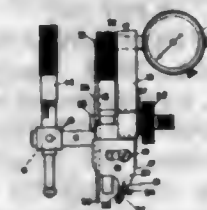
stantially straight path lying in a plane containing the pivoting axes of both of said clamps, and movable pick-up means mounted on said supporting means and connected to said other clamp substantially at the pivoting axis of the latter to be displaced by said other clamp in response to bodily movement of the latter along said straight path, and so that the displacement of said pick-up means is unaffected by pivotal movement of said clamps resulting from bending of a specimen gripped by the latter out of said plane containing the pivoting axes of both clamps.

2,821,785
PRECISION GEAR CHECKER
John P. Lekas, Hollywood, Calif., assignor to North American Aviation, Inc.
Application August 23, 1954, Serial No. 451,628
6 Claims. (Cl. 33-179.5)



1. In apparatus for checking a gear train, a first magnetic recording element having magnetic reference signals recorded thereon and adapted to be rotated in accordance with an input rotation, a first magnetic head disposed to read said magnetic reference signals as said first recording element rotates and having output signals in accordance therewith, a second magnetic recording element adapted to be rotated in accordance with an output rotation, said output rotation being mechanically actuated by said input rotation, a magnetic read-recorded head disposed to read and record magnetic signals on said second recording element as said second element rotates and having output signals in accordance with signals recorded on said second element, a phase detector adapted to receive the output of said heads, and switch means having two positions, the first of said positions connecting said output signals of said first head to said second head for recording said output signals of said first head on said second recording element, said second position connecting to said phase detector the outputs of said first and second heads in accordance with signals previously recorded respectively on said first and second recording elements.

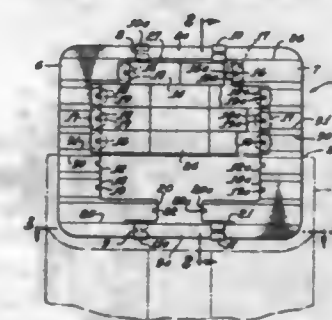
2,821,786
GEAR TOOTH MEASURING DEVICE
Thomas F. Toubill, Jr., Williamstown, N. J., assignor to the United States of America as represented by the Secretary of the Navy
Application January 7, 1957, Serial No. 632,949
1 Claim. (Cl. 33-179.5)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A gear tooth measuring instrument comprising a vertically disposed supporting plate, a pair of spaced horizontal arms each having one end fixed to the supporting plate and a free end spaced therefrom, a transverse brace interconnecting the horizontal arms, a vertically adjust-

able front leg mounted in an opening in the transverse brace equidistant from the horizontal arms, a vertically adjustable rear leg mounted in an opening in each horizontal arm equidistant from the support providing aligned rear legs, each of said legs having a foot portion below the parallel arms, said transverse brace being adjustably mounted to permit the rear legs to be disposed on one gear tooth and the front leg to be disposed on another tooth of a gear wheel, a pair of side plates, one plate being adjustably mounted at one side of the supporting plate and the other being adjustably mounted at the other side of the supporting plate, a transverse feeler arm mounted between the side plates and positioned rearwardly of and below the foot portions of the aligned rear legs, an adjustable rod extending horizontally through the support having a front end portion and rear end portion, a vertical arm pivotally mounted on said front end portion of the adjustable rod and having a lower feeler end disposed below and in front of the foot portions of the aligned rear legs and an upper end disposed above the horizontal arms, said side plates and said adjustable rod permitting relative movement between the transverse feeler arm and the feeler end of the vertical arm to select a spacing therebetween equal to a gear tooth of standard width, a dial indicator mounted by the vertical support above the horizontal arms and operable by the upper end of the vertical arm upon movement of its feeler end to indicate variations from the standard tooth width.

2,821,787
TEMPLATE FOR PLACEMENT OF MILITARY RIBBONS
Robert B. Shepard, El Toro, Calif.
Application May 14, 1956, Serial No. 584,680
4 Claims. (Cl. 33-180)

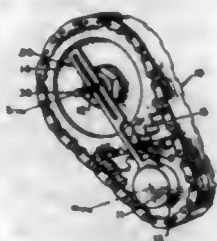


1. A template for placing military ribbons on uniforms comprising two members of sheet material having each an upper arm and a lower arm and adapted to lie substantially in one plane when joined by said arms, means for slidably interlocking like arms of said members to permit said members to be moved toward and away from each other while otherwise retaining their relative positions, said members having opposed interior margins said margins of one member being spaced from said margins of the other of said members, said margins having slots communicating with said margins at their one ends and closed at their other ends and arranged in opposed pairs adapted to receive fastening means of ribbon bars, said closed ends of said pairs of slots being spaced apart at selected relative distances, said distances being variable with the spacing of said members, to permit the reception in said slots of fastening means of ribbon bars of various lengths.

2,821,788
TIMING GEAR SETTING TOOL
Karl G. Wendt, Cupertino, Calif.
Application July 8, 1954, Serial No. 441,971
2 Claims. (Cl. 33-181)

1. A tool for setting timing gears on a pair of spaced shafts so as to register predisposed "0" marks on said timing gears with a radial line extending between the axes

of said spaced shafts, comprising a flat strip of rigid material having a fish tail crotch formation at one end provided by angularly disposed edges tangentially engageable with the round wall of one of said shafts and converging at the longitudinal axis of said strip, a guide slot formed in said strip congruent to the long axis thereof and adjacent its opposite end, a threaded sleeve arranged for sliding movement in said guide slot, a centering pin threaded through said threaded sleeve and having a



pointed end adapted to seat in a center bore formed in the end of said camshaft, yieldable means between said strip and said centering pin for frictionally setting the latter relative to said strip when the pointed end of said pin is seated in the center bore of said camshaft, and a sight opening formed in said strip coaxial with a line struck between the center of said crotch formation and said centering pin for viewing the "0" marks of said gears there-through.

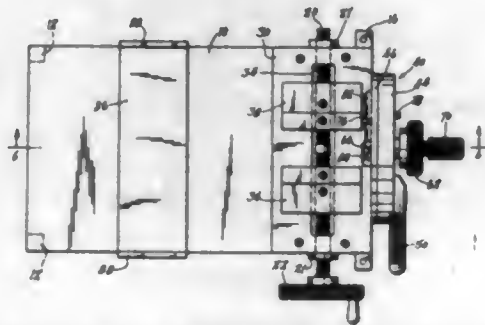
2,821,789

CENTERING DEVICE FOR METAL BAR STOCK AND THE LIKE

John L. Steriss, New York, N. Y.

Substituted for abandoned application Serial No. 525,308, July 29, 1955. This application July 18, 1957, Serial No. 672,834

11 Claims. (Cl. 33—191)



1. The device for finding the center of and punching the end of a bar stock work piece, comprising a stationary support for said work piece having a surface in a horizontal plane on which the work piece may rest, means mounted on the support for rotation in a vertical plane in opposite directions through ninety degrees about an axis extending longitudinally and centrally of the surface in said horizontal plane, a punch device mounted on said means for adjustment radially of said axis and including a pointed punch member shiftable against the work piece in selected positions to which the punch device is adjusted to mark the work piece, a pair of vise jaws having work-piece-engaging faces in vertical planes, means mounting said jaws on the surface for conjoint movement radially of said means toward and away from each other into and out of engagement with the stock and being disposed equal distances from the longitudinal center line of the surface in each position to which they are moved for aligning the longitudinal center line of the work piece with that of the surface, and means releasably interengaging one of said jaws with the punch device for adjustment of the punch device radially of said first means with said one jaw, said punch member, when the punch device is engaged with said one jaw, having its point coincident with the point at which the vertical plane of the work-piece-engaging face

of said one jaw intersects with the horizontal plane of said support surface, travel of the point of the punch member through an arcuate path through ninety degrees about the axis of rotation of said first-named means following disengagement of the punch device from said one vise jaw after clamping of the work piece between the jaws, moving said punch member to a location upon the work piece end at which the center thereof may be marked.

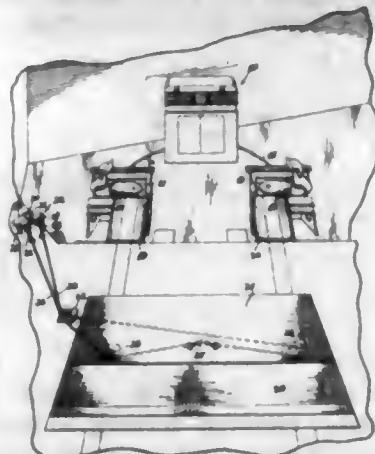
2,821,790

SHIFTABLE PLATFORM FOR WHEEL ALIGNING MACHINE

Roy Vernon Retherford, Connorsville, Ind.

Application January 23, 1956, Serial No. 560,628

1 Claim. (Cl. 33—203.12)



For use with a wheel-aligning machine which includes a pair of turntables proportioned and arranged to support the dirigible wheels of an automobile, a reading board having a pair of calibrated scales thereon, and means operatively connecting said turntables respectively to indicator means associated with said scales whereby the adjusted position of each turntable may be read upon the corresponding scale, the invention which comprises platform means so spaced from said turntables that, when the dirigible wheels of a conventional automobile are supported respectively on said turntables, the other two wheels of said vehicle will be supported on said platform means, trackway means supporting said platform means for movement in either of two opposite directions along a line substantially parallel with a line joining the rotational axes of said turntables, a lever pivotally supported intermediate its ends closely adjacent said turntables, pulley means journaled on a fixed axis adjacent one end of said platform means, a flexible cable attached to said platform means near the longitudinal center thereof, trained about said pulley means and connected to one arm of said lever, a second pulley means journaled on a fixed axis adjacent the other end of said platform means, and a second flexible cable attached to said platform means near the longitudinal center thereof, trained about said second pulley means and attached to the other arm of said lever.

2,821,791

GYRO COMPASS

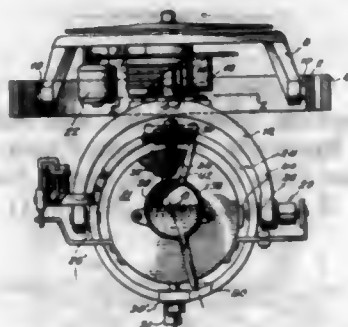
Leslie F. Carter, Leonia, N. J., assignor to Sperry Rand Corporation, a corporation of Delaware

Application October 5, 1955, Serial No. 538,621

5 Claims. (Cl. 33—226)

3. A gyro compass having rotor case and follow-up elements, means for mounting one of said elements with freedom about a vertical axis and the other of said elements with freedom about an E—W axis, liquid ballistic means for controlling the compass including a pair of liquid containers fixedly mounted on one of said elements in equidistant spaced relation north and south of the E—W axis and a liquid flow restricting connection be-

tween the containers, said containers each having a substantially circular cross section in elevation and being mounted with their centers above the E—W axis to



avoid E—W shift of the center of gravity of the liquid from the vertical axis of the compass due to E—W swinging of the compass.

2,821,792

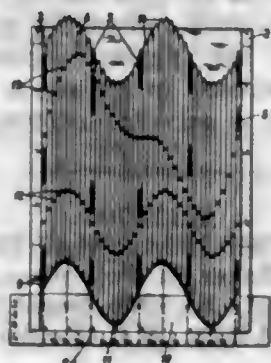
APPARATUS FOR GRAPHICALLY REPRESENTING THE SUPERPOSITION OF FUNCTIONS

Theodor Marzani, Villach, Austria, assignor to A. M. Faber-Castell, Stein, near Nurnberg, Germany

Application December 7, 1953, Serial No. 396,611

Claims priority, application Germany December 11, 1952

12 Claims. (Cl. 35—34)



1. A device for the mechanical production and interpretation of a curve and of the superposition of two or more mathematical functions, comprising a base plate, side bars along each side of said base plate, a plurality of rods in lengthwise displaceable relation between said side bars, the upper sides of said rods constituting a drawing surface on which representation of at least a first function may be depicted, and at least one template for selective use by which a second function can be superimposed on the representation of said first function, means to indicate at least one predetermined position at which to place said template, said template being placed in predetermined position on said base plate abutting one end of said rods whereby the rods, and therefor the representation of said first function on the rods, will be displaced in accordance with said second function represented by said template.

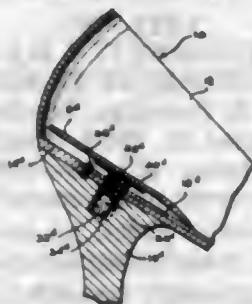
2,821,793

SHOCK-ABSORBENT SHOE HEELS

Maurice Kornberg, New York, N. Y.

Application November 26, 1956, Serial No. 624,361

1 Claim. (Cl. 36—37)



A shock-absorbent shoe heel including a supporting-surface-engaging body, a heel plate overlying and normal-

ly spaced upwardly from said body, said body having an upwardly opening recess, and resilient, yielding means within said recess tensioned to yieldably oppose movement of the plate toward the body, comprising a coil spring, the heel including a tubular member fixedly secured to the underside of the heel plate and receiving the spring, said heel further including a solid, cylindrical plunger seating in the recess and telescoping within the tubular member, the spring bearing against said plunger and heel plate, said shoe heel including means apertured to receive the tubular member, the tubular member sliding in the aperture of said means, said means comprising a reinforcing bar projecting forwardly from the heel plate to reinforce the sole of a shoe to which the heel is secured, the tubular member being flanged above the reinforcing bar and being fixedly secured to the heel plate at the flanged end thereof.

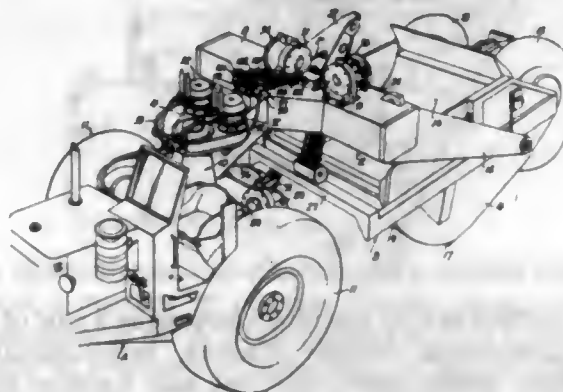
2,821,794

CABLE OPERATING MEANS FOR EARTH MOVER

John E. Richter, San Jose, and Neo Corsini, Sunnyvale, Calif., assignors, by mesne assignments, to Continental Copper & Steel Industries, Inc., New York, N. Y., a corporation of Delaware

Application January 25, 1954, Serial No. 405,994

1 Claim. (Cl. 37—126)



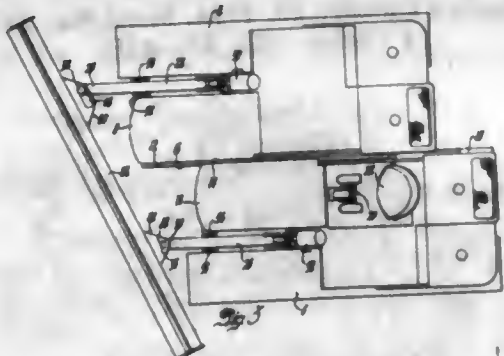
In cable operating means for earth movers of the type including a main bowl carried by a wheeled frame and having a forward ground digging blade and means for discharging a load from the same, together with an apron carried in front of the bowl and adapted to be raised or lowered relative to the digging blade, and at least two cables for raising and lowering the cutting blade, for raising and lowering the apron and for operating the load discharging means; said cable operating means comprising two winch drums on which the cables are wound, individual fluid operated motors, each motor having a liquid inlet adapted to be supplied with a liquid under pressure for operating the motor, and also having an outlet connection through which the liquid is exhausted from the motor, each motor being connected to an associated drum for driving the same, self-energizing braking means for each drum serving to retain the drum against cable unwinding rotation but permitting cable winding rotation upon energizing the associated motor, a pneumatic operating device connected to each braking means for releasing the same to permit unwinding rotation, a liquid pump, control valve means, piping for connecting the liquid pump to the control valve means and to said motors, a pair of pneumatic operators for operating said control valve means, a pair of manual control levers, pneumatic valve means conditioned by movement of said levers, said pneumatic valve means being connected to a source of air under pressure, connections from said pneumatic valve means to the pneumatic operators associated with the brake releasing means and also the pneumatic operators associated with the control valve means, each of said levers having three operating positions, in one of which the control valve means is conditioned to provide a fluid bypass about the pump and also a bypass between the inlet and outlet connections

of one of the motors, one lever in a second position serving to condition the control valve means to supply liquid under pressure from the pump to the corresponding motor to rotate the winch and thereby wind up the cable, said one lever in its third operating position serving to provide a bypass between the inlet and outlet connections of the corresponding motor and to effect release of said energizing means to permit unwinding rotation of the drum, said second hand lever in a second of its operating positions serving to condition the control valve means to supply liquid under pressure from the pump to its corresponding motor and in its third operating position serving to form a bypass between the inlet and outlet connections of the corresponding motor, and also serving to release the self-energizing braking means for the other drum.

2,821,795

BULLDOZER ANGLING ARRANGEMENT

Russell C. Williams, Rocky River, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 29, 1954, Serial No. 471,608
9 Claims. (Cl. 37-144)

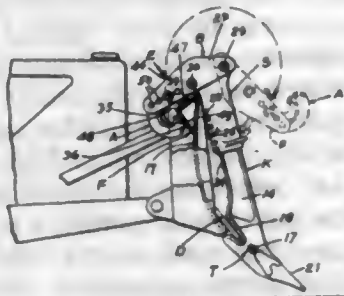


1. An earth working machine comprising a pair of single track self-propelled crawler tractors, longitudinally extending slide means interconnecting said tractors, manual operating controls for regulating the rate of movement of each of said tracks, and a bulldozer structure having one end operatively connected to one tractor and the other end operatively connected to the other tractor, said controls being independently operable to permit longitudinal displacement of one of said tractors relative to the other whereby said bulldozer is adjusted at an oblique angle.

2,821,796

ROOTER ATTACHMENT FOR BULLDOZERS

Carl D. Forte, Los Angeles, Calif.; Helen A. Forte, administratrix of said Carl D. Forte, deceased, assignor to said Helen A. Forte
Application February 7, 1955, Serial No. 486,463
6 Claims. (Cl. 37-145)



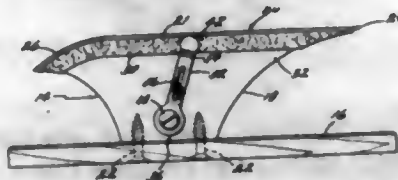
1. A rooter attachment for the moldboard of a bulldozer, including: a tooth-carrying member having a saddle thereon; a bracket mounted on the upper end of said member; and an adapter including a hook having an arm pivoted on the bracket, and an element adjustable on the arm at that side of the arm pivot opposite from the hook and which is adapted to bear on the upper part of the moldboard so that by adjustment thereof toward

said part the hook is actuated to clamp the latter and the bracket simultaneously lifted to cause the saddle to embrace the lower part of the moldboard.

2,821,797

IRONING AID

Ella A. Misovich, Manchester, and Anne Marie J. Remesch, Andover, Conn.
Application June 24, 1954, Serial No. 438,975
5 Claims. (Cl. 38-141)



5. An ironing aid for pressing open the seams of a semi-finished, inverted garment during its fabrication comprising a substantially horizontal narrow ironing platform having a pointed end to receive a pointed portion of a garment seam and having a curved end to receive a curved portion of a garment seam, and garment securing means comprising a cylindrical section loosely passing thru and extending from both sides of said aid and having opposed spring fingers extending from said cylindrical section one on each side of said aid such that said securing means forms pivotable opposed spring fingers which fingers bear against opposite sides of said aid and may be pivoted in unison to any selected aid position to perform a garment securing function.

2,821,798

ROLL STRIP ROAD MAP HOLDER

Blake Baker, St. Petersburg, Fla.
Application July 20, 1956, Serial No. 599,068
1 Claim. (Cl. 40-86)



A device of the character described comprising, in combination with a rectangular sun visor, a roll strip map holder consisting of a pair of components, each of said components comprising a U-shaped clamp having reversely bent legs, a coil formed integrally with the free end of each leg, a map-holding bracket having a vertical bar, an upper and a lower roll-gripping portion formed integrally with said bar, a pair of outwardly divergent arms each formed integrally with one of said gripping portions, and a pintle formed integrally with the free end of each arm, said pintles each pivotally engageable in one of said coils.

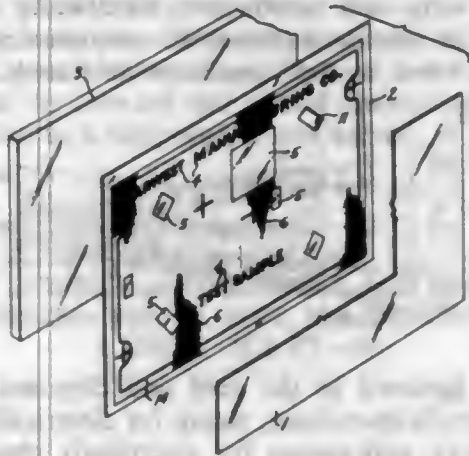
2,821,799

COMPOSITE INDIRECTLY ILLUMINATED INSTRUMENT PANELS

Raymond E. Partridge, Seattle, Wash.
Application August 16, 1954, Serial No. 450,065
1 Claim. (Cl. 40-130)

A composite instrument panel comprising a back transparent light transmission sheet, an intermediate indicia-bearing sheet, and a front transparent surface sheet, said three sheets being intimately bonded in face-to-face relationship, said intermediate sheet being of translucent plastic material and having substantially opaque coatings on both faces thereof with registering openings, at least one

of such openings constituting the indicia, and said intermediate sheet having a light reflective coating on the



opaque coating on the back face of said intermediate translucent plastic sheet.

2,821,800

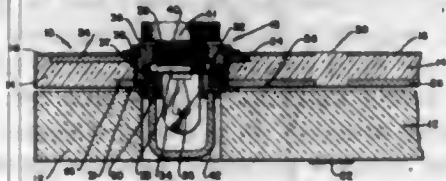
DUO-PANEL EDGE ILLUMINATION SYSTEM

George K. C. Hardesty, Mayo, Md.

Application June 28, 1957, Serial No. 668,838

11 Claims. (Cl. 40-130)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A duo-panel illumination system comprising, a transparent panel having upper and lower parallel surfaces arranged for specular reflection of light rays therebetween and diffuse reflecting means selectively positioned on the lower surface portion thereof, a translucent panel adjacent and parallel to said transparent panel but optically separated therefrom, said translucent panel having indicia means on the upper surface thereof opposite the diffuse reflecting means on the transparent panel, means for introducing light energy into said transparent panel, whereby the light energy is internally specularly reflected in said transparent panel and diffusely reflected in an upward direction into said indicia means for illumination of said indicia means, and said light introducing means including a light fixture carried by the translucent panel and having a light bulb thereof extending into the transparent panel.

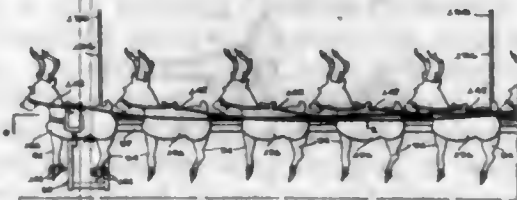
2,821,801

DISPLAY DEVICE

George H. Prullitt, Sr., Florence, S. C.

Application April 15, 1955, Serial No. 501,552

1 Claim. (Cl. 40-139)



In a display device, a horizontal tongue having opposite side edges and front and rear ends, leg means comprising at least one leg element positioned at opposite sides of said tongue, and said leg elements having lower ends and upper ends, pivot means mounted on and projecting

laterally outwardly from said opposite side edges of the tongue and traversing the related leg element at a point intermediate the ends of the leg element, connecting rods having forward ends pivoted to the leg elements at the opposite sides of the tongue at points above said pivot means, said connecting rods having rear ends, and motor means mounted on said rear end of the tongue including eccentric means operatively connected to the rear ends of the connecting rods, said leg means comprising further leg elements mounted on the side edges of the tongue and spaced forwardly from said one leg element, links having forward ends pivoted to the further leg elements and rear ends pivoted to said one leg element, vertical body plates secured to the side edges of the tongue at points between the first and second mentioned leg elements, said body plates overlying and concealing said links and the upper ends of the leg elements and exposing the remainders of the leg elements below the body plates.

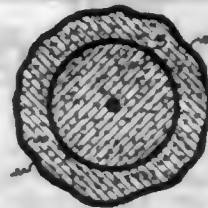
2,821,802

ORNAMENTAL DEVICE

Clarence F. Glaser, Detroit, Mich.

Application November 17, 1954, Serial No. 469,435

5 Claims. (Cl. 41-10)



1. A decorative article consisting of a conical body shell filled with a mixture of asbestos powder, plaster of Paris, and a hardenable paste, a first coating on said conical body consisting of a polyvinyl compound, a second coating on said first coating consisting of a mixture of vermiculite, salt, and a polyvinyl compound, a third coating of sodium silicate.

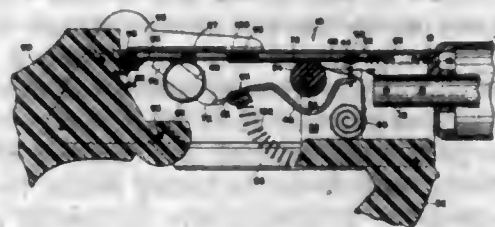
2,821,803

TOY MACHINE GUN

William H. Tandet, Stamford, Conn.

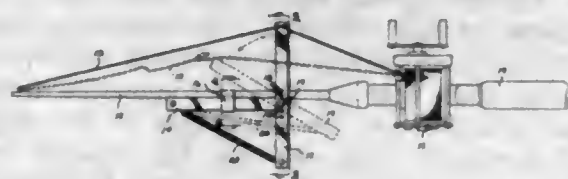
Application May 4, 1953, Serial No. 352,856

6 Claims. (Cl. 42-57)



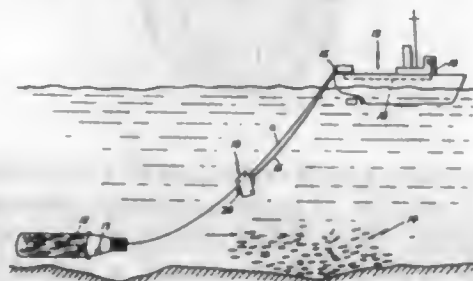
1. In a toy machine gun of the cap detonating type comprising a breech portion, a magazine pivoting on said breech portion and removably insertable therein, a rotatable sear and a clapper mounted in said breech portion, handle means for rotating said sear, said sear having a part thereof engaging said clapper through a given angle of rotation, guide and brake means in said breech portion for guiding each of said caps into detonating position and holding said cap in said position until detonated, feeder slide means comprising a rigid slide movable in a direction parallel to the longitudinal axis of said breech portion and a yieldable feeder spring secured thereto for moving said caps successively into detonating position, and said part of the sear disengaging said clapper after said given angle of rotation has been traversed thereby permitting said clapper to strike said cap with a force sufficient to cause detonation of said cap.

2,821,804
DEVICE FOR USE IN CATCHING FISH
 Clive A. Smith, Des Moines, Iowa
 Application May 2, 1956, Serial No. 582,296
 7 Claims. (Cl. 43-15)



1. In combination, a reel, a base member, a fish line on and extending from said reel, an arm pivoted between its two ends to said base member, a spring means having one end secured to one end of said arm and its other end secured to said base member, and a means for detachably connecting said fish line to the other end of said arm so that a pulling force on said fish line will detach said fish line from said arm after a predetermined displacement of said arm.

2,821,805
FISH FINDING APPARATUS
 Willy Kunze, Bremen, Germany, assignor to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
 Application April 14, 1954, Serial No. 423,202
 5 Claims. (Cl. 43-17.1)

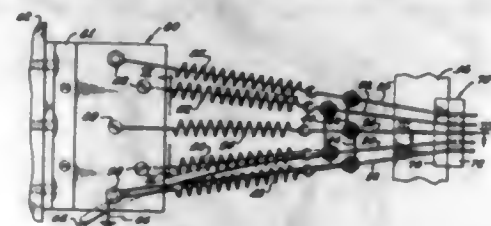


5. A fish finding system comprising means for catching fish, means connected between said fish catching means and a vessel for towing said fish catching means, a first actuated pressure device carried on said fish catching means for generating a signal as a function of the depth of said fish catching means, a buoyant device carried on said towing means having wheels in contact with said towing means in a manner to ride on said towing means, means attached to said device and to said vessel for positioning said device on said towing means intermediate said fish catching means and said vessel, a transducer carried on said device for transmitting and receiving sonic energy, a second pressure actuated device carried on said device for generating a signal as a function of the depth of said device, said device including means for maintaining said device in a substantially horizontal position independently of the movements of said vessel and said device, means carried on said vessel responsive to the outputs of said pressure actuated devices and said transducer for indicating the depths of said fish catching means, said device, and objects reflecting sonic energy, and means for coupling said pressure devices and said transducer means to said indicator means, whereby said fish catching means may be positioned to intercept said objects.

2,821,806
INSECT ELECTROCUTION APPARATUS
 William Roland Anderson, Orange, Calif.
 Application April 15, 1955, Serial No. 501,642
 1 Claim. (Cl. 43-112)

In combination: a building having a longitudinally extending roof; an electrical conductor carried by the roof and spaced therebelow and parallel thereto; a pair of electric wires parallel to and below said conductor and

horizontally spaced on either side of the vertical plane containing the conductor, the wires being less than $\frac{1}{4}$ ths of an inch apart and a third wire in substantial horizontal alignment with said conductor; electrically insulating mounting and spacing members for maintaining the conductor and wires in their positions as stated, the mem-



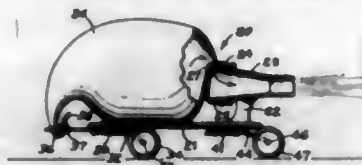
bers being fastened to the roof and disposed at longitudinal intervals therealong; means for electrically grounding said wires; and means for electrically charging said conductor with a voltage slightly below the breakdown voltage in air for the distance separating the conductor and wires.

2,821,807
SOAP HOLDER
 Paul L. Simmons, Ogden, Utah
 Application August 30, 1956, Serial No. 607,241
 8 Claims. (Cl. 45-28)



3. A soap holder comprising a housing having a soap entrance at the top and a soap exit opening at the front thereof, a soap rest mounted in said housing under said entrance for swinging on a horizontal axis from a supporting position substantially at the top edge of said exit opening to an inclined discharging position substantially at the bottom edge of the exit opening, a hinged lid provided at the entrance of said housing, a finger-piece provided on said soap rest and projecting through the exit opening from said housing whereby the soap rest may be swung to its discharging position, and linkage operatively connecting said soap rest to said lid, whereby the lid is opened when the soap rest is swung to its discharging position.

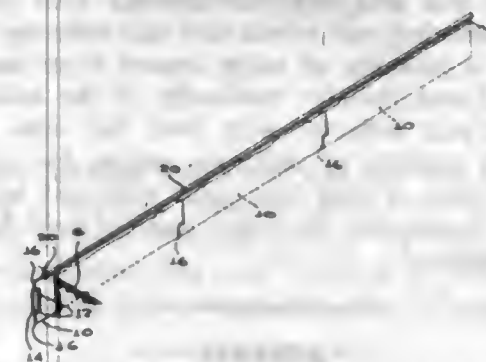
2,821,808
JET PROPELLED TOY VEHICLE WITH DELAYED ACTION MEANS
 Nicola P. Rosato, Hyde Park, Mass.
 Application October 21, 1955, Serial No. 541,876
 1 Claim. (Cl. 46-206)



A toy automobile comprising a body having a horizontal upper face, supporting wheels for said body, a fin extending upwardly from the rear end portion of said body, a rearwardly directed nozzle mounted upon the upper end of said fin, a toy balloon having an elongated body and a neck, said neck encompassing the forward end portion of said nozzle, and clamping means connecting the forward end of said balloon body to the forward end

of said automobile body, said nozzle having a notch formed in the upper edge of the forward portion thereof, and said balloon body having a longitudinal axis, when inflated, at a greater distance from the upper face of the automobile body than the longitudinal axis of said nozzle, whereby, upon inflation of said balloon, a portion thereof will overlie the forward end of said nozzle and said notch will function as a temporary bleed valve.

2,821,809
METAL EDGING
 James C. Collier and Marshal H. Layne, Dallas, Tex.
 Application May 25, 1956, Serial No. 587,289
 1 Claim. (Cl. 47-33)

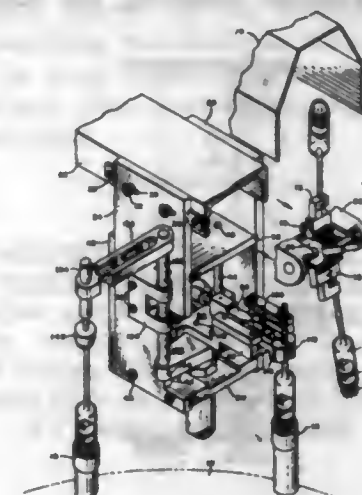


A metal edging comprising a plurality of like strips separably connected in end-to-end relation, each strip being formed at one end with transversely spaced, longitudinal slits defining therebetween a tongue, said tongue being laterally offset in one direction from the main plane of the strip, the slits defining portions above and below said tongue laterally offset in an opposite direction from said main plane, thereby to define a space between said tongue and said portions receiving the end of an adjacent strip with the connected strips lying in a common plane, each strip including along one longitudinal edge a downwardly bent lip, the lip of each strip extending fully to the unslit end of the strip, the other end of the lip terminating short of the slit extremity of the strip at a distance away from said extremity equal to the length of the slits, said lip lying in a plane at an acute angle to said main plane of the strip and terminating at its lower edge at a level below that of the top edge of the laterally offset portion disposed above the tongue, the lip being disposed at the same side of the main plane of the strip as the side to which said portions are laterally offset from the main plane, the lip of each strip hooking over the top edge of the upper laterally offset portion of a next adjacent strip.

2,821,810
PREHEATER TO SEALING MACHINE TRANSFER DEVICE
 John E. Bullers, Altoona, and Chauncey L. Moses, Dun-cansville, Pa., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
 Application December 16, 1955, Serial No. 553,647
 4 Claims. (Cl. 49-2)

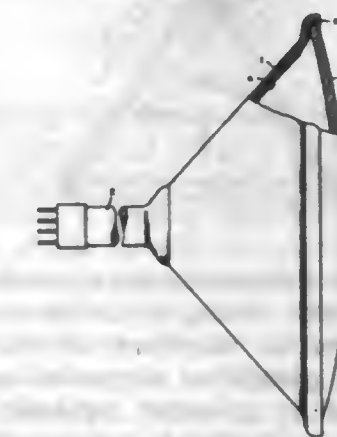
3. In a tube assembly handling mechanism, a support, a reciprocable platform mounted for movement in said support, a pair of opposed jaws with vertical grasping faces movably mounted on said platform, with the jaws positioned beyond an edge of said platform, means on said platform for operating the jaws to normally maintain them separated, means on said platform to close the jaws when the platform is elevated and to permit the jaws to open only after the platform has reached a lower position, a rod movable with said platform and vertically slidable in bearings on said support, a vertically movable press device connected with said rod and movable therewith, said mechanism being adapted by means of the jaws to move a tubulated bulb and stem-mount assembly onto

an indexable peg of a sealing machine and said press device being adapted to engage the end of the tubulation



and force the tube and bulb downwardly with reference to the stem mount.

2,821,811
METHOD OF MANUFACTURING CATHODE-RAY TUBES
 Theodorus Hagenberg, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
 Application April 22, 1954, Serial No. 424,940
 Claims priority, application Netherlands May 28, 1953
 3 Claims. (Cl. 49-81)

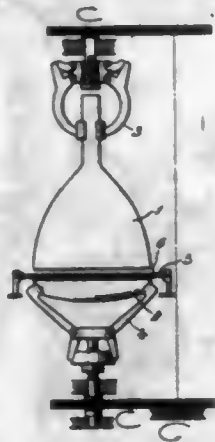


1. A method of manufacturing a cathode-ray tube comprising an iron cone having a nickel-plated sealing zone at which a glass window is to be sealed, comprising the steps of intensely heating the sealing zone at a temperature and for a time at which only a portion of the nickel adjacent the iron diffuses therewithin to form an alloy therewith, thereafter removing all of the unalloyed nickel from the sealing zone, and thereafter sealing the glass window to the nickel-iron alloy surface at the sealing zone.

2,821,812
METHOD OF SEALING TOGETHER THICK-WALLED HOLLOW GLASS PARTS
 Henricus Gerbrand Pieter Vermaas, Eindhoven, Netherlands, and Otto Louis Van Steenis, deceased, late of Eindhoven, Netherlands, by Joris Daniel Heijligers, executor, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
 Application April 14, 1954, Serial No. 423,124
 Claims priority, application Netherlands May 11, 1953
 2 Claims. (Cl. 49-82)

1. A method of sealing together a pair of thick-walled, hollow, glass members, which comprises spacing said members slightly apart and opposite one another, placing a radiant heating element which is larger at least in one direction than said members between the members, radi-

antly heating the inside of said members while preheating the members from ambient to a higher predetermined temperature, thereafter removing the heating element,



and thereafter further heating the edges of said glass members and sealing the members together along their heated edges.

2,821,813

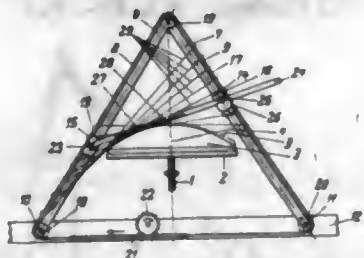
MACHINE FOR THE PRODUCTION OF A PARABOLOIDAL BODY

Heinrich Degler, Zollikon, Zurich, Switzerland, assignor to Albiswerk Zurich A. G., Zurich, Switzerland, a Swiss corporation

Application May 28, 1957, Serial No. 662,108

Claims priority, application Switzerland June 28, 1956

18 Claims. (Cl. 51—2)



1. A machine tool for producing a paraboloidal body, comprising a rotatable carrier for concentrically mounting a workpiece to be machined, at least two guide elements extending parallel to respective mutually intersecting tangents of an extended parabolic meridian of the paraboloid to be produced, two members displaceable lengthwise on said respective guide elements, a holder bar pivotally linked to one of said members and displaceably linked to said other members for displacement in the longitudinal direction of the bar, a tool mounted on said holder bar and having a workpiece machining path parallel to the bar direction and of such minimum length as to maintain contact with the workpiece tangentially to the meridian curve to be covered, and means for simultaneously displacing the two members along said respective guide elements at equal speeds in mutually opposed directions relative to the intersection of said tangents.

2,821,814

SANDBLASTING TOOL

Marvin E. Fritze, Enumclaw, Wash., assignor of one-half to J. C. Fennelly Company, San Francisco, Calif., and one-half to Donald E. Hilliard, Seattle, Wash.

Original application January 5, 1953, Serial No. 329,516, now Patent No. 2,739,424, dated March 27, 1956.

Divided and this application March 22, 1956, Serial No. 573,159

5 Claims. (Cl. 51—11)

1. A tool for sandblasting the interior of pipe and the like comprising: a straight, rigid, open ended tubular nozzle adapted to be positioned within the pipe to be cleaned coaxially therewith, means for connecting one end

of said nozzle with a source of sandblasting material and with air under pressure for discharge of said material and air from the opposite end of said nozzle, a generally conical deflector coaxial with said nozzle spaced axially outwardly of said opposite end and having its vertex directed toward said opposite end, means for securing said nozzle and said deflector together against rotation of one relative to the other during movement of



said nozzle and said deflector through such pipe, said means for securing said nozzle and said deflector together comprising a plurality of strips spaced from each other and around and radially outwardly of the axis of said nozzle and said deflector with their flat sides disposed substantially radially of said axis, means for connecting one of the ends of said bars rigid with said nozzle and means for connecting the other ends of said bars rigid with said reflector.

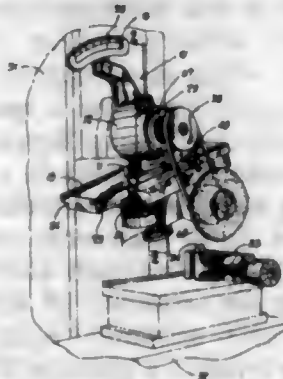
2,821,815

AUXILIARY COMPOUND ANGLE GRINDER FOR SURFACE GRINDING MACHINES

George Banko, Euclid, Ohio

Application April 18, 1956, Serial No. 579,067

3 Claims. (Cl. 51—34)



1. In combination with a surface grinding machine spindle and housing therefor, an auxiliary compound angle grinder, comprising a bracket adapted to be mounted on the surface grinder spindle housing, including a stationary table, means for holding said stationary table in adjusted angular positions, both vertically and laterally with reference to the axial plane of the surface grinder spindle, a pulley mounted on the surface grinder spindle, a sub-table slidably mounted on the under side of said stationary table, an auxiliary spindle journaled on said sub-table in a plane substantially parallel to the surface grinder spindle, and including a grinding wheel, pulley and worm, a driving belt connecting the surface grinder and auxiliary spindle pulleys, a crank shaft journaled in the sub-table, perpendicular to the upper face thereof and including a worm gear engaged with the auxiliary spindle worm, a crank mounted on said crank shaft and rotatable therewith, and a connecting rod pivotally connected at one end to the stationary table and at the other end to the crank arm, said connecting rod acting to reciprocate the sub-table longitudinally of the stationary table upon rotation of the crank arm.

2,821,816

KNIFE SHARPENER

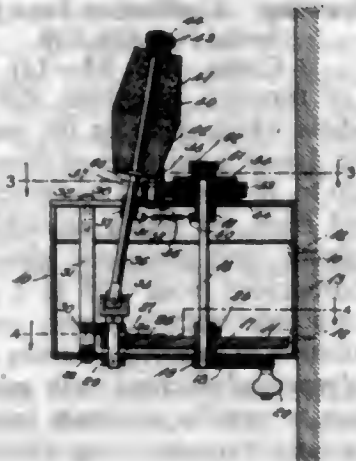
Jake Lorenz, Altario, Alberta, Canada

Application June 1, 1956, Serial No. 588,874

2 Claims. (Cl. 51—78)

1. In a knife sharpener a pressure feed roll, an inclined grinder wheel, means for simultaneously rotating

said pressure feed roll and said grinder wheel, separate shafts driving said grinder wheel and said roll, one of said shafts being universally mounted, and means mechanically governing the pressure of the grinder wheel on a



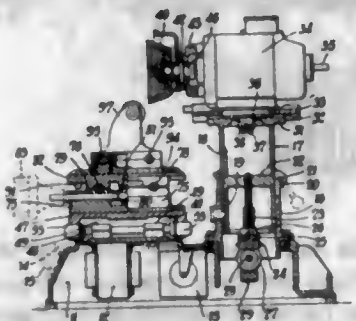
knife passed between said wheel and said roll, said means comprising a slidable bushing carried by one of said shafts, and a fixed bushing carried by the other, and spring means connecting said bushings to bias said universally mounted shaft toward the other of said shafts.

2,821,817

GRINDING MACHINES

Wladyslaw Zalewski, London, England

Application July 9, 1956, Serial No. 596,660

Claims priority, application Great Britain July 22, 1956
10 Claims. (Cl. 51-123)

1. A tool and cutter grinding machine comprising a base, a column adjustable along its vertical axis supported by and projecting upwardly from said base towards the rear thereof, an electric motor with a horizontal driving shaft the axis of which extends from the front to the rear of the machine and having a base adjustably supported at the top of the column for horizontal movement, a grinding wheel mounted on and projecting from the front end of said driving shaft, a table supporting plain bar arranged on a horizontal axis parallel to the axis of the driving shaft and mounted in a fixed position at the front portion of and above the base, a main table forming a main cross slide mounted to move a limited distance from the front to the rear and from the rear to the front on the said table supporting plain bar, adjustable spring means connected on the one hand to the main table and on the other hand to the base for moving the main table from the front to the rear, manually operable means mounted on the base for moving the main table from the rear to the front, fixed stop means carried by the base to limit the rear movement of the main table, adjustable stop means carried by the main table and cooperating with the said fixed stop means for varying the amount of the movement of the main table, a superposed table carried by and moving with the main table and mounted thereon so as to be angularly adjustable about a vertical axis which is located in the vertical plane containing the horizontal axis of the driving shaft, laterally extending spaced-apart and parallel slide-supporting plain bars arranged on horizontal axes at right angles to the

axis of the driving shaft fixed to and carried above and by the superposed table, a longitudinally movable slide mounted to move within limits on said slide-supporting plain bars, means carried by the superposed table and said slide for imparting movement to the slide, and means supported by the longitudinally movable slide for carrying headstocks and other work-supporting means, all for the purposes set forth.

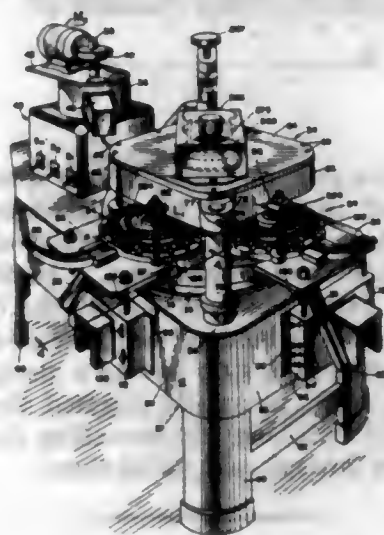
2,821,818

LAPPING MACHINE AND AUTOMATIC FEED MECHANISM THEREFOR

Harold E. McGee and Walter S. Swanson, Rockford, Ill.,
assignors, by mesne assignments, to Crane Packing
Company, Chicago, Ill., a corporation of Illinois

Application June 18, 1954, Serial No. 437,690

6 Claims. (Cl. 51-134)



1. In a lapping machine, a base, a lap plate mounted on said base for rotation about a vertical axis and having an upwardly presented substantially flat lap surface, means establishing a lapping zone above the lap surface in one sector of the circular lap confines, means establishing a work-receiving station and a work discharge station adjacent said lapping zone, a stationary work support positioned on one side of said lap plate and having an inner edge disposed in contiguous relation to the rotating peripheral edge of the lap surface in the vicinity of both said receiving and discharge stations and substantially the level of the lap surface, a work-receiving cage assembly adapted to successively receive articles of work from said support at said receiving zone and to transfer said articles from the support onto the surface of the rotating lap plate in lapping relationship with respect thereto and to thereafter conduct the articles through a predetermined path of movement in said zone over said lap surface and to finally restore the articles to said support at the discharge station, said work-receiving cage assembly comprising a stationary confining ring having its major portion overlying the lap surface and the remaining portion thereof overlapping said support at the work-receiving and discharge stations, there being a peripheral work-receiving opening through said ring above said stationary support at the work-receiving station, and a work-impelling carriage concentrically disposed within said ring, said carriage having a series of open recesses in the peripheral regions thereof, said recesses, in combination with the inner surface of said ring, defining a series of work-receiving pockets, means holding the articles in the recesses for rotation about an axis parallel with the lap axis, and means for rotating said carriage to bring said recesses successively into register with said work-receiving opening above the stationary support so as to receive articles therein through said opening and to thereafter slide said articles within said

pockets from the support and transfer them to the lap surface and move the same progressively over the lap surface from the receiving station to the discharge station.

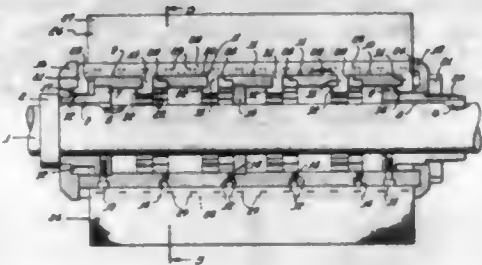
2,821,819

SECTIONAL ABRASIVE DRUM

Russell W. Bernstein and Aleck Block, Los Angeles, Calif., assignors to Merit Products, Inc., Culver City, Calif., a corporation of California

Application April 8, 1957, Serial No. 651,234

11 Claims. (Cl. 51—193.5)



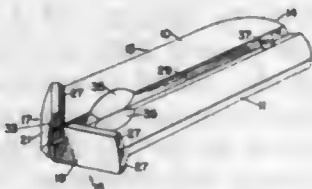
8. An abrasive unit for abrasive hub structures having axial slots, each intersected by radial slots and joining internal shoulders at one axial extremity of each radial slot, said abrasive unit comprising: a pack of sheets; a mounting strip extending substantially the length of said pack; fastening means binding said sheets to said mounting strip; each mounting strip having a margin protruding from said pack to fit an axially directed slot in said hub structure, and interlocking feet extending from said margin for insertion through said radial slots.

2,821,820

GUIDE FOR SHARPENING DRILL BITS

Wesley W. Thumann, Memphis, Tenn.
Application March 5, 1956, Serial No. 569,389

7 Claims. (Cl. 51—219)



1. A guide for sharpening drill bits comprising a body portion having sides and a rearward end shaped to comfortably fit the grip of a person's hand, a pair of adjoining guide members integrally formed at the forward end of said body portion, each of said guide members having a forward face, a longitudinal V-shaped seat extending the length of said body portion and through said guide members, said seat being adapted to contain a drill bit during the sharpening thereof, the forward faces of said guide members being disposed relative to one another and to said longitudinal V-shaped seat in a disposition corresponding to the disposition of the heels of a properly formed drill bit relative to one another and to the longitudinal center line of the drill bit, whereby a visual comparison aid is provided for guiding the sharpening of drill bits, said guide members including upstanding portions and depending portions respectively projecting above and below said body portion whereby protection is provided against injury in sharpening said drill bits, a pair of indentations provided in said body portion communicating with said V-shaped seat thereby furnishing the means for access to a drill seated in said V-shaped seat, and means provided in said body portion for hanging said device on a hook.

2,821,821

MARKING GELATIN CAPSULES

Ernest Chu Yen, Pearl River, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 16, 1955

Serial No. 516,029

1 Claim. (Cl. 53—14)

A method of forming an edible soft gelatin capsule with visible indicia which includes the steps of dissolving a water soluble dye in a mixture of from 30 to 70 parts of water and 70 to 30 parts of a water-soluble polyhydric alcohol selected from the group consisting of glycerine, polyethylene glycol, and propylene glycol and in which solution is incorporated from 0.05 to 1 part of a water-soluble surface-active wetting agent, and applying the thus formed solution to selected portions of a wet, freshly cast, edible, glycerin-plasticized soft gelatin strip, causing said solution to rapidly penetrate into said strip, and forming soft gelatin capsules from portions of the thus marked strip.

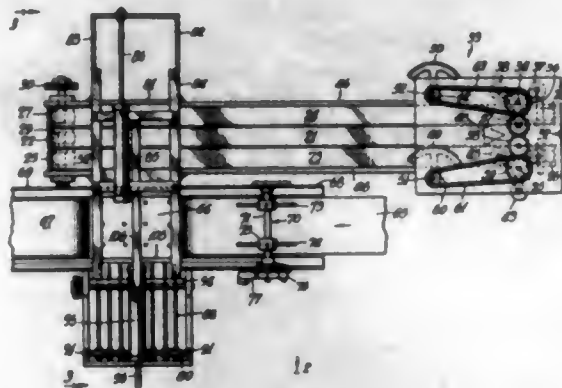
2,821,822

PROCESS AND APPARATUS FOR CASING GROUPS OF ARTICLES SUCH AS BOTTLES

Leslie A. Mapes, Palisade, N. J.

Application March 2, 1955, Serial No. 491,756

20 Claims. (Cl. 53—26)



1. A process for disposing articles in a case, which process comprises forming a group of said articles, moving said group on to a movable bridge disposed above the mouth of said case, projecting a support for said group through the base of said case into engagement with the base of said articles, withdrawing said bridge from above the open mouth of said case and then lowering the group of articles into said case while resting on said support.

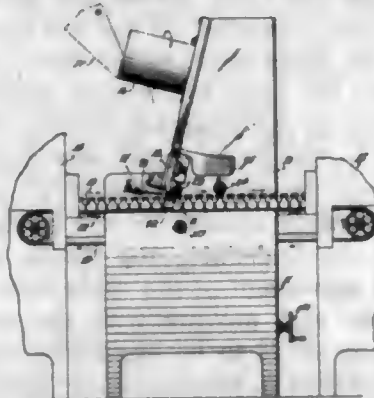
2,821,823

MACHINE FOR APPLYING STOPPERS TO BOTTLES

Eugene A. Wahl, Glen Ridge, N. J., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application December 22, 1952, Serial No. 327,267

22 Claims. (Cl. 53—43)



21. The method of applying resilient stoppers of the stem and flange type to bottles, which comprises suc-

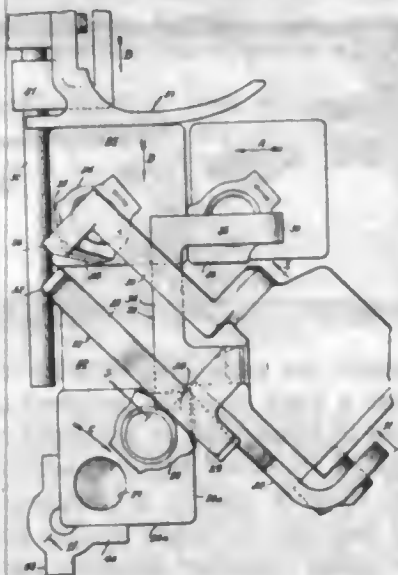
cessively conveying the stoppers to a station, loosely holding a stopper at said station with its axis substantially horizontal, positively conveying the bottles along a substantially horizontal path past said station at a given speed, the bottles being positioned with their openings facing upwards, and the path being in such relation to the station that the upper edge of each bottle successively contacts the flange of a stopper at the station and swings the stopper onto the bottle with the stem of the stopper positioned in registry with the opening of the bottle, and immediately passing the bottle and positioned stopper at the aforementioned given speed under a driven roller to force the stem of the stopper into each bottle.

2,821,824

CARTON HANDLING APPARATUS

Herman E. Knappe, Milwaukee, Wis., assignor to Cherry-Burrell Corporation, Chicago, Ill., a corporation of Delaware

Application November 3, 1955, Serial No. 544,666
9 Claims. (Cl. 53-53)



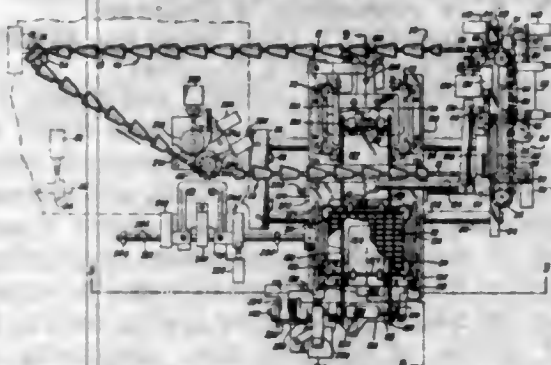
2. In a carton handling device of the class described, the combination of a pusher adapted to move a carton having a lid along a predetermined path from a lid opening location to a carton filling position, lid engaging facilities disposed at said location and reciprocable upwardly to raise said lid, means for reciprocating said facilities, a lid opening plow arranged diagonally over said path and adapted to catch a partially opened lid and bend it back, and a probe located adjacent said position and having a portion engageable by said lid when bent back, and carton rejecting facilities adapted to be activated by said probe when not engaged by a bent back lid.

2,821,825

TRAYING DEVICE

Stanley Jacob Gartner, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application April 15, 1954, Serial No. 423,391
14 Claims. (Cl. 53-74)



2. In a traying device, means for transporting buckets adapted to contain grids past a grid receiving station and

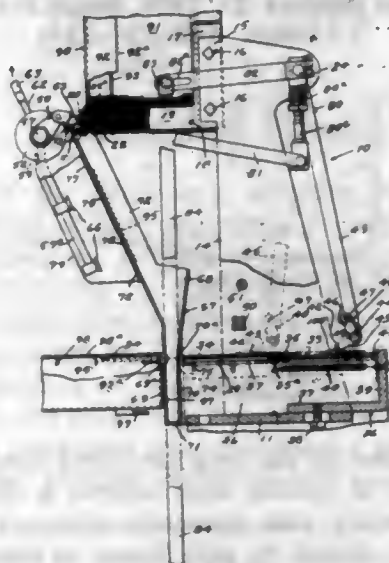
past a grid depositing station, a tray provided with parallel rows of pockets, means for indexing said tray in one direction longitudinally of a row of pockets, means operative at the end of movement of the tray in said direction to step the tray in a direction transverse to the longitudinal movement and to reverse the direction of longitudinal movement of the tray, said means being operation to perform the same motions on the tray at the end of said last longitudinal movement of the tray, resulting in a serpentine movement of the tray, and a grid transfer mechanism at the grid depositing station operable to remove a grid from a bucket and deposit the same in a pocket in the tray.

2,821,826

COUPON INSERTING MACHINE

James L. Stubblefield, Denison, Tex.

Application December 7, 1955, Serial No. 551,638
11 Claims. (Cl. 53-120)



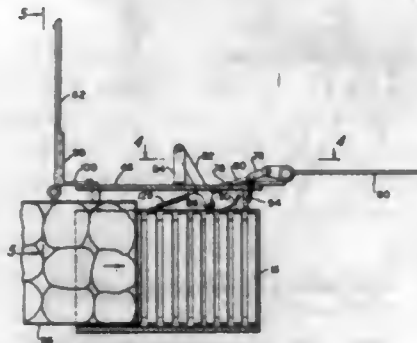
1. A coupon inserting machine comprising a frame, shafts journaled in said frame and disposed substantially parallel to one another including a rear shaft and a forward shaft, drive means for oscillating said rear shaft, an inserter blade disposed in said machine below the level of said shafts, means reciprocally mounted in the machine for carrying said inserter blade, means connecting said blade carrier means to the rear shaft for displacing the blade forwardly of the machine when said rear shaft is turned in a first direction, a tubular arm fixed to and depending from said forward shaft, suction head means carried by said tubular arm and communicating therewith, valve means including a stationary part supported by the machine frame and adapted to be connected to a suction conduit and a movable part carried by said forward shaft and communicating with said tubular arm, a magazine supported by said frame having an open bottom and adapted to contain a stack of coupons and including means for supporting the bottom of the coupon stack adjacent the open bottom of the magazine, link and lever means connecting said shafts for causing the forward shaft to be oscillated simultaneously with the rear shaft and in the opposite direction whereby when said rear shaft is turned in said first direction said tubular arm will be swung upwardly toward the magazine bottom and the movable valve section will be moved into communication with the suction conduit to provide a suction in said suction head means for gripping the bottommost coupon of the stack as the rear shaft completes its movement in the first direction, said tubular arm being swung downwardly and away from the magazine bottom whereby the bottommost coupon is extracted from the magazine by the suction engagement of said suction head means therewith as the forward shaft is initially turned in the opposite direction by turning of the rear shaft in the opposite, second direction, said movable valve section assuming a

position, as said tubular arm is swung downwardly, for venting the tubular arm to the atmosphere to release the suction in said suction head means for releasing the coupon therefrom, means disposed to receive the coupon released by said suction head means and for conveying the coupon by gravity to a position in front of said inserter blade to be engaged by said inserter blade upon the subsequent forward travel of the inserter blade and inserted therewith into a carton disposed in front of the inserter blade, and spring means for rapidly returning the inserter blade and the carrying means thereof to a fully retracted position as said rear shaft approaches the extremity of its movement in said first direction.

2,821,827

CARTON CLOSING MACHINE

Hugh H. Shaw, Martin I. Sanderson, and Harold G. Bradshaw, Salinas, Calif., assignors to Cochran Equipment Company, Salinas, Calif., a corporation of California
Application January 23, 1956, Serial No. 560,717
7 Claims. (Cl. 53-124)

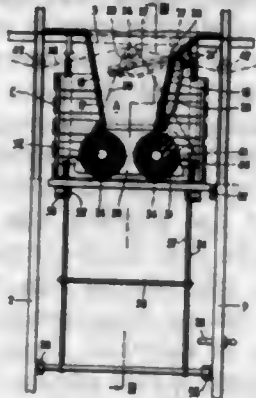


1. In apparatus of the type described having a support frame adapted to receive and support a filled carton, a pair of oppositely and vertically disposed carton side pressure plates carried by said frame, at least one of said plates being attached to said frame for movement toward and away from the other of said plates, and means for moving said one plate; the combination therewith of first arm means connected to one end of said one plate adapted upon movement of said one plate toward the other of said plates to be swung into a right angled position with respect to said one plate to embrace an end of a filled carton supported by said frame, and second arm means connected to the other end of said one plate adapted upon movement of said one plate toward the other of said plates to be projected transversely of said frame to embrace the other end of a filled carton supported by said frame, whereby the side and end walls of said carton will be supported against undesired bulging while the closure flaps thereof are closed and secured closed.

2,821,828

FRUIT-SORTING MACHINE

Hans Kernen, Jr., Bern, Switzerland
Application September 3, 1953, Serial No. 378,207
5 Claims. (Cl. 53-245)



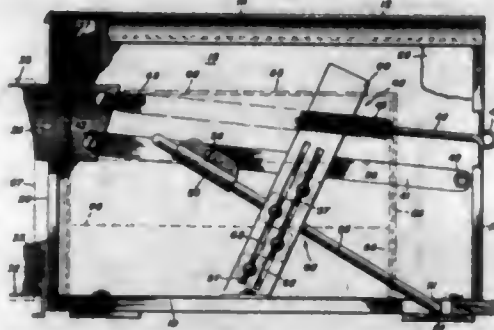
1. Means suitable for delivering fruit in undamaged condition into crates or like containers comprising frame

structure including a platform support for a crate, means mounting said platform for movement under the influence of the weight of fruit delivered into the crate, resilient means resisting said platform movement but permitting said platform to gradually settle under the weight of fruit filled into the crate supported upon the platform and funnel means for receiving fruit for deposit in said crate, said funnel means being supported on said frame structure so as to depend into the crate and said funnel presenting soft surfaced walls to fruit delivered thereinto, said platform being movable relatively to said funnel, said funnel including soft surfaced rotary means located in the path of fruit delivered into the funnel, said rotary means being formed and arranged to deliver the fruit into the crate.

2,821,829

APPARATUS FOR PACKAGING ARTICLES

Edward Kenneth Gundersdorff, Baltimore, Md.
Application October 17, 1955, Serial No. 540,996
8 Claims. (Cl. 53-257)



1. An apparatus for packaging articles in a container, which comprises a body member designed to receive and maintain articles in position to be packaged in a container, a pair of elongated container supports secured to one end of the body to slidably receive a container, one of said supports being movable vertically on the body toward or away from the other container support, means for selectively positioning the movable support so that the supports may be spaced apart a distance corresponding to the size of a container to be placed over the supports, and means cooperating with the selective positioning means for normally maintaining the movable support parallel to the other support for each position of the selective positioning means, said parallel supporting means being so arranged that the movable support may be pivoted about the selective positioning means so that the free end thereof may be moved toward the free end of the other support and thereby facilitate placing a container over the supports, whereby when the supports are maintained parallel to each other they hold a container positioned over the supports in an open condition so that articles may be slidably transferred from the body into the container.

2,821,830

CARTON CLOSING AND SEALING APPARATUS
Richard J. Fahey, Chicago, Ill., assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application January 17, 1955, Serial No. 482,084
26 Claims. (Cl. 53-376)

1. Apparatus for sealing cartons, comprising a conveyor having a horizontal carton conveying reach, a pair of longitudinally spaced cover sealing devices in vertically spaced relation to said horizontal reach, said devices operating optionally in the sealing of the covers of cartons transported on said reach, control means selectively placing said devices in and out of operative sealing condition, and mechanism adapting said cover sealing devices to the closing of cartons of different sizes, comprising longitudinal carton guide elements mounted adjacent opposite sides of said conveyor reach in horizontally spaced rela-

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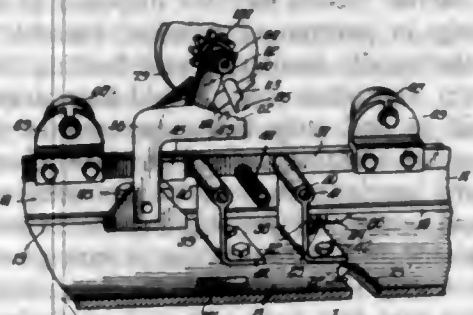
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tion to one another, said elements laterally confining cartons in their paths of travel on said conveyor reach, means to adjust the lateral spacing of said elements relative to one another, and common means actuating said



control means and said adjusting means to simultaneously change the lateral spacing of said guide elements relative to one another and to place a selected sealing device in operative condition.

2,821,831

ROTARY BRUSH CUTTER

Wallace M. Thompson, Cordele, Ga., assignor to Harris Foundry & Machine Co., Cordele, Ga., a corporation of Georgia

Application April 4, 1955, Serial No. 498,946

1 Claim. (Cl. 55-62)



A brush cutting machine comprising a horizontal frame, a longitudinal ground engaging skid extending downwardly from each side of said frame, a ground engaging roller mounted on the rear end portion of said frame, a vertical shaft journaled in the central portion of said frame, a circular blade holder rigidly secured to the lower end of said shaft, said blade holder including a substantially flat circular plate spaced below said frame, a central hub rigidly secured at its lower end to said circular plate, a plurality of radial ribs secured to the upper surface of said plate and having their inner ends secured together and to said hub, a plate-like ring extending upwardly from the peripheral edge of said plate and being secured to the outer ends of said radial ribs, and a cover plate secured to said plate-like ring, ribs and central hub, a guard ring secured to said frame in surrounding relation to said blade holder and having an annular rim extending upwardly and outwardly from the periphery of said plate to said frame, a plurality of circumferentially spaced blades secured below said circular plate for pivotal movement about vertical axes, hitch means on the forward end of said frame for connecting the same to a propelling vehicle, and means for rotating said shaft to drive said blades.

2,821,832

COTTON PICKER DRIVE INCLUDING SYNCHRONIZER

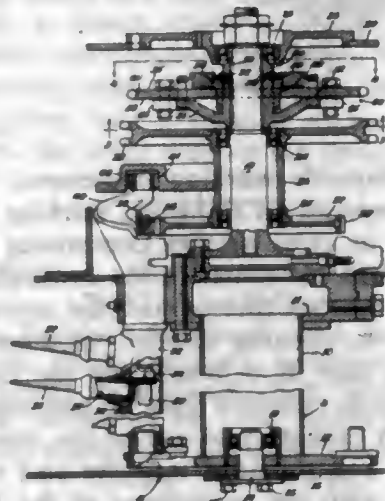
James Morkoski, Des Plaines, Ill., assignor to International Harvester Company, a corporation of New Jersey

Application August 1, 1955, Serial No. 525,742

8 Claims. (Cl. 56-44)

1. In a cotton picker of the type having an ambulatory structure including a carrier for moving along a plant row and a rotor rotatably carried on an upright axis by the carrier in a position disposing one area thereof alongside said row, said rotor including axially extending structure and vertical rows of outwardly extending spindles rotatably mounted on said structure for rotating about their individual axes, the improvement comprising com-

mon drive means for rotating said rotor in toto about said axis and for rotating said spindles about their individual axes, said drive means including a vertical shaft drivingly geared with each row of spindles and each having an input gear connected thereto, a power driven driving gear rotatable about said axis and in driving engagement with the input gears of said shafts for rotating each shaft about its individual axis and for orbiting all of said shafts with said rotor about said axis.



of rotation of the rotor in a direction advancing rearwardly said area of the rotor along said row, and mechanism for limiting the peripheral speed of rotation of said rotor to substantially the speed of ground travel of said carrier and comprising a driven member rotatable about the axis of rotation of the rotor and moving in said direction of rotation of said rotor, and means connected to said axis in the path of said member and abutable with said member when said rotor rotates at a peripheral speed beyond ground traverse speed of said carrier.

2,821,833

NUT HARVESTING DEVICE

Harry R. Axtell, Madison, Miss.

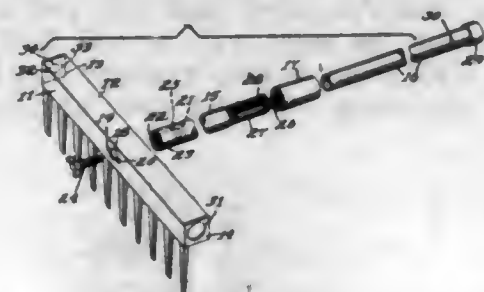
Application February 1, 1957, Serial No. 637,778

4 Claims. (Cl. 56-328)



1. A device for harvesting nuts comprising a generally rectangular rigid receptacle having an open forward end and having a bottom wall, a pair of side walls, a rear end wall and a top wall, a transversely extending, upwardly and rearwardly inclined throat plate secured in the forward end of said receptacle and rising from said bottom wall a substantial distance, the top edge of said throat plate being spaced below said top wall by a sufficient distance to allow nuts to pass between said top edge and said top wall into the space between said throat plate and rear wall and to allow the nuts to discharge from the receptacle when said receptacle is inverted, a transverse pivot rod extending rotatably through the lower forward portions of the side walls rearwardly adjacent said throat plate, and a handle rod rigidly secured to one end of said pivot rod and extending at a relatively large angle to said pivot rod, said receptacle being rotatable around said pivot rod to invert same.

2,821,834
COLLAPSIBLE RAKE
 Earle F. Walker, Los Angeles, Calif.
 Application October 26, 1954, Serial No. 464,760
 3 Claims. (Cl. 56-400.19)



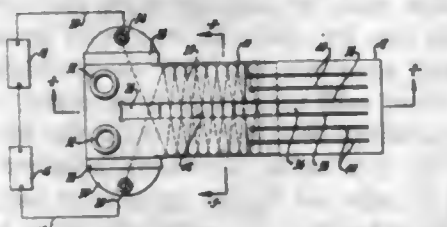
1. In a collapsible working implement, the combination which comprises an elongated working head substantially L-shape in cross section comprising a front plate and a cover plate and plates in the ends, one of said end plates having notches therein and the other of said end plates having an opening therein, an inner tubular section providing part of a handle for the implement and having projections extended from an end thereof, a thumb screw extended through said one of the end plates of the working head and threaded into the end of the section of the handle with the projections of the handle in the notches in the said one end plate of the working head with the handle extended through the opening in the other of said end plates of the working head, a telescoping section mounted for sliding movement in the inner section of the handle, and means on the handle for clamping the telescoping section in an extended position.

2,821,835
CARPET YARN AND METHOD OF MAKING SAME
 Charles C. Berry, Lexington, Va., assignor to James Lees and Sons Company, Bridgeport, Pa., a corporation of Pennsylvania
 Application May 6, 1955, Serial No. 506,459
 11 Claims. (Cl. 57-139)



1. A cabled yarn comprising a plurality of substantially identical multi-ply yarns each having a twist of a given number of turns per inch in one direction, said multi-ply yarns being twisted together with a selected number of turns per inch in the opposite direction, until the exposed portions of the singles yarns are in substantial longitudinal alignment, thereby producing a braided appearance in the redoubled yarn.

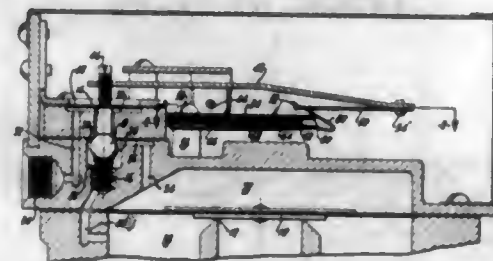
2,821,836
TWO-WAY FAST ACTING BIMETAL CONTROL ELEMENTS
 Donald H. McCorkle, Sr., Berkeley, Calif., assignor to D. H. McCorkle Company, Berkeley, Calif., a corporation of California
 Application November 20, 1953, Serial No. 393,254
 5 Claims. (Cl. 60-23)



1. A heat motor comprising a first bimetal strip having a mounting end, a second bimetal strip inverted with re-

spect to said first strip and secured to the other end of said first strip in heat transfer relation therewith, said second strip having heat response characteristics substantially similar to those of said first strip, resistance heating means and carrier means therefor disposed at one side of said first strip in juxtaposed relation thereto, insulating means for electrically insulating said heating means from said first strip, the other side of said first strip and both sides of said second strip being exposed to the atmosphere, means for securing the end portions of said insulating means and carrier means to the mounting end of said first strip, and means for maintaining the balance of said insulating means and carrier means in juxtaposed relation with said first strip while allowing for free relative movement between said first strip and said insulating and carrier means during heat responsive movement of said strips.

2,821,837
TWO-WAY FAST ACTING BIMETAL CONTROL ELEMENT AND IMPROVEMENTS THEREIN
 Donald H. McCorkle, Sr., Berkeley, Calif., assignor to D. H. McCorkle Company, Berkeley, Calif., a corporation of California
 Application April 6, 1954, Serial No. 421,365
 8 Claims. (Cl. 60-23)



1. A heat motor comprising a first bimetal strip, means anchoring one end of said strip, a second bimetal strip normally disposed substantially in parallelism with said first strip and adapted to warp in the same direction as said first strip under the influence of a rise in temperature, a pivotally mounted lever, an attaching connection between said lever and one end of said second strip whereby said lever serves as a mounting means and carrier for said second strip, heating means for said strips adapted to heat said first strip at a faster rate than said second strip, the other ends of said strip being cooperatively positioned one above the other whereby warping movement of said first strip is transmitted to said lever through said second strip.

2,821,838
JET PROPULSION DEVICE FOR OPERATION THROUGH FLUID MEDIUM AND METHOD OF OPERATING IT
 Fritz Zwicky, Pasadena, Calif., assignor, by mesne assignments, to Aerojet-General Corporation, Cincinnati, Ohio, a corporation of Ohio
 Application April 28, 1945, Serial No. 590,833
 18 Claims. (Cl. 60-35.6)

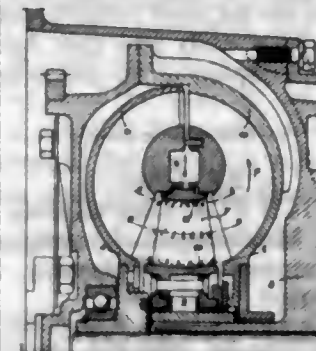


1. A reaction propelled device adapted for propulsion through air comprising a duct having an inlet opening and an exhaust nozzle, a valve separating the duct into a forward and rear portion, a combustion chamber located within the rear portion, an auxiliary combustion chamber of shorter length than the first-mentioned combustion chamber located within the first-mentioned combustion chamber, means for supplying a combustible charge to the first-mentioned combustion chamber and means for

supplying an explosive charge in the auxiliary combustion chamber, and means for initiating the explosion of the explosive charge in the auxiliary combustion chamber.

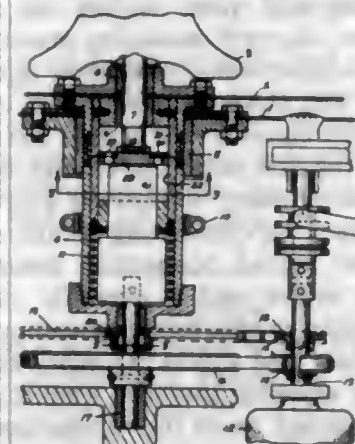
10. A method of operating a combustion motor having a combustion chamber, which comprises introducing a combustible charge into the combustion chamber and introducing a more easily decomposable explosive charge on either side of the main combustible charge, exploding the more readily combustible charges and promoting the explosion of the main combustible charge by employing pressure and temperature created by the explosion of the more easily decomposable charges.

2,821,839
HYDRAULIC TORQUE CONVERTERS
 Lucien Péras, Billancourt, France, assignor to Regie Nationale des Usines Renault, Billancourt, France
 Application April 12, 1955, Serial No. 500,977
 Claims priority, application France April 24, 1954
 2 Claims. (Cl. 60-54)



1. A hydraulic torque converter comprising a pump having blades, a turbine having blades, and a reaction member rotationally mounted on a uni-directional coupling arranged to form a close toroidal fluid circuit in which pump blade exits and turbine blade entrances are at the largest circuit radius relative to a main rotational axis of the converter, said reaction member being disposed between the pump and turbine at the shortest circuit radius relative said axis, a plurality of airfoil-shaped blades in said reaction member, each of said reaction blades having angles of entrance and outlet, each of said reaction blades changing in curvature gradually along the chord and span, whereby blade profile portions radially nearest the axis of rotation have a larger angle of entry than those farthest away from said axis, and said outlet angles remain substantially constant throughout the span of the blades.

2,821,840
WASHING MACHINE
 David Hays, Bridgeport, Conn.
 Application June 17, 1952, Serial No. 294,098
 9 Claims. (Cl. 60-54.5)

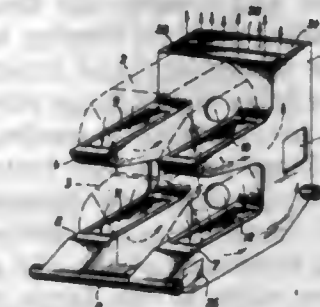


1. In an oscillatory drive, a rotatable power shaft, means for rotating the power shaft, a pair of liquid

727 O. G.-4

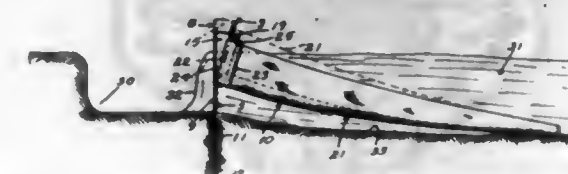
filled chambers on opposite sides of the power shaft, a liquid delivery port leading from each chamber, piston means for the chambers, a drive from the power shaft to the piston means actuating the piston means toward one of the delivery ports during part of the revolution of the power shaft and then toward the other of the delivery ports during the balance of the revolution of the power shaft to force liquid out first through said one of the liquid delivery ports and then through the other of the delivery ports, a driven shaft, a piston on the driven shaft, a cylinder surrounding the driven shaft piston, a passage connecting one of the ports to one side of the driven shaft piston, and a passage connecting the other of the ports to the other side of the driven shaft piston.

2,821,841
INTERNAL COMBUSTION ENGINE INSTALLATION
 Erich Bartha, Bergisch Gladbach, and Ferdinand Jung, Weiden, near Köln, Germany, assignors to Klöckner-Humboldt-Deutz Aktiengesellschaft, Köln, Germany
 Application November 30, 1956, Serial No. 625,533
 Claims priority, application Germany December 10, 1955
 14 Claims. (Cl. 60-97)



1. For use in connection with a plurality of air cooled V-type internal combustion engines, the combination of: a supporting frame comprising an upwardly extending hollow body and a plurality of pairs of hollow supporting arms projecting from and connected to said hollow body in a direction substantially perpendicular to the upwardly extending hollow body, said pairs of supporting arms being arranged above each other in spaced relationship to each other for respectively receiving and supporting said engines, said supporting arms being arranged for connection with said engines to receive heated-up cooling air therefrom and having their interior in communication with the interior of said upwardly extending hollow body.

2,821,842
IRRIGATION CONTROL GATE
 Leland F. Christiansen, Otto, Wyo.
 Application April 25, 1955, Serial No. 503,509
 2 Claims. (Cl. 61-29)



1. An irrigation ditch control gate of the character described comprising a substantially rigid plate of triangular shape having a notch formed therein and opening outwardly of one edge of said plate and disposed substantially in alignment with one corner of the plate, said edge forming the top of the plate and said corner forming the pointed bottom thereof, said notch constituting a passage for irrigation water and having a rounded inner

end and side edges diverging relative to one another from said inner end toward said upper edge of the plate, said plate including an upstream side and a downstream side, a flange forming an integral part of said plate and projecting outwardly from the downstream side thereof and disposed around said notch or passage, said flange including a longitudinally rounded bottom portion conforming to the inner end or bottom of said notch or passage and upwardly extending side portions disposed in diverging relationship to one another and conforming to the sides of said notch or passage, said bottom portion of the notch having an upper side concavely arced longitudinally and convexly arced transversely from side to side thereof to provide a discharge lip or spout for said passage, a spillway comprising an elongated fabric strip, and a mounting clip connected to one end of said fabric strip and engaging around and detachably mounted on said flange for supporting said fabric strip end around the bottom and side portions of the flange, said fabric strip extending from the flange in a direction away from said plate, said strip being formed of a flexible material substantially impervious to water and provided with a fold in which a portion of the mounting clip is disposed, said mounting clip including leg portions spring biased toward one another and toward said flange sides, said mounting clip including portions forming intumed extensions of upper ends of said legs, said intumed extensions engaging over upper edges of said flange sides, said mounting clip including an intermediate portion disposed beneath said bottom flange portion, said bottom flange portion having an underside concavely bowed in cross section in which said intermediate clip portion is confined when said intumed extensions of the clip are in engagement with the upper edges of the flange sides, and said upper edges of the flange sides being provided with a plurality of notches selectively receiving said intumed extensions of the clip for supporting the clip and the folded end of the fabric at different angles relative to said plate.

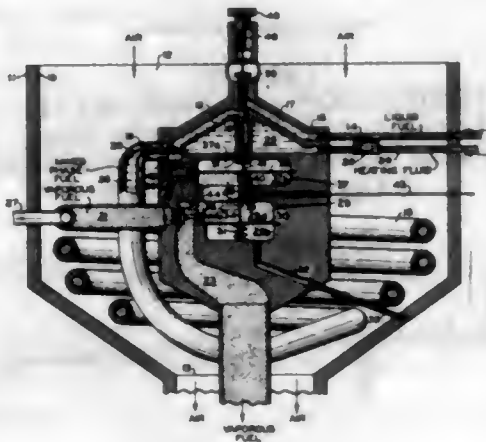
2,821,843

LIQUEFIED PETROLEUM GAS CONVERTER

Richard A. Mengelkamp and Lloyd B. Grantham, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

Application November 27, 1953, Serial No. 394,626

6 Claims. (Cl. 62—1)



1. A liquefied petroleum gas converter adapted for use in an internal combustion engine comprising a regulator body containing a liquid fuel passage therethrough, a first pressure-reducing valve in said passage, a heating fluid passage through said body adjacent said liquid fuel passage, means for controlling said first pressure-reducing valve in accordance with the ratio of the pressure downstream from said valve and the pressure in the inlet air duct hereinafter set forth, a vaporous fuel passage through

said body, a second pressure-reducing valve in said vaporous fuel passage, and means for controlling said second pressure-reducing valve in accordance with the ratio of the pressure in said vaporous fuel passage and atmospheric pressure; a liquid fuel inlet line connected to said liquid fuel passage upstream from said first pressure-reducing valve; a heating fluid inlet line connected to a first end of said heating fluid passage; a valve in said heating fluid inlet line; a heating fluid line comprising a coil about said regulator body having one end connected to the second end of said heating fluid passage, and the other end terminating externally of said converter; a first vaporous fuel line having one end connected to said liquid fuel passage downstream from said first pressure-reducing valve, being concentrically disposed around said heating fluid line and having the other end connected to said vaporous fuel passage upstream from said second pressure-reducing valve; a second vaporous fuel line connected to said vaporous fuel passage, downstream from said second pressure reducing valve and adapted to be connected to the inlet of the internal combustion engine; and an air duct comprising a housing surrounding said regulator body and coil, open at both ends and having one end adapted to be connected to the engine inlet.

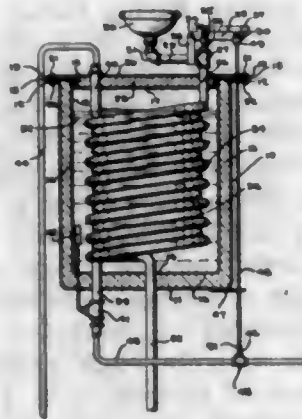
2,821,844

COOLING DEVICE FOR DRINKING FOUNTAIN

Andrew R. Olson, Madison, N. J., assignor to Suburban Propane Gas Corporation, Whippany, N. J., a corporation of New Jersey

Application June 21, 1954, Serial No. 438,239

3 Claims. (Cl. 62—7)



1. Drinking fountain cooler means for connection to a water main comprising, water supply conduit means having an end operably affixed thereto and supporting the same, a spring closed stop valve in said conduit means and an operating member attached thereto, said member comprising a handle, convolutions in said conduit means comprising a helical water cooling coil, a chamber completely surrounding said water cooling coil and having all of its walls hollow, thermal insulating material completely filling all of said hollow walls, secondary liquid refrigerant in said chamber and covering said water cooling coil, a primary refrigerant conduit coil in said chamber helically intertwined with the first said coil, having an end in valve connection with a primary refrigerant supply source and another end arranged for conducting refrigerant away from said coil, the said valved connection comprising a stop valve having an orifice and a movable valve operating member, and linking means interconnecting the operating members of the two said valves for simultaneously spring returned manual opening thereof, whereby primary refrigerant flow is turned on in the refrigerant coil to effect secondary refrigerant cooling and water coil cooling, only upon water flow in the water coil resulting from fountain flow induced by manual depression of the water valve handle.

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2,821,845 EVAPORATOR STRUCTURE FOR REFRIGERATORS

Jesse B. Thomas, Louisville, Ky., assignor to Reynolds Metals Company, Louisville, Ky., a corporation of Delaware

Application October 15, 1954, Serial No. 462,471
3 Claims. (Cl. 62—126)



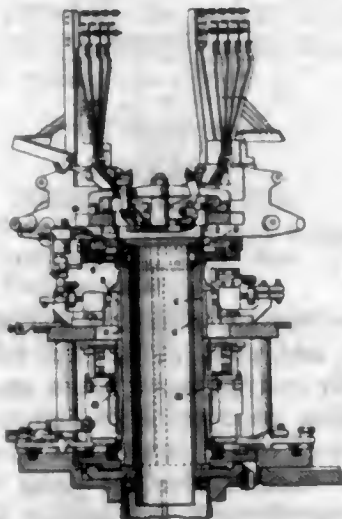
1. In an evaporator: an evaporator wall providing an evaporator chamber therein having an evaporator outlet passageway within the confines of said wall, through which passageway flows effluent fluid from the evaporator; a portion of said outlet passageway forming a sheathing conduit within the confines of said wall; a socket portion connecting the inlet end of said evaporator chamber with said sheathing conduit; a capillary tube extending through said sheathing conduit and having its interior end connected in said socket in sealing relation to said outlet passageway; and the exterior diameter of said capillary tube being smaller than said sheathing conduit to provide space around the capillary tube for flow of effluent fluid through said outlet passageway.

2,821,846 KNITTING MACHINE JACK

Stanley R. Shelmire, Laconia, N. H., assignor to Scott & Williams, Incorporated, Laconia, N. H., a corporation of Massachusetts

Original application April 2, 1952, Serial No. 280,050.
Divided and this application October 13, 1954, Serial No. 461,973

7 Claims. (Cl. 66—123)



1. A jack for reception in slots in a needle carrier of a knitting machine comprising an elongated member having on one longitudinal edge a fulcrum structure and having a plurality of selectively removable butts on each side of said fulcrum structure for engagement by cams for selective rocking of the jack.

2,821,847 CIRCULAR KNIT HOSIERY AND METHOD OF CLOSING THE FOOT OF SAME

James L. Getaz, New York, N. Y.

Application March 23, 1956, Serial No. 573,481

10 Claims. (Cl. 66—185)

8. In circular knit hose, a foot portion containing an instep portion and a sole portion, a seamless toe pocket

joined to said instep portion and to said sole portion by courses of knitted loops, said foot portion being closed



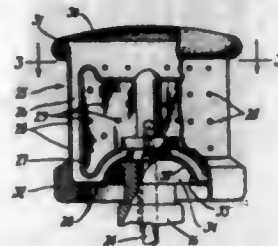
by a seam of stitches extending longitudinally of said foot portion and along the bottom thereof.

2,821,848 WASHING MACHINE

Karl H. Becker, Huntingdon Valley, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application July 15, 1955, Serial No. 522,246

14 Claims. (Cl. 68—17)



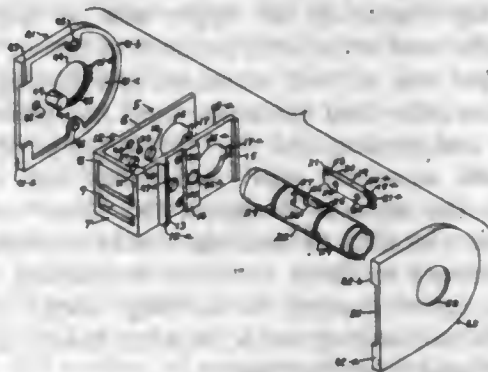
13. In a washing machine having a washing basket and an agitator structure therein, a device for adding washing-aid material to water within said basket, said device including container means for said material and mixing means in said container means, one of said means being coupled with said agitator structure to be driven thereby with respect to the other of said means, and means for restraining said other of said means against movement with respect to said one of said means.

2,821,849 MOUNTING ARRANGEMENT FOR A DOOR LATCH OR LOCK

William V. Schweitzer, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a corporation of Connecticut

Application April 1, 1955, Serial No. 498,525

17 Claims. (Cl. 70—462)



8. For a door latch or lock of the character described, a frame including in combination a housing adapted to receive a latch bolt and a retractor therefor and having a front end wall and spaced rearwardly extending side walls, said housing being of a width substantially equal to the width of the door to which the frame is adapted to be applied, means on said housing for supporting a retractor operating mechanism, an inner and an outer escutcheon plate adapted to overlie portions of said side walls and to engage the opposite faces of the door; each of said escutcheon plates having a notch therein adapted to receive a side wall of said housing, cooperative means

on each of said escutcheon plates and on one of said side walls permitting selective attachment of either of the escutcheon plates thereto, and means on said one side wall engageable by the attached escutcheon plate to locate its door-engaging face in the same plane as the outer surface of said one side wall; the opposite side wall being receivable in the notch in the adjacent escutcheon plate to permit application of said frame to an undersize door.

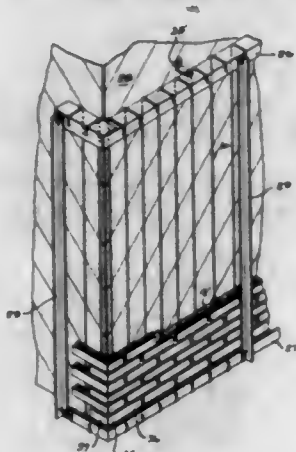
2,821,850

WALL FACING CONSTRUCTION

Carl W. Adelt, Mays Landing, N. J.

Application January 21, 1955, Serial No. 483,296

5 Claims. (Cl. 72-17)



1. A wall facing construction including a pair of members arranged in superimposed spaced relation, each member having a vertical flange and a horizontal flange, the upper one of said members being arranged so that the horizontal flange is on top with the vertical flange on the outside and the lower one of said members being arranged so that the horizontal is on the bottom with the vertical flange on the outside, an upstanding member extending between and detachably secured to the vertical flanges of said upper and lower members for holding said latter members in spaced superimposed relation, a plurality of spacer blocks arranged in spaced relation along and fixedly carried by the horizontal flange of the lower one of said members, each of said blocks having a portion adjacent one end thereof being inwardly of and spaced from the horizontal flange of the lower one of said members, a plurality of flexible elements extending between said upper and lower members, each of said elements having a portion adjacent one end extending over the top flange of the upper one of said members with said one end detachably secured to the vertical flange of the upper one of said members and having a portion adjacent the other end extending over the adjacent spacer block one end portion and the bottom flange of the lower one of said members with said other end detachably secured to the vertical flange of the lower one of said members, a plurality of decking blocks mounted on said flexible element to form a facing simulating a building wall made up of courses of building blocks, and means individually connecting each decking block to an adjacent one of said flexible elements.

2,821,851

SYSTEM FOR HYDROSTATICALLY TESTING CONTAINERS

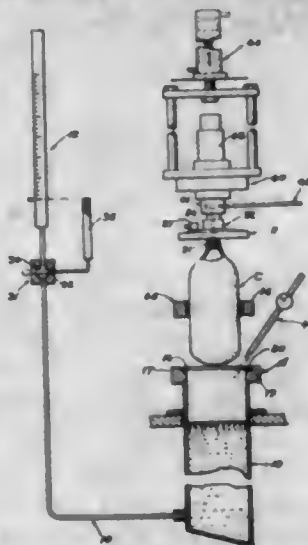
Horace S. Daley, Clifton, N. J., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey

Application August 5, 1954, Serial No. 448,035

7 Claims. (Cl. 73-37)

1. In a system for hydrostatically testing containers adapted for storing pressure medium therein, the combination of a jacket adapted to be filled with water having

an open upper end including a seat and a wall surrounding said seat, volumetric measuring means, conduit means for establishing a fluid flow connection between said jacket and said measuring means, and a cover positioned on said seat to seal said open end having means on the underside thereof for suspending a container to be tested in said



jacket and having means for introducing test fluid into the container, said cover fitting into said wall to displace water from said jacket above said seat and having a recess on the underside thereof above the level of said seat for trapping a small quantity of air and to compress the same as the cover is positioned on said seat.

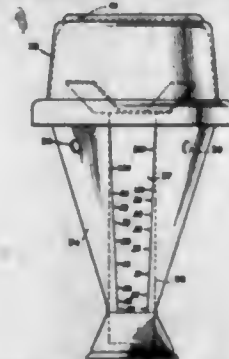
2,821,852

PRECIPITATION GAUGE

Norman R. Hastings, Huron, S. Dak., assignor to Walk Time, Inc., Huron, S. Dak., a corporation of South Dakota

Application April 15, 1954, Serial No. 423,417

11 Claims. (Cl. 73-171)



1. A hollow upwardly flaring tubular member closed at the bottom and open at the top, means in the form of an upwardly converging frustum open at its top and bottom providing an opening of definite horizontal area less than the area of the top of the upwardly flaring tubular member mounted on the open top for directing precipitation therethrough and guiding it into the tubular member, and an upstanding element fixed within said tubular member cooperating with the upwardly flaring walls of said tubular member, scale markings graduated on one of said tubular members and upstanding element to indicate the amount of precipitation in said tubular member, whereby small quantities of precipitation may be accurately measured as well as large quantities thereof.

2,821,853

WATER DEPTH INDICATOR

Robert E. Ruskin, Washington, D. C., and Max V. Morgan, United States Navy

Application February 3, 1945, Serial No. 576,110

9 Claims. (Cl. 73-290)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A water-depth indicator comprising a sinkable container, a plurality of buoyant signal elements releasably

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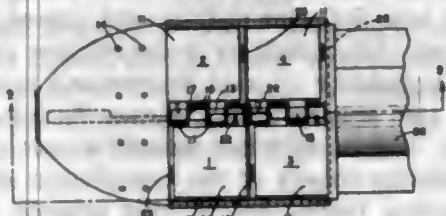
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GENERAL AND MECHANICAL

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carried by said container, means barring the release of certain said signal elements and operable in response to different degrees of hydrostatic pressure to withdraw from



barring relation with certain of said signal elements according to the hydrostatic pressure and means holding all of said signal elements against release for a predetermined time independently of said barring means.

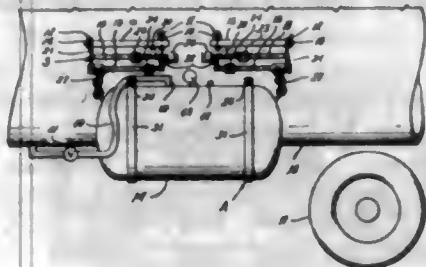
2,821,854

VEHICLE SCALE FOR LIQUEFIED GAS DISPENSER

Theodore K. Franke, El Campo, Tex.

Application September 29, 1952, Serial No. 312,020

5 Claims. (Cl. 73-296)



1. In a liquefied gas dispensing device, the combination with a vehicle of, a weighing scale mounted on the vehicle, a measuring tank, an extensible connecting means for imposing the weight of said measuring tank and its contents on said scale whereby the amount of liquefied gas in said measuring tank is indicated, and releasable strap means for removing the weight of said measuring tank from said scale without disconnecting said measuring tank from said scale.

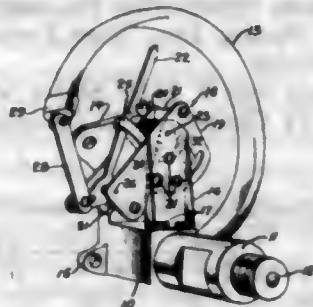
2,821,855

PRESSURE GAUGE

Ambrose E. Le Van, Sellersville, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware

Application May 25, 1955, Serial No. 510,985

6 Claims. (Cl. 73-411)



1. In a pressure gauge, the combination including a case, a socket in said case, said socket having connection means extending to the exterior of said case, a Bourdon spring mounted on said socket and within said case, dial means located frontwardly of said socket, a movement supporting bracket directly on said socket and at the rear thereof adjacent said connection means, movement means adjustably mounted on said bracket, said movement means including a pair of spaced side plates with a pointer shaft journaled therein and operating means connecting said Bourdon spring and shaft, one of said side plates having arcuately extending slots therein, and clamping

plate means having a face area which covers a substantial portion of said side plate clampably mounted on said bracket for carrying one of said spaced side plates between said bracket and said clamping plate.

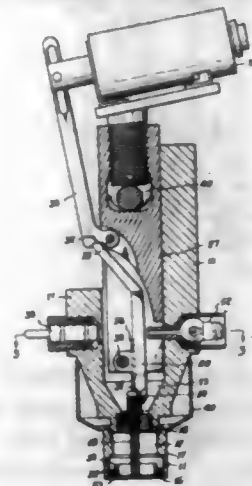
2,821,856

RAPID GAS-SAMPLING VALVE

William J. Levedahl, Kensington, Mo., assignor to the United States of America as represented by the Secretary of Commerce

Application December 15, 1953, Serial No. 398,443

6 Claims. (Cl. 73-421.5)



1. A rapid gas-sampling valve comprising a valve housing having a cylindrical centrally disposed passage with an opening, a first circular flange protruding into the opening at a first end of said housing, a second circular flange protruding into the opening at a predetermined distance from said first flange, said opening having an enlarged portion intermediate said flanges and narrow portions adjacent said flanges the outer surface of said housing having a groove therein, said groove connected to the centrally disposed passage at a point between a second end of said housing and said second flange, means, cooperating with the outer surface of said housing, for providing a large enclosed space adjoining said groove, said housing having a second passage for connecting said groove with a large evacuated area, a piston including a third flange positioned in the opening between said first and second flange, of such diameter as to obstruct said narrow portions of said opening but of insufficient diameter to obstruct said enlarged portion, said third flange being seated against said first flange when the piston is in the extended position and being seated against said second flange when in the retracted position, a valve stem for said piston, a bushing located in the passage for constraining said valve stem to travel along the axis of the opening, means for preventing leakage of air from the area between the second end of said housing and said bushing into the area between said bushing and the first end of said housing, means for holding said piston in the extended position, electromechanical means, including a solenoid, for releasing the holding means, and means for determining the beginning and ending of motion of said piston.

2,821,857

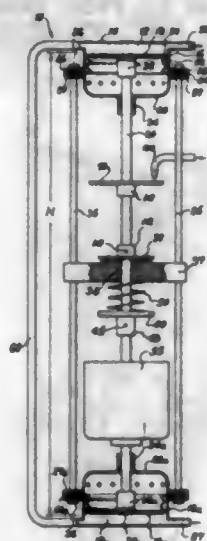
SPECIFIC GRAVITY MEASURING INSTRUMENT
Alex's Georges Basilevsky, Sea Cliff, N. Y., assignor to North American Solvay, Inc., New York, N. Y., a corporation of Delaware

Application February 28, 1955, Serial No. 490,959

5 Claims. (Cl. 73-438)

1. A device for measuring the specific gravity of a flowing liquid and for instantaneously detecting small changes in the specific gravity of said liquid which comprises, in combination, means defining an upper pressure chamber provided with means defining an upper movable

pressure surface, means defining a lower pressure chamber provided with means defining a lower movable pressure surface, connecting means rigidly interconnecting said upper pressure surface and said lower pressure surface to move in unison, means for continuously supplying the liquid to be measured directly into the lower chamber for direct action of said liquid upon said lower pressure surface and means for continuously supplying said liquid directly into the upper chamber for direct action of said liquid upon said upper pressure surface, means for pro-



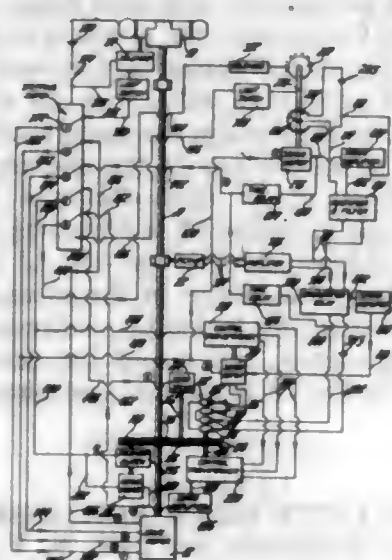
viding a constant head of liquid between the two pressure chambers, and means for continuously removing the liquid from said chambers, whereby a continuous flow of said liquid may be effected through said chambers simultaneously and said liquid being measured may continuously exert a direct action simultaneously upon both of said pressure surfaces as said liquid flows through the two pressure chambers, a variable force compensating means acting upon said connecting means, and a weight biasing the pressure surfaces in the direction of said lower chamber.

2,821,858

BALANCING MACHINE

William F. King, Oak Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 12, 1954, Serial No. 429,146
9 Claims. (Cl. 73-462)



1. A balancing machine including means for receiving and rotating a member for balance determination, means operatively connected to said first-named means for automatically determining the amplitude of unbalance of said member and the angular disposition of the unbalance thereof relative to said first-named means, means operatively connected to said second-named means and respon-

sive to the amplitude determination made thereby, means for automatically stopping said unbalance member and repositioning said member relative to said amplitude responsive means, said last-named means being operatively connected to said first and said second-named means and including means determinative of the relative angular relation of said unbalance to said first-named means, as determined by said second-named means during rotation of said member, and of said last-named means to said amplitude responsive means at the completion of work rotation and being responsive to said angular determinations for automatically positioning said member relative to said corrective means, said amplitude responsive means being operatively connected to said last-named means for automatic actuation thereby to engage said member upon the relocation of the unbalanced portion of said member relative thereto by said last-named means.

2,821,859

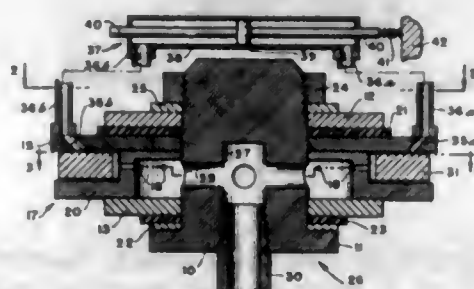
AIR BEARING GYRO AND PICKUP

Sydney R. Crockett, Van Nuys, Calif.

Application March 16, 1953, Serial No. 342,766

7 Claims. (Cl. 74-5.6)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A rate gyro comprising a ring shaped rotor having flat side portions, means forming an air bearing for said rotor comprising a housing within which said rotor rotates, the housing having inner walls closely adjacent the side portions of the rotor to form spaces, means to admit air to said housing, means causing said air to escape between the rotor and housing to form an air bearing for the rotor, and means to measure changes in the magnitude of the space between the rotor and the inner walls of the housing resulting from precessing of the rotor caused by gyroscopic action as it is moved in space.

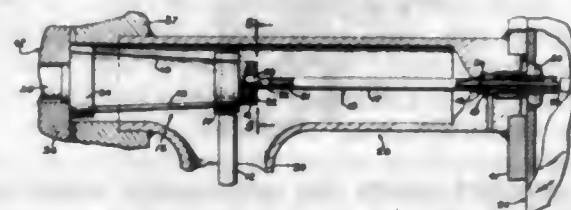
2,821,860

SEALED ACTUATING CONNECTION

William D. Huston, Sellersville, Pa., assignor to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware

Application July 5, 1955, Serial No. 519,690

11 Claims. (Cl. 74-18)



1. In an instrument actuating mechanism having operating means, the combination including a torque tube anchored adjacent one end thereof, a shaft extending through said tube and fastened thereto at a location spaced from the anchored end of said tube, and a resilient motion resisting and supporting means connected to said tube at a location spaced from the anchored end of said tube, said motion resisting means being anchored at one of its ends and having longitudinally extending separated elements between its anchored end and its connection with

the tube, whereby rotation of said tube by said operating means is resisted and said tube is at least partially supported thereby.

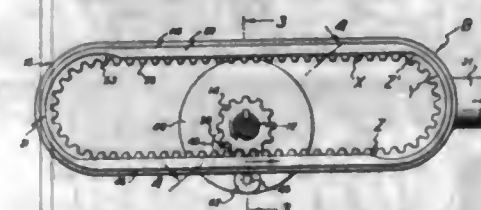
2,821,861

DRIVE MECHANISM FOR CONVERTING ROTARY TO RECIPROCATORY MOVEMENT

John C. Dunn, Anaco, Venezuela

Application January 2, 1953, Serial No. 329,310

5 Claims. (Cl. 74-30)



1. A drive including, a single drive pinion mounted for rotation about a fixed axis, a driven element in the form of a flattened loop and having a continuous series of teeth at its interior, and guide means coupling the pinion and said element with the pinion engaged with the teeth, the guide means including a carrier pivotally mounted concentric with the pinion, a guide member carried by the carrier and cooperatively engaged with said element, and a pilot member carried by the carrier in fixed relation to the guide member and drive pinion and cooperatively engaged with said element, whereby the driven element is rocked and reciprocated as the pinion is rotated.

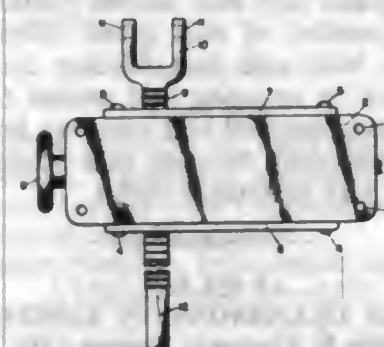
2,821,862

CLUTCHING MECHANISM FOR FOOT PRESSES AND THE LIKE

George Goldberg, Fall River, Mass.

Application April 18, 1955, Serial No. 501,824

8 Claims. (Cl. 74-34)



8. A mechanical assembly for adapting a conventional foot press to be operated by a motor comprising a motor driving means, a chassis, a drive shaft connected to said driving means, and mounted within said chassis, a clutch means mounted on said shaft, said clutch means consisting of two wheels, the first of said wheels being mounted so as to spin with said shaft, said second wheel mounted loosely on said shaft, a friction lining on the face of said second wheel proximate the face of the first wheel, a gear means mounted on said shaft loosely, a stop member extending from said gear means towards said second wheel, a stop member on said second wheel extending toward said gear means, a lever arm having both a vertical and horizontal section, a mounting bolt at the junction of said sections for securing said lever arm to said chassis, a spring secured to the chassis and to the horizontal end of the lever arm for biasing the position of the lever arm, a push member perpendicular to the vertical section of the lever arm and adapted to engage said gear whereby when said horizontal section of the lever arm is pulled down, the push member forces the gear to move toward the second wheel and the stop members to engage each other, a rack, a transmission

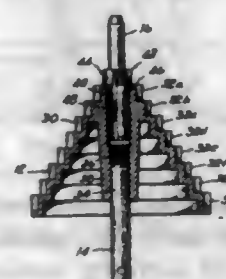
2,821,863

COMPOSITE GEAR CONE

Harvey N. Bliss, Windsor, and Otto Wild, Jr., West Hartford, Conn., assignors to Veeder-Root Incorporated, Hartford, Conn., a corporation of Connecticut

Application December 9, 1952, Serial No. 324,922

2 Claims. (Cl. 74-348)



1. In a speed change mechanism, a gear cone comprising a series of gear steps of increasing diameter and number of teeth and having an axial recess therein, a shaft secured in said recess and extending outwardly from the small end of the cone, and a ring of gear teeth integrally formed on the shaft adjacent the small end of the cone having an outer diameter smaller than the root diameter of the smallest gear step and having a root diameter approximately equal to the diameter of the axial recess.

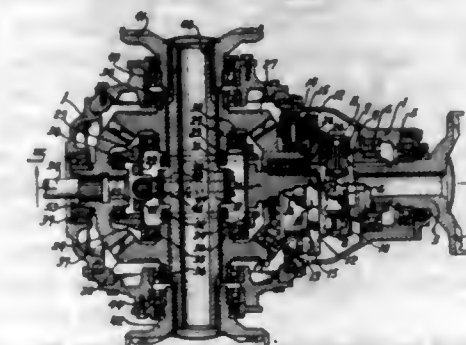
2,821,864

TRANSMISSION

Willard C. Baker, Plymouth, Mich., assignor to Jered Industries, Inc., Hazel Park, Mich., a corporation of Michigan

Original application January 24, 1952, Serial No. 268,043, now Patent No. 2,687,652, dated August 31, 1954. Divided and this application August 18, 1954, Serial No. 450,574

3 Claims. (Cl. 74-378)



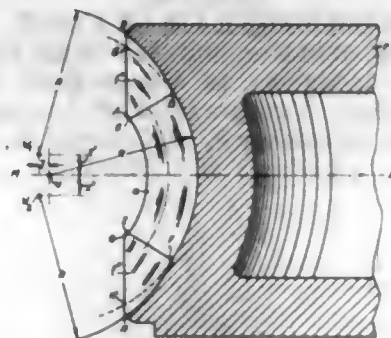
1. In a power transmission for delivering power from a driving means to a driven means, a power input gear, a universal coupling means for drivably connecting said power input gear to said driving means, a power output gear drivably connected to said driven means, intermediate gears individually engaged with each of said power input and power output gears to form two power delivery geared paths, each of said gears having an axis of rotation, the axis of said intermediate gears being perpendicular to the axis of said power input and power output gears and means for mounting said power input gear to provide for limited displacement of the same in a direction which is substantially transverse to its axis of rotation thereby accommodating the simultaneous delivery of power from said driving means to said driven means through each of said geared paths.

2,821,865

WORM WHEEL

Otto W. Ufert, Dusseldorf-Oberkassel, Germany, assignor to Schiess Aktiengesellschaft, Dusseldorf-Oberkassel, Germany

Application March 21, 1955, Serial No. 495,563
Claims priority, application Germany March 30, 1954
4 Claims. (Cl. 74-458)



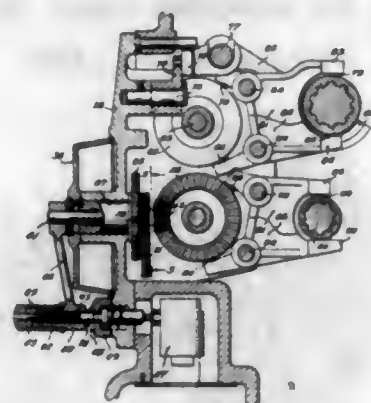
1. An oil film retaining worm wheel having its tooth flanks provided with working sections and being provided at both ends of said working sections with portions cut at such a radius that the circle described thereby forms at each of said ends an acute spherical angle with the circle described by the radius at which the respective adjacent working section has been cut, the apex of each of said angles being located substantially at the innermost point of the end edges of the respective adjacent working section, thereby creating sections which when engaged by a worm will retain a wedge-shaped oil film at each end of each of said working sections.

2,821,866

TRANSMISSION CONTROL MECHANISM

Theodore F. Eserkain, Elm Grove, Wis., assignor to Kempsmith Machine Company, West Allis, Wis., a corporation of Wisconsin

Application February 20, 1956, Serial No. 566,427
13 Claims. (Cl. 74-472)

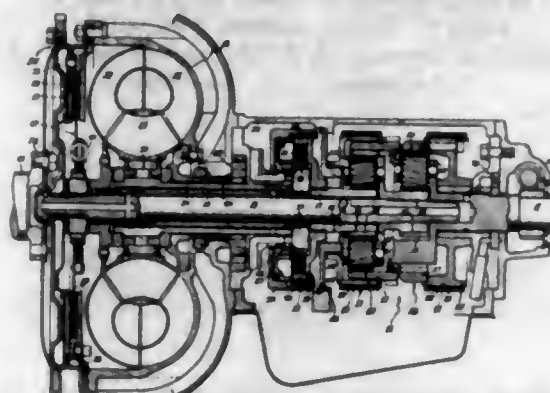


1. A control mechanism for facilitating the shifting of gears in a variable speed transmission including a power driven input shaft rotatable at a substantially constant speed, a power output shaft, and shiftable gearing interposed between said input and output shafts for selectively altering the speed of said output shaft with respect to said input shaft, said control means comprising a movable speed change selector operatively connected with said shiftable gearing to change the positions and meshing relationship between said gearing to alter the speed of said output shaft, a driving motor for said input shaft, an electrical power circuit for driving said motor, a control circuit for said power circuit, and a switch in said control circuit under the control of said speed change selector and responsive to the absence of said speed change selector in a selected speed position to render said power circuit inoperative.

2,821,867

TWO PATH POWER FLOW TURBINE TRANSMISSION

Donald W. Kelbel, Muncie, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application March 13, 1952, Serial No. 276,391
16 Claims. (Cl. 74-688)

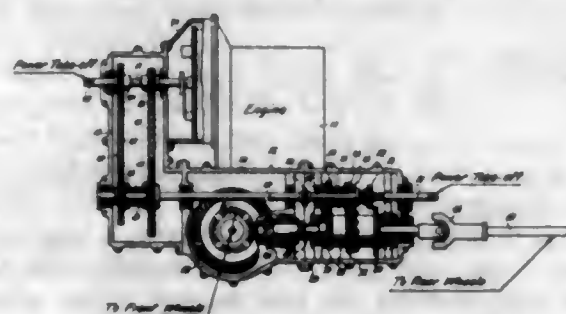


1. In a transmission adapted for providing a plurality of speed ratios, the combination of a drive shaft, a driven shaft, an intermediate shaft, a first friction clutch for transmitting torque from said drive shaft to said intermediate shaft, an additional shaft and a sleeve shaft arranged in series, a hydraulic torque converter for transmitting torque from said drive shaft to said sleeve shaft, a second friction clutch for transmitting torque from said sleeve shaft to said additional shaft, a planetary gear set including a sun gear connected to said additional shaft, a ring gear connected to said driven shaft and a planet gear carrier connected to said intermediate shaft, said carrier having a planet gear in mesh with said sun gear and said ring gear, and a one-way brake disposed between said additional shaft and a stationary portion of said transmission for allowing rotation of the additional shaft in one direction but engaging to prevent rotation thereof in the opposite direction, one of said speed ratios being completed through said first friction clutch with said one-way brake engaged and said second friction clutch disengaged, and another of said speed ratios being completed through both said first friction clutch and said torque converter by engaging said second friction clutch to cause disengagement of said one-way brake to transmit power concurrently through said intermediate shaft and said sleeve and additional shafts.

2,821,868

POWER TRANSMISSION ASSEMBLY

Benjamin F. Gregory, Kansas City, Mo.
Application June 22, 1953, Serial No. 363,097
10 Claims. (Cl. 74-701)



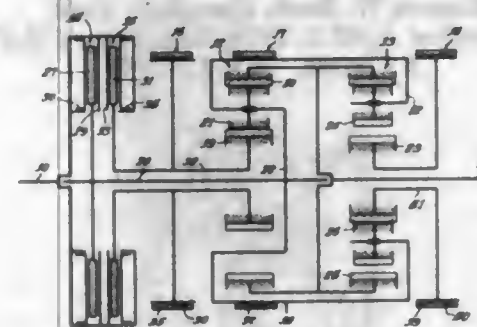
1. In a motor vehicle, a front wheel and axle assembly; a rear wheel and axle assembly; a prime mover overlying the front axle; a horizontal drive shaft extending forwardly from the prime mover and having means for operably connecting the same thereto; a driven shaft between the prime mover and said front axle, and beneath the drive shaft in parallelism therewith; structure for operably interconnecting said shafts; an input shaft beneath the driven shaft, in parallelism therewith, behind the front axle, and perpendicular to the latter; means

operably joining the input shaft and said front axle; apparatus for operably interconnecting the input shaft and the driven shaft; and a shaft for said rear wheel and axle assembly operably connected with said apparatus.

2,821,869

PLANETARY GEARING

Donald W. Kelbel, Muncie, Ind., assignor to Borg-Warner Corporation, a corporation of Illinois
Application November 29, 1956, Serial No. 625,104
5 Claims. (Cl. 74-763)

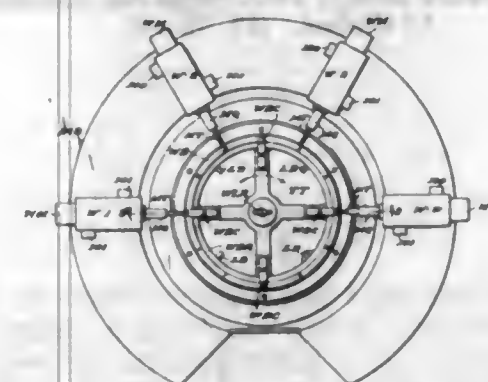


1. In a transmission, the combination of a drive shaft, a driven shaft, a first planetary gear set and a second planetary gear set, said first gear set comprising a sun gear and a ring gear and a planet gear in mesh with the sun and ring gears and a planet gear carrier, said second gear set comprising a sun gear and a ring gear and a first planet gear in mesh with the sun gear and a second planet gear in mesh with the first planet gear and the ring gear and a planet gear carrier, a clutch for connecting said sun gear of said first gear set with said drive shaft, and a brake for holding said sun gear of said second gear set, said gear carrier of said first gear set being connected with said gear carrier of said second gear set, said ring gear of said first gear set and said ring gear of said second gear set and said driven shaft all being connected together, said clutch and said brake when both are engaged completing a low speed forward drive from said drive shaft to said driven shaft.

2,821,870

MULTIPLE INDEXING MACHINE TOOL

Robert R. Grover, Winchester, Westport, N. H., assignor to Kingsbury Machine Tool Corporation, Keene, N. H., a corporation of New Hampshire
Application March 3, 1954, Serial No. 413,820
5 Claims. (Cl. 74-820)



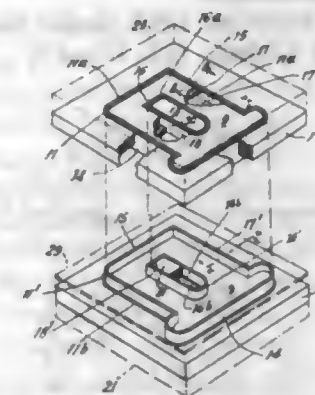
1. In a machine of the class described, a base, a turret rotatable on the base, first and second sets of lugs on the turret and spaced along two concentric circles relative to the turret axis, first and second rotatable members associated with and positioned opposite the respective lug circles, the first rotatable member having a first element carried in rotation therewith at a fixed distance from the axis of the said first rotatable member for successively engaging a lug of the associated first set and by cooperation with said lug and the next succeeding lug of said first set for effecting a predetermined

arcuate movement thereof, the second rotatable member having a pair of elements carried in rotation therewith and positioned opposite one another at fixed like distances from the axis of said second member, said pair of elements being positioned by the second rotatable member for cooperation with the successive lugs of the second set and effective for detaining a said lug of the second set while the said first element is free of the lugs of the first set, the elements of said pair moving respectively inwardly and outwardly relative to the lug circle of said second set of lugs whereby the second lugs can be moved between said pair of elements, said first element being positioned by the first rotatable member to detain said lug and said next succeeding lug while said pair of elements is free of the lugs of the first set, and means for concurrently rotating said rotatable members.

2,821,871

METHOD OF MAKING DIE-CUTTING APPARATUS

Amedeo John Sarno, Oceanside, N. Y., assignor of one-half to F. Jarvis Page, Garden City, N. Y.
Application February 28, 1955, Serial No. 491,055
4 Claims. (Cl. 76-107)



1. The method of producing die members comprising shear blades and retaining means, which consists in making a cut along the full outline of a closed figure in a base member, of a width equal to the combined thickness of said blades and retaining means to define a section within said outline of the same shape, mounting shear blades in said cut, spaced from the section and projecting along one edge from said member, disposing retaining means between said blades and said section to secure said blades in place, making a similar cut along a matching outline in another base member, to define a similar section in said other base member, mounting other shear blades in said other base member projecting along one edge therefrom, and in contact with said similar section, disposing other retaining means between said other blades and the edges of said similar cut, in such position so that the first named blades may closely envelope the second named blades when the blades of said members are in engagement with each other.

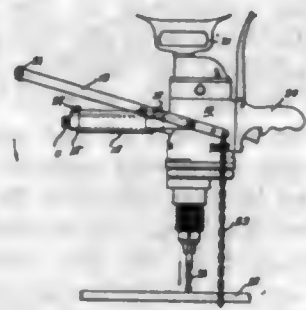
2,821,872

PORTABLE POWER DRILL ATTACHMENT

Donald George Salfer, Wabasso, Minn.
Application November 9, 1956, Serial No. 621,374
4 Claims. (Cl. 77-14)

1. An attachment for a portable power drill having a steadying handle having an inner end and an outer end comprising a sleeve circumposed about said steadying handle so that one end thereof is adjacent the inner end of said steadying handle and the other end is adjacent the outer end of said steadying handle, a lever arranged longitudinally of and on each side of said sleeve and having the portion adjacent one end beyond said sleeve one end and having the portion adjacent the other end beyond said other sleeve end, means connecting the portions adjacent said one end of said levers to said sleeve for

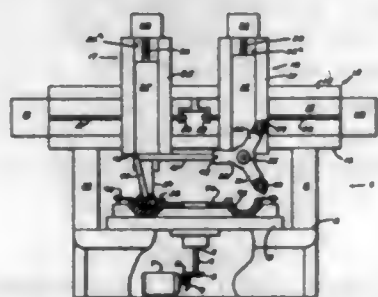
up and down movement about horizontal axes, means connecting the other ends of said levers for movement together, and means carried by said one ends of said levers



adapted to engage a work piece and operable to feed said drill into said work piece upon execution of downward movement of said levers.

2,821,873 CONTOURING TOOL

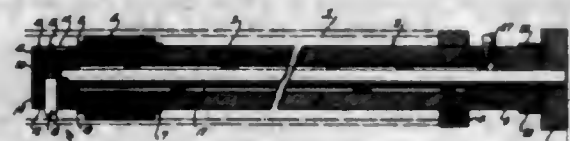
James D. Alsmann and Harry A. Meyer, Detroit, Mich., assignors, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application April 30, 1953, Serial No. 352,177
1 Claim. (Cl. 77-58)



A cutting tool assembly comprising a tool holder having a central axis, a plurality of cutting tools secured in and extending radially from said tool holder with their cutting end portions terminating at radially equal distances from said axis, one of said tools being an index cutting tool extending from said tool holder, a second one of said cutting tools extending radially from said tool holder at a radial angle of 51° with said index tool, a third one of said cutting tools extending at a radial angle of 93° with said index tool, a fourth one of said cutting tools extending at a radial angle of 126° with said index tool, and a fifth one of said cutting tools extending at a radial angle of 154° with said index tool, said tools being operable upon rotation of said tool holder about its central axis to cut equal surface areas of a rotating annular channel surface.

2,821,874 BORING BAR

Henry N. Oliver, Huntington Park, Calif.
Application September 22, 1955, Serial No. 535,817
2 Claims. (Cl. 77-58)

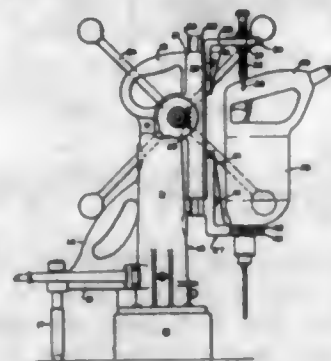


1. A boring bar comprising a tubular housing, a sleeve, means removably mounting said sleeve adjacent one end of the housing, a cutter block, means slidably mounting said cutter block at one end of said housing for transverse movement in the housing, a cutter in said block, a hand wheel positioned on the housing at the end opposite said cutter block, and a shaft extending from the hand

wheel through said housing and engaging the cutter block to adjust said cutter block on rotation of the hand wheel, a second sleeve on the housing adjacent the hand wheel, means mounting the second sleeve for rotatable adjustment relative to the housing, a stop on the second sleeve, and a finger on the hand wheel engageable with said stop to limit rotation of the hand wheel.

2,821,875 DRILL MOUNTING MEANS FOR A DRILL SUPPORT

Eugene W. Buck, Campbell, Calif.
Application April 2, 1956, Serial No. 575,570
3 Claims. (Cl. 77-59)



1. In a magnetic drill support for a normally separate portable electric drill, a body including a work-engaging base, a drill mounting slide mounted for sliding movement on said body, a drill supporting bracket having one portion detachably secured to the one end of said slide and including structure for reversible attachment to said slide, a second drill-supporting bracket secured to the other end of said slide and having a projecting portion including a slotted collar, a drill supporting collet detachably mounted within said collar to engage the annular mounting boss of the drill adjacent to the chuck of the drill supported thereby, said brackets providing means for attaching drills of various sizes and dimensions to the drill support, said first mentioned drill supporting bracket having means for clamping the body of the electric drill between it and said second drill supporting bracket to hold said drill body firmly therebetween.

2,821,876 DIE FOR UNITING MATERIALS

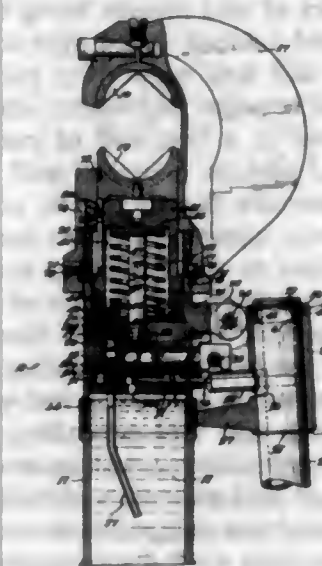
Ivan A. Williams, Portland, Oreg.
Application June 1, 1953, Serial No. 358,618
13 Claims. (Cl. 78-1)



1. The die comprising a body portion, an anvil portion extending outwardly from the body portion, the anvil portion having a work surface and a pair of opposed side faces, a one piece cutter including a pair of spaced cutter sections and a resilient interconnecting section, the pair of cutter sections being adapted to rest resiliently against the side faces of the anvil portion with their cutting edges extending beyond the work surface of the anvil, and securing means for securing the cutter on the anvil.

2,821,877 PORTABLE HYDRAULIC PRESS TOOL

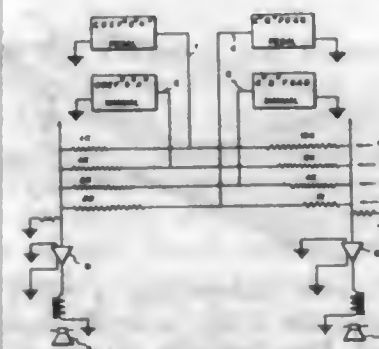
Edwin C. Swanson, Rockford, Ill., assignor to Greenlee Bros. & Co., a corporation of Illinois
Application February 2, 1956, Serial No. 562,981
16 Claims. (Cl. 81-15)



6. A hydraulic press comprising, in combination; a body having a cylinder formed therein, a piston reciprocable in said cylinder, a head mounted on the body portion, a pair of mating clamping dies mounted one on said piston and one on said head, a fluid reservoir formed in the body, and passage means for pumping fluid from the reservoir to the cylinder to move the piston toward the head for a clamping operation comprising a conduit disposed in the reservoir and reciprocable pump means associated with said fluid passage, the end of said conduit being disposed approximately at the center of the reservoir and the maximum volumetric capacity of the cylinder being less than half the volumetric capacity of the reservoir.

2,821,878 STEREOPHONIC ORGAN

George R. Stibitz, Burlington, Vt.
Application March 15, 1954, Serial No. 416,028
5 Claims. (Cl. 84-1.01)

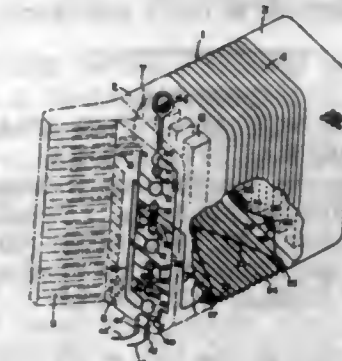


1. In an electric organ having a plurality of units each being capable of generating signals corresponding to different spacially arranged pipes or pipe groups of a pipe organ to be simulated, an output for each of said units, electroacoustic transducer means including at least two loud speakers spaced according to the maximum span of the divisions of a pipe organ to be simulated, and circuit means coupling said outputs to both of said transducer means including means differentially dividing each of the generated signals between each of said units and both of said transducer means for simultaneously apportioning the signals generated by each of said units between said transducer means to proportion the intensity of the sound of the various divisions of the organ to be simulated between said transducer means so that the sound will appear to come from a predetermined point on a

line between said transducer means in accordance with the proportionate intensity of the output from each of said transducer means in any given division.

2,821,879 AUDIO WAVE "PICK-UP" FOR USE ON MUSICAL INSTRUMENTS

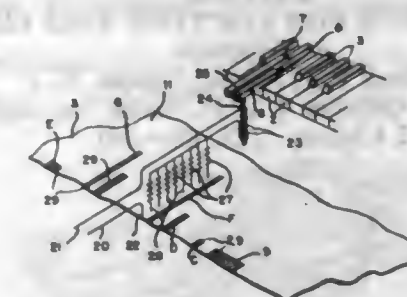
Nick Sano, Newark, N. J., assignor to Sano Corporation, Irvington, N. J., a corporation of New Jersey
Application November 24, 1953, Serial No. 394,130
3 Claims. (Cl. 84-1.04)



1. In an accordion having a pair of spaced head sections one having a treble reed block and the other having a bass reed block, a treble tone collecting chamber formed in said head section having the treble reed block, sound escape openings in said head sections communicating with said treble tone collecting chamber, and a detachable bellows connecting said head sections, the combinations with said treble tone collecting chamber of a pick-up circuit for an amplifier to pick up audio waves produced by said respective reed blocks, and an electric current conducting wire connecting said pick-up means in the head having the bass reed block to the pick-up means for the treble reed block, a connector mounted in each head adjacent the point of connection between said bellows and the respective head, said electric current conducting wire having a connector on both ends thereof disposed to detachably engage the respective connectors mounted on the heads to enable said bellows to be separated from the head sections.

2,821,880 PIANO PLAYING DEVICE

Taito Ahola, Ely, Minn.
Application October 26, 1953, Serial No. 388,274
3 Claims. (Cl. 84-21)



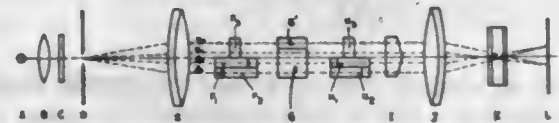
2. In a device for playing a piano or similar instrument by engaging the keying instrumentalities of said instrument including a housing having means therewithin to wind an indicia sheet from one spool to another, a plurality of levers carried in said housing and adapted to extend over portions of said instrument to engage its keying instrumentalities and solenoids actuated by indicia on said sheet to move said levers to operate the keying instrumentalities of said instrument, indicia on said sheet capable of providing an electrical contact, electrical means to complete an electrical circuit to said solenoids when indicia on said sheet is contacted by said electrical means; said electrical means for each of said solenoids comprising a plurality of resistors, an electrical conductor con-

necting said resistors in parallel at one end thereof, said conductor being connected to one end of its respective solenoid, a plurality of contacts, one of said contacts being connected with each of said resistors on the opposite end thereof from said conductor; said indicia being of varied length and width and said contacts being engageable with said indicia on said sheet in varying numbers and for varying periods of time depending on the size of said indicia thereby causing the volume and duration of each note to be controlled; and a separate electrical contact engaging indicia on said sheet connected to a source of power and providing a complete circuit for electricity to operate said solenoids to move said levers.

2,821,881

OPTICAL ARRANGEMENT FOR ANALYSIS OF REFRACTIVE INDEX

Svante Harry Svensson, Sundbyberg, Sweden, assignor to LKB-Produkter Fabriksaktiebolag, a Swedish company
Application October 18, 1954, Serial No. 462,948
Claims priority, application Sweden February 22, 1951
7 Claims. (Cl. 88-14)

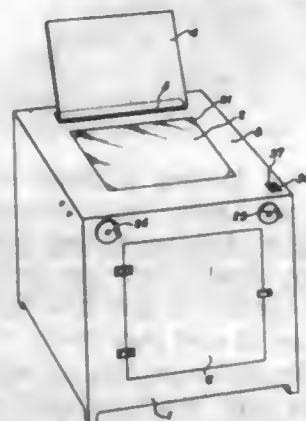


1. An interferometric arrangement for recording the gradient of optical thickness of objects in which said gradient has a uniform direction, comprising a light source system producing at least two coherent beams of light which are mutually parallel and which pass through the object at least once, at least two transparent, plano-parallel plates of essentially the same thickness positioned on the entrance side of the object, each of said plates being placed in the path of one of the coherent beams of light and being turned, from an orientation perpendicular to the optic axis, through the same angles in opposite directions about an axis perpendicular to the optic axis and to the direction of the gradient, at least two similar plates on the exit side of the object placed in the same manner and with angles opposite to those of the corresponding plates on the entrance side of the object, a lens system, and a light-indicating device, said lens system causing the plane through the middle of the object, with reference to the path of light, and the light-indicating device to be optically conjugate at least in a section through the optic axis parallel to the gradient in the object.

2,821,882

APPARATUS FOR COPYING AND LIKE PURPOSES

Mortimer P. Goodkin, Union, N. J.
Application October 4, 1954, Serial No. 459,983
2 Claims. (Cl. 88-24)



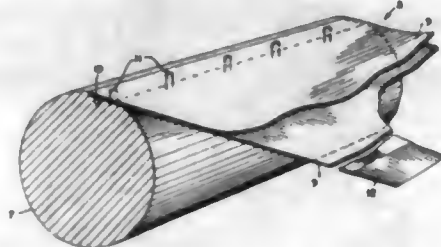
1. An optical projection apparatus comprising an upright cabinet having four joined side walls, a base, and a transparent plate mounted horizontally in the top thereof, a movable opaque lens supporting platen disposed within said cabinet substantially parallel to said trans-

parent plate, a lens mounted therein, a continuous opaque bellows interconnecting the periphery of said transparent plate and said lens supporting platen, a movable object supporting platen disposed within said cabinet below said lens supporting platen and substantially parallel thereto, a transparent plate mounted in said object supporting platen, the side edges of said platens being slightly spaced from the walls of said cabinet, a first light source adjacent the under side of said lens supporting platen, a second light source disposed between said object supporting platen and said base, a door in a first wall of said cabinet providing access to said platens, a second wall having a vertically extending aperture therein, a fan attached to the under side of said lens supporting platen facing said aperture, a shield attached to and extending vertically downward from the under side of each corner of said lens supporting platen, a pair of vertical guide members extending from the top to the base of said cabinet and slideably contacting said platens, a pair of windlasses rotatably mounted adjacent the top and extending through two opposing walls of said cabinet, and adapted to control the vertical heights of said platens, a plurality of winding drums mounted on said windlasses intermediate said walls, a flat tape interconnecting each drum mounted on one of said windlasses to a corresponding platen whereby rotation of one of said windlasses will cause the tapes to wind on said drums and cause one of said platens to move in a vertical direction, a means of adjusting the lengths of said tapes independently of each other, a handle attached to a portion of each of said windlasses extending through a wall of the cabinet and a helical spring surrounding each of said portions and disposed between said handles and said wall adapted to spring bias said windlass against turning, a reel attached to each windlass, a pair of weights, and a cable interconnecting the periphery of each reel to one of said weights thereby counteracting the turning of each windlass due to the weight of the platen controlled thereby.

2,821,883

PROJECTION SCREEN CONSTRUCTION

Edward F. Rusch, Cicero, Ill., assignor to Da-Lite Screen Company, Inc., Chicago, Ill., a corporation of Illinois
Application February 17, 1956, Serial No. 566,167
1 Claim. (Cl. 88-28.91)



A projection screen comprising, a roller peripherally recessed to form a flat ledge inwardly terminating at a normally-disposed longitudinally-extending radial ridge and outwardly merging with the roller periphery circumferentially of the ridge, and a superimposed silver screen and backing sheet of a combined thickness equal to the radial dimension of the ridge and secured to the ledge with the ends of the screen and sheet abutting the ridge, the backing sheet being of a width not less than the circumference of the roller and formed with a long-angled taper for a material distance inwardly from its free edge.

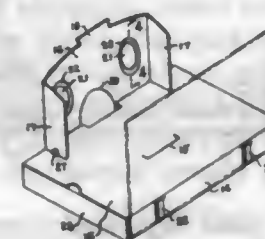
2,821,884

STEREOSCOPIC VIEWER AND CARD HOLDER

Charles D. Austin, Cincinnati, Ohio
Application August 25, 1954, Serial No. 452,007
1 Claim. (Cl. 88-29)

A stereoscopic viewer and card holder comprising a container having end flaps movable outwardly to form

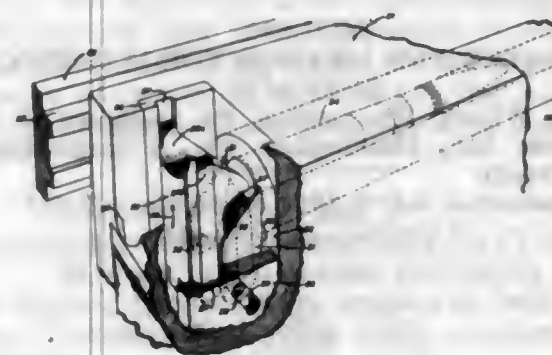
openings for removal of the contents of said container, an extension on said container normally held in flat position on said container by a tab received in a slot in said container, a pair of lenses mounted in spaced relation on said extension, said extension movable from a flat position on said container to an upright position, tabs



2,821,885

GUN BREECH CLOSING MEANS

Paul W. Burk, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy
Application August 2, 1951, Serial No. 240,019
5 Claims. (Cl. 89-24)
(Granted under Title 35, U. S. Code (1952), sec. 266)

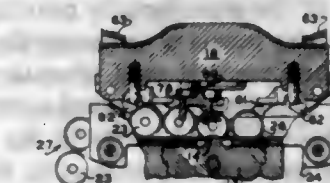


1. A device for closing a gun breech comprising: a breech housing providing a transverse rear breech face, a breech block movable in said housing between breech open and breech closed positions, sector shaped cartridge case extractor plates on opposite sides of said breech housing each having an arcuate edge in rolling contact with the face of said breech housing, toes on one end of the arcuate edge of each extractor plate for engagement with the flange of a cartridge case, opposed inner and outer lugs on the opposite end of each extractor plate inwardly of the arcuate edge and movable in opposition to said toes as said extractors roll on said breech face, said breech housing having a trochoidal guide slot for each outer lug conforming to the paths of said respective outer lugs as the extractor plates roll on said breech face, said breech block being provided with cam surfaces slidably engaged by said inner lugs and shaped to throw said breech block into closed position responsive to movement of said lugs in one direction along said trochoidal paths, said lugs being moved toward said trochoidal paths upon said toes being moved toward said breech by a rammed cartridge case, said inner lug acting on said breech block cam means thereby to move said block to breech closed position behind said cartridge case with a large initial acceleration in the early portion of the extractor travel toward said breech.

2,821,886

FEEDING MECHANISM FOR AUTOMATIC FIREARM

Harvey H. Friend, Hamden, and Carl F. Liedke, North Haven, Conn., assignors to the United States of America as represented by the Secretary of the Army
Application April 5, 1954, Serial No. 421,207
9 Claims. (Cl. 89-33)

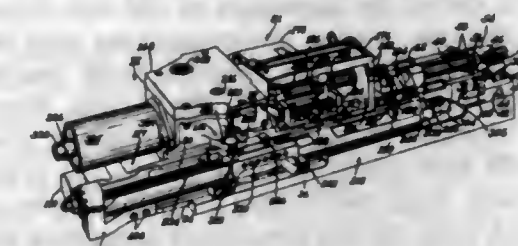


4. In a firearm having a receiver and a bolt reciprocable therein, a feeding mechanism including a feedway bisected by an egress for passage of a cartridge from said feedway to the receiver, a pair of feed pawls reciprocally mounted in said feedway on opposite sides of said egress and adapted to carry said cartridges linked to form a belt from the adjacent sides of said feedway to said egress, a rack and pinion means for simultaneously moving said feed pawls in opposite directions to selectively feed said cartridges to said egress from opposite sides of said feedway and to index the leading one of said cartridges therebetween over said egress, aligned dovetailed channels arranged in said feedway on opposite sides of said egress and at right angles thereto, a stripper member provided with a dovetail portion receivable in said channels for slidable movement from one side of said egress to the other, a groove in each end of said dovetail portion cooperable with a vertical pin in each of said channels to index said stripper on either side of said egress in a position to restrainably engage said leading cartridge when over said egress and to restrainably engage the leading one of said links while said leading cartridge is stripped therefrom by the bolt, a spring-biased detent in said stripper receivable by a notch provided in one side of each of said channels for resiliently restraining said stripper in one of said positions, and said stripper being engageable by said leading cartridge for movement to the opposite one of said positions during initial installation of said belt in said feedway when the direction of feed is alternated.

2,821,887

AUTOMATIC GUNS

Charles J. Gross, Melrose, Henry B. Kimball, Marblehead, Wilbur H. Farley, Ipswich, and Harold W. Bishop, Essex, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application July 27, 1954, Serial No. 446,052
3 Claims. (Cl. 89-33)



3. In an automatic gun, a receiver movable in recoil and counterrecoil from and toward a battery position during a firing cycle of the gun, a bolt movable in recoil and counterrecoil together with and with relation to the receiver during said firing cycle, an actuator slide carried by and mounted for movement in the receiver, a plunger which is carried by and is movable in opposite directions in the receiver and which is operatively connected to the bolt, a gear rotatably mounted on the receiver and having an extension threaded into the actuator slide, a nut secured to the plunger and in meshing

engagement with the spiral gear, an ammunition feeder comprising a torsion spring, a feed wheel operatively connected to one end of the spring, mechanism operatively connecting the actuator slide with the other end of the spring, and fluid pressure actuated means for causing said plunger and accordingly the actuator slide to be constrained for movement as a unit with the receiver during the firing cycle of the gun thereby moving said mechanism together with the receiver to cause the spring to be energized during both recoil and counterrecoil of the receiver, said fluid pressure actuated means being operative to move, when the receiver is in its battery position, the plunger in opposite directions in the receiver to operate the bolt through its cycle and also to operate the spiral gear, the nut and the actuator slide relatively to the receiver whereby to operate said mechanism and thus causing the spring to be energized.

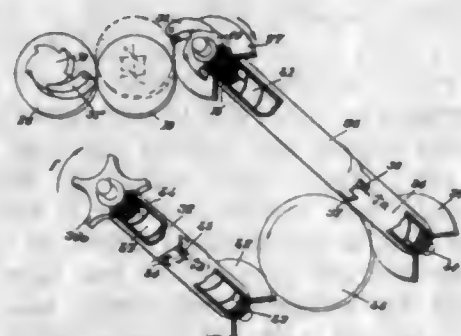
2,821,888

BELT FEED MECHANISMS FOR AUTOMATIC FIREARMS

Bernard Maillard, Geneva, Switzerland

Original application March 25, 1952, Serial No. 278,349, now Patent No. 2,750,845, dated June 19, 1956. Divided and this application May 4, 1956, Serial No. 582,870

Claims priority, application Luxembourg March 27, 1951 3 Claims. (Cl. 89—33)

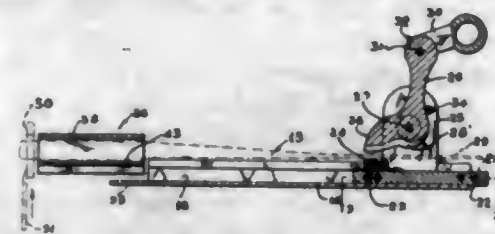


1. A belt feed mechanism for an automatic firearm including a breech case which comprises, in combination, power means for supplying a power impulse in response to every shot fired by this arm, a cartridge belt constituted by a plurality of cartridges and links for interconnecting them, means for guiding said cartridge belt with respect to said firearm, a first element operatively connected with said power means to undergo a movement of given amplitude in a given direction in response to every power impulse supplied by said power means, a second element operatively connected with said cartridge belt movable step by step so that every step of said second element drives the cartridges of the belt forward toward said firearm, means interconnecting said first and second elements with a play between them smaller than the amplitude of movement of the second element on every step thereof, initially stressed resilient means associated with said interconnecting means for urging said elements away from each other to tend to take up said play between them, means operatively connected with said second element for detaching said cartridges from said belt successively as they are leaving said second element, means interposed between said second element and said firearm for feeding the cartridges detached from said belt to said breech case, said feeding means being arranged temporarily to stop said last mentioned cartridges in given positions, said interconnecting means and said feeding means preventing any contact between said second element and any cartridge stopped in said given positions when said resilient means are taking up said play at the end of every movement of said first element, whereby said play is integrally taken up after the firing of every shot.

2,821,889
STAY FEEDING DEVICE FOR BOXMAKING MACHINES

Carl Schwarz, Philadelphia, Pa.

Application April 5, 1956, Serial No. 576,303
1 Claim. (Cl. 93—84)



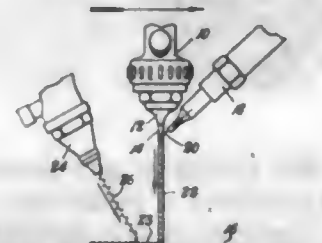
Apparatus of the kind described comprising a base, having a channel on its upper surface, a plate slidably mounted in said channel, a serrated gripping plate secured to the upper surface of said slidable plate, a clamping lever pivotally mounted on said slidable plate over said gripping plate, said clamping lever having a grooved surface adapted to coact with said serrated plate for gripping stay forming material therebetween, means for pivoting said clamping lever whereby said stay forming material is gripped between the clamping lever and gripping plate and simultaneously thrust in a feeding direction, a device at one end of the base for shaping and supporting the moved strip of material in position for a cutting operation, means for cutting said positioned strip, and means for preventing accidental sliding of the slidable plate in the channel, said means for preventing accidental sliding of the slidable plate comprising a bar yieldably carried on one side of the slidable plate and being adapted to frictionally engage the inner surface of one side wall of said channel.

2,821,890

APPARATUS AND METHOD FOR MARKING A SURFACE

Rufus W. Wilson, Huntingdon, Pa., assignor to Wald Industries, Inc., Huntingdon, Pa., a corporation of Pennsylvania

Application July 8, 1954, Serial No. 442,077
7 Claims. (Cl. 94—44)



1. In a method of applying a marker to a surface, comprising the steps of applying a stream of paint binder to said surface, ejecting a stream of dry glass spheres into said paint binder stream, said dry glass spheres intimately mixing with said paint binder as the impinging streams are applied to said surface, whereby the marker formed has autocollimating characteristics, and ejecting a second stream of dry glass spheres onto the surface of the marker in an atomized fan-shaped spray to apply a coating of autocollimating elements thereon for causing instant reflectivity thereof.

2,821,891

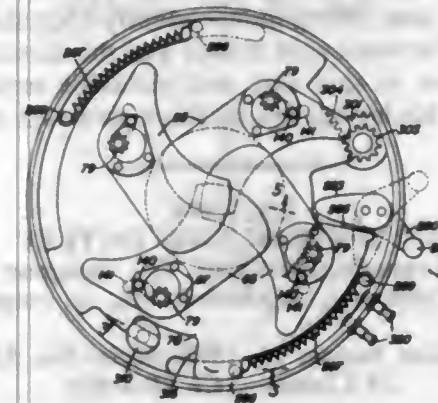
DIAPHRAGM FOR PHOTOGRAPHIC CAMERAS

Archie H. Gorey, Irondequoit, N. Y., assignor to Graflex, Inc., Rochester, N. Y., a corporation of Delaware
Original application March 3, 1950, Serial No. 147,481, now Patent No. 2,701,992, dated February 15, 1955. Divided and this application December 1, 1954, Serial No. 472,290

1 Claim. (Cl. 95—64)

In a shutter for photographic cameras, a rotary member, a plurality of diaphragm leaves, means pivotally

mounting each leaf on said rotary member, a cam ring rotatably adjustable about an axis common with the axis of said rotary member, said cam ring having a plurality of identical, spaced, arcuate slots therein coaxial with said common axis and equal in number to the number of said diaphragm leaves and through which said pivotal means pass, said cam ring having a plurality of identical cam slots therein extending about said common axis and which are equal in number to said diaphragm leaves and which are angularly spaced about said common axis, each of said diaphragm leaves having a follower secured thereto offset from its pivotal means and engaging in one of said cam slots, the pivotal means and the follower of



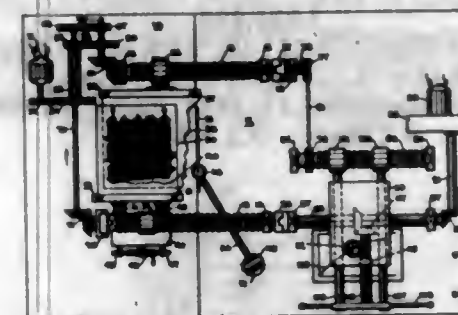
each diaphragm leaf being disposed at the same side of said common axis, a manually movable index member connected to said cam ring to rotate said cam ring about said common axis to adjust said diaphragm leaves to a selected position in accordance with a selected aperture size, a pivoted lever, a gear secured to said rotary member, means including a gear meshing with the first-named gear for connecting said lever to said rotary member to swing all said diaphragm leaves simultaneously open to focusing position upon pivotal movement of said lever in one direction, and spring means for constantly urging said rotary member in the opposite direction to constantly urge said diaphragm leaves to said selected position.

2,821,892

PHOTOGRAPHIC PRINTING APPARATUS FOR SEISMIC AND OTHER RECORDS

Eugen Merten, Houston, Tex., assignor to Shell Development Company, Emeryville, Calif., a corporation of Delaware

Application September 30, 1952, Serial No. 312,266
4 Claims. (Cl. 95—73)



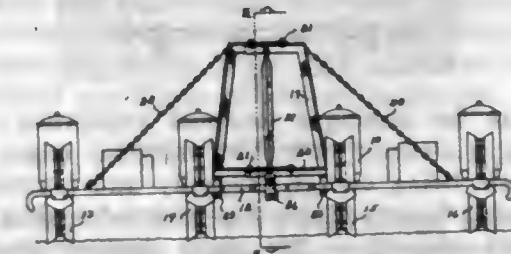
4. Apparatus for forming composite seismograms, said apparatus comprising a base, carriage means mounted for motion on said base, prime mover means geared thereto for moving said carriage means, means for clamping a seismogram sheet to one of said carriage means and a photo-sensitized sheet to another carriage means, said sheets being positioned adjacent to each other, light source means for illuminating said sheets substantially in a single plane perpendicular thereto, graph means showing a seismic property of the ground, sighting means for scanning said graph means, one of said means being affixed to a carriage means and the other to the base, and control means for keeping said sighting means trained on said graph means during the motion of said carriage

2,821,893

SUPPORT FOR FOUR ROW CORNPLANTER

Carl J. O. Wogstad, Northwood, Iowa

Application June 4, 1953, Serial No. 359,464
3 Claims. (Cl. 97—235)



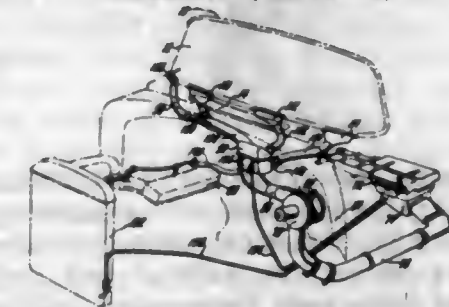
3. In combination with a four row cornplanter having a frame and unit axles, an A-frame, a clamp on each of the lower ends of said A-frame detachably engaging the inner axle portions of the two inner planting units respectively, a means for adjusting the width of said A-frame, a chain secured at one end to the upper portion of said A-frame, a means on the other end of said chain detachably securing the other end of said chain to the outer axle portion of one of the outer planting units, a second chain secured to the upper portion of said A-frame, a means on the other end of said last mentioned chain detachably securing said last mentioned chain to the outer axle portion of one of the other outer planting units, and a length adjustable link brace member extending between said planter frame and the upper portion of said A-frame.

2,821,894

AUTOMOTIVE HEATING, VENTILATING, AND DEFROSTING SYSTEM

William J. de Beaubien, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

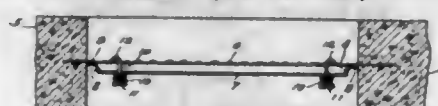
Application September 21, 1954, Serial No. 457,450
3 Claims. (Cl. 98—2)



1. A heating, ventilating and defrosting system on a vehicle body having a windshield, engine and passenger compartments separated by a fire wall, and a cowl structure at the base of the windshield defining a shroud chamber extending downwardly at one side of the body and to the rear of said fire wall, said cowl structure having a vertically extending air inlet forward and adjacent the base of said windshield and communicating through the cowl structure with said shroud chamber, a blower mounted in the engine compartment with a horizontal air inlet leading through said fire wall and from said shroud chamber, a main valve controlling said horizontal air inlet, a first heater core mounted in a casing forward of said fire wall, a second heater core associated with said passenger compartment and spaced from said first heater core, duct means leading from said blower to each of said heater cores, a by-pass valve in said casing for causing air from said duct means to by-pass said first heater core, defroster nozzle means associated with

said windshield, and means for directing air by-passing said first heater core from said by-pass valve to said defroster nozzle means.

2,821,895
REMOVABLE CLOSURE FOR VENTILATING OPENINGS IN HOUSE FOUNDATIONS
Louis Allabaugh, San Francisco, Calif.
Application February 3, 1956, Serial No. 563,302
1 Claim. (Cl. 98—29)



A closure for closing a screened ventilating opening, comprising a closure plate, the marginal edges of said closure plate being curved inwardly and laterally, providing spacing flanges adapted to be fitted against a ventilator screen adjacent to the edges thereof, spacing the closure plate from said screen, said plate having openings adjacent the outer edges thereof, and hooks supported through the openings of said plate adapted to be hooked into the mesh of said screen, removably securing said closure to said screen and closing said ventilating opening, said hooks including a shank, a spring about said shank and a cross bar fixed to the outer end of said shank.

2,821,896
AIR FLOW DEVICES
Jack W. Klee, John M. Redmond, Jr., and Charles D. Mattingly, Wichita, Kans., assignors to The Coleman Company, Inc., Wichita, Kans., a corporation of Kansas
Application June 27, 1952, Serial No. 296,014
3 Claims. (Cl. 98—38)

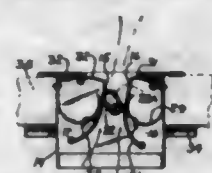


1. An air mixer casing adapted for installation within the hollow stud space of a room wall, comprising an elongated and generally rectangular casing providing an air mixer chamber therein, the walls of said casing being glass fibers and being resin impregnated, said casing being provided at the corner portions thereof with longitudinally spaced perforations, said air mixer casing also being flexible and bodily compressible so that at least the transverse dimensions thereof can be reduced to permit the same to be threaded through a generally restricted opening in a room wall and being also bodily resilient so that it restores itself automatically to original shape after a compression thereof to form an air mixer chamber within a hollow room wall.

2,821,897
AIR CONDITIONING APPARATUS
Joseph W. Kreuttner, North Tarrytown, N. Y., assignor to Buensod-Stacey, Incorporated, New York, N. Y., a corporation of Delaware
Application May 5, 1955, Serial No. 506,160
4 Claims. (Cl. 98—40)

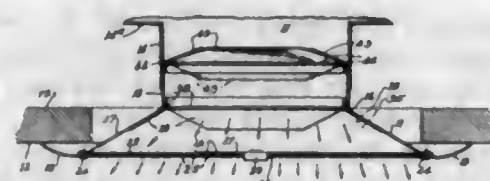
1. In an air control device for the outlet of an air conditioning system distributing device, the combination in-

cluding an outlet slot, a pair of cooperating air control blades having oppositely facing convex entrance faces providing a rounded nozzle-like entrance and controlling velocity and direction of air from said slot, pivot means



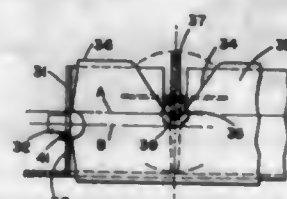
for said blades, operating cams for each of said blades, each of said cams being independently rotatable to adjust the distance between said blades and the direction of said blades relative to said slot, and yieldable means holding each of said blades against its respective cam means.

2,821,898
AIR DISTRIBUTION OUTLET
Walter W. Kennedy, Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Application August 16, 1955, Serial No. 528,670
18 Claims. (Cl. 98—40)



1. An air distribution unit having, in combination, a hollow casing adapted for the flow of air axially therethrough and forming an inlet at one end and an outlet at the other end, said outlet having an area at least four times the free area of said inlet, a face plate less than .035 of an inch thick covering said outlet and having closely spaced perforations therethrough distributed over substantially the full area of the outlet and having a combined free area between 35 and 55 percent of the total area of the outlet, and a deflector member, means on said casing supporting said member adjacent said face plate and opposite the inlet to intercept part of the air stream flowing through said inlet, the total area of said deflector member being less than the full area of said inlet.

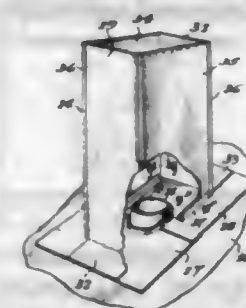
2,821,899
AIR DIRECTING LOUVER DEVICES
Adam D. Goettl, Phoenix, Ariz.
Application September 17, 1957, Serial No. 684,492
9 Claims. (Cl. 98—40)



1. In an air flow louver, a first plurality of spaced slats, means pivotally mounting said slats, each of said slats having a plurality of spaced substantially V shaped notches, each notch terminating in a closed apex and extending to a common edge of a respective slat; a second plurality of spaced slats each having a plurality of substantially V shaped notches, each notch terminating in a closed apex and extending to a common edge of a respective slat; said second plurality of slats being pivotally mounted and being disposed in angular relation to said first plurality of slats so as to mesh therewith, the notches of said first plurality straddling respective notches of said second plurality, the axes of said first plurality being dis-

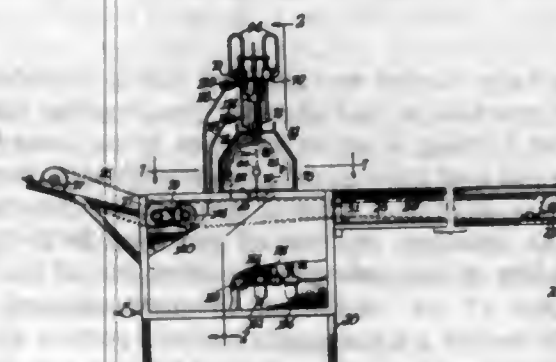
placed relative the axes of the second plurality as determined by the thickness of the material of said slats whereby each closed apex is closely adjacent another closed apex at any pivoted position of any slat to minimize air leakage and turbulence in the region therebetween within the pivotal limits defined by the angle of convergence of the notches, the pivotal axis of each slat passing in close proximity to the areas of the apices of the slats.

2,821,900
CHIMNEY FLUE HOUSING
Theodore Primich, Gary, Ind.
Application May 6, 1954, Serial No. 427,901
3 Claims. (Cl. 98—46)



1. A chimney flue housing adapted to be assembled and fitted on a pitch roof comprising two rectangular sheet metal end members each having at the bottom end an angularly bent portion adapted to conform to the roof pitch, longitudinal edges of each member being folded over outwardly in spaced relation somewhat in excess of the metal thickness, a pair of rectangular sheet metal side members each having at the bottom end extending from one corner angularly arranged roof pitch guide lines for trimming the side member to conform to the roof pitch, the longitudinal edges of each member being folded over outwardly in spaced relation somewhat in excess of the metal thickness, and a drive corner fastener for each corner to hold adjacent sheet members together, said fastener comprising an elongated sheet metal member bent at right angles at its longitudinal center and having its edges folded inwardly in spaced relation somewhat in excess of the metal thickness to interlock with the folded edges of adjacent sheet metal members.

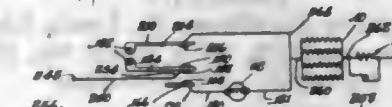
2,821,901
MEAT-CURING INJECTION MACHINE
Donald F. Abrams, Chicago, Ill., assignor to David Berg & Company, Chicago, Ill., a corporation of Illinois
Application April 5, 1955, Serial No. 499,393
6 Claims. (Cl. 99—257)



1. In an apparatus for injecting fluids into meat and the like, the combination comprising reciprocally movable injection means, a conveyor belt intermittently movable in predetermined increments transverse to said injection means, motive means positioned adjacent said injection means moving said conveyor belt, an injection fluid supply tank positioned adjacent said injection means,

a fluid operable piston and cylinder unit surmounted over said injection means, conduit means interposed between said supply tank and said injection means, valve means interposed in said conduit means, and two transversely disposed crossheads affixed to the upper end limit of the arm of said piston, one of said crossheads actuating the closure members of said valve means interposed in said conduit means, the other of said crossheads being in supporting relationship with said injection means, said motive means for said conveyor belt simultaneously moving said conveyor belt and governing the flow of fluid operating said piston and cylinder unit, whereby said piston and cylinder unit may reciprocally move said injection means and simultaneously regulate the flow of injection fluid to said injection means when said conveyor belt is at predetermined conditions of rest or movement.

2,821,902
CONTROL FOR MOTOR-OPERATED TOASTER
David A. Gustafson, Elgin, Ill., assignor to McGraw-Edison Company, a corporation of Delaware
Application March 23, 1954, Serial No. 418,177
6 Claims. (Cl. 99—329)

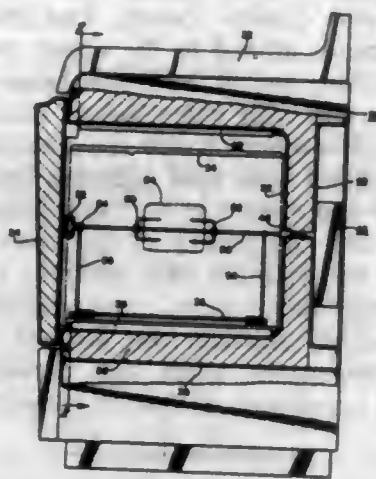


1. In an automatic electric toaster the combination with heating means and a reciprocal bread carrier movable into toasting and non-toasting positions relative to said heating means, of spring means biasing the carrier in non-toasting position, electric-motor means for moving the carrier to toasting position, a control switch for energizing and de-energizing said motor means and said heating means comprising a pair of relatively-fixed contacts and a movable contact selectively engageable with either of said pair of relatively-fixed contacts or held in an intermediate position out of engagement with both of said contacts, means on said carrier operated by insertion of a bread slice for moving said movable contact into engagement with one of said fixed contacts to energize said motor means and said heating means in series, means for moving said movable contact from said one fixed contact into engagement with said other fixed contact to de-energize said motor means while continuing energization of said heating means at a higher voltage and operable in response to movement of the carrier to toasting position, timing means for releasing said carrier for return by said spring means to non-toasting position, and means operable upon such return to move said movable contact out of engagement with said other fixed contact into intermediate position out of engagement with both of said fixed contacts.

2,821,903
DOMESTIC APPLIANCE
Robert C. Allen, Jr., Trotwood, and George C. Pearce, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 4, 1955, Serial No. 505,902
8 Claims. (Cl. 99—338)

2. An electric oven adapted to be connected to a power supply including walls forming an oven compartment, an upper heater in said compartment, a rotisserie motor associated with said compartment, an electrical circuit connecting said motor and said supply, switch means connected in series with said circuit for connecting and disconnecting said motor to and from said power supply, a removable rotisserie spit having a sliding coupling arrangement with said motor, said switch means having an

operating member extending to one end of said coupling adjacent the axis of said spit, said spit having an extension



projecting through the coupling into engagement with said operating member for operating said switch means.

2,821,904

SELF-OPERATED INTERIOR BASTER FOR FOOD OBJECTS

Domenico Arcabosso, St. Louis, Mo.
Application April 18, 1955, Serial No. 501,900
4 Claims. (Cl. 99—346)

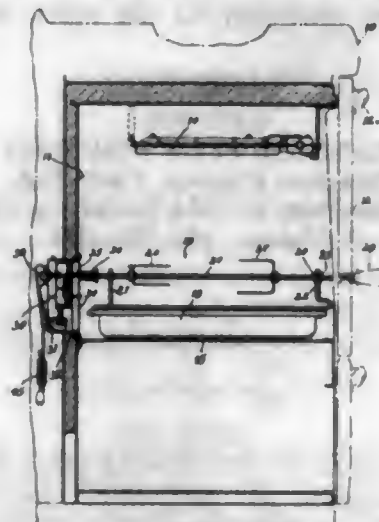


1. Fowl roasting apparatus cooperable with a fowl having a hollow interior for providing self-operated interior basting of said fowl during a roasting operation, comprising: a roasting pan having a substantially flat bottom and upstanding sidewall means; at least one hollow apertured penetration means comprising self-basting inlet means and including a hollow conical penetration end having virtually its entire surface provided with a plurality of longitudinally and circumferentially spaced apertures and a hollow domed laterally apertured base end integral with and in communication with the hollow interior of said penetration end and positioned in virtually perpendicular relationship with respect to said penetration end at the bottom thereof, said continuously multi-apertured penetration end being cooperable for insertion upwardly into the hollow interior of a fowl with the domed laterally apertured base end positioned exterior of and underneath said fowl resting upon the substantially flat bottom of said roasting pan for automatic reception of basting liquid carried by the bottom of said roasting pan as a result of the boiling thereof during the roasting operation; and another hollow apertured penetration means comprising lateral self-basting liquid outlet means and including a lateral hollow apertured penetration end and an apertured exterior return-flow end in communication therewith, said apertured penetration end being cooperable for lateral insertion into the hollow interior of a fowl in interior direct communication with the multi-apertured penetration end of said self-basting inlet means, and with the apertured return-flow end resting upon said substantially flat bottom of said roasting pan exterior of said fowl and laterally adjacent thereto for the automatic return of basting liquid from the hollow interior of the fowl to the hollow domed laterally apertured base end of the self-basting inlet means by means of the return-flow path provided by said underlying substantially flat bottom of said roasting pan, whereby to provide continuous effectively circulating self-basting of the interior of the fowl during the roasting operation.

2,821,905

POWER DRIVEN ROTARY SPIT

Duane O. Culligan, Kankakee, Ill., assignor to Florence Stove Company, Gardner, Mass., a corporation of Massachusetts
Application April 16, 1954, Serial No. 423,592
1 Claim. (Cl. 99—421)



In a broiler oven, the combination comprising a thick insulating rear wall having an aperture, a closed box-like housing proportioned to snugly fit within said aperture and provide a multi-wall closure for said aperture, a shaft rotatably supported within said housing and extending into said oven, coupling means on said shaft, a spit unit removably mounted in said oven for engagement with said coupling means upon insertion of the unit into the oven, an electric motor mounted within said housing and drivingly coupled with said shaft, a switch mounted within said housing and connected for controlling said motor, and a spring-biased actuator for said switch extending from said housing and positioned to be displaced by the unit as an incident to insertion of the latter into the oven and in driving engagement with said shaft, so that said switch is automatically actuated to energize said motor for rotating the spit when the unit is inserted into the oven.

2,821,906

BALE TYING MECHANISM

Emil Stoll, Racine, Wis., assignor to J. I. Case Company, Racine, Wis., a corporation of Wisconsin
Application August 26, 1954, Serial No. 452,347
7 Claims. (Cl. 100—24)

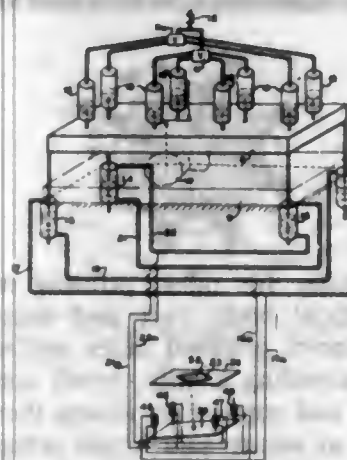


1. In a baler having an elongated baling chamber and a plunger operable in said chamber to compress material therein for forming a series of bales to be bound with a tying strand and moving serially through said chamber, a needle for passing a loop of said strand transversely through the chamber, one run of said loop forming part of the binding of one bale and the other run of said loop forming part of the binding of the next adjacent bale, said needle having a transversely inclined portion adapted to grasp said loop in a manner to hold one run thereof vertically spaced in relation to the other run, and means on said baling chamber at a level intermediate the runs of said loop and positioned to be introduced between said vertically spaced runs by virtue of the movement of said bales to distinguish the run intended to form the binding of one bale from the run forming the binding of the next bale to thereby prevent inadvertent confusion of one run with the other.

2,821,907

INDICATING DEVICE

Morris D. Stone, Pittsburgh, Pa., assignor to United Engineering and Foundry Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application January 10, 1955, Serial No. 480,852
15 Claims. (Cl. 100—99)

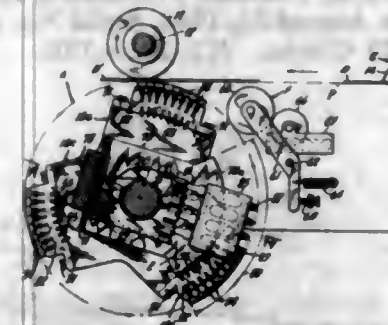


1. For use with a movable platen or the like an indicator, means interposed between said indicator and said platen operably arranged to be influenced by an eccentric loading condition imposed upon said platen and independently of movement thereof to cause said indicator to denote a measure of the magnitude and direction of the eccentric loading condition.

2,821,908

INTERPRETING AND PRINTING MACHINE

Fred B. Porterfield, Vestal, and William B. Jones, Endicott, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 19, 1956, Serial No. 560,189
18 Claims. (Cl. 101—91)



1. In an apparatus for printing on a carrier selected indicia which corresponds to information in a coded carrier, a continuously driven rotary assembly, a plurality of typebars carried thereby in an orbital path past a printing position, each of said typebars having assorted indicia formed thereon, a sensing means independent of said rotary assembly for reading information in a coded carrier, means for initiating movement of a typebar at a predetermined point during the cycle of rotation of the rotary assembly, and means controlled by the information read by the sensing means for stopping the movement of the typebar at a predetermined point during the cycle of rotation of the rotary assembly, whereby the interval between said points determines the indicia on the typebar selected for printing.

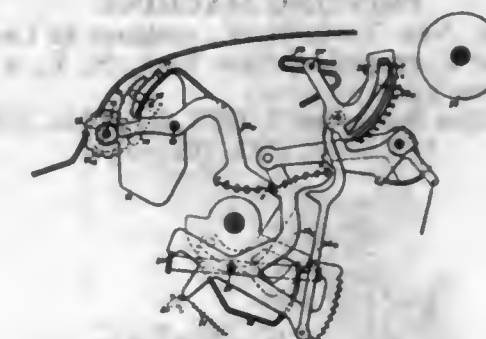
2,821,909

TYPE CONTROL APPARATUS FOR BUSINESS MACHINES AND THE LIKE

Willy Grosse, Oberndorf, Germany, assignor to Olympia Werke Aktiengesellschaft, Wilhelmshaven, Germany, a joint-stock company
Application April 7, 1955, Serial No. 499,962
11 Claims. (Cl. 101—93)

1. In a business machine, in combination, type-carrying means carrying a series of type symbols; support means

mounting said type-carrying means for movement to a plurality of settings at which said symbols are respectively in a typing position; first adjusting means operatively connected to said type-carrying means for moving the same to said settings, respectively, said first adjusting means having a first abutment and a plurality of first stops corresponding to a first group of said symbols, respectively; means mounting said first adjusting means on said support means for movement in a predetermined direction which describes separate paths of movement for said first abutment and said first stops, respectively; second adjusting means located adjacent said first adjusting means and having a second abutment and a plurality of second stops corresponding to a second group of said symbols, respectively; means mounting said second adjusting means on said support means for movement to a first set of positions where said second abutment is respectively located

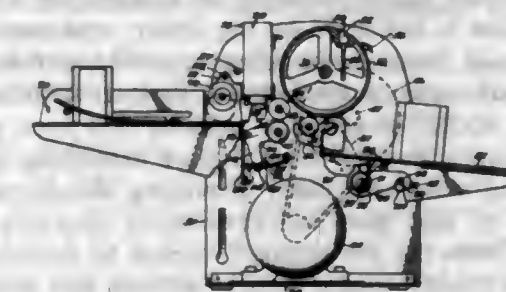


in said paths of movement of said first stops and to a second set of positions where said second stops are respectively located in said path of movement of said first abutment; manually operable locating means engaging said second adjusting means for locating the same in a selected one of said first and second sets of positions; and moving means operatively connected to said first adjusting means for moving the same from a rest position, where none of said symbols are in said typing position, in said predetermined direction to successively locate said series of symbols in said typing position, one of said stops of one of said adjusting means being engaged by the abutment of the other of said adjusting means to limit movement of said first adjusting means by said moving means in accordance with the position in which said second adjusting means is located by said locating means so as to set a selected one of said symbols in said typing position.

2,821,910

MASTER EJECTING MECHANISM FOR DUPLICATORS

Anthony J. Mazzio, Chicago, George P. Niesen, Niles, and George E. Engelstad and Edgar H. Du Bois, Chicago, Ill., assignors to A. B. Dick Company, a corporation of Illinois
Application May 10, 1954, Serial No. 428,421
15 Claims. (Cl. 101—132.5)



1. In a duplicating machine, the combination comprising a rotatable master cylinder, an impression roller mounted for movement between a cylinder engaging position and a retracted position, feeding means for feeding copy sheets between said cylinder and said roller, said feeding means having disabling means for disabling

operation thereof, power driving means for rotating said cylinder, said driving means having disabling means for disabling operation thereof, master securing means movable on said cylinder between a master securing position and a master releasing position, first means operable to shift said master securing means between master securing and master releasing positions and thereby eject the master, to operate said disabling means of said feeding means, to move said impression roller to retracted position, and to operate said disabling means of said driving means, a manually movable control element, and second means operable by said control element to establish an operating connection between said driving means and said first means.

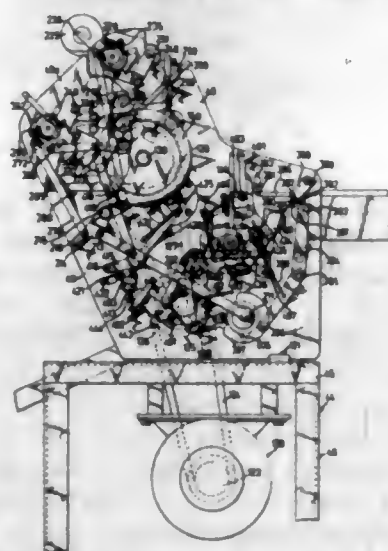
2,821,911

INTERRUPTER FOR ROTARY OFFSET PRINTING MACHINE

Luis Mestre, New York, N. Y., assignor to Lewfor Development Corporation, New York, N. Y., a corporation of New York

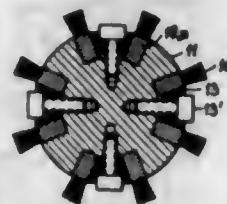
Application September 2, 1953, Serial No. 378,035

14 Claims. (Cl. 101-144)



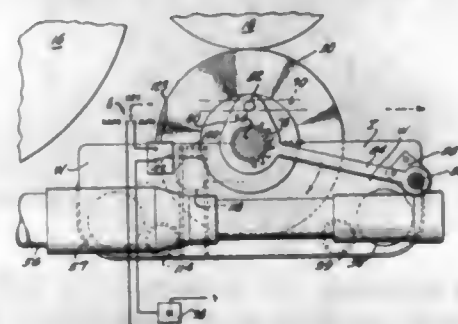
1. In apparatus of the character specified for printing on successive sheets, the combination of an impression cylinder, a blanket cylinder to make an impression for each revolution thereof on sheet material passing between said cylinders, a plate cylinder for forming on said blanket cylinder a pattern to be impressed on said material passing over said impression cylinder, means for driving said cylinders in unison, a feeler, a single eccentric means mounting the blanket cylinder for movement of the latter away from both the impression cylinder and the plate cylinder, and means controlled by said feeler to turn the single eccentric means and move said blanket cylinder away from the other cylinders at the completion of an impression when absence of a sheet for a following impression is indicated by said feeler and to return said blanket cylinder when presence of a sheet for a following impression is indicated by the feeler, said means controlled by said feeler comprising a rocker, a fixed pivot on which said rocker is mounted at an intermediate point, pins in said rocker at opposite sides of said fixed pivot, a pusher having a narrow central part extending between said pins and a broader body providing shoulders to engage either of said pins and preventing edgewise movement away from the pin engaged, means to determine the path of said pusher, and means to actuate said pusher including a pusher lever pivotally mounted at one end and pivotally connected with the pusher at the other end, a cam operated lever pivotally mounted on the pusher lever for rotation in one direction only, and a pusher cam rotating at the same speed as the cylinders and engaging the cam operated lever to operate the pusher solely in one direction of rotation.

2,821,912
DAMPING ROLLER FOR OFFSET PRINTING MACHINES
Werner Käsermann, Zurich, Switzerland, assignor to Color Metal A. G., Zurich, Switzerland
Application January 5, 1954, Serial No. 402,361
8 Claims. (Cl. 101-148)
Claims priority, application Switzerland May 22, 1953



1. Damping roller for offset printing machines comprising a cylindrical body part and centric extensions for rotatable support, grooved outer surface portions in said body part extending axially, brush components consisting of bristles and supporting means therefor, a wedge type clamp strip to secure said brush components in the grooves of said outer surface portions, said grooves having side walls lying in a plane parallel to the axis of rotation, the supporting means of said bristles placed between said side walls and said clamp strip, and releasable pressure means cooperating with said wedge type clamp strip to clamp at least one supporting means for said bristles releasably in between of one side wall of said grooves and said wedge type clamp strip, said side walls substantially radially disposed with respect to said cylindrical body part whereby said bristles extend substantially radially beyond said body part.

2,821,913
SUPPORT AND CONTROL OF A COLOR BOX ASSEMBLY IN PRINTING APPARATUS
James Reid Johnson, Providence, R. I.
Application August 11, 1954, Serial No. 449,178
21 Claims. (Cl. 101-178)

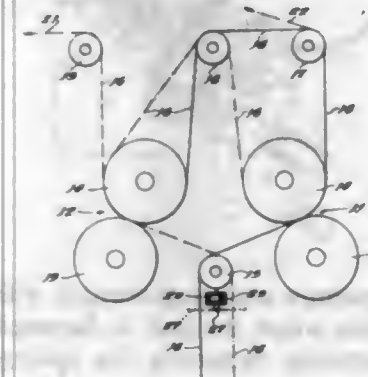


1. In printing apparatus employing a print roll, a color receptacle, and means for transferring color from the receptacle to said print roll, the combination of a brush, a brush shaft, a color receptacle hung on said shaft with said brush in parallel relation to the print roll, means for moving the brush and receptacle assembly toward and away from said print roll, and means interconnected between said brush shaft and the receptacle operative near the end of the assembly's movement away from the print roll and at the beginning of its movement toward the print roll to rotate said receptacle around the brush shaft substantially 180°.

2,821,914
WEB SEVERING DEVICE FOR PRINTING PRESSES
Leo C. Schuba, Chicago, Ill., assignor to Tribune Company, Chicago, Ill., a corporation of Illinois
Application November 30, 1954, Serial No. 471,964
7 Claims. (Cl. 101-224)

3. A web severing device for standard newspaper printing presses having two adjacent printing couples and a lead-in guide roller for directing the web to either one or the other of said couples, the web being led to one side

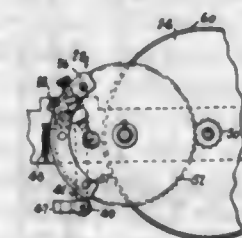
of said roller in the one case and to the other side thereof in the other, said device comprising, in combination with an electric control circuit for the press having a web break detector therein, a supporting frame immediately beneath said roller, a rotary blade carried by said frame, said blade having an axis between said two web paths and having oppositely disposed cutting elements thereon, said blade having a stroke in which it traverses each of said



lead-in positions whereby one of said elements will sever the web if it is in one of said positions and the other will sever it if it is in the other of said positions, means operable through action of said detector for actuating said blade, and means for electrically connecting said web break detector circuit with said blade actuating means whereby said blade is operated in consequence of a web break.

2,821,915
MEANS FOR INTERMITTENTLY PERFORATING AND SKIPPING A PREDETERMINED NUMBER OF SHEETS

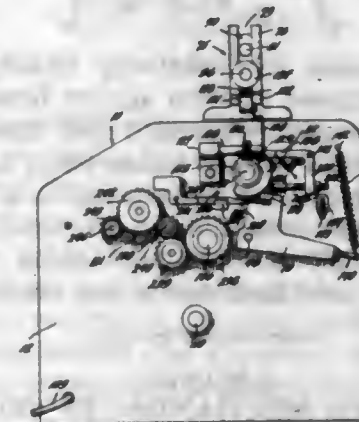
Nathan Katz, New York, N. Y.
Application May 3, 1954, Serial No. 427,057
2 Claims. (Cl. 101-226)



1. In a printing press which includes a pair of side frames, a rotatable impression cylinder journaled at its opposite ends in the side frames, and a perforating attachment having a plurality of spaced perforating elements each of which elements includes a housing non-rotatably mounted on a shaft and extending radially from the latter and a perforating wheel rotatable on the free end of said housing; the combination of means for rockably mounting said shaft at its opposite ends in the side frames for movement about an axis parallel to that of the cylinder, a crank arm fixed on one end of said shaft, spring means connected to said crank arm for yieldably urging said perforating wheels against the surface of the cylinder for perforating a sheet on the latter, a small gear adapted for mounting on one end of the impression cylinder, a relatively large gear mounted for rotation about an axis parallel to and spaced from the axis of the cylinder and meshing with said small gear, the gear ratio between said large and small gears being a multiple of two, a segmental radial cam member fixed on said large gear and having a periphery formed as the arc of a circle equal in length to the inverse of said multiple times the circumference of the generating circle, and a cam follower carried by said crank arm and engageable with the periphery of said cam member for rocking said shaft to move said perforating wheels in the direction away from the surface of the cylinder.

2. A perforating attachment as set forth in claim 1; wherein said gear ratio is one to six and the length of the periphery of said cam member is one-third of the circumference of the generating circle so that said perforating wheels are successively spaced from the surface of the cylinder for two revolutions of the latter and then urged against the cylinder by said spring means for the subsequent four revolutions of the cylinder.

2,821,916
PRINTING MACHINES
William B. Miles, Bedford, Va.
Continuation of application Serial No. 196,979, November 22, 1950. This application November 23, 1955, Serial No. 548,703
5 Claims. (Cl. 101-233)

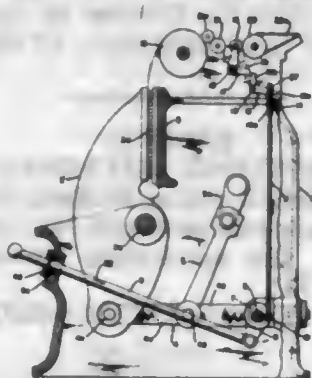


1. In a printing machine operating in a cycle which includes printing and non-printing portions, a supporting frame, a printing couple which includes a rotary type carrier and an impression cylinder, means supporting said impression cylinder for rotation about its own axis and for bodily translation away from and towards said type carrier, means synchronized with the operation of the couple for normally bringing the cylinder to impression position during the printing portion of the cycle and moving the cylinder out of impression position during the non-printing portion of the cycle, locking means operative to maintain the cylinder in impression position once it has been moved there at the beginning of the printing portion of the cycle, means rotating by virtue of the rotation of said type carrier for releasing said locking means at the end of the printing portion of the cycle, locking means for maintaining the cylinder in out of impression position during what would normally be the printing portion of the cycle, and means sensitive to the presence of a sheet to be printed for preventing the operation of said last-named locking means.

2,821,917
AUTOMATIC PLATEN PRINTING PRESS
Artur Büttner and Hermann Kocher, Heidelberg, Germany, assignors to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany, a corporation of Germany
Application December 24, 1954, Serial No. 477,506
Claims priority, application Germany December 30, 1953
1 Claim. (Cl. 101-299)

In an automatic platen printing press, a type bed adapted to have a form mounted thereon, a platen, a toggle lever system for applying pressure between said platen and a form mounted on said bed, shift means for rendering said pressure-applying system ineffective, said shift means being movable between an "on" position in which said pressure-applying system is effective and an "off" position in which said pressure-applying means is ineffective, an inking cylinder for applying ink to a form mounted on said type bed, means for supplying ink to said cylinder including a movable inking roll, latch means movable between latching and released positions for

releasably holding said roll in an inactive position and thereby interrupting the supply of ink to said cylinder, operative connections between said latch means and said shift means including a resilient connection actuated by said shift means for biasing said latch means toward latching position when said shift means is moved to "off"



position, and means for selectively locking said latch means in said released position against force exerted by said resilient connection when said shift means is moved to "off" position, said locking means being gravity biased toward a releasing position and retained in a locking position by said resilient connection so that upon moving said shift means to "off" position said inking roll is automatically held by said latch means and rendered inactive.

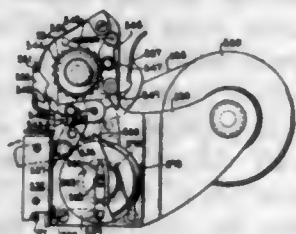
2,821,918

RIBBON FEED MECHANISM IN SELECTIVE PRINTING MACHINES

Louis M. Llorens, Groton, N. Y.

Original application July 29, 1950, Serial No. 176,741. Divided and this application November 30, 1953, Serial No. 395,051

11 Claims. (Cl. 101-336)



1. In apparatus of the class described, a pair of coaxial spools each mounted on one of two rotatable shafts, a ribbon connected to said spools, and means for selectively actuating said shafts and the spools thereon to wind said ribbon onto the actuated spool, said actuating means comprising an arm extending transversely of said shafts in radially spaced relation thereto and pivoted for angular movement about the axis of said shafts, said arm being biased in one direction by resilient means, a ratchet wheel mounted on one of said shafts, a ratchet wheel mounted on the other of said shafts, an operating pawl mounted on said arm and biased toward operative engagement with one of said ratchet wheels and another operating pawl mounted on said arm and biased toward operative engagement with the other of said ratchet wheels, means for selectively holding one or the other of said operating pawls out of engagement with its associated ratchet wheel, and means for successively actuating said pawl carrying arm and said pawls in an arc about the axis of said shafts against the efforts of said resilient means to thereby index the wheel which is then operatively engaged by a said pawl.

2,821,919

INKING MECHANISMS

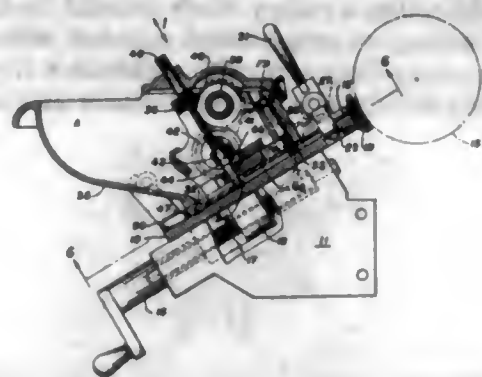
Arthur Dressel, Great Neck, N. Y., assignor to R. Hoe & Co., Inc., Bronx, N. Y., a corporation of New York

Application April 6, 1951, Serial No. 219,629

6 Claims. (Cl. 101-365)

1. An inking mechanism for a printing machine comprising, in combination, a flat supporting plate, a plu-

rality of inking units, each comprising an ink reservoir and a plurality of ink pumps, each inking unit having grooves on its bottom in communication with the dis-



charges of its pumps and cooperating with the plate to form ink conduits when the unit is fastened thereon, and means for detachably fastening the inking units on the plate.

2,821,920

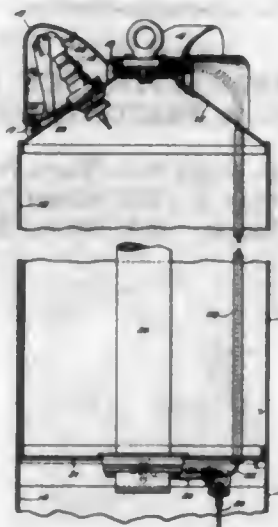
MINE

Albert H. Sellman, Washington, D. C.

Application August 5, 1940, Serial No. 351,481

14 Claims. (Cl. 102-17)

(Granted under Title 35, U. S. Code (1952), sec. 266)



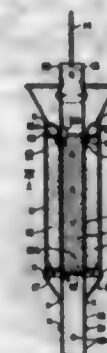
1. In a mine having an anchor, an anchor cable and one or more bendable firing horns, a removable cover for each horn, each said cover having a flattened hinge pin and a tongue, a slotted hinge for each said pin secured to said mine, a sheave having a spiral groove therein for each said tongue, a journal rigidly secured to said mine, said sheave rotatable about said journal, said hinge pins engaging said hinges and said tongues engaging said grooves to hold said covers in place on said mine, means for rotating said sheave including a cable means connecting said sheave to said anchor cable, whereby after said mine has been launched and has risen to its set depth the strain on its anchor cable produces movement of said cable means and rotation of said sheave, the rotation of said sheave releasing said tongues from said grooves, spring means operative to disengage said hinge pins from said hinges and to eject said covers from said mine upon said tongues being released from said grooves, an extension arm hinged to each said horn, means including a spring operative upon the ejection of said covers to extend each said arm laterally beyond the contour of said mine, and spring operated pin means for locking each said arm in extended position, said horns and said extension arms being contained within said covers while said covers are in place on said mines.

2,821,921 WELL SHOOTING UNIT UTILIZING A POROUS ENCLOSING BODY

Thomas B. Martin, Bradford, Pa.

Continuation of application Serial No. 183,066, September 2, 1950. This application August 28, 1956, Serial No. 607,540

3 Claims. (Cl. 102-20)



1. An improved explosive unit of the character shown and described to be lowered into a well hole in substantially vertical alignment with a productive stratum for shooting it a maximum distance laterally in a permeability-increasing manner which comprises, a vertically-extending inner core body of explosive material; an outer, vertically-extending, shape-retaining, force-directing, lightweight, frangible and porous body of hard refractory particles of heat-sintered glass and carbon in a connected and air-space defining relationship; said outer body being positioned about and substantially along the full vertical extent of said inner core body and having its defined air-space directly interposed about the core of explosive material for depth alignment with the productive stratum to be shot to directly receive therein gases generated by the explosive material and provide a maximum force-directing effect and expansion of the gases within said outer body, so that the refractory particles of said outer body will be gas-borne and explosive-force-driven laterally into and for a maximum distance along the productive stratum, a tubing member extending vertically along said inner body and upwardly and downwardly therebeyond, said tubing member having open portions therethrough defining passages between said inner and outer bodies, a pouring funnel for the explosive material mounted on an upper end portion of the unit and projecting upwardly along an upper extending end portion of said tubing member, an outer casing along said outer body, said funnel having a diverging upper open mouth portion of substantially greater outer diameter than the diameter of said unit and having a converging lower end portion secured to said outer casing and open to said outer body, a bottom disk projecting radially across said inner and outer bodies and secured to said tubing member and cooperating with said outer casing to support lower end portions of said bodies, and a cone-shaped nose having a diverging portion secured to said disk member and converging downwardly along said tubing member and having a lower converging end portion secured on said tubing member.

2,821,922

ROCKET TOY AND LAUNCHER THEREFOR

Lawrence W. Brown, Herbert D. Brown, and

Paul E. Brown, Clinton, Mo.

Application August 24, 1953, Serial No. 376,142

1 Claim. (Cl. 102-34.2)

A launcher for supporting and guiding a rocket toy having an elongate cylindrical body containing a propellant comprising, a frame providing a receptacle for the rocket toy body and having a bottom of two bars crossed and secured at right angles, said bottom bars terminating at their ends in upwardly extending equally spaced guide bars, said bars constituting pieces of wire each bent to provide opposite guide bars with the intermediate portion

thereof forming the respective bottom bar, a partial ring member connecting the upper ends of the guide bars to define an open end of the receptacle, said partial ring member having one end fixed to one guide bar and the other end fixed to an adjacent guide bar whereby the intermediate portion of said partial ring member extends around the open upper end of the frame exteriorly of the guide bars and is secured thereto to cooperate with the



bottom bars in retaining the guide bars in spaced parallel relation, said one guide bar and the adjacent guide bar to which the ends of the partial ring member are fixed cooperating to define an unobstructed opening at one side of the frame from the bottom through the upper end of said frame, and a pair of elongate leg members having upper portions secured to opposite guide bars, said leg members being parallel and extending downwardly from the frame and terminating in sharpened lower ends.

2,821,923

MORTAR TRAINING DEVICE AND COMPONENTS THEREOF

William D. Alderson, Chicago, Ill., assignor to Patent License Corporation, Chicago, Ill., a corporation of Illinois

Application May 19, 1953, Serial No. 355,967

4 Claims. (Cl. 102-49)



1. A weapon training device comprising a sub-caliber tube, firing pin and ejector units mounted in hinged relation to said tube to swing into and out of operative coaxial relation to the same and to one another, and means releasably holding said tube and units in said coaxial relation, said ejector unit having means to removably support an ejector charge rearwardly of said firing pin unit and said sub-caliber tube removably receiving a sub-caliber propellant charge forwardly of said firing pin unit.

2,821,924

FIN STABILIZED PROJECTILE

Lawrence J. Hansen, Palos Park, and Phillip Rosenberg, Chicago, Ill., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army

Application July 9, 1954, Serial No. 442,456

3 Claims. (Cl. 102-50)

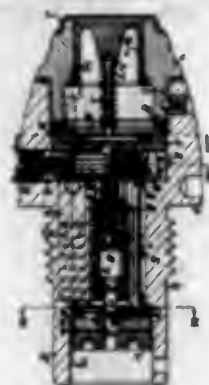
1. In a projectile of the type having a cartridge casing and shell portion comprising a boat-tail fixed to the rear

end of said shell and carrying a plurality of nested extensible stabilizing fins, said boat-tail and said fins enclosed within said cartridge casing, said fins being embedded in the propelling charge, an axial bore formed in said boat-tail, a chamber formed in said boat-tail in axial alignment with said bore forwardly thereof and communicating therewith, a hollow piston having a restricting orifice therein slidably fitting said bore, there being shear pin means holding said piston in a forward position whereby the forward portion of said piston extends



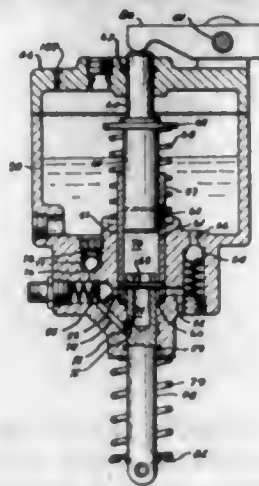
within said chamber, the forward end of said piston within said chamber being tapered to an enlarged diameter at its forward end, said piston communicating fluid under pressure to said chamber upon ignition of said propelling charge, means at the rear end of said piston operatively associated with said fins to extend said fins radially outwardly upon rearward movement of said piston in response to differential pressure between said chamber and the atmosphere, said piston being locked in rearward position by said tapered portion and said bore.

2,821,925
DOUBLE-ACTING PERCUSSION FUZE PROVIDED WITH A SAFETY DEVICE FOR PROJECTILES
Claude Varad, Geneva, Switzerland, assignor to Ufa Universal Finanzierungs A.G., Vaduz, Liechtenstein
Application April 16, 1956, Serial No. 578,352
4 Claims. (Cl. 102-84)



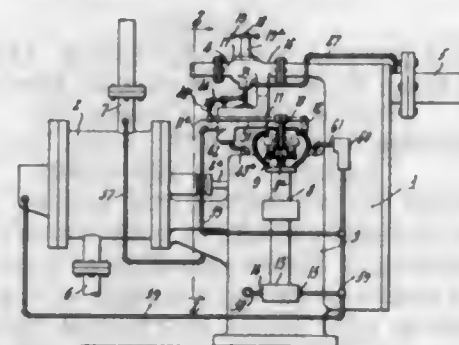
1. In a double-acting percussion fuze having a safety device of the kind comprising a toothed member provided with a slot having the shape of a buttonhole, a clockwork mechanically connected to said toothed member, a spring motor driving said clockwork, an escapement balance wheel controlling said clockwork, a shouldered plunger located at one side of said toothed member, a primer located on the other side of said toothed member in a position whereby said plunger may reach said primer only when the enlarged portion of said buttonhole-shaped slot is brought by said clockwork coaxial to said plunger, the combination with said safety device of an inertia block carrying said primer and having an end facing said buttonhole-shaped slot, said end being coaxial to said plunger and being retained against movement towards said plunger by said toothed member until the enlarged part of said buttonhole-shaped slot is brought by said clockwork coaxial to said plunger, whereby said toothed member constitutes simultaneously a locking means for the plunger and a locking means for the inertia block carrying said primer; an obturator provided with an opening to allow the passage of the fire of the primer, and means for controlling said obturator by said toothed member.

2,821,926
VARIABLE VOLUME RECIPROCATING PUMP
Wendell E. Miller and Jack F. Gillmore, Hutchinson, Kans., assignors to Cessna Aircraft Company, Wichita, Kans., a corporation of Kansas
Application June 28, 1954, Serial No. 439,574
4 Claims. (Cl. 103-37)



1. A reciprocating piston type pump comprising: a casing defining a cylinder; a liner having one of its ends in open communication with said cylinder and movable longitudinally therein; means for selectively positioning said liner longitudinally in said cylinder; a liquid reservoir; a liquid escape port in said liner, said port being in open communication with said reservoir regardless of the position of the liner in the cylinder; a piston having a fixed stroke length reciprocable in said liner and adapted to close said escape port when the liner is in certain positions of longitudinal adjustment within the cylinder, said piston, cylinder and the cylinder communicating end of the liner together defining a liquid handling chamber; an intake duct having a valve therein affording passage of liquid from the reservoir into said chamber; a discharge duct having a valve therein affording passage of liquid out of said chamber; a by pass duct affording communication between the chamber and the discharge duct around the valve in the latter; and means movable with the liner as its position is changed to maintain said by pass duct closed save when the liner is positioned to place said escape port at least partially out of reach of closure by said piston during its reciprocation, whereby liquid may flow from a point outside the valve in the discharge duct to the liquid handling chamber and through the escape port to the reservoir during continuous piston reciprocation.

2,821,927
CONTROL MECHANISM FOR POWER FLUID SUPPLY
Christopher A. Schellens, St. George, Maine; Belton A. Copp, executor of said Christopher A. Schellens, deceased
Application July 15, 1952, Serial No. 298,926
6 Claims. (Cl. 103-57)



1. In combination with a turbine and a mechanism driven thereby, control mechanism for regulating the

steam supply to the turbine, comprising a valve having a casing enclosing a chamber with an inlet and an outlet through which the steam passes to the turbine, a valve member including a stem, an end portion of which protrudes with a sliding fit from a region of high pressure in said casing to a region of atmospheric pressure, said member being movable to vary the steam supply through said chamber from maximum to none, the direction of the valve closing movement being toward the protruding end of said stem, said valve member being shaped and arranged with reference to said casing so that steam pressure in said casing imposes on the valve member in all of its positions a bias of substantially constant force toward its closed position, a single-acting fluid motor including a movable member abutting and pressing against the protruding end of said stem, means supplying fluid at constant pressure to said motor, and means for controlling the admission of fluid to and discharge of fluid from said motor to regulate the position of said valve stem in response to changes in power demand on the turbine by the driven mechanism.

4. Apparatus as in claim 1, said turbine having bearings, said fluid supplying means comprising a pump of the displacement type, constant-speed driving means for said pump, a by-pass from the discharge of the pump to the suction thereof, an adjustable relief valve in said by-pass, a conduit leading directly from the pump discharge to said single-acting motor, and a branch conduit leading directly from said pump discharge to said bearings.

2,821,928
ROTARY DEVICE
Ernest E. Wagner, Santa Ana, Calif.
Application November 15, 1954, Serial No. 468,815
11 Claims. (Cl. 103-120)

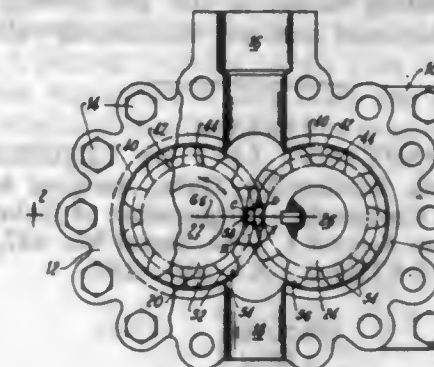


1. A hydraulic pump of the character referred to, including a housing, and an independent, integrated pumping unit adapted for introduction into and association with said housing, said unit comprising a rotor body having a plurality of radial vanes, a like number of passageways, and a central recess, a plate at each side of said rotor body, a single element passing centrally through one of said plates and rotor and secured in the other plate to form an integrated preloaded cartridge removable as a unit from said housing, said element having passageways in a part thereof for conveying fluid under pressure to said recess to exert pressure on the inner ends of said vanes and maintain the same projected, and a ring surrounding said vanes and rotor and slidably fitted between said plates.

2,821,929
GEAR TYPE POSITIVE DISPLACEMENT PUMP
Richard R. Erick, South Bend, Ind., and John T. Robinson, Hamilton, Ohio, assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application June 21, 1954, Serial No. 438,270
4 Claims. (Cl. 103-126)

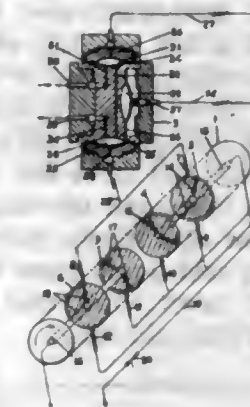
1. In a fluid pump or motor, a housing having an inlet and an outlet, a pair of gears arranged in meshing relationship with the teeth in mesh forming two pockets therebetween in which fluid is entrapped, a channel formed

in the side wall of said housing in registration with said pockets, said channel symmetrically centered at the intersection of the line of centers and the pitch circles of



said gears and extending in a direction parallel to the line of centers a distance greater than the total tooth depth and in a direction transverse thereto a distance not exceeding tooth thickness.

2,821,930
DIAPHRAGM OPERATED DELIVERY PUMPS
Kenneth Ashbrooke Smith, West Kilbride, Scotland, assignor to Imperial Chemical Industries Limited, a corporation of Great Britain
Application February 19, 1954, Serial No. 411,498
Claims priority, application Great Britain June 12, 1953
3 Claims. (Cl. 103-152)



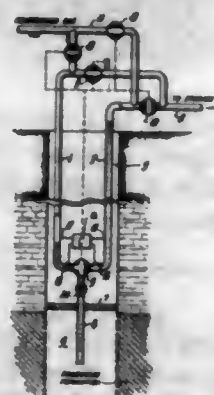
1. In a delivery pump for liquid such as nitroglycerin and the like, the combination comprising: a pump diaphragm; means defining a pump liquid chamber on one side of said diaphragm and a pump gas chamber on the other side of said diaphragm; a non-return inlet valve connected with said pump liquid chamber through which the liquid to be pumped is supplied under pressure; an exit valve having an exit valve diaphragm and means defining an exit valve liquid chamber on one side of said valve diaphragm and an exit valve gas chamber on the other side of said valve diaphragm; means connecting said pump liquid chamber with said exit valve liquid chamber; said connecting means defining narrow ducts for preventing surges of liquid passing between said liquid chambers; gas distributing valve means movable into different positions to control the distribution of a gas under pressure to and from said gas chambers; and means connecting said gas distributing valve means to said gas chambers for exhausting the pump gas chamber to atmosphere through said gas distributing valve means and supplying gas under pressure to said exit valve gas chamber through said gas distributing valve means in one position of the latter to thereby permit liquid under pressure to enter said pump liquid chamber through said inlet valve, and for supplying gas under pressure to said pump gas chamber through said gas distributing valve means and exhausting said exit valve gas chamber to atmosphere through said gas distributing valve means in another position of the latter to thereby force the liquid from said pump liquid chamber outwardly through

said exit valve liquid chamber; said means connecting said distributing valve means to said gas chambers defining narrow ducts communicating with said gas chambers for preventing surges in the gas passing between said gas chambers and said gas distributing valve means.

2,821,931

INTERMITTENT LIFT OF LIQUIDS

Mehmet R. Tek, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application August 2, 1954, Serial No. 447,323
8 Claims. (Cl. 103-165)

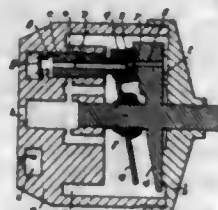


1. An apparatus for lifting liquids comprising in combination a three way valve, two vertical tubes joined at their lower extremity to two ports of said three-way valve, a quantity of liquid in said tubes, power means operatively connected to said three-way valve for rotating said three-way valve from a first position wherein said valve opens only to one of said tubes and to the third port of said three-way valve to a second position wherein said three-way valve opens only to the two said tubes then to a third position wherein said three-way valve opens only to the second of said tubes and the said third port, and fluid propulsion means operatively connected to one of said tubes for moving said liquid from one of said tubes to the other of said tubes when said three-way valve is opened only to the two said tubes.

2,821,932

FLUID PUMPS OR ENGINES OF THE PISTON TYPE

René Lucien, Paris, France, assignor to Societe d'Inventions Aeronautiques et Mecaniques S. I. A. M. Fribourg, Switzerland, a societe anonyme
Application April 26, 1955, Serial No. 503,931
Claims priority, application France April 28, 1954
5 Claims. (Cl. 103-173)



1. A fluid pressure transfer device comprising a casing having inlet and outlet ports, a plurality of parallel cylinders, pistons movable in the cylinders, said casing comprising, at an end thereof opposite said cylinders, a wall having a planar internal surface perpendicular to the cylinder axes, said wall providing a smooth bearing for a drive shaft rotatable relatively to the casing on an axis parallel to the cylinder axis, a plate mounted on the shaft for rotation therewith and having, on one side, a planar surface perpendicular to the shaft axis and, on the other side, an inclined surface, shoes having a planar surface in sliding engagement with said inclined surface, each shoe being mounted for universal movement on one of said pistons, means defining in the planar surface of

each shoe a cavity communicating, through the body of the shoe and the piston, with the inside of the related cylinder, means defining on the internal surface of said end wall corresponding cavities facing said shoes, and a series of ports in said plate successively establishing a communication between the shoe cavities and corresponding wall cavities at least during the pressure stroke in the cylinders.

2,821,933

SELF-LUBRICATING PUMP PLUNGER

John R. Brennan, Long Beach, Calif., assignor to Fluid Packed Pump Company, Los Angeles, Calif., a corporation of California
Application April 15, 1957, Serial No. 652,710
6 Claims. (Cl. 103-179)

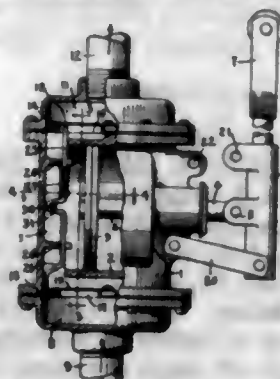


1. In a pump for fluid that contains both oil and a liquid of greater specific gravity than oil and which has a relatively reciprocative barrel and hollow plunger together with a standing valve in the lower end of the barrel opening to flow of fluid into the barrel during delivery stroke of the plunger and a traveling valve in the lower end of the plunger closing to support the fluid in the plunger during said delivery stroke, the improvement that comprises a tube within the hollow of said plunger defining an annular chamber between itself and the plunger, the lower end of said tube being open and valveless and in direct communication with the chamber at all times whereby both tube and chamber receive fluid entering the plunger past the traveling valve, and ports in the plunger in spaced adjacency to the otherwise closed upper end of the chamber and constituting a passage for fluid trapped in the upper portion of the chamber to the area of sliding engagement between the plunger and the barrel.

2,821,934

FUEL OIL PUMP

Virgil A. Brunson, Grand Rapids, Mich., assignor to Blackmer Pump Company, Grand Rapids, Mich., a corporation of Michigan
Application May 28, 1954, Serial No. 433,043
1 Claim. (Cl. 103-221)



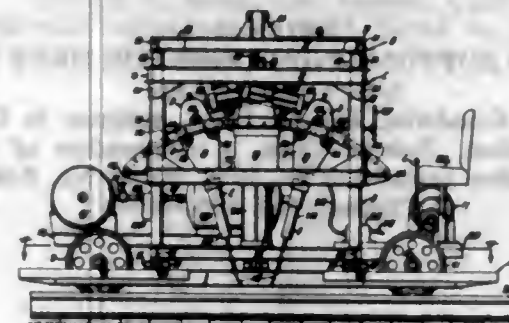
A pump comprising a body in which are a cylinder and a piston, an inlet passage opening to the bottom of said

body, and an outlet passage opening to the top of said body both communicating with said cylinder, an inlet and an outlet valve in each of said passages, said piston normally acting to pump liquid through said valves from said inlet passage through said outlet passage, and a single manually operated means acting to open both said valves, to permit a gravity reverse flow of liquid through said pump when said piston is at rest, said inlet and outlet passages and said cylinder being aligned and generally parallel with said by pass passage, so that said gravity flow will drain said cylinder and passages.

2,821,935

BALLAST TAMPER

Theodore S. Bean, Oakland, Calif.
Application May 3, 1952, Serial No. 285,977
14 Claims. (Cl. 104-12)

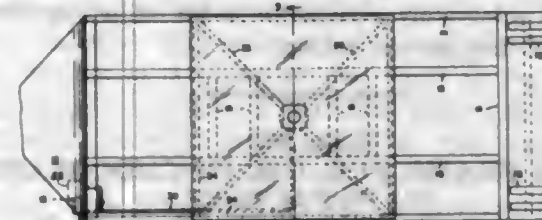


1. A tamping machine comprising: a guided truck; a guided carriage mounted on said truck for transverse movement thereon; a guided elevator mounted on said carriage for vertical movement relative thereto; a guided tamping gun carrier supported by said elevator for downward arcuate movement relative thereto in a longitudinal vertical plane and for independent vertical movement relative to said elevator; and a tamping gun mounted on said tamping gun carrier.

2,821,936

TRANSPORT MEANS FOR HEAVY SELF PROPELLED MACHINES

Seymour Weissman, Detroit, Mich.
Application August 1, 1955, Serial No. 525,515
1 Claim. (Cl. 104-45)



In combination with the flat bed of a vehicle for transport of heavy self-propelled machines, a rectangular platform mounted centrally of said bed, means located centrally of said bed and constituting means for elevating the platform above the bed and lowering it to rest thereon, said means permitting the partial rotation of said platform while elevated, and means preventing rotation of said platform during transport.

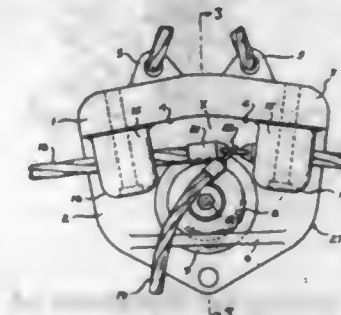
2,821,937

CHOKER PASS BLOCK FOR HIGH LEAD LOGGING

Hertuf E. Madsen, Stuart Island, British Columbia, Canada
Application April 7, 1955, Serial No. 499,946
10 Claims. (Cl. 104-115)

1. A choker line pass block for high lead logging through which a main line and a haul back line and part of a choker line are adapted to pass, said block compris-

ing a vertical panel having a hood extending horizontally therefrom, said block being provided with means for suspension from a support, a sheave rotatably mounted on a center pin extending horizontally from the vertical panel below the hood, said sheave being spaced below the hood to define a passage parallel to the face of the panel for the endwise movement of said main and haul back lines and part of said choker line attached to said main and haul

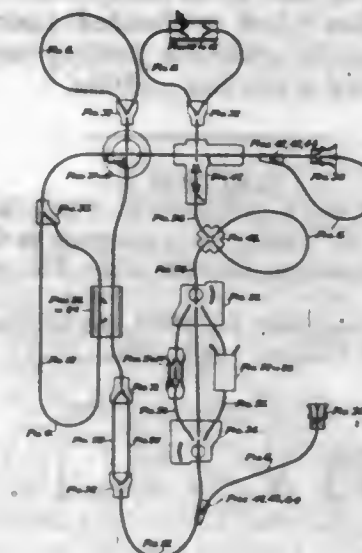


back lines, a member spaced from the face of the panel and projecting downwardly from the hood and beyond the upper periphery of the horizontal sheave, said downwardly projecting member and the outer end of the horizontal sheave defining a gap, the end of said horizontal sheave being shaped to facilitate the slipping off of a part of the choker line to pass freely through said gap as said main line and haul back lines are moved lengthwise of the passage parallel to the said face of the panel.

2,821,938

SINGLE-TRACK VEHICULAR TOY

Heinrich Müller, Nürnberg, Germany
Application June 14, 1951, Serial No. 231,481
Claims priority, application Germany November 2, 1950
23 Claims. (Cl. 104-245)

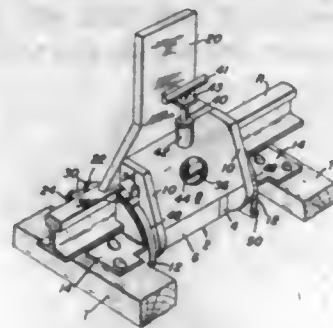


1. A track-guided vehicular toy comprising a driven vehicle having rear wheels and having a leading track follower swivelled for controlling the travelling direction, in combination with a composite track layout comprising flexible single-track guide lines of elongated shape having a sufficiently small cross section to be straddled by said track follower, and rigid playing parts of shorter length than said lines, said parts having a plane bottom surface, the width of said parts transverse to the vehicle travelling direction being larger than the axial spacing between said rear wheels so that said rear wheels run upon said part during operation of the toy, said parts and said guide lines being frictionally and separably stuck together when in operative condition, said rigid parts having on the top a ridge forming a prolongation of the line attached to said part and having a cross section sufficiently small to be straddled by said track follower, whereby said lines and said parts form together a continuous single-track path structure for said vehicle.

2,821,939

CAR STOP

Sam W. Cortese, Dragerton, Utah, assignor to United States Steel Corporation, a corporation of New Jersey
Application February 16, 1956, Serial No. 565,927
7 Claims. (Cl. 104-257)



1. A stop for halting the movement of a railroad car along a track rail supported on spaced ties which comprises a base block adapted to be clamped against the bottom of the base flanges of said rail between two adjacent ties, said block including a plate extending along the bottom of said base flanges and spaced end walls extending upwardly and normal to the longitudinal axis of said plate and normal to said rail when said base block is clamped against said base flanges, said end walls having clamping means for clamping said base block to said base flanges, a shaft extending through said side walls directly below said base flanges and parallel with the longitudinal center line of said rail when the base block is clamped against said base flanges, a housing fitting over said block and journaled on said shaft for tilting toward and away from said rail, said housing including spaced side walls disposed closely adjacent said end walls, a stop plate carried by said housing so as to stand vertically on top of the rail in one position of the housing when said base block is clamped against said base flanges, and manually releasable locking means effective to hold said housing in said one position.

2,821,940

RAILWAY VEHICLE TRUCK

Richard L. Lich, St. Louis, Mo., assignor to General Steel Castings Corporation, Granite City, Ill., a corporation of Delaware
Application December 31, 1954, Serial No. 479,188
17 Claims. (Cl. 105-182)



1. In a railway vehicle two axle truck, wheels and journal boxes, an equalizer extending between and supported upon the boxes at each side of the truck, a truck frame, support means therefor upon each equalizer between the ends of the equalizer, and a load-carrying bolster yieldingly supported from each side of the truck frame at points spaced apart longitudinally of the truck and between each journal box and the support means for the frame on the equalizer.

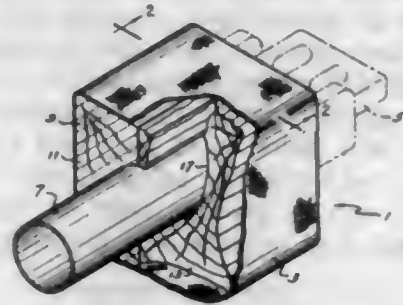
2,821,941

DUNNAGE BAR

Clair S. Reed, Wayne, Mich., assignor to Gar Wood Industries, Inc., Wayne, Mich.
Application October 20, 1955, Serial No. 541,655
2 Claims. (Cl. 105-369)

1. A dunnage bar for use in a freight vehicle, comprising a structural metal tube extending full length of said bar, a wooden casing surrounding said tube and in contact with substantially the entire outer surface of

said tube, and a sheath of glass fibers surrounding said casing and secured to the entire outer surface of said

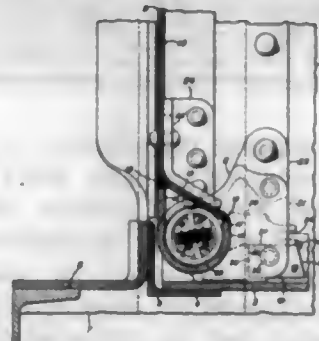


casing, said glass fibers being impregnated with a cured thermosetting resin, at least some of said glass fibers extending longitudinally full length of said casing.

2,821,942

ROUND BOTTOM END DOORS FOR DROP END GONDOLA CARS

Ernest G. Goodwin, Toledo, Ohio, assignor to Unitcast Corporation, Toledo, Ohio, a corporation of Ohio
Application September 25, 1951, Serial No. 248,226
7 Claims. (Cl. 105-406)

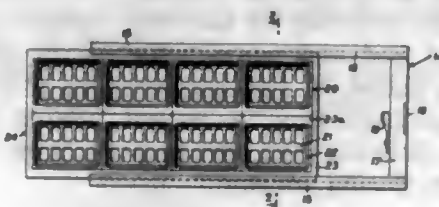


1. In a gondola car having a drop door pivotally mounted on the body of the car and torsion rod means extending longitudinally of the door adjacent the pivotal end thereof and energized on opening of said door for counterbalancing its weight, the combination of bracket means on said car body for pivotally mounting said door thereon, and means attached to said bracket means and anchoring an end portion of said torsion rod means, said anchoring means being rotatable relative to said bracket means and selectively positionable for adjusting the torsion of said torsion rod means.

2,821,943

MOLD FRAME FOR USE IN CHOCOLATE MANUFACTURE

Samuel Friedwald, Rockville Centre, N. Y.
Application October 12, 1954, Serial No. 461,774
3 Claims. (Cl. 107-19)



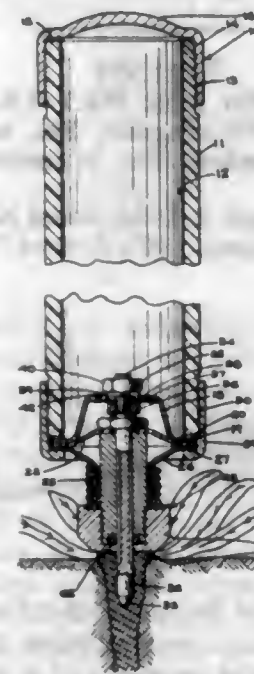
1. For use in the manufacture of chocolate bars or the like, a mold frame-and-mold assembly comprising a rectangular, longitudinally extending metal top plate, sides depending from said top plate and integral therewith, said sides and said flanges being substantially longitudinally co-extensive with said top plate, a plurality of laterally extending strengthening ribs fixed to the lower face of said top plate and extending substantially between the sides thereof and being longitudinally spaced from each other, said top plate having laterally paired and

spaced mold receiving openings between successive ribs and having a plurality of longitudinally aligned solder receiving openings interposed in the plate remaining portions between said paired mold receiving openings, and molds, each said mold having a hollow body portion which is adapted to be inserted within a mold receiving opening, said mold having a top opening and having a transverse top peripheral flange which is adapted to rest upon said top plate and at least partly overlie said solder receiving openings, said mold being adapted to be soldered to said mold frame by flowing solder from the lower side of said top plate through said solder receiving openings and between said flange and said top plate.

2,821,944

PRESSURE INJECTION-TYPE APPLICATOR FOR FLUID

George C. Blake, Los Angeles, Calif.
Application September 19, 1955, Serial No. 535,057
10 Claims. (Cl. 111-7.3)



1. In a pressure injection-type applicator for fluid, the combination of: a hollow tubular member providing a reservoir for fluid and having a pressure receiving surface at one end; a rigid partition wall at the opposite end of the tubular member; a flexible wall connected to the tubular member and spaced from said partition wall to define therewith a chamber for fluid to be dispensed; valved port means in said partition wall; a pointed piercing member secured to the partition wall and extending through said flexible wall, said piercing member being provided with longitudinal exterior grooves for passage of fluid from said chamber toward said pointed end thereof; biased surface engagement means provided with a through bore slidably receiving said piercing member and secured to said flexible wall; an external sleeve guide member carried by the end of the tubular member and projecting therefrom; and seal means carried by said surface engagement means to sealingly engage said piercing member below ends of said exterior grooves.

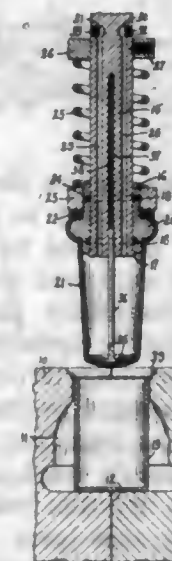
2,821,945

APPARATUS FOR FORMING SHEET METAL ARTICLES

Donald Peccerilli, West Haven, Conn.
Application August 27, 1953, Serial No. 376,889
3 Claims. (Cl. 113-44)

1. A press mechanism comprising a plunger for insertion into a die, a collar slidably mounted on the plunger from which the plunger may project in both directions, a pressure fluid bag of flexible material having an open upper end secured to said collar and closed at

its lower end, said bag depending from the collar to embrace the lower end of the plunger and receive the latter therewithin, stop means on said collar to check the movement thereof and permit the plunger to move relatively to the collar and the lower end of the plunger to descend into the bag and exert pressure on the fluid

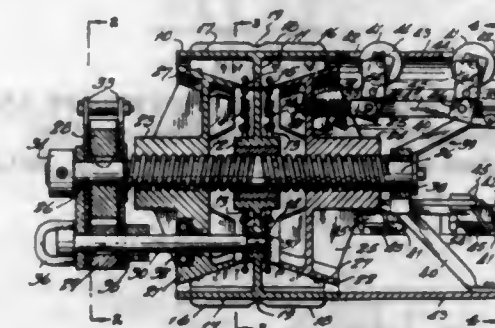


therein, actuating means connected to the plunger above the collar, a die member having an opening to receive the bag when the plunger is actuated, and means on the die member to engage the stop means on said collar to limit movement of the latter and permit the plunger to move relatively to the collar and into the bag in the die opening.

2,821,946

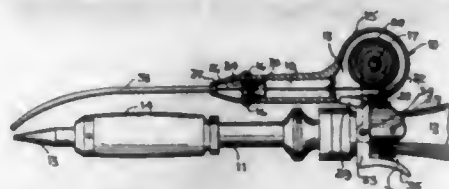
INTERNAL ALIGNMENT APPARATUS FOR PIPE SECTIONS

Robert G. Goeckler, Fort Worth, Tex.
Application January 31, 1956, Serial No. 562,479
1 Claim. (Cl. 113-103)



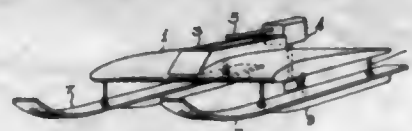
In an internal aligning clamp for pipe joints a cylinder having a diameter substantially less than the diameter of the pipe joints, the cylinder having a series of longitudinal slots formed therein equidistantly spaced therearound, an integral circular web in the cylinder intermediate its ends, the web having radial slots formed therein aligned with the slots in the cylinder and having a hub formed centrally thereof, the hub having opposing cylindrical flanges integral therewith and extending from each side, a shoe plate slidably arranged in each of the slots in the cylinder and the corresponding slot in the web, and slidable radially thereof, each of the shoe plates having a spring connecting it to the hub for normally urging the respective shoe inwardly and having angular inner edges inclined outwardly toward their opposite ends and their opposite edges, paired frusto-conical cams having internally threaded hubs in opposing arrangement engaging the inclined edges of the shoe plates, a right and left hand threaded shaft inserted through the first mentioned hub, between the cams, and threaded in the hubs of the cams, and means associated with the shaft for rotating it to move the cams in opposite directions in engagement with the shoes.

2,821,947
FEEDING DEVICES FOR SOLDERING IRONS
 Harry P. Von Knauf, Chicago, Ill.
 Application June 29, 1954, Serial No. 440,011
 1 Claim. (Cl. 113—109)



A solder feeding device for an electric soldering iron including an enclosure attached to the handle portion of said iron, a chamber provided by said enclosure and a sleeve communicating with said chamber and extending in spaced apart substantially parallel relation with respect to said iron, a chuck reciprocable in the sleeve and having a longitudinal opening through which a length of solder from a roll arranged in the chamber passes, a chuck reciprocating means including an arm having one end connected to said chuck, an L-shaped lever having one end connected to the opposite end of the arm, a pivot pin pivotally connecting said lever to the handle portion of said iron with said lever providing a finger gripping portion, said chuck having diagonally extending lateral openings formed therein having open communication with the longitudinal opening, spring pressed ball grips in the diagonal openings and in engagement with said solder in said longitudinal opening, said ball grips movable in the diagonal direction of the lateral openings into binding engagement with said solder to move the same in one direction through said sleeve when said chuck is moved in one direction in said sleeve, and pivotable holding pawls in said sleeve extending in a parallel direction with respect to said diagonally extending openings of said chuck and engageable with the length of solder in the longitudinal opening to prevent movement thereof in an opposite direction when said chuck is moved in an opposite direction within said sleeve.

2,821,948
WATER CRAFT HAVING HYDROPLANES
 Ulysses S. Harkson, San Mateo, Calif.
 Application February 6, 1956, Serial No. 563,647
 1 Claim. (Cl. 114—66.5)

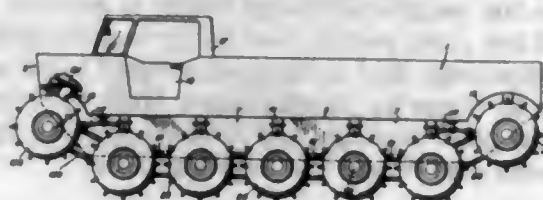


A water craft comprising a pair of non-buoyant supporting planes normally submerged beneath the surface of the water when the craft is at rest, the said planes being of greater length than the length of the hull and extending an appreciable distance forwardly of the hull, a plurality of upstanding struts disposed between each of the planes and the boat hull, a buoyant hull supported on the struts in spaced relation to and above the planes and having a plane bottom surface and an upper surface forming an air foil capable of producing an upward pressure on the hull when the craft is under way, the hull normally contacting and resting on the surface of the water when the craft is at rest, and means carried by the hull for propelling the craft forwardly.

2,821,949
COMBINATION LAND AND WATER VEHICLE
 William I. Uyehara, Honolulu, Territory of Hawaii
 Application March 18, 1955, Serial No. 495,139
 5 Claims. (Cl. 115—1)

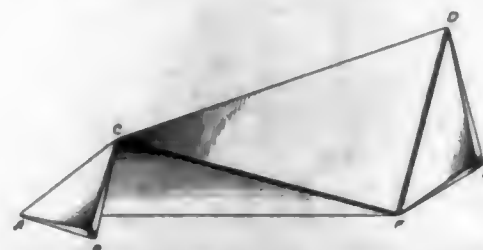
1. A combination land and water vehicle comprising a buoyant elongated body having ends and sides, said

sides being undercut to provide a longitudinal central keel portion on said body of uniform width and extending from end to end of said body, and longitudinal bottom recesses in said body at opposite sides of said keel portion forming overhanging side portions on said body over said recesses, a series of twin side driving pontoon wheels



working in each side recess and spaced along the same, series of axles from the series of twin wheels, bearings for said axles depending from said overhanging portions into said recesses, said wheels having combined cleats and paddles therein, and drive means for operating said wheels in unison.

2,821,950
HIGHWAY GUARD FOR WET TRAFFIC LINES
 Robert G. Corbin, Huntingdon, Pa., assignor to Wald Industries, Huntingdon, Pa., a corporation of Pennsylvania
 Application April 3, 1956, Serial No. 575,891
 6 Claims. (Cl. 116—63)



1. A highway guard for wet center lines and lane lines comprising a multi-plane body portion, said body portion comprising a first solid section and a second solid section, each of said sections having length, width and thickness, said first section having a main face disposed in a first plane in which said length and width occur, said second section having a main face disposed in a second plane in which said length and width occur, said second plane being at angular variance with said first plane and said two main faces being contiguous, and a pair of wing elements, one of said wings being contiguous with the main face of said first section of said body portion, the second wing being contiguous with the main face of said second section of said body portion.

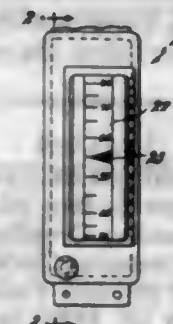
2,821,951
PRESSURE INDICATOR
 Robert W. Carver, Chatham, N. J.
 Application March 21, 1955, Serial No. 495,491
 1 Claim. (Cl. 116—114)



The combination with a rigid transparent container adapted to be sealed with a vacuum therein of indicating

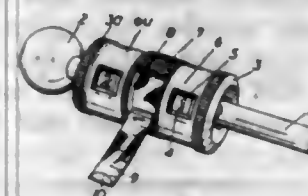
means within the container for indicating the presence and magnitude of the vacuum comprising a packet formed of at least two layers of a flexible fluid-imperious material sealed about the edges to provide an air tight chamber between the layers and an expandable gas between said layers and having a pressure approximately equal to atmospheric pressure, said packet upon evacuation of the container expanding to increase its size and modify its shape to indicate the presence and general magnitude of the vacuum within the container.

2,821,952
INDICATING INSTRUMENT WITH ADJUSTABLE SCALE
 Robert J. Ingham, Jr., Fairfield, Conn., assignor to Manning, Maxwell & Moore, Incorporated, Stratford, Conn., a corporation of New Jersey
 Application September 22, 1955, Serial No. 535,803
 7 Claims. (Cl. 116—129)



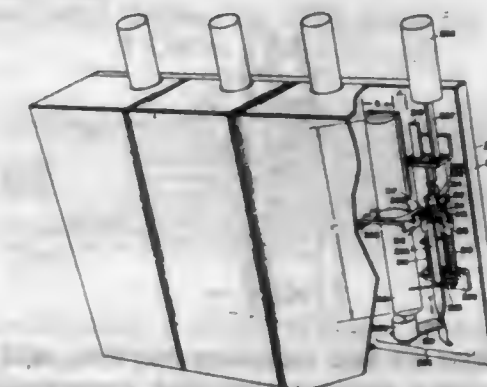
1. In combination, an indicating instrument wherein index means is moved along a graduated scale by motor means, a movable support for the motor means, scale and index means, fixed masking means operative to conceal all but a predetermined portion of the scale, means for moving the support to bring the index means and a concealed portion of the scale out of concealment if at any time the index means be located at said concealed portion, and means operative, when the index means is concealed by the masking means, to indicate the direction in which the support must be moved to bring the index means out of concealment.

2,821,953
COUNTING OR REGISTERING APPARATUS
 Reginald V. Langhart, Boughton, and Howard R. Pearce, Golders Green, London, England, assignors to Toppers of Northampton Limited, London, England
 Application January 17, 1956, Serial No. 559,647
 Claims priority, application Great Britain January 20, 1955
 5 Claims. (Cl. 116—131)



1. A registering device for removable attachment to a rod like member comprising a hollow sleeve member having an aperture in the side wall thereof, a hollow drum member having a reduced diameter end part with figures on the exterior of the end part and rotatably mounted relative to the sleeve member with the end part disposed within the sleeve member so as to enable the figures to be brought in succession into view through the aperture, and an integral spring inner member located within the bore of the drum and sleeve member to secure them relative to each other and to provide a resilient constriction of the bore.

2,821,954
ULTRASONIC TRANSMITTER
 Robert Adler, Northfield, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
 Application April 16, 1956, Serial No. 578,333
 9 Claims. (Cl. 116—137)



1. In combination with an elongated longitudinal-mode vibrator mounted on a support member and having an ultrasonic natural resonant frequency, a striking element operatively associated with an end of said vibrator to excite said vibrator longitudinally, and a damping element operatively associated with said striking element and having sequential frictional contact with a side of said vibrator to damp said longitudinal vibrations.

2,821,955
ULTRASONIC TRANSMITTER
 Robert C. Ehlers, Lombard Villa, and Clarence W. Wandrey, Wheaton, Ill., assignors to Zenith Radio Corporation, a corporation of Illinois
 Application March 11, 1957, Serial No. 645,091
 13 Claims. (Cl. 116—137)

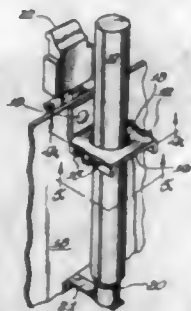


1. In combination with an ultrasonic wave transmitter comprising an elongated longitudinal-mode vibrator, an exciter operatively associated with an end of said vibrator, resilient means mounting said exciter in spaced relation with respect to said end, exciter tensioning means operatively associated with said exciter and movable longitudinally with respect to said vibrator, manually operable moving means operatively connected to said exciter tensioning means, and trip means responsive to movement of said moving means to release said tensioning means to permit said exciter to strike said vibrator.

2,821,956
ULTRASONIC GENERATOR
 Ole E. Wold, deceased, late of Franklin Park, Ill.; by Leontine R. Wold, administratrix, Franklin Park, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois
 Application March 11, 1957, Serial No. 645,310
 3 Claims. (Cl. 116—169)

1. In a transmitter for generating ultrasonic signals at a predetermined frequency: an elongated vibrator reso-

nant in a longitudinal mode at said predetermined frequency and having a plurality of spaced transverse peripherally aligned grooves in opposite sides of said vibrator in a predetermined nodal plane; a mounting member; and spring wire support means for resiliently hold-

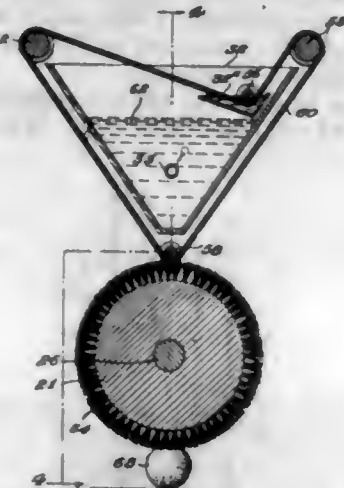


ing said vibrator on said mounting member, said support means comprising portions extending transversely about said vibrator and retained within respective ones of said grooves, said portions being bowed to contact said vibrator at a limited number only of discrete points spaced about the periphery of said vibrator.

2,821,957

WAX APPLICATOR FOR FRUITS, VEGETABLES AND THE LIKE

John R. Fitzgerald, Harlingen, Tex.
Application October 27, 1953, Serial No. 388,510
1 Claim. (Cl. 118-13)



In an apparatus for coating fruit including mechanism for conveying said fruit and a buffer for applying the coating to the fruit, a tank containing coating material, a pair of rollers mounted adjacent the upper edge of the tank, a roller positioned within the tank, a roller positioned closely above the buffer and an endless coating depositing means passing over said rollers for depositing coating material from said tank directly onto the buffer, said endless coating depositing means comprising a coiled spring member.

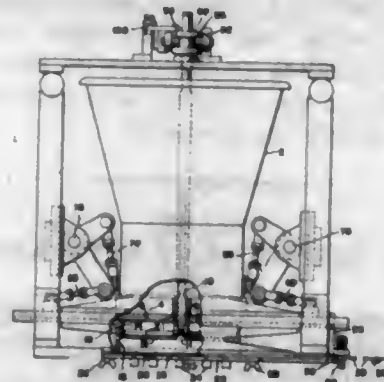
2,821,958

CAKE ICING MACHINE

John R. Litty, Goshen, N. J.
Application August 16, 1955, Serial No. 528,587
7 Claims. (Cl. 118-25)

1. An icing machine for cakes or other pastry comprising a support for the pastry, a distributing member having feed openings therein disposed above pastry carried by said support, a cylinder having its lower end associated with said openings, valve means controlling communication between said cylinder and said openings, a movable piston in said cylinder provided with openings, valve means controlling said piston openings, a supply hopper associated with the upper end of said cylinder, means controlling communication between said hopper and said cylinder, and means effecting cyclic operation of

the aforementioned parts whereby during a downstroke of said piston its openings are closed, it draws icing from the hopper and forces icing through said feed openings, and whereby during an upstroke of said piston its open-

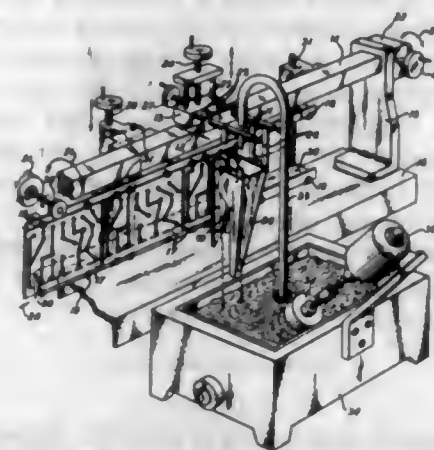


ings are opened, communication between the hopper and upper portion of the cylinder is closed off, and said feed openings are closed off, thereby effecting transfer of icing from above the piston to below the same.

2,821,959

MASS SOLDERING OF ELECTRICAL ASSEMBLIES

Erwin E. Franz, deceased, late of Cranford, N. J., by Ada L. Franz, executrix, Cranford, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application March 29, 1956, Serial No. 574,848
3 Claims. (Cl. 118-302)



2. Apparatus for solder coating printed circuit boards comprising means for mounting the boards in a position inclined from the vertical, a substantially funnel-shaped dispenser having a vertically disposed orifice in the side thereof towards said boards, said orifice having bevelled edges therein to provide a sharp-edged boundary, means mounting said dispenser adjacent said boards, at least one adjustable plate member having an edge bounding the long dimension of said orifice, means for supplying molten solder to said dispenser, and means for attaining relative lateral motion between said boards and said dispenser.

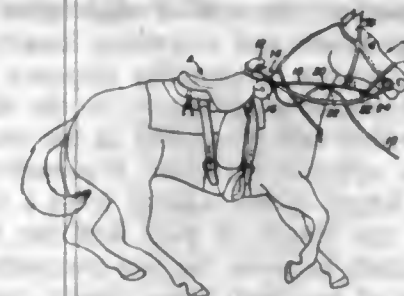
2,821,960

AUTOMATIC TAKE-UP HORSE TRAINING DEVICE

Faucette S. Rudolph, Torrance, Calif.
Application March 2, 1955, Serial No. 491,737
6 Claims. (Cl. 119-29)

1. Training apparatus for use on a horse equipped with a saddle, a rope and conventional bridle and particularly adapted for training horses to maintain a taut rope during the throwing and tying of a calf wherein one end of the rope is secured to the saddle horn, said apparatus comprising a nose band adapted to fit down over the horse's nose, a spring secured to the saddle, means connecting the spring and the nose band, and fastening means securing the connecting means to the rope so that

a slackness in the rope will allow the spring to exert a pull on the connecting means and thence on the nose

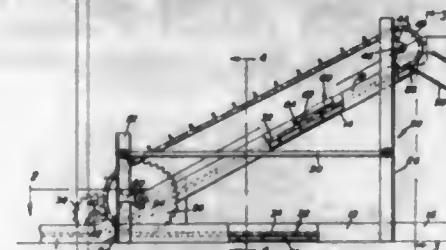


band to cause the horse to back up thereby tightening up on the rope.

2,821,961

CONVEYOR AND SORTER

Ferdinand Mercoli, Vineland, N. J.
Application September 22, 1955, Serial No. 535,900
6 Claims. (Cl. 119-51)

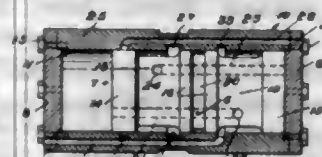


1. A material sorter for an endless conveyor comprising first and second trough sections, said trough sections receiving said endless conveyor, said trough sections having offset overlapping portions, one of said overlapping portions being elevated relative to the other of said overlapping portions, said one overlapping portion having a perforated bottom wall forming a sorting sieve, a deflector underlying said perforated bottom wall to direct sorted material passing through said perforated bottom wall into said other overlapping portion, guide means for said endless conveyor at remote ends of said trough sections for retaining portions of said conveyor intermediate said trough sections out of the way of the normal path of material passing through said perforated bottom wall.

2,821,962

ENGINES

Bernard A. Swanson, Sacramento, Calif.
Application November 6, 1953, Serial No. 390,617
19 Claims. (Cl. 121-15)



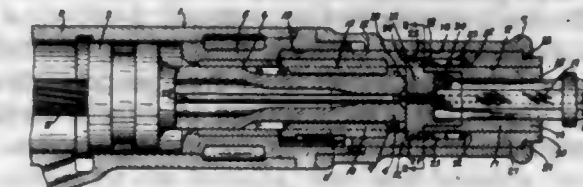
1. A fluid operated engine, comprising a cylinder having a longitudinally extending bore closed at its ends, said cylinder having an annular, transversely extending fluid inlet channel disposed interiorly of and intermediate the ends of said bore, and two longitudinally spaced, annular, transversely extending exhaust channels, one on each side of the inlet channel and communicating in exhausting to the atmosphere; and a piston reciprocally mounted in said bore, which piston has a circumferential groove of a width wider than an end lug respectively in each end portion thereof alternately in communication with said inlet channel in the reciprocating movement of said piston, and oppositely directed longitudinal inlet-exhaust passages in said piston each having a bore end opening and an inner end opening disposed in that groove remote from said bore end.

727 O. G.-6

2,821,963

CHUCK MECHANISM FOR A STOPER ROCK DRILL

John C. Curtis, Newport, N. H., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application October 21, 1952, Serial No. 315,999
1 Claim. (Cl. 121-32)



In combination, a motor cylinder containing a reciprocatory hammer piston, a front chuck housing secured to said cylinder and having a forward bore, a cylindrical front wear bushing secured within the forward portion of said housing-bore, a rotatable chuck sleeve having a cylindrical forward portion rotatably mounted within said housing-bore rearwardly of said wear bushing, a combined rotative and reciprocatory tappet and chuck bushing having a cylindrical exterior surface at its forward portion and adapted to receive the impact blows delivered by said piston, said combined tappet and chuck bushing having a socket for slidably receiving the shank of a reciprocatory drill steel and relative to which said steel-shank has free reciprocatory sliding movement during the percussive actuation thereof, said combined tappet and chuck bushing having its forward portion slidably guided within said front wear bushing with the latter providing the sole bearing support for said combined tappet and chuck bushing, said combined tappet and chuck bushing extending freely rearwardly from said wear bushing into the bore of said chuck sleeve, and means at the rearward portion of said combined tappet and chuck bushing providing a relatively loosely fitted sliding interlocking connection between said combined tappet and chuck bushing and the forward portion of said chuck sleeve whereby said combined tappet and chuck bushing may slidably reciprocate freely relative to said chuck sleeve as it rotates in unison with the latter, said front wear bushing having a bore of substantial length and said combined tappet and chuck bushing having its forward portion elongated and slidably guided in and having a close sliding fit with said wear-bushing-bore whereby said combined tappet and chuck bushing is at all times adequately guided and supported entirely by said wear bushing while such sliding fit provides an effective dirt seal between the parts.

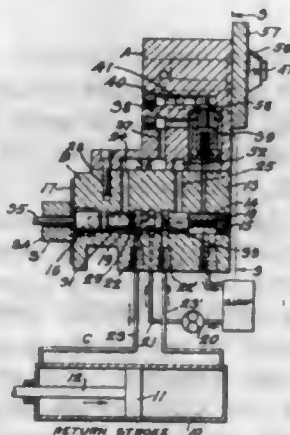
2,821,964

MACHINE TOOL FEED CONTROL VALVES

Clarence Walter Tydeman, Redwood City, Calif.
Application November 14, 1955, Serial No. 546,329
16 Claims. (Cl. 121-45)

1. A control valve for effecting a predetermined cyclic operation of a hydraulic mechanism comprising a cylinder having a piston therein and a piston rod effecting an operable connection with a mechanism on the outside; said valve comprising a body having an elongated cylindrical bore, a slide valve in the bore, electromagnetic means for reciprocating the slide valve, the body having an intake port positioned midway between the ends of the bore, arranged to receive hydraulic fluid from a high pressure pump, two cylinder outlet ports positioned one on each side of the intake port for effecting communication with opposite ends of the cylinder, the slide valve having an axial opening, a central section having a peripheral groove in communication with the axial opening, and two sections of reduced diameter one on each side of the central section, the length of one of said sections being such that it embraces the intake port and either one of the cylinder

ports depending on the position of the valve, the body having a high pressure port passage positioned beyond the corresponding cylinder port and on the opposite side of the central section from the intake port, the length of the corresponding reduced section of the valve being such that it embraces both the high pressure port and the adjacent cylinder port in one position of the valve, the intake port and the high pressure port being always in communication with their corresponding reduced sections, a low pressure discharge port position in the body on the opposite side of the intake port from the high pressure port, the slide valve having a third section of reduced cross section beyond the intake port communicating section, position



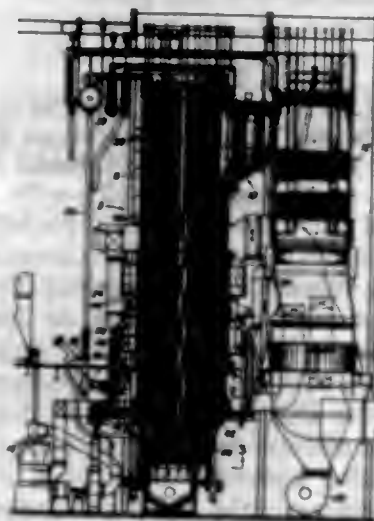
tioned to register alternately with the low pressure discharge port and the corresponding cylinder port depending on the position of the valve, the body having fluid passages communicating the high pressure outlet port with the low pressure discharge port, said passage having arranged in series therewith a pressure regulating valve and an adjustable speed control valve positioned beyond the pressure regulator, the body having also a bypass communicating that portion between the pressure regulating valve and the low pressure discharge port, and a normally closed electrical openable valve controlling the flow through the bypass whereby when said valve is opened the piston in the cylinder will move at a rapid speed.

2,821,965

DUAL FURNACE WITH PRESSURE EQUALIZING MEANS

William J. Vogel, Montclair, N. J., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application October 1, 1952, Serial No. 312,514
6 Claims. (Cl. 122-240)



1. In a steam generator of the type described, an elongated furnace having an outlet for combustion gases adjacent one end thereof, a partition wall extending from a point adjacent the other end of said furnace throughout the length thereof to said one end, said wall dividing said furnace into two compartments each of which is in

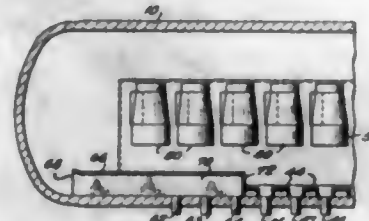
direct communication with said outlet, said wall comprising contiguous steam generating tubes in tangent relation to one another, the axis of said tubes being disposed in a single plane and extending longitudinally of said furnace, a number of centrally disposed immediate adjacent tubes being bent uniformly, to the same extent and in unison within said plane first in the one direction and then in the opposite direction a plurality of times throughout the length of the wall to form a plurality of openings along the length of said wall for eliminating pressure differentials between the two compartments, and juxtaposed tubes of said wall being rigidly connected together at a plurality of points throughout the length of the wall.

2,821,966

VAPOR GENERATOR

Forrest G. Raynor, Baldwin, N. Y., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application March 25, 1954, Serial No. 418,661
5 Claims. (Cl. 122-408)



4. In a high pressure vapor generating unit, a pressure vessel in the form of a thick-walled metallic drum having a straight hollow cylindrical main-section and outwardly dished sections closing the ends of the main-section, a furnace, means firing the furnace, vapor generating riser tubes subject to the heat of the furnace and joined in pressure-tight relationship with the drum at levels above the lowest level of the drum, a multiplicity of downcomer tubes having their upper ends joined with the lowermost part of the drum at positions longitudinally distributed throughout the main section of the drum and confined to a circumferentially narrow zone of the drum, means establishing communication between the downcomer tubes and the lower ends of the risers, and straight conduit means of a tubular nature disposed within the drum entirely below its normal water level and forming tubular passages leading from the spaces within the dished end portions of the drum to positions wherein each passage communicates with the inlets of the downcomers next adjacent the pertinent end portions, each tubular passage terminating inwardly in a closed end at a position remote from the midpoint of the drum length so as to leave the intermediate downcomers free of the conduit means, the conduit means having a free flow area greater than that of the downcomers directly associated therewith.

2,821,967

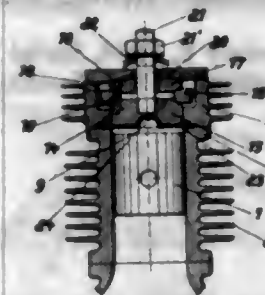
INTERNAL COMBUSTION ENGINE

Hermann Teegen, Bielefeld, Germany, assignor, by mesne assignments, to Diesel Engine Company of Texas, Houston, Tex., a corporation of Texas

Application October 1, 1954, Serial No. 459,717
Claims priority, application Germany September 5, 1953
16 Claims. (Cl. 123-48)

1. In an internal combustion engine the combination of a cylinder forming a combustion chamber at one of its ends, a cylinder head secured to said cylinder end and provided with a hollow space therein adapted to allow for an extension of said combustion chamber, said cylinder head including at least two members in engagement with each other, said members having substantially different co-efficients of heat expansion, the first one of said members when cold, constituting a closure of said

space against an extension of said combustion chamber and being shiftable in relation to the second one of said members owing to the difference of expansion when both



members are subjected to heat from said combustion chamber, so as to vary the size of said space within said head in addition to and in communication with said combustion chamber.

2,821,968

INTERNAL COMBUSTION ENGINE

William W. Friedrich, Houston, Tex.
Application August 1, 1956, Serial No. 601,397
7 Claims. (Cl. 123-50)



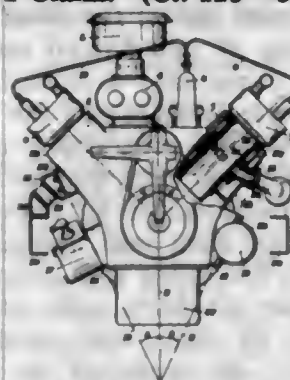
1. In an internal combustion engine a cylinder, a cylinder head on one end of the cylinder, a sleeve-like piston movably disposed in the cylinder and having a closed upper end positioned to form between it and said head an upper combustion chamber, an inner piston movably disposed in the sleeve-like piston and forming therewith a lower combustion chamber, a large gear connected to the inner piston to be rotated thereby upon movement of the inner piston, a small gear connected to the sleeve-like piston to be rotated thereby upon movement of the sleeve-like piston and in intermeshing engagement with said large gear, said large gear being of a size to rotate once during two rotations of said small gear.

2,821,969

V-TYPE INTERNAL-COMBUSTION ENGINE HOUSING

Andreas Schelterlein, Graz, Austria, assignor to Gustav Ospelt, Vaduz, Liechtenstein

Application December 23, 1953, Serial No. 399,851
Claims priority, application Austria December 29, 1952
1 Claim. (Cl. 123-55)



A one-piece housing for an internal combustion engine with cylinders arranged symmetrically and in upwardly

diverging V-configuration on opposite sides of a longitudinal plane of symmetry, said housing including a crank case beneath said cylinders and being formed with relatively remotely presented longitudinal sides in angular generally downwardly converging relation, each having a concave cross-section transverse to said plane of symmetry, projections for mounting attachments including the motor supports and exhaust manifolds, said projections being integral with each said side and extending outwardly therefrom, said projections on each side being formed with surfaces in a common plane spaced outwardly from said side, said common planes of the projection surfaces of the respective sides intersecting below and outside of the housing, and said housing being contained entirely between said planes.

2,821,970

HYDRAULIC TAPPET

Gerald D. Line, Royal Oak, Mich., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application June 1, 1954, Serial No. 433,572
19 Claims. (Cl. 123-90)



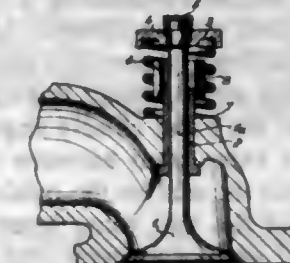
2. A thrust transmitting mechanism comprising a hollow cylinder member having an open end and a closed end, and a plunger member reciprocable in said hollow member and providing therebetween with said hollow member a thrust transmitting fluid chamber, one of said members having an annular groove in a peripheral wall surface thereof, cooperating with a peripheral wall surface of the other member, said groove having an annular portion thereof disposed axially closer to one axial end of said member, in which arranged, than another annular portion thereof circumferentially spaced therefrom, said members having ports through the walls thereof registrable with the groove, providing, with the groove, continuous communication between the chamber and the exterior of the body irrespective of relative angular and limited axial movement between the plunger and body.

2,821,971

ARRANGEMENT FOR ATTENUATING SPRING VIBRATIONS

Walter W. Benz, Leverkusen, and Herbert Bartholome, Neu-Ulm, Germany, assignors to Klöckner-Humboldt-Deutz Aktiengesellschaft, Köln, Germany

Application February 3, 1956, Serial No. 563,391
Claims priority, application Germany February 9, 1955
9 Claims. (Cl. 123-90)

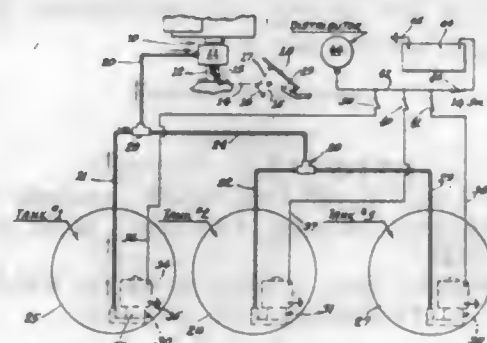


1. In combination with coil spring means arranged to vibrate in axial direction thereof: vibration attenuating means movable in the direction of vibration of said spring means together with the latter and supported by said spring means only, said vibration attenuating means

frictionally engaging said coil spring means and being spaced from the outer ends of said spring means in non-compressed condition of the latter.

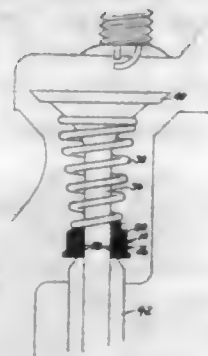
2,821,972
SYSTEM FOR EMPTYING A PLURALITY OF TANKS AND SHUTTLE VALVE THEREFOR
Oscar H. Banker, Evanston, Ill., assignor to New Products Corporation, Skokie, Ill., a corporation of Delaware

Application January 5, 1956, Serial No. 557,510
7 Claims. (Cl. 123—127)



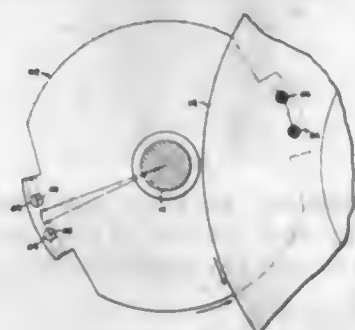
1. A system for supplying liquid to an engine including a container at the engine, a plurality of supply tanks containing the liquid, individual pump means for each tank, individual means for driving each pump, means for selectively operating the driving means, a pipe establishing a passageway to the container, a shuttle valve having an outlet port connected to the pipe and an inlet port connected to the output of one of said pumps, a second inlet port on the shuttle valve, and means connecting the output of the pump for another of the tanks to the second inlet port, said shuttle valve including means responsive to difference in pressure of the fluid in the inlet ports to open the inlet port from a tank having the greatest pressure.

2,821,973
OIL AND VACUUM SEAL
Kenneth J. Guhman, Worcester, Mass.
Application January 10, 1955, Serial No. 480,677
4 Claims. (Cl. 123—188)



1. An oil and vacuum seal for the valve stem of an internal combustion engine comprising a cup, a rubbery internally ribbed molded sealing element held in the cup, said sealing element having a generally cylindrical opening therethrough, the valve stem passing through the opening in the sealing element, the latter closely engaging the valve stem, a spring on the valve stem between the valve head and the cup to maintain the seal on the intake guide for the valve stem, the ribs of the seal being inset from the wall of the opening in the sealing element and in general inclined with respect to the valve stem axis, pointing away from the valve head toward the guide to scrape the stem on the stroke thereof from the guide, and to provide low friction stem motion in the opposite direction, said ribs being flexible and relatively sharp pointed on an annular line about the stem.

2,821,974
GRINDING WHEEL DRESSER
Joseph Kish and Frank Brancato, Detroit, Mich., assignors to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan
Application February 8, 1954, Serial No. 408,652
4 Claims. (Cl. 125—11)



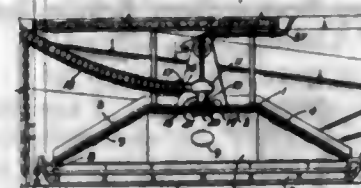
1. A dressing tool for dressing the sides of thin rotary grinding wheels comprising a rotatable disk and a single pair of diamonds mounted on one side of the disk near its periphery, one of said diamonds being slightly spaced angularly and radially outwardly from the second diamond to define a roughing point and the second diamond extending slightly further from the face of the disk than the first diamond to define a finishing point.

2,821,975
FIREPLACE CONSTRUCTION
Robert K. Thulman, Silver Spring, Md.
Application December 31, 1954, Serial No. 479,131
11 Claims. (Cl. 126—120)



10. A fireplace installation comprising in combination, a prefabricated fireplace unit and a prefabricated chimney unit; said fireplace unit having a fire box surrounded by inner and outer casings each mutually spaced from the others at rear, front, and sides to define inner and outer ducts around the fire box, said fire box having a frontal opening and said outer casing having edges closing with the edges of the fire box at the top and sides of said frontal opening, said inner casing being formed to provide communication between said inner and outer ducts at the rear and sides of the fireplace unit adjacent the bottom of the unit and at the front of the fireplace unit adjacent the top of said frontal opening, said fireplace unit further comprising a central vertical smoke outlet extending upwardly from said fire box, an annular air outlet concentric with said smoke outlet and communicating with said inner duct, and an annular air inlet concentric and surrounding said air outlet and communicating with said outer duct; said chimney unit comprising a central smoke flue fitting said central smoke outlet, and inner and outer air ducts open at their tops and fitting said annular air outlet and annular air inlet, respectively, whereby, on operation of the fireplace, a thermo-syphonic air circulation is induced in heat exchange relation with the fire box of the fireplace unit and the smoke flue of the chimney unit.

2,821,976
LIQUID FUEL BURNER AND HOOD
James L. Fizzell, Kansas City, Mo.
Application November 29, 1954, Serial No. 471,770
1 Claim. (Cl. 126—271.2)



The combination of a liquid fuel burner and hood therefor for heating asphalt paving and the like comprising, a hood having a substantially horizontal rectangular central wall terminating at each of its edges in downwardly and outwardly sloping walls, means at the lower ends of certain of the sloping walls adapted to rest on paving to be heated and support said hood whereby the lower ends of the other sloping walls are spaced from said paving, said supporting means having a plurality of openings extending therethrough, said central hood wall having an opening therein, and a burner including a housing having an enlarged air chamber therein and an elongated converging passage smaller in cross-section than the chamber and extending downwardly therefrom, said converging passage terminating in an enlarged portion arranged inside of the hood in vertically spaced relation to the support means thereon, a plurality of jet apertures in the enlarged portion for directing streams substantially parallel with the downwardly and outwardly sloping walls of the hood and at intermediate angles thereto, said jet apertures being proportioned in size relative to the distance from the respective aperture to the surface to be heated by the burning of the fuel and air issuing therefrom whereby the apertures directed toward the more distant surface areas are of greater size than the apertures directed toward the nearer surface areas, means connected with the air chamber for supplying air under pressure thereto for flow through the elongated passage, enlarged portion and jet orifices, means including a tubular member smaller in cross-section than the small end of said converging passage and defining a liquid fuel passage arranged in and axially of said elongated passage, means connected with the liquid fuel passage for supplying liquid fuel under pressure thereto, and a nozzle member at the end of the liquid fuel passage and having a narrow circumferential slot extending therearound substantially in a plane at the terminus of the elongated converging passage whereby liquid fuel is discharged in a substantially flat spray in said plane across the air flowing through the elongated passage in the area of greatest velocity of said air for mixture therewith and discharge through the jet orifices, said hood walls having secondary air openings arranged substantially intermediate the central wall portion and lower ends of the said sloping walls whereby air entering said secondary air openings supports combustion of the air and fuel mixture to substantially uniformly heat the surface under the hood.

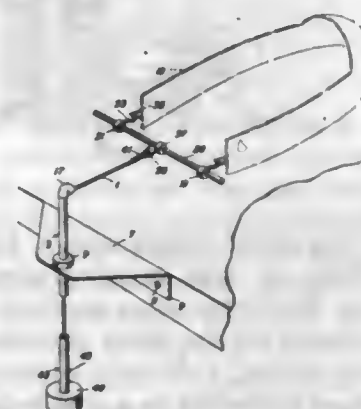
2,821,977
OPTICAL DEVICE
Lester S. Gassman, Metuchen, N. J.
Application October 20, 1954, Serial No. 463,576
4 Claims. (Cl. 128—76.5)

1. An eye exercising device of the character described, comprising a flat holder having a longitudinal slot for the reception of the user's nose, said holder having a lens of predetermined dioptric power and opaque means spaced corresponding to the pupillary distance between a pair of eyes at opposite sides of said slot, said holder being further provided with an unimpeded aperture and opaque means

spaced corresponding to said pupillary distance at opposite sides of said slot with said lens and said aperture being disposed on opposite sides of said slot, said lens and said first mentioned opaque means being vertically spaced from said aperture and said last mentioned opaque means

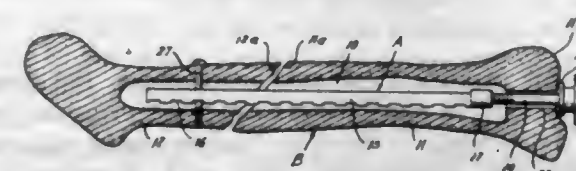


2,821,978
TRACTION DEVICE
Elmer V. Lindstrom, Jamestown, N. Y.
Application September 4, 1956, Serial No. 607,729
4 Claims. (Cl. 128—84)



1. A cervical traction device comprising a shelf attachable in horizontal position to base, a tubular cable guard section vertically adjustably extended through said shelf, a cable slidably extending through said guard section and having an upper end extending out of the same and adapted for connection to a head harness, a cable guide in the upper end of said guard section through which said cable extends and having a flaring mouth and a rounded throat for preventing fraying of said cable, a second tubular cable guard section below said first guard section carrying a weight and through which said cable extends, and means including a loop of said cable below said second guard section frictionally locking said cable to said second guard section.

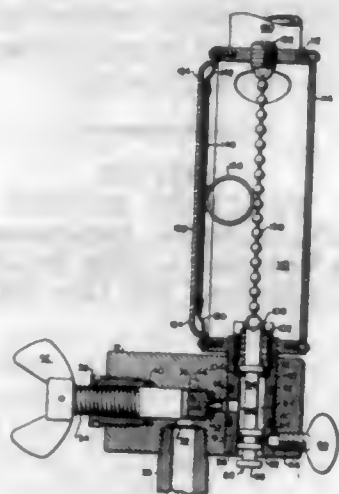
2,821,979
INTRAMEDULLARY SPLINT
Bruce M. Cameron, Houston, Tex., assignor to William E. Stapp, Houston, Tex.
Application May 18, 1953, Serial No. 355,749
5 Claims. (Cl. 128—92)



4. In a surgical apparatus for setting and retaining the bone fragments of a broken bone in a set condition for

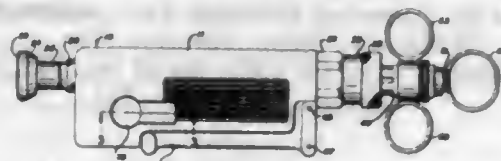
healing, an intramedullary rod having openings laterally therethrough for receiving anchoring pins for anchoring the rod to the bone fragments, and a compression-applying means connected to one end of said rod to effect a longitudinal movement of the rod and thereby apply compression to the bone fragments to place the same under compression, said compression applying means being removable from the rod after the rod has been anchored within the fragments whereby during the healing period of the fracture no part of said apparatus projects through the skin.

2,821,980
REGULATOR VALVE
William E. Westell, Dorchester, Mass.
Application April 4, 1955, Serial No. 498,912
12 Claims. (Cl. 128—142)



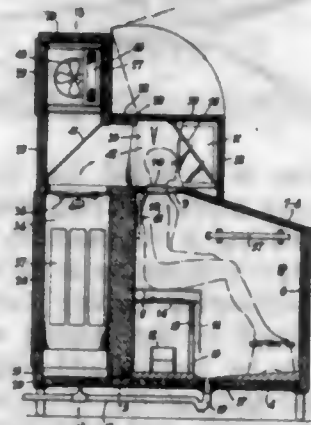
1. A fluid regulator comprising a housing, a flexible diaphragm fitted to said housing separating an inner chamber from the surrounding medium, a high pressure fluid supply means for the inner chamber, a valve means for the supply means, a flexible linkage attached to the valve means and extending in a substantially straight line, means anchoring the end of the linkage, a demand outlet line from the inner chamber, and means for utilizing inward motion of the diaphragm to bend the linkage thereby shortening the length of the linkage and tending to open the valve.

2,821,981
MULTISHOT INOCULANT INJECTOR INSTRUMENT WITH ADJUSTABLE EJECTION PRESSURE CONTROL
Frank A. Zihel, Euclid, and Arthur S. Kish, Mayfield Heights, Ohio, assignors, by mesne assignments, to Geoffrey W. Walker, Frank Zihel and Louis A. Zihel, Cleveland, Ohio
Application July 21, 1954, Serial No. 444,892
12 Claims. (Cl. 128—173)



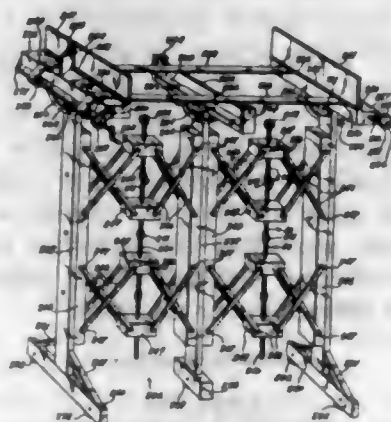
1. In an inoculant injector instrument, the combination of a body, a medicament chamber provided on one end of said body, a pressure accumulator mounted in said body and cooperating with said chamber to eject medicament therefrom, and medicament supply means removably associated with said body and communicating with said chamber.

2,821,982
CABINET FOR THERAPEUTIC TREATMENT
Eric Frederick St. John Lyburn, Tunbridge Wells, England, assignor to Marguerite St. John Lyburn, Tunbridge Wells, England
Application October 11, 1954, Serial No. 461,565
Claims priority, application Great Britain October 13, 1953
7 Claims. (Cl. 128—371)



1. A therapeutic cabinet including a main housing forming a chamber in which a patient can be enclosed from the neck downward with a space between the patient's surface and the interior of the main housing, a packable opening in said main housing for receiving the neck of the patient so that the patient's head can project from the main housing, means located in said main housing for supplying heated water vapor to said chamber, a housing in the rear of said main housing, an auxiliary housing hingedly connected to the upper portion of the rear housing and arranged to swing downwardly over the upper portion of the main housing to enclose the patient's head projecting therefrom with a space between the patient's head and the interior of said auxiliary housing, air cooling and circulating means mounted in said rear housing for supplying cool air to the space within the auxiliary housing for cooling the projecting head portion of the patient and access closures for the main housing to permit the patient to enter and leave said housing.

2,821,983
EXPANDABLE BINDER FILING DEVICES
Stephen C. Stephanson, New York, N. Y.
Original application September 2, 1950, Serial No. 182,961, now Patent No. 2,683,459, dated July 13, 1954. Divided and this application February 26, 1954, Serial No. 412,865
5 Claims. (Cl. 129—1)



1. A filing stand comprising a central upright post adapted to stand on a supporting surface, end upright columns adapted to stand on a supporting surface and being spaced from the central upright post and movable toward and away therefrom, elongated blocks extending across the tops of the end upright columns and being pivotally secured thereto, a rod extending across the central upright post and being pivotally connected thereto, horizontally disposed flexible straps stretched across the ends of the blocks and rod and being secured to the end blocks, said

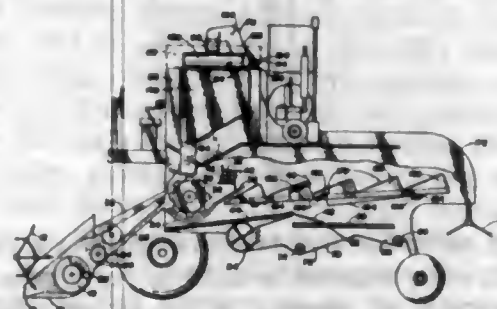
straps being adapted to receive post hangers for attachment of articles to be filed, means for adjusting the tension of the straps, upright plates hinged to the blocks on the end upright columns, and means for moving the end upright columns toward and away from the central upright post.

2,821,984
HUSKING MACHINE
Edward L. Lee, Londonville, Ohio
Original application July 15, 1954, Serial No. 443,527, now Patent No. 2,792,005, dated May 14, 1957. Divided and this application December 27, 1956, Serial No. 630,996
3 Claims. (Cl. 130—5)



1. A corn husking machine comprising, in combination, complementary roller means for drawing corn husks downwardly therebetween, means for driving said roller means together, a closed housing beneath said roller means, and an electric suction fan within said housing beneath said roller means, said housing defining an outlet beneath said electric suction fan, said housing above said suction fan adjacent to said roller means defining a relatively narrow slot for concentrating the suction force of said fan directly below the adjacent surfaces of said roller means, and a substantially conical screen mounted within said housing above said suction fan to prevent the husks from contacting said suction fan.

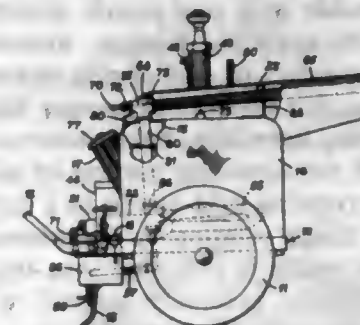
2,821,985
SEED HARVESTING COMBINE HAVING RECLEANER
John Bretz, Jr., and Lee W. Parrish, Yuma, Ariz.
Application November 4, 1955, Serial No. 544,880
2 Claims. (Cl. 130—27)



1. In a seed harvesting combine: threshing means including a threshing cylinder; straw removing means; primary seed cleaning means including an agitated chaffer and sieve means, and fan means to produce a gentle draft of air over said chaffer and sieve means; collecting means to collect the seed which gravitates through the seed cleaning means; a tailings bin at one edge of said sieve means; means to return the tailings to the threshing means for rethreshing a recleaner constituting secondary seed cleaning means to reclean the collected seed as well as the re-threshed tailings and comprising a frame, a shuttle frame mounted on said frame for horizontal motion, means to reciprocate said shuttle frame, a screen mounted on said shuttle frame and tiltable about an axis adjacent one edge of the shuttle frame, means to hold the screen in adjusted tilted position, and a wind shield en-

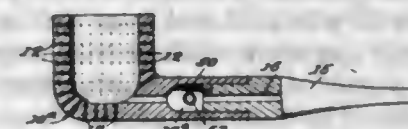
closing said screen, said screen and said motion being horizontal and parallel to said axis so that the screening is accomplished under draft-free conditions and solely by agitation and gravity; said recleaner being disposed substantially vertically above said threshing cylinder and having a reject chute leading directly to said threshing cylinder so that unthreshed heads and other reject material are returned by gravity directly to said threshing cylinder; and a seed tank to receive the recleaned seed; said fan means being such as to produce a draft of air insufficient to carry the chaff and whereby the chaff, other than that ejected by said straw removing means, is re-threshed and finely divided into particles which float away from said sieve means for discard out of the combine.

2,821,986
AEROSOL GENERATOR
William L. Tenney, Dayton, Ohio
Application December 24, 1953, Serial No. 400,196
7 Claims. (Cl. 131—129)



1. In a fog and spray generator having a pulse jet engine including a combustion chamber having a fuel and air inlet unit and a discharge tube and adapted to develop a pulsating discharge pressure through the tube, the combination of a tank adapted to be filled with water, means supporting said combustion chamber in the bottom portion of said tank and with said inlet unit projecting through the wall of said tank to the outside thereof, means supporting said discharge tube above said tank, an elongated pipe extending from said combustion chamber and doubled on itself adjacent the bottom of said tank to assure engagement thereof with the cooling liquid within said tank over a wide range of liquid levels within said tank, means forming an upwardly extending connection from said pipe to said discharge tube, a reservoir for storing a formulation for introduction into said discharge tube to produce the fog or spray, and means for effecting delivery of said formulation into said discharge tube.

2,821,987
TOBACCO SMOKING PIPES
Roser B. Sutter, Scranton, Pa.
Application November 15, 1951, Serial No. 256,449
4 Claims. (Cl. 131—198)



1. A tobacco pipe having a bowl having a multiplicity of apertures distributed over the major portion of the bowl wall and extending from the interior to the exterior thereof, and porous linings which are adherent within said apertures to the walls thereof and comprised of a porous gas-permeable homogeneous mass of particles of gas-absorbent and heat-conductive material and having a binder constituted of a hygroscopic organic liquid of low vapor tension at the temperature of said mass during smoking, each lining having therein a flue opening with an effective diameter of one-fourth to one millimeter.

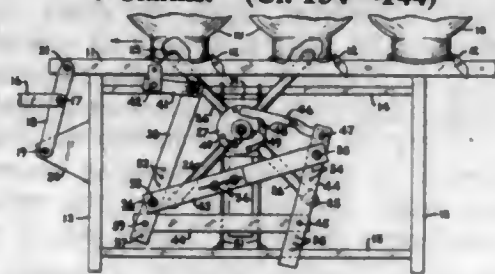
2,821,988

CAN WASHER

Marion A. Becker, Oconto Falls, Wis., assignor to Beam Chemical Company, Oconto Falls, Wis., a corporation of Wisconsin

Application April 14, 1954, Serial No. 423,043

6 Claims. (Cl. 134-144)



1. Apparatus for cleansing the interior of cans movable in succession in inverted position along a definite path by a conveyor having longitudinally movable transporting members, said apparatus comprising, a spray nozzle rotatable about an axis and adapted to be projected upon rotation into and out of the path of movement of the cans, a hub member movable with said nozzle about its axis and having an eccentric actuating portion, means for supplying liquid under pressure to said nozzle when the same is projected into the can path, and means linked directly with the transporting members of the conveyor and directly cooperable with the actuating portion of said hub member for positively rotating said nozzle in a single direction about its axis in timed relation to the movement of the cans whereby the nozzle is extended into the mouth of a can and is constantly arcuately moved with the can throughout its movement along said path.

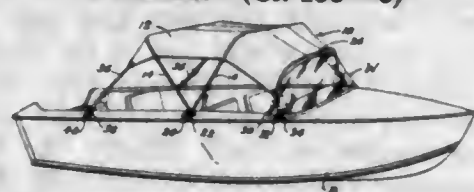
2,821,989

CONVERTIBLE TOP FOR BOATS

Harwood Shepard, Auburn, N. Y.

Application September 10, 1956, Serial No. 608,730

5 Claims. (Cl. 135-6)



1. In a universal convertible top for boats having wrap-around type windshields, the combination comprising a flexible fabric top member having a pair of front corners and a pair of rear corners, means for supporting said top member above the cockpit of the boat, means for fastening the front center of said top member to the top center of the wrap-around windshield, the front end of said top member being operative to overlay the upper peripheral edge of the windshield and to overlap and snugly engage upper front portions of the windshield in face-to-face contacting engagement, a pair of adjustable front straps attached at the front corners of said top for adjustably securing the front of said top member to the gunwales of the boat and operative to hold said front end in said overlapping and snugly engaging relation with respect to the windshield, and a pair of adjustable rear straps attached at the rear corners of said top for adjustably securing the rear of said top member to the gunwales of the boat for pulling said top downwardly and rearwardly with respect to the boat and for holding said top taut on said supporting means.

2,821,990

DEMAND VALVE

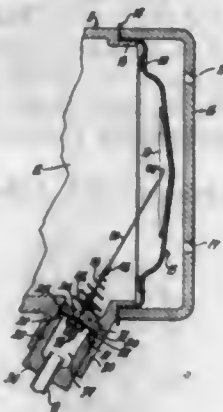
Phillip E. Meldenbauer, Jr., Buffalo, N. Y., assignor to Firewel Industries, Buffalo, N. Y., a co partnership

Application October 9, 1952, Serial No. 313,866

8 Claims. (Cl. 137-64)

1. A demand valve of the character described for controlling the flow of gas from a pressurized source, com-

prising a body having an orifice surrounded by an axially facing valve seat and from which orifice said gas issues in the form of an expanding regular cone on the side of said body opposite said valve seat, a valve head engaging said valve seat and tiltable to permit gas to flow through said valve, a valve stem fast at one end to said valve head and projecting through said orifice in the direction of said



expanding cone of gas, means arranged to tilt said valve stem to tilt said valve head and open said valve, and a vane on said valve stem and arranged in the path of the gas escaping past the open valve said vane being of larger cross sectional size than the cross sectional size of said expanding cone of gas at the point of impact therebetween so that the impact of said escaping gas tends to maintain said valve stem in its tilted position.

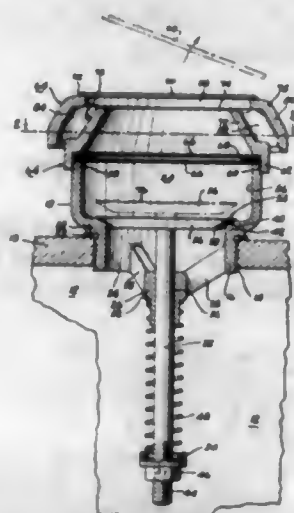
2,821,991

RELIEF VALVE

Robert D. Marx, Valley Stream, N. Y.

Application November 18, 1954, Serial No. 469,589

9 Claims. (Cl. 137-73)



1. A relief valve for fuel tanks comprising a casing, a valve in the casing adapted to open to permit the escape of volatile vapors, an opening in the casing adjacent to and immediately above the valve, a cover for the opening having a disk adapted to be removed by the escaping vapors said cover being spaced from said opening to form a vent, and a tapered nozzle between the valve and the opening to form a jet of the escaping vapors.

2,821,992

FUEL SYSTEM FOR GAS TURBINE

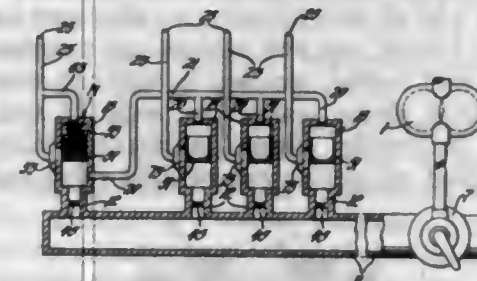
Elmer A. Richards and Joseph B. Snoy, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 19, 1947, Serial No. 742,756

19 Claims. (Cl. 137-118)

1. In a fluid distribution system, a plurality of orifices supplied with fluid under pressure from a common source of pressure, a valve connected to the outlet side of each orifice, each valve including a housing having a discharge

port and a movable wall therein subjected on one side to the pressure behind an orifice and cooperating with the discharge port to vary the area thereof, a pressure equalizing connection connecting the pressure side of the



movable wall of one valve, serving as a master and the opposite sides of the movable walls of said other valves and means for applying a balancing pressure on the opposite side of the movable wall of the master valve.

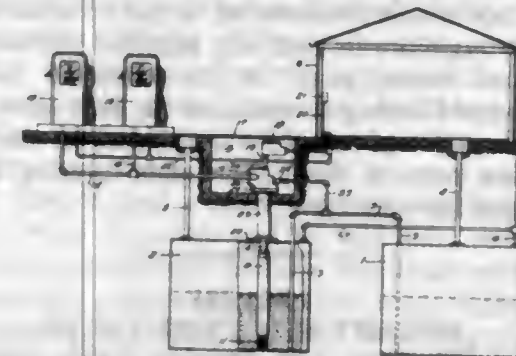
2,821,993

ESTABLISHING AND MAINTAINING MEANS FOR SIPHON CONNECTION BETWEEN LIQUID STORAGE TANKS

John J. Pacey, Springfield, and George D. Robinson, Jr., Agawam, Mass., assignors to Gilbert & Barker Manufacturing Company, West Springfield, Mass., a corporation of Massachusetts

Application August 8, 1956, Serial No. 602,851

1 Claim. (Cl. 137-144)



In liquid dispensing apparatus, of the type wherein two storage tanks are interconnected by a siphon for the flow of liquid from one to another, a pump adapted to have its inlet submerged in the liquid in one tank, an outlet pipe connected at one end to the outlet of the pump, a housing having an inlet chamber connected to the other end of said pipe and an outlet chamber, said chambers being interconnected by a passage, an outwardly opening valve normally closing said passage, said inlet chamber having a section above and offset from the inlet to said valve passage and constituting the highest portion of said inlet chamber, a by-pass connected at its inlet end to the inlet chamber and having the opening thereto located at said highest portion, said by-pass being adapted for connection at its other end to the upper portion of one of said tanks, an ejector interposed in said by-pass and receiving therethrough part of the pumped liquid, said ejector having a suction passage adapted for connection to the siphon.

2,821,994

LIQUID VALVES

George B. Richards, Deerfield, Ill., assignor, by mesne assignments, to Liquid Controls Corporation, North Chicago, Ill., a corporation of Illinois

Application August 25, 1955, Serial No. 530,551

12 Claims. (Cl. 137-433)

1. A float-controlled valve, comprising a seat element having a valve seat, an opening through said seat, an end wall opposite said opening and a port between said end wall and said seat and communicating with said opening, a valve element externally of and slidable on said seat

element between a seating position relatively to said seat and closing said port and a position away from said seat and exposing said port and a float rigidly connected to



said valve element coaxially therewith for opening and closing the valve in accordance with the level of a liquid by which said float is buoyantly supported.

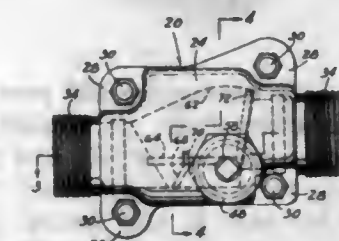
2,821,995

SAFETY VALVE

Lloyd E. Semler, Bishop, Calif.

Application September 14, 1954, Serial No. 456,021

1 Claim. (Cl. 137-460)



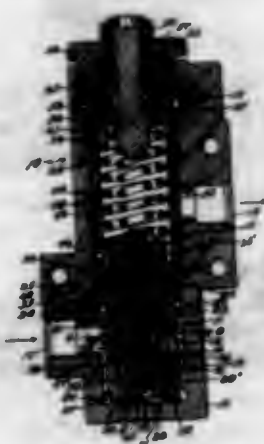
A safety valve connectable in a line through which a fluid under pressure flows, comprising: a valve body having a fluid flow bore and including hollow projections at its opposite sides communicating with said bore, one of said projections having a tapered bore and a counter-bore communicating with the larger end of the tapered bore; a valve stem journaled at its ends in the projections and extending transversely of the first named bore; a cap on said one projection, said cap being threadable upon its associated projection toward and away from the valve body; a valve plate rigid with and swingable about the axis of the stem between a first, flow-permitting and a second, flow-preventing position; a conical bushing circumposed about the stem in the tapered bore of said one projection, said bushing being longitudinally split and being of springable material, so as to be adjustably frictionally engaged with the valve stem responsive to movement of the bushing longitudinally of the tapered bore in the direction of the smaller end of the tapered bore, thus to adjustably impede the free swinging motion of the valve plate; packing rings circumposed about the stem and engaged between the cap and conical bushing, thus to transmit motion to the conical bushing responsive to threading of the cap in the direction of the valve body; abutment means formed on the wall of said fluid flow bore in the path of swinging movement of the valve plate to its second position, to limit movement of the valve plate beyond said second position thereof; and a baffle underlying the plate in the first position thereof, said baffle supporting the plate in said first position and projecting outwardly from the wall of the bore into engagement with the valve plate at a location approximately medially between the ends of the valve plate, thus to define a trap for fluid under pressure between the baffle, the wall of the fluid flow bore, and the portion of the valve plate between the baffle and the free end of the plate, said plate in its first position extending within the path of said pressure fluid so as to be swingable by the pressure of the trapped fluid against its under-

side created by a pressure drop across the valve plate exceeding a predetermined value, whereby to cause swinging movement of the valve plate to the second position of the plate, to an extent sufficient to overcome the restraint placed upon the free rotation of the stem by said conical bushing.

2,821,996

RELIEF VALVE

Robert Stevenson, East Greenwich, R. I., assignor to Merit Engineering, Inc., a corporation of Rhode Island
Application September 10, 1953, Serial No. 379,406
5 Claims. (Cl. 137—490)



1. In a relief valve having a relief port and a return port, a first passageway from said relief port to said return port, a first valve seat in said first passageway, a second passageway from said relief port to said return port, a second valve seat in said second passageway, a pressure responsive main valve for controlling the flow of fluid through said first passageway and normally seated on said first valve seat and having a central bore there-through forming part of said second passageway, a sleeve in said bore at the end portion thereof distant from the first valve seat, a resilient means for opposing the unseating of said main valve, a pressure responsive pilot valve for controlling the flow of fluid through said second passageway and subjected to relief port pressure tending to unseat said pilot valve and resilient means normally seating the pilot valve on said second valve seat, said pilot valve having a stem slidably guided in said bore and only partially obstructing said bore, said stem having a reduced portion extending through said sleeve and of a diameter smaller than the diameter of the bore of said sleeve to provide a vent conduit between said reduced stem portion and said sleeve, said main valve having a pressure area at a position in said second passageway on the return port side of said second valve seat exposed to the return port pressure acting thereon in a direction to unseat said main valve upon the unseating of said pilot valve, and said main valve having opposite balanced pressure areas at a position in the said first passageway on the relief port side of said first valve seat subjected to relief port pressure when said main valve is seated on said first valve seat whereby said resilient means is constant for all relief port pressures.

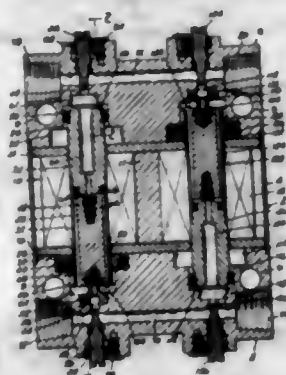
2,821,997

SOLENOID CONTROL VALVE

Robert B. Clay and George A. Goepfrich, New Britain, Conn., assignors to The Skinner Chuck Company, New Britain, Conn., a corporation of Connecticut
Application March 15, 1954, Serial No. 416,279
7 Claims. (Cl. 137—623)

5. A solenoid valve assembly comprising a casing open at its ends, a pair of electromagnetic coils disposed in side-by-side relation in said casing, a solenoid sleeve assembly disposed within each coil and including a pole piece having an axial throughbore and a non-magnetic

sleeve extending therefrom, a plunger reciprocable in said sleeve between a first position spaced from said pole piece and a second position closing said bore responsive to energizing of said coil, longitudinal flow passages in said plunger connecting opposite ends thereof, and a valve in the outer end of said plunger, a valve seat for each of said plunger valves, top and bottom cap members closing the ends of said casing, recesses in said cap members for supporting said sleeve assemblies, each of said recesses comprising in axially aligned relation a first portion adapted to receive one of said valve seats, a sec-

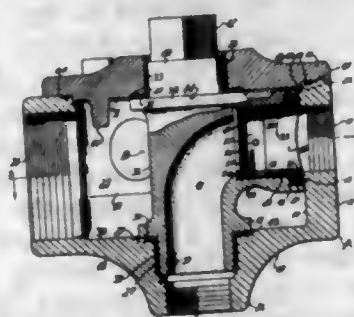


ond portion adapted to receive the outer end of one of said pole pieces, and a third portion adapted to receive the outer end of one of said sleeves, whereby said sleeve assemblies and valve seats may be inverted end for end to vary the operation of said valve, longitudinal bores in each cap member connected to the recesses therein, a lateral throughbore in each cap member intersecting said longitudinal bores, ports at the ends of said lateral throughbores forming connections for said valve, and side outlets in said cap members connected to said recesses and having ports at their outer ends forming additional connections for said valve.

2,821,998

ROTARY SELECTOR VALVE

Myron M. Mayhew, Los Angeles, Calif., assignor, by mesne assignments, to Win-Well Manufacturing Company, a corporation of Delaware
Application January 27, 1956, Serial No. 561,814
9 Claims. (Cl. 137—625.11)



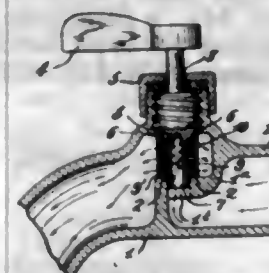
1. In a rotary gathering and sampling selector valve for merging all but a selected one of a multiplicity of inflows into a common service outflow while simultaneously segregating said one inflow and directing it separately through the valve to provide a sampling outflow, in combination: a casing having opposed interior end walls and an interior lateral wall cooperatively defining a valve chamber, having a cylindrical bearing wall constituting at least a portion of said lateral wall, having a rotor axis to which said cylindrical wall is concentric, having a multiplicity of radial inlet ports opening into said chamber through said cylindrical bearing wall and entirely surrounded thereby, having a relatively large radial service outlet port in said lateral wall, said outlet and inlet ports being spaced circumferentially about said lateral wall, and said casing having a sampling outlet port extending axially from one of said end walls, having a counterbore in the inner portion

of said sampling outlet port, and having a valve stem bore extending axially from the other of said end walls, said bore and counterbore being in axially opposed relation, centered on said rotor axis and each having at its inner end a shallow flat counterbore disposed at the plane of the respective end wall; a pair of opposed gaskets of yieldable, resilient, wear resistant material, including respective cylindrical skirt portions in lining relation to said bore and counterbore respectively, and respective radial flanges projecting outwardly from the inner ends of the respective skirt portions and seated in said shallow flat counterbores respectively; a rotor of T-form, including a central body portion having axially opposed heads provided with respective end bearing shoulders seated against said radial flanges respectively and thereby sealed to the respective end walls of said casing, and including a lateral arm projecting radially from said central body and terminating in a bell having a radial bore including a counterbore portion at the outer end thereof, and said rotor having a transfer passage of L-form with one end thereof extending axially through one of said heads and communicating with said sampling outlet port, and with its other end joined to said bell bore, the other of said heads being closed, and said rotor further including an actuator stem integral with and projecting from said other head, journaled in the skirt of the adjoining gasket, and extending externally of the casing for actuation of the valve; said lateral arm having a female thread defining the inner portion of its said bore and a cylindrical bore wall defining the intermediate portion thereof; an annular seal of yieldable, resilient, wear resistant material defining in said rotor a receiving port adapted to selectively communicate with any one of said inlet ports, said seal including a cylindrical skirt portion received in said intermediate portion of the bell bore and sealed to said cylindrical bore wall thereof, and a head portion projecting radially outwardly from the outer end of said skirt portion and seated in said counterbore portion, said head portion having a segmental-cylindrical end face conforming to and seated against said cylindrical wall of the casing to seal said receiving port to the selected inlet port; and a loading collar threaded into said female thread and providing an adjustable seat for the inner end of said skirt portion of the seal, whereby said seal may be loaded under compression between said adjustable seat and said cylindrical bearing wall of the casing, to maintain a good seal.

2,821,999

VALVE STRUCTURE

Herman S. Cahen and Alfred B. Cahen,
University Heights, Ohio
Application June 22, 1954, Serial No. 438,377
3 Claims. (Cl. 137—625.39)



1. A valve structure comprising a body with a passage therethrough for the flow of fluid and having a valve seat, a screw closure member having a hollow cylindrical portion that extends into said passage and that is closed at its upper end and is open at its lower end and is open laterally through the wall of the upper part thereof and has an outer annular flange at the upper end thereof co-axially with respect to said valve seat, and gasket means including washers of sealing elastic and non-corrosive metallic ma-

terials bonded together and arranged co-axially about said cylindrical portion in the region of the laterally open portion thereof and adapted to have sealing engagement between said annular flange and said seat for closing the laterally open passage through said cylindrical portion when the valve is in closed position and adapted to be moved to open position by the force of the fluid through the open portion of said cylindrical portion when the valve is moved to open position.

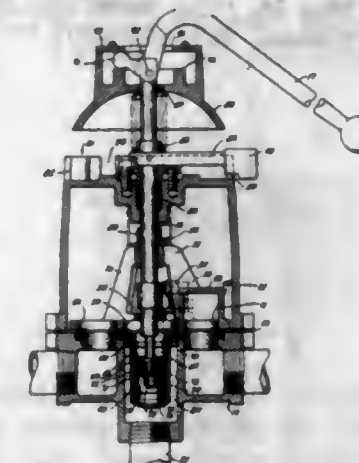
3. The same structure as recited in claim 1 hereof and in which the interengaging surfaces of said valve seat, annular portion and gasket means are substantially normal to the longitudinal axis of said cylindrical portion and in which said gasket means is of substantially the same diameter as that of the aforesaid valve seat of the said body and in which said cylindrical portion is spaced from said valve seat member and from said gasket means.

2,822,000

MULTIPLE PORT VALVE ARRANGED FOR

MULTIPLE RINSE RATES

Lee G. Daniels, Rockford, Ill.
Application July 26, 1954, Serial No. 445,648
24 Claims. (Cl. 137—630.15)



1. A lift-turn valve, comprising a multiple port stator having an inlet opening, a multiple port rotor adapted to be positioned in confronting relation with said stator to position certain of its ports in registration with stator ports and adapted to be lifted, turned and resealed in confronting relation with the stator to differently position its ports in registration with stator ports for selectively controlling the flow through the valve, a stem for lifting and turning the rotor, an inlet valve connected to said stem and positioned at said inlet opening in the stator to control the flow therethrough into the stator in response to the position of the stem, and passages at said inlet valve effecting communication between opposite sides of the connection of the inlet valve to the stem for balancing the fluid pressure on the inlet valve at opposite sides of the connection of the inlet valve to the stem in all positions of the stem.

2,822,001

HOT AND COLD WATER TEMPERATURE CONTROLLING AND MIXING DEVICE

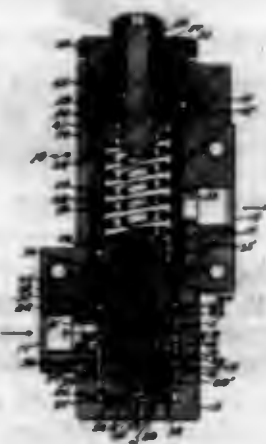
Robert G. Mutti, Loganport, Ind.
Application February 5, 1954, Serial No. 408,468
9 Claims. (Cl. 137—636.1)

6. A hot and cold water proportioning and mixing device comprising two inlet valves, a body member defining an outlet chamber in communication with said valves, and a valve controlling member threadably mounted on said body member for rotation through 360° and longitudinal axial adjustment with respect to said body member to control said valves, said controlling member

side created by a pressure drop across the valve plate exceeding a predetermined value, whereby to cause swinging movement of the valve plate to the second position of the plate, to an extent sufficient to overcome the restraint placed upon the free rotation of the stem by said conical bushing.

2,821,996 RELIEF VALVE

Robert Stevenson, East Greenwich, R. I., assignor to Merit Engineering, Inc., a corporation of Rhode Island
Application September 10, 1953, Serial No. 379,406
5 Claims. (Cl. 137—490)



1. In a relief valve having a relief port and a return port, a first passageway from said relief port to said return port, a first valve seat in said first passageway, a second passageway from said relief port to said return port, a second valve seat in said second passageway, a pressure responsive main valve for controlling the flow of fluid through said first passageway and normally seated on said first valve seat and having a central bore therethrough forming part of said second passageway, a sleeve in said bore at the end portion thereof distant from the first valve seat, a resilient means for opposing the unseating of said main valve, a pressure responsive pilot valve for controlling the flow of fluid through said second passageway and subjected to relief port pressure tending to unseat said pilot valve and resilient means normally seating the pilot valve on said second valve seat, said pilot valve having a stem slidably guided in said bore and only partially obstructing said bore, said stem having a reduced portion extending through said sleeve and of a diameter smaller than the diameter of the bore of said sleeve to provide a vent conduit between said reduced stem portion and said sleeve, said main valve having a pressure area at a position in said second passageway on the return port side of said second valve seat exposed to relief port pressure acting thereon in a direction to unseat said main valve upon the unseating of said pilot valve, and said main valve having opposite balanced pressure areas at a position in the said first passageway on the relief port side of said first valve seat subjected to relief port pressure when said main valve is seated on said first valve seat whereby said resilient means is constant for all relief port pressures.

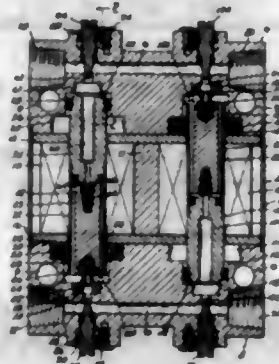
2,821,997

SOLENOID CONTROL VALVE

Robert B. Clay and George A. Goepfrich, New Britain, Conn., assignors to The Skinner Chuck Company, New Britain, Conn., a corporation of Connecticut
Application March 15, 1954, Serial No. 416,279
7 Claims. (Cl. 137—623)

5. A solenoid valve assembly comprising a casing open at its ends, a pair of electromagnetic coils disposed in side-by-side relation in said casing, a solenoid sleeve assembly disposed within each coil and including a pole piece having an axial throughbore and a non-magnetic

sleeve extending therefrom, a plunger reciprocable in said sleeve between a first position spaced from said pole piece and a second position closing said bore responsive to energizing of said coil, longitudinal flow passages in said plunger connecting opposite ends thereof, and a valve in the outer end of said plunger, a valve seat for each of said plunger valves, top and bottom cap members closing the ends of said casing, recesses in said cap members for supporting said sleeve assemblies, each of said recesses comprising in axially aligned adjacent relation a first portion adapted to receive one of said valve seats, a sec-

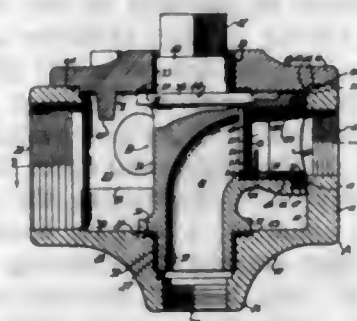


ond portion adapted to receive the outer end of one of said pole pieces, and a third portion adapted to receive the outer end of one of said sleeves, whereby said sleeve assemblies and valve seats may be inverted end for end to vary the operation of said valve, longitudinal bores in each cap member connected to the recesses therein, a lateral throughbore in each cap member intersecting said longitudinal bores, ports at the ends of said lateral throughbores forming connections for said valve, and side outlets in said cap members connected to said recesses and having ports at their outer ends forming additional connections for said valve.

2,821,998

ROTARY SELECTOR VALVE

Myron M. Mayhew, Los Angeles, Calif., assignor, by mesne assignments, to Win-Well Manufacturing Company, a corporation of Delaware
Application January 27, 1956, Serial No. 561,814
9 Claims. (Cl. 137—625.11)



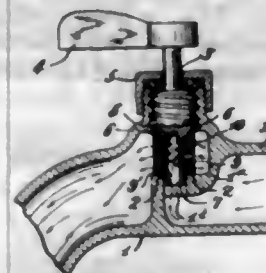
1. In a rotary gathering and sampling selector valve for merging all but a selected one of a multiplicity of inflows into a common service outflow while simultaneously segregating said one inflow and directing it separately through the valve to provide a sampling outflow, in combination: a casing having opposed interior end walls and an interior lateral wall cooperatively defining a valve chamber, having a cylindrical bearing wall constituting at least a portion of said lateral wall, having a rotor axis to which said cylindrical wall is concentric, having a multiplicity of radial inlet ports opening into said chamber through said cylindrical bearing wall and entirely surrounded thereby, having a relatively large radial service outlet port in said lateral wall, said outlet and inlet ports being spaced circumferentially about said lateral wall, and said casing having a sampling outlet port extending axially from one of said end walls, having a counterbore in the inner portion

of said sampling outlet port, and having a valve stem bore extending axially from the other of said end walls, said bore and counterbore being in axially opposed relation, centered on said rotor axis and each having at its inner end a shallow flat counterbore disposed at the plane of the respective end wall; a pair of opposed gaskets of yieldable, resilient, wear resistant material, including respective cylindrical skirt portions in lining relation to said bore and counterbore respectively, and respective radial flanges projecting outwardly from the inner ends of the respective skirt portions and seated in said shallow flat counterbores respectively; a rotor of T-form, including a central body portion having axially opposed heads provided with respective end bearing shoulders seated against said radial flanges respectively and thereby sealed to the respective end walls of said casing, and including a lateral arm projecting radially from said central body and terminating in a bell having a radial bore including a counterbore portion at the outer end thereof, and said rotor having a transfer passage of L-form with one end thereof extending axially through one of said heads and communicating with said sampling outlet port, and with its other end joined to said bell bore, the other of said heads being closed, and said rotor further including an actuator stem integral with and projecting from said other head, journaled in the skirt of the adjoining gasket, and extending externally of the casing for actuation of the valve; said lateral arm having a female thread defining the inner portion of its said bore and a cylindrical bore wall defining the intermediate portion thereof; an annular seal of yieldable, resilient, wear resistant material defining in said rotor a receiving port adapted to selectively communicate with any one of said inlet ports, said seal including a cylindrical skirt portion received in said intermediate portion of the bell bore and sealed to said cylindrical bore wall thereof, and a head portion projecting radially outwardly from the outer end of said skirt portion and seated in said counterbore portion, said head portion having a segmental-cylindrical end face conforming to and seated against said cylindrical wall of the casing to seal said receiving port to the selected inlet port; and a loading collar threaded into said female thread and providing an adjustable seat for the inner end of said skirt portion of the seal, whereby said seal may be loaded under compression between said adjustable seat and said cylindrical bearing wall of the casing, to maintain a good seal.

2,821,999

VALVE STRUCTURE

Herman S. Cahen and Alfred B. Cahen,
University Heights, Ohio
Application June 22, 1954, Serial No. 438,377
3 Claims. (Cl. 137—625.39)



1. A valve structure comprising a body with a passage therethrough for the flow of fluid and having a valve seat, a screw closure member having a hollow cylindrical portion that extends into said passage and that is closed at its upper end and is open at its lower end and is open laterally through the wall of the upper part thereof and has an outer annular flange at the upper end thereof co-axially with respect to said valve seat, and gasket means including washers of sealing elastic and non-corrosive metallic ma-

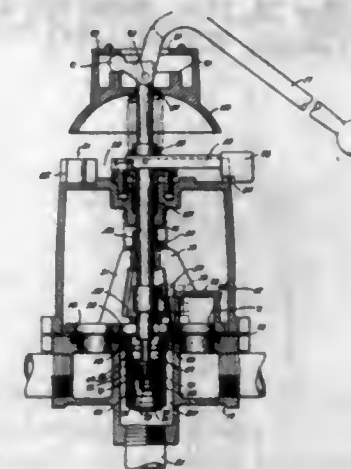
terials bonded together and arranged co-axially about said cylindrical portion in the region of the laterally open portion thereof and adapted to have sealing engagement between said annular flange and said seat for closing the laterally open passage through said cylindrical portion when the valve is in closed position and adapted to be moved to open position by the force of the fluid through the open portion of said cylindrical portion when the valve is moved to open position.

3. The same structure as recited in claim 1 hereof and in which the interengaging surfaces of said valve seat, annular portion and gasket means are substantially normal to the longitudinal axis of said cylindrical portion and in which said gasket means is of substantially the same diameter as that of the aforesaid valve seat of the said body and in which said cylindrical portion is spaced from said valve seat member and from said gasket means.

2,822,000

MULTIPLE PORT VALVE ARRANGED FOR MULTIPLE RINSE RATES

Lee G. Daniels, Rockford, Ill.
Application July 26, 1954, Serial No. 445,648
24 Claims. (Cl. 137—630.15)



1. A lift-turn valve, comprising a multiple port stator having an inlet opening, a multiple port rotor adapted to be positioned in confronting relation with said stator to position certain of its ports in registration with stator ports and adapted to be lifted, turned and resealed in confronting relation with the stator to differently position its ports in registration with stator ports for selectively controlling the flow through the valve, a stem for lifting and turning the rotor, an inlet valve connected to said stem and positioned at said inlet opening in the stator to control the flow therethrough into the stator in response to the position of the stem, and passages at said inlet valve effecting communication between opposite sides of the connection of the inlet valve to the stem for balancing the fluid pressure on the inlet valve at opposite sides of the connection of the inlet valve to the stem in all positions of the stem.

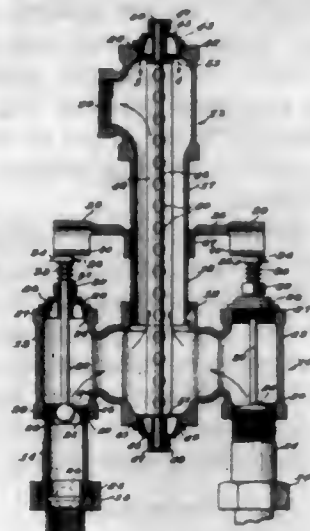
2,822,001

HOT AND COLD WATER TEMPERATURE CONTROLLING AND MIXING DEVICE

Robert G. Mutti, Logansport, Ind.
Application February 5, 1954, Serial No. 408,468
9 Claims. (Cl. 137—636.1)

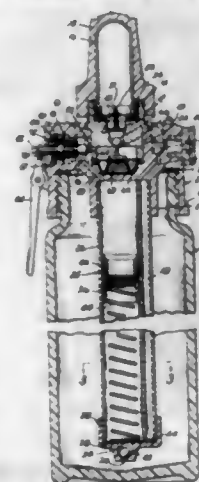
6. A hot and cold water proportioning and mixing device comprising two inlet valves, a body member defining an outlet chamber in communication with said valves, and a valve controlling member threadably mounted on said body member for rotation through 360° and longitudinal axial adjustment with respect to said body member to control said valves, said controlling member

having separate valve actuating means rotatable there-with on said body member for both single and combined



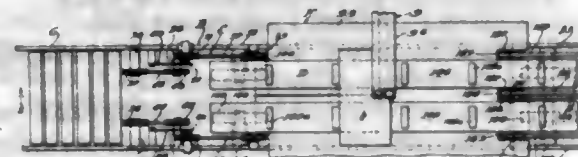
actuation of said two valves and at distinctively opposite points on said body member.

2,822,002
DISPENSER FOR FLOWABLE MATERIALS
William Mack, Hartford, Conn., assignor to
Frank E. Wolcott, Hartford, Conn.
Application May 25, 1954, Serial No. 432,125
9 Claims. (Cl. 141-17)



1. A dispenser for flowable materials comprising a container for the material to be dispensed, a cap on the container having a receptacle for a cartridge of compressed gas, a pump carried by the cap and removable therewith as a unit having an inlet within the container, a dispensing nozzle on the cap connected to the outlet of the pump, and means forming a gas flow passage separated from the interior of the container and connecting the receptacle and pump for applying compressed gas from the cartridge to the pump, and a manually operable valve in said passage.

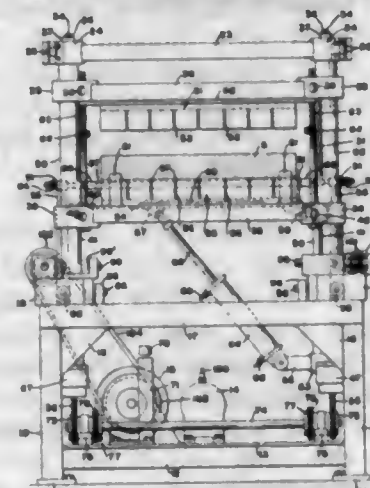
2,822,003
BOOK FEEDING MECHANISM FOR A BAND SAW
John O. McCahon and Robert G. Proctor, Crawfordsville, Ind., assignors, by mesne assignments, to R. R. Donnelley & Sons Company, Chicago, Ill., a corporation of Delaware
Application April 12, 1955, Serial No. 500,971
10 Claims. (Cl. 143-26)



1. A double book feeding mechanism for a band saw having a base and a band saw blade, comprising: a frame secured to the band saw blade, said frame including a work table with a slot for the band saw blade; driven

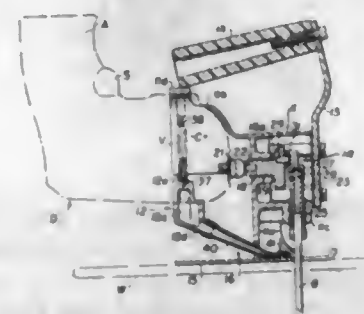
infed means at the side of said frame ahead of the saw; driven carry-through conveyor means having sprocket means supporting a pair of conveyor belts flanking the slot, said belts having transversely aligned upstanding sets of longitudinally spaced lugs to carry double books serially to be cut in two by the saw; vertically adjustable means driven in the same direction and at the same speed as said conveyor means for firmly holding down a book as it is sawed to compress its pages; and a pair of driven parallel carry-off conveyors behind the saw which operate at higher speed than said carry-through conveyor belts, said carry-off conveyors including pulleys between the carry-through belts so that the carry-off conveyors may engage the books to draw them away from the upstanding lugs on the carry-through belts before said lugs tilt as the belts travel around the sprocket means.

2,822,004
MACHINE FOR CUTTING NON-RIGID MATERIAL INTO BLOCKS
Simon R. Rudolph, Akron, Ohio
Application November 9, 1956, Serial No. 621,267
16 Claims. (Cl. 143-60)



7. A machine for cutting non-rigid material into a plurality of blocks comprising horizontal die blocks having matching slots intersecting each other at right angles, means mounting said die blocks for movement vertically in horizontal position, means for moving the die blocks relative to each other to hold a slab of said material under predetermined pressure between the die blocks, two gangs of saw blades one above the other extending at right angles to each other between said die blocks in alignment with the slots therein, and means for moving said die blocks vertically in unison to pass a slab of material held between them through said saw blades.

2,822,005
JIG SAW ATTACHMENT
Walter Lee, Towson, and William B. Fogle, Baltimore, Md., assignors to The Black & Decker Manufacturing Company, Towson, Md., a corporation of Maryland
Application November 15, 1956, Serial No. 622,392
5 Claims. (Cl. 143-68)



1. In a jig saw attachment for use in combination with a hand electric drill or like tool having a motor casing provided with a plurality of circumferentially spaced ventilating air outlet slots or ports: a housing having top, bottom and side walls and a pedestal depend-

ent from the rear portion of the bottom wall, a jig saw blade holding ram extending through and vertically slideably mounted in the bottom wall forward of said pedestal, an input shaft member journaled in and projecting rearwardly through the rear wall, a motion converting mechanism mounted within said housing for changing rotary motion of the input member to reciprocatory motion of the ram, a shoe plate on the foot of said pedestal having an opening therein to accommodate a blade reciprocated by said ram whereby the combination of the attachment and a drill may be supported in sliding contact with a work piece, a rearwardly extending portion on said housing and an adjustable clamping member secured thereon, said clamping member and rearwardly extending portion being adapted mutually in form as cooperating clamping elements to embrace the circumference of a drill motor casing and to hold the same in fixed relation to the housing with the drill spindle in alignment with said input member, one of said clamping elements having a cavity therein for receiving air discharged from at least one of said ports and opening through an integral nipple extending forwardly toward the housing, duct means communicating at one end with said nipple and at the other end directing air about the blade working area.

2,822,006
HYDRAULIC SAW MILL LONG PISTON CARRIAGE FEED
Allen C. Anderegg and Phillip M. Anderegg, Charlottesville, Va.
Application December 1, 1954, Serial No. 472,432
8 Claims. (Cl. 143-108)

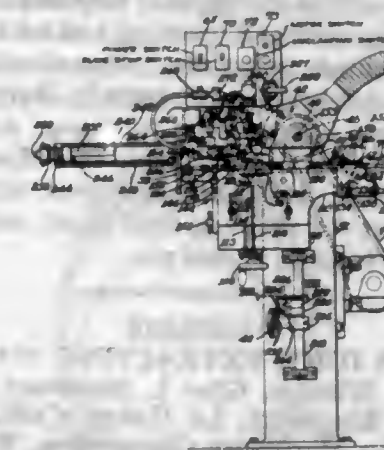


1. A saw mill mechanism comprising a trackway on the saw mill frame, a carriage reciprocable on said trackway, carriage-reciprocating means including a stationary cylinder rigid and parallel with said trackway and closed at one end, said cylinder being provided with packing glands fittable around a piston rod at the other end and with pressure-fluid inlet and exhaust means, a hollow tubular piston rod passing thru said gland and having an open end within said cylinder and a closed end outside said cylinder and attached to said carriage, whereby fluid admitted to said cylinder moves said carriage by fluid pressure against the closed end of the piston rod remote from said cylinder.

2,822,007
MACHINES FOR USE IN THE MANUFACTURE OF WEDGE HEELS
Edgar E. Joiner, Jr., Andover, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application January 31, 1956, Serial No. 562,456
15 Claims. (Cl. 144-134)

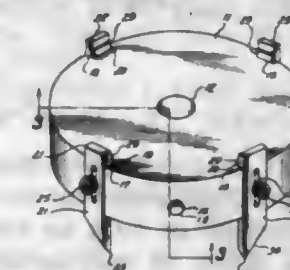
1. In a machine of the class described, a rotary cutting tool, a guide, a carrier slide mounted for movement upon the guide, means for positioning a heel block on the carrier slide, power means for clamping the positioned block

upon said slide, and power means rendered active in response to the clamping movement of the first-named



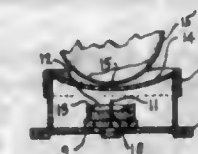
power means for moving the carrier slide past the tool to cause material to be removed from the block.

2,822,008
ROTARY GROOVING CUTTER TOOL
George J. Schaefer, Beatrice, Nebr., assignor to F. D. Kees Manufacturing Company, Beatrice, Nebr., a corporation of Nebraska
Application February 25, 1957, Serial No. 642,158
1 Claim. (Cl. 144-219)



In a grooving tool of the type described, a cylindrical head portion having a plurality of vertical rectangular slots therein, said slots being so positioned in relation to the head portion that one corner thereof shall be at a greater radial distance from the center point of said head than the opposite corner, a plurality of knives adapted to be positioned in said vertical slots, said knives having a slotted portion therein, a set screw adapted to affix said slotted portion on said head whereby said knife may be vertically positioned in relation to said head, said knives further having a bi-angular cutting portion on the lower end thereof to provide a downwardly depending cutter point whereby said knives may be alternately positioned in said head with reference to the angular cut thereof to secure a cutting path of greater width than thickness of said knives by reason of the angular formation of said slots.

2,822,009
EGG PUNCTURERS
Roy A. Haus, San Francisco, Calif.
Application October 25, 1954, Serial No. 464,531
3 Claims. (Cl. 146-2)



1. An egg shell piercing device comprising, a concavo-convex diaphragm of resiliently stretchable material, means providing a peripheral support for said diaphragm

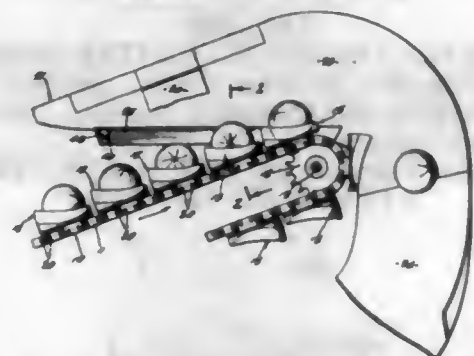
and permitting resilient distension of the central portion of said diaphragm upon engagement and displacement thereof by the end of an egg, said diaphragm being formed with a centrally arranged opening, and an egg shell piercing pin mounted generally perpendicularly to said diaphragm and substantially centrally thereof in position to pass through said opening to engage and pierce said egg end upon said displacement, said diaphragm upon said displacement being stretched over said egg end to provide support for said egg shell about and symmetrical to the point of incision of said pin.

2,822,010

CITRUS JUICE EXTRACTING MACHINE

Carl Harden, Whittier, Glen L. Stansbury, Ontario, and Eugene L. Kingsbury, La Habra, Calif., assignors to Brown Citrus Machinery Corporation, Whittier, Calif., a corporation of California
Continuation of application Serial No. 374,748, August 17, 1953. This application November 9, 1956, Serial No. 621,473

2 Claims. (Cl. 146—72)



1. In a citrus fruit juice-extracting machine, the combination of an endless chain conveyor having an inclined upper run and a plurality of cups on said conveyor for conveying spherical fruits of substantially uniform diameter to a halving knife, said cups having a longitudinal groove for receiving said knife, each cup having a well shaped in substantially the form of a segment of an oblate spheroid and being of elliptical configuration when viewed in plan with the major axis extending longitudinally of the conveyor and of substantially greater length than the diameter of the fruit to be conveyed and having a segmental circular shape in vertical section transverse to said major axis, said vertical section having a radius of curvature just sufficiently greater than the radius of curvature of said fruit to permit said fruit to be received in said well, said cups being mounted at an angle with respect to said conveyor so that a plane tangent to the upper forward and rear extremities of each cup forms an acute angle with the plane of the upper run of the conveyor whereby fruit received in said cups gravitates toward the front portion thereto while the said cups are on the upper run of said conveyor and said fruit in said cups upon contact with said halving knife is first rolled rearwardly and then released from the cups with a throwing action.

2,822,011

END WEIGHT FOR SLICING MACHINE

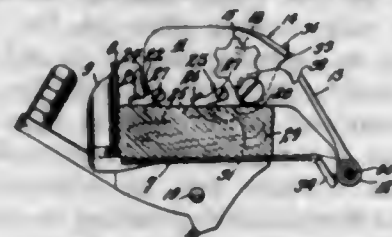
Arnold W. Lundell, Byram, Conn., assignor to Globe Slicing Machine Co., Inc., Stamford, Conn., a corporation of New York

Application June 1, 1956, Serial No. 588,845

2 Claims. (Cl. 146—102)

1. In a slicing machine having a chute, said chute having an upwardly extending wing and a rail extending along the edge of said wing, an end weight having a bracket including a first arm slidably mounted on said rail, a plate pivotally connected to said first arm extending substantially at right angles to said wing and with one edge adjacent to said wing, hook means pivotally mounted on said plate adjacent said edge of said wing in posi-

tion to pierce the commodity being sliced through the adjacent exposed face of the commodity and holding the commodity being sliced between said plate and wing, the hook means having a second arm, an arcuate piercing prong at one end of said second arm substantially a 90° arc in angular length, a pivotal connection between said plate and the other end of said second arm, and a



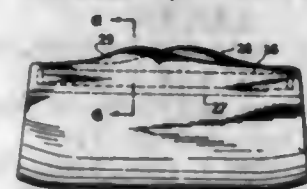
finger engaging plate formed tab at one end of said piercing prong extending substantially vertically to said plate, the arc of the inner edge of said piercing prong being substantially equi-distant from said pivotal connection determined by said second arm, and said second arm and tab forming stops adapted to engage the pierced face of the commodity.

2,822,012

OPENING MEANS FOR HANDBAGS

Abraham Gold, New York, N. Y.
Application January 25, 1956, Serial No. 561,200

1 Claim. (Cl. 150—10)



A handbag construction comprising an elongated rectangular-shaped hollow body of flexible handbag covering leather or the like having a mouth opening for its entire length along the top thereof, an articulated metal closure device along said mouth opening, said device including a pair of elongated rigid plates extending inwardly from each end of the body, the plates of each pair extending along opposite lips of the mouth opening, and being hinged to each other at the respective end of the body, the plates of each pair terminating short of the center of the body, the free ends of the plates on each lip of the mouth opening being connected by a spring metal plate extending across the center of the body, the rigid and spring plates on one lip of the mouth opening being covered by strips of leather, the material of said strips at one side of the center of the body being enlarged forming a protruding edge portion thereat, the rigid and spring plates on the other lip of the mouth opening being covered by strips of leather, the material of said latter strips at the other side of the center of the body being enlarged forming a protruding edge portion thereat, said protruding edge portions being offset from each other to facilitate grasping by the fingers of the user for pulling the covered plates apart in order to open the mouth of the handbag.

2,822,013

CASE FOR PERSONAL USE

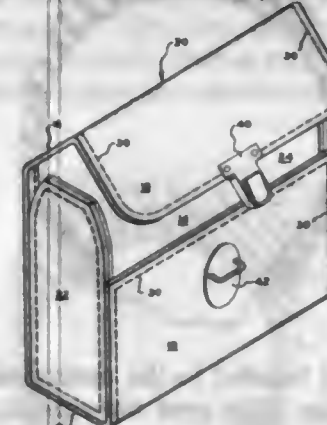
Emil K. Renz, Dedham, Mass., assignor to Knight Leather Products, Inc., Jamaica Plain, Mass., a corporation of Massachusetts

Application February 24, 1956, Serial No. 567,635

9 Claims. (Cl. 150—34)

1. A container comprising certain walls provided by an assembly of a first layer and a second layer, said certain walls including a front wall, a bottom wall and a back wall fixed with respect to each other, and a top wall and a front flap movable with respect to each other and with respect to said front wall, said bottom wall and said back wall, the opposite edges of said front wall, said

bottom wall and said back wall lying substantially in a pair of parallel planes, flaps extending from said front wall, said bottom wall and said back wall along said opposite edges, said layers being joined along their edges



by stitching that substantially fixes the positions of said flaps with respect to said opposite edges, and other walls lying along said planes provided by pairs of gussets which are bonded together with said flaps therebetween.

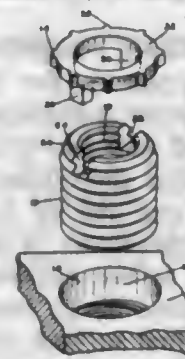
2,822,014

INSERT FOR SOFT MATERIALS AND TANG LOCKING MEMBER THEREFOR

Louis A. Cummaro, Bronxville, N. Y., assignor to Phillips Screw Company, New York, N. Y., a corporation of Delaware

Application August 10, 1953, Serial No. 373,322

4 Claims. (Cl. 151—41.73)



1: The combination comprising an externally threaded tubular insert adapted for mounting in a cooperatively threaded aperture in a parent body, said insert having a pair of diametrically disposed slots formed in one end thereof adapted to receive a tool for driving said insert into said aperture, said insert being adapted to be wholly disposed within said body and with said one end spaced a predetermined distance inwardly of the surface of said body, and a lock ring receivable in said aperture above said insert and coaxially of said insert, said lock ring having an inner end surface and having a pair of tangs projecting from said inner end surface adapted to engage cooperatively within said slots whereby to lock said ring and insert against relative rotation, and tooth means on said locking member adapted to cut into said parent material and lock the ring against rotation relative to said parent material.

2,822,015

SAFETY TIRE CONSTRUCTION

Stephen E. Petrasek, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application October 6, 1953, Serial No. 384,473

6 Claims. (Cl. 152—341)

1. In combination, a drop center rim having a bottom wall, sidewalls defining the drop center well of said rim and tire bead seats connected to said sidewalls respectively, and terminating in side flanges, a tubeless tire having beads positioned on said bead seats adjacent said flanges, means having a pair of radially outwardly facing axially spaced circumferential grooves spaced from and

positioned radially inwardly of said tire beads, and a safety diaphragm of relatively inextensible flexible material extending across the interior of said tire in a manner to divide the interior into an outer compartment and an inner compartment, said diaphragm terminating in a pair of circumferential substantially inextensible beaded edges



seated firmly within said grooves respectively, said beaded edges having diameters substantially less than the bead diameter of said tire whereby said tire beads can be moved axially outwardly during the mounting of said tire to clear said beaded edges when they are seated in said grooves.

2,822,016

WHEEL, TIRE, AND TRIM RING ASSEMBLY

William F. Billingsley, Silver Lake, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application November 4, 1955, Serial No. 544,891

2 Claims. (Cl. 152—352)

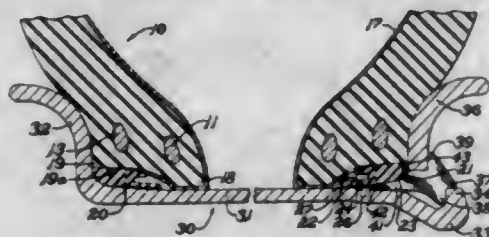


1. In combination, a vehicle wheel having a central generally radial attachment portion, an axially outwardly dished outer portion, and a rim connected to said outer portion having bead seats and tire retaining side flanges; a pneumatic tire having axially spaced beads seated on said rim, curved sidewalls and a tread bridging the sidewalls, reinforcing material in said tire extending from bead to bead, the major axial dimension of said reinforcing material across the tire occurring intermediate the beads and the tread, a relatively thick circumferential rib formed on one side of said tire and disposed radially inwardly of the major axial dimension of said reinforcing material, said rib projecting axially from the associated curved sidewall, said rib forming a generally radial continuation of the edge of the corresponding rim side flange; and a trim ring on said wheel having its outer edge radially adjacent the edge of said rim side flange but disposed axially inwardly therefrom, and its inner edge engaging the wheel, said trim ring curving axially inwardly from its outer to its inner edges, said trim ring and the tire sidewall portion outside of said rim cooperating to form a convex curve interrupted by said rib and rim flange edge, the projection of said rib and rim flange edge axially outwardly past said curve to act as a guard for the sidewall and trim ring, the radially inner portion of said trim ring being thickened for reinforcement radially outwardly of its inner periphery forming a flange portion that resembles a rim side flange.

2,822,017

TUBELESS TIRE AND DIVIDED RIM ASSEMBLIES
 Frank Herzegh, Cleveland, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application August 2, 1954, Serial No. 447,316
 14 Claims. (Cl. 152—362)



1. A pneumatic tire and rim assembly comprising a circumferentially divided rim, said rim including a base section carrying a tire-retaining flange at one side thereof, a gutter portion including a retaining lip formed at the other side of said base section, detachable tire-retaining means including a ring-like tire-retaining flange and means engaging said gutter lip to restrain said flange against axially outward motion; a tire mounted on said rim including a carcass having reinforced beads and an air-retaining inner liner, one tire bead at said detachable tire-retaining means bridging the circumferential joint between the rim base section and the axially inner edge of said tire-retaining means; air-retaining means disposed radially between said one tire bead and the rim, said air-retaining means comprising an annular radial-load-bearing portion disposed adjacent the heel of the tire bead and engaging said tire-retaining means radially inwardly of the bead heel, and a flexible sealing portion of rubber material having radially spaced generally axially extending lips extending toward the toe of the tire bead, the radially inner of said lips being pressed pneumatically into sealing engagement with said rim base section axially inwardly of said axially inner edge of said tire-retaining means, the radially outer lip being in sealing engagement with said tire bead.

2,822,018

TUBELESS TIRE

Percy W. Perdrian, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application November 18, 1955, Serial No. 547,805
 11 Claims. (Cl. 152—362)



4. In an inflatable tubeless tire having spaced circumferentially extending beads, a two ply chafer or finishing strip in each bead comprising a single strip of elastomeric covered fabric folded longitudinally and positioned with the folded edge innermost, whereby inflation fluid cannot enter the fabric at the inner edge thereof.

2,822,019

CHAFER GUM STRIP

Robert C. Koch and Robert P. Powers, Akron, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application January 3, 1956, Serial No. 557,069
 7 Claims. (Cl. 152—362)

1. An open-bellied pneumatic tire comprising a toroidal rubberized fabric body having plies of vulcanized, rubberized, strain members, said body terminating at its edges in two inextensible hoops around which are turned respectively the margins of the strain members to form two beads for mounting on a rim, a rubberized abrasion-resistant strip forming the outer peripheral surface of each bead, and a ply of a vulcanized rubbery compo-

sition compounded to have a Williams plasticity of between 6.5 and 10 at 212° F. in the unvulcanized state, inter-

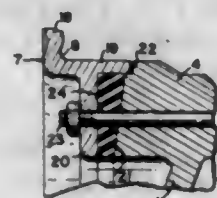


2,822,020

VEHICLE WHEEL

William E. Heffner, Denver, Colo.

Application April 18, 1956, Serial No. 578,953
 2 Claims. (Cl. 152—405)



1. An automotive wheel comprising in combination, a circular web having means for its attachment to a rotatable wheel support, a continuous annular rim integrally mounted on said web and extending substantially axially in both directions therefrom, a tire-bead engaging flange formed on one end of said rim and extending generally radially therefrom, a substantially radially extending first surface at the opposite end of said rim, a relatively flat removable flange removably mounted in axial register with said first surface, said removable flange including an inner surface arranged for juxtapositioning with said first surface and mounted at an acute angle thereto so that the radially inward edges of said surfaces are closer together than the outer edges thereof, a tire-bead engaging flange formed on said removable flange and extending radially therefrom in tire-bead engaging relation, an integral axial flange on said removable flange extending axially away from said bead engaging flange and arranged to slidably engage the outer surface of said rim, there being a plurality of bolt holes in said removable flange, a plurality of bolts mounted in the rim and extending through said first surface and arranged to register with and extend through the corresponding holes in said removable flange, and a gasket having a generally truncated triangular cross-section mounted between said rim and said removable flange with its base in outermost position, there being a plurality of holes in said gasket in registry with said bolts whereby said gasket may be maintained in position on said first surface during mounting and demounting operations and to form a hermetic seal between said rim and said removable flange.

2,822,021

TUBELESS TIRE AND RIM

Robert C. Shipman and Thomas A. Robertson, Akron, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application September 9, 1952, Serial No. 308,626
 16 Claims. (Cl. 152—410)

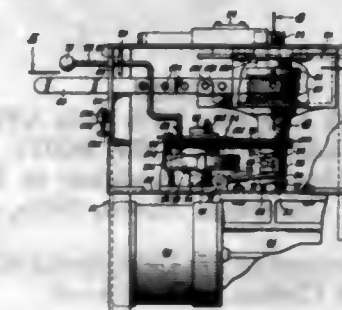
9. A vehicle tire rim adapted for use with tubeless truck tires comprising a generally cylindrical rim base having a radially outwardly extending tire flange at one end

2,822,023

ORNAMENTAL IRON SCROLL BENDER

Michael J. Ahern, Inglewood, Calif.

Application November 25, 1955, Serial No. 548,843
 8 Claims. (Cl. 153—40)



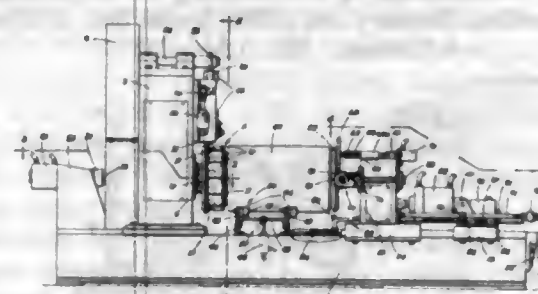
1. In an apparatus for bending a bar into the form of a spiral scroll, the combination of: an inner rotary die having a forming surface of increasing radius of curvature corresponding to an angle of rotation of not substantially more than 360°, an outer rotary die rotatably mounted on the same axis as the inner die, said outer die having a forming surface continuing the increase in radius of curvature, said two dies being relatively movable axially between an initial disposition in different planes of rotation and a second disposition in the same plane of rotation; actuating means including a clutch to rotate said two dies in unison for a forming operation; a control for said clutch movable between a clutch-engaging position and a clutch-disengaging position; a rotary stop gauge operatively connected with said dies to rotate simultaneously therewith from a starting position and to engage said clutch control after a predetermined amount of rotation of the two dies to cause the clutch control to shift from its engaging position to its disengaging position; and spring means to oppose rotation of said stop gauge out of said starting position by said actuating means and to return the stop gauge to said starting position when said clutch is disengaged thereby to automatically return both the inner and outer dies to their starting position after a forming operation.

2,822,022

MACHINE TO NECK-IN AND FLANGE METALLIC DRUM BLANKS

Joseph P. Calcaterra, Stockton, Calif., assignor to Carando Machine Works, Stockton, Calif., a partnership

Application October 18, 1954, Serial No. 462,935
 6 Claims. (Cl. 153—2)



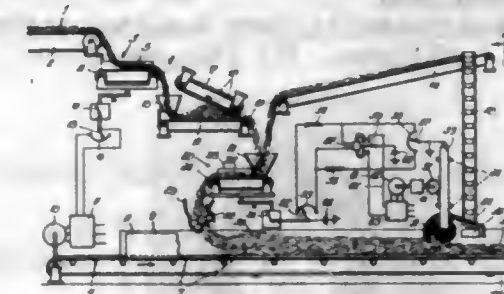
1. A machine to neck-in a sheet metal drum shell adjacent one end thereof, said machine comprising a mount, an expansible rotary chuck and die head journaled in the mount and adapted to engage in said one end of the shell and including a plurality of circumferentially spaced die and chuck shoes formed with a peripheral die channel in their outer face, a separate die supported from the mount for movement radially of the head between a clearance position and a working position projecting into the channel to neck-in the drum upon rotation of the head, means mounting the shoes in the head for radial expanding and contracting movement, means connected to the shoes to move the same between a fully expanded shell-clamping position and a fully contracted position wherein the shoes are closer to the axis of the head than the bottom of the channel when the shoes are fully expanded whereby to enable the drum shell, after being necked-in, to be withdrawn axially from the head upon contraction of the shoes, and means acting on the shoe moving means to initially maintain the shoes in a partially expanded position so that they will just fit into the shell before the latter is placed on the chuck.

2,822,024

APPARATUS FOR MANUFACTURING WOOD PARTICLE BOARDS

Max Himmelheber, Bayersbrunn, Black Forest, and Klaus Steiner, Bad Tölz, Germany, assignors to Allwood, Inc., Glarus, Switzerland, a corporation of Switzerland

Application January 16, 1956, Serial No. 559,446
 9 Claims. (Cl. 154—1)



1. Apparatus for forming on a moving conveyor a continuous web of binder impregnated finely comminuted fibrous stock, which web is of uniform width and has uniform weight per unit of area, which comprises: feed conveyor means for introducing the stock into the apparatus, a scale device: means for forming and maintaining a constant volume of material in said scale device into which the material from said feed conveyor is delivered; a spreading device into which the material in said scale device is delivered, said spreading device forming a web of the material on said moving conveyor, which web has constant width and excess thickness; a stripper disposed above said moving conveyor and web for removing ex-

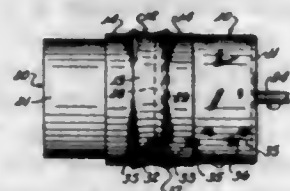
cess material from the web; means actuated by said scale device for adjusting the distance between said moving conveyor and stripper in inverse ratio to the weight of said constant volume of material; and conveyor means for returning the excess material removed by the stripper to the apparatus.

2,822,025

METHOD AND APPARATUS FOR APPLYING A TREAD TO A TIRE BODY

Jack L. Hollis, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application December 17, 1954, Serial No. 475,946
5 Claims. (Cl. 154-9)



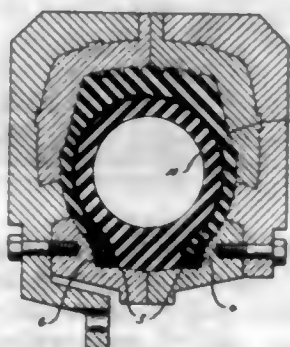
1. The method of applying a pre-shaped tread of elastic material to a tire body in an indexed position, said tread being substantially cylindrical in form and having an inside diameter smaller than the outside diameter of said tire body, comprising the steps of positioning said body and said tread coaxially with one end of said tread adjacent one end of said body, spinning said tread and said body about the common axis at a rate of spin sufficient to impart circumferential elastic elongation to said tread until the inner diameter of said spinning tread is slightly larger than the outer diameter of said body, supporting said tread over a limited arcuate circumferential portion of its peripheral inner surface while allowing the remainder of said tread to form an unsupported loop, applying axial force to the outer surface of said tread while said tread still is spinning to telescope said tread over said body, applying an equal and opposite axial force to the outer peripheral surface of said tread in response to the arrival of said tread in the indexed position with respect to said body, and contracting said tread circumferentially upon said body, whereby the inner surface of said tread is adhered to the outer surface of said body.

2,822,026

METHOD OF BUILDING PNEUMATIC TIRES

James McDermott Willis, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application October 21, 1952, Serial No. 315,979
10 Claims. (Cl. 154-14)



1. In a method of building a pneumatic tire having a bead portion protected by a chafer portion, the steps of mixing a rubbery compound comprising two components characterized by different stiffening temperatures, calendaring said compound onto fabric, subjecting said fabric to a temperature sufficiently high to stiffen only one component of said rubbery compound, applying said fabric to the bead portion of said tire to form a chafer

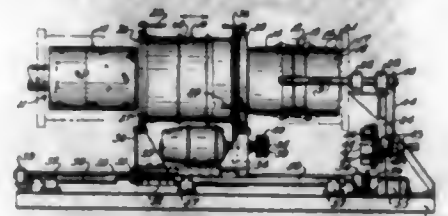
portion and vulcanizing said tire with heat and pressure, whereby the second component is vulcanized without substantial flow of said compound relative to said fabric.

2,822,027

METHOD OF ASSEMBLING AN ELASTIC BAND UPON A TIRE BODY

Jack L. Hollis, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application February 28, 1955, Serial No. 490,856
1 Claim. (Cl. 154-14)



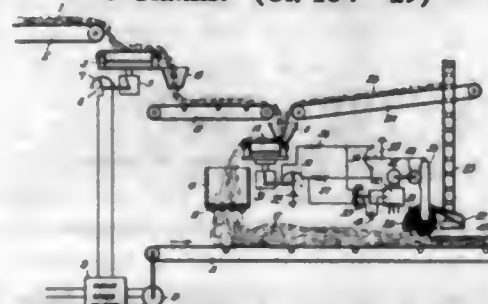
The method of assembling an elastic band upon a tire body, comprising forming said band into substantially cylindrical form with an inner diameter smaller than the outer diameter of said tire body, supporting the entire radially inner cylindrical peripheral surface of said band upon an auxiliary drum, spinning said band about its longitudinal axis to expand it uniformly radially from said drum to an indexed position against the inner peripheral surface of a sleeve solely by the application of centrifugal force, terminating said expansion when said band contacts said surface of said sleeve, spinning said tire body about its longitudinal axis at a rate equal to that of said spinning band, telescoping said band to a second indexed position over said tire body, and contracting said band upon said tire body.

2,822,028

METHOD OF MANUFACTURING WOOD PARTICLE BOARDS

Max Himmelheber, Balersbrunn, Schwarzwald, and Klaus Steiner, Bad Tolz, Germany, assignors to Allwood, Inc., Glarus, Switzerland, a corporation of Switzerland

Application January 16, 1956, Serial No. 559,447
6 Claims. (Cl. 154-29)



1. The method of forming a continuously moving continuous horizontally disposed web from binder impregnated finely comminuted fibrous stock, which web is of uniform width and has uniform weight per unit of area, which comprises: weighing a mass of the stock of known volume; forming the stock into a uniformly moving web of uniform width and excessive vertical thickness; stripping stock from said web to reduce its vertical thickness; and adjusting the final thickness to which the web is thus stripped in inverse ratio to the weight of said mass of stock, thereby to produce uniform weight per unit area of web.

2,822,029

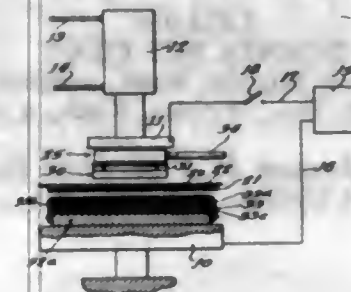
DIELECTRIC HEAT SEALING APPARATUS

Earl J. Hoagland, Chicago, Ill., assignor to Standard Safety Equipment Co., a corporation of Illinois

Application July 8, 1955, Serial No. 520,798
7 Claims. (Cl. 154-42)

1. In a dielectric heat sealing apparatus including a press having plates movable toward and away from each

other and a source of high frequency electrical energy, a die arrangement for sealing materials of irregular thickness, comprising a die body having a cavity therein, a conformable, electrically conductive portion overlying said



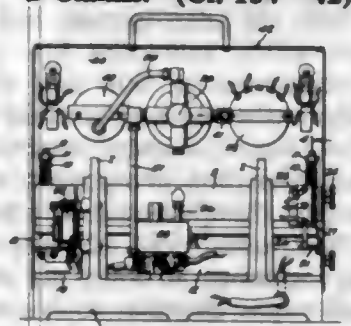
cavity for directing high frequency electrical energy through materials inserted between said die and one of the press plates, and means controlling the fluid pressure in said cavity, causing said conformable portion to exert an even pressure on said materials.

2,822,030

HEAT-SEALING MACHINE

Harry Pokras, Los Angeles, Calif., assignor to Product Packaging Engineering, Culver City, Calif., a corporation of California

Application August 5, 1955, Serial No. 526,747
2 Claims. (Cl. 154-42)



1. A heat-sealing machine, comprising: a heating block adapted to receive heat-sealable material on its upper surface; a cylinder block disposed above said heating block, having an elongated piston cavity therein; an elongated piston bar in said cavity; a yieldable seal means surrounding said piston; an elongated presser bar carried by said piston and cooperating with the upper surface of said heating block to press heat-sealable material therebetween; a table disposed outwardly from and substantially flush with its upper surface to support work pieces of material for insertion between said heating block and presser bar; a trigger finger at one end of said heating block; means for adjusting the position of said trigger finger transversely of said heating block; and control means actuated by said trigger finger to supply pressure fluid to said piston bar for a predetermined interval.

2,822,031

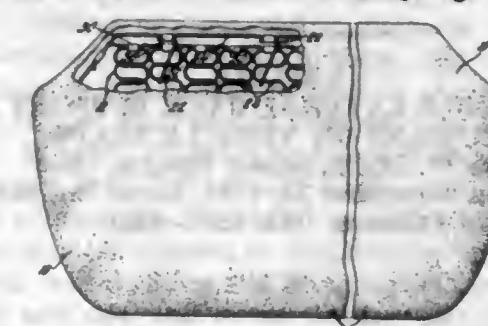
SEAT SPRING CONSTRUCTION

William H. Webber, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 2, 1954, Serial No. 453,764
3 Claims. (Cl. 155-179)

1. In a spring assembly of the type comprising lateral rows of sinuous spring strips, each spring strip having a plurality of adjacent oppositely presenting loop portions joined by straight portions, and a border wire transversely connecting the spring strips at aligned straight portions thereof to form a soft edge for the spring assembly; the improvement comprising a second border wire laterally spaced from the first border wire to form an extended soft auxiliary edge for the spring assembly, and means for supporting the second border wire on the spring strips comprising simple L-shaped cantilever spring elements each having one leg secured to a respective spring strip

and the other leg connected to the second border wire, the one leg being transversely threaded with at least two oppositely presenting loop portions and with at least three straight portions of the respective spring strip by one



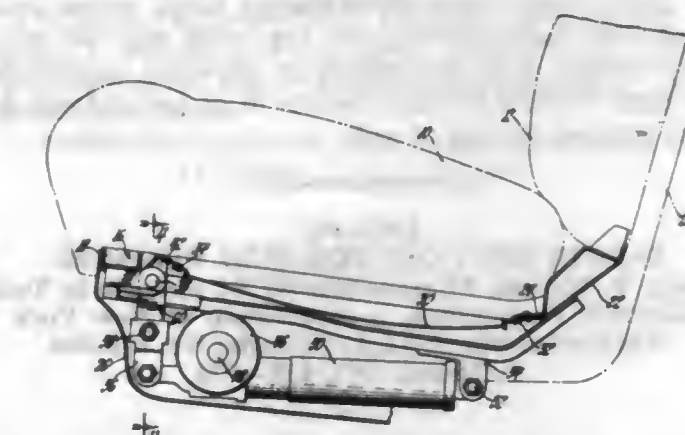
section that passes between the loop portions and that passes under and bears against one of the straight portions of the spring strip and by other sections on each side of the one section that each pass over and bear against other straight portions of the spring strip.

2,822,032

SEAT SPRING TENSION ADJUSTER

Thomas A. Palmer, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 18, 1956, Serial No. 559,870
3 Claims. (Cl. 155-179)

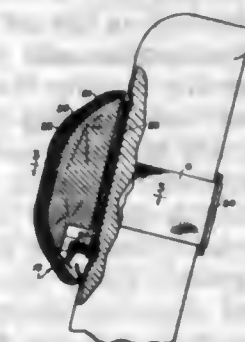


1. Spring tension adjustment apparatus of the character described, including: a rigid seat frame; a plurality of parallel slat springs within said frame; means fixedly anchoring one end of each spring to said frame at one side thereof; a transverse bar extending across said frame adjacent the opposite side thereof and connected to the other end of said springs; means for movably supporting said bar including at least one crank connected to said bar; and motor means for turning said crank to adjust the tension of said springs.

2,822,033

LATERAL SUPPORT FOR HUMANS ON FLAT VEHICLE SEATS

John W. Dixon, Shaker Heights, Ohio
Application September 19, 1955, Serial No. 535,121
5 Claims. (Cl. 155-182)

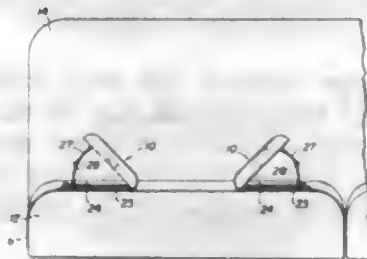


1. Lateral support for humans on flat vehicle seats comprising strap means arranged to extend laterally with

respect to a vehicle seat back and to be secured with respect thereto, and a pair of independently adjustable resilient pads each having means for laterally adjustable connection to said strap means.

2,822,034

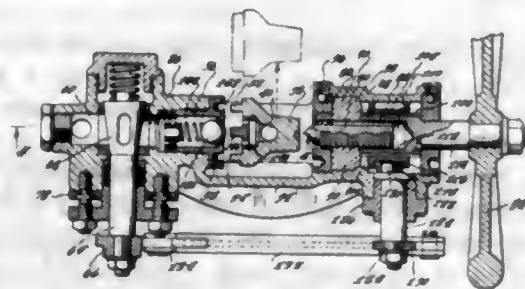
COLLAPSIBLE LATERAL BACK SUPPORT FOR HUMANS ON VEHICLE SEATS
John W. Dixon, Shaker Heights, Ohio
Application November 22, 1955, Serial No. 548,322
3 Claims. (Cl. 155-182)



1. For use in connection with a seat back of an automobile, truck, bus, or the like, the combination of a pair of pads each independently of the other laterally adjustable with respect to the seat back so that the pair with the seat back may partially encompass the sides and back of a human body regardless of size thereof, and substantially vertically extending hinge means associated with each pad whereby the same may be selectively opened to so encompass or collapsed against the seat back to provide ready ingress to or egress from the space between the pair of pads.

2,822,035

SAFETY SHUT-OFF FOR FUEL BURNERS
George P. Haynes, Massapequa, N. Y., assignor to Todd Shipyards Corporation, a corporation of New York
Application March 15, 1954, Serial No. 416,344
3 Claims. (Cl. 158-73)



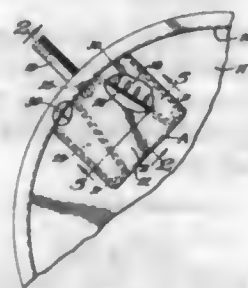
3. In an oil burner, a removable atomizer, an oil duct for supplying pressure thereto, said duct including a duct section connected to the atomizer and removable therewith whenever the atomizer is removed, a separable joint between said duct section and a fixed part through which another portion of the duct passes, a shut-off valve in the duct in said fixed portion, clamping means for retaining said removable duct section in a position in which the separable joint is established so that oil may be supplied through said duct to the atomizer, said means including a clamping screw, means for holding the clamping screw against rotation, a rotary nut engaging the thread of said clamping screw, a housing in which said clamping screw and rotary nut are enclosed, means in said housing for holding said nut against longitudinal movement, means for rotating said nut to move said screw including a manual actuating member, separable clutch means operably connected to said manual actuating member and said nut and mechanical connections between the shut-off valve and said clutch means for actuating said clutch means to cause the same to engage and disengage said nut, con-

structed and arranged to engage said clutch means when the shut-off valve is closed and disconnect said clutch means when the shut-off valve is open.

2,822,036

BURNER POT PILOT

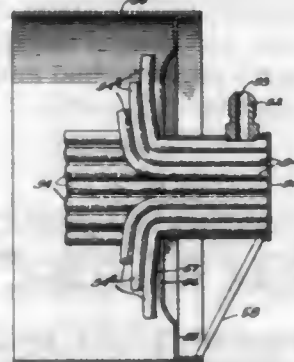
John M. Redmond, Wichita, Kans., assignor to The Coleman Company, Inc., Wichita, Kans., a corporation of Kansas
Application January 26, 1955, Serial No. 484,117
4 Claims. (Cl. 158-91)



1. In combination with an oil pot burner having an oil inlet opening and air openings, a pilot box having an open rear side supported adjacent the burner wall to form an enclosure about said oil inlet opening and air openings, vertical partitions within said pilot box providing side compartments communicating with said air openings, a horizontal partition extending between said side partitions and forming an oil vapor chamber communicating with said oil inlet, said pilot box being open at the forward end of said oil vapor chamber, said side partitions being provided along their lower sides adjacent said oil vapor chamber with air openings whereby air streams are directed into the oil vapor chamber to impinge upon each other and create a turbulent flow, and said air inlet openings permitting the flame to be reversed and to burn within the side chambers when there are excessive down-flow currents within the burner.

2,822,037

PULSATING COMBUSTION BURNER APPLIANCE
John E. McCutchen, Wichita, Kans., assignor to The Coleman Company, Inc., Wichita, Kans., a corporation of Kansas
Application September 1, 1955, Serial No. 531,872
9 Claims. (Cl. 158-94)

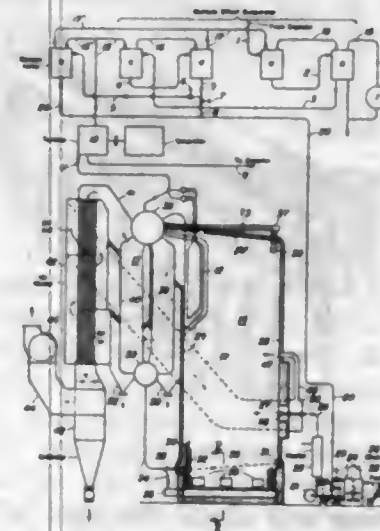


1. A combustion heating device for burning liquid fuels, comprising a hollow wick housing, a bundle of elongated wicks in said housing and projecting freely forwardly of the forward end thereof, means for supplying liquid fuel to the rear end of said wicks, and an air baffle about said wick bundle and having an opening therein receiving said wick bundle and providing between the baffle and said bundle of wicks a perimetric air-intake port, at least some of said wicks being turned laterally and extending outwardly across said air-intake port in spaced apart relation.

2,822,038

TREATMENT OF RESIDUAL WASTE LIQUOR FROM SULPHITE PROCESS OF MAKING PULP

Eugene H. Kennedy, Essex Fells, N. J., and Frank H. Coldwell and Truman A. Pascoe, Port Edwards, Wis.; said Coldwell and said Pascoe assignors to Nekoosa-Edwards Paper Company, a corporation of Wisconsin, and said Kennedy assignor to Combustion Engineering, Inc., a corporation of Delaware
Application January 30, 1952, Serial No. 268,972
3 Claims. (Cl. 158-117.5)

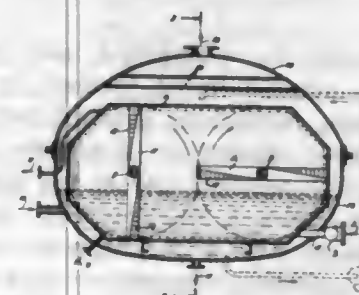


1. In the continuous process of disposing of the residual liquor from digestion of wood pulp with calcium bisulphite, in which process said liquor is concentrated and then substantially continuously sprayed into a furnace for burning therein of the combustible matter in said liquor, the steps of evaporating said liquor prior to its introduction into said furnace to a concentration of solids containing substantially less combustible matter than that required for self sustaining combustion within said furnace, admixing into said liquor a liquid fuel capable of forming an emulsion with said liquor and in amount sufficient to assure self sustaining combustion in said furnace and with sufficient agitation and for a sufficient time to form an emulsion, transporting this emulsion through a substantial distance to the furnace for spraying thereinto, heating said emulsion of liquor and fuel during this transportation by passing it through an indirect heat exchanger so as to reduce its viscosity before attempting to divide the emulsion into small particles for projection into a furnace, thereafter, continuously spraying said heated emulsion into said furnace and burning the same therein.

2,822,039

EVAPORATORS-CONDENSERS

Carlo Barbareschi, Milan, Italy
Application September 11, 1952, Serial No. 308,994
Claims priority, application Italy October 18, 1951
11 Claims. (Cl. 159-11)



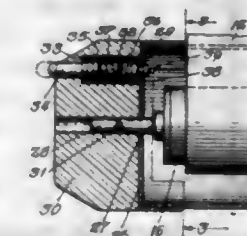
11. An evaporator comprising in combination: a casing having an inlet for the supply of liquid to be evaporated, a first outlet for the discharge of concentrated liquid, and a second outlet for the discharge of gaseous medium generated during evaporation, at least one heating unit in-

side said casing, said heating unit being in the shape of a closed box having a pair of substantially vertical side walls, said side walls being arranged for contact with the liquid to be evaporated, said box having an intake opening for a heating medium, a first discharge opening for the condensate of said heating medium, and a second discharge opening for a gaseous medium generated during condensation of said heating medium, and at least one rotatable member rotatably arranged within said casing adjacent to a side wall of said heating unit for rotation around a substantially horizontal axis, said rotatable member being in close relation to said heating unit for lifting said liquid in said casing and bringing the same into contact with said side wall of the heating unit and for preventing the growth of deposits on the latter, said intake opening of the box and said first discharge opening of the box being at the lower portion of said box, and guiding means inside said box for guiding the condensate from an upper portion of the box to said first discharge opening, so that the heating medium and the condensate thereof travel in opposite directions, said guiding means including a plurality of superposed channel-shaped strips extending longitudinally of said box, each strip having a depression substantially in the center between the side walls of the box for collecting the condensate and keeping same away from the side walls.

2,822,040

LOCKING DEVICE FOR A PICTURE SCREEN

Edward J. Petrick and Russell E. Petrick, Park Ridge, Ill., assignors to Knox Manufacturing Company, a corporation of Illinois
Application August 20, 1953, Serial No. 375,369
11 Claims. (Cl. 160-24)



4. A picture screen comprising: an upright support; a flexible screen secured at its opposite marginal end portions to a rod member and a rotatable reel provided with an outwardly extending trunnion, said rod member and reel being secured to the upright support at spaced points; a rigidly fixed journal member providing a bearing surface for said reel trunnion; a rotatable knob secured to said trunnion to wind said flexible screen upon the reel; and cooperating latching portions on said knob and journal member movable into engagement to lock said reel in a preselected position of rotation to stretch the screen taut between the rod member and the reel, the tension upon the flexible screen maintaining said cooperating latching portions in engagement.

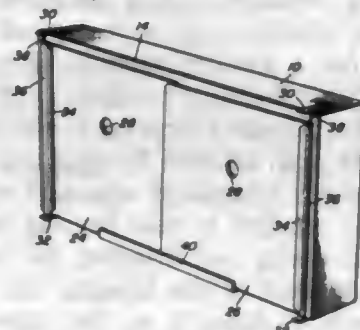
2,822,041

VENTILATION DOOR

Howard C. Blankenship, Blytheville, Ark.
Application May 9, 1955, Serial No. 506,721
9 Claims. (Cl. 160-92)

1. A ventilating door assembly for building foundations and the like comprising a door casing consisting of a rectangular frame having top, bottom and vertical walls with front and rear openings therein, a screen removably secured in the front opening, an imperforate door operatively associated with the rear opening, said door comprising a pair of sections hinged about a vertical axis at the remote vertical edges of said sections upon vertical hinges and overlapping at their adjacent vertical edges when moved into closed position, a lock-

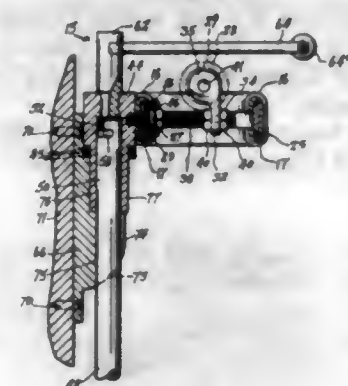
ing flange carried by the bottom wall of said casing and projecting upwardly above the latter and disposed at the overlapping edges of the sections at their lower portions, said sections being vertically movable upon their



vertical hinges to selectively lift the lower edges of the sections above said locking flange for opening and closing of the door, and to lower the lower edges of the sections below the locking flange to retain the door in closed position.

2,822,042 HANGER FOR CURTAINS, DRAPERIES, AND ACCESSORIES

Albert Noberelt, Brooklyn, N. Y.
Application June 10, 1955, Serial No. 514,457
3 Claims. (Cl. 160—111)



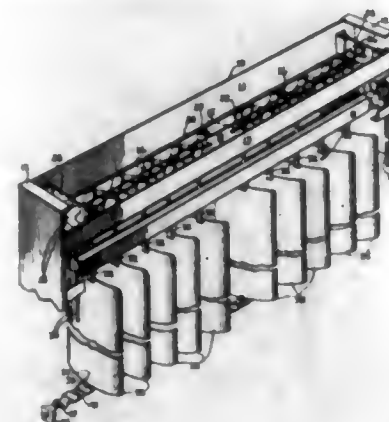
2. A window shade holder and hanger for curtains, draperies and accessories comprising a pair of curtain rods having telescoping straight ends and curved opposite ends, adjustable and pivotable window shade roll holding means connected with each curtain rod adjacent the curved end thereof removably to hold a window shade roll, a pair of mounting blocks secured to the curtain rods adjacent the curved ends thereof, a pair of window mounting brackets to slidably, and removably support said blocks at opposite sides of a window, a pair of mounting rods, and interlocking means on the blocks and mounting rods removably to connect the mounting rods with the blocks so that the curtain rods may be adjusted by said mounting rods, said mounting rods each being a hollow tube and said interlocking means including bayonet slot engaging pins secured to the blocks and bayonet slot openings in the mounting rods at one end of each mounting rod.

2,822,043 VENETIAN BLINDS

Anna Horak, Berwyn, Ill.
Application August 23, 1955, Serial No. 530,028
6 Claims. (Cl. 160—172)

1. A Venetian blind comprising a plurality of vertically disposed slats, a head structure for said slats including a horizontally extending plate having an interrupted slot formed therein, a pair of spaced apart extendible arms carried by and above said plate, a plurality of sleeves carried by said arms and projecting through each portion of said slot with each sleeve having an enlarged head portion for engagement with one side of said arm, there

being one sleeve for each of said slats, means for connecting said slats to said sleeves, an operating cord fixedly connected to each of said arms for moving said arms over said plate and said sleeves carried thereby through said slots in opposite direction through a horizontal plane, a thread bearing stud shaft at each end of said plate and supported thereby for rotation about its long axis, horizontally disposed sprocket wheels carried by said shafts below and in spaced relation to said plate, a flexible chain for operatively connecting said wheels together for simultaneous rotation, an operating cord connected to said

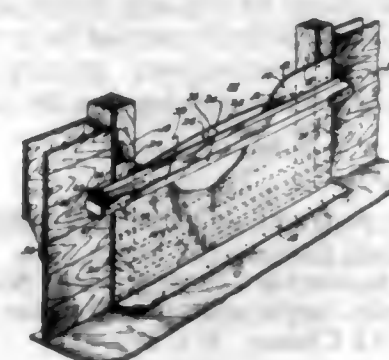


chain for moving said chain over said wheels to rotate the same, an actuating bar threadably connected to said shafts in a substantially horizontal plane below and in spaced parallel relation to said plate and moveable in a vertical plane with respect thereto when said shafts are rotated, said connecting means including hook elements for removably connecting said slats to said sleeves with one of said elements providing a threadable connection with said bar whereby vertical movement of said bar transmits a rotatable movement to said hook element and said slats.

2,822,044 CROSS BRACE FOR LOAD RETAINING DOORS

John W. Leslie, Evanston, Ill., assignor to Signode Steel Strapping Company, Chicago, Ill., a corporation of Delaware

Application August 29, 1955, Serial No. 531,218
6 Claims. (Cl. 160—368)

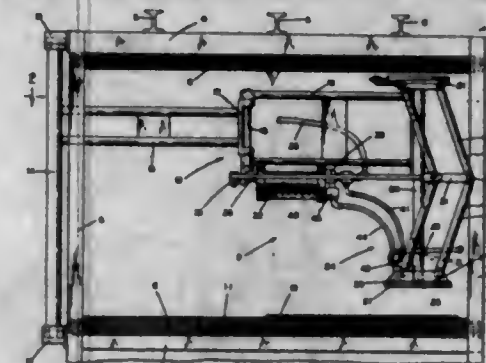


1. A cross brace for a nonrigid load retaining door, the door being adapted to be secured to the doorway frame of a vehicle, comprising in combination, a substantially rigid member adapted to be secured to the vehicle across the doorway opening and at the inner side thereof, said member having a length greater than that of the load retaining door with which it is to be used, and a flexible, tension resisting element secured at its ends to said member and having an unsecured length extending across the outer face of said member, whereby the load retaining door may be placed between said member and the unsecured length of said element and supported by the latter against bulging outwardly under pressure of the load within the vehicle.

2,822,045 LEATHER CUTTING MACHINES

Edgar S. Moore, Toronto, Ontario, Canada, assignor of one-third to George Jackson and one-third to Lorne T. Edwards

Application July 25, 1955, Serial No. 524,159
14 Claims. (Cl. 164—19)

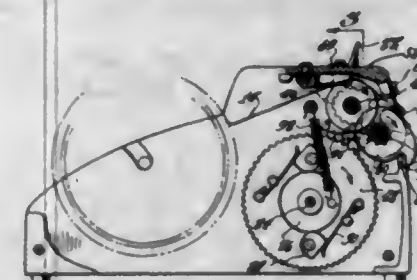


3. In apparatus for cutting leather or the like, a pair of vertically separated parallel rigid surfaces, the upper to form an abutment surface the lower to form a work supporting surface, an extensible cantilever arm disposed between said surfaces to move over substantially said entire work supporting surface, an extensible mechanism carried at the free end of said extensible cantilever arm, the axis of said extensible mechanism being disposed perpendicularly to the planes of said surfaces and extensible in both directions and including at its upper extremity a presser surface to engage said abutment surface and at its lower extremity a presser surface to engage a die disposed on a hide placed on said work supporting surface, and power means for actuating said extensible mechanism.

2,822,046 TAPE DISPENSERS WITH SLITTERS

Theodore Henry Krueger, Stratford, Conn., assignor to Better Packages Incorporated, a corporation of New York

Application June 15, 1953, Serial No. 361,487
2 Claims. (Cl. 164—39)

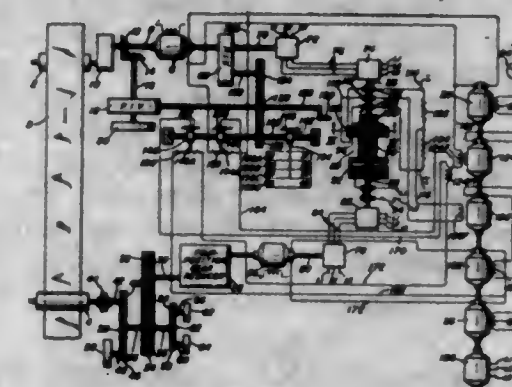


1. In a tape dispenser having a casing provided with means for holding a roll of tape and with an opening in the top thereof and a discharge opening in the front thereof, feed discs for feeding tape mounted in the casing below the opening of the top thereof and mounted for rotation about a horizontal axis in a direction to cause the upper elements of the disc surfaces to move in the direction of the discharge opening so as to feed tape led over the tops of the discs toward said discharge opening, means for driving said discs in tape feeding direction, a cover pivoted at its front end to the casing near the discharge end of the casing and swingable about a horizontal axis to expose the feed discs to permit the threading of tape over said feed discs, and a slitter blade mounted on the under side of said cover and having an edge extending longitudinally above the tape path as the tape passes in feeding engagement with said discs, a portion of said edge intersecting said path at a small angle when the cover is closed.

2,822,047 FLYING SHEAR

Howard S. Orr and George H. Rendel, Pittsburgh, Pa., assignors to United States Steel Corporation, a corporation of New Jersey

Application January 26, 1955, Serial No. 484,198
4 Claims. (Cl. 164—68)

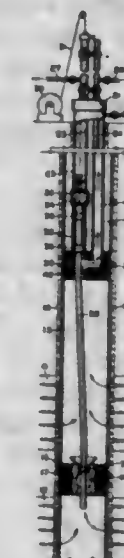


1. A flying shear for cutting an elongated object into short lengths comprising a measuring roll over which the elongated object passes, a rotatable shear drum, a first motor for driving said roll, a second motor for driving said drum, a first fly wheel, a connection between said first motor and said first fly wheel including a variable speed change unit for varying the speed of said first fly wheel, a driving connection between said second motor and said drum including a variable speed gear reducer, a shaft, two elliptical gears mounted on said shaft, a first pair of elliptical gears driven by one of said first named elliptical gears, a second pair of elliptical gears driven by the other of said first named elliptical gears, a connection between one of said first pair of elliptical gears and said drum, a second fly wheel driven by the other of said first pair of elliptical gears, and a third and fourth fly wheel one driven by each of said second pair of elliptical gears, said drum and said second, third and fourth fly wheels being rotated 90° out of phase with one another, a first generator for supplying current to said first motor, a second generator for supplying current to said second motor, and means for maintaining a predetermined ratio between the voltage outputs of said generators.

2,822,048 PERMANENT WELL COMPLETION APPARATUS

Gilbert H. Tausch, Houston, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application June 4, 1956, Serial No. 589,333
14 Claims. (Cl. 166—114)



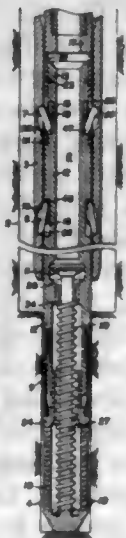
1. Apparatus for working over and servicing a cased borehole penetrating a plurality of spaced apart hydrocar-

bon productive intervals comprising parallel eccentric tubing strings arranged in said borehole, the lower open ends of which are arranged above the uppermost productive interval, one of said tubing strings being provided with an opening fluidly communicating the interior of said one tubing string and the space between said tubing strings and said casing, first packing means positioned on said tubing strings below said opening adapted to seal off the space between said tubing strings and said casing, second packing means provided with a single bore therethrough positioned in said borehole between said uppermost productive interval and a lower productive interval to seal off the annulus between said bore and said casing, and retrievable tubular means suspendible in said one tubing string and extensible through the bore of said second packing means.

2,822,049

FORMATION TESTER FOR DRILLING WITH CASING

John E. Ortloff, Tulsa, Okla., assignor to Esso Research and Engineering Company, a corporation of Delaware
Application November 29, 1954, Serial No. 471,710
3 Claims. (Cl. 166—115)



1. A formation tester adapted to be used when drilling with casing which comprises in combination an elongated cylindrical casing extension sub secured to the lower end of the casing within a bore hole, an elongated cylindrical body portion, an outer cylindrical element surrounding an upper portion of the cylindrical body portion in a vertical sliding relationship, means for lowering said outer element, said cylindrical body portion and said lower element in an assembly form within said sub, retractable upper latching means and lower latching means pivotally mounted on said cylindrical body portion and arranged to engage upper and lower recesses within said casing sub, said upper latching means engaging said upper recesses through ports in said outer cylindrical element when said outer cylindrical element moves downward relative to said elongated cylindrical body portion, said lower latching means being arranged to engage said lower recesses when said lower cylindrical element moves vertically upward relative to said cylindrical body portion, a sample chamber disposed within said assembly, packing means fixed to said elongated body portion and said lower cylindrical element and arranged to be expanded against the wall of the bore hole in response to vertical upward movement of said lower cylindrical element relative to said body portion, at least one port providing fluid access from the bore hole at a point below said packing means to a point within said sample chamber and valve means intermediate said port and said sample chamber actuatable to seal fluid within the sample chamber.

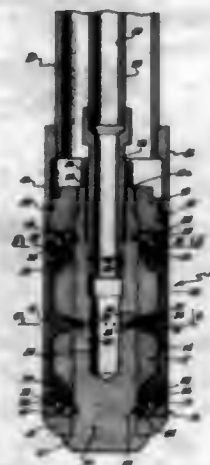
2,822,050

WELL PACKER

Martin B. Conrad, Downey, Calif., assignor to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Original application November 25, 1950, Serial No. 197,541, now Patent No. 2,681,114, dated June 15, 1954. Divided and this application July 17, 1953, Serial No. 368,769

9 Claims. (Cl. 166—187)



1. In a well packer: a body; an expansible packing element around said body; a retainer on said body; said retainer and element having interlocking circumferential portions securing said element to said retainer; and an annular member embedded in said packing element, said annular member being located adjacent said interlocking portion of said retainer and on the same side thereof as said interlocking portion of said packing element, whereby upon expansion of said packing element said annular member is moved toward said retainer interlocking portion to prevent disconnection between said interlocking portions.

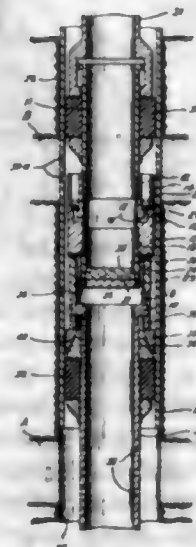
2,822,051

BACK PRESSURE VALVE

Jack L. Lamberson, Jr., Conroe, John W. Kenneday, Houston, and Conrad W. Peter, Conroe, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

Application September 1, 1954, Serial No. 453,655

3 Claims. (Cl. 166—224)



1. A back pressure valve adapted to be connected to a first liner and to engage with a second liner comprising a first sleeve connected to said first liner, a second sleeve of lesser outside diameter than said first sleeve and connected to said first sleeve, said first and second sleeves cooperating to form a recess, said first sleeve being formed to provide means adapted to fluidly communicate

the interior and exterior of said first sleeve, valve means arranged in said fluid communication means adapted to permit fluid flow from the interior to the exterior of said first sleeve and to prevent fluid flow from the exterior to the interior of said first sleeve, sealing means arranged in said recess adapted to engage with said second liner and a plug positioned in said second sleeve adapted to prevent fluid flow therethrough.

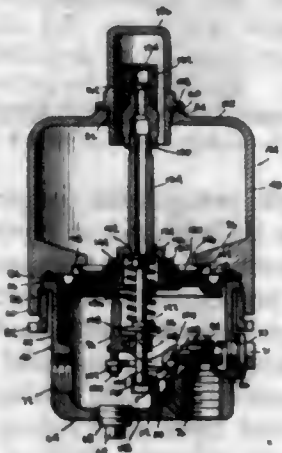
2,822,052

ACCELERATORS FOR DRY PIPE VALVES IN AUTOMATIC SPRINKLER SYSTEMS

Harold Herklimer, New York, N. Y., assignor to The Raisler Corporation, New York, N. Y., a corporation of New York

Application April 16, 1956, Serial No. 578,353

7 Claims. (Cl. 169—19)



1. In an accelerator of the class described for use in a dry pipe sprinkler system, the combination of a pressure differential sensing member having two chambers, means connecting one chamber to the dry pipe whereby the pressure in said chamber is the same as that of the dry pipe, said one chamber having an outlet opening, a valve for said outlet opening, means connecting said member to said valve for opening said valve when the pressure in said one chamber is less than the pressure in said other chamber, and a porous metal element located between the two chambers of the pressure differential sensing member and having one surface exposed to the pressure in one chamber and an opposite surface exposed to the pressure in the other chamber.

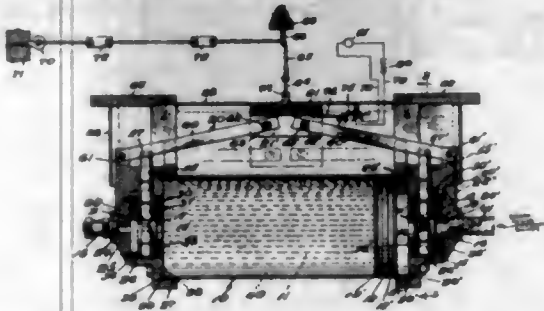
2,822,053

FIRE ACTUATED APPARATUS

Alexander W. Keema, Wickford, R. I.

Application March 11, 1957, Serial No. 645,361

9 Claims. (Cl. 169—26)



1. In a fire extinguishing apparatus in combination with a liquid pressure means, a reservoir of fire extinguishing fluid, a discharge nozzle connected to said reservoir, a frangible diaphragm sealing said nozzle from said fluid, a piston in said reservoir movable toward said diaphragm, said fluid being located between said diaphragm and said piston, a liquid pressure means connected to said reservoir on the side of the piston opposite that toward said diaphragm, heat responsive means and liquid pressure

727 O. G.—7

control means operable in response thereto for applying said pressure to said piston to force the extinguishing fluid from said nozzle.

2,822,054

FIRE EXTINGUISHER

John W. Howard, Los Angeles, Calif., assignor to The General Pacific Corporation, Los Angeles, Calif., a corporation of California

Application May 9, 1955, Serial No. 506,960

1 Claim. (Cl. 169—31)



In a fire extinguisher including a tank with a tank opening through which fluid may be received: a head assembly coupled to said tank; a valve body incorporated in said head assembly, said valve body including a nozzle opening and a fill opening on the surface thereof; a member supported from said tank and extending downwardly from said tank opening to a given level within said tank, said member having an internal passage throughout its length communicating in sealed relationship with said tank opening; a siphon tube extending axially through said internal passage of said member, said siphon tube having one end connected to said valve body and its other end extending down into a bottom portion of said tank; a first passage extending through said valve body and communicating between said one end of said siphon tube and said nozzle opening; a valve member positioned in said first passage; and, a second passage extending through said valve body and communicating between said fill opening and said internal passage of said member, whereby fluid may be poured into said fill opening to pass down into said tank opening through said second fluid passage without removal of said head assembly and whereby the fluid received will first fill said tank to substantially said given level and thereafter fill only said internal passage of said member.

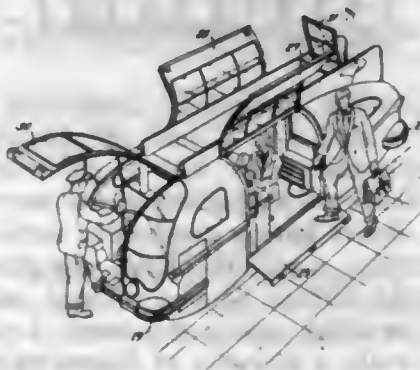
2,822,055

COMBINATION MOTOR VEHICLES

Johann Wilhelm Ludowici, Jockgrim, Pfalz, Germany

Application September 25, 1953, Serial No. 382,420

3 Claims. (Cl. 180—1)



1. A vehicle comprising a front section and a rear section spaced from each other, traction drive wheels on each section, a pair of hollow beams secured to the sections in laterally spaced relation on the top of each section, a central space being provided between the front

and rear sections and under the beams, an intermediate section having wheels adapted for retraction to and from ground contact and to be powered, and means for removably securing said intermediate section to said hollow beams between said spaced front and rear sections, whereby said intermediate section may be capable of use as a self-propelled vehicle entirely independent from the front and rear sections.

2,822,056

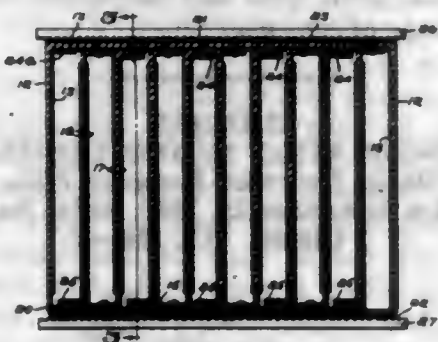
MOTOR VEHICLE OF THE REAR ENGINE TYPE
Josef Müller, Stuttgart-Riedenberg, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application November 19, 1956, Serial No. 623,137
Claims priority, application Germany November 21, 1955
7 Claims. (Cl. 180—54)



1. A motor vehicle comprising a body, a pair of front wheels and a pair of rear wheels mounted on said body for carrying it, a pair of spare wheels mounted in the front portion of said body in vertical position, one to the left and one to the right of the vertical central longitudinal plane of said body, said spare wheels being spaced a distance not less than their diameter from a transverse horizontal line extending through the centers of said front wheels, said body including two pairs of horizontal beams, each pair comprising an upper beam and a lower beam having their front ends disposed behind one of said spare wheels for bracing the same in event of a collision, a fuel tank carried by said body between said front wheels in front of said transverse line, and a driving unit disposed in the tail end of said body, said driving unit comprising an engine and a transmission housing.

2,822,057

ELECTROSTATIC PRECIPITATORS
Earl L. Richardson, Hyde Park, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 27, 1955, Serial No. 518,077
2 Claims. (Cl. 183—7)



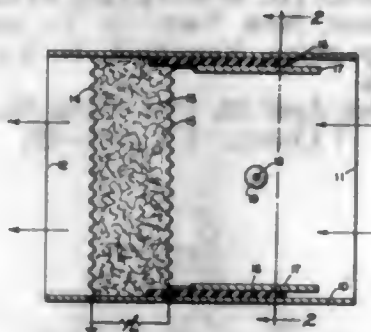
1. An electrostatic precipitator comprising a casing, a collector cell in said casing, said cell having a pair of oppositely positioned walls with a plurality of spaced apart flexible electrode supporting sheets extending therebetween, said sheets having conductive surfaces forming collector electrodes, a pair of plates, one plate extending across the outer surface of one of said walls and the other plate extending across the outer surface of the other of said walls, a plurality of fingers formed on said plates at the interior surfaces of each of said walls between said sheets, the fingers on one of said plates being of spring metal, shelf means in said casing, one of said plates being supported by said shelf means, other shelf means in said casing, said other plate being supported by said other shelf means, said plates being moved apart

in being supported by said shelf means and causing said fingers to move said walls apart so as to stretch said sheets.

2,822,058

ELECTROSTATIC PRECIPITATORS
William J. Roos, Sharon, and Earl L. Richardson, Hyde Park, Mass., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 30, 1955, Serial No. 531,416
2 Claims. (Cl. 183—7)

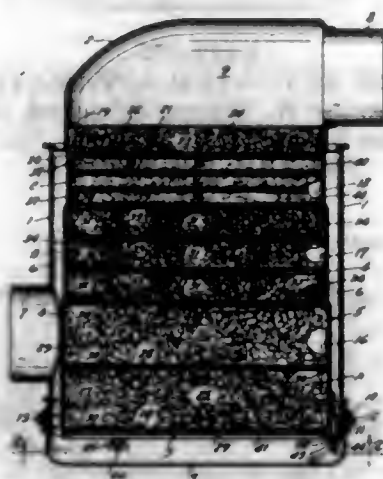


2. An electrostatic precipitator comprising a metal casing having an open air inlet and an open air outlet, a mat of dielectric filaments extending cross-wise said casing between said inlet and outlet, a metal screen between said mat and said outlet in contact with said casing, a second metal screen between said mat and said inlet, said second screen being insulated from said casing, an ionizer wire insulatedly supported from said casing, non-discharging ionizer electrodes on opposite sides of said wire, means insulatedly supporting said electrodes from said casing, an electric resistor connected at its ends to said screens, a high voltage, direct current power supply, means connecting said wire to a positive high voltage terminal of said supply, and means connecting said casing to the negative terminal of said supply.

2,822,059

AIR CLEANER

Robert J. Lunn and Frank A. Donaldson, Jr., St. Paul, Minn., assignors to Donaldson Company, Inc., St. Paul, Minn., a corporation of Delaware
Application May 5, 1954, Serial No. 427,838
1 Claim. (Cl. 183—70)



In an air cleaner, casing structure comprising cooperating casing sections defining an air inlet and an air outlet, a tubular supporting sleeve within said casing structure defining a chamber communicating with said inlet and outlet, said sleeve having a plurality of cylindrical surfaces of progressively greater diameter from one end of the chamber toward the other end thereof, a filter structure removably mounted in said chamber between the inlet and outlet, said filter structure comprising a plurality of filter sections in intercommunicating serial

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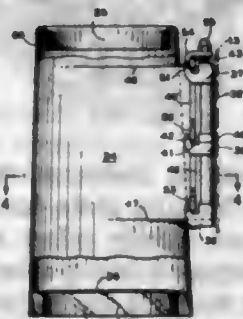
arrangement, each of said filter sections having a filter medium having different filtering characteristics than another thereof, each of said filter sections including a plurality of like units each comprising a pair of spaced perforate end walls and an imperforate cylindrical wall, said walls defining a container for the filter medium, the outer surfaces of the cylindrical unit walls of each of said sections being adapted to telescopically interfit a different cooperating one only of the cylindrical inner surfaces of said supporting sleeve, whereby said sections may be removed from said sleeve and replaced in only a single predetermined serial order, and means for releasably locking said filter structure in said chamber.

2,822,060

STEAM AND WATER CYCLONE FOR STEAM GENERATING AND SUPERHEATING UNITS

Frederick F. Udovich, deceased, late of Barberton, Ohio, by Frances Udovich, executrix, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application December 31, 1954, Serial No. 479,165
3 Claims. (Cl. 183—83)



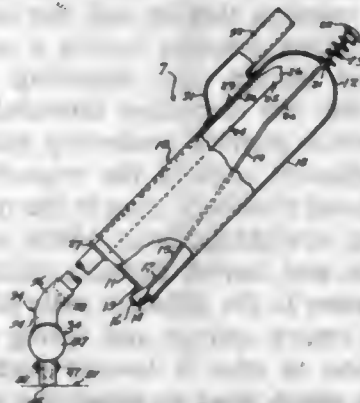
1. In apparatus of the type including a separator support as an upright wall having a rectangular opening for the high velocity flow of a vapor and liquid mixture to a separator, a first junction box secured to said wall at said opening and providing an outlet passage of rectangular cross-section aligned with the opening, a vapor and liquid cyclone having a circular whirl chamber with an inlet formed by a second junction box of rectangular cross-section corresponding to the cross-section of the first junction box, means distributed around the facing perimeters of the junction boxes for guiding the second junction box and the cyclone into operative relationship with the first junction box, and adjustable means co-acting with the guiding means to force the second junction box into pressure tight and aligned relationship with the first junction box.

2,822,061

VACUUM MOPPING DEVICE

Charles D. Pettit and Echo L. Pettit, Salt Lake City, Utah

Application February 26, 1954, Serial No. 412,738
1 Claim. (Cl. 183—94)



In a device of the character described, an elongated substantially upright hollow cylinder having a side wall and closed upper and lower ends, a suction pipe extending

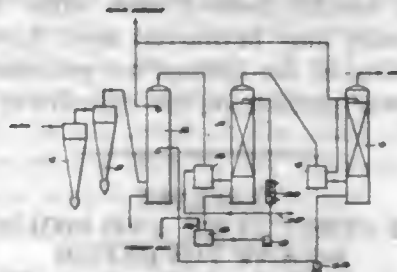
upwardly through the lower end of the cylinder and into the interior of the cylinder, said suction pipe having an open lower end below the lower end of the cylinder and an open upper end, said suction pipe having a portion within the cylinder extending along the cylinder side wall and positioned close to said side wall, said portion of the suction pipe terminating in said open upper end, and said open upper end being located close to and spaced downwardly from the closed upper end of the cylinder, the cylinder side wall along said suction pipe portion having an elongated opening longitudinally of the cylinder, said elongated opening being located near to and being spaced below the open upper end of the suction pipe, and an external suction bell secured to the cylinder side wall around said elongated opening, said bell having a nipple to which suction means is adapted to be connected, said closed upper end of the cylinder being hemispherical and having a concave lower surface, with the open upper end of the suction pipe facing upwardly and laterally inwardly toward said concave surface.

2,822,062

PROCESS OF SEPARATING CARBON BLACK FROM GASES

Karl Haberl, Walter Jahnentz, and Richard Hilgert, Marl, Germany, assignors to Chemische Werke Huls Aktiengesellschaft, Marl, Germany, a corporation of Germany

Application July 9, 1956, Serial No. 596,593
Claims priority, application Germany July 27, 1955
1 Claim. (Cl. 183—120)



Method of separating carbon black from gases produced by the high temperature cracking of hydrocarbons and containing acetylene, polymerizable unsaturated hydrocarbons, especially higher acetylenes, and carbon black which comprises removing the bulk of carbon black by means of cyclone separators, cooling the hot gases with sprayed water to a temperature above the dew point of the polymerizable unsaturated hydrocarbons in the gases, contacting the cooled gases in at least one scrubber with a continuously recycled sprayed wash oil at a temperature above the dew point of water to produce a fine dispersion of the wash oil in the gases, passing the dispersion of the sprayed wash oil in the gases through a packed washing tower in which the said dispersion is treated with a continuously recycled wash oil introduced at the top of said packed washing tower at a temperature above the dew point of water, withdrawing a portion of the wash oil from the scrubber and the packed washing tower and replacing it by the equivalent portion of fresh wash oil, and cooling the resulting gases for recovery of wash oil therefrom.

2,822,063

SELF ADJUSTING CHOCK

William E. Hampton, Charlotte, N. C., assignor to United Equipment & Service Inc., Charlotte, N. C., a corporation of Maryland

Application August 11, 1953, Serial No. 373,555
2 Claims. (Cl. 188—32)

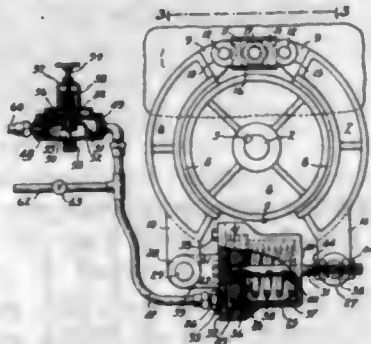
1. In a device for chocking a cylindrical object, first and second chock blocks having inclined downwardly converging upper surfaces thereon, a first tube having one end thereof fixed to one side of the first block, a second

tube having one end fixed to one side of the second block, a guide bar fixedly mounted within the second tube and having a free end extending outwardly through the other end of the second tube, the free end of said guide bar being telescopically received within the other end of said first tube for longitudinal movement with respect thereto, an anchor bar fixedly mounted within said one end of the first tube and having a free end, the upper and lower surfaces of said guide bar each having a longitudinally extending groove therein, the upper and lower surfaces of said anchor bar each having a longitudinally extending groove therein in respective alignment with the grooves in said guide bar, a first tension spring having its opposite end portions disposed in the grooves formed in



the upper surfaces of said guide bar and said anchor bar, a second tension spring having its opposite end portions disposed in the grooves formed in the lower surfaces of said guide bar and said anchor bar, means anchoring corresponding ends of the springs adjacent the distal ends of the guide bar and the anchor bar whereby the tension springs may pull the first and second chock blocks toward each other, the other ends of the first and second tubes thereby being drawn toward each other into abutting relationship to limit the movement of the first and second chock blocks toward each other and whereby said chock blocks may be moved apart from each other against the action of the springs for positioning the same astride the lower portion of the cylindrical object.

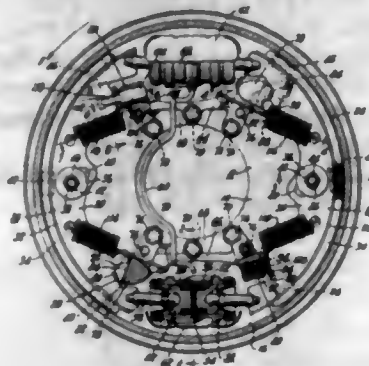
2,822,064
BRAKE STRUCTURE AND MOUNTING
MEANS THEREFOR
John N. Welland, Cleveland, Ohio
Application May 19, 1953, Serial No. 356,000
5 Claims. (Cl. 188-75)



5. In the combination of a machine having an upright frame, a member mounted on the frame for rotation about a horizontal axis, and a brake structure controlling the rotation of said member, said brake structure comprising a pair of shoes disposed embracingly about the rotatable member, a pair of brake shoe pivot pins, a bracket receiving and supporting said pivot pins with their axes in spaced parallel relation, the bracket having a transverse through opening midway between the pins, a single elongated element fast to the frame and extending through the bracket opening, the single elongated element constituting the sole means attaching the bracket to the frame, the longitudinal axis of said attaching element being parallel to the rotational axis of the rotatable member, the bracket being held against the frame by the elongated element in rigid fixed relation and against lateral shifting movements relative to the frame, the shoes being received on the pins and supported thereby in pivotal relation to the fixed bracket, and an actuator wholly supported by and connected between the shoes for

shifting the shoes between engaged and disengaged positions relative to the rotatable member, whereby in disengaged positions wherein the shoes are clear of the rotatable member the combined weight of the bracket, the shoes and the actuator is carried by the single elongated attaching element.

2,822,065
BRAKE ASSEMBLY
Rudolph A. Goepfrich, South Bend, Ind., and Bryan E. House, Ashtabula, Ohio, assignors to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application August 31, 1949, Serial No. 113,456
20 Claims. (Cl. 188-78)



1. A brake, for use in cooperation with a rotatable drum, comprising a backing plate having a flat annular center portion and an axially offset outer portion, two arcuate oppositely-disposed brake shoes mounted on the outer portion of the backing plate, two hydraulic cylinders secured to the outer portion of the backing plate and located between the ends of the shoes at diametrically opposite positions in the brake assembly, each of said cylinders having a pair of pistons reciprocable therein, said pistons being in operative engagement with the adjacent ends of the shoes, two oppositely-disposed torque-taking members, each located radially between one of the hydraulic cylinders and the center of the brake assembly, each of said torque-making members having a substantially arcuate radially inner flat portion which lies against the center portion of the backing plate, the axes of the hydraulic cylinders being in the plane of the inner portions of the torque-taking members, the inner portion of each torque-taking member and the center portion of the backing plate having a plurality of aligned mounting holes by means of which the torque-taking members and the backing plate may be jointly secured to a non-rotating member, fastening means for securing each torque-taking member to the backing plate, each of said torque-taking members having angularly-spaced ends provided with substantially radial projections which extend outwardly to "straddle" longitudinally the respective hydraulic cylinder and provide anchoring surfaces for the ends of the shoes, one projection of each torque-taking member having a threaded opening therein and the other projection of each torque-taking member having a substantially radial slot formed therein, two adjusting screws having stems screwed into the respective threaded openings and having heads which provide anchoring and locating surfaces for the adjacent ends of the respective shoes, two plano-convex thrust members lying in the respective radial slots and having straight surfaces which engage the bottoms of the slots and convex surfaces which engage complementary recesses in the adjacent ends of the respective shoes, and four return springs, one spring acting on each end of each shoe to urge it toward anchored position, the two springs which tend to retain the respective shoe ends in engagement with the thrust members being arranged to exert greater force than the two springs which tend to retain the respective shoe ends in engagement with the adjusting screw heads.

2,822,066

OUTDOOR STANDARD

Ingvald Hanson, Willmar, Minn., assignor of one-fourth to Gewaine H. Hanson, one-fourth to Nels P. W. Jensen, and one-fourth to Archie Caylor, Willmar, Minn.

Application June 26, 1953. Serial No. 364,407

2 Claims. (Cl. 189—23)



1. A standard adapted for use as a television antenna tower and the like comprising, an upstanding longitudinal support rigidly securable at its lower end to the ground, a yoke secured in rotatable adjustment on a vertical axis at the upper portion of said support, said yoke having a horizontal pivot pin laterally off-set from the longitudinal upward projection of the support, an elongated pole having an upper and a lower end, said pole being pivotally mounted relatively closer to the lower end thereof on said horizontal pivot pin, and a winch mechanism mounted in off-set relation on the lower portion of the support and secured against vertical shifting relative thereto and rotatably adjustable about the axis of said support, said winch having side plates flared outwardly of the support for cradling said pole in rigid parallel relation with the support and further having extensible connection with the lower end of said pole to permit the pole to pivot from upstanding rigid contact with the flared side plates to a lowered position lateral to the axis of said support.

2,822,067

ANTENNA MAST

Kenneth B. Price, Pontiac, Ill.

Application July 5, 1952, Serial No. 297,281

3 Claims. (Cl. 189—26)



1. An antenna mast structure for supporting a position-responsive antenna comprising an outer hollow mast section having a square cross section, a tubular mast section of ring-like cross section fitting within said hollow mast

section and having a portion flattened to fit across the diagonal of said hollow mast section for preventing relative rotation of said mast sections, means for relatively telescoping said two mast sections, and means for locking said two mast sections in any one of various telescoped positions.

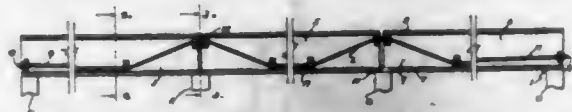
2,822,068

BEAM STRUCTURES AND METHOD OF APPLYING TENSION THERETO TO REVERSE THE STRESS THEREIN

Hubert Lee Hendrix, Tulsa, Okla.

Application March 18, 1953. Serial No. 343,031

3 Claims. (Cl. 189—37)



1. A load supporting multiple beam span structure comprising, a plurality of beam members arranged end to end and having spaced top and bottom flanges connected by webs, said beam structure being adapted to be supported at the ends of the bottom flanges of the respective beam members whereby loading of the beam structure imposes tension stress on one side of the neutral axis of the beam members and compression stress on the other side of the neutral axis of said beam members between the ends thereof, the adjacent ends of the beam members being connected below the neutral axis and disconnected above the neutral axis, tension members arranged longitudinally along the webs of the beam members below the neutral axis thereof, means on the beams in spaced relation to the ends of the beam members slidably supporting the tension members on said beam members, and means securing the ends of the tension members adjacent the ends of the beam structure to retain the tension in said tension members.

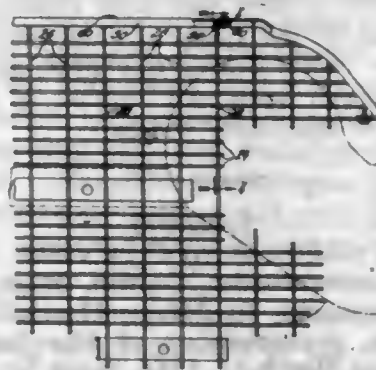
2,822,069

GRILLE STRUCTURE

Clarence E. Morphew, Milford, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 12, 1955, Serial No. 533,674

4 Claims. (Cl. 189—82)



1. A grille-like structure comprising a first set and a second set of slats all disposed substantially parallel to each other, and a third set of slats disposed normal to said two first sets, the slats in said first set including notches which extend inwardly from one side thereof and including an edge having a detent projecting into said notch and a side inwardly divergent therefrom, the slats in said second set including notches having a pair of edges extending inwardly from one side thereof parallel to said edge having said detent and being spaced apart the thickness of said slats in said third set, said third set of slats being adapted to be disposed in said notches in said first and second sets and having means to engage said detent and thereby be retained in said notches, and means compris-

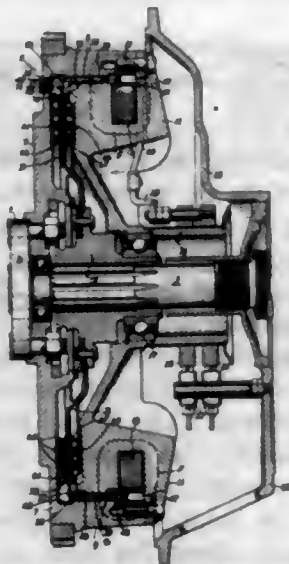
ing a resilient header bar engaging the ends of the slats in said first and second sets for biasing the slats in said first and second sets in opposite directions for resiliently deflecting the slats in said third set to cause said detents to lock said slats together.

2,822,070

MAGNETIC CLUTCH

Ralph L. Jaeschke, Kenosha, Wis., assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application April 5, 1954, Serial No. 420,970
3 Claims. (Cl. 192—21.5)



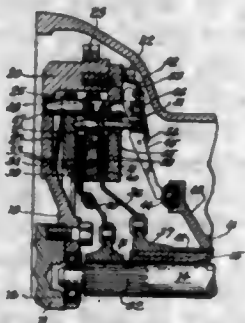
1. A magnetic clutch comprising driving and driven members one of which is constituted by spaced magnetizable members forming a cylindric compartment, flowable magnetizable material in said compartment, said compartment being closed at one end, the other member being formed as a cup having a radial portion and a magnetizable sleeve extending therefrom into the cylindric compartment with its rim within the compartment, said sleeve forming inner and outer magnetic gaps in said compartment, an annular field coil adapted to establish a toroidal flux field passing through said sleeve and magnetic gaps, said sleeve containing a plurality of staggered axially elongate slots whose axial dimensions are greater than their transverse peripheral dimensions and which overlap in the peripheral direction, the ratios of the transverse widths of said slots with respect to the sleeve thickness being in the range of approximately two to four times the radial sleeve thickness, said slots being peripherally spaced from one another at distances substantially greater than their widths.

2,822,071

CLUTCH MECHANISM

Richard W. Hautzenroeder, Detroit, Mich., assignor, by mesne assignments, to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland

Application March 17, 1954, Serial No. 416,734
5 Claims. (Cl. 192—48)



1. In a dual clutch mechanism, in combination, a rotatable driving member presenting a friction driving sur-

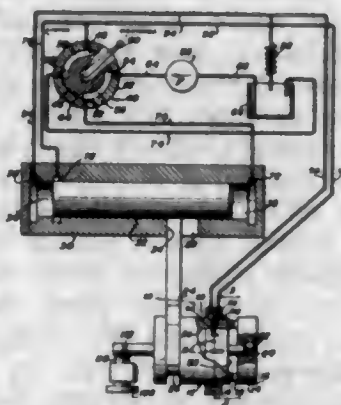
face coaxial with its axis of rotation, a pair of clutch plates supported for rotation with said member and for axial movement toward and from said driving surface, a first driven clutch element interposed between said surface and the adjacent plate, a second driven clutch element interposed between said adjacent plate and the other plate, spring means acting on said other plate urging both plates into clutch engaging relation to said driven elements, a series of pins each having an abutment engageable with one face of said adjacent plate, a second series of pins engageable with the opposed face of said other plate, a lever pivotally connected to each pin of said series and operative when rocked in one direction to fulcrum on a pin of said second series to shift said other plate to disengaged position while maintaining the adjacent plate in engaged position, and means on said member defining an abutment upon which said levers fulcrum on continued rocking in said one direction to shift the pins of said first series in a direction to effect disengagement of said adjacent plate.

2,822,072

DEVICE FOR ENGAGING MESHING DRIVING AND DRIVEN MEMBERS

Charles L. Goss, Sidney, Ohio, assignor to The Monarch Machine Tool Company, Sidney, Ohio, a corporation of Ohio

Application November 13, 1953, Serial No. 391,817
5 Claims. (Cl. 192—86)



1. In a power train the combination comprising: disengageable driving and driven members that will mesh in a plurality of relative angular positions; power-operated means for moving one of said members into and out of engagement with the other; manual means for controlling the application of power to said power-operated means; means independent of contact between said members for signalling when said members are in each of said relative angular positions; means for selectively rendering said signalling means inoperative in at least one of said relative angular positions while simultaneously rendering said signalling means operative in at least one selected position of said relative angular positions; and means responsive to said signalling means for timing the application of member-engaging power to said power-operated means to correspond to said selected relative angular position of said members.

2,822,073

TRANSPORTATION EQUIPMENT

Charles F. Payne, Katy, Tex.

Application September 29, 1954, Serial No. 459,113
1 Claim. (Cl. 193—35)

In load handling equipment a platform having a load receiving surface and an opening therethrough substantially normal to the plane of said surface, a shaft positioned beneath said opening in substantially parallel relation to said surface, means supporting the shaft for axial rotation, a crosshead mounted on said shaft for longitudinal movement thereon, to a position located axially be-

neath the opening, means for releasably securing the crosshead to the shaft in said position for rotation with the shaft, radially extending arms on the crosshead positioned to be moved into and out of axial alignment with the open-



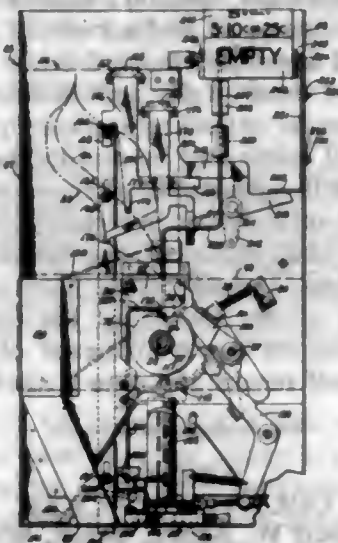
ing upon rotation of the crosshead, means for rotating the shaft to position a selected one of said arms in such axial alignment, and means for moving the shaft toward and away from the platform to move said one of said arms into and out of a position extending through the opening.

2,822,074

COIN REJECTION SYSTEM

Spencer L. Childers, Fresno, and William B. Warren, Madera, Calif., assignors, by mesne assignments, to The Vendo Company, Kansas City, Mo., a corporation of Missouri

Application April 23, 1951, Serial No. 222,501
16 Claims. (Cl. 194—2)



1. In a vending machine having a merchandise magazine and a coin operating mechanism having a plurality of coin pathways therethrough, the combination of a coin tube adapted to receive coins from one of the pathways, a first lockout member mounted adjacent to the tube to the pathway from which the coin tube is adapted to receive coins, a second lockout member mounted adjacent to the other pathway for movement to and from the same, the first lockout member having a portion thereof disposed for engagement with the second lockout member at the side thereof opposite to its respective pathway, a blade mounted adjacent to the merchandise magazine for movement to and from the magazine, resilient means operatively associated with the blade urging the blade into the magazine, a detector finger, means mounting the detector finger adjacent to the coin tube for movement between a rest position in the tube and a position retracted from the tube and so that the finger is urged into the rest position, a shaft rotatably mounted adjacent to the portion of the first lockout member engageable with the second lockout member, a control arm extended from the shaft having a cam engagable with said portion of the first lockout member upon shaft rotation to urge the first lockout member into its respective pathway and by engagement of said portion of the first lockout member with the second lockout member to urge said second lockout member into its pathway, a mechanical linkage interconnecting the blade and the shaft rotating the shaft to move the con-

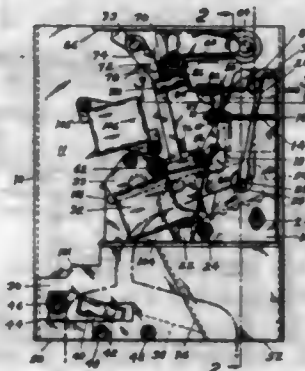
trol arm into engagement with said portion of the first lockout member in response to movement of the blade into the magazine, and a detection rod connected to the detector finger of the coin tube for moving said second lockout member into its pathway in response to movement of the finger into the coin tube.

2,822,075

COIN SEPARATORS

Merril P. Haverstick, Overland, Mo., assignor to National Rejectors, Inc., St. Louis, Mo., a corporation of Missouri

Application May 29, 1952, Serial No. 290,688
2 Claims. (Cl. 194—101)



1. The combination of a coin that has an unyielding, toothed periphery and a coin separator that regulates the speed of coins passing through it and that separates acceptable from unacceptable coins in accordance with the speeds of said coins and that comprises a passageway for coins, an elongated runway that supports said coins as they move through said passageway, said runway being inclined to provide gravity-induced rolling of said coins along said runway, an accepted coin chute that is below the level of and is horizontally spaced wholly beyond the lower end of said runway, said runway being generally directed toward said accepted coin chute so an acceptable toothed coin rolling off said lower end of said runway at a predetermined rate of speed will move freely toward said accepted coin chute and will move horizontally beyond said lower end of said runway and enter said accepted coin chute, a rejected coin chute that is below the level of and that underlies said lower end of said runway and that has its far end horizontally spaced a short distance beyond said lower end of said runway so a coin rolling off said lower end of said runway at a speed appreciably lower than said predetermined speed can fall into said rejected coin chute, and a source of magnetic flux lines adjacent said runway that directs a concentrated magnetic field into said passageway and into the path of a coin rolling along said runway, said runway having a toothed upper surface that extends to said lower end of said runway, the teeth of said toothed upper surface of said runway being of substantially the same configuration and being spaced apart substantially equal distances and being complementary to the teeth at the periphery of said acceptable toothed coin, said toothed upper surface of said runway coacting with the peripheral configuration of a toothed coin rolling along said runway to provide a retardation in the speed of said toothed coin and said concentrated magnetic field from said source of magnetic flux lines coacting with the electrical conductivity of said toothed coin to provide a retardation in the speed of said toothed coin, said source of magnetic flux lines being adjacent said lower end of said runway whereby said toothed coin begins its free fall in said concentrated magnetic field, said retardation in speed provided by said toothed upper surface on said runway coacting with said retardation in speed provided by said concentrated magnetic field to cause an acceptable toothed coin rolling off said lower end of said runway to be re-

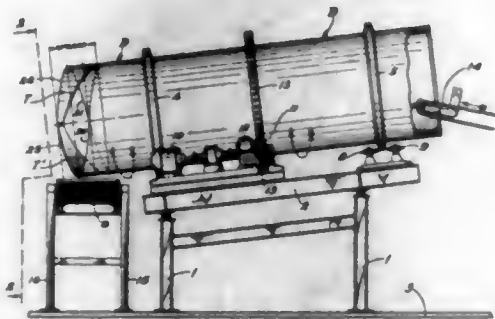
tarded to said predetermined speed and thereby enter said accepted coin chute and to cause unacceptable coins rolling off said lower end of said runway to be retarded to said appreciably lower speeds and thereby fall into said rejected coin chute.

2,822,076

CHARGE DISTRIBUTING MEANS FOR ROTATABLE DRUMS

John F. Baier, Cleveland, Ohio, assignor to Arthur G. McKee & Company, Cleveland, Ohio, a corporation of Delaware

Application January 26, 1956, Serial No. 561,432
15 Claims. (Cl. 198—42)

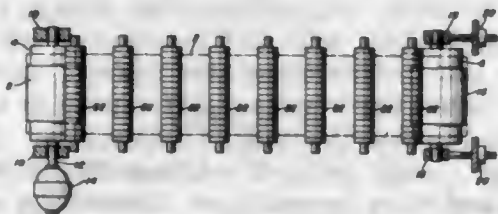


1. Charge distributing means for an inclined rotatable drum structure on the lower inner surface of which material is adapted to travel in an axial direction during rotation thereof in one direction, said drum having an open lower end from which said material is discharged, including, a helical end edge portion extending circumferentially of said drum from a starting point at said lower end thereof, and a trailing distributing tongue at said lower end of said drum, said tongue having a root portion joined to said drum and a tip portion extending from said root portion in a direction opposite to said direction of rotation of said drum and axially spaced from said drum end edge.

2,822,077

BELT DRIVEN ROLLER CONVEYOR

Edwin T. Lorig, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application November 8, 1954, Serial No. 467,269
2 Claims. (Cl. 198—127)

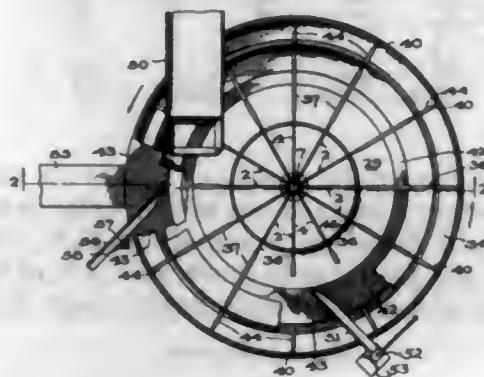


1. A belt driven roller conveyor comprising a plurality of load supporting self-centering rolls arranged in alignment with their axes substantially parallel with one another, an endless belt adapted to contact the lower portion of said rolls, narrow-bodied head and tail pulleys for supporting said belt, each of said pulleys having a cylindrical belt supporting surface of substantially less width than the belt so that the belt can overhang the said belt supporting surface, a plurality of snubbing rolls arranged between the upper and lower runs of said belt between the load supporting rolls with their upper portion being above the lower tangent to the load supporting rolls, and a plurality of spaced apart self-centering rolls bearing against the lower run of said belt.

2,822,078

COOLING DEVICE

William A. Haven, Cleveland Heights, Ohio, assignor, by mesne assignments, to Kaiser Steel Corporation, Oakland, Calif., a corporation of Nevada
Application May 14, 1954, Serial No. 429,925
4 Claims. (Cl. 198—209)

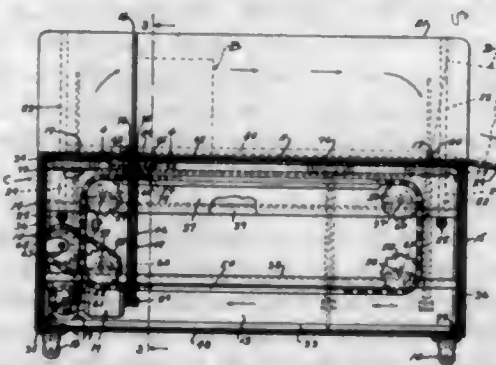


1. In a cooling device of the character described, the combination of a vertically disposed rotatable framework, a plurality of concentrically arranged atmospherically exposed annular bins mounted on said framework, said bins being of progressively larger diameter from the top to the bottom of said framework and at different horizontal levels on the said framework, each of said bins comprising a common annular, downwardly and outwardly inclined inner wall and a radially spaced annular, downwardly and inwardly inclined outer wall of shorter length than said inner wall, and horizontally disposed annular shelf means extending outwardly from the base of said inner wall below and beyond the bottom extremity of said outer wall, adjustable plow means overlying at least one of said shelf means for transferring the material deposited on the shelf means of one bin to the bin located directly therebelow, and adjustable plow means overlying the shelf means of the lowermost bin for removing the material deposited on the shelf means of the lowermost bin from said shelf means and onto a discharge conveyor.

2,822,079

COUNTER STACKER

Albert W. Ascani, Beloit, Wis.
Application January 4, 1957, Serial No. 632,573
4 Claims. (Cl. 198—224)



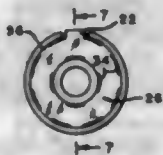
1. A counter stacker for receiving articles to be stacked and delivering a bundle to a person bundling and tying the same including, a rectangular cabinet having top, side and end walls, said top wall comprising a work table surface for receiving the stacked articles and having an enlarged longitudinal opening therein terminating adjacent said end walls, a trolley extending transversely across said opening mounted on spaced parallel tracks arranged longitudinally in said cabinet adjacent the under surface of said work table, depending spaced vertical guide plates carried by said trolley, a vertical pusher plate slidably received between said guide plates, one directional drive means operatively connected to the lower end of said pusher plate and adapted to move and support said pusher plate first.

above the table surface in one direction and then below the table surface in another direction, and a motor drive operatively connected to said drive means.

2,822,080

GETTER AND SUPPORT

William E. Buescher, Donald R. Kerstetter, and Wayne H. Kingsley, Emporium, Pa., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application June 27, 1956, Serial No. 594,129
7 Claims. (Cl. 206—4)

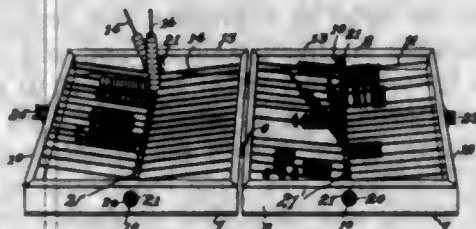


1. A getter and shield assembly comprising a ring channeled in cross section, with a deeper ring shaped central channel in the web of the ring, getter material in the central channel and a washer in the first channel extending from wall to wall of the channel and overlying the central channel and getter material, said washer having marginal recesses therearound.

2,822,081

PLUMBERS CARRYING CASE

Allen T. Mitchell, Sr., Upland, Calif.
Application October 10, 1955, Serial No. 539,416
2 Claims. (Cl. 206—16)

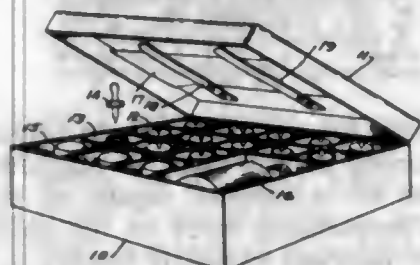


2. A plumber's kit comprising a pair of trays having adjacent sides pivoted together along a common axis, a pivot rod extending lengthwise mid-way of each tray, article supporting rods each having one end pivoted on one of said pivot rods and adapted to hold articles or the like supported thereon, spacing means for maintaining the article supporting rods in spaced relation, said tray having slots for the receipt of the free ends of said article supporting rods, and fastening means on said pivot rod adapted to fasten the article supporting rods together and to hold them in adjusted position.

2,822,082

MANUFACTURING KIT FOR PERFUME AND THE LIKE

Robert G. Breckwolddt, Brooklyn, and Alfred W. Hannemann, New York, N. Y.
Application February 21, 1956, Serial No. 566,859
1 Claim. (Cl. 206—16)



In a perfume manufacturing kit, the combination which comprises a rectangular-shaped case having a base with upwardly extended side and end walls, a cover having a top panel with a continuous flange positioned with one side

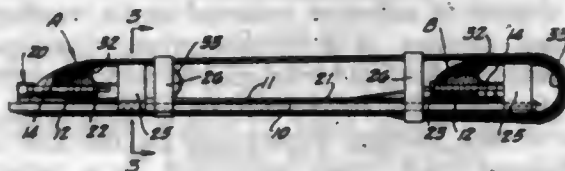
727 O. G.—8

thereof hinged to one side of the base, spaced spring fingers attached to the inner surface of the cover, a brochure retained in the cover by the spring fingers, a plurality of transverse and longitudinally disposed partitions positioned in the case, some of said partitions being arranged to provide small cells for retaining raw material bottles, other partitions being arranged to provide medium size cells for retaining mixing containers, and other partitions being arranged to provide a large cell for a solvent container, raw material bottles containing basic perfume materials positioned in the small cells, pipettes in and providing closures for the raw material bottles, mixing containers having threaded necks with screw caps thereon positioned in the medium size cells, and a solvent container also having a neck with a closure cap thereon positioned in the large cell whereby raw materials from the bottles in the small cells and solvent from the container in the large cell may be placed in the mixing containers in any desired proportions and thoroughly mixed therein to form perfumes.

2,822,083

METHOD AND MEANS FOR PACKAGING VERTICAL SLAT DRAW DRAPES

Oma V. Horne, Riverside, and Louis J. Vella, Sunnymead, Calif., assignors to Hunter Douglas Aluminum Corporation, Riverside, Calif., a corporation of Delaware
Application March 1, 1956, Serial No. 568,724
2 Claims. (Cl. 206—46)

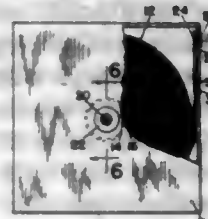


2. A vertical slat draw drape shipping package comprising a mounting board having a track attached to the underside thereof, a plurality of carriers slidably mounted on said track, crowned sheet metal slats hanging from said carriers, said slats being accumulated at the end of said mounting board, a supporting device attached to said mounting board adjacent said carriers and having a first curved portion carrying said slats around a curve of diameter greater than the minimum diameter to which said slats can be bent without damage, said first curved portion bringing said slats substantially parallel to said mounting board and spaced therefrom, a second curved portion on said supporting device carrying said slats in a 180 degree curve around an end of said mounting board, whereby the slats are brought back along the top side of the mounting board, and means securing the free ends of said slats to said mounting boards.

2,822,084

PACKAGING FOR CARD-CLOTHING

Walter C. Ellertsen, Westboro, Mass., assignor to Howard Brothers Manufacturing Company, Worcester, Mass., a corporation of Massachusetts
Application November 9, 1955, Serial No. 545,839
5 Claims. (Cl. 206—52)



5. The combination of a stand comprising a base, an upright, and supporting means on the upright, said supporting means including a pair of inclined projections at right angles to each other for holding a rectangular

package with a corner downwardmost and an adjacent corner intermediate the height of the package on the projections, with a rectangular package on the projections, a tear tab at the said adjacent corner, a wound strip in the package, said strip having an end positioned adjacent the tab to be extracted from the package when the tab is torn, whereby the entire strip is withdrawable from the package at the said adjacent corner, the end of the strip being secured to the tab.

2,822,085

PACKAGING OF SELF-SEALING SHINGLES
Phillip S. Bettoli, Belle Mead, N. J., and Evereth L. Lyons, Riverdale, N. Y., assignors to The Ruberoid Co., New York, N. Y., a corporation of New Jersey
Application March 6, 1957, Serial No. 644,390
3 Claims. (Cl. 206—60)



1. A package of self-sealing shingles comprising a wrapper having a bottom wall, a pair of substantially parallel side walls, a top flap along the upper edge of each side wall foldable inwardly upon the content of the wrapper, a stack of shingles supported in face-to-back relationship on the bottom of the wrapper, each shingle having a deposit of adhesive material on its weather surface located thereon in a predetermined position and arrangement, the shingles being stacked with the adhesive material of each in the same position, an additional stack or stacks of like shingles superposed on the first stack, each additional stack being supported on a pallet, the shingles of each additional stack being disposed in the same relationship to one another as those of the first stack, each pallet being provided with one or more openings positioned with relation to the adhesive to accommodate and compensate for the localized cumulative added thickness of the stacks of shingles due to the deposit of adhesive material on each shingle.

2,822,086

DEVICE FOR PACKAGING COILED MATERIAL AND THE PACKAGE OF COILED MATERIAL
Charles E. Franks, Waukegan, Ill., assignor to United States Steel Corporation, a corporation of New Jersey
Application December 17, 1952, Serial No. 326,524
6 Claims. (Cl. 206—65)



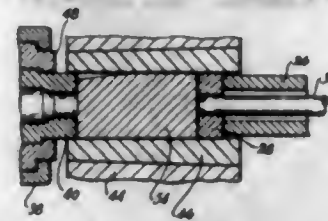
3. A retaining device for holding a plurality of stacked compressible annular bundles of coiled material together in a unitary package which comprises at least a pair of hook members, each of said hook members including a relatively long substantially straight leg portion, an intermediate V-shape portion integral with one end of said leg and extending substantially normal to said leg, and a relatively short end portion integral with the free end of said intermediate portion and extending substantially normal to said intermediate portion, said end portion having an initial section directed toward said leg and a terminal section directed away from said leg, each of said hook members being disposed with its intermediate portion and the initial section of its end portion encompassing one end of said stack, and flexible means de-

tachably connecting the end of the long leg of each of said hook members to the end of said stack remote from the encompassed end thereof, said hook members being spaced about the periphery of said stack.

2,822,087

EXTRUSION PROCESS

Hugo Lorant, New York, N. Y.
Application October 21, 1953, Serial No. 387,465
1 Claim. (Cl. 207—10)

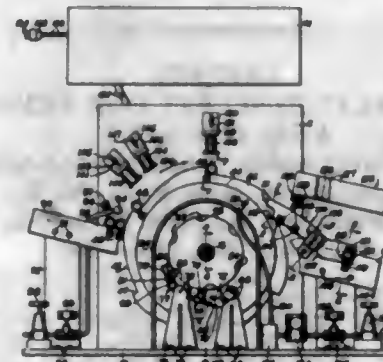


The process of forming tubular shapes by extruding metal from a solid billet in an extrusion press having a billet container and die movable relative to each other, said container having a bore and said die having an extending portion movable into said bore, comprising the steps of spacing said container from said die with at least part of said extending portion outside of said bore, placing a solid billet in said bore, compacting said billet in said bore by exerting force on the end of said billet furthest from said die, yieldably resisting the movement of said container toward said die and holding the container in its spaced position until sufficient force is transmitted to said container by frictional contact between the container and the billet to overcome said resistance and move said container relative to said die and said extending portion so as to completely upset said billet to eliminate radial clearance throughout its length, positively stopping the billet container at the end of the upsetting operation with the bore completely overlying the extending portion, piercing said billet, and thereafter extruding said billet through said die.

2,822,088

ELECTRONIC BELT LINK HARDNESS INSPECTION MACHINE

Albert E. Beaumont, Arthur Brand III, and Alfred J. Wysoczanski, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army
Application January 27, 1955, Serial No. 484,598
15 Claims. (Cl. 209—81)
(Granted under Title 35, U. S. Code (1952), sec. 266)



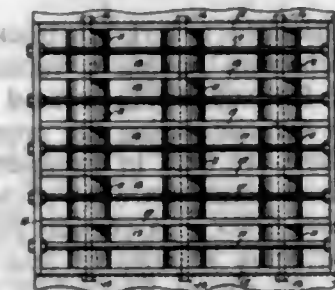
1. In apparatus for non-destructively testing and for subsequently sorting objects made of magnetic material, the combination of: a support, means on said support for exerting a magnetizing force on the objects; means on said support, disposed angularly relative to said magnetizing means, for exerting a demagnetizing force on the objects; means on said support, disposed angularly relative to said magnetizing and to said demagnetizing means, for differentiating between acceptable and unacceptable objects according to the amount of magnetism retained

by the objects; a rotatable transfer wheel disposed on said support relative to said magnetizing, to said demagnetizing, and to said differentiating means, said transfer wheel being adapted for receiving the objects and for moving the objects one at a time past said magnetizing, demagnetizing, and differentiating means in succession; and means, disposed on said support relative to said transfer wheel, for ejecting unacceptable objects from that wheel, the operation of said ejecting means being responsive to the operation of said differentiating means.

2,822,089

GRATE MAGNET

Maurice D. Woodruff, Springfield, Ohio, assignor to The Bauer Bros. Company, Springfield, Ohio, a corporation of Ohio
Application December 28, 1949, Serial No. 135,398
13 Claims. (Cl. 209—223)

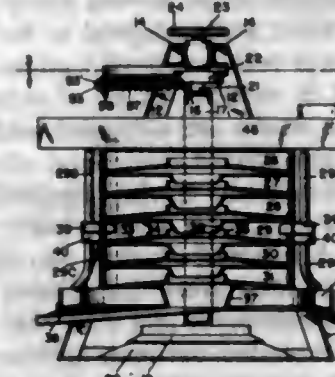


7. A grid type magnetic separator, including a plurality of spaced apart rows of magnets and a plurality of spaced apart metallic strips of induced magnetism at right angles to said magnets and extending across the several rows thereof, the magnets of each row being in alternatively opposed relationship with like poles of adjacent magnets in facing relation and said strips being interposed between the opposing faces of adjacent magnets to assume the character of pole pieces of alternating polarity, said magnets and strips cooperating to define a grate structure presenting a plurality of material passing openings having magnetic boundaries, and deflecting means overlying said openings to preclude the passage of material therethrough at points where the magnetic attraction of said boundaries is equalized.

2,822,090

CONCENTRATOR FOR MINERALS

Arthur A. Johnston, Portland, Oreg.
Application March 15, 1957, Serial No. 646,438
11 Claims. (Cl. 209—481)



1. In a mineral concentrator, an oscillating frame, means for oscillating said frame about a substantially vertical axis, means for imparting definite regular vibrations to said frame in the direction of the oscillation, a plurality of similar pans secured in said frame and stacked one above the other, each pan having a peripheral wall, a bottom wall and a central flanged opening in said bottom wall, a bottom central collecting vessel in said frame beneath the lowermost pan, an inlet chamber located on the outside of said peripheral wall of each pan and discharg-

ing into the pan, an outlet chamber on the outside of said peripheral wall of each pan, a distributor carried at the top of said frame, tubes leading from said distributor to said inlet chambers respectively of said pans, an accumulator receptacle at the bottom of said frame, and tubes connected with said outlet chambers of said pans discharging into said accumulator receptacle.

2,822,091

FILTRATION OF SOLUTIONS

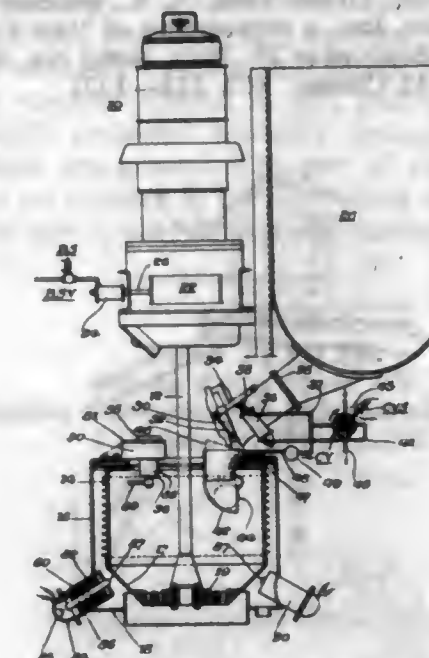
James L. Martine, Jr., Ferguson, Mo., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application February 25, 1955
Serial No. 490,678
3 Claims. (Cl. 210—75)

1. The method of filtering finely divided solids from sodium aluminate liquor produced by caustic digestion of alumina-bearing ore, comprising coating a porous filter with a layer of a filter aid consisting essentially of red mud formed in producing sodium aluminate solution by caustic digestion of alumina-bearing ore, less than 25% by weight of the particles of red mud in the said layer being less than 10 microns in maximum width, and not more than 30% by weight of the particles of red mud in the sand layer being greater than 150 microns in maximum width, and thereafter filtering the said liquor through the said layer of filter aid and the said porous filter.

2,822,092

FULLY AUTOMATIC CENTRIFUGAL MACHINE

Esteban C. Masson, Miami, Fla.
Application March 27, 1951, Serial No. 217,729
20 Claims. (Cl. 210—138)

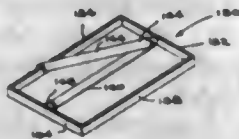


1. In combination with a centrifugal machine having a rotating basket, a curb around said basket, funnelling means immovably mounted on said curb to direct material to be centrifuged against the wall of the basket, gate means to admit said material to said funnelling means, said funnelling means having a portion extending into the basket and having an opening facing an interior wall of the basket, and valve means in the funnelling means controlling the flow through said opening to prevent said drippings from leaving the funnelling means and entering the centrifugal machine.

3. Apparatus as claimed in claim 1 wherein the means to prevent drippings leaving the funnelling means com-

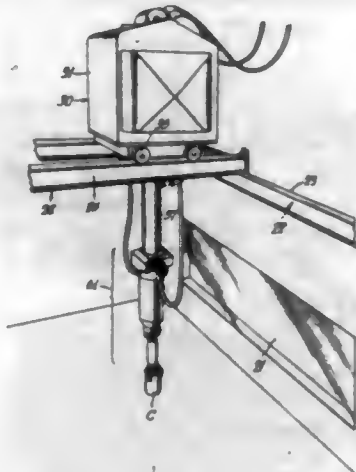
prises an inflatable element in the funnel and means to inflate said element concurrently with closing the gate means.

2,822,093
PACKING AND SHIPPING CONTAINER
 Louis W. Graci, Reedsville, Pa.
 Application June 1, 1956, Serial No. 588,648
 2 Claims. (Cl. 211—124)



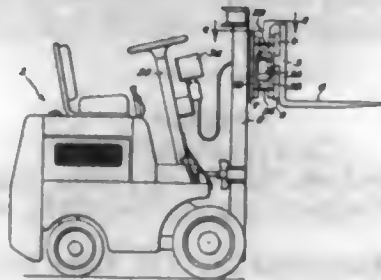
2. For use on the upper edge of a tubular container, a rigid support frame including side portions for disposition over opposite edges of the container, a transverse support rod extending between the side portions, and elongated clamp means securable in overlying relationship longitudinally on the support rod for retaining thereon hook portions of garment hangers, said clamp means comprising a clamp plate conforming to the outer periphery of the support rod, means pivotally securing one end portion of the clamp plate about a transverse pivot axis on the support rod, and means engageable with the other end portion of the clamp plate for retaining the same in longitudinally extending relationship on said support rod, said support frame comprising a continuous member including a U-shaped cross section conforming to the entire upper peripheral edge of a tubular container upon which the support frame is disposed.

2,822,094
BRIDGE MANIPULATOR
 Edward M. Greer, Great Neck, N. Y., assignor to Greer Hydraulics, Inc., a corporation of New York
 Application September 29, 1953, Serial No. 383,005
 12 Claims. (Cl. 212—127)



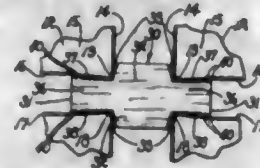
1. In a unit of the character described comprising a pair of spaced parallel rails rigidly mounted above the floor of a chamber, a bridge structure extending transversely across said rails and mounted thereon so as to move between the ends of said rails, a trolley mounted on said bridge structure so as to move along the length thereof transversely between said rails, a vertical member mounted on said trolley and depending therefrom below said bridge, means carried by said trolley to effect vertical movement of said vertical member and means for mounting a tool at the lower end of said members; the combination therewith of drive means mounted on said trolley to effect movement of said bridge along said rails and to effect movement of said trolley along said bridge and means carried by said member to effect actuation of such tool.

2,822,095
WEIGHING APPARATUS FOR LIFTING EQUIPMENT
 Francis S. Buckingham, Franklinville, N. J., assignor to Baldwin-Lima-Hamilton Corporation, a corporation of Pennsylvania
 Application September 19, 1955, Serial No. 535,093
 2 Claims. (Cl. 214—2)



1. The combination in a fork-lift truck, comprising, a load lifting mechanism having a vertically movable crosshead, a fork for supporting a load to be lifted, flexure stay means for connecting the crosshead to said fork so that the same are held in substantially rigid relation in a horizontal plane but allowed to have movement relative to each other in a vertical plane, said flexure stay means including a series of thin plates placed above each other and means for rigidly attaching the edge portions of the opposite ends of said plates to the crosshead and to the fork, and load weighing means operatively connected to said crosshead and to said fork so as to be operated in response to relative vertical movement upon lifting of a load.

2,822,096
SPACING MEMBER FOR STACKING APPARATUS
 Nick J. Buratovich, Dinuba, Calif., assignor of fifty percent to Mike T. Buratovich, Dinuba, Calif.
 Application June 23, 1955, Serial No. 517,426
 7 Claims. (Cl. 214—10.5)

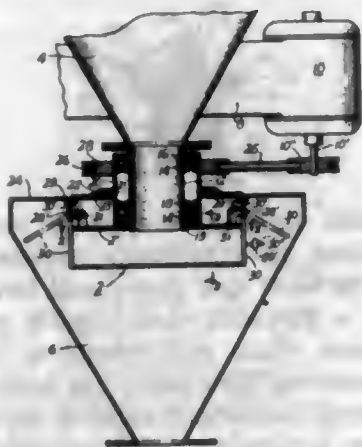


1. A spacing member for use with a plurality of boxes of substantially uniform shape having marginal edges and flexible top and bottom walls adapted to flex inwardly of their respective boxes relative to said edges, wherein the boxes are arranged in vertical stacks of substantially uniform shape and the stacks are arranged with corresponding boxes in adjacent spaced horizontal alignment comprising an elongated block having opposite ends, centrally located upper and lower bosses interposed between adjacent stacks for horizontal spacing thereof, flange portions oppositely extended from the bosses having substantially common thicknesses less than the overall thickness of the bosses extended between adjacent superposed boxes for vertical spacing thereof, and ribs disposed transversely of the block upwardly and downwardly extended from the flange portions for engagement with adjacent bottom and top walls, respectively, of the boxes in adjacent spaced relation to the ends thereof, said ribs being of a thickness less than the maximum flexing of the top and bottom walls between the points of engagement of the ribs with said top and bottom walls and the adjacent ends of their respective boxes whereby the flange portions of the block are supported by the ends of the top walls of the boxes therebelow and support the ends of the bottom walls of the boxes thereabove.

2,822,097

CENTRIFUGAL TRICKLE VALVE

Wilfred J. Lee, East Syracuse, N. Y., assignor to United States Hoffman Machinery Corporation, New York, N. Y., a corporation of New York
Application August 10, 1955, Serial No. 527,541
4 Claims. (Cl. 214-17)

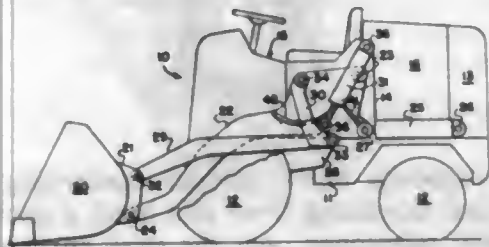


1. A device of the character described for feeding granular and powdered material at a constant controllable rate, said device comprising a large receiving bin, a horizontally disposed hollow thrower arm, a short vertical tube-like member having one of its ends attached at right angles to said arm, bearing means for rotatably mounting said member in vertical position generally centrally in an end of said bin, means for rotating said member and with it said arm at high speed, material supply means at the other end of said tube-like member through which powdered material and the like can be introduced into said arm and centrifuged out its ends, and at least one flapper plate pivoted on an end of said arm and movable to close said end when said arm is not rotating and to open said end by moving outward under centrifugal force when said arm is rotating.

2,822,098

POWER LOADERS

Ralph L. Beyerstedt, Libertyville, Ill., assignor to The Frank G. Hough Co., a corporation of Illinois
Application March 18, 1955, Serial No. 495,112
15 Claims. (Cl. 214-140)



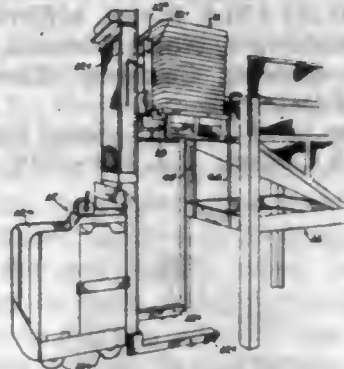
1. In a loader having a vehicle, a shovel comprising a bottom wall and a cutting edge mounted on the forward marginal edge of said bottom wall so that when said shovel is disposed in the dig position said cutting edge and said bottom wall are positioned along a substantially horizontal line and when said shovel is disposed in the dump position said cutting edge and said bottom wall are positioned to extend substantially downwardly and forwardly an amount sufficient to permit gravity to remove any material on said bottom wall within said shovel, a boom, means pivotally mounting one end of said boom on said vehicle, means pivotally mounting the other end of said boom to said shovel, link means interconnecting said shovel, said vehicle, and said boom and operable to tilt said shovel to various positions relative to said boom, said link means formed so that in one certain operated position thereof said shovel is tilted by said link means to said dump position when said boom is fully raised,

and automatically tilted by said link means to said dig position at ground level when said boom is lowered to the dig position at the ground level.

2,822,099

MATERIALS HANDLING APPARATUS

Dwight Arthur Duncan, Evanston, Ill., assignor to Appleton Electric Company, Chicago, Ill., a corporation of Illinois
Application August 26, 1954, Serial No. 452,278
10 Claims. (Cl. 214-317)

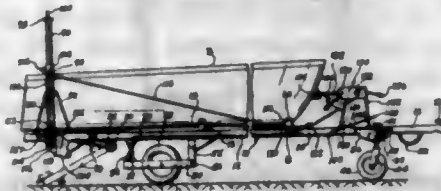


1. Materials handling apparatus for affording dumping of loads from an elevated position on a fork lift truck, said apparatus comprising the combination of a hopper having transverse ribs on its underside, legs for supporting the hopper in elevated position, and means spaced below the underside of the hopper to define spaced horizontal channels; with an attachment for the fork lift truck including at least one L-shaped member adapted for connection to the truck in lieu of its forks, said L-shaped member having a horizontal portion, a platform, means pivotally connecting the said platform to the horizontal portion of said L-shaped member to afford swinging movement of the platform between horizontal and forwardly tilted positions, said platform being insertable into said channels beneath said hopper, there being at least one aperture defined in said platform, and means automatically projected upwardly through said aperture into locking engagement with one of said ribs on said hopper as an incident to forward tilting of said platform relative to said L-shaped support member.

2,822,100

BOAT TRAILER

Joseph Pesta, Ocala, Fla.
Application September 19, 1956, Serial No. 610,777
3 Claims. (Cl. 214-396)



1. A boat trailer comprising a frame, main wheel means at opposite sides thereof, auxiliary wheel means at the forward end of the frame, front, intermediate, and rear boat support assemblies extending transversely of and spaced longitudinally of the frame, the intermediate and rear assemblies being mounted on the frame for movement into and out of boat-supporting positions, means to lock the rear assembly in boat-supporting positions, means to lock the intermediate assembly in a boat-supporting position, and means on the frame for adjusting the rear assembly into and out of said boat-supporting position thereof, said frame being Y-shaped and opening rearwardly, the Y-shaped formation of the frame defining side rails thereon and a longitudinally and centrally extending, forwardly projecting tongue adapted for

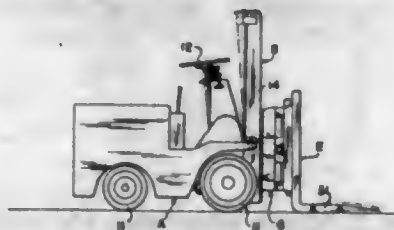
connection to a traction vehicle, the rear boat support assembly comprising a U-shaped yoke pivotally connected to the respective side rails for swinging movement about a horizontal axis extending transversely of the side rails, said means for adjusting the rear boat support assembly into and out of its boat-supporting position comprising a winch carried by the frame and cable and pulley means extending along the frame and connected to said yoke.

2,822,101

INDUSTRIAL TRUCK WITH LATERALLY ADJUSTABLE FORK MEMBER

Frank J. Schenkelberger, North Olmsted, Ohio, assignor to The Baker-Raulang Company, Cleveland, Ohio, a corporation of Delaware

Application April 21, 1955, Serial No. 502,772
6 Claims. (Cl. 214—730)

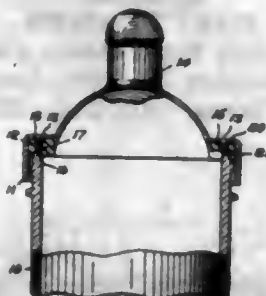


1. In a material handling apparatus, a frame, a load carrier frame, a carriage supported for elevational movement on the first-said frame and including a member having a surface extending generally transversely of its line of elevational movement for supporting said load carrier frame, said load carrier frame including a portion having a surface opposed and parallel to the first said surface, antifriction means intermediate said surfaces connecting said load carrier frame to said member for movement therealong, and double acting power actuated means operatively connected to said carriage and to said load carrier frame for moving the load carrier frame with respect to the carriage.

2,822,102

NURSING BOTTLE

Charles Edward Holland, Belmont, Mass.
Application August 5, 1954, Serial No. 447,941
1 Claim. (Cl. 215—11)



A nursing bottle and nipple combination comprising: a bottle having an open top, an externally threaded margin, and an upper edge bevelled to slope downward toward the outside of the bottle and to form a relatively sharp, upwardly projecting lip; a nipple of elastic material having a rim with upper and under sides extending over said upper edge, said rim having on its under side a first circumferential groove in which said lip is received, and, on its upper side, a second circumferential groove entirely overlying and in vertical alignment with the first groove, and a ring having an internally threaded portion engaged with said margin, and a flange extending over said upper side, said flange having a bead engaged with said second groove and overlying and aligned with said lip, the bead and the lip being disposed to clamp and compress between them the material of the nipple lying between said grooves.

2,822,103

CAM LEVER OPERATED EXPANDABLE CLOSURE WITH LEVER LOCKING MEANS

Axel Moeller, Racine, Wis., assignor to Moeller Mfg. Co., Racine, Wis., a corporation

Application September 28, 1956, Serial No. 612,797
1 Claim. (Cl. 215—53)



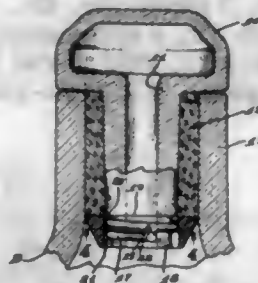
An expandable stopper comprising inner and outer compression plates, an expandable resilient compressible body confined between said plates and having an axially disposed bore, a threaded stem rigidly carried by the inner compression plate and extending into the bore, means rigidly securing the outer plate to the body against accidental turning movement relative to the body and said outer plate having an axial opening in alignment with the bore, a sleeve nut rotatably and slidably extending through the opening and threaded on the stem, a pivoted operating lever carried by the outer end of the sleeve nut having throws adapted to engage the outer plate when the lever is in a lowered operative position, said lever including spaced side walls straddling the sleeve nut, and outwardly extending equidistantly spaced latch lugs on the periphery of the outer plate, said lugs having a width less than the distance between the side walls of the lever, the lever being adapted to straddle a selected lug when the lever is in its lowered position whereby accidental turning movement of the lever and the sleeve nut will be prevented.

2,822,104

BOTTLE STOPPERS

Frank B. Busch, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application August 9, 1954, Serial No. 448,471
3 Claims. (Cl. 215—54)



1. A composite bottle stopper comprising a head, a stem portion depending from said head, a sleeve-like sealing member telescoped over the stem portion, said stem portion having its lower end reduced in diameter, a resilient retaining collar telescoped over the diametrically reduced end portion of the stem, means including interengaging thread-like projections on the stem portion and collar for securing the latter in position to hold the sealing member against the stopper head, and locking means incorporated in the thread-like projections on the stem portion to secure the retaining collar against accidental displacement, the projections on the collar being resilient.

2,822,105

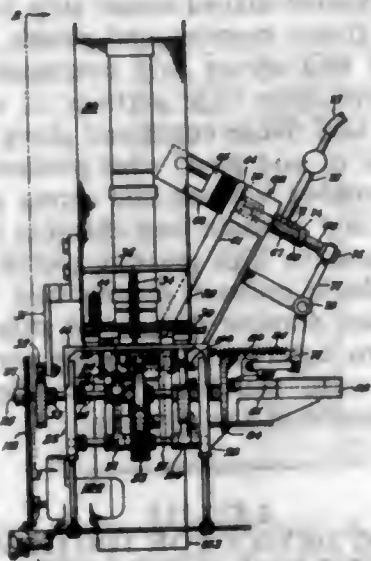
LABELING MACHINE

Nicholas John Miller, West St. Paul, Minn., assignor to Swift & Company, Chicago, Ill., a corporation of Illinois

Application November 30, 1956, Serial No. 625,309
8 Claims. (Cl. 216—55)

1. A machine for applying a band to a given dimension of a unit of a given size, said machine comprising

article supporting means, a band prefolding means defining an opening through which said dimension of said unit will pass with said prefolding means at said opening being immediately adjacent the sides of said unit, a band feeder to place a band over said supporting means, a unit feeder to deposit said unit over said bands, one

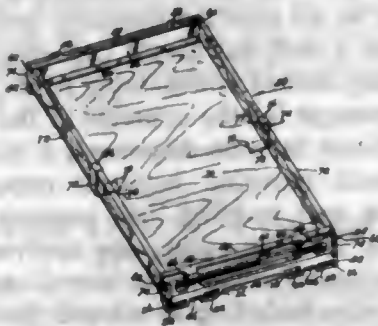


of said means being movable vertically with respect to the other of the means to draw said band at least partially about said unit, means adjacent the top of the unit to draw the ends of the band about the unit and to press the ends together, and means to remove the unit from the supporting means.

2,822,106

COLLAPSIBLE TRAY

Joseph M. Fabian and Adolph Pfitzer, Chicago, Ill.; said Pfitzer assignor to said Fabian
Application April 16, 1954, Serial No. 423,590
3 Claims. (Cl. 220-4)

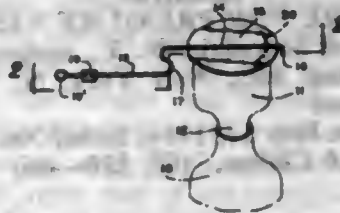


1. In a collapsible tray of the character described comprising side walls, front and rear end members each formed of top and bottom sections adapted to secure a tray panel therebetween, the bottom section having a supporting ledge provided with upstanding projections which engage the tray panel, said bottom section having a rib positioned outwardly of said ledge and two pairs of spaced legs, said bottom section having lateral extensions supporting the side walls of the tray said ledge having a plurality of openings, a top section having a flat bottom wall resting on said tray panel and on said rib and provided with a plurality of threaded openings in alignment with the openings in the bottom section, said top section having an undercut flange at the opposite ends thereof engaging the side walls of the tray, and a threaded bolt within each said aligned openings and secured to the threaded openings to detachably secure the sections together with the tray panel and side walls therebetween.

2,822,107

MILK STRAINER COVER

John J. Regan, Utica, N. Y.
Application August 23, 1954, Serial No. 451,486
3 Claims. (Cl. 220-24)

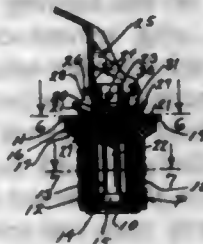


1. An article of the class described comprising a cover plate adapted to rest and close the open upper edge of a strainer, means for limiting the displacement of said cover plate in opposite directions on the strainer and handle means for raising and lowering the cover during the pouring operation into the strainer, said handle means including a slidable sleeve adapted to be grasped by the same hand holding the pail handle when pouring into the strainer whereby to raise and lower said handle means and cover plate as the pail is raised and lowered to and from the pouring operations, said handle means comprising a unitary rod having a horizontal portion secured across the top of said cover plate, said horizontal portion extending away from said cover plate and being formed with a substantially S-shaped bend extending downwardly therefrom and terminating in a second horizontal portion offset vertically from said first horizontal portion and extending away from said cover plate, said slidable sleeve being slidable along said second horizontal portion.

2,822,108

PLUG WITH ADJUSTABLE LOCK

Axel Moeller, Racine, Wis., assignor to Moeller Mfg. Co., Racine, Wis., a corporation of Wisconsin
Application September 28, 1956, Serial No. 612,845
4 Claims. (Cl. 220-24.5)



2. A plug comprising an elongated hollow compressible body, an inner compression plate engaging the inner end of the body, an outer compression plate engaging and holding the outer end of the body, a threaded stem secured to the inner compression plate and extending through the body, an elongated sleeve nut slidably and rotatably extending through the outer compression plate and into the body and threaded on the stem, a cam lever pivoted to the upper end of the sleeve nut for movement toward and away from the outer compression plate, said lever and sleeve nut being rotatable relative to the outer compression plate to initially adjust the position of the nut relative to the stem and to position the inner and outer compression plates toward and away from one another, and releasable means for holding the lever and the sleeve nut in a desired set position against accidental rotation including a lock plate slidable longitudinally of the sleeve nut and interposed between the outer compression plate and the lever, spring means normally urging the lock plate toward the outer compression plate, said outer compression plate having keeper recesses, said lock plate having a keeper tongue movable into and out of a keeper recess for normally holding the lock plate against rotation relative to the outer compression plate, and said lock plate being rotatable with the lever and the

sleeve nut when the lock plate is moved toward the lever away from the outer compression plate with the latch tongue out of a keeper recess.

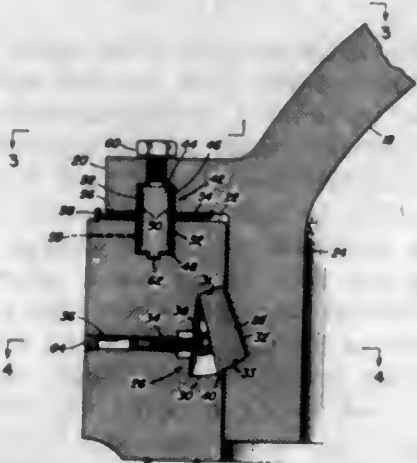
2,822,109

CLOSURE FOR PRESSURE VESSELS

Einar E. Tangard, Scarsdale, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application July 13, 1954, Serial No. 442,963

10 Claims. (Cl. 220-46)



1. A cylindrical vessel having an open end, a closure for said open end including a portion extending thereinto with its peripheral surface juxtaposed to the inner surface of said vessel, said juxtaposed surfaces provided with cooperating annular relieved portions having a locking ring means associated therewith with the annular relieved portion in the vessel being of sufficient size to receive the locking ring means wholly therewithin and the annular relieved portion in the peripheral surface of the closure being of sufficient size to receive the axially inner end of said ring means and with the axially outer surface of the relieved portion in the vessel and the axially inner surface of the relieved portion in the closure being opposed for reception of the locking ring means therebetween, said locking ring means comprising individual arcuate segments in side by side relation mounted within the annular relieved portion in the vessel for pivotal movement about their axially outer ends so that their axially inner ends move radially to and from a position where they are wholly within the relieved portion in the vessel and a position whereby they are interposed between the axially outer surface of the relieved portion in the vessel and the axially inner surface of the relieved portion in the closure, individual means connected to each segment for effecting the generally radial pivotal movement of their axially inner ends, and means for effecting a fluid tight seal between the closure and the vessel.

2,822,110

JOINT

Daniel D. Wile, Whittier, Calif., assignor to Refrigeration Engineering, Inc., Los Angeles, Calif., a corporation of California

Original application June 10, 1949, Serial No. 98,295, now Patent No. 2,680,599, dated June 8, 1954. Divided and this application July 22, 1952, Serial No. 300,267

3 Claims. (Cl. 220-80)



1. In a housing having panel walls and adapted to contain fluid under pressure, a moisture-proof joint, com-

prising: a rigid, elongated, outwardly facing, channel-shaped frame member including outwardly extending flanges along the opposite sides thereof, each flange of said frame member being overlapped by the respective edge portion of the adjacent panel with the free edges of said flanges abutting the inner faces of said panels adjacent to the respective edge portions thereof and along substantially the entire extent thereof; an elongated, inwardly facing, channel-shaped corner strip positioned outwardly of said frame member and panels, the opposite side portions of said corner strip overlapping and abutting the respective outer edge portions of said panels at points opposite said flange edges and along substantially the entire extent of said panel edge portions to define a pressure trap chamber between said corner strip and said frame member, said pressure trap chamber being thereby positioned between the high pressure within said housing and the atmospheric pressure outside said housing; and pressure tie means drawing said corner strip toward said frame member to tightly seal said edge portions of said panels therebetween, thereby retarding flow from the high pressure interior of said housing.

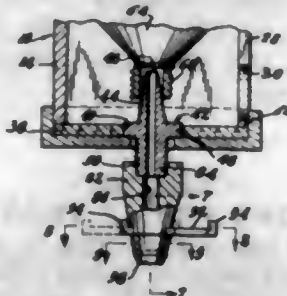
2,822,111

DISPENSING DEVICE FOR TOOTHPASTE OR THE LIKE SUBSTANCE

John Tripoli, Culver City, Calif.

Application March 1, 1956, Serial No. 568,786

2 Claims. (Cl. 222-100)

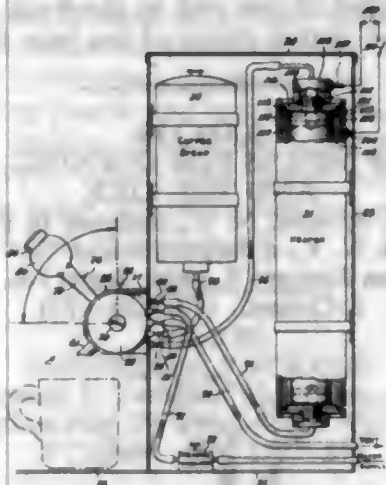


1. A dispensing device for the contents of a collapsible tube comprising a generally vertical casing formed open at its lower end and adapted for supporting a collapsible toothpaste tube in an inverted position, means to mount the casing upon a wall surface, a cap closing the lower end of the casing, means connectable to the neck of said tube having a passage for the contents of the tube through which said contents may be dispensed, a closure on said last-named means movable between opposite extreme positions closing and opening said passage respectively, means extending into the casing for applying a pressure to the tube tending to collapse the same, and means connectable to the tube including an adapter having an upper end portion engageable in the neck of the tube, said upper end portion of the adapter being externally threaded for forming threads in the inner surface of the tube neck, said upper end portion being tapered externally thereof for engagement thereof in tube necks of different internal diameters, the adapter additionally including a collar at the base of the tapered upper end portion, said cap having a center opening through which the adapter extends and said collar being supported upon the edge portion of said center opening, said adapter further including a depending lower end portion below the collar, said means connectable to the tube further including a cap member adapted for detachable connection to said depending end portion of the adapter, said closure being mounted upon said cap member, said closure comprising a slide mounted on the cap member and having an opening registering with said passage in one position to which the slide is shifted and moved out of registration with said passage in the opposite extreme position to which the slide is shifted.

2,822,112
APPARATUS FOR DISPENSING HEATED
BEVERAGE OR WATER

Hermann F. Bremer, Bronx, N. Y., assignor, by mesne assignments, to Carbon Heater Corporation, New York, N. Y., a corporation of New York

Application March 13, 1953, Serial No. 342,165
 8 Claims. (Cl. 222-129.1)

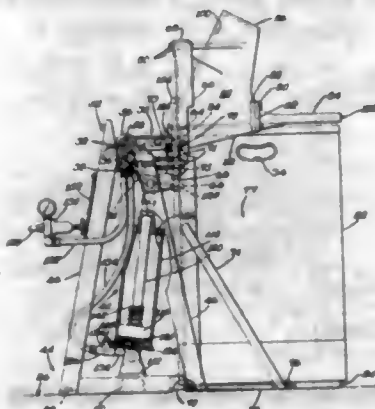


7. A beverage dispenser comprising in combination a source of hot water, a source of flavoring syrup and a valve connected to said source, said valve comprising a bed plate having a flat surface forming a smooth working face all parts of which lie substantially in the same plane, a movable valve plate having a smooth working face, said movable valve plate being adapted to rotate relative to said bed plate while the said working faces remain in substantially fluid-tight engagement, an operating lever secured to the movable valve plate for rotation thereof, a spout secured to the bed plate for delivery of a stream of hot water from said water source downwardly from a passage in said bed plate, a tube positioned within said spout and substantially coaxial therewith for discharge of flavoring syrup from said syrup source into a stream of water issuing from the spout, and ports and passages in the working faces of said plates whereby, at successive positions of the lever about its arc of rotation, hot water is discharged from the spout while discharge of flavoring syrup from said tube is prevented, no discharge occurs from either spout or tube, and hot water and flavoring syrup are simultaneously discharged respectively from the spout and from the tube.

2,822,113
CONTAINER LIFTING AND EMPTYING
APPARATUS

Edgar E. Joiner, Jr., Andover, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application October 16, 1956, Serial No. 616,222
 8 Claims. (Cl. 222-165)



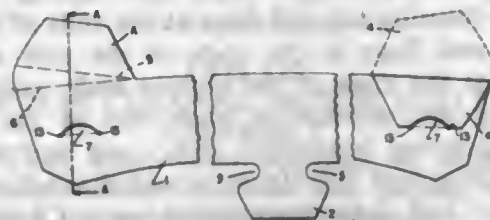
1. In a container lifting and emptying apparatus, a frame adapted to be fixed to a floor, a cradle fulcrumed upon the frame for movement between a loading and un-

loading position in which a container, which has open and closed ends respectively and which is arranged upright and is filled with articles, is ready to be loaded onto the cradle, and an emptying position in which the container is supported by the cradle on its side with its open end lowermost, said cradle comprising a platform which when the cradle is in its loading and unloading position is substantially engaged by the closed end of the container, a bin secured to the cradle and having an inner face, said cradle being adapted so to position the container during movement of said cradle to its emptying position that a rim of the open end of the container is contiguous with the inner face of the bin whereby to allow articles in the container to be moved smoothly by gravity into the bin, and means responsive to the emptying of the container on the cradle at its emptying position for causing the rim of the open end of the container to be moved a substantial distance away from the inner face of the bin to form, between said inner face of the bin and the rim of the open end of the container, a gap through which refuse left in the bin may be dumped when the cradle bearing the container is moved back to its loading and unloading position.

2,822,114
COLLAR SUPPORT

Augustus Y. Noojin, Jr., Lewistown, and Laurence A. Brittingham, Philadelphia, Pa., assignors to Cluett, Peabody & Company, Inc., Troy, N. Y., a corporation of New York

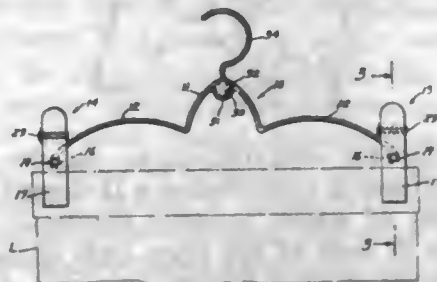
Application April 18, 1955, Serial No. 502,104
 4 Claims. (Cl. 223-83)



1. A support to be placed between the folded and unfolded portions of a collar to support the collar in its finished shape, said support being defined by a strip of flexible sheet material of a width approximately equal to the height of the collar and of a length approximately equal to the length of the collar, each end portion of said strip having a tongue extending from the upper edge thereof, each such tongue being foldable back over a face of the strip upon diverging fold lines that begin approximately at the junction of the upper edge of the strip with that edge of the tongue which is furthest from the adjacent end of the strip, and means carried by the portions of said strip which are beneath the free ends of said tongues for interengaging and confining the free ends of the tongues when the latter are folded over.

2,822,115
GARMENT HANGER

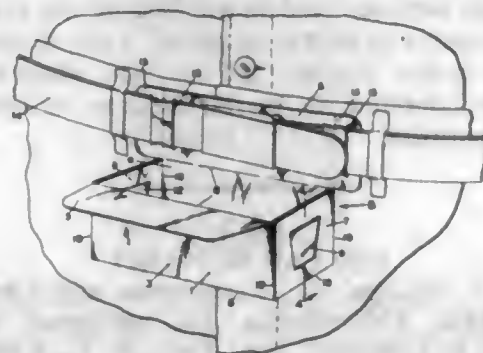
John J. Cavanagh, Levittown, N. Y.
 Application March 30, 1955, Serial No. 497,838
 4 Claims. (Cl. 223-96)



1. In a garment hanger, a normally expanded spring support adapted to be flexed inwardly and released for

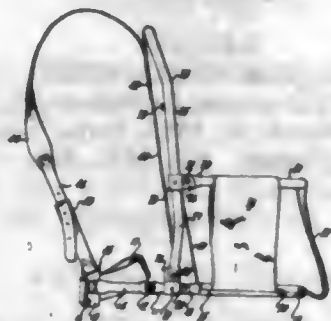
outward expansion, said support having two terminals at each end thereof, depending spring closed clamps arranged one at each end of said support, said clamps each including two clamping jaws pivotally connected together, and means located between the pivotal connection of said clamping jaws and the clamping ends thereof securing said terminals at the ends of said support to said clamping jaws respectively for independently connecting one of the clamping jaws of each clamp with one of the terminals.

2,822,116
COMBINATION BAIT BOX AND CARRIER
Edward W. Smalley, Centralia, and Fred Tereski, Galvin, Wash.
Application October 24, 1955, Serial No. 542,419
1 Claim. (Cl. 224—5)



A box formed from a single rectangular blank of material divided by longitudinal score lines into top flaps, side walls, and a bottom wall, and having transverse score lines forming top end flaps at the ends of one of the top flaps, end flaps at the ends of the side walls, and end walls at the ends of the bottom wall, said end flaps overlapping one another at each end of the box and having registering horizontal slots, said end walls each having a tab struck therefrom passed through said registering slots, and then downturned toward parallel relation with said flaps to secure said flaps and said end wall at each end of said box in abutment with one another, said top flaps overlapping one another and closing the top of the box, said one top flap overlying the other top flap, said top end flaps protectively overlapping the portions of said end walls from which said tabs project into said end flap slots, said one top flap and said top end flaps being provided with adjacent parallel slots for attaching the same to a belt.

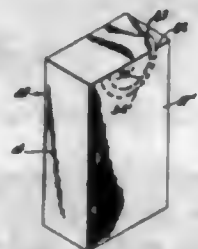
2,822,117
CARRIER
Richard G. Mack, Palo Alto, Calif.
Application May 31, 1955, Serial No. 511,859
8 Claims. (Cl. 224—8)



1. A carrier for carrying cargo on the back of a wearer comprising in combination a U-shaped base frame, the open ends of which partially surround the wearer, slotted plates at each of the open ends of said frame, a yielding member secured between the said slotted plates providing a bow back support for the wearer, a retaining member joined between the leg members of the U-shaped

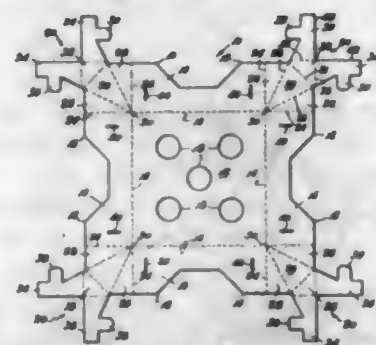
base frame rearwardly of said bow back support and adjacent thereto, a fabric covering for said base frame forming a seat or base, a back frame pivotally mounted on said base frame said mounting being restricted to movement to and from the operative position and folded position, a fabric member secured to said fabric seat, passing upwardly and over said back frame and secured to said retaining member, and a pair of adjustable shoulder straps secured at one end to the back fabric and at the other to the slotted plates of the base frame.

2,822,118
TEAR STRIP MEANS FOR OPENING CARTONS AND THE LIKE
Theodore Will, Syosset, N. Y., assignor to Fund-Del Inc., Syosset, N. Y., a corporation of New York
Application January 5, 1956, Serial No. 557,578
2 Claims. (Cl. 229—17)



1. A carton or the like formed of flexible fibrous or like sheet material having an enclosed tubular body with front, back, side, top and bottom panels integrally connected along fold lines, said body having a slot opening in said top panel, means at the top of the front panel for forming a pouring spout therein, said means including a pair of parallel weakened lines on the outer surface of said front panel extending in a semicircular path from a point at the top of said panel on one side of its longitudinal center downwardly, across and then upwardly to a point at the top of the panel on the other side of said center, and a flexible tape glued to the inner surface of said front panel between the weakened lines, one end of said tape being unattached and extending through the slot opening in the top panel and beyond said top panel, said unattached end of the tape serving as a projecting tab for tearing the material between the weakened lines and for tearing the tape off of the front panel thereby providing an opening therein and providing a hinged flap thereabove for impeding the pouring out of the contents of the carton.

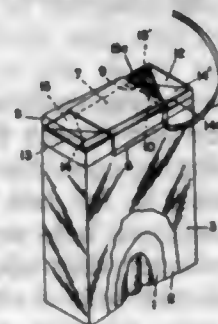
2,822,119
CONTAINER
Arthur W. Van Dyke, Elizabeth, N. J., assignor to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application February 12, 1954, Serial No. 409,865
3 Claims. (Cl. 229—31)



1. In a container, a bottom wall, side walls joined to said bottom wall and having slits formed therein adjacent the ends thereof, corner posts interconnecting said side walls and forming the corners of said container, each of said corner posts including triangular side

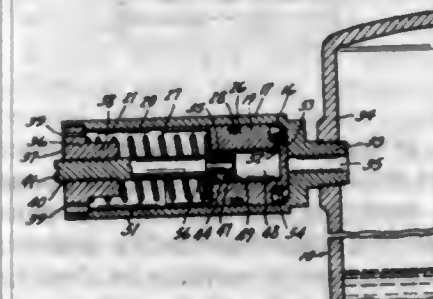
panels, said side panels being located in face-to-face relation with the inner surfaces of said side walls, a supporting panel having a triangular configuration and cooperating with said triangular side panels to define an inverted pyramid, the apex of said pyramid coinciding with the intersection of the bottom edges of side walls, and a top panel joined to each supporting panel and forming the top of the inverted pyramid, each of said top panels being formed in a right angle triangle, the hypotenuse of which is joined to said triangular supporting panel, extensions joined to the other sides of each of said top panels and having locking flaps formed thereon, said locking flaps being received by said slits in said side walls to lock said corner posts in position, said extensions being located in face-to-face relation with the outer surfaces of said side walls.

2,822,120
CIGARETTE PACKAGE
Bernard J. Tamarin, Flourtown, Pa.
Application July 29, 1954, Serial No. 446,554
4 Claims. (Cl. 229—51)



1. A package comprising an inner wrapper and an end sheath, said inner wrapper being bent to form an end closure including a tuck having a free inner edge extending across a major portion of the width of said package and flap sections partially overlying one another and said tuck, said flap sections being respectively hinged to said tuck adjacent to the opposite top edges of said package and having edges lying along said free inner edge, said flap sections being readily unfoldable from said tuck and from one another, and said sheath having a detachable top section bonded to the outermost of said flap sections and said outermost flap section being unfoldable along its hinged connection with said tuck by the removal of said detachable top section and the unfolding of said outermost flap section consecutively unfolding said tuck and other flap section, and said outermost flap section, tuck and other flap section being consecutively tearable by stress applied to said outermost flap section.

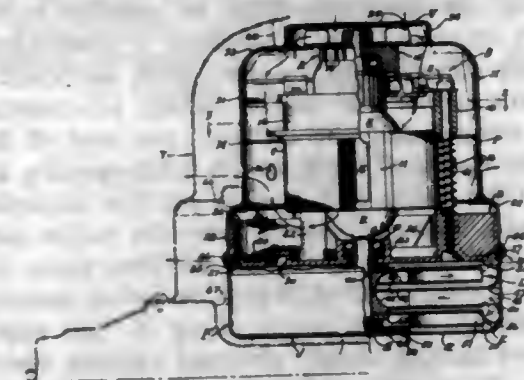
2,822,121
FLUID-PRESSURE-OPERATED FLUID INJECTOR
Harry J. Sadler and Ernest E. Cook, Minneapolis, Minn.
Application December 1, 1954, Serial No. 472,296
4 Claims. (Cl. 230—20)



1. A fluid pressure operated fluid injector adapted for connection to the supply tank of a water supply system, the pressure within said tank being variable between predetermined maximum and minimum values, comprising a casing adapted for connection to said supply

tank, a piston-acting member positioned within said casing for longitudinal movement in opposite directions responsive to variations of pressure within said supply tank and defining with said casing a primary expendable and contractible pressure chamber in communication with said supply tank, said member having a cylindrical bore longitudinally extending through one end thereof, a check valve equipped passage between the closed end of said bore and said primary chamber, said check valve allowing communication between said bore and said primary chamber only in the direction of the primary chamber, a plunger secured to said casing and positioned in coaxial relationship with said cylindrical bore for relative longitudinal movement in opposite directions therein and defining therewith a secondary expendable and contractible chamber, yielding means biasing said member in a direction tending to contract the primary chamber and expand the secondary chamber, a passage between said bore and atmosphere, and valve means normally allowing flow through said last-mentioned passage only in the direction of said bore, the relation of the cross sectional area of said bore and the surface area of said member over which the pressure within said supply tank is distributed being such that the distribution of a pressure greater than the minimum but not exceeding the maximum pressure within said supply tank is sufficient to contract the secondary chamber against the bias of said yielding means and the pressure within the secondary chamber to increase the pressure within the secondary chamber over the pressure in the primary chamber to operate the check valve between said bore and the primary chamber.

2,822,122
VACUUM CLEANER MOTOR AND FAN ASSEMBLY
James D. Cole, Kent, Ohio, assignor, by mesne assignments, to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application May 6, 1955, Serial No. 506,618
5 Claims. (Cl. 230—117)



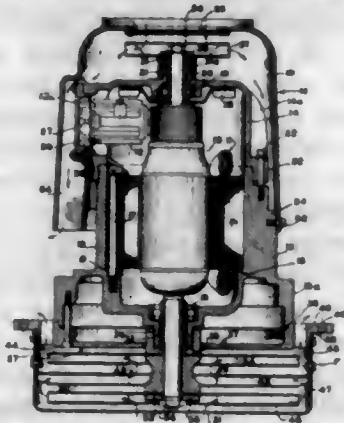
1. In a vacuum cleaner electric motor-suction fan unit including an armature, a field core, two motor frame end members on opposite core ends supporting the shaft of the armature, a first one of said members mounting motor brushes and the second member in diameter greater than the first mounting a suction-fan assembly having air flow space isolated from the motor space, and frame bolts exterior of the core engaging said members to clamp the same on the core in rotationally adjusted position, that improvement comprising: a motor ventilating fan mounted on the shaft outboard of said first member, a cup-shaped motor housing having open end fitted on the periphery of said second member and closed end apertured to provide cooling air inlet means to said fan, said housing having a series of circumferentially spaced cooling air outlet openings, said series being axially spaced down the core length away from said second member toward the first, an annular partition plate extending radially between said core and housing, said plate being engaged in rotational sense with said core and said bolts

and axially free of said bolts, and compression spring means on said bolts urging said plate away from the second member beyond said series into abutment with the first member to define a cooling air path axially inward between armature and field and in axially reversed sense outward exteriorly of the field.

2,822,123

ELECTRIC MOTOR FAN UNIT FOR HAZARDOUS LOCATIONS

James D. Cole, Kent, Ohio, assignor, by mesne assignments, to American Machine and Metals, Inc., New York, N. Y., a corporation of Delaware
Application May 16, 1955, Serial No. 508,441
6 Claims. (Cl. 230—117)



1. In an explosion-proof electric vacuum cleaner motor and fan assembly: a motor stator and a rotor therein having a shaft; a hollow motor casing for said stator and rotor having opposite end walls apertured to receive the ends of the shaft extending therethrough, the casing being otherwise closed to the atmosphere; fan means carried at one end of the rotor within the casing for inducing heat distributing air circulation internally of the casing; rotary seal means between each end of the shaft and the adjacent casing end wall for hindering flame propagation from the interior to exterior of the casing comprising a tubular extension integral with the corresponding end wall about the shaft receiving aperture thereof, and means carried by the shaft providing an annular recess about the shaft receiving said extension; a centrifugal motor ventilating fan carried by the shaft outboard of said seal means at one end of the casing; an external motor housing surrounding the last said one end of the casing having an end wall with an air inlet opening axially to the centrifugal fan and a skirt portion extending from its end wall over and spaced from the major part of the casing length providing cooling air flow space externally along the casing; said skirt portion being secured at circumferentially spaced points along its free edge to said casing and having axially directed exhaust openings external to the casing; said casing having external cooling fins in said air flow space; and a suction fan assembly including a centrally apertured disk member on the end of said casing opposite the said centrifugal fan with the shaft projecting therethrough and having adjacent its outer periphery a series of suction exhaust outlets opening along the side of the casing, a centrifugal suction fan on the projecting portion of the shaft, and a suction fan housing member mounted on the disk member.

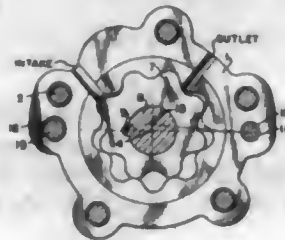
2,822,124

GEAR TYPE FLUID PUMP WITH ADJUSTABLE GEAR SETS

Ernst F. Klessig, Berkley, and Wynne R. Lilly, Dearborn, Mich., assignors to Allied Products Corporation, Detroit, Mich., a corporation of Michigan
Application February 7, 1956, Serial No. 567,704
2 Claims. (Cl. 230—141)

1. A fluid pump of the gear type which comprises a stator with parts including two flanged casings, bolts bolt-

ing the flanged casing members together, together with one or more intervening rings, the said casings having an intake and an exhaust, the said bolts having considerable clearance in the bolt holes, a ring gear fitting in one casing to turn, the said ring gear having internal teeth, a rotor and rotor shaft mounted in the other flanged casing and having external teeth to engage with the internal teeth of the ring gear, the ring gear and the stator being slightly eccentric to the axis of the shaft and the rotor, whereby when the rotor is rotated, the external and internal teeth will mesh and the ring gear will turn with the rotor, but the teeth and the gullets of the rotor and ring gear will fit together at one portion of the circle but will

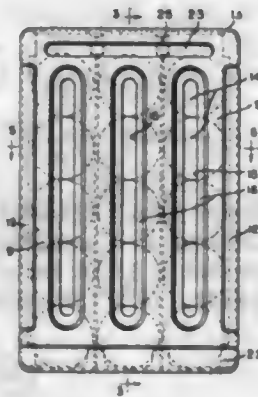


separate in a large part of the circle opening up to form a compression chamber and to suck fluid in through the intake, and then closing in upon the entrapped fluid to compress it and exhaust it, the two flanged stator elements including a dowel pin hole and a closely fitting dowel pin and at the diametrically opposite side a dowel pin hole and a dowel pin with a substantial clearance with respect to the hole, whereby when the bolts are loosened, the one casing element may be rotated with respect to the other accurately on the closely fitting dowel pin, and the other dowel pin and its clearance will permit this rotation to bring the gear teeth into substantial contact at the forward end of the pressure chamber.

2,822,125

POCKET SAVINGS BANK

George U. Tegner, Rockford, Ill., assignor to Wm. J. McSweeney, Inc., a corporation of Illinois
Application October 14, 1952, Serial No. 314,597
1 Claim. (Cl. 232—5)



A pocket savings bank for coins comprising: a flat resilient sheet metal housing having an opening across its top end for receiving the coins and a pair of opposed inwardly extending transverse rib-like detents near said top end of the housing; and a partition of sheet metal adapted to be slid into said housing through its open bottom end, said partition having ribs on both faces and a closure for said bottom end of the housing, and said ribs having locking notches near the top of said partition of a size to receive said detents in the housing to lock the partition within the housing.

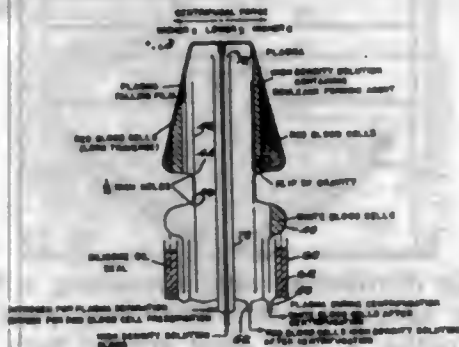
2,822,126

CONTINUOUS FEED CENTRIFUGE

Edwin J. Cohn, Cambridge, Mass.; Rebekah R. Cohn, Charles A. Coolidge, and Eustace Seligman, executors of said Edwin J. Cohn, deceased, assignors to Protein Foundation, Incorporated, Cambridge, Mass., a non-profit corporation of Massachusetts

Application April 12, 1952, Serial No. 281,988

17 Claims. (Cl. 233-1)



1. A centrifuge comprising a closed-top vessel having a bottom wall, a central opening in the bottom wall forming an outlet of restricted area, and side walls connected to said bottom wall and having conical portions converging towards the closed top of the vessel, stationary means extending upwardly through said opening to a point near the top of said vessel for feeding liquid into said vessel and discharging the liquid adjacent the central portion of the top wall thereof and means disposed below said vessel for collecting liquid discharged from said vessel through the restricted bottom outlet thereof, said vessel being adapted for rotation about a vertical axis.

2,822,127

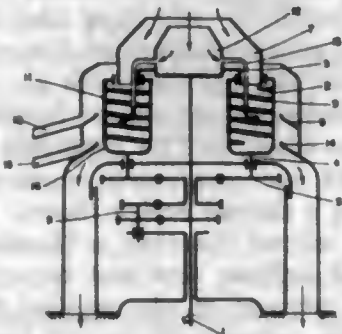
CONTINUOUS CENTRIFUGE

Richard Sinn, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

Application September 30, 1953, Serial No. 383,352

Claims priority, application Germany September 30, 1952

2 Claims. (Cl. 233-2)



1. A continuous centrifuge comprising a plurality of drums, means to rotate said drums rapidly about a main axis lying outside the drums, means to revolve each drum slowly about its own axis, each drum including a full-walled section having a liquid outlet at its free end and an adjoining sieve section having a solids outlet at its free end, distributing means associated with said drums and adapted to rotate about the main axis with the drums and also adapted to provide a feed inlet for each drum within the full-walled section thereof, and a laterally extending spiral track adjacent the inner wall of each said drum and terminating short of the axis of the drum but extending further toward the drum axis where the full-walled section adjoins the sieve section than in the remainder of the full-walled section, said track spiralling longitudinally of the drum so that solids travel thereon from the full-walled section to the sieve section and through the latter to the solids outlet.

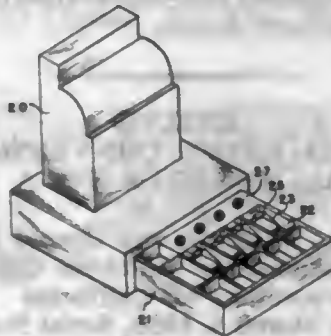
2,822,128

REGISTER INDICATOR

Alfred E. Previti, Brooklyn, N. Y.

Application May 10, 1954, Serial No. 428,483

10 Claims. (Cl. 235-23)



1. In combination, a cash register having a cash drawer, said drawer being divided into a plurality of currency receiving compartments and having a hold-down finger disposed in each of said compartments, an indicator associated with each of said hold-down fingers adapted to be moved from an initial to a first indicating position upon the lifting of said hold-down finger in order to indicate the deposit of currency within the compartment associated therewith, means for maintaining the indicator so moved latched in said indicating position upon the lowering of said hold-down finger, said means being operative upon the movement of such indicator to release any other indicator which may be latched in said first indicating position, means to latch said released other indicator in a second indicating position, said last named means being similarly operative upon the movement of such first mentioned indicator to release an additional indicator which may be latched in said second indicating position and to return said additional indicator to its initial position.

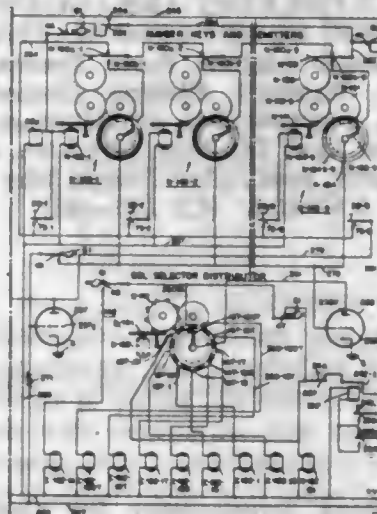
2,822,129

TYPEWRITER ACCUMULATOR

Eugen Buhler, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application November 30, 1954, Serial No. 472,046

11 Claims. (Cl. 235-59)



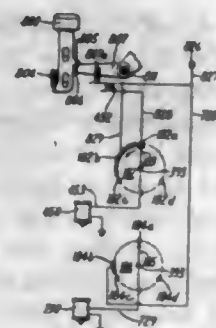
1. A unitary typewriter and accumulator combination having a constantly rotated power actuator; a letter spacing carriage; a set of digit type members; means for actuating said type members selectively; a plurality of denominational indicators; denominational drivers for said indicators engageable with said power actuator; means for engaging said drivers and said indicators for rotating said indicators additively in one direction; means for engaging said drivers and said indicators for rotating said indicators subtractively in an opposite direction; a plurality

of parallel connected digital control means operable by respective ones of said digit type member actuating means for engaging said denominational drivers with said power actuator for differential periods of time according to the digit values of said type member operating means; and means for switching said digital control means serially to said denominational drivers.

2,822,130

READOUT AND RADIX CONVERSION FROM A MECHANICAL REGISTER TO A CAPACITIVE STORAGE

George V. Nolde, Berkeley, and Harold T. Avery, Oakland, Calif., assignors to Marchant Calculators, Incorporated, a corporation of California
Application March 6, 1953, Serial No. 340,842
8 Claims. (Cl. 235-61)

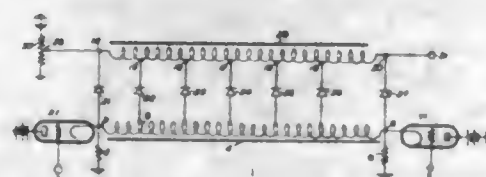


2. In a device of the class described, the combination of: a movable indicia-bearing member; a capacitive memory unit adapted to store electrical charges collectively representing respective ones of said indicia; a sensing locus; means fixed at said locus for sensing said indicia; first switch means for connecting said sensing means to the memory unit for storing, in the memory unit, charges representing a sensed indicium; clearance mechanism for moving said member to an index position; second switch means for energizing said clearance mechanism; an operating key; and switch control means operable in response to a single depression of said key for operating said first and second switch means serially.

2,822,131

IMPULSE MULTIPLYING ARRANGEMENTS FOR ELECTRIC COMPUTING MACHINES

Pierre Raoul Roger Algrain, Paris, France, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application April 28, 1954, Serial No. 426,172
Claims priority, application France May 13, 1953
6 Claims. (Cl. 235-61)

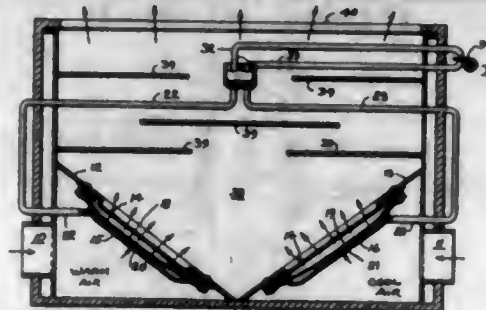


1. A multiplying arrangement for electronic computing machines characterized in this that the arrangement comprises delay line means having end terminals, means at the ends of said delay line means for respectively applying to said end terminals successions of impulses representing the binary equivalent of two numbers to be multiplied together having equally spaced impulse positions, a plurality of taps on said delay line means, there being a delay between every two taps equal to half the time between adjacent impulse positions, and gating means connected to each tap for producing an output therefrom only when two impulses appear simultaneously at said tap.

2,822,132

AIR TEMPERATURE AND VOLUME CONTROLS

John E. McDonald, Newton, and Raymond L. Carlson, Canton, Mass., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 28, 1954, Serial No. 458,920
4 Claims. (Cl. 236-13)



1. An air distributing unit comprising a first damper mechanism having a perforated front plate forming a warm air outlet, a back plate aligned with and spaced from said front plate, a flexible diaphragm secured at its edges to said back plate and spaced at its edges from said front plate, the spaces between said diaphragm edges and said front plate forming an air inlet for warm air to be dampered, said back plate being shaped to provide with said diaphragm a warm air chamber behind said diaphragm, said back plate having an opening therein for admitting warm air under pressure to force said diaphragm forwardly towards said front plate; means for supplying warm air under pressure to be dampered between said front plate and said diaphragm edges, and for supplying air under pressure into said opening; said back plate having a first orifice for permitting the escape of air chamber from said chamber, a second damper mechanism having a second perforated front plate forming a cool air outlet, a second back plate aligned with and spaced from said second front plate, a second flexible diaphragm secured at its edges to said second back plate and spaced at its edges from said second front plate, the spaces between said second diaphragm edges and said second front plate forming an air inlet for cool air to be dampered, said second back plate being shaped to provide with said cool diaphragm a second air chamber behind said second diaphragm, said second back plate having an opening therein for admitting cool air under pressure to force said second diaphragm towards said second front plate; means for supplying cool air under pressure to be dampered between said second front plate and said second diaphragm edges, and for supplying cool air under pressure into said last mentioned opening; said second back plate having a second orifice therein for the escape of air from said second chamber; a bleeder for bleeding the air from said orifices; first and second valve means for varying the volumes of air supplied from said first and second orifices respectively, to said bleeder; first and second air flow means connecting said first and second orifices respectively, and said first and second valve means respectively, in series to said bleeder; means for simultaneously adjusting said first and second valve means for increasing the volume of air supplied by one of said valve means to said bleeder and decreasing the volume of air supplied by the other of said valve means to said bleeder, and means for adjusting said bleeder for varying the volume of air bled therefrom.

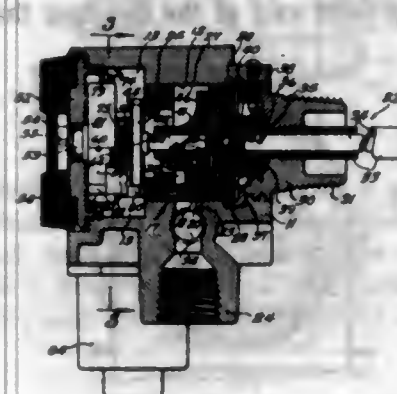
2,822,133

VALVE STRUCTURE

John H. Grayson, Monrovia, William A. Ray, North Hollywood, and Richard D. Grayson, La Canada, Calif., assignors to General Controls Co., Glendale, Calif., a corporation of California
Application March 22, 1954, Serial No. 417,842
20 Claims. (Cl. 236-21)

5. In a valve structure: a casing having a passage therethrough; an apertured closure member mounted for

rotation relative to said casing and so as to control flow through said passage; a rotatable member for operating said closure member and operatively connected thereto; a supplemental device for influencing flow through said passage; means for operating said supplemental device comprising an arm mounted on said operating member and projectable therefrom to a position wherein it is

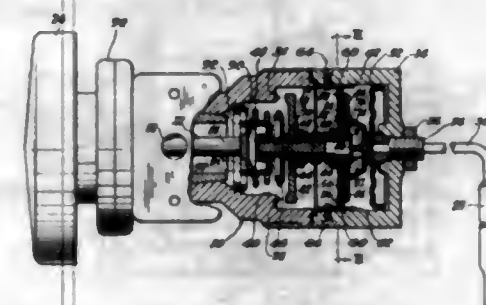


operatively engageable with the device when the operating member is rotated; means on the operating member movable to project said arm to said position; and means on the casing engageable by said arm-projecting means in the rotation of the operating member and arranged so as to effect movement of the arm-projecting means, and thereby projection of the arm, when the members are rotated to a predetermined position.

2,822,134

THERMOSTATIC REGULATOR

William S. Kuzler and Clarence W. Robertshaw, Greensburg, Pa., assignors to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application April 22, 1954, Serial No. 424,989
9 Claims. (Cl. 236-99)

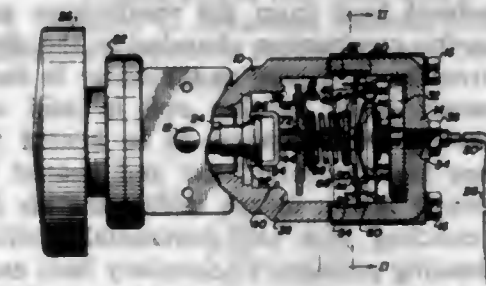


1. In a thermostatic regulator for fluid fuel burning appliances, the combination comprising a casing having inlet and outlet passages communicating with a valve chamber, a valve seat in said chamber, a valve member cooperable with said seat for controlling fuel flow between said passages, thermally responsive means including an element movable axially relative to said valve seat and said valve member, a plurality of rotatable lever arms in said chamber, each of said lever arms being pivoted on said casing and disposed substantially normal to the axis of said valve seat, normally unyieldable resilient means positioned between and directly engaging said valve member and said lever arms and being operable to impart movement to said valve member upon rotation of said lever arms, said resilient means being yieldable when said valve member engages said seat to thereby permit further rotation of said lever arms without a corresponding movement of said valve member, and means operatively connecting said movable element of said thermally responsive means to a medial portion of each of said lever arms for imparting rotation thereto.

2,822,135

THERMOSTATIC REGULATOR

Arnold A. Winslow, Greensburg, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application January 4, 1955, Serial No. 479,759
17 Claims. (Cl. 236-99)

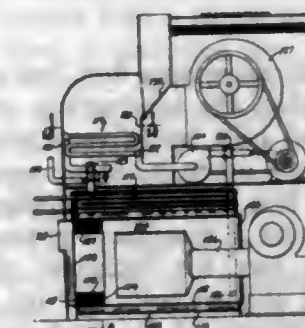


1. In a thermostatic regulator for fluid fuel burning appliances the combination comprising a casing having inlet and outlet passages communicating with a valve chamber, a valve seat in said chamber, a valve member movable between positions relative to said seat for controlling fuel flow between said passages, thermally responsive means including an element movable axially relative to said valve seat and said valve member, a plurality of lever arms in said chamber for multiplying movement of said movable element, each of said lever arms being pivoted on said casing, means operatively connecting each of said lever arms to said movable element, yieldable means operatively connecting said lever arms at one end to said valve member for transmitting said multiplied movement from said lever arms to said valve member, and means including said yieldable means for biasing said valve member to one of said controlling positions.

2,822,136

COMBINED HOT AIR FURNACE AND DOMESTIC WATER HEATER

David Dalin, New York, N. Y., assignor to A/B Svenska Maskinverken, Sodertalje, Sweden, a corporation of Sweden
Application December 11, 1952, Serial No. 325,383
2 Claims. (Cl. 237-17)



1. A combined hot air furnace and domestic water heater unit, comprising: walls including upright side and end walls defining a casing for the entire unit; a horizontal partition wall joining the side and end walls and dividing the casing into a combustion compartment and an air heating compartment, the latter being above the former; a primary heat exchange unit in the combustion compartment, said unit comprising an inner shell defining a combustion chamber, a heat source in said combustion chamber and means including an outer shell encircling the inner shell in spaced relation thereto and cooperating therewith to define an annular water space closed at its opposite ends and adapted to hold water, the top of the annular water space being directly below said horizontal partition; wall means mounted in the inner shell adjacent to one end thereof and in spaced relation to the wall of the inner shell to define a substantially annular exhaust gas passage through which combustion gases

leave the combustion chamber; wall means defining a discharge duct leading from said exhaust gas passage and passing through the adjacent upright wall of the casing, and through which the exhaust gases leave the furnace; extended surface rods on that portion of the inner wall of the shell which forms part of the exhaust gas passage, projecting into and substantially across the exhaust gas passage to abstract heat from the combustion gases as they flow from the combustion chamber to the discharge duct, and to transfer such heat to the water in the water space; a domestic water heating coil in said annular water space through which water to be heated for domestic purposes may be circulated and heated by the water in the water space; means within the air heating compartment coacting with said horizontal partition, to define an air heating passage; a secondary heat exchange unit in the air heating passage, comprising a coil through which water may flow, and extended surface rods projecting from the exterior of said coil with all of the rods substantially parallel to one another, said coil and the rods projecting therefrom being disposed transversely across the air heating passage with the rods substantially uniformly distributed across the entire cross section of the air heating passage; duct means connecting the opposite ends of said coil of the secondary heat exchange unit with the annular water space to provide therewith a closed circulatory system by which heat is indirectly transferred from the heat source in the combustion chamber to the secondary heat exchange unit; and a blower in the air heating compartment of the casing connected with the air heating passage for circulating air to be heated through said passage.

2,822,137
RAILWAY RAIL STRUCTURES
Levi O. Groseclose, Kirkwood, Mo., assignor of small percentages to various assignees
Application February 5, 1954, Serial No. 408,404
4 Claims. (Cl. 238—231)

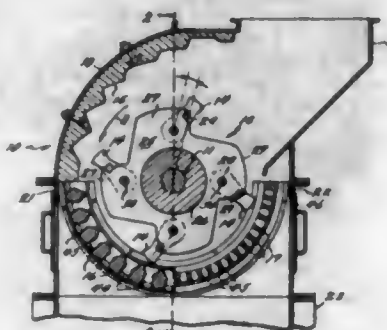


1. A railway joint comprising first and second rails in end to end relationship, the confronting end surfaces of said first and second rails being vertically oblique and complementary to each other, a tongue member provided on an end of said first rail and extending thereacross, said second rail having a transverse groove provided in its confronting end face for reception of said tongue member, two sets of aligned bolt-receiving openings provided in the end portions of the said rails, one set of aligned openings being axially normal to the other set of aligned openings.

2,822,138
IMPACT CRUSHERS
Paul C. Olive, Monte Carlo, Monaco, assignor to Preparation Industrielle des Combustibles, Fontainebleau, France
Application June 9, 1954, Serial No. 435,538
Claims priority, application France June 10, 1953
5 Claims. (Cl. 241—194)

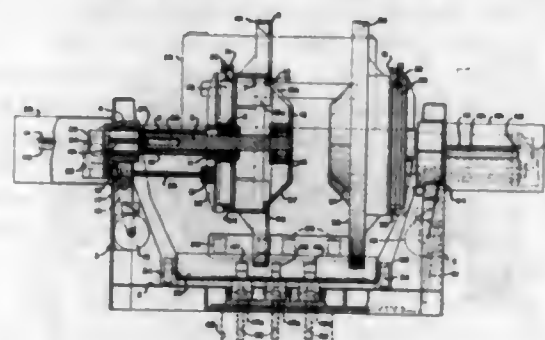
1. In an impact crusher, a housing, a rotor assembly mounted for rotation therein, said rotor assembly including a plurality of peripherally spaced abutments; a plurality of peripherally spaced pivotally and removably mounted impact hammers carried by said rotor assembly, each of said hammers being symmetrical with respect to its longitudinal axis and provided with stop means posi-

tioned to engage at least one of said abutments when the hammer is in working position and opposed impact faces on its free end portion so that when one impact face becomes worn the hammer may be removed and replaced on its pivotal axis to bring the other impact face into position to be used, said stop means on each hammer and the abutment engaged thereby, when the hammer is in working position, being so positioned relative to each other and the pivotal axis of the hammer that the radius



of the rotor assembly passing through the center of gravity of the hammer will be angularly displaced, in a direction opposite the direction of rotation of the rotor assembly, from the radius of the rotor assembly passing through the pivotal axis of the hammer, thereby creating a constant centrifugal torque holding the hammer in working position when the rotor assembly is rotating; means for rotating said rotor assembly; and means for feeding a stream of the product to be crushed into the path of movement of said impact hammers.

2,822,139
COIL HANDLING MECHANISM
Albert J. Sarka, Maple Heights, Ohio, assignor to Wean Equipment Corporation, Euclid, Ohio, a corporation of Ohio
Application June 25, 1956, Serial No. 593,619
20 Claims. (Cl. 242—79)

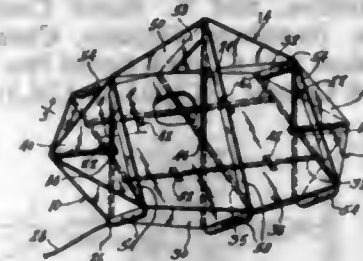


1. In coil handling mechanism, three coil saddles arranged in side-by-side relation so that a narrow coil may be supported by the middle saddle and a wide coil may be supported by the two outer saddles, means for raising the middle saddle alone to raise a narrow coil supported thereby and means for raising the two outer saddles to raise a wide coil supported thereby.

2,822,140
TAKE-APART KITE
Pedro Maria Rodriguez, New York, N. Y.
Application February 28, 1955, Serial No. 490,846
4 Claims. (Cl. 244—153)

1. A kite comprising an elevator panel lying in a first plane, a main stabilizer panel lying in a second plane intersecting the first plane, an auxiliary stabilizer panel lying in the second plane and spaced from the main stabilizer panel, and a plurality of flap assemblies extending about and interconnecting the several panels, the flap assemblies each including a plurality of relatively narrow, elongated flap elements and a cord element connecting said flap elements end to end, the flap assemblies

lying in parallel planes normal to both the first and second planes, the main stabilizer panel being disposed wholly below and the auxiliary stabilizer panel being disposed wholly above the plane of the elevator panel, the



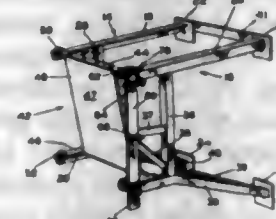
auxiliary stabilizer panel being spaced a substantial distance throughout its length from the elevator panel, the elevator panel including a plurality of crossing brace members, and a flexible panel member connected to the brace members and formed with pointed ends.

2,822,141
TIRE BEAD CONSTRUCTION
James J. Robson, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
Application April 13, 1955, Serial No. 501,153
3 Claims. (Cl. 245—1.5)



1. A pneumatic tire bead grommet comprising a plurality of layers of a single ribbon of rubber insulated wire having end portions, said ribbon being wound flat upon itself in several convolutions forming a bundle thereof, said ribbon having one end portion adjoining the first convolution of the ribbon extending from the radial inner surface of said grommet to and lapped over the radial outer surface thereof.

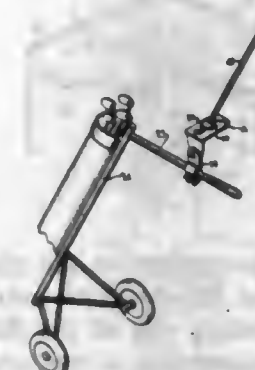
2,822,142
OUTBOARD MOTOR BRACKET
Richard G. Collins, Portland, Oreg.
Application March 30, 1954, Serial No. 419,737
3 Claims. (Cl. 248—4)



3. An outboard motor bracket comprising first and second elongated frame members adapted to be secured to a boat in horizontally spaced relation and to extend rearwardly therefrom, a transverse motor mounting member extended between the first and second frame members, a first bracket secured to the transverse member, pivot means mounting the first bracket on the first frame member, a second bracket spaced vertically from the first bracket and secured to the transverse member, an offset section on the second bracket, pivot means mounting the offset section on the first frame member, the pivot means for the first and second brackets having a common vertical axis, the transverse member extending in a plane obliquely with respect to said vertical pivot axis and with the bottom edge of the transverse member closer to the boat than its top edge when extending be-

tween said first and second frame members, and locking means for releasably securing the transverse member to the second frame member.

2,822,143
ADJUSTABLE BRACKET FOR SUPPORTING UMBRELLA OR THE LIKE
Mildred C. Johansen, Benicia, Calif.
Application September 20, 1954, Serial No. 456,988
1 Claim. (Cl. 248—41)

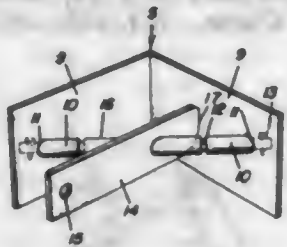


In an adjustable bracket unit for supporting an umbrella or similar object, the combination including a bracket body centrally deformed to define first and second perpendicularly disposed legs, a ring clamp assembly provided adjacent the outer end of said first leg for removably mounting said bracket unit to a primary support, said assembly including first and second clamping sections centrally deformed with complementary arcuate clamping surfaces, screw means for adjustably tightening and untightening said clamping surfaces relatively toward and away from a primary support positioned between said surfaces to be clamped thereby, and defining a first axis of rotation about which said unit can be rotated to adjusted position relative to said primary support, said ring clamp assembly offset from and pivotally secured to said first leg providing a second axis of rotation substantially perpendicularly disposed to said first axis of rotation about which said unit can be rotated unimpeded by said ring clamp assembly, a split ball clamp comprising a sphere formed with an aperture extending in the direction of its polar axis to slidably receive an article to be clamped, said split ball formed with a single slot through the body of the sphere along a meridian line thereof, a first ball receiving socket formed through said second leg proportioned to receive and engage the body of said sphere adjacent its equator to a first side of said equator, a clamping plate formed with a second ball receiving socket proportioned to receive and engage the body of said sphere adjacent its equator and to the second side of said equator, said slotted sphere formed of a resilient material normally biasing said second leg and clamping plate apart, said second leg terminating in a re-entrantly turned lip defining a channel recess removably and hingedly receiving a first end of said clamping plate, a single actuating screw means adjacent the second end of said clamping plate for forcefully moving said plate toward or away from said second leg to selectively vary the clamping pressure of said ball receiving sockets against the body of said sphere causing clamping and unclamping of said split ball relative to said article to permit said article to be slidably and adjustably positioned within said split ball.

2,822,144
CLAMP
Frank H. Jones, Sulphur Bluff, Tex.
Application July 27, 1953, Serial No. 370,349
1 Claim. (Cl. 248—361)

Means for anchoring a drilling machine to an angle iron leg of an oil well derrick comprising; a metallic angle

member mounted exteriorly on the leg and projecting beyond the edges thereof, aligned tubular bearings fixed diagonally on the inner sides of the projecting end portions of said angle member adjacent the edges of the leg, a shaft journaled in said bearings and terminating in apertured end portions projecting through and beyond the angle member, removable retaining pins in said end portions of



said shaft, a sleeve journaled on the shaft, a lever cam fixed diagonally at an intermediate point on the sleeve, said lever cam paralleling one of the flanges of the derrick leg and being engageable at one end with the other flange thereof at right angles thereto for frictionally clamping the angle member thereon, and means including a turnbuckle for connecting the other end of the lever cam to the machine.

2,822,145

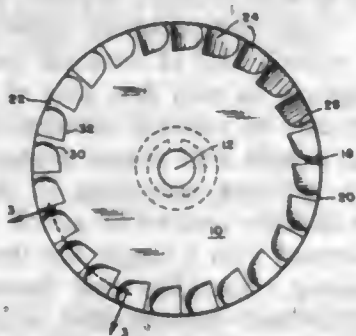
TURBINE ROTOR

William B. McLean, China Lake, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application April 29, 1954, Serial No. 426,609

1 Claim. (Cl. 253-39)

(Granted under Title 35, U. S. Code (1952), sec. 266)



A turbine rotor of the impulse type operable to be rotated about a central axis of rotation comprising a solid body having a cylindrical portion and having a circular end face perpendicular to said cylindrical portion as a right section thereof, a plurality of angularly spaced buckets formed in said end face adjacent the periphery thereof and each of said buckets comprising a substantially planar bottom surface angularly disposed to said end face and extending from a point within the confines of said body to said end face, said buckets having side walls substantially parallel to the axis of rotation of said cylindrical portion the intersection of said substantially planar bottom surface with said end face being defined by a straight radial line, the intersection of said side walls of each bucket with said end face consisting of an arcuate portion having a substantially constant radius of curvature at the area of greatest depth of said bottom surface and a straight portion tangent to said arcuate portion at the radially inward portion of said bucket and extending from said radially inward portion to the point at which said bottom surface meets said end face of said body, said arcuate portion extending to the surface of the cylindrical portion of said solid body and operable to reverse the direction of flow of fluid impinging thereon.

2,822,146

CABLE LASHING DEVICE

Frederick G. Ridgers, Hamilton, Ontario, and David A. Stevenson, Valois, Quebec, Canada, assignors, by mesne assignments, to Bell Telephone Company of Canada, Montreal, Quebec, and N. Slater Company Limited, joint tenants, Hamilton, Ontario, Canada

Application July 6, 1954, Serial No. 441,205

8 Claims. (Cl. 254-134.3)



1. In a device for lashing a cable to a messenger wire, an elongate frame having supporting means adjacent its opposite ends, means carried by one end of said frame for supplying a continuous length of lashing wire to the messenger wire and the cable to lash the same together, and a spring spirally wound around the messenger wire, the cable, and lashing wire, said spring attached under tension to longitudinally spaced portions of said frame.

2,822,147

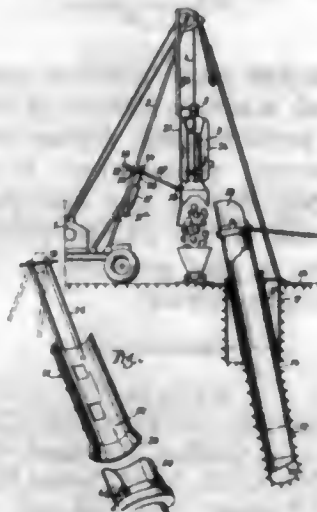
GUIDE DEVICE FOR BORING TOOLS

Pierre Jean-Marie Theodore Allard, Eaubonne, France

Application June 8, 1954, Serial No. 435,227

Claims priority, application France, June 15, 1953

10 Claims. (Cl. 255-1)



1. In a ground boring installation comprising a boring boom, a boring tool and hoisting means connecting the boring tool to the boom for the purpose of hoisting and lowering the boring tool, the combination of a boring tube held in position relative to the ground, a guide for the boring tool adapted to guide the latter along a portion of its descent and pivotably mounted relative to the boom and capable of being pivoted from a first position to a position beyond a second position in which latter position the boring tool guided by the guide is in alignment with the boring tube, a shifting device connected to the guide for pivoting the latter between said positions, a boring tool supporting and positioning member which is detachably connected to the upper end of the boring tube and is capable of entering into contact with and acting as an abutment for the side of the boring tool when the guide is pivoted toward said second position and the boring tool is lowered to such position relative to the guide as to extend below the guide a sufficient distance to contact the positioning member and is under the effect of the guidance of the guide, the position of the positioning member relative to the boring tube being such that when the boring tool abuts thereagainst, the bottom of the boring tool is correctly positioned relative to the boring tube and may be dropped into the latter.

2,822,148

ELECTRIC BORING APPARATUS

Robert W. Murray, Denver, Colo.

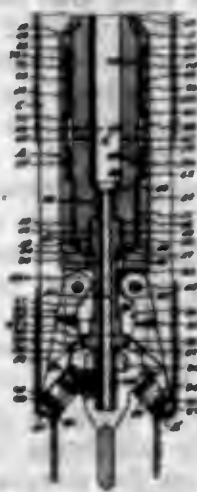
Application February 23, 1954, Serial No. 411,958
4 Claims. (Cl. 255—36)

1. Electric-arc boring apparatus adapted to bore a vertical shaft into rock, including, in combination, a body including a rotatable drill head at its bottom adapted to be lowered into the shaft, electrodes depending below the head, current means adapted to form an arc between the electrodes and shaft bottom with the electrodes close to the shaft bottom, means adapted to rotate the drill head and thereby sweep the arcs about the bottom of the shaft to act upon the rock therebelow, means for avulsing and scavenging rock particles from the shaft bottom and a hood over the electrodes to provide a vapor pocket at the electrodes with the electrodes arcing under water.

2,822,149

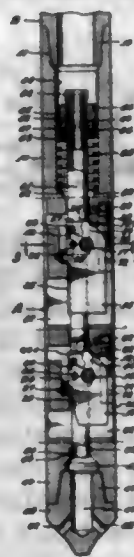
ROTARY EXPANSIBLE DRILL BITS

Archer W. Kammerer, Jr., Fullerton, Calif., assignor, by direct and mesne assignments, to Rotary Oil Tool Company, Huntington Park, Calif., a corporation of California

Application August 25, 1954, Serial No. 452,183
11 Claims. (Cl. 255—76)

1. In a rotary well drilling bit: a main body; cutter means pivotally mounted on said body for expansion laterally outward of said body; means for expanding and holding said cutter means laterally outward, said expanding and holding means comprising a mandrel connectible to a drill string and telescoped within said body for longitudinal movement with respect thereto and engageable with said cutter means on one side of its pivot axis to hold said cutter means laterally outward; and coengageable means on said mandrel and cutter means to exert a force on said cutter means in a direction on the opposite side of its pivot axis for retracting said cutter means from its expanded position upon upward movement of said mandrel within said body.

2,822,150

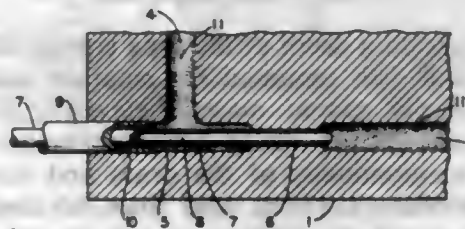
ROTARY EXPANSIBLE DRILL BITSJohn F. Muse, Whittier, and Bernard Kriegel, Los Angeles, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California
Application April 18, 1955, Serial No. 501,888
15 Claims. (Cl. 255—76)

1. In a rotary expansible drill bit for well bores: a main body connectible to a drill string; upper and lower sets of cutters pivotally mounted on said body and occupying initial retracted positions in said body; the upper set of cutters being substantially angularly displaced with respect to the lower set of cutters to the extent that the cutters of said upper set are substantially uniformly spaced circumferentially of said body from the cutters of said lower set; and means movable longitudinally within said body and operatively connected to said sets of cutters for substantially simultaneously expanding said sets of cutters outwardly.

2,822,151

CONNECTION FOR PLATE HEAT EXCHANGER

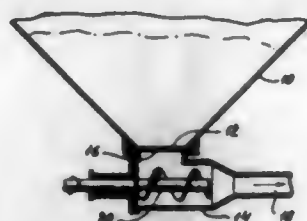
Charles A. Heuer and Richard F. Adams, Alton, Ill., assignors to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia

Application October 22, 1954, Serial No. 463,988
4 Claims. (Cl. 257—256)

1. In a sheet-like hollow article having passageways embraced within the confines of the body of the article, a combined inlet-outlet connection at an extension of said passageways to the periphery of said sheet wherein the connection is characterized by a divergent portion of said passageways directly joined in series with one end of said passageways and one end of said extension of which said divergent portion forms an initial part, said extension making a junction with the other end of said passageways whereby an inlet is provided at said extension by a tube inserted through said extension and divergent portion and into said first end of said passageways and whereby an outlet is provided by an outer tube spaced from said inner tube and inserted into said extension between the periphery of said sheet and the junction of said other end of the passageways with said extension.

2,822,152
APPARATUS FOR REMOVING BUTTER FROM THE
CONTAINERS OF COMBINED CHURNS AND
BUTTER-WORKERS

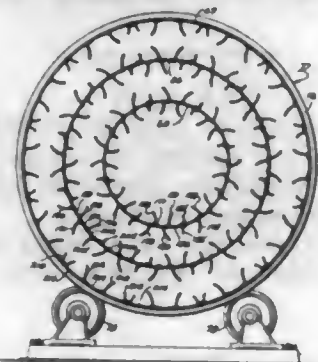
Peter Skjode Knudsen, Kolding, Denmark
 Application August 10, 1954, Serial No. 448,971
 Claims priority, application Denmark August 14, 1953
 10 Claims. (Cl. 259—30)



1. Apparatus for removing butter from a rotatable container of a combined churn and butter-worker, comprising a discharge opening in said container, said opening being eccentrically disposed in relation to the axis of rotation of said container so as to change position during rotation thereof and being positionable as a result of said rotation at the lower portion of said container, a housing connected with said container to confine said discharge opening on the discharge side of said container, said housing being disposed in a position to receive butter brought to said opening by gravity and having an inlet and an outlet, said inlet communicating with said discharge opening, and rotatable profiled removing means lodged in said housing, said means being adapted to mechanically and positively remove butter through said opening and convey it to said outlet.

2,822,153
AGRICULTURAL DEHYDRATING SYSTEM

Gerald D. Arnold, Wauwatosa, Wis.
 Application January 2, 1953, Serial No. 329,255
 10 Claims. (Cl. 259—89)



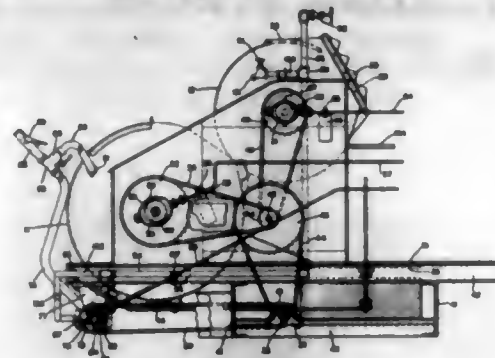
1. A dehydrating drum of the type comprising a generally cylindrical wall mounted for rotation and provided with peripherally spaced material-elevating flights, said drum wall comprising many drum segments connected upon lines longitudinally of the drum and having single thickness portions between said lines of connection to constitute the wall of said drum, a number of which segments each comprise integrally a portion of the wall and at least one of said flights.

2,822,154
GROUTING MACHINE

Harold F. Zagray, Canton, and Floyd W. Wack, Louisville, Ohio, assignors to Precision Building System, Inc., Canton, Ohio, a corporation of Ohio
 Application December 1, 1954, Serial No. 472,408
 13 Claims. (Cl. 259—152)

1. A grouting machine comprising a final mixing tank, agitating means therein, an initial mixing tank, agitating means in the initial mixing tank, means pivotally mounting the initial mixing tank above the final mixing tank, there being a discharge outlet in the upper portion of the initial mixing tank, means for tilting the initial mixing

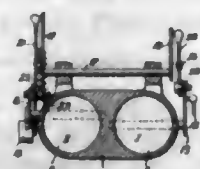
tank to discharge the contents thereof through said outlet into the final mixing tank, means for tilting the initial mixing tank away from the final mixing tank to discharge the contents thereof, a pump having an inlet and an out-



let, means connecting the final mixing tank to the pump inlet, a flexible hose connected to the pump outlet, a prime mover and means for independently operatively connecting the prime mover to the pump and to each of said agitating means.

2,822,155
REGISTER CARBURETOR FOR INTERNAL
COMBUSTION ENGINES

Karl Röder, Stuttgart-Bad Cannstatt, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
 Application January 31, 1956, Serial No. 562,567
 Claims priority, application Germany February 10, 1955
 1 Claim. (Cl. 261—23)

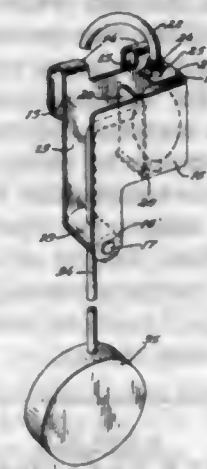


Register carburetor for internal combustion engines comprising a housing having a main conduit and an auxiliary conduit parallel thereto, a main throttle valve therein including a shaft extending through the wall of said main conduit in a plane including the axes of said conduits, a main valve arm fixed to said shaft and movable through a primary range of movement coordinated to a partially open condition of said main throttle valve and movable through an adjoining secondary range of movement coordinated to the fully open condition of said main throttle valve, an auxiliary throttle valve therein including a shaft parallel to said plane extending through the wall of said auxiliary conduit, an auxiliary valve arm fixed to said last-mentioned shaft, a third shaft extending parallel to said plane across said conduits and having a pair of arms, rods connecting said last-mentioned arms with said valve arms, each of the latter being slidable with respect to the associated rod, abutments on said rods adapted to engage said valve arms, said main valve arm being so disposed as to engage said abutment on the associated rod in said secondary range of movement only, and a spring connected with said third shaft and tending to urge said abutment associated with said auxiliary arm into contact therewith thereby tending to keep said auxiliary arm in the position in which said auxiliary throttle valve is closed as long as said main valve arm remains in said primary range.

2,822,156
MINNOW PAIL AERIFIER
 Herbert C. Horton, St. Paul, Minn.
 Application February 16, 1955, Serial No. 488,562
 1 Claim. (Cl. 261—121)

An aerator for automatically supplying air to the water in a container by the motion of the container comprising

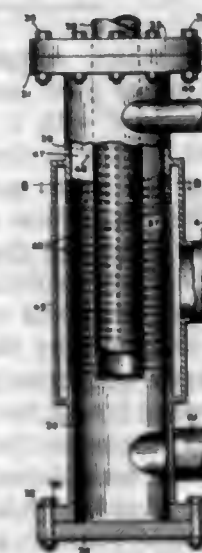
a framework formed of parallel side pieces, a pair of spacing means between said side pieces, attaching means for fastening said framework to the top side rim of a container, rotatable sleeve means on one of said spacer means, a flexible air pumping bulb mounted in said framework, an air outlet conduit attached to said bulb, a pivotal plate mounted on another of said spacer means



adjacent said bulb, a rocking arm mounted on said rotatable sleeve and operable to force said pivotal plate against said bulb to thereby contract the bulb forcing air through said air outlet conduit, and pendulum means depending from said rotatable sleeve to rock said rocking arm against and away from said pivotal plate to produce the pumping action of said flexible air pumping bulb.

2,822,157
PROCESS AND APPARATUS FOR TREATING
LIQUIDS

John L. Porter, Baton Rouge, La., assignor to Kaiser Aluminum & Chemical Corporation, Oakland, Calif., a corporation of Delaware
 Application July 22, 1954, Serial No. 445,035
 12 Claims. (Cl. 261—124)

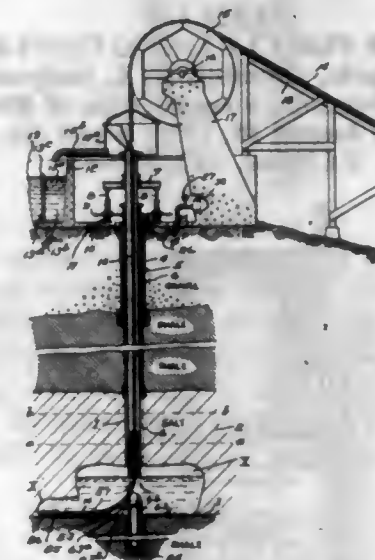


7. A process of continuously heating a liquid by condensing steam therein comprising feeding said liquid tangentially to one end of a confined elongated heating zone to rapidly rotate said liquid about the axis thereof, injecting steam into said zone from the periphery thereof as a plurality of gaseous streams, simultaneously injecting steam into said liquid as a plurality of gaseous streams discharging within said zone and discharging said liquid from said zone at the other end thereof.

2,822,158
METHOD OF FLUID MINING
 Willard C. Brinton, New York, N. Y.
 Application March 5, 1949, Serial No. 79,856
 13 Claims. (Cl. 262—3)

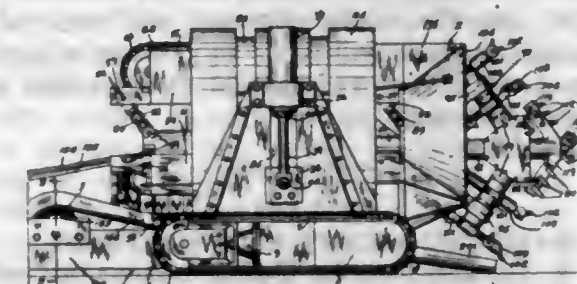
1. In the art of removing material from deposits thereof below the surface of the earth, which material is

capable of being removed by and carried in a liquid vehicle, the method which consists in drilling a well into the deposit, passing therethrough a pipe which is relatively non-flexible in one plane but is relatively freely bendable in a plane at right angles thereto, the end of said pipe being advanced until its bottom contacts an abutment and is thereby deflected, causing the pipe to bend in the direction of its lesser bending resistance, passing a liquid therethrough, withdrawing the same laden with material



from said deposit, and then continuing to advance the end of said pipe laterally of the well axis as said material is removed, utilizing the relatively nonflexible characteristic of the pipe in the plane at right angles to the direction of bend of the pipe to maintain the direction of advance of the pipe laterally of the well axis the diameters of said well and pipe being so related in size that the walls of the well hold the pipe from bending beyond its elastic limit while passing through the well.

2,822,159
SHAFT OR TUNNEL BORING APPARATUS
 Joseph F. Joy, Franklin, Pa., assignor to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania
 Application June 30, 1952, Serial No. 296,324
 38 Claims. (Cl. 262—7)



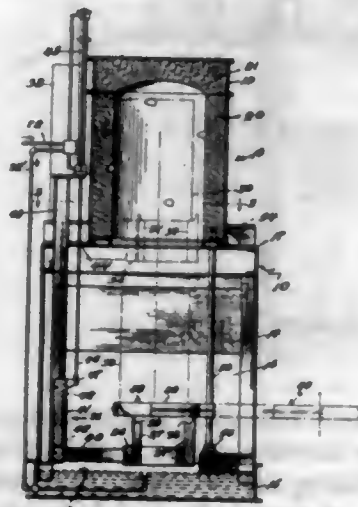
1. In combination, a body, a mining mechanism carried by said body for removing material from an earth formation, and means for feeding said mining mechanism toward the work as mining progresses comprising endless crawler tread devices by which said body is supported and movable outwardly relative to said body into engagement with the walls of an opening in the earth formation in which said body is received and moves, and means responsive to the reaction forces set up by the mining mechanism during the mining operation for automatically variably urging said tread devices outwardly relative to said body into firm contact with the walls of the opening as said mining mechanism is fed forwardly.

33. A launching carriage for a unitary mining mechanism of the kind adapted to form a bore in the earth formation and comprising a mobile base, guiding means carried by said base for receiving said unitary mining mechanism for transporting the latter from place to place

about the mine and for guiding said mining mechanism during launching thereof from said guiding means, and mechanism for adjustably mounting said guiding means on said base to vary the position thereof with respect thereto to enable launching of said mining mechanism in different directions with respect to said base, said mining mechanism movable from said guiding means into the bore in the earth formation.

2,822,160

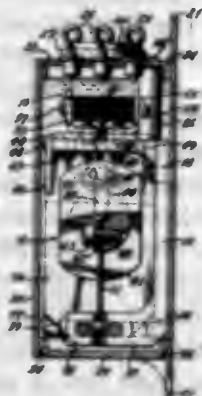
FURNACE FOR CLEANING CONTAINERS
Beverly K. Walpole, Cranston, R. I., assignor to National Furnace Corporation, a corporation of Rhode Island
Application August 16, 1954, Serial No. 450,183
2 Claims. (Cl. 263—5)



1. A furnace for burning out the residue contents of a metal barrel and the like container having an open end and a closed end comprising an elevated vertically disposed chamber adapted to receive therein a barrel in the inverted position with its closed end up and its open end down, a means for projecting heat against the outside of said barrel and located radially outwardly of the barrel, an elevator for raising and lowering said barrel in the inverted position into and out of said burner, a first conveyor for moving a barrel over said elevator, a second conveyor for removing a barrel from said elevator, means for automatically operating said elevator, and conveyors in sequence, whereby the barrel will be lowered from said burner onto the second conveyor and removed and the first said conveyor will move to position a barrel at a location to be transferred to said elevator and raised thereby into said burner.

2,822,161

DAMPING MEANS AND METHODS
William A. Tikanen, Reseda, Calif., assignor to Genisco, Inc., Los Angeles, Calif., a corporation
Application November 2, 1953, Serial No. 389,706
7 Claims. (Cl. 264—1)

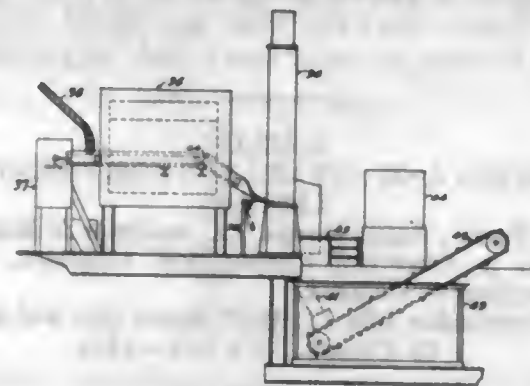


2. In a condition-responsive device having a sensitive means mounted for movement in response to change of condition, the combination therewith of means to damp

the movements thereof, said means including: at least one wall carried by said sensitive means for movement therewith, said wall being oriented with the direction of movement; a body of liquid submerging at least a portion of the surface of said wall; a second wall fixed separate from said member, said second wall being positioned closely adjacent said first wall to form said liquid into a film between the two walls for opposing movement of the first wall by the resistance in shear of the film, one of said two walls being mounted by one of its ends with freedom for movement of its other end and being of temperature-sensitive construction to flex towards the other wall in response to rising temperature thereby to narrow said space to compensate for change in viscosity of said liquid; stop means for contact by the free end of said one wall to limit flexure of said one wall towards said other wall; and temperature-responsive means to oppose outward bowing of said one wall when flexure thereof is opposed by said stop means.

2,822,162

METAL ARTICLE TREATING APPARATUS
Ernest K. Bastress, Toledo, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application May 5, 1952, Serial No. 286,150
15 Claims. (Cl. 266—4)



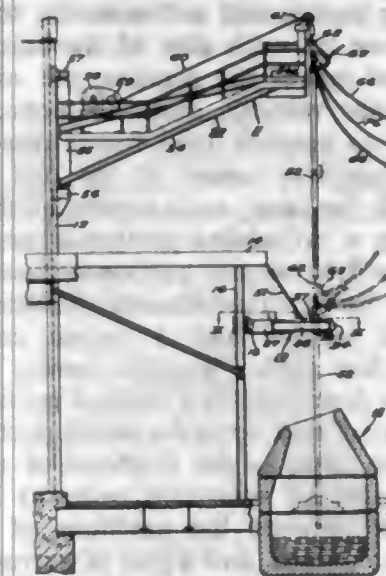
1. The combination which comprises a furnace for heating metal articles to be press quenched, the articles each having a first surface with a given configuration and a second surface having a configuration differing from the first, a press for press quenching the articles after heating in the furnace, a first article engaging element on said press for engaging the first surface of an article and generally conforming thereto, a second article engaging element on said press and movable with respect to said first element for engaging the second surface of the article and generally conforming thereto, an intermittently operated furnace loader for loading articles into the furnace, a furnace conveyor for conveying articles through the furnace and maintaining the orientation of the articles as introduced into the furnace, means transferring articles from said furnace conveyor to a press loader station with a fixed orientation with respect to the orientation in said furnace conveyor, an intermittently operated press loader for loading work onto the press in position to be press quenched with a fixed orientation with respect to that in said transfer means to engage said first article engaging element with said first surface and said second article engaging element with said second surface, discharge mechanism for discharging articles from the press, ram means in said press for applying pressure to said elements and an article engaged thereby, quench fluid supply means for supplying quench fluid to the articles while under pressure from the ram means, and control means for automatically and cyclicly operating with predetermined timing and in predetermined sequence, first, the furnace loader to advance articles into and through the furnace and individually onto the press loader, second, the press loader to individually load articles onto the press to be press quenched, third, the ram

means and the quench fluid supply means to individually quench the articles under pressure, and fourth, the discharge mechanism to discharge the articles from the press, said furnace loader, furnace conveyor, press loader, ram means, quench fluid supply means and discharge mechanism thus mutually cooperating to process a series of uniformly heat treated press quenched articles.

9. In a quench press for quenching heated articles, in combination, a frame comprising a base whereon an article is placed for press quenching, a cross head, a hydraulic cylinder on the frame for moving the cross head toward and away from the base, an axially movable rod carried on said cross head into and out of engagement with an article placed on said base for press quenching, the rod moving relative to the cross head when the rod engages an article to be press quenched, first means responsive to relative movement of the cross head and the base, second means responsive to relative movement of the rod and the cross head, and control means for reversing the direction of motion of the cross head when upon moving the cross head toward the base the second responsive means is actuated before the first responsive means is actuated.

2,822,163

CHARGING APPARATUS
Harry L. McFeaters, New Castle, Pa., assignor to Pennsylvania Engineering Corporation, New Castle, Pa., a corporation of Pennsylvania
Application May 11, 1955, Serial No. 507,631
10 Claims. (Cl. 266—34)



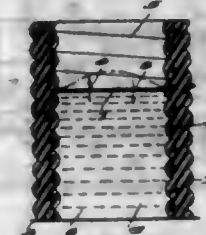
1. Apparatus for clamping an elongated article in a predetermined vertical position including converging support members adapted to pivot about their diverged ends, a connecting member for adjacent ends of the support members, cooperating clamping fingers to receive said article therebetween and being pivotally mounted on the connecting member, a link connecting the fingers whereby pivoting one finger pivots the other in an opposite direction, means carried by one of the support members to pivot one of the fingers, and means responsive to a predetermined vertical position of the article between the fingers to actuate said finger pivoting means.

2,822,164

FLUID MOVEMENT SHOCK ABSORBERS WITH SPRINGS OF RUBBER-METAL
Antonio Bosch, Milan, Italy, assignor to Società Applicazioni Gomma Antivibranti S. A. G. A. Società per Azioni, Milan, Italy
Application October 15, 1954, Serial No. 462,464
Claims priority, application Italy February 10, 1954
2 Claims. (Cl. 267—8)

2. A shock absorber comprising a spring element having a body of resilient material having a length diminished

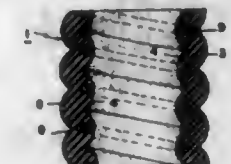
by related pressure between its opposite ends, said body having internal wall means extending along its length defining an internal space for damping fluid, and a flexible partition dividing the space into two chambers for said fluid, one of said chambers being substantially filled with said fluid, said partition having means thereon for permitting fluid flow between said two chambers, said damping fluid being a substantially incompressible liquid,



said internal space being substantially cylindrical, said partition being a substantially circular rubber disc conforming to the cross-section of the internal space, said means for permitting fluid flow comprising a pair of oppositely-acting one-way valves, and said disc being distorted during compression of the spring element to expose its concave side to the chamber substantially filled with fluid.

2,822,165
SPRINGS

Antonio Bosch, Milan, Italy, assignor to Società Applicazioni Gomma Antivibranti S. A. G. A. Società per Azioni, Milan, Italy
Application December 1, 1953, Serial No. 395,571
Claims priority, application Italy December 11, 1952
3 Claims. (Cl. 267—33)



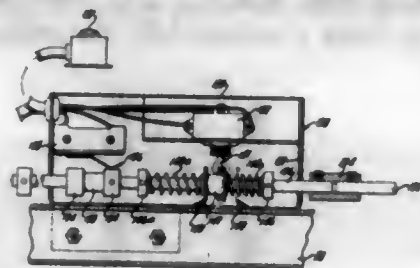
1. A spring comprising a unitary rubber body of generally cylindrical form, the inner and outer surfaces of said body each comprising adjacent outwardly bulged rib-like portions, each rib-like portion having an outer face which in cross section is substantially an arc of a circle and the arcs of the successive ribs meeting in vertices, the rib-like portions of one of said surfaces being staggered axially of the body with respect to the rib-like portions of the other surface in such manner that the edges of the rib-like portions of one surface lie opposite the medial portions of the rib-like portions of the other surface, said body being of such thickness as to provide between the inner and outer apices an intermediate cylindrical mass of rubber of substantial thickness which mass is progressively stressed in compression under increasing axial load on the spring, said rib-like portions constituting masses of rubber whose convex surfaces are brought into progressively increasing contact with each other from said apices as said intermediate cylindrical mass is so progressively stressed in compression, whereby the stiffness of the spring is progressively increased as the axial load increases.

2,822,166

MECHANICAL DOOR OPENING MECHANISM FOR GARAGES
Charles C. Herbert, Watsonville, Calif.
Application May 10, 1954, Serial No. 428,505
3 Claims. (Cl. 268—59)

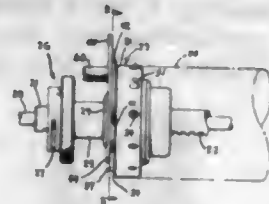
1. In a mechanical door opening mechanism for garages, a main frame comprising a vertically disposed plate having means for attachment to an overhead beam structure over the door opening of the garage, said main

frame also including tubular support means projecting horizontally from said plate and connected thereto to be supported thereon, a tube received in said tubular support means, means for clamping said tube in said means, said tube projecting horizontally and rearwardly from the door opening, a motor mounted on said main frame, a



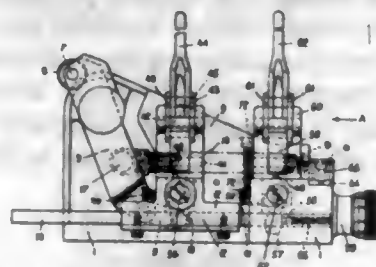
traveler mounted on said tube, a chain having one stretch extending through a portion of said tube and its other stretch extending therebeneath, said chain being connected to said traveler, means for driving said chain from said motor, and means extending from said traveler for connection to the door.

2,822,167
STRIP FEEDING DEVICE
Albert W. Metzner, Dayton, Ohio, assignor to The Standard Register Company, Dayton, Ohio, a corporation of Ohio
Application May 12, 1955, Serial No. 507,845
14 Claims. (Cl. 271—2.3)



1. In strip feeding apparatus, a rotary pin wheel body, radially extensible and retractable feeding pins carried by said body, a radially deformable circular guide for said feeding pins supported in relatively stationary relation to said body, means for expanding said guide in a limited circumferential area for relative extension of the feeding pins in that area, and means for increasing the length of circumferential area of expansion of said guide for lengthening of the circumferential area of projection of said pins.

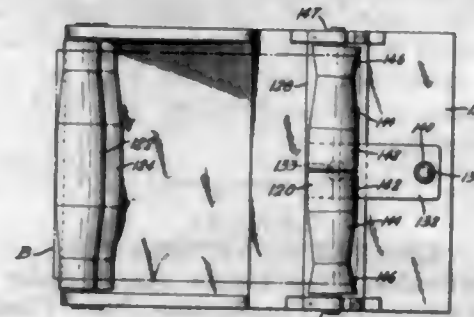
2,822,168
FEEDING DEVICES FOR PRESSING AND OTHER MACHINES
George Frederick Clark, West Drayton, England
Application March 24, 1954, Serial No. 418,426
5 Claims. (Cl. 271—2.5)



1. A feeding device for a machine tool comprising a base, an upstanding part at one end thereof, a spring loaded lever pivotally mounted on said part, means on the lever whereby it may be oscillated by a machine tool engaging said means, a reciprocable carrier slidably mounted at one side of the base, a feeding blade on said carrier, a link connecting the lever to the feeding blade, and a manually operable member mounted on the carrier for

movement toward and from the feeding blade, a rockable spring loaded blade at the other end of the base, and a manually operable member movable toward and from the rockable blade, the feeding blade being connected to a crank member, a link connecting the crank member and spring loaded lever, the crank member being eccentrically mounted in a sleeve, and the sleeve rotatably mounted in the carrier, means being provided to maintain the sleeve in various positions.

2,822,169
APPARATUS FOR CONTINUOUSLY CENTERING A MOVING STRIP
Edwin T. Lorig, Pittsburgh, Pa., assignor to United States Steel Corporation, a corporation of New Jersey
Application February 1, 1955, Serial No. 485,562
5 Claims. (Cl. 271—2.6)

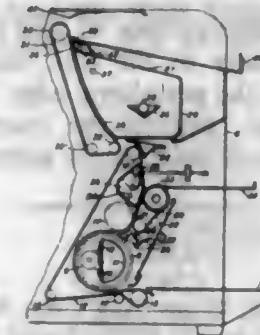


5. Apparatus for automatically centering a moving endless strip comprising a self-centering roll around which the strip passes, said self-centering roll having two roll sections one on each side of the transverse center of the roll and means for rotating the roll sections at the same angular velocity, said roll sections being constructed so as to provide axial forces directed inwardly toward the transverse center of the roll at the points of contact with the strip, each section of the self-centering roll having a cylindrical portion adjacent the transverse center, a first conical portion adjacent said cylindrical portion having a decreasing diameter away from the cylindrical portion and a second conical portion adjacent said first conical portion having an increasing diameter away from said first conical portion, the maximum diameter of said second conical portion being approximately the same as the diameter of the cylindrical portion, the width of said strip being at least as great as the distance between the junctions of the first and second conical portions, and a pair of narrow-bodied rolls one on each side of said self-centering roll arranged with their axes substantially parallel to the self-centering roll and around which the strip passes, each of said rolls having a substantially cylindrical strip supporting surface of less width than the width of the strip.

2,822,170
SEPARATOR AND CONVEYOR MEANS FOR LIGHT PRINTING MACHINES
Frederick H. Frantz, Binghamton, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
Original application September 4, 1951, Serial No. 244,924. Divided and this application October 2, 1953, Serial No. 383,905
1 Claim. (Cl. 271—64)

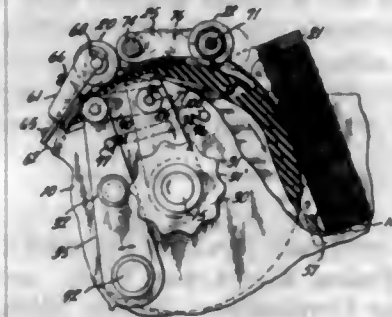
In a light printing and dry developing apparatus wherein the original to be reproduced and the sensitized sheet material are superimposed in contact with each other for light exposure, means for separating the original from the sensitized material after exposure and conveying said material to the developing portion of said apparatus which comprise two distinct sets of endless, moving, conveying belts, at least one of which is pervious to air, and each set consisting of a plurality of flat belts

arranged in a plane coextensive with the width of said sheet material, said belts of each set having surfaces engaging each other over a predetermined distance of their travel forming a conveying passage for said original in contact with said sensitized sheet material from the printing portion of said apparatus to the point of separation, a suction chamber disposed at the point of separation, said suction chamber having a perforated wall against which said pervious belts travel, said wall being bent at an obtuse angle, the apex of which is at said point of separation, and one side extending along a por-



tion of said wall extending along said conveying passage and the other side inclined toward said developing portion and means for overriding said first mentioned means comprising a plurality of slits in said last mentioned side spaced between said belts communicating with the interior of said chamber, finger blades adapted to be moved between said slits in the direction perpendicular to said wall, a lever for moving said blades whereby, upon actuation of said lever, said material is constrained against the negative pressure of said chamber to move away from said wall.

2,822,171
STACKER ARRANGEMENT
George A. Luning, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application January 3, 1956, Serial No. 557,018
10 Claims. (Cl. 271—71)

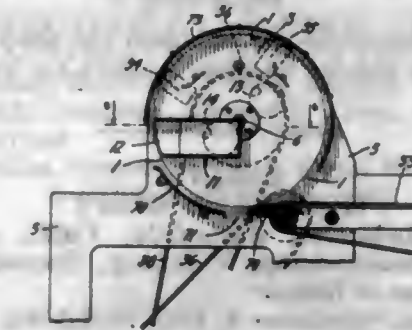


1. In a card stacking device having an element moving in a curved path and means on the element to hold cards in succession to move them toward a stacking station, means associated with the element to engage each card in succession, and means to oscillate the card engaging means adjacent a portion of the curved path and said stacking station, said card engaging means having an advanced and a retracted position, to guide the forward portion of each card into the stacking station in the advanced position and to release the rear portion of each card in succession in the retracted position to permit it to snap into the stacked position in said stacking station.

2,822,172
SHEET HANDLING MACHINE
Clyde R. Mayo and Americo J. Cerasani, Rochester, N. Y., assignors to The Haloid Company, Rochester, N. Y., a corporation of New York
Application January 6, 1955, Serial No. 480,081
8 Claims. (Cl. 271—74)

1. A sheet handling machine including a travelling endless wall formed of a foraminous material, means for reducing the air pressure on one side of said wall to below

atmospheric pressure so that sheets applied to the other side thereof are held thereon by atmospheric pressure, and means for forcing air at superatmospheric pressure through a localized portion of said wall towards said other side at a stationary location so as to discharge the sheets from the wall at this location, the area of said



localized portion of said wall being substantially less than the area of the entire wall, and counting means for rendering said air forcing means inoperative while said wall travels completely through any given stationary location for a predetermined number of times and to thereafter place said air forcing means in operation.

2,822,173
AMUSEMENT RIDE
Norman Bartlett, Uleta, Fla., assignor of one-half to Marjorie Bartlett, Uleta, Fla.
Original application October 29, 1953, Serial No. 389,074. Divided and this application October 6, 1955, Serial No. 538,950
4 Claims. (Cl. 272—36)



1. In an amusement ride of the roundabout type, a central vertical shaft and a support rotatable about the axis of said shaft, two sets of arms radiating from said support, each arm having a passenger supporting means at its outer end, means for rotating said support about the axis of said shaft, the arms of one set being spaced alternately between the arms of the other set as viewed from above, eccentric means carried by said shaft and having connection with the arms of one set to raise and lower said arms successively during rotation thereof, and other eccentric means carried by said shaft and having connection with the arms of the other set to raise and lower said arms successively during rotation thereof, said two eccentric means being disposed substantially oppositely whereby each arm of one set raises and lowers substantially oppositely with respect to an adjacent arm of the other set.

2,822,174
MATCHED GOLF CLUBS
Thomas O. Brandon, Cucamonga, Calif., assignor to A. G. Spalding & Bros., Inc., Chicopee, Mass., a corporation of Delaware
Application August 10, 1954, Serial No. 448,970
1 Claim. (Cl. 273—80)

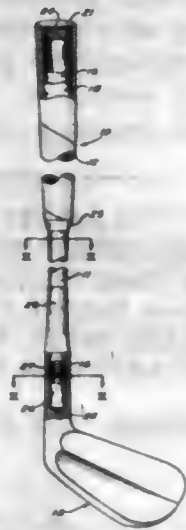
In a set of matched golf clubs of the "wood" and "iron" type each having a shaft, a head on one end of the shaft and a grip on the other end of the shaft, the improvement wherein the shafts of the set have the same weight-

stiffness characteristic and have a length-stiffness relation throughout the set in accordance with the formula $L=aS^n$ wherein L is the length of the shaft in inches, S is the stiffness of the shaft in pounds,

$$n = \frac{\log L - \log L'}{\log S - \log S'}$$

and a is a constant dependent upon the shaft weight and determined by solving formula $L=aS^n$ for known values of L, S and n.

2,822,175
GOLF CLUB SHAFT
Edward J. Redmond, Escondido, Calif., assignor to Woolley Manufacturing Company, Escondido, Calif., a corporation of Illinois
Application November 4, 1954, Serial No. 466,772
3 Claims. (Cl. 273—80.4)



1. A golf club, comprising: a stiff, resiliently flexible and twistable, tubular steel core; a sheet of glass fabric having a first edge extending substantially the full length of said core, second and third edges extending from, and transversely of, said first edge and a fourth edge extending between said second and third edges and lying at least in part at an angle with respect to said first edge, said sheet of glass fabric being wrapped around said core and encasing said core through the entirety of its length, the threads of said fabric running both substantially longitudinally and circumferentially of said core; said fabric being impregnated with a rigidified thermosetting resin bonded to said core and to said fabric to form a tapered shaft structure, said resin being capable of withstanding flexion and torsion developed by use of said golf clubs without breaking the bond of said resin to said fabric and said core; a head having a socket, the narrower end of said shaft structure being snugly received into said socket and rigidly secured to said head; a hand grip surrounding and rigidly secured to the wider end of said shaft structure; whereby shocks and vibrations imparted to said head will be materially dampened before they reach said hand grip, and the flexibility and twistability of said core will be materially reduced.

2,822,176
AERIAL DISK
Ernest C. Robes, Hanover, N. H.
Application September 16, 1955, Serial No. 534,814
1 Claim. (Cl. 273—106)

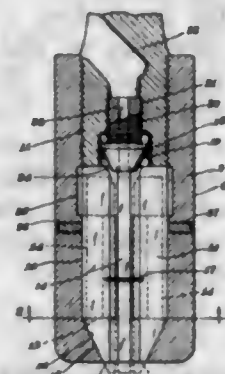
A game device comprising a disk to be launched or thrown by hand and having a circular web and a downturned peripheral flange, said web being constituted by a flat plate all in one plane and said flange being constituted by a uniform narrow annular strip, said web having a relatively large number of circumferentially spaced thin, fin-like vanes projecting perpendicularly from the under surface thereof at the juncture of the web with the flange

and extending inwardly a short distance from said flange, said vanes being disposed at a common angle to the respective disk radii and serving as a means to stabilize the flight of the disk when it is spinningly launched into the air, and a relatively small number of spiral ribs pro-



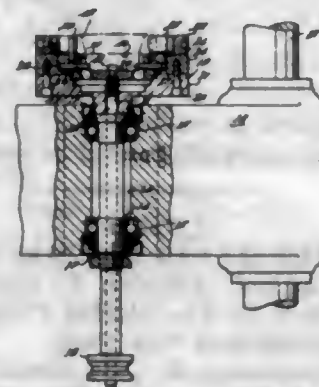
jecting from the under surface of said web and extending generally diametrically of the disk and from the center of said disk toward the peripheral edge thereof and terminating adjacent and between the inner ends of certain of said vanes to direct swirling air currents to said vanes.

2,822,177
CHUCKS
Guy H. Tripp, Bay City, Mich.
Application July 21, 1953, Serial No. 369,396
7 Claims. (Cl. 279—58)



1. In a chuck, a hollow body provided with a shank, a plurality of elongated jaws freely disposed in said body for axial and radial movement therein, means fixed with relation to the body for camming the lower ends of said jaws inwardly into gripping relation upon axial movement thereof, and means engaging the radially inner surfaces of said jaws adjacent the upper ends of the jaws for moving said jaws axially and pivoting the upper ends of said jaws radially outwardly to obtain a lever action therewith.

2,822,178
SPRING FINGERED CHUCK
Douglas T. Peden, Ann Arbor, Mich., assignor to Micro-matic Hone Corporation, Detroit, Mich., a corporation of Michigan
Application August 10, 1955, Serial No. 527,523
5 Claims. (Cl. 279—106)



1. A chuck having an element from which a plurality of fingers are radially disposed, with the ends of the

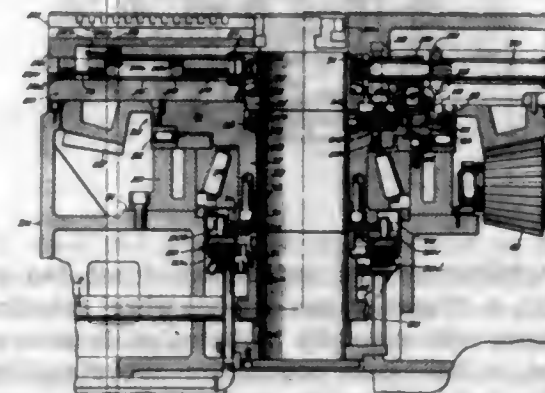
fingers defining a circle, a rotatable plate having pins thereon, one disposed adjacent each finger, and reciprocal means having cam engagement with said plate for causing said plate to rotate upon the upward movement of said means for deflecting the ends of the fingers by said pins and unclamping the workpiece.

2,822,179
CHUCKS WITH JOINTLY AND SEVERALLY ADJUSTABLE JAWS
Paul Bärwinkel, Düsseldorf-Unterrath, Germany
Application April 20, 1956, Serial No. 579,490
5 Claims. (Cl. 279—112)



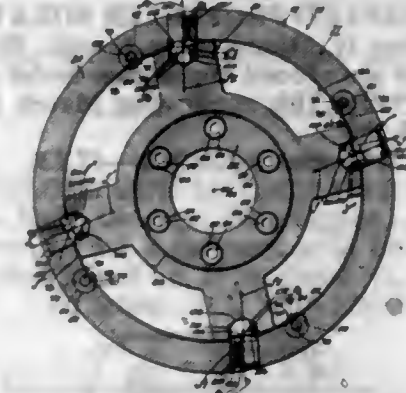
1. A lathe chuck comprising a body defining an axis, jaw members slidable toward and away from the axis, threaded spindles rotatably accommodated by said members but axially fixed with respect thereto and extending therefrom, spindle nut members provided with threaded bores accommodating said spindles for an axial displacement thereof toward and away from the axis, and self-locking drive means coupling said spindle nut members for the rotation thereof.

2,822,180
POWER OPERATED CHUCK FOR MACHINE TOOLS
John C. Hollis, Fond du Lac, Wis., assignor to Giddings & Lewis Machine Tool Company, Fond du Lac, Wis., a corporation of Wisconsin
Application August 2, 1955, Serial No. 525,914
10 Claims. (Cl. 279—113)



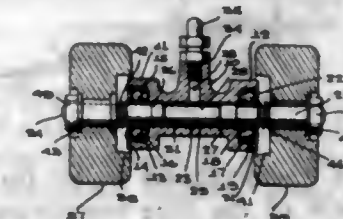
1. For use with a machine tool having a rotatable spindle, a power-operated chuck comprising, in combination, a body adapted to be fixed to the spindle for rotation therewith, a plurality of jaw slides angularly spaced in said body and radially movable relative thereto, a drive shaft journaled in said body, means drivingly connecting said shaft with said slides to radially translate the latter upon rotation of the former, a reversible chuck motor, a disengageable electric clutch having a first friction element drivingly connected to the motor and a second friction element mounted on and rotatable both with and relative to the spindle, said clutch including a coil adapted upon energization thereof to bring said elements into frictional driving engagement, first gear means carried by the spindle and drivingly connected to said second clutch element, second gear means carried by said body and drivingly connected with said shaft, and impact coupling means between said first and second gear means for connecting the two when said body is fixed to the spindle, whereby the

2,822,181
CENTER-ADJUSTABLE UNIVERSAL CHUCK WITH AUTOMATIC TORSION LOCK
Harry E. Sloan, Hartford, Conn., assignor to The Cushman Chuck Company, Hartford, Conn., a corporation of Connecticut
Application August 30, 1955, Serial No. 531,457
9 Claims. (Cl. 279—114)



1. In a universal chuck of the adjustable type having a chuck unit with a longitudinal axis and an adapter unit having provisions for its attachment to a support and carrying said chuck unit for limited relative sliding movement thereon in any direction in a plane normal to said axis, the combination of surfaces on one of said units angularly spaced and extending circularly about a common axis parallel to said unit axis; and a plurality of set screws in the other unit turnable to cooperate with said surfaces, respectively, for adjusting said chuck unit on said adapter unit, at least one of said set screws being disposed with its axis passing said common axis on one side thereof in any adjusted position of said chuck unit on said adapter unit, so that said one set screw and cooperating surface act wedge-like to lock said units against relative rotation on rotational tendencies of either unit in one direction relative to the other unit.

2,822,182
BEARING MOUNTING FOR ROLLER-SKATE TRUCK
Rudolph Merbler, Schenectady, N. Y.
Application November 4, 1955, Serial No. 544,980
1 Claim. (Cl. 280—11.28)



A roller-skate truck comprising an open-ended axle housing, a bearing boss adjacent each of the open ends of said housing, an antifriction bearing assembly including an inner ball race, an outer ball race, and a plurality of ball elements interposed between the inner and outer ball races, housed within each of said bosses, the outer ball race of each bearing assembly being fixed in the adjacent boss, an axle extending through said housing and rotatably supported in the inner ball race of each of said bearing assemblies and having the portion adjacent one end exteriorly of one of the open ends of said housing and having the portion adjacent the other end exteriorly of the other of the open ends of said housing, a wheel connected to each end portion of said axle for

rotational movement about said portion as an axis, a helical spring circumposed about the axle intermediate each bearing assembly and the adjacent wheel and having one end bearing against the inner race of said assembly and the other end bearing against said wheel, a pair of collars arranged in spaced relation on the part of said axle within said housing and between said bearing assemblies, and a sleeve surrounding and loosely contacting said collars, said sleeve loosely contacting the adjacent portion of said axle housing and defining a passage for the flow of lubricant therethrough.

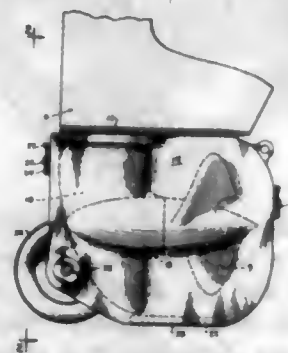
2,822,183

WHEELED PROPELLER SHEATH

William H. Montgomery, Seattle, Wash.

Substituted for abandoned application Serial No. 281,723, April 11, 1952. This application March 18, 1955, Serial No. 495,198

2 Claims. (Cl. 280—47.13)



1. In a combined cart and propeller protective device for an outboard motor, a removable guard adapted to shroud the motor's propeller and including two rigid incasement members movable with respect to one another, means for removably mounting said guard on the motor in a propeller investing position, and wheel means journal-mounted on the guard and adapted to support the motor when the guard is mounted thereon.

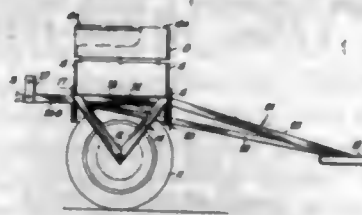
2,822,184

TWO WHEEL SPRAY TRAILERS

Fred T. Smith, Kansas City, Mo., assignor to Precision Research and Development Company, Kansas City, Mo., a corporation of Missouri

Application June 14, 1956, Serial No. 591,503

1 Claim. (Cl. 280—63)



In a two wheel tractor-drawn trailer for carrying crop spraying equipment of the type employing spray booms and in which the spray liquid is contained in conventional drums, the combination of a pair of spaced coaxial wheels for traveling over the ground, a pair of vertically disposed parallel V-shaped end members, one for each wheel, said end members being disposed closely adjacent their respective wheels on the inboard side thereof, and having their apices adjacent the wheel axis with the legs of the V extending upwardly, means rotatably securing the apices of said end members to the wheel centers, a pair of parallel top frame members extending between said end members, the respective ends of said top members being secured to and supported by the upper ends of the legs of said end members, said top frame members being spaced apart a distance such that they are adapted to receive thereon diametrically opposed

portions of the bottom of a spray drum, a pair of tension members, one for each top frame member, each of said tension members being disposed below its respective top frame member, the ends of the tension members being secured to the ends of the top frame members, each tension member having a central portion spaced below the central portion of its frame member, the portions of said tension member on opposite sides of the central portion thereof being inclined upwardly toward their ends, at least one compression member disposed between the central portion of each top frame member and its underlying tension member to transmit any beam load on the frame member to the tension member, and a tongue member rigidly connected with said frame members intermediate the wheels and extending outwardly transverse to said frame members to provide means for connecting said trailer to a tractor, said tongue member comprising a pair of upper tongue members spaced apart at one end and secured to the nearest one of the top frame members, and converging outwardly to form a substantial V, a trailer hitch secured to the apex of the V, and a pair of lower tongue members also converging at one end in the shape of a V and joined at said hitch, the lower tongue members having their other ends secured to the other of said top frame members, said lower tongue members passing through the space between said nearest one of said top frame members and its tension member and being supported intermediate their ends on said tension member.

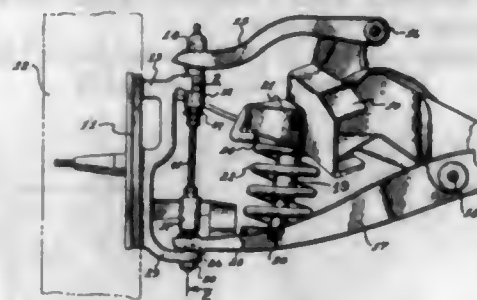
2,822,185

STABILIZER FOR AUTOMOTIVE FRONT END SUSPENSIONS

Fred Mineck, Phoenix, Ariz.

Application March 15, 1956, Serial No. 571,791

3 Claims. (Cl. 280—96.2)



1. A stabilizer for an automotive front end suspension having, a chassis frame, a front wheel spindle member, an upper yoke pivotally mounted at its inner end on said frame, a ball joint connection above said spindle member located between the underside of the outer end of said upper yoke and the upper end of said spindle member, a lower yoke pivotally mounted at its inner end on said frame below the inner end of said upper yoke, a loose ball joint connection located between the underside of the outer end of said lower yoke and the upper side of the lower end of said spindle member, a compression load carrying spring between said frame and said lower yoke arranged to normally urge the underside of the outer end of said lower yoke toward the upper side of the lower end of said spindle member, a shock absorber connected between said frame and said lower yoke to restrain relative free swinging movement of said lower yoke on said frame, and means supported on said spindle member and said lower yoke to exert a resilient downward force between the upper end of said spindle member and the outer end of said lower yoke in a direction substantially parallel to a line passing through said ball joints to normally hold the outer end of said lower yoke and ball joint against the upper side of the lower end of said spindle member.

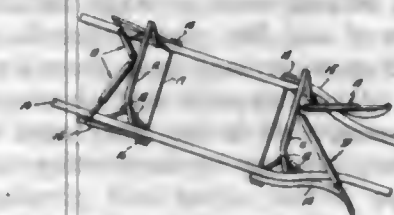
2,822,186

VEHICLE SUSPENSION SYSTEM

Raymond G. Lires, Manhattan Beach, Calif.

Application April 13, 1954, Serial No. 422,715

4 Claims. (Cl. 280—106.5)



1. A vehicle suspension system comprising a frame, means for mounting front and rear wheels with respect to said frame, front and rear arched frame members extending upwardly from said frame, a pair of spring assemblies attached at one end to said front frame member adjacent a midpoint thereof and at the opposite end to the front wheel mounting means, a pair of spring assemblies attached at one end to said rear frame member adjacent a midpoint thereof and at the opposite end to the rear wheel mounting means, the front wheel mounting means being positioned substantially forwardly from the front frame member and the rear wheel mounting means being positioned substantially rearwardly from the frame member, each of said wheel mounting means comprising an arm, said spring assembly and wheel being connected to one end of said arm and the opposite end of said arm being connected to said frame.

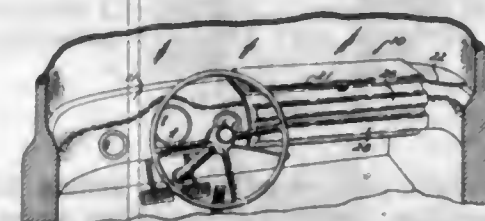
2,822,187

SAFETY CRASH PAD FOR VEHICLES

John D. Bibbs, Lakewood, Ohio

Application September 1, 1955, Serial No. 531,970

7 Claims. (Cl. 280—150)



7. A crash pad adapted to be supported on the instrument panel of a vehicle having a windshield, said pad having a cap portion overlying the top ledge surface of said panel and a depending apron portion overlying and cushioning the front face surface of said panel, a flap portion overlying said cap portion, said flap portion being swingably mounted with respect to said cap portion and adapted upon sudden deceleration of said vehicle to pivot into an upright position in front of said windshield to prevent facial injury to the passengers, said pad comprising a plurality of spaced thickly padded sections extending across said panel, and said flap portion having its free end supported by one of said padded sections.

2,822,188

SAFETY JACKKNIFE APPARATUS

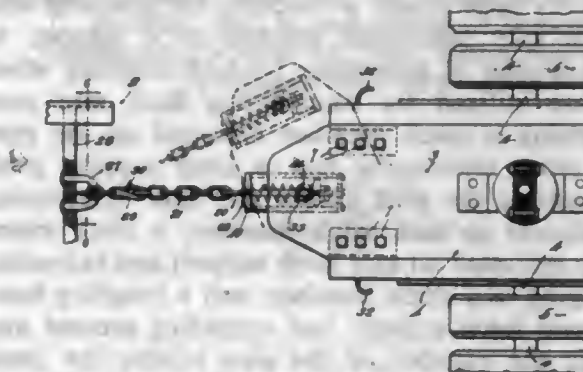
Sylvio Joseph Begin, Schenectady, N. Y., assignor to K-W Mfg., Inc., Schenectady, N. Y., a corporation of New York

Application April 17, 1957, Serial No. 653,411

3 Claims. (Cl. 280—432)

3. In an apparatus of the class described, the combination with a towing vehicle and a trailer, said towing vehicle provided with a frame, of angle brackets on said frame, closure means on said angle brackets, a cylinder

pivotally mounted on said frame between said angle brackets, a bolt provided with a coil spring in said cylinder,



der, and means detachably connecting said bolt to said trailer.

2,822,189

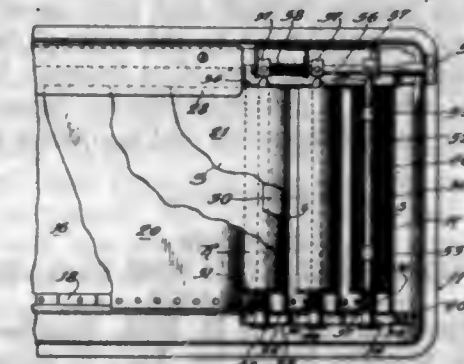
CARBON HOLDER FOR AUTOGRAPHIC REGISTER

John E. Euth, Chicago, Ill., assignor to Uarco,

Incorporated, a corporation of Illinois

Application March 16, 1954, Serial No. 416,564

6 Claims. (Cl. 282—20)



1. In an autographic register having means for moving, superposed record and carbon strips over a writing surface, a carbon roll holder having spaced end plates and a joining body plate extending across the register, a spindle extending movably through the holder end plates and removably secured therein for receiving a carbon roll, means yieldably urging the spindle in one direction within the holder, bearing means on the spindle for frictionally gripping a carbon roll under action of said yieldable means to prevent the roll from turning on the spindle; and manually operable means mounted in the register in position for moving said spindle in the holder in opposition to said yieldable means to release the frictionally gripping bearing means from the carbon roll to permit advance of carbon over the writing surface.

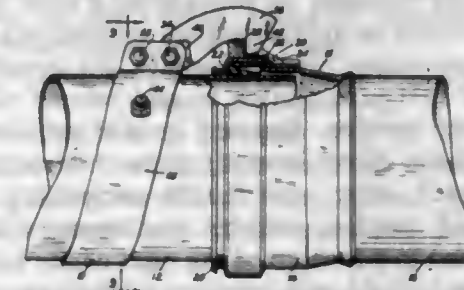
2,822,190

LATCHED PIPE COUPLING HAVING SLANTED**LATCH HOLDING BAND**

Robert L. Burke, Riverdale, N. J., assignor to Irrigation Equipment Co., Inc., Eugene, Oreg., a corporation of Oregon

Application May 26, 1955, Serial No. 511,275

2 Claims. (Cl. 285—5)



1. In combination with a pair of thin-walled pipes having, coaxially positioned telescoping pipe ends, the

inner telescoping pipe end being loosely positioned within the outer telescoping pipe end to permit said pipes to flex with respect to each other, a coupling for coupling said pipe ends in said telescoped relation in a manner to minimize distortion of said pipes by said coupling when said pipes are utilized for transmitting fluid, said coupling comprising a catch member mounted on the pipe having the outer telescoping end, a latch support positioned adjacent to the pipe having the inner telescoping end and adjacent to said catch member, a latch member pivotally mounted on said latch support and extending to and engaging said catch member, and a coupling band supporting said latch support and extending around and snugly fitting the exterior of the pipe having the inner telescoping end, said band having a uniform width in a direction axially of the pipe encircled thereby in the range between three-tenths and eight-tenths of the diameter of said encircled pipe, said latch member pivotal mounting being positioned closer to the coaxis of said pipe ends than in said catch member and being positioned closely adjacent to the edge of said coupling band which is nearest to the outer telescoping pipe end, and said coupling band slanting away from said latch member pivotal mounting at an angle of approximately fifteen degrees to a line passing through said latch member pivotal mounting and perpendicular to the axis of the pipe encircled by said band, said line lying between the portion of said band which is circumferentially opposite to said latch member pivotal mounting and said outer telescoping pipe end.

2,822,191

PIPE COUPLING WITH PIPE ENGAGING PIVOT LUGS

Roger E. Risley and George D. Kish, Bradford, Pa., assignors to Dresser Industries, Inc., a corporation of Delaware

Application July 11, 1952, Serial No. 298,295
3 Claims. (Cl. 285-18)



1. In a large diameter pipe line including a tubular pipe coupling member, a thin-walled first pipe section, and a thin-walled second pipe section, the diameter of each of said pipe sections being substantially greater than the axial dimension of said coupling member, said coupling member having an internal diameter slightly greater than the external diameter of said pipe sections and said member including means for preventing each of said pipe sections from entering into said member for a distance greater than about half its axial dimension, and external means for providing fluid-tightness between said coupling member and said pipe sections, said external means comprising an external gasket and annular follower means for urging the gasket axially toward the ends of said tubular coupling member, and a construction for facilitating the coupling of said sections of large diameter pipe when the ends of said sections are introduced into ends of said tubular coupling member to provide said pipe line having said pipe sections in axially-aligned relationship, said construction comprising pivoting means for pivotally interrelating said first pipe section to said second pipe section having its end portion disposed in said tubular coupling member without direct interengagement of said pipe sections with each other, said means comprising pins positioned in said coupling member and engageable with apertures formed in a portion of the ends of the two adjacent pipe sections to hold said portions of the pipe sections in predetermined spaced-apart relationship while permitting the remainder of the pipe sections to pivot about said portions and thereby to effect entrance of said second pipe

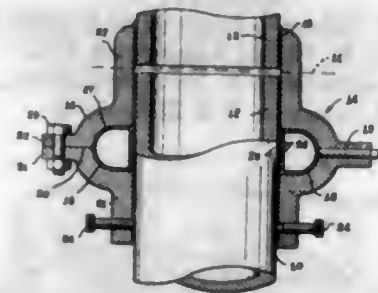
section into said coupling member in axial alignment with said first pipe section, said first pipe section being engageable with said locking means with the portion of said first pipe section adjacent said locking means being inserted in one axial half of said coupling member substantially half the axial length of said member while the diametrically-opposite portion of said first pipe section is only slightly engaged in said member, and said second pipe section being similarly engageable with said pivoting means and being similarly receivable in the other axial half of said coupling member, whereby upon pivoting movement of said second pipe section about said pivoting means to cause said diametrically opposite portions of said pipe sections to move toward each other, the ends of said pipe sections will be moved into said coupling member and any deviations from the circular in the circumference of said pipe sections will be compelled to conform to the internal curvature of said coupling member, said apertures having an axial length substantially greater than the diameter of said pins at said apertures whereby said pins do not impede normal axial movements of said pipe sections in service and said pins being positioned sufficiently close to the ends of said coupling member to engage in the apertures in said pipe sections when the end edges of said pipe sections are only partially inserted in said coupling member.

2,822,192

PIPE COUPLING WITH SOCKETED INFLATABLE SEALING MEMBER

Guy M. Beatty, Bakersfield, Calif.

Application December 7, 1953, Serial No. 396,529
2 Claims. (Cl. 285-97)



1. A fluid tight pipe coupling for joining adjacent, aligned pipe sections, comprising a coupling sleeve adapted to receive said pipe sections through its opposite ends, said sleeve being formed with an internal annular recess in a transverse plane thereof and comprising a pair of separable sleeve portions having opposing end faces located in said plane, means for securing said sleeve portions together with said end faces abutting one another; and a fluid seal within said recess comprising a hollow inflatable seal ring having an inner annular surface for sealingly engaging one pipe section and a radial valve stem extending outwardly from the ring through which pressure fluid may be introduced into the ring for inflating the latter, at least one of said abutting end faces of the sleeve portions being formed with a radial groove extending from said recess to the exterior of the coupling sleeve for receiving said valve stem.

2,822,193

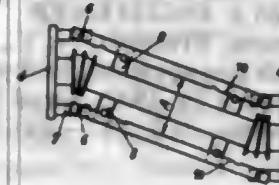
EXPANSION COMPENSATOR WITH STRAIN RELIEVING SUPPORT MEANS

Winfried K. P. E. Wietbüchter and Paul F. G. Elsele, Karlsruhe, Germany, assignors to Industrie-Werke Karlsruhe Aktiengesellschaft, Karlsruhe, Germany

Application May 24, 1954, Serial No. 431,648
Claims priority, application Germany May 28, 1953
2 Claims. (Cl. 285-114)

1. A pipe expansion compensator comprising in combination: a substantially rigid pipe, two flexible tubular members respectively connected to the ends of said pipe

and provided with flange portions, each of said flange portions being provided with two arms respectively arranged on opposite sides of the adjacent tubular member, two pairs of pivots respectively carried by the two arms of each flange portion, the axes of each two adjacent pivots being parallel to each other and being located in a plane substantially passing through that central axis of the adjacent tubular member which is parallel to the axes of the adjacent two pivots, a first substantially rigid link arranged on one side of said pipe and having each of its end portions respectively pivotally connected to one adjacent pivot on one and the same side of said pipe, a

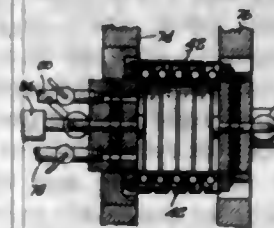


second substantially rigid link arranged on the opposite side of said pipe and having its end portions respectively pivotally connected to the other two pivots, said links being parallel to each other and each of said links being provided with two cam surfaces spaced from each other in longitudinal direction of said links, and spacer members rigidly connected to said pipes and spaced from each other in axial direction of said pipe and respectively slidably engaging the adjacent cam surfaces of said links, the contour of said cam surfaces compensating for the change in distance between said links as brought about by the pivotal movement of said links.

2,822,194

HIGH PRESSURE EXPANSION JOINT WITH BELLOWS AND REINFORCING RINGS AND METHOD OF MAKING SAME

David Wendell Fentress, Barrington, Ill., assignor to Flexonics Corporation, a corporation of Illinois
Application August 13, 1951, Serial No. 241,662
4 Claims. (Cl. 285-299)

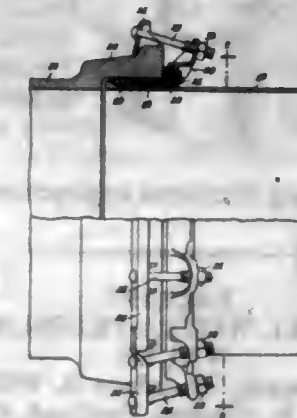


1. The method of making a flexible tubing structure which comprises disposing a plurality of reinforcement rings of integral annular construction and having substantially cylindrical tube engagement portions at predetermined spaced points along a cylindrical tubing member, each of said rings also having a web portion extending radially and centrally from said engagement portion and an outer annular flange portion extending axially from said web portion, locating said rings with said outer annular flange portions in axially spaced relationship, subjecting the tubing member to internal fluid pressure and simultaneously to axial collapsing pressure, while leaving the tubing portions between said rings unconfined, whereby to form a plurality of annular corrugations between said rings the shaping of which is determined solely by said fluid and axial pressures and to axially collapse said tube and shift said rings toward each other and the outer flange portions thereof into overlapping relationship, and relieving said fluid pressure before said corrugations are forced into engagement with the web and flange portion of said rings.

2,822,195

ADJUSTABLE FOLLOWER RING TYPE PIPE CLAMP

Howard L. Hoke, Bradford, Pa., assignor to Dresser Industries, Inc., a corporation of Delaware
Application October 26, 1951, Serial No. 253,235
11 Claims. (Cl. 285-337)



1. A pipe clamp for applying sealing pressure to a gasket for a bell and spigot pipe joint, comprising an anchor ring having a plurality of peripherally-spaced bolt apertures, a follower ring formed from a plurality of inter-connected arcuate sections and having a plurality of radially-extending circumferentially-spaced integral bolt lugs corresponding in number to said bolt apertures, and a plurality of bolts extending through said lugs and said apertures to connect the follower ring and the anchor ring, said bolt lugs diverging outwardly away from said anchor ring at an angle with respect to the axis of the follower ring and lying radially inwardly of the circle defined by the apertures in said anchor ring, whereby said bolts converge in passing from said anchor ring to said follower ring, the ends of said follower ring sections having a series of circumferentially-spaced teeth for adjustable inter-engagement with the teeth on the adjacent follower ring sections when the sections are joined in overlapping relationship, said bolt lugs being asymmetrically disposed on the follower ring sections with one of said bolt lugs being disposed radially outwardly of the teeth substantially at one end of each follower ring section and the lug nearest the other end of each follower ring section being spaced substantially from said other end and being spaced from the nearest lug of the adjacent follower ring section substantially the distance between adjacent lugs of each section, and means for connecting said follower ring sections, said connecting means being disposed substantially on the radius passing through said bolt lug adjacent said teeth of each follower ring section, the inner face of said follower ring sections defining a gasket recess for confining the outer surface of the gasket when the gasket is compressed into sealing relationship by axial movement of said follower ring toward said anchor ring.

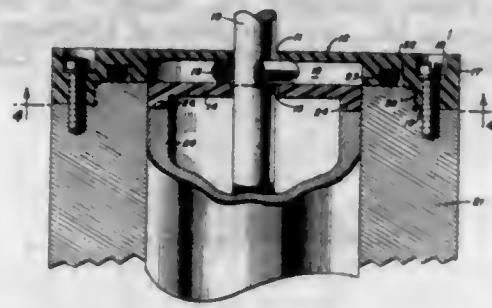
2,822,196

PRESSURE RESPONSIVE DISTORTABLE O-RING TYPE WATERPROOF SEAL

Earl L. Canfield, Essex, Conn., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 25, 1955, Serial No. 503,839
4 Claims. (Cl. 286-7)

1. A seal comprising an inner wall of flexible material, an outer wall of flexible material spaced from the inner wall, a deformable O ring placed between said walls and surrounding a shaft extending through openings in said walls, the inner wall being of more rigid material than the outer wall, whereby it will offer substantial resistance to axial movement under normal pressures thus allowing for sufficient deformation of the O

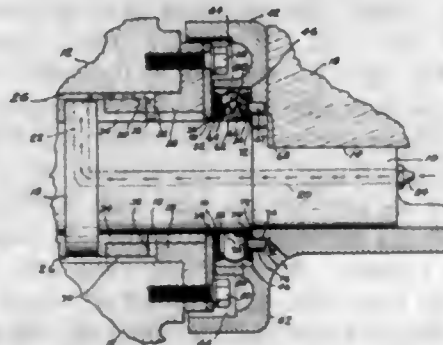
ring to assure proper sealing, but will yield under additional greater pressure to permit necessary sealing with-



out unduly increasing frictional engagement of the O ring with the shaft.

2,822,197 BEARING SEAL WITH A PRESSURE RELIEF VALVE

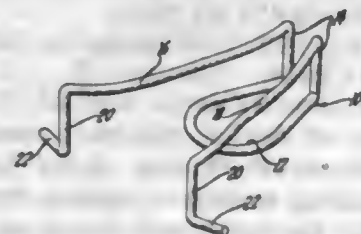
Harley M. Champ, Theodore R. Williams, and Donald H. Champ, Portland, Oreg.
Application November 2, 1954, Serial No. 466,417
2 Claims. (Cl. 286—8)



1. For use between a rotatable member and an exposed fixed member having an opening therethrough and wherein lubricant is adapted to be received under pressure between said rotatable and fixed members: a lubricant seal comprising a pair of axially spaced ring members interconnected by a peripheral resilient diaphragm, one of the ring members being adapted to abut against the rotatable member and the second ring member being adapted to be secured to the fixed member, a tubular member secured to the second ring member and arranged to extend into the opening of the fixed member, the opening in the tubular member communicating at its inner end with the space between the pair of ring members and at its outer end with the atmosphere, and pressure relief valve means in the tubular member movable under the influence of a predetermined elevated pressure within said space from a normal position sealing said space from the atmosphere to a position opening said space to the atmosphere.

2,822,198 FASTENER MEANS

Bewley D. Priestman, Grosse Pointe Woods, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 20, 1956, Serial No. 566,476
2 Claims. (Cl. 287—20.5)

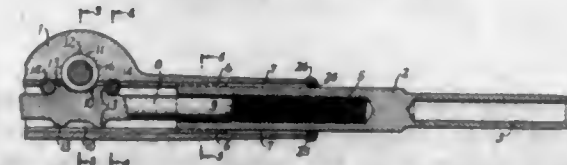


1. A continuous wire spring clip retainer formed to provide a centrally disposed loop having coplanar straight

convergent legs and adapted to freely receive a rotatable element therethrough, each of said convergent legs being reversely bent to define parallel first spring force transmitting sections and divergent legs, said divergent legs each being disposed in a plane containing one of said convergent legs and askew to the other of said convergent legs and provided with hooked ends defining second spring force transmitting sections, each of said divergent legs further having a center section adapted to engage and axially retain said rotatable member.

2,822,199 CABLE TIGHTENER

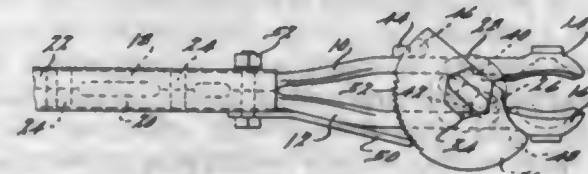
Corydon M. Johnson, Freeport, N. Y., assignor to Johnson Research Corporation, Bethpage, N. Y.
Application December 10, 1953, Serial No. 397,420
5 Claims. (Cl. 287—60)



1. A cable tightener of the character described comprising: an elongated, unitary hollow tubular housing having a generally cylindrical longitudinal bore, a high tensile strength rod-like member completely enclosed within said housing and being rotatably mounted centrally within said bore and having its two ends axially threaded, the right end having a right hand thread and the left end having a left hand thread, the center part of said member carrying a worm wheel, a right hand shaft mounted for axially sliding within one end of said bore and being axially threaded and engaged with the right hand end of said rod-like member, a left hand shaft mounted for axially sliding within the other end of said bore and being axially threaded and engaged with the left hand end of said rod-like member, means to positively prevent the rotation of said shafts relative to said bore, a worm shaft transversely mounted within said housing and engaged with said worm wheel, one end of said shaft extending out from said housing, and a crank member mounted on the outer end of said worm shaft to permit rotation thereof, whereby by rotating said rod-like member in one direction said shafts can be extended outward from said bore and by rotating said rod-like member in the opposite direction, said shafts can be retracted into said bore without tending to rotate said housing and without allowing dirt to enter, said means for positively preventing rotation of said shafts including a longitudinal spline rib carried on each of said shafts and engaging in a mating longitudinal groove in each end of said bore, said rib being adapted to bear against the outer end of said bore to prevent complete withdrawal of said shafts.

2,822,200 QUICK DETACHABLE HEAD

Richard D. Abele, Zanesville, Ohio, assignor to Detroit Harvester Company, Detroit, Mich., a corporation of Michigan
Application December 16, 1955, Serial No. 553,471
1 Claim. (Cl. 287—89)



A pitman head for mowers comprising a pair of pitman straps having socket portions at their outer ends, a

cam assembly carried by the straps, said cam assembly including a flat portion adapted to overlie said straps and a cam portion disposed between said straps whereby rotation of said cam in one direction will spread said socket portions, a lug carried by one of said straps, pins carried by said flat portion depending therefrom outwardly of said straps and respectively adapted to engage said lug and one of said socket portions thereby to urge said straps to closed position in response to rotation of said cam in the opposite direction, a spring latch carried by one of said straps, and serrations in the edge of said flat portion adapted to be engaged by said latch whereby said cam assembly may be locked in selected positions.

2,822,201 FILTER ELEMENT SEALING CONSTRUCTION

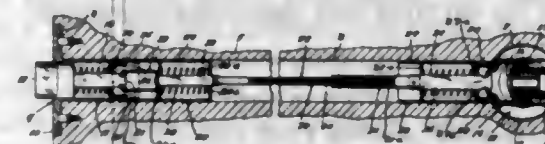
Herman A. Wood, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 30, 1954, Serial No. 440,378
2 Claims. (Cl. 288—1)



2. A filter element sealing construction comprising an end plate having a flange defining an aperture, an annular flat sealing gasket with an interior face engaging the said end plate around said flange, a retainer fixed to said end plate and having a substantially cylindrical wall closely surrounding said gasket with one edge terminating short of the exterior face of said gasket, spaced indents in said wall extending toward said flange and spaced from said end plate, and portions of material of said gasket being confined between said spaced parts and said end plate for retaining the said gasket in position on the element.

2,822,202 BACKSET EXTENSION LINK

Nicholas A. Welch, West Hartford, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a corporation of Connecticut
Application January 19, 1956, Serial No. 560,237
1 Claim. (Cl. 292—1)



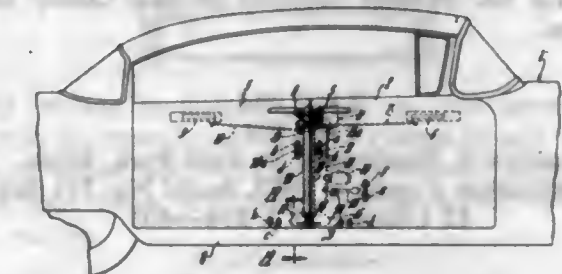
A backset extension link for a lock set which includes a latch bolt housing and latch bolt, said housing being fastened to a door and positioned in an elongated bore formed within the plane of said door, and an operating unit housing and retractor therein spaced from said latch bolt housing and positioned in a transverse bore formed through said door and intersecting said elongated bore; the said link including a first connecting means having its outer end non-rotatably attached to said latch bolt, a second connecting means having its outer end extending into said transverse bore and normally non-rotatably connected to said retractor, and an adjustable link joining the inner ends of said first and second connecting means, said adjustable link comprising a pair of relatively rotatable threadedly connected members non-rotatably attached to said first and second connecting means, whereby the latch bolt and extension link may first be inserted into said elongated bore and fastened therein and the length of said link may then be accurately adjusted by manual rotation.

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tion of the outer end of said second connecting means by reaching into said transverse bore before insertion of the operating unit housing and retractor into said bore for final assembly of the lock.

2,822,203 DOOR LATCH AND CONTROL MEANS

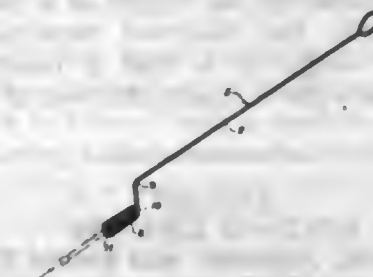
Charles J. Griswold, Jr., Oak Park, and Harold E. Van Voorhees, Grosse Pointe Park, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 17, 1955, Serial No. 488,872
11 Claims. (Cl. 292—144)



1. An automobile door latch of the character described, including: a bolt movable between latched and unlatched positions; motor means for moving said bolt; manual means for moving said bolt; a plurality of links connecting said motor means to said bolt; and trigger means operable during each latching cycle of movement of the bolt to disconnect the motor means from the bolt so that the bolt can be moved by the manual means independently of operation of the motor means.

2,822,204 SAFETY-MATCH-HOLDER

Wencel William Stegner, Milwaukee, Wis.
Application November 7, 1955, Serial No. 545,314
4 Claims. (Cl. 294—19)



1. A match holder comprising in combination an elongated metallic member, ring means mounted at one end of said member, the periphery of said ring lying in substantially the same plane as the plane of said member, and coil means mounted at the other end of said member, said coil means having an opening therein extending therethrough for encompassing and holding a match, said opening having a longitudinal axis extending substantially parallel with but spaced from the longitudinal axis of said member.

2,822,205 TUBULAR ELECTRIC LIGHT CHANGING DEVICE

Benjamin T. Bowie, Greenville, S. C.
Application October 27, 1955, Serial No. 543,151
10 Claims. (Cl. 294—21)

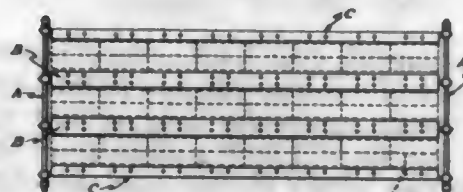


1. A tool for changing lamp tubes comprising an elongated handle, a pair of jaws mounted upon said handle for

pivotal movement towards and from each other, said jaws having complementary semicylindrical extensions disposed laterally thereof and providing a transverse slot at their front, means carried by said handle for opening and closing said jaws and operatively associated therewith, a clamp received in said extensions, said clamp comprising a longitudinally slitted resilient cylindrical sleeve, means mounting said clamp upon said extensions for rotary movement about an axis extending transversely of the horizontal axis of said handle, said clamp being rotatably positionable in said extensions with its slit aligned with said transverse slot, actuating means mounted upon and carried by said handle and operatively engaging said clamp for causing rotation of said clamp in said extensions.

2,822,206 LIFTER

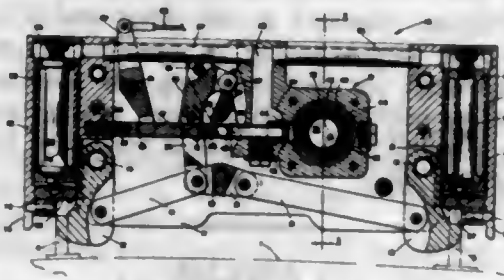
Andrew S. Mackenzie, St. Paul Park, Minn.
Application August 3, 1953, Serial No. 371,962
12 Claims. (Cl. 294-63)



1. A lifting apparatus for lifting a stack of bricks having spaced rows of bricks therebeneath, the apparatus including in combination a series of elongated members separately insertable between said rows of bricks, lifting means engageable with the ends of said elongated members, a plurality of plungers supported by said elongated members, pivotal bracket elements supported by said elongated members and connected to said plungers, and pivotal clamp blocks supported by said bracket elements on the separately insertable elongated members and independently operable by the weight of a load acting on said plungers after the elongated members are lifted but before the weight of a load is taken up by the elongated members for clamping the rows of bricks therebetween.

2,822,207 RELEASE EJECTOR

John C. Steinmetz, Anaheim, and Daniel E. Holloway, Manhattan Beach, Calif., assignors to North American Aviation, Inc.
Application November 20, 1953, Serial No. 393,406
4 Claims. (Cl. 294-83)

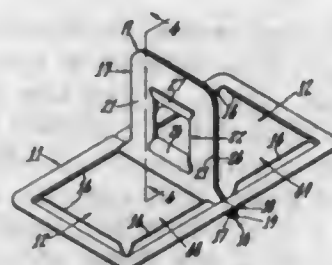


2. A suspension and release device for a store having a plurality of support portions, said device comprising a retractable and extensible retaining member for each of said support portions, each retaining member being adapted when extended to engage a support portion whereby said retaining members support said store; an operating linkage interconnecting said retaining members for effecting simultaneously operation thereof; piston means connected with said linkage whereby movement of said piston means through a stroke in one direction effects operation of said linkage to retract said retaining members; cylinder means for reciprocally receiving said

piston; explosion chamber means adapted to receive an explosive charge, said chamber being connected with said cylinder means whereby gases produced by the explosion of such a charge enter said cylinder means and react against said piston means for moving said piston means through said stroke thereby to retract said retaining members and release said store; an ejector cylinder disposed adjacent each of said retaining members; passage means interconnecting said ejector cylinders and said firstly mentioned cylinder, said firstly mentioned cylinder having port means therein providing communication with said passage means, said port means being disposed whereby said firstly mentioned piston means normally closes said port yet opens said port on said movement thereof, whereby said explosive gases are transmitted through said passage means to said ejector cylinders for engaging said ejector piston means and urging the same against said store at the location of each of said support portions for forcing said store away from said device.

2,822,208

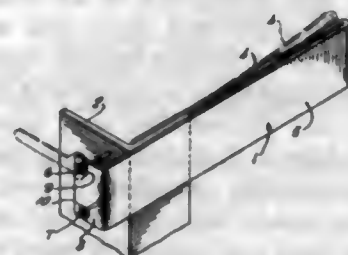
CARRYING DEVICE FOR CONTAINERS
Edward O. Then, Newark, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application December 23, 1955, Serial No. 555,039
6 Claims. (Cl. 294-87.2)



1. A carrier for a plurality of juxtaposed rectangular containers having at their top ends laterally projecting peripheral ledges, portions of which are arranged in transverse parallel relation, comprising a flat endless rectangular frame disposed in a horizontal plane for surrounding said juxtaposed containers, upwardly and inwardly extending support members formed integrally with said frame on the four sides thereof for engagement beneath said container ledges for supporting said containers, and an upstanding handle member of double layer thickness formed integrally with and displaced from a central area within said frame for carrying said supported containers.

2,822,209

CLAMP ARMS FOR LIFT TRUCK
Francis B. Cichaczewski, Brooklyn, N. Y.
Application January 14, 1955, Serial No. 481,905
5 Claims. (Cl. 294-99)



2. A lift truck clamp arm comprising an elongated flexible thrust member and an elongated flexible tension member disposed side by side; means securing one end of one member to the corresponding end of the other member and holding said ends against relative movement; support means for the other end of one member holding it against movement; and two adjustment means each operatively connected with the corresponding end of the

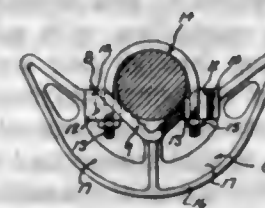
other member for moving the same in a direction to cause the first-mentioned ends of the members to flex laterally, said two adjustment means being engaged with such member at points spaced apart widthwise thereof.

2,822,210 LIFTING MECHANISM Dave F. Gebhart, Auburn, Calif. Application February 16, 1956, Serial No. 565,832 6 Claims. (Cl. 294-109)



1. A latching assembly for a pair of flexible linkages comprising a linkage guide body, said linkages disposed to move within said body, a cam mounted in said body between said linkages, a stop member connecting said linkages, a notch in said cam, said stop member and notch arranged to move said cam upon movement of said linkages in one direction to a locked position, means to lock said cam in said locked position, said cam arranged to co-act with said guide body to prevent movement of said linkages through said body when said cam is in locked position, and manually operable means to disengage said cam locking means whereby said cam is free to move from said locked position.

2,822,211 SAFETY HAND GUARD Walter K. Miller, Appleton, Wis., assignor to Advance Car Mover Co., Inc., Appleton, Wis., a corporation Application May 17, 1954, Serial No. 430,137 1 Claim. (Cl. 294-131)

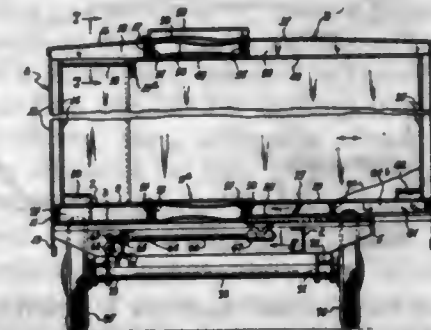


In a safety hand guard attachment for handles comprising a body portion adapted to extend transversely of a handle and including a V-shaped handle receiving seat, the active faces of said seat being provided with ribs, ears formed on the ends of the seat provided with slots, a U-shaped clamping bolt for straddling the handle including legs passing through the slots, nuts threaded on the legs of the bolts against the ears, whereby said hand guard may be secured to different sized handles and firmly held thereto, an arcuate flat rim spaced from the body portion and extending transversely of the handle and beyond the opposite sides of the said body portion, said flat rim being of a less width than the width of said V-shaped handle receiving seat, and webs connecting the rim with the body portion.

2,822,212 CONTRACTIBLE HOME Elmer W. J. Frey, Marshfield, Wis. Application March 30, 1955, Serial No. 497,873 8 Claims. (Cl. 296-23)

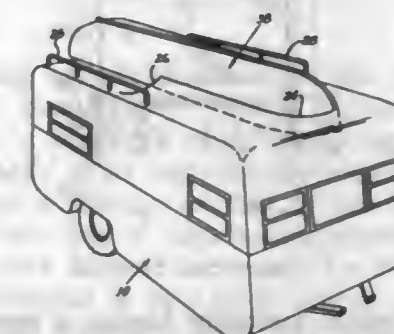
1. A contractible mobile home, comprising: a portable frame; a home enclosure mounted on said frame and including two transversely spaced sections having top walls, front and rear end walls, and bottom walls posi-

tioned with the corresponding inner edges thereof in confronting transversely spaced relation, providing gaps therebetween, one of said sections being transversely slidable on said frame toward said other section to narrow said gaps and contract the size of said enclosure; and



flexible sealing material mounted in and spanning said gaps with its opposite side edges secured to said confronting inner edges, said flexible sealing means being confined in said gaps when said one section is moved toward said other section.

2,822,213 HOUSE TRAILER WITH BOAT CARRYING RECESS IN ROOF Paul W. Smith, Quarryville, Pa. Application April 27, 1956, Serial No. 581,157 2 Claims. (Cl. 296-23)



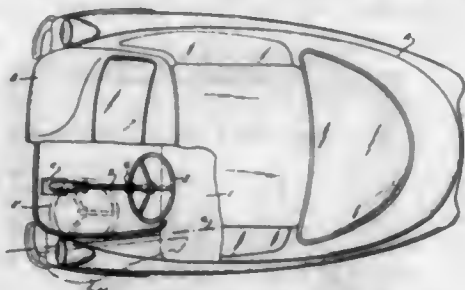
1. A combination house trailer and boat trailer comprising a hollow trailer body including a roof the top surface of which is formed with a shallow, upwardly opening recess, having a floor below the level of said top surface for supporting a boat on the roof in position at least partially recessed in the top surface, the recess having a closed forward end terminating rearwardly from the forward end of the roof, said recess having an open rear end for movement of a boat into and out of the recess, the recess being formed, at least at the fore part thereof, to a configuration when viewed in plan approximating that of the bow of a boat also seen in plan, for snug engagement of the bow of the supported boat within said fore part of the recess, the walls of the recess including overhangs for lockably engaging the bow of the supported boat within the fore part of the recess.

2,822,214 INTERCONNECTED VEHICLE FRONT DOOR AND STEERING WHEEL FOR EASY ACCESS TO SEATS

Lorenzo Amilcare Rivolta, Bresso, Italy
Application March 4, 1953, Serial No. 340,296
Claims priority, application Italy December 31, 1952
1 Claim. (Cl. 296-44)

In a motor car, in combination, an upright steering column means including a rigid lower portion fixedly secured to the motor car, a rigid upper portion, and universal joint-means connecting said upper and lower portions of said steering column means; a door means hingedly connected to the motor car for pivotal movement about an upright axis extending substantially parallel to said steering column means and being movable between a closed

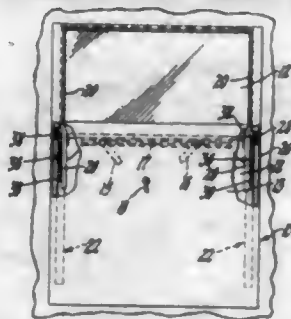
position and an open position; and a supporting means connecting said door means and said upper portion of the steering column means in such manner that said upper portion of the steering column means turns about said



universal joint means and assumes a position angularly displaced with respect to said lower portion of said steering column means and permitting easy access through said door means when said door means are moved to said open position.

2,822,215

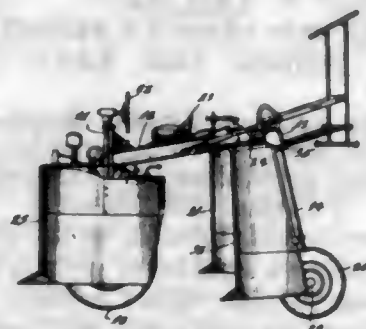
DOOR WINDOW ROLLER GUIDE ASSEMBLY
Russell N. Blanton, Detroit, and Guy L. Tucker, Livonia, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 20, 1954, Serial No. 444,542
5 Claims. (Cl. 296-44.5)



1. In a window assembly having a movable window pane, apparatus of the character described, including: a fixedly mounted glass run channel, a window sash member having an extension projecting into said channel; a planar mounting plate secured to the extension of said sash member on the outer side thereof; and a plurality of guide rollers rotatably mounted on said mounting plate and engaging the walls of said glass run channel, the axes of rotation of the rollers being parallel to the plane of the window pane and each roller lying flush against the mounting plate and being supported thereby against rocking movement.

2,822,216

SPRAY VEHICLE
George A. Finley and George W. Spieler, Aurora, Ill., assignors to Finco, Inc., Aurora, Ill., a corporation of Illinois
Application February 4, 1957, Serial No. 638,092
6 Claims. (Cl. 299-29)

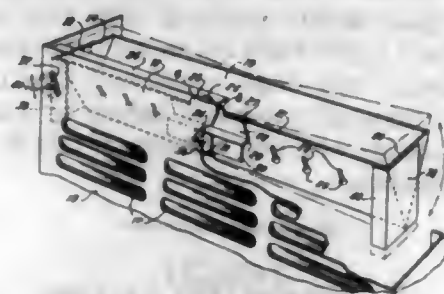


1. A self-propelled spray vehicle comprising a front vertical tubular column and a rotatable post housed therein, a steering wheel supported on said column and gear means operatively connecting the wheel and post, the

post having a lower portion laterally offset from the post axis and a stub axle on said portion, a traction wheel on said axle, a motor supported on said post and turnable therewith, driving means connecting the motor with said wheel, a tubular central frame member secured to said column extending rearwardly therefrom and constituting a gasoline reservoir, a rear transverse tubular frame unit welded to said central member, two tubular frame members welded to opposite ends of the transverse unit and depending therefrom, stub axles fixed on the lower end portions of said depending tubes and wheels on said axles, liquid spray storage tanks supported on said depending members and shaped at their forward edges for gently parting the foliage of bushy row crops, and a shield embracing said motor and front wheel shaped in its forward edge for gently parting the foliage of said row crops.

2,822,217

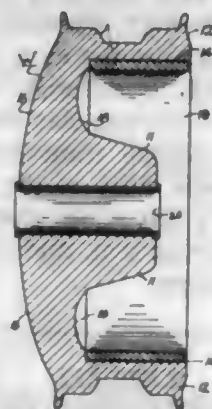
EVAPORATIVE COOLER CABINET WITH WATER DISTRIBUTING MEANS
William A. Marshall, Carl V. Alexander, and Arthur C. Keller, Dallas, Tex., assignors to Dearborn Stove Company, Dallas, Tex.
Application May 9, 1955, Serial No. 507,081
4 Claims. (Cl. 299-58)



1. In an evaporative cooler cabinet having a louvered wall, a water distributor comprising a trough supported at the top of said wall for tilting displacement about a horizontal axis disposed midway between the ends of said trough, a bracket affixed to said trough at its midsection and having pivotal connection with said wall at its top, a set screw extending through said wall below said pivotal connection and engaging said bracket to hold said trough in adjusted positions and manually operable means carried by one end of said trough and extending through a slot in said wall for tilting displacement of said trough.

2,822,218

INTEGRAL WHEEL AND DRUM
Marshall G. Whitfield, Garden City, N. Y.
Application July 6, 1953, Serial No. 366,281
5 Claims. (Cl. 301-6)



1. In a vehicle wheel a circular light-metal main-body portion, a light-metal flange portion circumferentially disposed about and integral with said circular main-body portion, a radially and outwardly extending edge on either side of and integral with the outer portion of said flange to define a pneumatic tire supporting rim, a relatively thin circular ferrous metal brake liner on the inner portion

of said flange opposite to said rim, said flange and rim functioning to give configuration and strength to said ferrous metal liner, said liner and said flange being joined together solely by an intermediate alloy layer of said light-metal with an alloy selected from the group consisting of molybdenum-iron and tin-iron to present a continuous unbroken metallic path to the flow of heat generated in the liner to the flange and main body portion of said wheel.

2,822,219

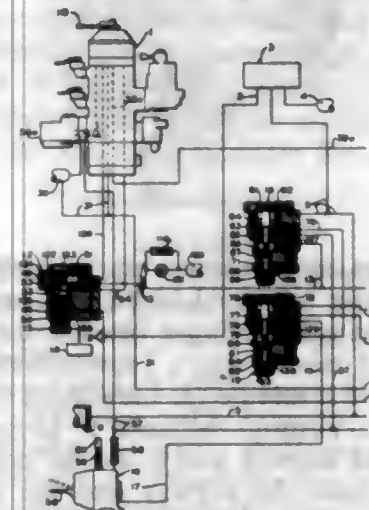
WHEEL, TIRE, AND TRIM RING ASSEMBLY
William F. Billingsley, Silver Lake, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application November 4, 1955, Serial No. 544,892
4 Claims. (Cl. 301-37)



2. A trim ring for use in an ornamental assembly with a vehicle wheel and tire for giving the appearance of a large section tire mounted on a relatively small diameter wheel, said trim ring comprising a flexible convex disc-like portion that joins a channeled radially outer portion adapted to embrace an outer wheel rim side flange, the outer portion of said trim ring being formed with an annular axially projecting rib portion to serve as a curb guard, said trim ring also having a reinforced and thickened inner portion for resiliently pressing against said wheel, said inner portion being formed with a curved outer face terminating in a rib to simulate a side trim flange.

2,822,220

COMBINED FLUID PRESSURE AND VACUUM BRAKE APPARATUS
Harry C. May, East McKeesport, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application December 28, 1956, Serial No. 631,333
11 Claims. (Cl. 303-4)

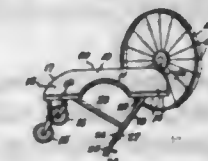


1. In a combined fluid pressure and vacuum brake apparatus, the combination of a brake pipe the pressure of fluid in which is reduced and increased for respectively causing an application and a release of locomotive brakes, a vacuum train pipe, a vacuum source, a conduit, flow-

restricting means interposed between said conduit and vacuum source, vacuum control valve means responsive to a reduction in brake pipe pressure to admit atmospheric air to said vacuum train pipe for causing an application of brakes on the connected cars of a train to a degree corresponding to the degree of brake pipe pressure reduction, said vacuum control valve means being responsive to an increase in brake pipe pressure to connect the vacuum train pipe to said conduit for causing a release of brakes on the connected cars, normally closed quick release valve means operable by fluid pressure to an open position for establishing a large capacity flow communication between said vacuum source and conduit in by-pass of said flow-restricting means, and other valve means automatically responsive to an increase in brake pipe pressure to supply fluid under pressure to said quick release valve means for actuating the latter to open position.

2,822,221

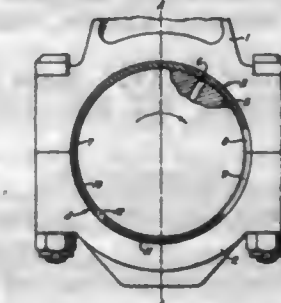
PRUNING AND PICKING TABLE
James W. Wallace, Grand Junction, Colo.
Application April 27, 1956, Serial No. 581,228
7 Claims. (Cl. 304-9)



1. A pruning and picking table of the class described comprising a body, swivel wheels supporting one end of said body, a propeller wheel supporting the opposite end of said body at an angle to the longitudinal axis of said body, and a fulcrum carried by said body and projecting from one side of said body opposite to said propeller wheel and adapted to engage an abutment to facilitate the swinging of said body around said abutment as an operator standing upon said table rotates said propeller wheel in a desired direction to a selected position.

2,822,222

BEARING WITH OIL RECESS
Phil Prince Love, Wembley, England, assignor to Johnson Bronze Company, New Castle, Pa., a corporation of Pennsylvania
Application December 10, 1954, Serial No. 474,412
2 Claims. (Cl. 308-122)



1. In a bearing for a connecting rod operating on a crank pin, the combination which comprises a crank pin and a connecting rod bearing; the crank pin having a single oil outlet hole opening to the bearing, the oil hole being located from 20° to 90° ahead of the top dead-center position; the connecting rod bearing being formed with an oil-receiving depression which begins at approximately 75° ahead of top dead-center and extends for about 60° in the direction of rotation, this depression being of a width less than one-fourth as great as the width of the bearing face; the connecting rod bearing being also formed with a surface recess beginning approximately 225° ahead of the top dead-center and ending approxi-

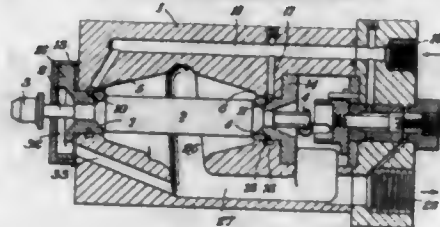
mately 330° ahead of top dead-center, this recess being of a width equal to approximately half the width of the bearing face, and having a depth tapering from a maximum at approximately 225° ahead of top dead-center to zero depth at approximately 330° ahead of top dead-center; the connecting rod bearing being also formed with a circumferential passage which connects the oil-receiving depression with the surface recess.

2,822,223

HIGH SPEED BEARINGS

Arthur Offen, Churchfield, South Nutfield, England, assignor to Arthur Offen Developments Limited, London, England, a British company

Application April 4, 1955, Serial No. 499,127
Claims priority, application Great Britain April 8, 1954
19 Claims. (Cl. 308—122)



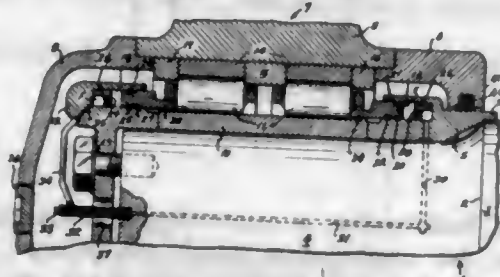
1. A bearing comprising a bearing part fixed against rotation, a bearing part rotatable relatively to the first-said bearing part, a smooth working face on said rotatable bearing part, a plurality of pockets on said fixed bearing part, each pocket comprising an uninterrupted ridge in the shape of a closed loop individual to that pocket and upstanding from said fixed bearing part, the top of the ridge being spaced with a small clearance from said smooth working face of the rotatable bearing part, each of said ridges being separate from the other pocket ridges and said ridges being spaced apart from each other around the axis of rotation of the rotatable bearing part, means for supplying fluid under pressure to each pocket, whereby fluid is forced through the small clearance between the top of each ridge and the smooth working face of the rotatable bearing part around the whole of the associated loop and passes into the space around and between the ridges, and means for conducting the fluid away from said space.

2,822,224

BEARING THRUST CUSHIONING MEANS

John B. Baker, Canton, Ohio, assignor to The Timken Roller Bearing Company, Canton, Ohio, a corporation of Ohio

Application August 15, 1955, Serial No. 528,347
18 Claims. (Cl. 308—180)



1. In a bearing structure; a housing; a journal in said housing; an anti-friction bearing having an outer race mounted in the housing, an inner race mounted on said journal, and rollers movably positioned therebetween so that the outer race can move axially relative to the inner race; means at opposite ends of said rollers forming a chamber, a slidably positioned thrust member in each chamber disposed to engage the opposite ends of said rollers; passage means connected between said chambers to place said chambers in fluid flow communication for the

interchange of fluid upon axial movement of said rollers relative to the inner race; and flow metering means in said passage means to regulate the rate of fluid flow therein and to dampen said relative axial movement.

2,822,225

BALL BEARING ASSEMBLY

Aloisius Teufel, Bourbon, Ind., assignor of one-half to F. I. Saemann, Warsaw, Ind.

Application May 18, 1955, Serial No. 509,171
7 Claims. (Cl. 308—183)



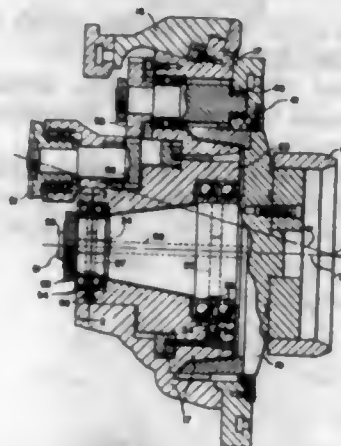
1. An automatically balancing ball bearing assembly comprising in combination inner and outer co-axial annular series of balls, a ball bearing ring between said inner and outer ball series, each of said ball series comprising a plurality of annular ball rows spaced from each other along the common axis of said ball series, said ring having a concave annular inner surface contacting said inner ball series and a substantially cylindrical outer surface having a plurality of annular grooves therein, said outer ball series being seated in said grooves, the outer ball series being spaced from the inner ball series along their common axis.

2,822,226

SPINDLE ASSEMBLY FOR MACHINE TOOLS

Leonard O. Carlsen, Rochester, and Herman A. Male, Brighton, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Original application June 25, 1952, Serial No. 295,452, now Patent No. 2,792,764, dated May 21, 1957. Divided and this application August 11, 1954, Serial No. 449,208

8 Claims. (Cl. 308—236)



1. A machine spindle assembly comprising a spindle housing, a spindle journaled in the housing on anti-friction bearing means including a bearing race mounted on the spindle, said race having a keyway formed therein, a key mounted in the spindle for movement relative thereto between a first position wherein it projects from the spindle into said keyway and a second position wherein it is retracted from the keyway into the spindle, a key actuating member movable in the spindle in opposite directions and accessible from one end of the spindle for the purpose of being so moved, and a positive-acting and reversible drive connection between said member and the key whereby the latter may be positively moved between said first and second positions in either direction by moving said member.

2,822,227

SEAL

John M. Drotteour, Warwick, and Howard A. Drotteour, Cranston, R. I.

Application September 26, 1955, Serial No. 536,629
8 Claims. (Cl. 309—34)



1. In a seal adapted for high pressure to limit fluid flow between two surfaces, a sheet-like member having two continuous edges, one of which engages one of said surfaces in a continuous line of contact and the other of which engages the other of said surfaces in a continuous line of contact, the marginal portion of said member along one of said edges being corrugated and the edge thereof extending parallel to the surface contacted across the entire extent of said corrugation to provide a corrugated edge having a continuous line of contact with the surface with which it engages.

2,822,228

MOUNTING FOR ADJUSTABLE TABLE TOP LEGS

Boyd C. Comer, Aurora, Ill.

Application June 11, 1956, Serial No. 590,535
5 Claims. (Cl. 311—111)



1. A leg mounting assembly including a frame comprising an elongated strip of sheet metal stock having end portions extending in a common direction substantially perpendicular to the intermediate portion to define end wings, said intermediate portion and said wings being disposed in vertical planes, a horizontal flange on the upper edge of each wing, a longitudinal flange on the upper edge of the intermediate portion, at least the flanges on the wings being apertured to receive mounting means for securing the frame to a surface, said wings being substantially triangular shaped and formed with reinforcing flanges on their inclined edges, tubular sockets integrally attached to said frame one at the juncture of each wing portion with the intermediate portion, said tubular sockets being longitudinally slotted inwardly of one end for at least a portion of their length, legs one telescoped into each tubular socket, and means to constrict the tubular sockets about the legs so as to retain the legs therein.

2,822,229

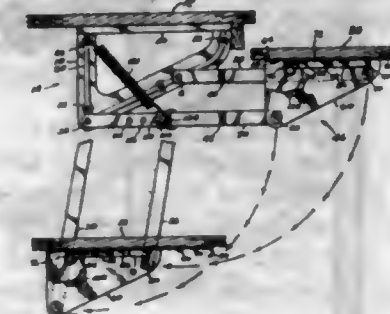
SWINGING SHELF SUPPORT

Stanley H. Carlson, Tacoma, Wash., assignor to Washington Steel Products, Inc., Tacoma, Wash., a corporation of Washington

Application August 2, 1954, Serial No. 447,283
5 Claims. (Cl. 312—27)

1. A self-contained swinging shelf support comprising a pair of spaced apart cabinet brackets, four swingable support arms, means for pivotally connecting one end of a pair of said arms to each cabinet bracket with the point of connection of one arm of each pair being forwardly and upwardly of that of the other arm, thereby providing upper and lower support arms, a pair of spaced apart shelf brackets, means for pivotally connecting the other

end of each arm of said pair of arms to the shelf brackets with the point of connection of the upper arm of each pair being forwardly and upwardly of that of the lower arm, lock means releasably interconnecting at least one of the arms and shelf brackets when the shelf is in elevated position, and coil spring means interconnecting at least one of the cabinet brackets and an intermediate point of one of the arms associated therewith, the ends of the coil spring means being connected to the cabinet



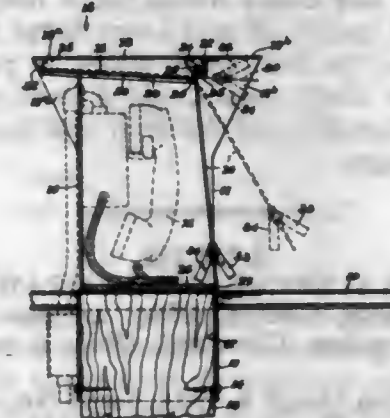
bracket and arm at points chosen with respect to the pivot connection of said arm and cabinet bracket such that the coil spring means is moved to opposite sides of said pivot connection during raising and lowering of the shelf, whereby the coil spring means functions when positioned on one side of the pivot connection to counter-balance a weight placed upon the shelf and to maintain the shelf in raised position, and when positioned on the opposite side of the pivot connection to maintain the shelf in lowered position.

2,822,230

SERVICE STAND AND TELEPHONE SHELTER

Arwin Pete Curran, Indianapolis, Ind.

Application November 23, 1954, Serial No. 470,698
8 Claims. (Cl. 312—323)

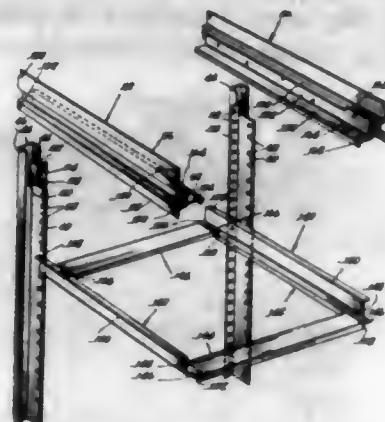


1. In a device of the class described, a box having a substantially rectangular aperture in one side thereof, a door for said aperture, means providing a supporting surface for said door within said box, and means for supporting said door for swinging movement about the upper edge thereof between a near-vertical, closed position and a near-horizontal, open position, and for sliding movement of said door onto said supporting surface after movement to said near-horizontal position, said means comprising hook means provided along the upper edge of said door and on the outer surface thereof, channel means supported from said box near the upper edge of said aperture and opening toward the interior of said box, said hook means being releasably engageable in said channel means for supporting said door therefrom when in its closed position, and fulcrum means supported from said box in contact with the inner surface of said door along a line substantially parallel to said channel means but spaced downwardly therefrom a distance slightly greater than the thickness of said door, said supporting surface lying substantially in a near-horizontal plane including the line of said fulcrum means.

2,822,231

EQUIPMENT ENCLOSURE STRUCTURE

Herbert C. Golz, Aurora, and Lawrence J. Fay, Elgin, Ill., assignors to Elgin Metalformers Corporation, Elgin, Ill., a corporation of Illinois
Application March 17, 1954, Serial No. 416,888
10 Claims. (Cl. 312-336)



1. An enclosure of the type described comprising means providing a chamber, substantially horizontally disposed track means located at opposite sides of said chamber, and cradle means extending between and slidably supported on the track means at opposite sides of said chamber for carrying a separate device such as an electrical equipment chassis or a drawer, each of said track means including a horizontally disposed outwardly facing channel member having a depending vertical flange connected with a side structure of said chamber means, a second horizontally disposed inwardly facing channel member having a vertical web section connected with a vertical web section of said first mentioned channel member, said second channel member having upper and lower horizontal inwardly extending flanges providing guides for said cradle means and a flange depending from an inner margin of said lower flange for cooperating with means on said cradle means to prevent lateral shifting of the cradle means, and a downwardly facing channel member disposed between and secured to said depending flanges.

2,822,232

SLIDE SUSPENSION FOR DRAWERS

Harold P. Lhota, Canton, Ohio, assignor to Republic Steel Corporation, Cleveland, Ohio, a corporation of New Jersey
Application March 5, 1954, Serial No. 414,315
3 Claims. (Cl. 312-341)

3. A drawer suspension having a slide member and a guide member therefor wherein each of said members has at least one horizontal portion adjacent the other and each member has a vertical portion opposite the edge of the horizontal portion of the other member, a glide block bearing

ing element having lateral portions and a connecting transverse portion adjacent one end of the lateral portions, said lateral portions being spaced apart to define a member receiving slot and being adapted to straddle the horizontal portion of one of said members, the member being received

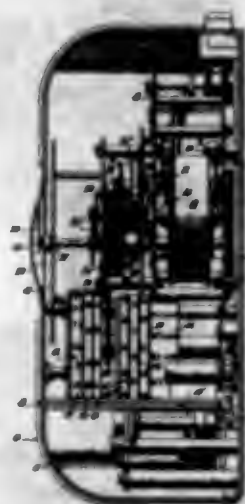


in the slot, with one of the lateral portions interposed between and spacing apart such horizontal portion and the adjacent horizontal portion of the other member and with the transverse portion interposed between and spacing apart the edge of such horizontal portion and the vertical portion of the other member opposite such edge.

2,822,233

TIME RECORDING CLOCK

Walker F. Rucker, Greensboro, N. C.
Application January 22, 1953, Serial No. 332,715
3 Claims. (Cl. 346-66)



1. In a time recording clock for recording times of arrival and departure on a time card, a casing having a slot for reception of the time card, first type means disposed relative to said slot to imprint on the time card the time of insertion of the card in said slot, second type means for simultaneously imprinting in inverted relation to said first type means the time of insertion of the card in said slot in units of elapsed minutes of the day to dispose the later imprint of a successive pair of imprints of said second type means in erect position above the earlier imprint of said pair when the imprinted card is inverted for direct subtraction of elapsed time between said pair of imprints, and means for advancing said first and second type means in steps of one minute.

CHEMICAL

2,822,234

ICE-COLORS IN TEXTILE PRINTING WITH NEUTRAL STEAM

Kurt Breig and Eugen Gletenberg, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany
No Drawing. Application December 16, 1954
Serial No. 475,823

Claims priority, application Germany December 28, 1953
6 Claims. (Cl. 8-71)

1. A process for printing textile fibres of the group consisting of cotton and regenerated cellulose fibers with

insoluble azo dyestuffs developed on the fibre which comprises diazotizing a compound selected from the group consisting of dihalogeno-alkyl-anilines and dihalogeno-alkoxy-anilines, reacting the diazo compound formed with a compound selected from the group consisting of 2-alkylamino-5-sulfobenzoic acid and 2-alkylamino-4-sulfobenzoic acid in the presence of a fixed alkali to form an alkali salt of a diazoamino compound, mixing said alkali salt with an alkali salt of a coupling component, adding a thickener to the mixture, applying the resulting mixture to a textile fibre, and developing the dyestuff on said fibre by steaming with neutral steam.

2,822,235

METHOD OF LEATHER-FATTING

Rudi Heyden, Dusseldorf, Gerhard Dieckelmann, Dusseldorf-Himmelgeist, and Jürgen Plapper, Dusseldorf-Holthausen, Germany, assignors to Bohme Fettchemie G. m. b. H., Dusseldorf, Germany, a corporation of Germany
No Drawing. Application November 9, 1954
Serial No. 467,894

Claims priority, application Germany November 9, 1953
7 Claims. (Cl. 8-94.23)

1. The method of retarding discoloration of leather on exposure to light which comprises fattening said leather by applying to said leather an aqueous emulsion of an emulsifier and a compound selected from the group consisting of epoxidized derivatives of high-molecular unsaturated fatty acids and high-molecular unsaturated fatty alcohol esters of monobasic and polybasic acids.

2,822,236

PROCESS OF MAINTAINING BRIGHTNESS IN HIGH DENSITY WOOD PULP HAVING A pH 6-10 BY ADDING HYDROGEN PEROXIDE AND COMPOSITION PRODUCED THEREBY

Fred R. Sheldon, Buffalo, Robert L. McEwen, Williams-ville, and Carl E. Price, Snyder, N. Y., assignors, by mesne assignments, to Food Machinery and Chemical Corporation, San Jose, Calif., a corporation of Delaware
No Drawing. Application November 19, 1954
Serial No. 470,128

3 Claims. (Cl. 8-104)

3. A new composition of matter, a bleached wood pulp from the group consisting of bleached chemical and bleached semi-chemical wood pulps, said pulp having been bleached with an amount of a bleach from the group consisting of chlorine bleaches, peroxide bleaches and combinations of chlorine and peroxide bleaches to provide in said pulp a GE brightness of 50-85, said pulp having a density of 75% to 95%, a pH in the range pH 6 to pH 10 and having 0.02% to 0.25% hydrogen peroxide on a dry pulp basis whereby the brightness of said pulp is maintained during storage.

2,822,237

PROCESS FOR PRODUCING FILAMENT OF VINYL CHLORIDE POLYMER

Hiroshi Iwamae, Nishiki-machi, Iwaki-gun, Japan
Application February 21, 1955, Serial No. 489,509
4 Claims. (Cl. 18-54)

1. A process for the production of filaments of a high molecular weight vinyl chloride polymer, which comprises the steps of melting a mixture of a high molecular weight vinyl chloride polymer and a plasticizer and a heat stabilizer by heating the same, spinning filaments from the resulting molten substance, and thereafter contacting said filaments with vinyl chloride monomer to remove at least a portion of said plasticizer and heat stabilizer from said filaments.

2,822,238

SURFACTANT TREATMENT OF MICROBALLOONS TO IMPROVE WATER RESISTANCE

Richard D. Croft, Chagrin Falls, and Franklin Veatch, Lyndhurst, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 31, 1954
Serial No. 479,251

9 Claims. (Cl. 21-60.5)

1. In the method of inhibiting evaporation of volatile non-aqueous liquid products which comprises covering the surface of said products with a floating layer of individual and separate, small, hollow, gas-filled, hole-free particles of a solid material inert to said volatile product and preferentially wet by water, which particles have an average diameter of less than 500 microns and a liquid

displacement density of from 0.05 to 0.6, the improvement which comprises contacting said particles with a water-insoluble, ionic, surface-active agent in an amount less than 40% by weight of said particles to render said particles less sensitive to water.

2,822,239

METHOD OF SEPARATING PLUTONIUM

Harrison S. Brown and Orville F. Hill, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application July 31, 1944
Serial No. 547,520

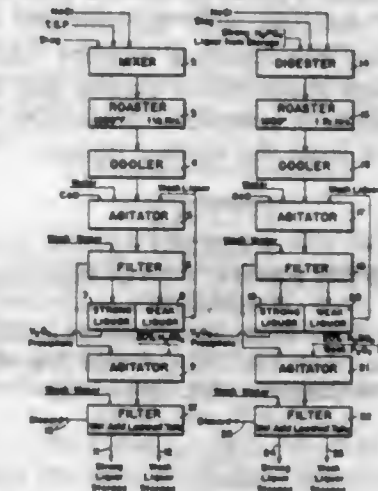
7 Claims. (Cl. 23-14.5)

1. The process of separating plutonium from uranium that comprises converting the uranium and plutonium to uranium and plutonium hexafluorides, vaporizing the hexafluorides, and passing the vapor over a surface of copper metal maintained at a temperature between about 100° C. and 450° C.

2,822,240

PROCESS FOR EXTRACTING VANADIUM VALUES FROM ORES, SLAGS, CONCENTRATES AND THE LIKE

Holbert E. Dunn and Bruno Mayer, Crafton, and Ellis J. O'Brien, Emsworth, Pa., assignors to Vanadium Corporation of America, New York, N. Y., a corporation of Delaware
Application December 10, 1952, Serial No. 325,158
11 Claims. (Cl. 23-21)



1. In a process for extracting vanadium values from vanadium-containing material containing substantially water-insoluble compounds of vanadium oxide combined with at least one basic oxide of the group consisting of CaO, MgO, FeO and MnO, the steps comprising mixing the comminuted vanadium-containing material with NaCl and an active phosphorus-bearing compound of the group consisting of monosodium orthophosphate, sodium pyrophosphate, monocalcium phosphate, the commercial form of monocalcium phosphate monohydrate containing 46-48% available P₂O₅, phosphorus pentoxide and phosphoric acid, roasting said mixture to form water-soluble sodium metavanadate and water-insoluble compounds of said basic oxides, and water-leaching the roast to extract sodium metavanadate.

2,822,241

DIGESTION IN SULPHURIC ACID OF TITANIFEROUS ORE CONCENTRATES CONTAINING ORGANIC FLOTATION AGENT

Thomas S. Griffin and Warren Rodgers, St. Louis, Mo., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey
No Drawing. Application August 17, 1953
Serial No. 374,828

6 Claims. (Cl. 23-117)

1. A method for treatment of titaniferous ores containing organic flotation agents selected from the group

consisting of anionic flotation agents, petroleum agents, and asphalt materials to render the same amenable to attack by concentrated sulfuric acid which comprises adding to said ore a small but effective amount of the monoglyceride of a saturated fatty acid containing from about 12 to about 20 carbon atoms.

2,822,242

MANUFACTURE OF CALCIUM SULPHATE ANHYDRITE FROM GYPSUM, CALCIUM CARBONATE AND SULFURIC ACID

Donald P. Doll, Webster Groves, Warren Rodgers, St. Louis, and Charles R. Trampler, Jr., Crestwood, Mo., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application February 10, 1954

Serial No. 409,506

5 Claims. (Cl. 23-122)

5. Method for the preparation of calcium sulfate anhydrite which comprises admixing finely-divided ground limestone with a sulfuric acid liquor containing from about 4 percent to about 25 percent H_2SO_4 , the quantity of sulfuric acid employed being in excess of the stoichiometric quantity required to react with the limestone, separating the resultant gypsum from the supernatant liquor and mixing said gypsum with ground finely-divided limestone and water to form a slurry, adding the mixed gypsum-limestone slurry continuously to a solution consisting initially of at least 55 percent H_2SO_4 at a temperature of about $60^\circ C.$, the amount of acid being such as to provide at least 4 percent sulfuric acid in the mother liquor after the reaction with the sulfuric acid is complete, maintaining the reaction mixture under agitation and at an elevated temperature during said addition and when said addition is complete, separating the calcium sulfate so formed from the mother liquor.

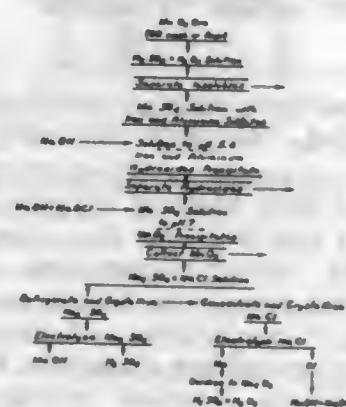
2,822,243

PROCESS FOR PRODUCING MANGANESE DIOXIDE

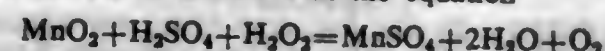
Age Emil Brix, Los Angeles, Calif.

Application May 14, 1954, Serial No. 429,994

4 Claims. (Cl. 23-145)

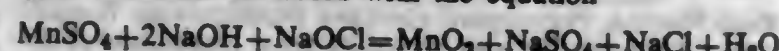


1. A method for producing manganese dioxide consisting of the steps of: subjecting a finely ground ore containing manganese dioxide along with iron and aluminum constituents to the action of a dilute sulfuric acid solution containing hydrogen peroxide to reduce the manganese dioxide in accord with the equation



with oxygen evolution to agitate the mixture and yielding a solution of manganese, aluminum, and iron sulfates and an insoluble residue; separating said insoluble residue from the solution; adjusting the pH of the solution to about pH 5.4 with sodium hydroxide to precipitate the aluminum and iron solubles as hydroxides; separating such iron and aluminum hydroxides; introducing sodium hydroxide and sodium hypochlorite to the re-

maining manganese sulfate solution to precipitate manganese dioxide in accord with the equation



and recovering the manganese dioxide precipitate.

2,822,244

STABILIZATION OF LIQUID SULFUR TRIOXIDE AND OLEUMS

Richard W. Cornely, Belle Mead, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application January 3, 1956

Serial No. 556,817

7 Claims. (Cl. 23-174)

1. The method of stabilizing against SO_3 polymerization a compound selected from the group consisting of liquid sulfur trioxide and oleum of SO_3 strength such that SO_3 polymers tend to form comprising incorporating therein about 0.2 to 5% by weight based on SO_3 content of sulfamic acid.

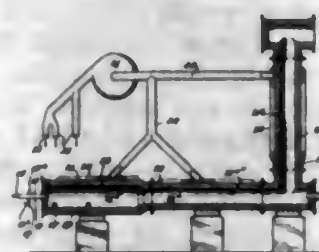
2,822,245

PROCESS FOR MANUFACTURING SULFUR DIOXIDE BY BURNING SULFUR

James J. Shipman, Neenah, and John Wallace de Vos, Appleton, Wis., assignors, by mesne assignments, to Kimberly-Clark Corporation, a corporation of Delaware

Application November 26, 1954, Serial No. 471,156

5 Claims. (Cl. 23-179)



1. A process for manufacturing sulfur dioxide by burning which comprises feeding air and sulfur to a smooth walled tubular combustion chamber at such a rate as to establish a Reynolds number in excess of 5000 and a mass velocity in said chamber in excess of 2000 pounds per square foot per hour, forming said smooth walled combustion chamber with a limited length and with freedom of obstruction within said limited length whereby heat losses from said combustion chamber are minimized, the ratio of the weight of air to the weight of sulfur being in the range of from about 4.3 to about 13, subjecting the air and sulfur to turbulent mixing, burning the mixed air and sulfur while maintaining turbulent mixing until the sulfur is substantially completely converted to sulfur dioxide.

2,822,246

METHOD FOR MAKING TITANIUM NITRIDE FROM PHOSPHATES

Leif Aagaard, Plainfield, and Helmut Espenschied, Metuchen, N. J., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application September 23, 1953

Serial No. 381,960

5 Claims. (Cl. 23-191)

1. Method for the production of titanium nitride which comprises forming an intimate and at least stoichiometric mixture of titanium pyrophosphate and carbon and heating said mixture in an atmosphere of nitrogen at a temperature of from about $1100^\circ C.$ to about $1600^\circ C.$ to calcine said mixture and produce titanium nitride having a particle size in the range of from 1 to 50 microns.

2,822,247

PROCESS FOR THE SYNTHESIS OF MANGANESE CARBONYL

Vincent Hnizda, Huntington Woods, Mich., assignor to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application June 21, 1956

Serial No. 592,713

5 Claims. (Cl. 23-203)

1. A process for the synthesis of manganese carbonyl which comprises reacting manganous chloride with an aryl magnesium halide and carbon monoxide wherein the carbon monoxide pressure is at least about 393 p. s. i. g. and the temperature ranges from about $-70^\circ C.$ to about $200^\circ C.$

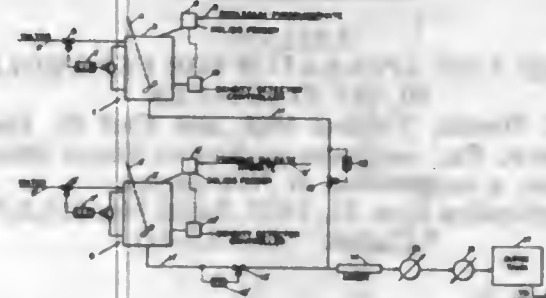
2,822,248

CONTINUOUS PRODUCTION OF SALT SOLUTIONS

David S. Harmony, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application December 27, 1954, Serial No. 477,757

7 Claims. (Cl. 23-312)



1. A method of preparing an aqueous solution of a pyrophosphate complex of uniform quality which comprises introducing water to a first solution preparation zone in response to changes in solution level in said zone to maintain said level substantially constant, introducing a water soluble salt of a multivalent metal to said preparation zone in response to changes of solution density in said zone so as to maintain said density substantially constant, introducing water to a second solution preparation zone in response to changes in solution level in said second zone so as to maintain said last level substantially constant, introducing a pyrophosphate salt to said second preparation zone in response to changes of solution density in said second zone so as to maintain said last density substantially constant, withdrawing solution from both of said zones at a predetermined ratio, mixing withdrawn solution, and heating said mixture for a period of time sufficient to cause the pyrophosphate salt and the multivalent metal salt to complex.

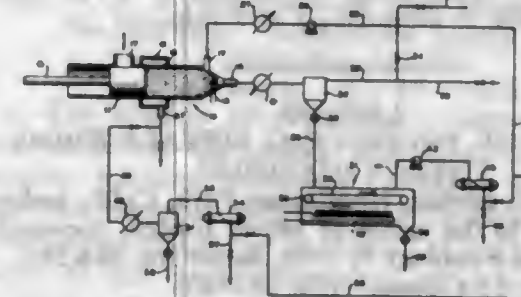
2,822,249

SEPARATION PROCESS AND APPARATUS

Jean Paul Jones, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application February 26, 1954, Serial No. 412,789

8 Claims. (Cl. 23-310)



1. A process for purifying an impure solid material, which comprises forcing an elongated compressed mass of impure solid material through an elongated confined displacement zone, introducing a solvent for said ma-

terial into the downstream end of said elongated zone, dissolving solid material in said downstream end, removing a portion of the resulting solution, cooling said solution thereby causing at least a portion of the material being purified to precipitate therefrom, recovering said precipitated material as a product of the process, heating the solvent from which the solid material was recovered, returning said heated solvent to the downstream end of said displacement zone, forcing a further portion of the solution through said displacement zone and through and countercurrent to said compressed mass of solid material by pressure displacement resulting from the movement of said compressed mass of solid material, and removing the resulting liquid together with impurities from said displacement zone.

2,822,250

MATERIAL REMOVAL FROM SEMI-CONDUCTIVE METAL TELLURIDE

Dirk de Nobel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application November 28, 1955

Serial No. 549,519

Claims priority, application Netherlands December 1, 1954

3 Claims. (Cl. 41-42)

1. A method of removing by etching a surface portion of a semi-conductive body constituted by a telluride of a bivalent metal, comprising converting the material of said surface portion of said body to a material selected from the group consisting of tellurium, tellurium oxide, and mixtures thereof, and treating said thus-formed surface portion with a solution of $Na_2S_2O_4$ and NaOH to remove same.

2,822,251

CHARCOAL BRIQUETTES AND METHOD FOR THEIR MANUFACTURE

Richard W. Swinehart and Harry W. Bull, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application September 22, 1955

Serial No. 536,015

14 Claims. (Cl. 44-41)

2. A dustless and non-smudging charcoal briquette comprising charcoal mixed with a binding material for charcoal that is selected from the group consisting of water soluble cellulose ethers, starch and glue and compressed into a formed mass which is coated with a pigmented and plasticized film-forming composition of a water soluble cellulose ether.

2,822,252

ANTI-KNOCK COMPOSITIONS

James C. Boag, Detroit, and Harry R. Dittmar, Royal Oak, Mich., assignors to Ethyl Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 31, 1955

Serial No. 512,272

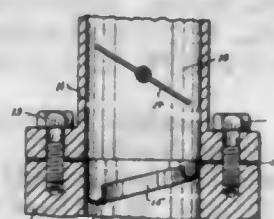
7 Claims. (Cl. 44-69)

1. An organolead antiknock fluid having as its principal antiknock ingredient an organolead compound and containing a halogenated organic compound scavenger wherein at least one mole percent of halogen in the scavenger is present in the form of halonitrohydrocarbon compounds having 2 to 20 carbon atoms, 1 to 6 halogens and 1 to 3 NO_2 groups in which the NO_2 groups are attached to non-aromatic carbon atoms and in which the halogens are of atomic weight 35-81, said nitrohalohydrocarbon being further characterized in that at least one halogen is attached to a non-aromatic carbon atom which is not more than two carbons removed from an NO_2 -bearing carbon; the total amount of said halogenated organic compound scavenger being in the range of 0.1-4.0

theories based on the amount of organolead compound present and the total amount of said halonitro hydrocarbon being in the range of 0.05-3.0 theories based on the amount of organolead compound present; a theory being that amount of scavenger which provides 2 atoms of halogen for every lead atom present in said fluid.

5. A petroleum hydrocarbon fuel of the gasoline boiling range containing the composition of claim 1 in amount such that the lead content is between about 0.02 and 13.2 grams of lead per gallon of fuel.

2,822,253
LIQUID FUEL COLLECTOR AND DISTRIBUTOR RING FOR CARBURETORS
Richard E. Caddock, Ames, Iowa
Application May 16, 1955, Serial No. 508,367
4 Claims. (Cl. 48-180)



1. In combination with the throat tube of a carburetor having a butterfly valve, a split liquid collecting ring on the inside wall of said throat tube, below said butterfly valve and having its split located under the high side of said butterfly valve; said ring extending at an angle to the longitudinal plane of said throat tube with its high side under the low side of said butterfly valve and its low side under the high side of said butterfly valve.

2,822,254
NITRILE RUBBER BONDED ABRASIVE MODIFIED BY A DIKETONE
George J. Goepfert, Cincinnati, Ohio, and Carl von Doenhoff, Niagara Falls, N. Y., assignors to The Carborundum Company, Niagara Falls, N. Y., a corporation of Delaware
No Drawing. Application April 22, 1955
Serial No. 503,335
10 Claims. (Cl. 51-298)

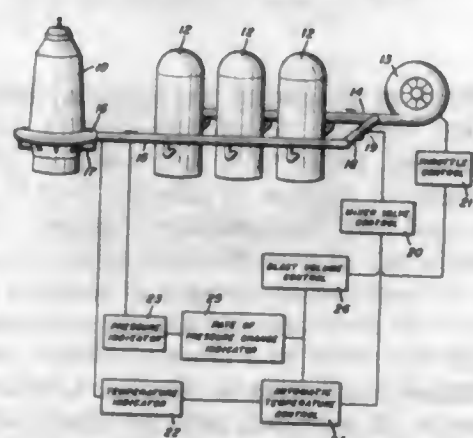
1. A rubber bonded abrasive article comprising a major proportion of abrasive grain and a minor proportion of a binder therefor, said binder comprising essentially a copolymer of a conjugated diolefin and a nitrile selected from the group consisting of acrylic and methacrylic nitrile and a diketone selected from the group consisting of alpha diketones and non-alpha diketones having a conjugated system of double bonds comprising a C=C linkage at the alpha-beta position on at least one side of each carbonyl group, the amount of diketone present being in the range of the mol equivalent of about 5-50% of benzil based on the copolymer.

2,822,255
MANUFACTURE OF ABRASIVE ARTICLES
Cyril Aubrey Redfern, London, England
No Drawing. Application July 18, 1955
Serial No. 522,838
Claims priority, application Great Britain July 19, 1954
13 Claims. (Cl. 51-298)
1. An abrasive article comprising abrasive grains bonded by a polyphosphonitrilic chloride which has been polymerised in situ to a solid infusible state.

2,822,256
SMEETING OF ILMENITE
Gerald G. Hatch, Sorel, Quebec, and Peter J. Enslo, Saint Lambert, Montreal, Quebec, Canada, assignors to Quebec Iron and Titanium Corporation, Wilmington, Del., a corporation of Delaware
No Drawing. Application March 21, 1956
Serial No. 572,792
7 Claims. (Cl. 75-7)

1. The method of increasing the carbon content of the metallic iron produced during smelting of ilmenite with a solid carbonaceous reducing material which comprises desulphurizing the ore to remove at least a major portion of its indigenous sulphur content, thereafter admixing the desulphurized ore with a quantity of solid carbonaceous material slightly less than that theoretically required to reduce all of the oxidic iron component of the desulphurized ilmenite to a carbon-containing metallic iron, smelting the resulting mixture of desulphurized ore and carbonaceous material and thus producing a molten titaniferous slag concentrate and the desired molten metallic iron product.

2,822,257
METHOD AND APPARATUS FOR CONTROLLING BLAST FURNACES
Ralph T. Hanna, Fairless Hill, and Carl G. Hogberg, Glenshaw, Pa., assignors to United States Steel Corporation, a corporation of New Jersey
Application June 21, 1955, Serial No. 516,848
5 Claims. (Cl. 75-41)

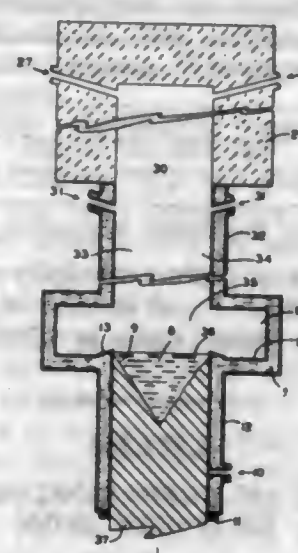


2. In the operation of a blast furnace, wherein a pre-heated air blast is applied to the lower portion of the furnace and the pressure within this portion is a function of factors which include volume of the blast and temperature of the blast, a method of maintaining this pressure at absolute values close to the critical that causes hanging comprising periodically gradually increasing at least one of said factors from a starting point substantially below that which produces a critical pressure and thereby gradually increasing the absolute pressure, continuously measuring the rate of pressure change as the absolute pressure increases, continuing to increase this factor as long as no increase occurs in said rate regardless of increases in the absolute pressure up to the limit which itself causes hanging, and cutting back this factor when an increase is detected in said rate.

2,822,258
METHOD OF PRODUCING METALS FROM THEIR CHLORIDES
James Fernando Jordan, Huntington Park, Calif., assignor of one-third to the estate of James Jordan, deceased
Application February 7, 1955, Serial No. 486,591
12 Claims. (Cl. 75-43)

1. In the process wherein a chloride of an element selected from the group consisting of iron, chromium, vanadium, nickel, cobalt, titanium and zirconium is reacted in a reaction zone with a reducing agent metal selected from the group consisting of magnesium, calcium, sodium, po-

tassium and lithium to form a reaction product containing a product metal in which at least one of said elements is a major constituent and a chloride of said reducing agent metal, and in which said product metal is then separated from said reaction product, the method of separating said product metal from said reaction product, which comprises: flowing said reaction product to form a reaction product stream in which particles of said product metal are dispersed within a molten stream of said reducing agent metal chloride, the temperature of said reaction product stream being in the range between above the melting point and below the boiling point of said reducing agent metal chloride; flowing said reaction product stream into a temperature build-up zone that is essentially separate from said reaction zone; reacting sufficient chlorine gas with sufficient of said reducing agent metal in fluid phase to form a heating stream of a gas

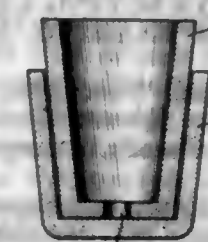


consisting essentially of a chloride of said reducing agent metal at a temperature that lies substantially above the boiling point of said reducing agent metal chloride; mixing said reaction product stream with sufficient of said heating stream within said temperature build-up zone to lift the resulting mixed stream to a temperature that lies above the boiling point of said reducing agent metal chloride; flowing said mixed stream into a contiguous depositing zone wherein particles of the product metal content of said mixed stream are brought into contact with and collected on the heated surface of a mass of said product metal by flowing said mixed stream into contact with said surface, said surface being maintained at a temperature that lies above the boiling point of said reducing agent metal chloride with the aid of the heat content of said mixed stream; and then flowing the gas content of said mixed stream away from said surface.

2,822,259
METHOD OF PRODUCING REFRACTORY METALS
Bertram C. Raynes, Euclid, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey
No Drawing. Application August 13, 1954
Serial No. 449,802
7 Claims. (Cl. 75-84.1)

1. The method of producing a substantially carbon-free metal of the group consisting of titanium, zirconium, hafnium, vanadium, niobium, tantalum, uranium, molybdenum, tungsten and chromium which comprises effecting contact between (a) a carbonaceous material of the group consisting of carbon, carbon-contaminated transition metal and carbides of said metals and (b) a molten body consisting essentially of an alkali metal double fluoride of said metal at a temperature of about 1800° C. and higher, and recovering the resulting metal formed in said molten body.

2,822,260
DECONTAMINATION OF URANIUM
Harold M. Feder, Park Forest, and Norman R. Chellew, Joliet, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application February 21, 1956, Serial No. 574,051
9 Claims. (Cl. 75-84.1)



1. A process of removing fission products from neutron-bombarded uranium comprising melting said uranium in contact with at least one refractory oxide selected from the group consisting of uranium dioxide, thorium oxide, magnesium oxide, beryllium oxide and aluminum oxide whereby a slag layer forms, and separating the fission products-enriched slag layer from a uranium layer.

2,822,261
METHOD OF SEPARATING METAL VALUES FROM AMMONIACAL SOLUTIONS
Vladimir Nicolaus Mackiw, David John Ivor Evans, and Naoyuki Yoshida, Fort Saskatchewan, Alberta, Canada
No Drawing. Application February 25, 1957
Serial No. 641,854
7 Claims. (Cl. 75-103)

5. In a method of separating values of metals the sulphides of which are of lower solubility in ammoniacal solution than nickel sulphide from an ammoniacal solution which contains, in solution, free ammonia in excess of about 1 gram per litre for each gram per litre of nickel plus cobalt, a salt of at least one such lower solubility metal, at least one salt of a metal of the group consisting of nickel and cobalt, and at least one sulphur compound of the group consisting of polythionates having more than two sulphur atoms in their molecular structure and thiosulphate, the improvement which comprises the steps of adjusting the free ammonia content of the solution to not less than that which when reacted with sulphuric acid will produce in the ammoniacal solution a total ammonium sulphate concentration not less than about 5 grams per litre for each gram per litre of dissolved nickel plus cobalt, adding sulphuric acid to the solution in amount sufficient to reduce the ammonia content thereof to not less than about 2.0 mols per mol of nickel plus cobalt and the pH value of the solution to not less than about pH 7.2, whereby values of metals of lower solubility than nickel sulphide are precipitated from the solution, and separating precipitated metal values from the solution.

2,822,262
SEPARATION OF NICKEL FROM COBALT
Robert Lucien Benoit, Wei Cheng Lin, and Vladimir Nicolaus Mackiw, Fort Saskatchewan, Alberta, Canada, assignors to Sherritt Gordon Mines Limited, Toronto, Ontario, Canada, a company of Ontario, Canada
No Drawing. Application April 11, 1956
Serial No. 577,446
6 Claims. (Cl. 75-109)

1. In a method of precipitating nickel values from an ammoniated solution containing dissolved salts of nickel and cobalt in the ratio of cobalt to nickel less than 100:1 by reacting the solution with a sulphur free reducing gas at elevated temperature and pressure, the improvement which comprises adjusting the ammonia content of the solution to at least about 2 mols of ammonia per mol of nickel, conducting the reducing reaction in the presence of added finely divided cobalt metal particles, and con-

tinuing the reaction to precipitate nickel on said cobalt metal particles until a cobalt to nickel ratio in the solution greater than 100:1 is attained, and separating nickel-cobalt metal particles from the solution leaving a residual solution in which the cobalt to nickel ratio is greater than 100:1.

2,822,263 METHOD OF EXTRACTING COPPER VALUES FROM COPPER BEARING MINERAL SULPHIDES

Frank Arthur Forward, Vancouver, British Columbia, Canada, assignor to Sherritt Gordon Mines Limited, Toronto, Ontario, Canada, a corporation of Ontario, Canada

No Drawing. Application September 1, 1954
Serial No. 453,680

3 Claims. (Cl. 75-117)

1. In a method of producing copper metal powder from copper bearing mineral sulphides in which finely divided copper bearing mineral sulphides are leached with a strong aqueous ammonia leach solution under a partial pressure of oxygen to produce a leach solution which contains dissolved copper values, free ammonia, and at least one oxidizable sulphur compound of the group consisting of polythionates and thiosulphate, undissolved residue is separated from the leach solution and the clarified solution is reacted with a sulphur-free reducing gas to precipitate copper metal powder, the improvement which comprises the step of reacting the clarified copper bearing leach solution prior to reacting it with a sulphur-free reducing gas with an oxygen bearing, oxidizing gas for a period of time sufficient to convert substantially all the oxidizable sulphur compounds to an oxidized sulfur compound of the group consisting of ammonium sulphate and ammonium sulphamate.

2,822,264 SEPARATING NICKEL FROM SOLUTIONS CONTAINING NICKEL AND COBALT

Robert Lucien Benoit, Vancouver, British Columbia, and Vladimir Nicolaus Mackiw, Fort Saskatchewan, Alberta, Canada, assignors to Sherritt Gordon Mines Limited, Toronto, Ontario, Canada, a company of Ontario, Canada

No Drawing. Application April 11, 1956
Serial No. 577,445

7 Claims. (Cl. 75-119)

1. The method of separating nickel from cobalt which comprises preparing an aqueous ammoniated solution which contains, in solution, a minor amount of nickel sulphate and a larger amount of cobalt sulphate, substantially all the dissolved cobalt values being in trivalent form, at least about 4 gram mols of bound ammonia per gram atom of cobalt plus nickel and at least about 300 grams of ammonium sulphate per litre, agitating the solution, reducing an amount of trivalent cobalt to bivalent cobalt at least equivalent to the amount of nickel in the solution, and at a temperature below about 110° F. adjusting the pH value of the solution to below about 3.5, whereby nickel and bivalent cobalt values are precipitated from the solution, and separating precipitated nickel and cobalt values from the solution.

2,822,265 FORGEABLE HIGH STRENGTH AUSTENITIC ALLOY WITH MOLYBDENUM, TANTALUM, COLUMBIUM-TANTALUM, AND NITROGEN ADDITIONS

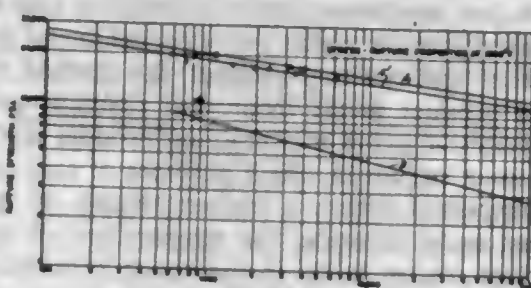
Fritz T. Eberle, Barberton, Ohio, and Clark L. Corey, Ann Arbor, Mich., assignors to the Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 30, 1954, Serial No. 446,878

8 Claims. (Cl. 75-128)

1. A forgeable austenitic steel alloy having superior stress resistance and corrosion resistance properties, and

freedom from impact embrittlement, in extended service



under stress at temperatures of the order of 1300° F.; said alloy having the following composition:

	Percent
Cr-----	15.00-20.00
Ni-----	12.00-18.00
C-----	0.02-0.15
Mn-----	0.25-2.50
Si-----	0.10-1.00
Mo-----	2.00-3.00
Ta (Cb-Ta)-----	1.00-2.00
N-----	0.15-0.25

Balance iron with the usual impurities,

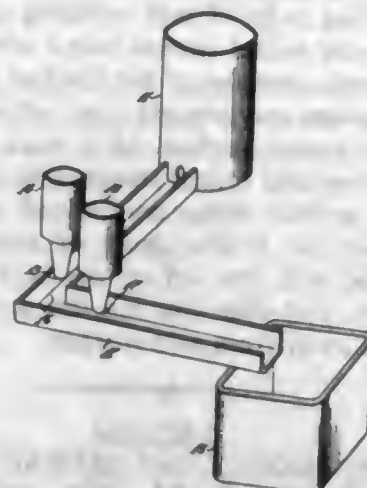
said alloy having a rupture-strength, after 1000 hours under stress at 1350° F., of at least 18,750 p. s. i., and, after 5000 hours under stress at 1350° F., of at least 15,000 p. s. i.

2,822,266 METHOD OF PREPARING NODULAR GRAPHITE IRON

Walter W. Edens, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application October 25, 1956, Serial No. 618,286

9 Claims. (Cl. 75-130)



1. The method of making a ferrous alloy characterized in its as-cast state by a metallic matrix having spherular graphite inclusions randomly dispersed throughout comprising: providing a bath of molten cast iron containing graphite-yielding carbon; treating said molten bath by successive additions of a first and a second salt mixture to said bath, said first salt mixture containing from about 30 to about 50 percent sodium chloride by weight and the remainder essentially calcium silicon, said second salt mixture containing from about 30 to about 50 percent magnesium chloride by weight and the remainder essentially calcium silicon; and casting said treated bath while said mixtures are effective in inducing the formation of spherular graphite.

2,822,267 MAGNESIUM ALLOY

George S. Foerster, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 18, 1955

Serial No. 547,821

4 Claims. (Cl. 75-168)

1. A magnesium-base alloy consisting of 0.2 to 1.2 percent of zinc, 0.4 to 0.8 percent of zirconium, 0.1 to 0.75 percent of thorium, 0.1 to 1 percent of rare earth metal selected from the group consisting of cerium, lanthanum, praseodymium, neodymium, and misch metal, the balance being magnesium, the zirconium in the said alloy being soluble in hydrochloric acid on subjecting the alloy to the dissolving action of the acid.

2,822,268 COMPOSITIONS OF MATTER

Hugh B. Hix, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 1, 1956

Serial No. 601,341

2 Claims. (Cl. 75-174)

1. A niobium base alloy comprising about 1-30% by weight of titanium, about 0-10% by weight of aluminum, about 0-5% by weight of beryllium, about 0-2% by weight of carbon, about 0-5% by weight of cobalt, about 0-10% by weight of iron, about 0-10% by weight of manganese, about 0-20% by weight of molybdenum, about 0-5% by weight of nickel, about 0-2% by weight of silicon, about 0-20% by weight of tantalum, about 0-5% by weight of tungsten, about 0-10% by weight of vanadium, and about 0-20% by weight of zirconium, the sum total of Al, Be, C, Co, Fe, Mn, Mo, Si, Ni, Ta, W, V and Zr ranging from about 1-20% by weight, the balance being essentially niobium.

2,822,269 ALLOYS FOR BONDING TITANIUM BASE METALS TO METALS

Roger A. Long, Bay Village, Ohio

No Drawing. Application June 22, 1953

Serial No. 363,397

6 Claims. (Cl. 75-175.5)

1. A bonding material consisting, by weight, substantially of at least 65% to 95% of a binary alloy of about 20% to 36% nickel and 64% to 80% titanium, the balance of the material being metal selected from the group consisting of copper, silver, and mixtures thereof.

2,822,270 TRIAZINE ADDITIVES TO METAL POWDERS

Alan Fred Kirkpatrick, Stamford, and Theodore G. Rochow, Darien, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application February 27, 1957

Serial No. 642,634

7 Claims. (Cl. 75-214)

1. In the method of preparing metallic articles from metal powders which comprises contacting metal powders with an additive, subsequently pressing said powders while in contact with and in the presence of said additive to form a compact, and heating said compact to form a metallic article, the improvement which comprises contacting said metal powders prior to pressing with a triazine additive selected from the group consisting of melamine, melamine cyanurate, ammeline, ammelide, ammeline:ammelide compound, melam, melon, meleme, cyanuric acid and steatroguanamine, and wherein said triazine additive is added in an amount equal to about 0.25-5.0% by weight of said metal powder.

2,822,271 PHOTOSENSITIVE MATERIAL

Wilhelm A. Krieger, Summit, N. J., assignor to Keuffel & Esser Company, Hoboken, N. J., a corporation of New Jersey

No Drawing. Application October 19, 1953

Serial No. 387,041

5 Claims. (Cl. 96-75)

1. A photosensitive material for forming a colored azo dye image comprising a paper base sheet capable of providing color contrast with an azo dye image and having a coating of an aqueous dispersion of solid resin particles selected from the group consisting of polyvinyl acetate resin particles and plasticized polyvinyl acetate resin particles as the sole organic colloid and forming a continuous film, said dispersion having a solids content of said resin of at least 5% and said continuous film being sensitized with a light sensitive diazo compound.

2,822,272 LIGHT SENSITIVE DIAZOTYPE MATERIAL

Joseph F. Kosalek, Binghamton, and John Sulich, Jr., Endicott, N. Y., assignors to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application February 10, 1954

Serial No. 409,521

11 Claims. (Cl. 96-91)

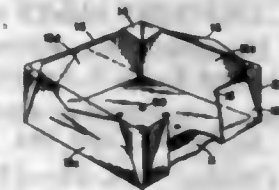
1. A light sensitive composition for diazo type materials comprising a compatible aqueous dispersion of a light sensitive diazonium compound, a water insoluble polymer of a vinyl ester selected from the class consisting of those which are cationic and non-ionic and finely divided silica.

2,822,273 BEVERAGE MAKER

James T. Anderson, Garrison, N. Y.

Application September 14, 1953, Serial No. 379,868

6 Claims. (Cl. 99-77.1)



1. A disposable beverage maker comprising a collapsible solvent receptacle having a bottom and four side walls, a solute container at the bottom of said receptacle, and a measured quantity of solute in said solute container, the bottoms of said receptacle and said container each containing a plurality of perforations there-through and the bottom of said receptacle forming the top of said container, each of a pair of opposite side walls of said receptacle having scorings therein to permit folding of the receptacle so that the side walls will lie substantially flat upon the bottom of the receptacle.

2,822,274 PROCESS FOR THE PREPARATION OF SQUID FILLETS

Beverly E. Williams, Hillsborough, Calif.

No Drawing. Application September 25, 1957

Serial No. 686,050

3 Claims. (Cl. 99-111)

1. In a process for preparing squid fillets for human consumption which are substantially non-curling upon heating and cooking, the steps of cleaning and skinning the mantle of the squid, trimming the cleaned and skinned mantle to fillet shape, and then cutting and scoring the ligaments covering the flesh of the mantle by a plurality of spaced cuts extending in at least two mutually

perpendicular directions so that substantially all of the ligaments are repeatedly severed into lengths of approximately $\frac{1}{4}$ to $\frac{1}{2}$ inch each.

2,822,275 MEAT PACKAGE

John W. Schmidt, Ottumwa, Iowa, assignor to John Morrell & Co., Ottumwa, Iowa, a corporation of Maine
Application September 30, 1955, Serial No. 537,774
2 Claims. (Cl. 99—174)



1. Meat package comprising a body of meat of uniform cross-section having end faces in parallel planes, thin flat rigid members in sheet form of uniform thickness fitting said end faces congruently in surface contact therewith and a flexible tubular casing having an intermediate portion constrictively surrounding the meat body, and end portions bent abruptly inward about all points in the peripheries of said rigid members toward the centers of said members so as to enclose said members, said end portions of said casing lying substantially contiguous to said rigid members under tension, and means adjacent the centers of said members tying together under tension the gathered ends of said end portions, constrictively encompassing the margins thereof for holding said end portions closed under tension.

2,822,276

PROCESS FOR IMPROVING THE TEXTURE OF CANNED MEAT

James M. Blair, Hinsdale, Ill., Edward L. Ter Bush, Bloomington, Ind., and Keith T. Swartz, Villa Park, Ill.
No Drawing. Application April 1, 1955
Serial No. 498,786

4 Claims. (Cl. 99—187)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. Process for preparing a meat composition characterized by taste, texture, and sliceability, substantially corresponding, after canning, to that of uncanned meat, which comprises: comminuting and heat-processing the meat; mixing gelatin and albumin with the comminuted meat, said gelatin being added in a proportion of about 2.5–5 parts per 100 parts by weight of said meat composition, and said albumin being added in an amount, on a solids basis, equal to about 1 to about 4 times the amount by weight of said gelatin; and canning said meat composition.

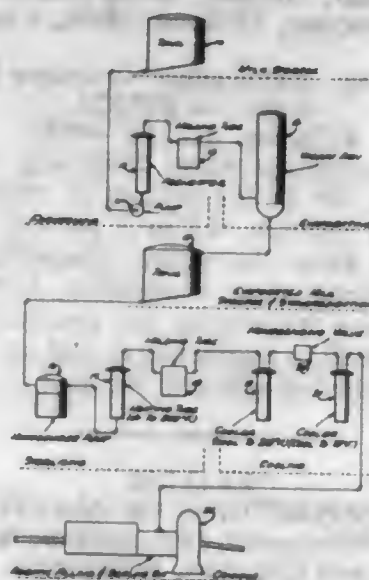
2,822,277

PROCESS FOR MANUFACTURING AN EVAPORATED FOOD PRODUCT AND THE PRODUCT PRODUCED THEREBY

Melvin E. Ellertson, Reseda, and Sidney J. Pearce, Granada Hills, Calif., assignors to Carnation Company, Los Angeles, Calif., a corporation of Delaware
Application February 9, 1956, Serial No. 564,487
5 Claims. (Cl. 99—212)

1. A short-time high-temperature process for sterilizing evaporated milk and for stabilizing the same against storage gelation comprising the steps of subjecting the milk to a heated medium of a temperature sufficient to raise the temperature of the milk to approximately 264°

to 285° F. and holding for approximately 70 seconds, cooling said treated milk to approximately 210° F.,



then homogenizing the treated milk and then reducing the temperature immediately to approximately 70° F.

2,822,278

FOUNDRY COMPOSITION

Harry W. Dieter and William M. Ball III, Detroit, Mich., assignors, by mesne assignments, to International Minerals & Chemical Corporation, Chicago, Ill.

No Drawing. Application September 7, 1951

Serial No. 245,644

5 Claims. (Cl. 106—38.3)

2. A molding sand for foundry use, consisting essentially of a substantial amount of silica sand, a small quantity of western bentonite binder, and about ten percent olive flour.

2,822,279

VITRIFIABLE FLUX AND SILVER COMPOSITIONS CONTAINING SAME

William R. Larsen, Fords, and Oliver A. Short, Metuchen, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application August 6, 1954

Serial No. 448,375

2 Claims. (Cl. 106—48)

1. A vitrifiable flux consisting essentially of 60 to 90% bismuth trioxide and 10 to 40% of an alkali metal-cadmium borate composition consisting essentially of 5 to 10% alkali metal oxide, 55 to 80% CdO, 10 to 25% B₂O₃ and 0 to 20% SiO₂, the above oxide components constituting at least 75% of said flux.

2,822,280

CASEIN-CONTAINING LITHOGRAPH COATING

William H. Martin, Hiram Township, Portage County, Ohio, assignor to Harris-Seybold Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application August 3, 1953

Serial No. 372,203

10 Claims. (Cl. 106—146)

2. A lithographic coating composition consisting essentially of a water-soluble reaction product of dissolved albumen and dissolved casein in water, with elimination of precipitated matter, said reaction product being formed from a mixture consisting essentially of about 5 to 95 percent albumen and about 5 to 95 percent casein and having a pH of about 8.0 to 10.3, and a sufficient amount of a chromium compound providing hexavalent chromium in water to provide light sensitivity.

2,822,281 OPAQUE WATER COLOR COMPOSITIONS AND METHOD OF MAKING SAME

Alexander S. Masley, Albuquerque, N. Mex., assignor of thirty-three and one-third percent to Henry Heyman, Los Alamos County, N. Mex.

No Drawing. Application October 26, 1953

Serial No. 388,460

5 Claims. (Cl. 106—208)

1. An artist's water paint tablet consisting essentially of (a) a dry mixture of coloring pigment, whiting, acacia powder, starch powder and a non toxic organic acid capable of releasing in contact with water between about 0.02 and 0.04 equivalent of hydrogen ion for 100 g. of total dry mixture, and (b) a 50 percent sorbitol-water solution, the organic acid being present in an amount equal to between 2 to 5 percent by weight of the dry mixture, the sorbitol-water solution being present in an amount equal to approximately 5 cc. for each 38 parts by weight of the dry mixture and the whiting being present in an amount greater than that required to stoichiometrically combine with the organic acid present.

2,822,282

METHOD OF CONVERTING NON-HOMOGENEOUS ASPHALT TO HOMOGENEOUS ASPHALT AND PRODUCT

Leo Garwin, Oklahoma City, Okla., assignor to Kerr-McGee Oil Industries, Inc., a corporation of Delaware

No Drawing. Application September 29, 1955

Serial No. 537,571

11 Claims. (Cl. 106—232)

8. The method of converting a non-homogeneous asphalt to a homogeneous asphalt comprising the step of reducing the asphaltene to resin ratio of a non-homogeneous petroleum asphalt to a value sufficient to produce a homogeneous asphalt therefrom having an asphaltene to resin ratio not greater than 0.60, the resin content of the homogeneous asphalt thus produced being derived from a naturally non-homogeneous petroleum asphalt.

2,822,283

FLUSHING PIGMENTS

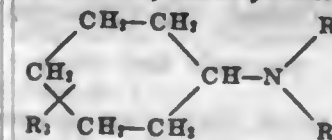
Bruno Blaser and Heinz Linke, Dusseldorf, Germany, assignors to Dehydag, Deutsche Hydrierwerke G. m. b. H., Dusseldorf, Germany, a corporation of Germany

No Drawing. Application October 18, 1955

Serial No. 541,314

9 Claims. (Cl. 106—262)

1. The method of flushing pigment particles from aqueous paste form into a liquid vehicle immiscible with water to release water, which comprises agitating a mass of aqueous pigment paste with a receiving liquid vehicle which is immiscible with water in the presence of a small quantity of a substituted cyclohexylamine of the formula



wherein R₁ and R₂ are selected from the group consisting of hydrogen and lower alkyl, and R₃ is lower alkyl.

2,822,284

WITHDRAWN

2,822,285

COMPOSITE LEAD PHOSPHATE-LEAD SILICATE PIGMENTS

Adrian R. Pitrot, Un'ondale, N. Y., assignor to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application November 30, 1956

Serial No. 625,236

2 Claims. (Cl. 106—297)

1. A composite lead phosphate-lead silicate pigment consisting essentially of PbO, P₂O₅ and SiO₂ in physico-

chemical combination, in respective amounts from 2 to 8 mols of PbO for each mol of P₂O₅ and from 0.75 to 7.5 mols of SiO₂ for each mol of PbO.

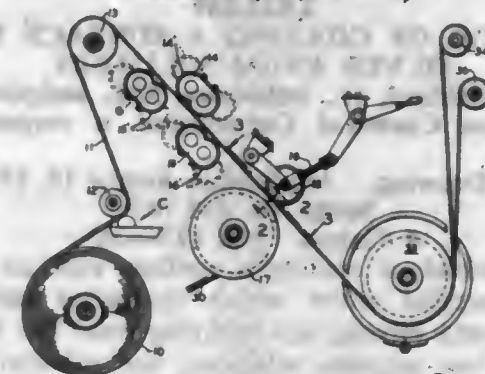
2,822,286

METHOD FOR SLITTING TAPES AND DISPLACING ADHESIVE

Clarence W. Vogt, Norwalk, Conn.

Application September 21, 1953, Serial No. 381,286

4 Claims. (Cl. 117—4)



1. The method of forming rolls of adhesive tape comprising applying a coating of adhesive material to a base material, drawing the coated material forward by contact with a drive member, moving the coated material over a heated supporting surface with the adhesively coated surface in contact with the supporting surface, applying a score cutting element to the uncoated surface of the base material to sever the material into a plurality of portions and transfer adhesive from the severed edges of said portions to said supporting surface, and subsequently rolling the severed portions of the material into a plurality of rolls of adhesive tape.

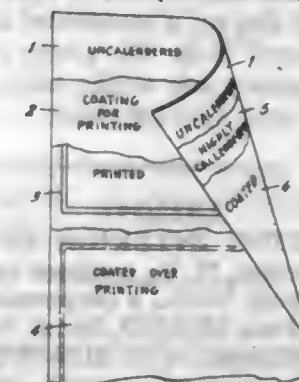
2,822,287

MOISTUREPROOF HEAT SEALABLE WRAPPING SHEET

Phillip H. Avery, Kalamazoo, Mich., assignor to Kalamazoo Vegetable Parchment Company, Kalamazoo, Mich.

Application July 25, 1956, Serial No. 599,925

6 Claims. (Cl. 117—14)



1. A moistureproof heat sealable wrapping sheet having a varnish-like coating on one side thereof, and a moisture resistant heat sealable-coating on the other side comprising approximately 25% paraffin wax, approximately 20% hydrogenated castor oil, approximately 15% ethyl cellulose, approximately 10% phenolic resin, approximately 15% hydrogenated rosin, and approximately 15% 1,1'-isopropylidenebis (p-phenyleneoxy) di-2-propanol.

2,822,288

LUMINESCENT TRANSFER PAPER

Edmund N. Harvey, Jr., Brighton, and Mortimer L. Brockway, Rochester, N. Y., assignors to Kee Lox Manufacturing Company, Rochester, N. Y., a corporation of New York

Application April 29, 1955, Serial No. 504,938

6 Claims. (Cl. 117—33.5)

1. As an article of manufacture, a paper support having coated directly thereon a readily transferrable mixture containing wax and a luminescent substance, which

luminescent substance is substantially invisible in ordinary light and fluoresces when exposed to energy having



a wave length different from that re-emitted by the luminescent substance.

2,822,289

METHOD OF COATING A SURFACE WITH SILVER FROM SOLUTION

Ernest H. Millard, Jr., Baltimore, Md., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application August 18, 1954
Serial No. 450,783

4 Claims. (Cl. 117—35)

1. A method of coating a surface with an adherent film of metallic silver which comprises substantially simultaneously mixing and spraying onto the surface to be coated two aqueous solutions; one solution comprising silver nitrate in a concentration of about 1 to 2.5 percent by weight and the other solution comprising a reducing agent selected from the group consisting of β -hydroxyethylhydrazine and its salts in a concentration of about 1 to 2 percent by weight; at least one of said solutions containing ammonium hydroxide.

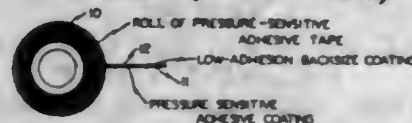
2,822,290

RELEASE COATINGS

Charles S. Webber, Loudonville, N. Y., assignor to Norton Company, Troy, N. Y., a corporation of Massachusetts

Application April 5, 1955, Serial No. 499,497

17 Claims. (Cl. 117—68.5)



12. A flexible backing member having an exposed low adhesion release coating bonded to at least one surface thereof, said low adhesion release coating having as the active release agent thereof a compound containing ionizable hydrogen selected from the group consisting of the long chain alkyl amine and amide salts of polybasic inorganic acids and acid esters thereof.

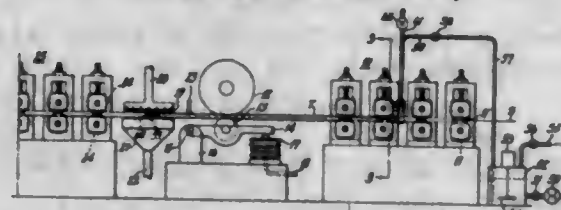
2,822,291

SEAL COATING INTERIOR OF TUBING

Rea I. Hahn, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 25, 1949, Serial No. 101,402

5 Claims. (Cl. 117—97)



1. The method of coating the interior of steel tubing with a corrosion-resistant coating during the formation of said tubing from substantially flat steel strip by a continuous process of bending and welding and while said tubing is being moved continuously and longitudinally, said method comprising the steps of, introducing into the tube during the movement thereof and at a point where the tube is fully formed, a dispersing liquid containing finely divided particles of a non-ferrous metal having a melting point lower than that of steel, cooling the tubing adjacent the point of introduction of said liquid thereinto in order to maintain a temperature at such point which is insufficient to volatilize the liquid, introducing

a reducing gas into the tube adjacent the point of introduction of the dispersing liquid so as to maintain a non-oxidizing atmosphere therein, subsequently heating the tube during its continued movement to a degree sufficient to volatilize all of the dispersing liquid but below the melting point of the coating metal, thereafter heating the tubing during further movement thereof to a degree sufficient to melt said coating metal and cause it to flow into the pores of the steel so as to form a continuous non-corrosive coating on the steel, and finally cooling the tubing sufficiently to cause the coating metal to solidify.

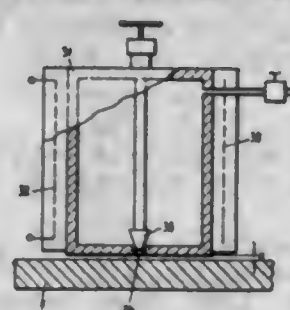
2,822,292

METAL DEPOSITION PROCESS

Hermann Schlodtz, Munich, Germany
Application December 28, 1954, Serial No. 478,106

Claims priority, application Germany (October 21, 1949)

9 Claims. (Cl. 117—107)



1. Process of depositing a uniform firmly adherent coating of metallic particles of finely divided sub-crystalline size on the surface of a base material, comprising heating a heat decomposable metal compound to a substantially constant temperature exceeding the decomposition temperature of said compound at normal pressures in a confining vessel whereby to develop high pressure substantially exceeding atmospheric pressure and confining the heated compound under sufficient pressure to prevent its decomposition at the elevated temperature, and then explosively releasing the confined vapors in a jet directed against the surface to be coated, the expansive release bringing the metal compound out of the stable condition into the unstable condition, whereby it is decomposed at the discharge of said vessel.

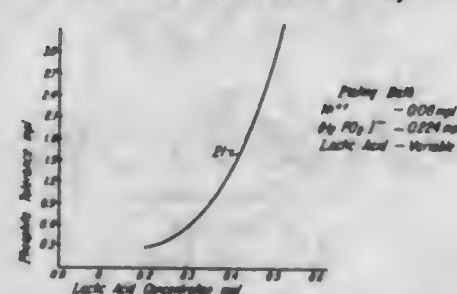
2,822,293

CHEMICAL NICKEL PLATING PROCESSES AND BATHS THEREFOR

Gregoire Gutzeit, Highland, Ind., Paul Talmey, Barrington, Ill., and Warren G. Lee, East Chicago, Ind., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York

Application December 31, 1954, Serial No. 479,088

7 Claims. (Cl. 117—130)



1. The process of chemically plating with nickel a body essentially comprising an element selected from the group consisting of iron, cobalt, nickel, aluminum, copper, silver, gold, palladium and platinum, which comprises contacting said body with a bath consisting essentially of an aqueous solution of nickel ions, hypophosphite ions, and a complexing agent selected from the group consisting of lactic acid and salts thereof, wherein the absolute concentration of hypophosphite ions in said

bath expressed in mole/liter is within the range 0.15 to 1.20, the ratio between nickel ions and hypophosphite ions in said bath expressed in molar concentrations is within the range 0.25 to 1.60, the absolute concentration of lactic ions in said bath expressed in mole/liter is within the range 0.25 to 0.60, and the initial pH of said bath is within the approximate range 4.0 to 5.6.

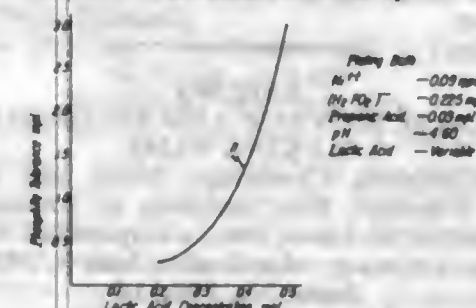
2,822,294

CHEMICAL NICKEL PLATING PROCESSES AND BATHS THEREFOR

Gregoire Gutzeit, Highland, Ind., Paul Talmey, Barrington, Ill., and Warren G. Lee, East Chicago, Ind., assignors to General American Transportation Corporation, Chicago, Ill., a corporation of New York

Original application December 31, 1954, Serial No. 479,088. Divided and this application March 6, 1956, Serial No. 569,815

8 Claims. (Cl. 117—130)



1. The process of chemically plating with nickel a body essentially comprising an element selected from the group consisting of iron, cobalt, nickel, aluminum, copper, silver, gold, palladium and platinum, which comprises contacting said body with a bath consisting essentially of an aqueous solution of nickel ions, hypophosphite ions, a complexing agent selected from the group consisting of lactic acid and salts thereof, and an exalting additive selected from the group consisting of simple short chain saturated aliphatic monocarboxylic acids including 3 to 5 carbon atoms and salts thereof, wherein the absolute concentration of hypophosphite ions in said bath expressed in mole/liter is within the range 0.15 to 1.20, the ratio between nickel ions and hypophosphite ions in said bath expressed in molar concentrations is within the range 0.25 to 1.60, the absolute concentration of lactic ions in said bath expressed in mole/liter is within the range 0.25 to 0.60, and the initial pH of said bath is within the approximate range 4.4 to 5.6.

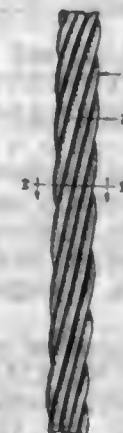
2,822,295

RODENT REPELLENT CORDAGE IMPREGNATED WITH DODECYL ALCOHOL

John P. Barrett and Ervin W. Segebrecht, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

Application November 1, 1951, Serial No. 254,394

4 Claims. (Cl. 117—138.5)



1. Rodent-repellent cordage consisting of cordage impregnated with dodecyl alcohol.

2,822,296 RODENT REPELLENT MATERIAL CONTAINING DODECYLAMINE ACETATE

John P. Barrett and Ervin W. Segebrecht, Chicago, Ill., assignors to Armour and Company, Chicago, Ill., a corporation of Illinois

Application November 1, 1951, Serial No. 254,395

11 Claims. (Cl. 117—138.5)



1. Rodent-repellent fabrication material consisting of fabrication material containing dodecylamine acetate.

2,822,297

PROCESS OF PRESERVING CELLULOSIC MATERIAL WITH A SUBSTITUTED SALICYLALDOXIME AND THE PRODUCT THEREOF

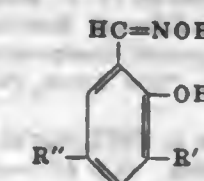
David X. Klein, Montclair, James P. Scullin, Pompton Lakes, and Adolph J. Deinet, Westwood, N. J., assignors to Heyden Newport Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application May 21, 1954

Serial No. 431,593

10 Claims. (Cl. 117—138.5)

1. The process of imparting decay resistance to cellulosic material which comprises applying at least one substituted salicylaldoxime to such material, said substituted salicylaldoxime having the following structural formula:



where R' is selected from the group consisting of Cl, Br, and NO₂, and R'' is selected from the group consisting of Cl and Br.

2,822,298

FIBROUS PRODUCTS

Paul E. Merrifield, Manor Township, Lancaster County, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania

Application August 29, 1955, Serial No. 531,263

22 Claims. (Cl. 117—140)



14. The method of forming a full flow filter felt which comprises forming a sheet of felted fibers having deposited thereon less than about 7 1/2% butadiene-acrylonitrile copolymer as a binder, depositing on said sheet the resinous product of acrolein and a reducing sugar prepared under acidic conditions in the presence of water, and drying said sheet.

2,822,299

METHOD OF MAKING A CADMIUM-TELLURIDE SEMI-CONDUCTIVE DEVICE

Dirk de Nobel, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application November 28, 1955, Serial No. 549,528
4 Claims. (Cl. 117—200)

1. A method of providing a tellurium layer on a cadmium-telluride semi-conductive body, which comprises subjecting a surface portion of said body to a preferential oxidizing treatment to convert the material of said surface portion into tellurium.

2,822,300

PHOTOCONDUCTIVE MATERIAL

Edward F. Mayer, Cleveland, and Lloyd Owens, Cleveland Heights, Ohio, assignors to Horizons Incorporated, Princeton, N. J., a corporation of New Jersey

No Drawing. Application March 29, 1954

Serial No. 419,562

8 Claims. (Cl. 117—201)

3. The method of increasing the spectral response, light sensitivity and photoconductive stability of elemental selenium which comprises: admixing therewith an amount of arsenic in an amount between about 1% by weight and an amount not exceeding equiatomic proportions, heating the resulting mixture in a closed vessel to a temperature greater than 750° F., and maintaining the mixture at the temperature for a period of time sufficient to dissolve all of the arsenic in the selenium, to distribute the arsenic uniformly throughout the selenium and thereafter converting the product into a uniform film less than about a few mils thick but retaining the homogeneity of the solution, by evaporating the material under a vacuum and depositing it on a relatively cool substrate.

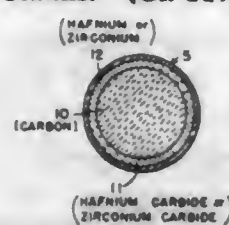
2,822,301

VACUUM METALLIZING AND APPARATUS THEREFOR

Paul Alexander, Bloomfield, N. J., and Alexander Samuel Baxter and Malcolm Edward Boston, Cambridge, England, assignors, by mesne assignments, to Continental Can Company, Inc., New York, N. Y., a corporation of New York

Application June 3, 1952, Serial No. 291,506

13 Claims. (Cl. 117—217)



7. In a method of applying metal coatings to surfaces wherein the metal to be deposited thereon is evaporated at an elevated temperature in a vacuum, the improvement which consists in heating in the vacuum a carbon core having a coating thereon of composite metal and metal carbide selected from the group consisting of zirconium carbide with free zirconium metal and of hafnium carbide with free hafnium metal and of mixed carbides of zirconium and hafnium with mixed zirconium and hafnium free metal, said coating having the selected carbide at the carbon core and the selected free metal at the exterior surface, said heating being to a temperature above the melting point of the metal to be deposited, bringing the metal to be deposited into contact with the said selected metal whereby the molten metal to be deposited wets and spreads upon the selected free metal and is evaporated from a film extending over substantially the entire surface of said coating, and preventing contact with the carbon core by the metal to be deposited through maintaining the coating of the selected metal carbide upon the carbon core.

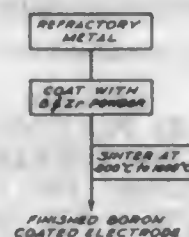
2,822,302

NON-EMISSIVE ELECTRODE

James R. McCaughna, Santa Barbara, Calif., assignor to Radio Manufacturing Company, Inc., Santa Barbara, Calif.

Application January 16, 1956, Serial No. 559,253

1 Claim. (Cl. 117—221)



A non-emissive electrode for an electron valve comprising: a refractory metal; and a surface coating of a sintered mixture of finely divided boron and zirconium in the ratio range of one to three moles of boron to one of zirconium.

2,822,303

HIGH D. E. SYRUP AND METHOD OF MAKING SAME

Carol L. Campbell, Cambridge, Mass., and Monroe J. Mason, Glendale, Mo., assignors to Anheuser-Busch, Incorporated, St. Louis, Mo., a corporation of Missouri

No Drawing. Application June 8, 1956

Serial No. 590,114

7 Claims. (Cl. 127—38)

1. The process for producing a high dextrose equivalent syrup, comprising the steps of subjecting an aqueous starch suspension to acidic conversion to produce a liquor having a dextrose equivalent analysis of between 15% and 24%; and subjecting said liquor to further conversion with a fungal-type saccharifying enzyme preparation comprising a plurality of enzymes, said preparation having high diastase activity and intermediate maltase activity to increase the dextrose equivalent content to between 52% and 65% and the maltose content to between 37% and 48%, while reducing the dextrin content to between 3.5% and 7.5%.

2,822,304

SUGAR TREATMENT

Donald W. Gillmore, Richard J. Grant, and Stanton B. Smith, Pittsburgh, Pa., assignors to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application March 29, 1956

Serial No. 574,625

13 Claims. (Cl. 127—55)

1. A process of treating an impure readily hydrolyzable polysaccharide solution to decolorize and purify the same, comprising treating the solution with an activated carbonaceous adsorbent material and dead-burned magnesite in an amount effective to control the pH of the solution and up to 15% by weight of the carbonaceous material.

2,822,305

PROCESS FOR FRACTIONATING STARCH INTO COMPONENTS WITH BRANCHED AND LINEAR CHAINS

Willem C. Bus, The Hague, Johannes Muetgeert, Rotterdam, and Pieter Hlemstra, Veendam, Netherlands, assignors to Cooperatieve Verkoop- en Productievereniging van Aardappelmeel en Derivaten "Avebe" G. A., Veendam, Netherlands, a corporation of the Netherlands

No Drawing. Application June 7, 1954

Serial No. 435,052

Claims priority, application Netherlands June 10, 1953

4 Claims. (Cl. 127—71)

1. A process for fractionating starch into components with branched and linear chains comprising dissolving

between about 3% and about 20% of starch in an aqueous solution containing 10% to 30% of a compound selected from the group consisting of magnesium sulfate, sodium sulfate, ammonium sulfate, and mixtures thereof, by heating at an elevated temperature under superatmospheric pressure, cooling the solution to a temperature sufficiently low to precipitate amylose and amylopectin, separating the precipitate from the mother liquor, mixing the precipitate with water to dissolve amylopectin, separating the undissolved amylose from the amylopectin solution, and precipitating the amylopectin from the solution by adding a salt of said group to the solution.

2,822,306

AROMATIC AND PLEASANT TASTING DENICOTINIZED TOBACCO AND METHOD OF PRODUCING SAME

Heinz Thienemann, Beuel, and Peter Krug, Munich, Germany, assignors to Dr. Plate, G. m. b. H., Chemische Fabrik, Bonn, Germany

No Drawing. Application July 1, 1955

Serial No. 519,657

22 Claims. (Cl. 131—17)

1. A method for the production of a tobacco product from untreated tobacco containing insoluble nicotine phosphoric acid salts, comprising the steps of first quantitatively determining the content of phosphoric acid in said untreated tobacco, and subsequently treating said tobacco with a basic material capable of displacing the nicotine from the said salts, the amount of said basic material added being substantially equal to that amount required to combine in stoichiometric proportion with the phosphoric acid in said salts whereby nicotine is displaced therefrom, and the removal of nicotine so displaced from said tobacco.

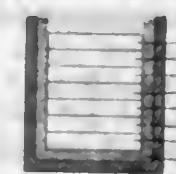
2,822,307

TECHNIQUE FOR MULTIPLE P-N JUNCTIONS

Bernard Kopelman, Flushing, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application April 24, 1953, Serial No. 350,860

18 Claims. (Cl. 148—1.5)



1. In the method of fabricating junction type transistors the steps comprising assembling slices of semi-conductor materials of opposite conductivity types and different melting points in alternate layers to form a stack, heating said stack to a temperature lying between the melting points of said semi-conductor materials, holding the stack at this temperature until equilibrium is reached and allowing the heated stack to cool.

2,822,308

SEMICONDUCTOR P-N JUNCTION UNITS AND METHOD OF MAKING THE SAME

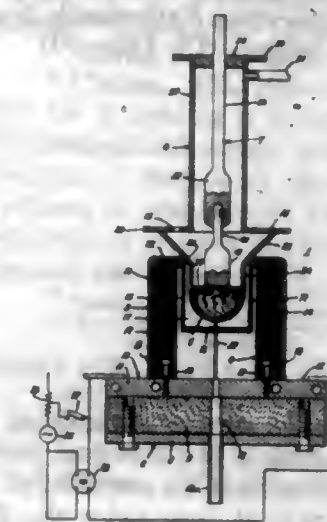
Robert N. Hall, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application March 29, 1955, Serial No. 497,510

29 Claims. (Cl. 148—1.5)

1. The method of making semiconductor P-N junction bodies, which method comprises preparing a melt consisting of a high purity semiconductor, a trace of a donor activator impurity for the semiconductor and a trace of an acceptor activator impurity for the semiconductor, the impurity traces being included in the melt

in effective equivalent amounts sufficient to provide intrinsic-type semiconductor in a semiconductor crystal grown from the melt at a constant growth rate and each having a different rate of segregation coefficient variation relative to the semiconductor over a range of crystal growth rate variation encompassing said constant growth rate, and growing a semiconductor crystal from the melt at growth rates continuously and cyclically varying above and below said constant growth rate.



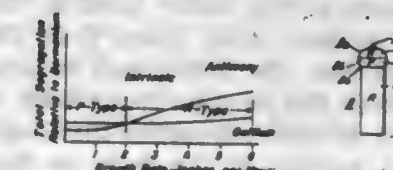
2,822,309

P-N JUNCTION DEVICE AND METHOD OF MAKING THE SAME BY LOCAL FUSION

Robert N. Hall, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application June 20, 1955, Serial No. 516,637

14 Claims. (Cl. 148—1.5)



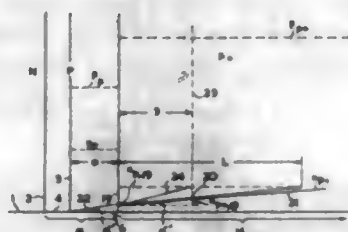
1. A method of producing a junction transistor from a monocrystalline semiconductor body having conduction characteristics of one sign and containing dispersed therein a first activator element for producing dominant conduction carriers of said one sign and a second activator element for producing a lesser number of conduction carriers of the opposite sign, the equilibrium segregation coefficients of said activator element in said semiconductor each being less than unity said first activator element having a substantially lower segregation coefficient at a low crystal growth rate which increases relative to that of said second activator with increase in crystal growth rate, said first activator and said second activator impurities being present within said body in a ratio of 0.5 to 1.0 times the ratio of their molecular weights times the inverted ratio of their segregation coefficients in said semiconductor which method comprises fusing only a portion of said semiconductor to produce a liquid-phase to solid-phase interface therein and allowing said fused portion to cool at a rate greater than 10 centigrade degrees per second and to rapidly recrystallize from said interface to form a first recrystallized zone grown at a relatively low growth rate having dominant conduction characteristics provided by said second activator element, and a second recrystallized zone grown at a relatively high growth rate having dominant conduction characteristics provided by said first activator element.

2,822,310

SEMI-CONDUCTOR DEVICE

Frederik Hendrik Stieltjes and Leonard Johan Tummers, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 23, 1956, Serial No. 580,021
Claims priority, application Netherlands April 21, 1955
13 Claims. (Cl. 148—33)



1. A semi-conductor device comprising a semi-conductive body containing a p-n junction, a buffer portion of the semi-conductive body on one side of said junction and having a thickness at least twice the Debye-Hückel length L_{DH} but small relative to a diffusion length L in said buffer portion, where

$$L_{DH} = \sqrt{\frac{\epsilon_r \epsilon_0 k T}{q^2 C}}$$

and ϵ_r and ϵ_0 are the dielectric constants, respectively, of the buffer portion and vacuum in the Giorgi system, k is Boltzmann's constant, T is the absolute temperature, q is the charge of the electron, and C is the sum total of the equilibrium concentrations of the majority and minority carriers in the semi-conductive buffer portion, a reflector portion of the semi-conductive body adjacent the buffer portion on the side thereof remote from the said junction and having a length such that the remotest portion thereof is spaced from the said junction a distance at least three times the thickness of the buffer portion, the resistivity of the reflector portion being lower than the resistivity of the buffer portion, the buffer and reflector portions on said one side of the junction being both of the same conductivity type of semi-conductive material, and ohmic connections to a portion of the body on the other side of the junction and to the buffer portion.

2,822,311

FABRIC RUBBER MEMBER AND MEANS FOR IMPROVING FABRIC-RUBBER ADHESION

Walter C. Rowe and John I. Stearns, Akron, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application March 3, 1955
Serial No. 492,018

11 Claims. (Cl. 154—139)

1. A method of adhering a fabric cord to an element of vulcanizable isoolefin-diolefin rubbery copolymer comprising the steps of dipping said cord in an aqueous solution comprised of a mixture of a phenol-aldehyde resin with a butadiene styrene-vinyl pyridine latex, drying the cord, dipping the dry cord in a solution of a brominated rubbery copolymer of isobutylene and isoprene having a bromine content of from 5 to 30% by weight based on the weight of brominated copolymer before bromination, again drying the cord, and holding said cord against said rubbery element while applying vulcanizing heat and pressure.

8. A vulcanized composite article comprising textile cords embedded in a matrix of a vulcanized isoolefin-diolefin rubbery copolymer, a layer of a composition comprising a mixture of a phenol-aldehyde resin and a copolymer of a 1,3 diene monomer, styrene and vinyl pyridine impregnating and encasing each said cord, a coat-

ing over said layer comprised of a brominated rubbery copolymer of a major portion of an isoolefin and a minor portion of a diolefin having a bromine content not exceeding 50% by weight of the brominated copolymer before bromination interposed between and adhered to said layer and said matrix whereby said layer and said coating form a bond between the cord and the rubbery matrix.

2,822,312

MICROBICIDAL COMPOSITION MATERIAL IMPREGNATED THEREWITH AND METHOD OF IMPREGNATION

Ernst Bretscher, Basel, and Hans Hemmi, Binningen, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application May 4, 1953
Serial No. 352,972

Claims priority, application Switzerland May 7, 1952
7 Claims. (Cl. 167—30)

5. A microbicidal composition for application to cellulose material comprising a mixture of a microbicidal organic mercury compound of the formula



wherein R represents a mononuclear aromatic radical and X represents an anionic radical, and a fixing component for said mercury compound comprising the water-soluble polymeric condensation product of a poly-alkylenepolyamine and a member selected from the group consisting of cyanamide and dicyandiamide.

2,822,313

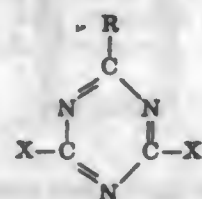
FUNGICIDAL COMPOSITIONS CONTAINING ARYL DIHALO TRIAZINES

Kenneth G. Nolan, Noroton Heights, Conn., and William B. Hardy, Bound Brook, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 16, 1954
Serial No. 443,973

14 Claims. (Cl. 167—33)

1. A preparation for the control of fungi comprising a symmetrical triazine represented by the formula:



in which R is an aryl radical selected from the group consisting of phenyl, naphthyl, alkylphenyl, monohalophenyl, dihalophenyl, hydroxyphenyl, and alkoxyphenyl and X is a halogen selected from the group consisting of chlorine and bromine, and a fungicidal adjuvant therefor, said adjuvant comprising a surface active agent.

2,822,314

THERAPEUTIC ANTIBIOTIC PREPARATION CONTAINING POLYMYXIN, NEOMYCIN AND GRAMICIDIN

Robert J. Ferlauto, Doylestown, and Russell E. Rhodes, Ardley, Pa., assignors to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application April 29, 1953
Serial No. 352,034

3 Claims. (Cl. 167—45)

1. An antibiotic preparation containing polymyxin, neomycin and gramicidin in the proportions of from

10,000 to 1,000,000 units of polymyxin and from 1,000 to 100,000 units of neomycin for 1 milligram of gramicidin.

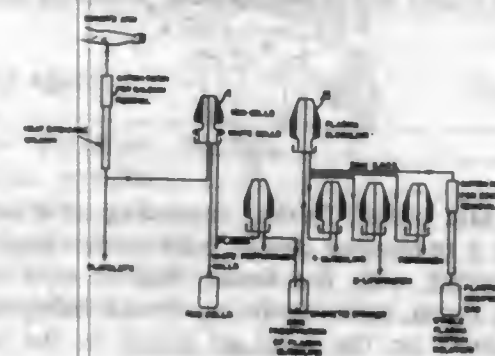
2,822,315

SEPARATION OF FORMED AND FLUID BLOOD COMPONENTS

Edwin J. Cohn, Cambridge, Mass.; Rebekah R. Cohn, Charles A. Coolidge, and Eustace Seligman, executors of said Edwin J. Cohn, deceased, assignors to Protein Foundation, Incorporated, Cambridge, Mass., a non-profit corporation

Application April 12, 1952, Serial No. 281,989

5 Claims. (Cl. 167—74)



5. The method of treating non-clotting blood as it flows continuously from a source of supply which comprises centrifuging the non-clotting blood as it continuously flows in the form of a film across and off a layer of a solution having a density less than the density of the red cells but greater than the density of the plasma and white cells to divert red cells from the path of flow of the plasma and white cells, continuously collecting the diverted red cells separated from the plasma flowing off said layer and then centrifuging the plasma and white cells after they flow off said layer to separate the white cells from the plasma.

2,822,316

ESTRONE SOLUTIONS CONTAINING ETHYL LACTATE AND CASTOR OIL

Hans Richter, Berlin-Steglitz, Germany, assignor to Schering, A. G., Berlin, Germany

No Drawing. Application October 13, 1955
Serial No. 540,357

Claims priority, application Germany October 19, 1954
5 Claims. (Cl. 167—74)

2. As a new composition of matter, an oily solution of estrone stable at room temperature, said solution consisting essentially of estrone dissolved in a mixed solvent consisting of about 50% by volume ethyl lactate and 50% by volume of castor oil.

2,822,317

AQUEOUS IRON-ASCORBIC ACID PREPARATION

John J. Gulesich, Philadelphia, and Joseph A. Marilino, Secane, Pa., assignors to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application December 12, 1955
Serial No. 552,257

6 Claims. (Cl. 167—81)

1. An aqueous iron-ascorbic acid preparation comprising: a member selected from the group consisting of ferrous sulfate, ferrous lactate, ferrous gluconate, ferrous succinate, ferrous glutamate, and ferrous choline citrate; l-ascorbic acid, water, and from about 15% to about 90% by weight of a member selected from the group consisting of sorbitol and mannitol.

2,822,318

PRODUCTION OF 3-KETO- $\Delta^{1,4}$ PREGNADIENES BY BACTERIUM CYCLO-OXYDANS

Helen A. Kroll, New Brunswick, Joseph F. Pagano, Bound Brook, and Richard W. Thoma, Somerville, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application December 7, 1956
Serial No. 626,815

7 Claims. (Cl. 195—51)

1. A process for preparing a hydroxylated steroid of the 3-keto- $\Delta^{1,4}$ -pregnadiene series, which comprises subjecting a hydroxylated steroid of the 3-keto- Δ^4 -pregnane series to the actions of enzymes of *Bacterium cyclo-oxydans* in the presence of oxygen and recovering the resulting dehydrogenated steroid.

2,822,319

METHODS FOR THE CULTIVATION OF MICRO-ORGANISMS

Jacques Monod, Paris, France
Application August 17, 1954, Serial No. 450,308

2 Claims. (Cl. 195—115)



1. The method of growing microorganisms in continuous culture and of controlling their growth rate, which comprises continuously and simultaneously adding fresh medium at a constant volumetric rate to, and removing culture in liquid state at the same rate from, a fermenter, while mixing and stirring said culture to keep it homogeneous with respect to all biological and chemical characteristics in the totality of its volume, the rate at which components of the medium are added being chosen such that the opposed effects of the addition of medium components on the one hand and the influence on a growth controlling factor by the consumption of said components by the microorganisms on the other hand create a steady-state where the rate of multiplication of the microorganisms is actually limited and controlled to remain constant, in all parts of the culture simultaneously and at all times, by said rate of addition of medium components.

2,822,320

RECLAIMING USED LUBRICATING OIL

Bill Mitacek, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application September 28, 1956
Serial No. 612,897

4 Claims. (Cl. 196—16)

1. A process for removing impurities from used lubricating oil which comprises intimately admixing hydrazine with said oil; and recovering purified lubricating oil as a product of the process.

3. A process for removing dispersed impurities from used lubricating oil which comprises intimately admixing hydrazine with said oil in an amount of 0.5 to 5 volume percent of said oil; separating resulting precipitate therefrom; washing the resulting oil with water; contacting the water-washed oil with a sufficient amount of clay to improve the color of the oil; and recovering a purified oil therefrom as the product of the process.

2,822,321

NEW CARBON PRODUCT AND METHOD FOR MANUFACTURING THE SAME

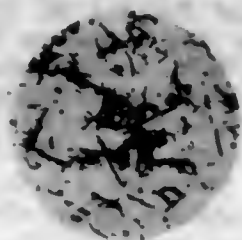
Joseph Allen Pickard, Hounslow, England
Application January 31, 1955, Serial No. 485,353

Claims priority, application Great Britain
February 8, 1954

5 Claims. (Cl. 202—9)

1. A method of manufacturing a carbon product for use in the separation of fluids, which comprises milling

peat or peat moss having a moisture content adjusted to effect shredding and to prevent powdering thereof, and carbonizing the milled material at a temperature range



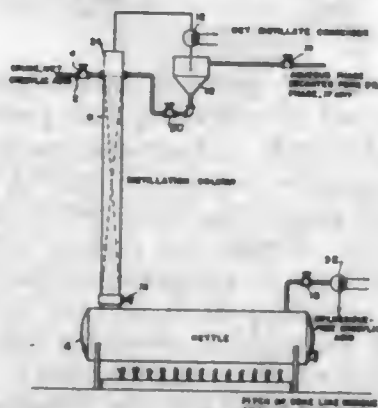
between 450° C. and 950° C. to produce carbon particles having an interlocked fibrous branching formation and a reticulate structure.

2,822,322

DISTILLABLE CRUDE PRODUCTS

Robert D. Rice, Pittsburgh, Pa., assignor to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application September 9, 1955. Serial No. 533,411
13 Claims. (Cl. 202—70)



1. A process comprising substantially completely dehydrating a batch of crude, wet cresylic acid in a vessel by distillation, continuously adding further crude, wet cresylic acid to said batch in such a manner that it is substantially dehydrated by vapors rising from a first portion of said vessel prior to reaching said vessel and simultaneously continuously subjecting the anhydrous cresylic acid to a separate distillation and removing said separately distilled anhydrous cresylic acid from a second portion of said vessel.

2,822,323

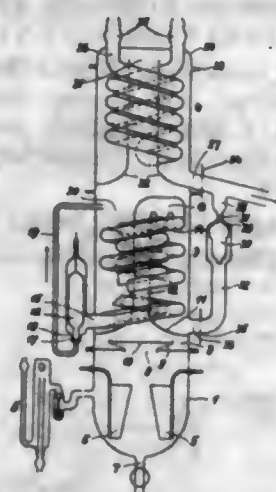
APPARATUS FOR BIDISTILLATION

Hugo Zellner, Linz, Austria, and Wilhelm Frank, Ludwig Kratz and Heinz Meinecke, Landshut, Germany, assignors to Jenner Glaswerk Schott & Gen., Mainz, Rheinland-Pfalz, Germany

Application April 14, 1954. Serial No. 423,176
3 Claims. (Cl. 202—174)

1. An apparatus for bidistillation of a liquid containing not volatile impurities consisting of a primary vaporizer, a droplet separator arranged at the upper end of this primary vaporizer, a heat exchanger which is composed of a spiral tube surrounded by a mantle, this mantle forming a secondary vaporizing room between itself and the spiral tube, said heat exchanger being arranged above said primary vaporizer, a central tube which connects the upper end of the primary vaporizer with the upper end of said spiral tube and is surrounded by the spiral tube, a throttle valve being arranged within a pipe, this pipe connecting the lower end of said spiral tube with the upper end of said secondary vaporizing room, a further central tube, which is connected to the upper end of said secondary vaporizing room and is surrounded by a further spiral tube through which cooling water flows, this central tube being open at its upper end and being

arranged within a mantle, this mantle forming a bidistillation room between itself and the central tube, an outlet for drawing off the bidistillate, said outlet being arranged at the lower end of said bidistillation room, a vacuum pump and a vessel for receiving the bidistillate, both con-



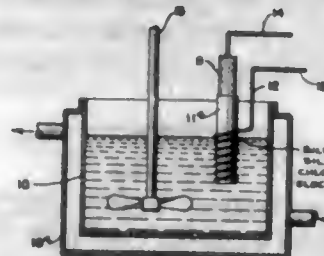
nected to said outlet, further consisting of a return pipe containing a regulating device, said return pipe connecting said outlet with the lower end of said secondary vaporizing room, said regulating device being controlled in dependence on the level of liquid in the secondary vaporizing room.

2,822,324

POLAROGRAPHIC APPARATUS AND METHOD

Verna Frances Gaylor, Cleveland, and Jean Landert, Shaker Heights, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

Application January 28, 1955. Serial No. 484,808
5 Claims. (Cl. 204—1)



1. A polarographic apparatus comprising means for containing a solution to be analyzed, a reference electrode and an indicating electrode disposed to contact said solution, said indicating electrode being a graphite electrode impregnated with an electrically inert wax selected from a group consisting of hydrogenated castor oil and ceresin wax, means for impressing a recurrent substantially linear voltage sweep across said electrodes giving rise to a varying flow of current therebetween, and indicating means immediately responsive to the variations in said current.

2,822,325

PROCESS OF, AND COMPOSITION FOR CLEANING AND TINNING

Edwin M. Tinnon, Port Chester, N. Y., and Ivor L. Simmons, Metuchen, N. J., assignors to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application February 11, 1955
Serial No. 487,718
6 Claims. (Cl. 204—26)

1. A dry tinning and cleaning composition adapted to be dissolved in water to provide a cleaning and tinning solution, said dry composition consisting essentially of 3 to 8 grams of potassium hydroxide, 60 to 120 grams potassium stannate, 0 to 10 grams of potassium carbonate, 50 to 100 grams of Versene, 30 to 60 grams of trisodium phosphate and .5 to 1 gram of sodium lauryl sulphate.

2,822,326

BRIGHT CHROMIUM ALLOY PLATING

William H. Safranek, Columbus, Ohio, assignor, by mesne assignments, to Rockwell Spring and Axle Company, Coraopolis, Pa., a corporation of Pennsylvania

No Drawing. Application March 22, 1955
Serial No. 496,067

16 Claims. (Cl. 204—43)

7. The method of electrodepositing a bright chromium-alloy plate, which comprises electrolyzing an aqueous bath containing 30 to 75 g./l. of trivalent chromium ions, 10 to 50 g./l. of alkali metal ions, the ions of at least one alloying metal selected from the group consisting of from 0.6 to 2.5 g./l. of iron ions, from 0.1 to 1.0 g./l. of nickel ions, from 0.1 to 1.0 g./l. of cobalt ions, and containing additionally at least one brightening agent in the range specified, selected from the group consisting of:

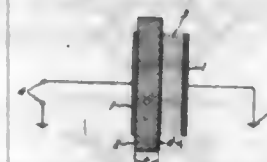
Brightening agent:	Range g./l.
Urea	1-188
Methyl pyridine chloride	1-10
Diamino pyridine	1-10
Formamide	1-10
Dimethylthiourea	1-10
Histidine monohydrochloride	1-10
Sulfonated saccharin	1-10

2,822,327

METHOD OF GENERATING OZONE

Frederic W. Hammesfahr and Robert L. Hatch, Pittsfield, Mass., and John J. Luckhowec, Huntsville, Ala., assignors to General Electric Company, a corporation of New York

Application March 31, 1955. Serial No. 498,332
4 Claims. (Cl. 204—176)



1. The method of increasing the ozone output of a silent electric discharge unit having spaced electrodes defining a discharge gap and a dielectric material between the electrodes, which comprises passing a gas selected from the group consisting of air and oxygen having a density of 0.5 to 5, between the electrodes of said unit while maintaining the relationship

$$\frac{fKE^2}{1 + \frac{f}{Kd}}$$

within the range 3×10^{10} to about 7.2×10^{10} wherein f is the frequency in cycles per second, K is the dielectric constant of the dielectric material, E is the applied voltage in volts (rms), t is the dielectric thickness in millimeters, and d is the width of the discharge gap in millimeters and wherein K is from about 2 to 7, E is from about 5,000 to 50,000, t is about 1 to 6 and d is about 1 to 8.

2,822,328

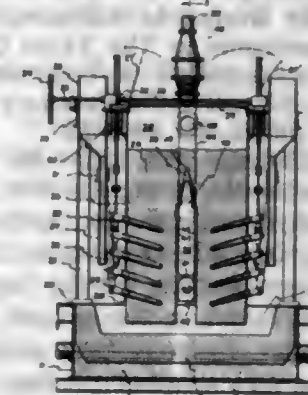
BIFURCATED SELF-BAKING ANODE AND GAS COLLECTION MEANS

John Walker, Walnut Creek, Calif., assignor to Henry J. Kaiser Company, Oakland, Calif., a corporation of Nevada

Application July 20, 1953. Serial No. 369,205
5 Claims. (Cl. 204—247)

1. An electric furnace comprising a cathode shell adapted to receive a melt, an anode casing, a self-baking anode in said casing and arranged in operative relation with said cathode shell and a dividing vane in fixed re-

lation with said anode casing and extending vertically through the baked portion of said self-baking anode and converging to a relatively narrow upper edge in the unbaked portion of said self-baking anode, said vane serving



ing to divide and laterally compress the anode paste during periodic downward movement and baking thereof to impart to said anode increased density and improved electrical characteristics.

2,822,329

AQUATIC POND

Llewellyn B. Griffith, Arlington, Va.

Application August 30, 1955. Serial No. 531,321
11 Claims. (Cl. 210—14)



1. The method of treating the effluent of a biological sewage plant which has reduced the biological oxygen demand by 80%, to further purify it, which consists in flowing the treated effluent to a stocked aquatic pond and circulating the water of the pond, whereby to reduce the original biological oxygen demand by 95%.

2,822,330

WEIGHTED CORROSION INHIBITOR

Olen L. Riggs, Jr., and D'Arcy A. Shock, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application March 14, 1955
Serial No. 494,226

10 Claims. (Cl. 252—8.55)

1. A method of treating oil wells containing a column of corrosive formation liquids which comprises the addition thereto of a weighted corrosion inhibiting composition, said composition comprising an oil soluble iron corrosion inhibitor, an oil immiscibilizing agent for said corrosion inhibitor said immiscibilizing agent is a non-ionic surface active compound having a hydrophile-lipophile balance (HLB) value of from 10 to 17 as determined by the following formula:

$$HLB = 20 \left(1 - \frac{S}{A} \right)$$

wherein:

S =saponification number of the nonionic
 A =acid number of the fatty acid portion of the nonionic
and a mutual solvent having a specific gravity of more than 1.1 for said inhibitor and said immiscibilizing agent in an amount sufficient to increase the specific gravity of the inhibitor composition above that of the corrosive liquids to enable the inhibitor composition to fall readily through the liquid column to the producing zone and diffuse at least partially throughout said liquid column.

2,822,331

ANHYDROUS CALCIUM 12-HYDROXY STEARATE GREASE

John P. Dilworth, Fishkill, N. Y., Oney P. Puryear, Houston, Tex., and Harry V. Ashburn, deceased, late of Beacon, N. Y., by Evelyn L. Ashburn, administratrix, Beacon, N. Y., assignors to The Texas Company, New York, N. Y., a corporation of Delaware

No Drawing. Application February 3, 1954

Serial No. 408,628

22 Claims. (Cl. 252-40)

1. A process of manufacturing smooth, buttery, lump-free, grain-free anhydrous calcium hydroxy fatty acid greases which comprises mixing at room temperature below 100° F. a minor portion of the liquid oleaginous lubricating base employed in the grease composition, a small amount of water, hydroxy fatty acid containing 12 to 24 carbon atoms and a minor portion of an estolide, said minor portion constituting at least 3 weight percent of said hydroxy fatty acid and calcium hydroxide, said mixing being continued for a period of time such that a thick emulsified mixture is formed before heating said mixture, saponifying said mixture, dehydrating the saponified mass with stirring at a temperature below about 285° F., and adding the remainder of said liquid oleaginous lubricating base during stirred cooling of the grease mixture.

2,822,332

LUBRICATING OIL ADDITIVE AND METHOD OF PREPARING THE SAME

Richard S. Logan, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application July 9, 1954

Serial No. 442,443

6 Claims. (Cl. 252-45)

1. A process for producing a lubricant additive which comprises subjecting a petroleum hydrocarbon fraction having the properties

Refractive index n_D^{20}	1.495-1.515
Average molecular weight.....	700-900
Viscosity, SUS at 210° F.....	150-600
Viscosity index.....	80-110
Carbon atom content per molecule.....	50-70

to treatment with sulfur in an amount of 5 to 20% by weight based on the hydrocarbon at an elevated temperature sufficient to increase the viscosity; removing hydrogen sulfide after the reaction is complete; and recovering an additive having detergent and corrosion inhibiting properties, said additive containing 2 to 10% by weight of combined sulfur, being insoluble in propane and having a viscosity at least 1.5 times that of the original hydrocarbon.

2,822,333

LUBRICATION OF REFRIGERATOR EQUIPMENT

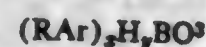
John G. Keller, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application November 10, 1952

Serial No. 319,797

3 Claims. (Cl. 252-49.6)

1. In the operation of refrigerator equipment employing a refrigerant and lubricant which are admixed at temperatures below about 0° F. resulting in flocculation of the refrigerant and lubricant, the improvement which comprises lubricating said equipment with a lubricating oil composition consisting essentially of a highly refined naphthenic Coastal Distillate having a viscosity of from 30 to 100 SUS at 210° F. containing combined therein a minor amount, sufficient to reduce the flocc point, of an alkyl aryl borate having the general formula



wherein R is an aliphatic hydrocarbon radical containing

from 16 to 30 carbon atoms, Ar is an aryl group, x is an integer from 1 to 3, y is a number from 0 to 2 and $x+y=3$.

2,822,334

LUBRICATING OILS THICKENED WITH PTERIDINE DERIVATIVES

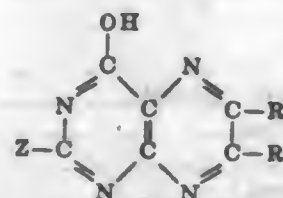
Edward A. Swakon, Hammond, Ind., Delmar Krehbiel, Tulsa, Okla., and John C. Goossens, Harvey, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application December 17, 1956

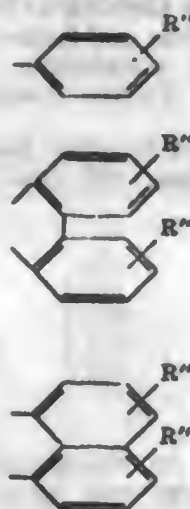
Serial No. 628,498

14 Claims. (Cl. 252-49.6)

1. A lubricant grease comprising a normally liquid lubricant vehicle thickened with from about 5% to about 70% of a pteridine derivative having the general formula



in which Z is selected from the group consisting of OH and NH₂ radicals, R and R' are substituents selected from the group consisting of H, OH, alkyl,



in which R'' are substituents selected from the group consisting of hydrogen, alkyl, nitro, and halogen groups.

2,822,335

PREPARATION OF DETERGENT MIXTURES

Richard D. Stayner, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application June 29, 1954

Serial No. 440,238

5 Claims. (Cl. 252-152)

1. A process for preparing mixtures of C₈-C₁₈ monoalkyl benzene sulfonates and sulfated C₈-C₁₈ alkylolamides of straight-chain C₈-C₁₈ saturated fatty acids by sulfonating a C₈-C₁₈ monoalkyl benzene with an excess of sulfuric acid varying in strength from 95% H₂SO₄ to 30% oleum in a ratio from about 2.5 to about 5.5 mols of 100% H₂SO₄ per one mol of said C₈-C₁₈ monoalkyl benzene to form a mixture of a C₈-C₁₈ monoalkyl benzene sulfonic acid and free sulfuric acid; adjusting the strength of free sulfuric acid in the sulfonation reaction product mixture to obtain an excess of sulfuric acid having an acid strength from about 90% H₂SO₄ to about 2% oleum; adding to the mixture of said sulfonic and free sulfuric acids from 0.25 to about 1 mol of a C₈-C₁₈ alkylolamide of a straight-chain C₈-C₁₈ saturated fatty acid; digesting the mixture of acids and alkylolamide at about 30 to about 60° C. to sulfate the alkylolamide; neutralizing the

sulfation reaction product mixture with a base to form a mixture of C₈-C₁₈ monoalkyl benzene sulfonates and sulfated C₈-C₁₈ alkylolamides of straight-chain C₈-C₁₈ saturated fatty acids; and drying this mixture to the solid-particle form.

2,822,336

PREPARATION OF REFORMING CATALYSTS

Joseph A. Polack, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application November 30, 1953

Serial No. 395,324

3 Claims. (Cl. 252-465)

1. The method of preparing hydroforming catalysts which comprises intimately mixing zinc oxide, alumina and molybdenum oxide in the dry, finely divided state in a molar ratio of zinc oxide to alumina of between 1 to 2 and 2 to 1 and calcining the resultant mixture at 1100-1400° F. for from 3 to 16 hours.

2,822,337

METHODS OF PRODUCING METAL OXIDE GELS

Eric Bertram Evans, Stevenston, England, assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 9, 1954

Serial No. 435,636

Claims priority, application Great Britain July 13, 1953

3 Claims. (Cl. 252-465)

1. A process for producing metal oxide gels containing aluminum which comprises reacting aluminum metal with anhydrous aniline at the boiling point of aniline, hydrolyzing the reaction product to liberate aniline and to form hydrous alumina gel, recovering the liberated aniline, and drying said alumina to form an adsorbent alumina gel.

2,822,338

QUATERNARY AMMONIUM HYDROXIDES IN FOAM RUBBER

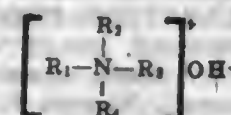
Robert J. Hay, Fall River, Mass., assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application January 8, 1954

Serial No. 403,067

8 Claims. (Cl. 260-2.5)

1. A method of producing a foam rubber having a particularly fine continuous structure from a rubbery conjugated diene polymer latex which comprises incorporating into said latex a fatty acid soap, vulcanizing ingredients including sulfur and zinc oxide, an alkali metal silicofluoride as a latex gelling agent and about 0.1% to about 3.0% by weight of the dry polymer content of said latex of a quaternary ammonium hydroxide having the formula



wherein the group of radicals consisting of (1) R₁, R₂, R₃ and R₄ are selected from the group consisting of alkyl, hydroxy-alkyl and hydrocarbon-substituted alkyl radicals and (2) one of said R₁, R₂, R₃ and R₄ is selected from the group consisting of alkyl and hydrocarbon-substituted alkyl radicals and the remaining three of the said R₁, R₂, R₃ and R₄ are joined together as a chain of hydrocarbons with N to form a heterocyclic ring, frothing the latex, allowing the resulting froth to set to an irreversible gel and thereafter vulcanizing the gelled froth.

2,822,339

PREPARATION OF ORIENTABLE PROTEIN-CONTAINING POLYMERS

Hugh J. Hagemeyer, Jr., Longview, Tex., and Elizabeth L. Oglesby, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application January 24, 1955

Serial No. 483,805

9 Claims. (Cl. 260-8)

1. The method which comprises heating in the presence of a polymerization catalyst a mixture of 5-50% by weight of a detergent-unfolded protein, which detergent-unfolded protein is obtained by heating protein at a temperature of from about 30 to 70° C. with an aqueous solution of a detergent from the group consisting of alkyl, aryl, and alkylaryl sulfonates and alkali metal salts thereof, dialkyl sodium sulfosuccinates, and alkali metal alkyl sulfates, and 95-50% by weight of monomeric material consisting of 75-100% by weight of acrylonitrile and 25-0% by weight of other polymerizable monolefinic monomeric material and thereby forming a composite unitary fiber-forming polymer.

2,822,340

FLAME RESISTANT POLYESTER RESINOUS COMPOSITIONS CONTAINING COMBINED HALOGENS AND PHOSPHOROUS AND CERTAIN ALKALINE EARTH METAL SALTS AND THE PROCESS OF PREPARING THE SAME

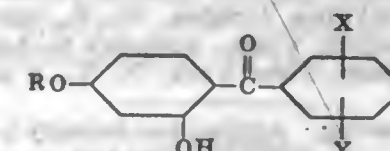
John David McGovern, Norwalk, Conn., and George Bliss Duhnkrack, Harrison, N. Y., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 12, 1955

Serial No. 540,173

15 Claims. (Cl. 260-22)

1. A clear, flame-resistant self-extinguishing resinous composition resistant to discoloring effects of heat and light, comprising the reaction product of (1) a polymerizable ethylenically unsaturated polycarboxylic acid-polyhydric alcohol-alkyl phosphate polyester obtained as the reaction product of a polyhydric alcohol and an ethylenically unsaturated polycarboxylic acid wherein said polyester contains a halogenated member selected from the group consisting of a halogenated polyhydric alcohol and a halogenated polycarboxylic acid in which the halo group is a member of the group consisting of chlorine, bromine and iodine and is present in an amount to yield from about 5% to about 50% by weight of said product and an alkyl phosphate wherein the alkyl group contains from 1 to 4 carbon atoms and is present in an amount to yield from about 0.1% to about 5% by weight of said product, (2) a polymerizable monomer containing a polymerizable CH₂=C< group and having a boiling point of at least 60° C., (3) from 0.1% to 10% based on the total weight of (1) and (2) of an alkaline earth metal salt of fatty oil acids having from 8 to 20 carbon atoms, (4) from about 0.01% to about 5% by weight based on the total weight of (1) and (2) of a compound having the general formula



wherein "R" is an alkyl group having from 1 to 4 carbon atoms, "X" is a member selected from the group consisting of hydrogen, halo groups, alkyl groups having from 1 to 4 carbon atoms and alkoxy groups having from 1 to 4 carbon atoms and "Y" is a member selected from the group consisting of hydrogen, hydroxyl groups, halo groups, alkyl groups having from 1 to 4 carbon atoms and

alkoxy groups having from 1 to 4 carbon atoms, and (5) an organic polymerization catalyst selected from the group consisting of organic peroxides and organic ozonides.

2,822,341
FREEZE-RESISTANT POLYMER-CONTAINING LATEX PAINT

Verle A. Miller, Dover, Del., and Robert L. Bebb, Akron, and John H. Musch, Silver Lake, Ohio, assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application July 10, 1953

Serial No. 367,346

6 Claims. (Cl. 260—23)

1. A method of producing a synthetic polymer latex adapted to withstand freezing and thawing without coagulating, comprising polymerizing a polymerizable ethylenic compound in an aqueous medium in the presence of about 0.5 to about 5.0 parts by weight per 100 parts monomer of modified glyceryl monoricinoleate as an emulsifying agent and in the presence of at least 0.5 part by weight per 100 parts monomer of a water soluble salt of persulfuric acid as a polymerization catalyst, said modified glyceryl monoricinoleate being prepared by reacting one mole of glycerol with one mole of ricinoleic acid in the presence of sufficient potassium hydroxide to provide intrinsically in the glyceryl monoricinoleate product about 3 to about 8% potassium ricinoleate based on the weight of said product whereby the modified glyceryl monoricinoleate is water dispersible.

2,822,342
HEAT PROCESSING OF BUTYL RUBBER WITH CARBON BLACK AND A PROMOTER AND PRODUCT OBTAINED

Francis P. Ford, Roselle, and Albert M. Gessler, Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 2, 1952, Serial No. 291,164

20 Claims. (Cl. 260—41.5)

1. A process which comprises mixing carbon black with a low unsaturation solid olefin-multiolefin synthetic rubbery copolymer and from 0.3% to about 0.5% of a reactant selected from the group consisting of dinitroso compounds, dioximes, and aromatic quinonoid compounds, and subjecting said mixture to an elevated temperature for an extended period of time, the combination of said temperature and said time being substantially as severe as the combination of a temperature of 360° F. for a time of 30 minutes whereby both the stress properties and the elastic properties of the subsequently cured copolymer are improved, and the Mooney value is on the decrease from the maximum.

2,822,343
ETHYLENICALLY UNSATURATED POLYESTER RESINOUS COMPOSITIONS AND THE CURE THEREOF IN THE PRESENCE OF A CATALYTIC PROMOTER

Harold M. Day, Noroton Heights, Conn., Charles H. Dugliss, Yorktown Heights, N. Y., and Roy R. H. Miron, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 14, 1954

Serial No. 404,124

16 Claims. (Cl. 260—45.4)

1. A resinous composition comprising the polymerizable mixture of (1) an ethylenically unsaturated polycarboxylic acid-polyhydric alcohol polyester, (2) a compound containing a polymerizable $\text{CH}_2=\text{C}<$ group and having a boiling point of at least 60° C., a polymerization catalyst for (1) and (2), and (3) a catalytic amount of an ingredient selected from the group consisting of the

guanidines, isomelamines, amidines, biguanides, guanylureas, pseudoureas, pseudothiureas and the salts thereof, whereby catalytic activity of the polymerization catalyst is promoted.

2,822,344
UNSATURATED POLYESTER RESIN COMPOSITION CONTAINING A POLYMERIZATION PROMOTER AND PROCESS OF MAKING SAME

George Bliss Duhnkrack, Harrison, N. Y., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application July 6, 1954

Serial No. 441,639

14 Claims. (Cl. 260—45.4)

1. A method of curing a resinous composition which comprises preparing a polymerizable composition of (1) a polymerizable ethylenically unsaturated polyhydric alcohol-polycarboxylic acid polyester; (2) a compound containing a polymerizable $\text{CH}_2=\text{C}<$ group and having a boiling point of at least 60° C.; (3) from about 0.001 to about 10 parts per million, based on the total weight of (1) and (2), of a copper salt calculated as dissolved metallic copper; and (4) about 0.005–0.2% based on the total weight of a compound selected from the group consisting of the guanidines, isomelamines, amidines, biguanides, guanylureas, pseudoureas, pseudothiureas and the salts thereof, and contacting said composition with a free radical polymerization catalyst.

2,822,345
POLYESTER-VINYL MONOMER COMPOSITIONS CONTAINING AMIDINO COMPOUND AND A SULFHYDRYL COMPOUND AND PROCESS FOR COPOLYMERIZING SAME

George Bliss Duhnkrack, Harrison, N. Y., and Charles Ray Mills, Huntington, W. Va., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application January 23, 1957

Serial No. 635,578

17 Claims. (Cl. 260—45.4)

1. A composition of matter comprising (1) an unsaturated polyester resin prepared by reacting a polyhydric alcohol with an α, β , ethylenically unsaturated polycarboxylic acid; (2) a monomer copolymerizable with said (1) and containing a $\text{CH}_2=\text{C}<$ group and having a boiling point of at least 60° C.; (3) from about 0.001 to 1.0%, based on the combined weight of said (1) and (2), of a sulfhydryl compound and (4) from about 0.0003 to 0.5%, based on the combined weight of said (1) and (2), of a substance selected from the group consisting of the guanidines, isomelamines, amidines, biguanides, guanylureas, pseudoureas, pseudothiureas and the salts thereof.

2,822,346
PHENOL-DICHLOROPHENOL FORMALDEHYDE CONDENSATION PRODUCTS

Edward C. Soule, deceased, late of Niagara Falls, N. Y., by Eleanor Benner Soule, executrix, Niagara Falls, N. Y., Leo S. Burnett, Niagara Falls, and George M. Wagner, Lewiston, N. Y., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application December 14, 1954

Serial No. 475,278

4 Claims. (Cl. 260—53)

1. A resinous composition comprising the condensation product of formaldehyde with a phenolic component consisting essentially of about 15 to about 90 mole percent of phenol and about 85 to about 10 mole percent of mixed dichlorophenols, the mixed dichlorophenols comprising about 50 to about 85 mole percent of 2,5-dichlorophenol and about 10 to about 15 mole percent of 2,3-dichlorophenol.

2,822,347
METHOD OF PREPARING TRIAZINYL COMPOSITIONS AND PRODUCTS THEREOF

Henry P. Wolsiedler, Darien, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 3, 1955

Serial No. 513,147

19 Claims. (Cl. 260—67.6)

7. The method of preparing a new synthetic composition which comprises (1) effecting reaction at a temperature within the range of from 100° C. to 240° C. between ingredients comprising (a) a 1,3,5-triazine containing at least two aldehyde-reactable amino groups, said triazine having attached to one carbon atom of the triazine nucleus a grouping which contains an —NH_2 radical and having attached to another carbon atom of the triazine nucleus a grouping which contains an —NHR radical, where R represents a member of the class consisting of hydrogen and monovalent hydrocarbon radicals, (b) a halohydrin and (c) a substantial excess over a catalytic amount of a tertiary amine wherein the substituents attached to the amino nitrogen are hydrocarbon substituents, the ingredients of (a) and (c) being employed in a molar ratio of from 0.5 to 3 moles of the latter for each mole of the former, and the ingredient of (b) being employed in a molar ratio at least equal to that of the ingredient of (c), and (2) reacting the resulting aldehyde-reactable triazinyl composition with an aldehyde.

2,822,348
ESTER INTERCHANGE CATALYSTS

John Harris Haslam, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application November 14, 1951

Serial No. 256,373

13 Claims. (Cl. 260—75)

4. In a process of conducting an ester interchange reaction between an ester of a carboxylic acid and a compound selected from the group consisting of alcohols and esters of carboxylic acids as reactants, said ester interchange reaction producing an ester other than the first-named ester, the improvement which comprises incorporating with the reactants a catalytic amount of an alkyl orthotitanate, and effecting the ester interchange reaction.

2,822,349
REACTIONS OF DIISOCYANATE-MODIFIED LINEAR POLYESTERS WITH UREA GLYCOLS

Karl E. Müller, Leverkusen-Bayerwerk, Wilhelm Bunge, Leverkusen, and Cornelius Mühlhausen, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 9, 1954

Serial No. 409,254

Claims priority, application Germany February 26, 1953

1 Claim. (Cl. 260—75)

A process for the production of high molecular weight products from the polyaddition product of (a) a linear polyester which is a condensation reaction product of a saturated aliphatic dicarboxylic acid and a saturated glycol, and (b) an amount of organic diisocyanate in excess of the quantity required to react with the said hydroxyl groups, which comprises adding to the said polyaddition product an amount about 1.5–4.5% less than the stoichiometric amount of a urea glycol of the formula:



whereby the urea glycol reacts to completion with the polyaddition product while simultaneously shaping the product.

2,822,350
PRODUCTION OF LINEAR MALEIC POLYESTERS

Robert A. Hayes, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application May 7, 1954

Serial No. 428,387

14 Claims. (Cl. 260—78.4)

1. Process which comprises reacting together at temperatures in the range 30°–150° C. (A) a substance selected from the group consisting of maleic anhydride and mixtures of maleic anhydride with anhydrides of other dicarboxylic acids, said mixtures containing at least 20% by weight of maleic anhydride with (B) an alkylene oxide selected from the group consisting of ethylene, propylene and butylene oxides, and mixtures of said oxides, in the presence of from 0.05 to 5.0%, based on the weight of the reaction mixture, of a catalyst selected from the group consisting of alkali metal salts, alkali metal hydroxides, alkaline earth metal salts, alkaline earth metal hydroxides, salts of organic amines and hydroxides of organic amines, together with at least 10% of water, based on the weight of said selected catalysts.

2,822,351
POLYSULFONE CONDENSATION POLYMERS AND THE PREPARATION OF SAME

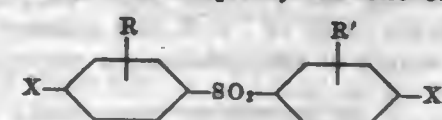
Algrid Kreuchunas, Detroit, Mich.

No Drawing. Application December 5, 1955

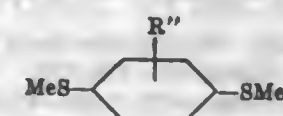
Serial No. 550,805

6 Claims. (Cl. 260—79.3)

1. A polymeric condensation product of equal mole amounts of a p,p'-dihalodiphenyl sulfone of the formula



where X and X' are members of the group consisting of chlorine, bromine and iodine and where R and R' are members of the group consisting of hydrogen, methyl and ethyl, with an alkali metal p-phenylene dimercaptide of the formula



where Me is a member of the group consisting of potassium and sodium and R'' is a member of the group consisting of hydrogen, methyl and ethyl.

2,822,352
CHLOROPRENE ADHESIVE CURED WITH CARBON DISULFIDE-ALKYL AMINO-ALCOHOL REACTION PRODUCT

William E. Tann, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application April 23, 1953

Serial No. 350,753

15 Claims. (Cl. 260—79.5)

1. A quick-curing cement containing a rubbery chloroprene polymer, a solvent for said polymer, and as an accelerator relatively small proportions of the reaction product of carbon disulfide and an alkyl amino-alcohol.

2,822,353
VULCANIZABLE RUBBER COMPOSITION AND PROCESS

Ralph A. Bankert and Walter S. Ropp, Wilmington, Del., assignors to Hercules Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 12, 1955

Serial No. 540,162

7 Claims. (Cl. 260—82.1)

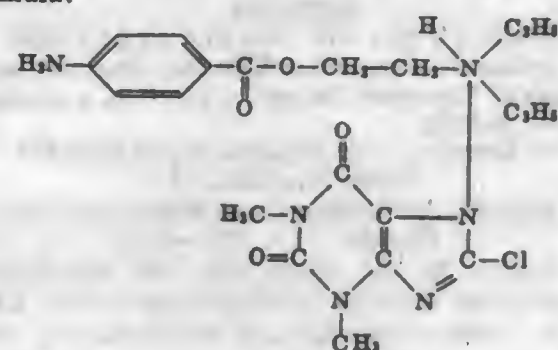
1. A vulcanizable rubber composition comprising a rubber selected from the group consisting of natural rub-

2,822,365

PROCAINE-8-CHLOROTHEOPHYLLINATE AND PROCESSES FOR PREPARING IT

Werner Störbeck, Frankfurt am Main, Germany, assignor to Frankfurter Arzneimittelfabrik G. m. b. H., Frankfurt am Main, Germany, a corporation of Germany
No Drawing. Application July 19, 1954
Serial No. 444,350
5 Claims. (Cl. 260-253)

1. Procaine-8-chlorotheophyllinate having the following formula:

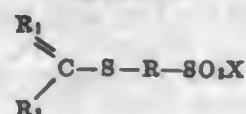


2,822,366

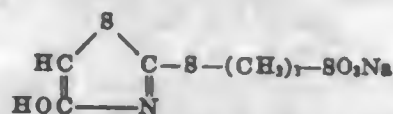
SULFONIC ACID DERIVATIVES AND METHODS OF MAKING THE SAME

Hermann Haas, Düsseldorf-Holthausen, and Wolfgang Gündel, Düsseldorf-Oberkassel, Germany, assignors to Böhme Fettchemie G. m. b. H., Düsseldorf, Germany, a corporation of Germany
No Drawing. Application October 29, 1954
Serial No. 465,745

1. Compounds having a structural formula selected from the group consisting of



and



wherein R is selected from the group consisting of lower alkyl with at least 3 carbon atoms and aryl, R₁ is selected from the group consisting of C₆H₅-N= and lower alkyl-C₆H₄-N=, R₂ is selected from the group consisting of lower alkyl and aryl, and X is selected from the group consisting of hydrogen and alkali metal.

2,822,367

PRODUCTION OF THIAZOLE SULFENAMIDES

Glen Alliger, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
No Drawing. Application July 18, 1956
Serial No. 598,504
8 Claims. (Cl. 260-306.6)

1. Method of producing a thiazole sulfenamide, comprising reacting an arylene-thiazolyl sulfonyl thiocyanate with an amine possessing at least one hydrogen atom attached to the amino nitrogen atom thereof.

2,822,368

EPOXIDIZED VEGETABLE OILS

Stanley P. Rowland, Philadelphia, and Richard F. Conyne, Andalusia, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application July 15, 1953
Serial No. 368,236
15 Claims. (Cl. 260-348)

1. As a new composition of matter an epoxidized vegetable oil which has an oxirane oxygen-content of at least

5.0% and also has a degree of unsaturation which is represented by an iodine number of about one.

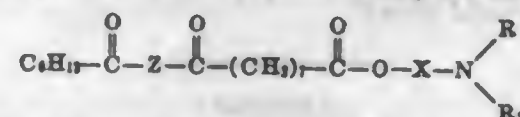
6. A process for the preparation of an epoxidized vegetable oil having an oxirane-oxygen content of at least 4.0% and a degree of unsaturation no greater than that represented by an iodine number of one which comprises treating by agitating in the presence of hydrogen and of a hydrogenation catalyst, at a temperature from 0 to 150° C., an epoxidized vegetable oil which has an oxirane-oxygen content of at least 4.5%, continuing treatment of the vegetable oil until the degree of unsaturation of said oil is no greater than that represented by an iodine number of one and an oxirane-oxygen content of at least 4.0%, terminating hydrogenation, and separating the epoxidized vegetable oil product.

2,822,369

ESTERS OF 9,12-DIKETOSTEARIC ACID, 9,12-DIKETO-10,11-OCTADECENOIC ACID, AND 9,12-DIKETO-10,11-EPOXYSTEARIC ACID

Joseph Nichols, Princeton, and Edgar S. Schipper, New Brunswick, N. J., assignors to Ethicon, Inc., a corporation of New Jersey
No Drawing. Application May 5, 1955
Serial No. 506,356
7 Claims. (Cl. 260-348)

1. New and useful compounds having the formula:



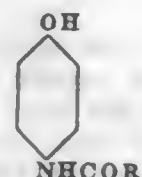
in which X is a lower alkylene radical, R and R₁ are each a lower alkyl radical and Z is a radical selected from the class consisting of ethylene, vinylene and epoxyethylene radicals.

2,822,370

PREPARATION OF WHITE ACYL-PARA-AMINOPHENOLS

Delmer L. Cottle, Highland Park, and David W. Young, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application July 22, 1954
Serial No. 445,177
5 Claims. (Cl. 260-404)

1. In a process for the preparation of a substantially dye free acyl p-aminophenol corresponding to the general formula



where R is a hydrocarbon radical having from one to twenty carbon atoms, which comprises condensing p-aminophenol with about a stoichiometrical amount of an organic monocarboxylic acid having from two to twenty-one carbon atoms, the improvement which comprises washing the resulting dye-containing reaction product with 5 to 40 cc. per 100 grams of the acyl p-aminophenol of an aqueous solution containing 2.5 to 20 weight percent of an alkali, and recovering a light-stable and color-stable product.

2,822,371

BODIED 12-KETO OCTADECENOIC ACID GLYCERIDES

Joseph Nichols, Princeton, N. J., assignor to Ethicon, Inc., a corporation of New Jersey
No Drawing. Application October 25, 1954
Serial No. 464,647
14 Claims. (Cl. 260-406)

1. A bodied oil in which the oil comprises essentially a triglyceride selected from the class consisting of triglycerides of 12-keto-oleic acid, glycerides of 12-keto-

10-octadecenoic acid, and mixtures thereof, said oil having the property of bodying as a result of chemical interaction of an unsaturated carbonyl moiety.

2,822,372

PROCESS FOR THE PRODUCTION OF A STABLE COMPLEX COMPOUND OF DIACETYLENE

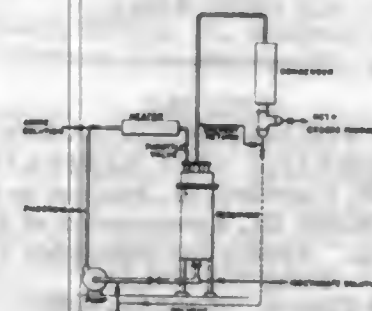
Herbert Meister, Marl, Westphalia, Germany, assignor to Chemische Werke Huls Aktiengesellschaft, Marl, Kreis Recklinghausen, Germany, a corporation of Germany
No Drawing. Application February 16, 1955
Serial No. 488,708
Claims priority, application Germany March 2, 1954
5 Claims. (Cl. 260-439)

1. Process for the production of a stable complex compound of diacetylene and nickel which comprises reacting diacetylene with a solution of nickelous cyanide in aqueous ammonia of a density of from about 0.92 to 0.96 at 15° C., the concentration of said nickel compound being about 2% by weight at a temperature within the range from -15° to +10° C.

2,822,373

PROCESS FOR THE MANUFACTURE OF ORGANIC ISOCYANATES

Theodore R. Beck, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application March 15, 1954, Serial No. 416,199
11 Claims. (Cl. 260-453)



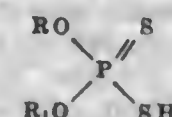
1. In a continuous flow process of manufacturing organic isocyanates from organic primary amines and phosgene, the step which comprises passing an inert organic solvent solution of the amine into an inert organic solvent solution of phosgene under superatmospheric pressure and under conditions of turbulent flow while maintaining the temperature above that at which the carbamyl chloride of the particular amine employed is decomposed and within the range of from 90° C. to 180° C., the amount of phosgene employed being at least 1.25 mols per NH₂ group on the amine, the organic amine being one which contains no other group than -NH₂ which is reactive with phosgene.

2,822,374

PREPARATION OF ORGANIC PHOSPHOROTHIOIC HALIDES

Paul W. Vogel, Warrensville Heights, Ohio, assignor to The Lubrizol Corporation, Wickliffe, Ohio, a corporation of Ohio
No Drawing. Application January 20, 1954
Serial No. 405,260
7 Claims. (Cl. 260-461)

1. The method of preparing phosphorothioic halides which comprises reacting a hydrogen halide selected from the class consisting of hydrogen chloride and hydrogen bromide with a phosphorodithioic acid having the structural formula



in which R and R₁ are lower alkyl radicals, in the presence of

2,822,375

PROCESS FOR THE MANUFACTURE OF BENZONITRILE

Alfred Renner, Basel, Walter Wettstein, Munchenstein, near Basel, and Gustav Widmer, Basel, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm
No Drawing. Application June 4, 1956
Serial No. 589,011
Claims priority, application Switzerland June 9, 1955
3 Claims. (Cl. 260-465)

1. A continuous process for the manufacture of benzonitrile, wherein an aromatic hydrocarbon selected from the group consisting of naphthalene and o-xylene is subjected in the vapor phase to catalytic oxidation with air, and the oxidation product so obtained, and without being cooled and isolated, is converted in the vapor phase into benzonitrile by passing it with ammonia over a highly porous silica gel having a bulk density of at the most 0.5 at a temperature within the range of 360° C. to 500° C.

2,822,376

REACTION OF PHOSPHINE WITH α,β-UNSATURATED COMPOUNDS

Ingenieur Hechenbleikner, Claesburg, Mass., and Michael M. Rauhut, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
No Drawing. Application February 27, 1957
Serial No. 642,638
13 Claims. (Cl. 260-465.1)

1. A process for preparing an organophosphine which comprises: reacting of from one to three moles of an olefin containing an electronegative substituent positioned adjacent to the double bond of said olefin with one mole of phosphine in the presence of a strongly alkaline catalyst at temperatures not to exceed about 100° C., said catalyst being present from about 0.1% to about 15% by weight based upon said olefin, and wherein the latter olefin is selected from the class consisting of acrylonitrile, acrylamide, ethylacrylate and laurylacrylate.

2,822,377

PROCESS FOR THE PREPARATION OF N-SUBSTITUTED AMINOBUTYRIC ACID ESTERS FROM ACETOACETIC ESTER BY REDUCTIVE ALKYLATION

Wilhelm Jakob Kaiser, Düsseldorf-Holthausen, Germany, assignor to Henkel & Cie. G. m. b. H., Düsseldorf-Holthausen, Germany, a corporation of Germany
No Drawing. Application October 14, 1955
Serial No. 540,641
Claims priority, application Germany October 20, 1954
7 Claims. (Cl. 260-468)

1. The process of producing N-substituted β-amino-butyric acid ethyl esters, which comprises reacting ethyl acetoacetate with an amino compound selected from the group consisting of primary alkylamines, C-alkyl-amino-cyclohexanes and C-alkylanilines with more than six carbon atoms in the molecule at a temperature between substantially room temperature and about 60° C., and hydrogenating the reaction product at a temperature from 120 to 160° C. and a pressure from 40 to 60 atmospheres gauge in the presence of metallic nickel as a catalyst.

2,822,378

METHOD FOR PREPARING ESTERS

Alfred R. Bader, Milwaukee, Wis., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

No Drawing. Application April 23, 1953

Serial No. 350,747

3 Claims. (Cl. 260-474)

1. The method of preparing esters of a phenol and a carboxylic acid which comprises mixing the phenol and the carboxylic acid with about 10 to 100 percent, based upon the esterifiable mixture, of free liquid polyphosphoric acid and heating the mixture to esterification temperature whereby to obtain said ester.

2,822,379

ALLOPHANATES OF α -ETHYNYLCARBINOLS

Walter Grimme, Uffort-Moers, and Hans Emde, Homberg, Niederrhein, Germany, assignors to Rheinpreussen Aktiengesellschaft fuer Bergbau und Chemie, Homberg, Niederrhein, Germany, a German corporation

No Drawing. Application September 10, 1954

Serial No. 455,352

Claims priority, application Germany September 14, 1953

5 Claims. (Cl. 260-482)

1. Process for the preparation of allophanates of tertiary α -ethynyl alcohols which comprises contacting an ethynyl alcohol with a member selected from the group consisting of carbamyl chloride and allophanyl chloride at a temperature ranging from about 0 to 80° C. in the presence of an inert organic solvent substantially free from hydroxyl groups and a member selected from the group consisting of anhydrous alkali and alkali earth carbonates, and recovering the allophanate formed.

2,822,380

 $\Delta^9(11)$ -UNSATURATED D-HOMOSTEROIDS AND PROCESS

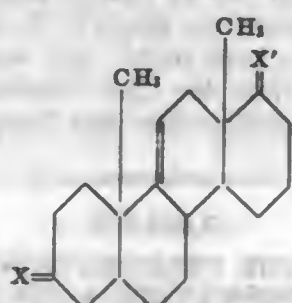
Raymond O. Clinton, North Greenbush, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application January 14, 1954

Serial No. 404,123

6 Claims. (Cl. 260-488)

1. A compound having the formula



wherein X and X' are selected from the class consisting of



wherein R is a carboxylic acyl group having from 1 to about 8 carbon atoms.

2,822,381

3-OXYGENATED 16-HYDROXY-D-HOMOPREGNEN-20-ONES AND THEIR ESTERS

Raymond M. Dodson, Park Ridge, and Paul B. Sollman, Evanston, Ill., assignors, by mesne assignments, to G. D. Searle & Co., Skokie, Ill., a corporation of Delaware

No Drawing. Application November 24, 1954

Serial No. 471,118

10 Claims. (Cl. 260-488)

1. A member of the class consisting of 3,16-dihydroxy-D-homo-5-pregnen-20-one, 16-hydroxy-D-homo-4-pregnen-3,20-dione and their esters of hydrocarbon carboxylic acids containing no more than 8 carbon atoms.

2,822,382

COMPOUNDS OF THE PERHYDROCHRYSENE SERIES AND PREPARATION THEREOF

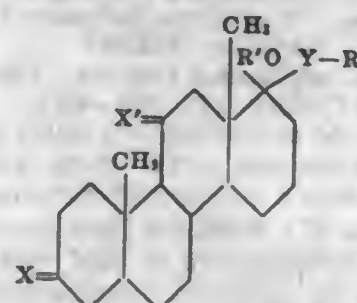
Raymond O. Clinton, North Greenbush, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application December 16, 1954

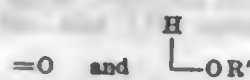
Serial No. 475,810

25 Claims. (Cl. 260-488)

1. A compound of the etiocholane series having the formula



wherein Y is a member of the group consisting of $-\text{C}\equiv\text{C}-$, $-\text{CH}=\text{CH}-$ and $-\text{CH}_2\text{CH}_2-$ radicals, R is selected from the class consisting of hydrogen, lower-alkyl, and lower-alkyl substituted with R'O groups, R' is selected from the class consisting of hydrogen, lower-alkanoyl, carboxy-lower-alkanoyl and monocarbocyclic aroyl radicals, and X and X' are selected from the class consisting of



2,822,383

1-ACETYL-3-(6'-METHOXY-2'-NAPHTHYL)CYCLOHEXANE AND DERIVATIVES

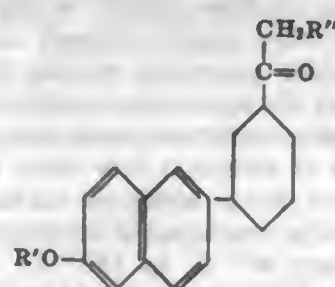
Douglas S. Smith, Glenview, Ill., assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Illinois

No Drawing. Application September 12, 1955

Serial No. 533,913

6 Claims. (Cl. 260-488)

1. A compound of the formula



wherein R' is selected from the group consisting of hydrogen and methyl radicals, and R'' is selected from the group consisting of hydrogen and hydroxyl and acetoxyl radicals.

2,822,384

PURIFICATION OF LUBRICATING COMPOSITIONS

James T. Gragson, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application April 28, 1955

Serial No. 504,683

4 Claims. (Cl. 260-504)

1. In a method for producing alkaline earth petroleum sulfonates comprising sulfonating a hydrocarbon fraction containing a component having a viscosity between about 80 and 700 SUS at 210° F., neutralizing a resulting reaction product with anhydrous ammonia, extracting the ammonium petroleum sulfonate with an organic solvent and converting the ammonium petroleum sulfonate to an alkaline earth petroleum sulfonate, the improvement comprising extracting ammonium sulfonate and unreacted hydrocarbons from said alkaline earth petroleum sulfonates with boiling isopropyl alcohol.

2,822,385

STABILIZERS FOR STYRENESULFONATE MONOMERS

Leland Lloyd Estes, Jr., Waynesboro, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 1, 1955

Serial No. 491,513

5 Claims. (Cl. 260-505)

1. As a composition of matter, a mixture of a monomeric styrenesulfonic acid compound and a salt of nitrous acid.

2,822,386

PROCESS FOR STABILIZING STYRENESULFONATE SOLUTIONS

Sydney J. Nix, Jr., Waynesboro, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 1, 1955

Serial No. 491,520

6 Claims. (Cl. 260-505)

1. In the preparation of a styrenesulfonic acid compound by the removal of the elements hydrogen and halogen from a sulfonated beta-phenylethyl halide through the action of an alkali, the improvement comprising adding to the monomeric styrenesulfonic acid compound so prepared a salt of nitrous acid, said addition being effected after neutralization of excess alkali.

2,822,387

METHOD OF PRODUCING SULFONATED ALKANES

Herman S. Bloch, Skokie, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application December 7, 1955

Serial No. 551,502

12 Claims. (Cl. 260-513)

1. A method for converting an alkane carboxylic acid containing from 4 to about 24 carbon atoms per molecule and not more than two carboxylic acid groups per molecule to a sulfonated alkane which comprises sulfonating said carboxylic acid, converting the resulting sulfonated carboxylic acid to its sulfonate partial-salt free of carboxylate salts by neutralizing only the sulfo radicals of the last-named acid and thereafter heating said salt at a temperature of from about 100° to about 350° C. to form said sulfonated alkane.

2,822,388

PROCESS FOR SEPARATING CRUDE MIXTURES OF TEREPHTHALIC ACID AND PARA-TOLUIC ACID

Otto Horn, Frankfurt am Main, and Helmut Jockusch, Bad Soden, Taunus, Germany, assignors to Farbwerke Hoechst Aktiengesellschaft vormals Meister Lucius & Bruning, Frankfurt am Main, Germany, a corporation of Germany

No Drawing. Application March 12, 1956

Serial No. 570,672

Claims priority, application Germany March 25, 1955

8 Claims. (Cl. 260-525)

1. A process of separating a mixture of terephthalic acid and para-toluic acid which comprises contacting the mixed acids with aceto nitrile and separating the resulting solution from the residue.

2,822,389

SEPARATION OF C₁₀ DICARBOXYLIC ACIDS

Raymond Wynkoop, Metuchen, N. J., and John J. Glachetto, La Romana, Dominican Republic, assignors to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia

Application November 15, 1955, Serial No. 547,010

18 Claims. (Cl. 260-533)

1. A process which comprises subjecting an olefin to reaction with a finely divided alkali metal to prepare a

metallation reaction mixture comprising alkali metal derivatives of the olefin including dialkali metal derivatives of dimers of said olefin, carbonating said metallation reaction mixture to convert said alkali metal derivatives therein to salts of organic acids including the conversion of dialkali metal derivatives of dimers of the olefin to salts of dicarboxylic acids having two more carbon atoms per molecule than said dimers, neutralizing in an aqueous medium the mixture of said salts of organic acids to produce an organic phase containing in solution the major portion of the liberated organic acids and an aqueous phase containing in solution the remainder of the liberated organic acids and inorganic water-soluble salts formed in the neutralization reaction, separating the aqueous phase from the organic phase, converting the organic acids in the aqueous phase to water-soluble organic acid salts, removing sufficient water from the resulting aqueous phase to crystallize out the inorganic salts contained therein, and recycling the resulting aqueous phase containing the salts of organic acids to a stage in the aforesaid process subsequent to the carbonation step but not subsequent to the neutralization step.

2,822,390

ALKYLATION OF UREAS

Harry E. Albert, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

Application May 11, 1955, Serial No. 507,712

3 Claims. (Cl. 260-553)

1. Process which comprises contacting, at temperatures in the range of -45° to +5° C. (I) a compound selected from the group consisting of urea, N-alkylureas in which the alkyl groups contain from 1 to 10 carbon atoms and mixtures of urea and said N-alkylureas, with (II) a tertiary olefin containing up to 10 carbon atoms, in the presence of (III) a reaction medium containing methyl acid sulfate and a substance selected from the group consisting of oleum and sulfuric acid having the composition

	Percent ¹
(A) Methyl acid sulfate	50-60
(B) Water	5-10
(C) Sulfur trioxide	35-40

¹ Based on the total weight of (A), (B) and (C).

the reaction yielding mono-N-alkylated and di-N,N'-alkylated ureas in those cases where urea itself is selected, and yielding N,N'-alkylated ureas in those cases in which alkyl ureas are selected.

2,822,391

AMINOALKYLOXYALKYL ETHERS OF SALICYLAMIDE

Hans Suter, Dorfingen, and Werner Kündig, Schaffhausen, Switzerland, assignors to Eprova Limited, Schaffhausen, Switzerland

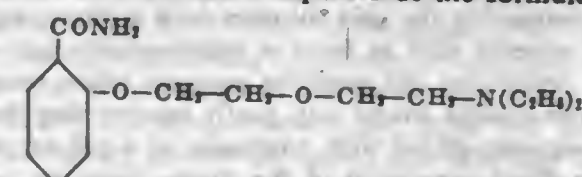
No Drawing. Application August 3, 1954

Serial No. 447,669

Claims priority, application Switzerland August 15, 1953

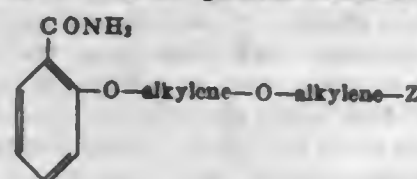
2 Claims. (Cl. 260-559)

1. The new chemical compound of the formula



2. New chemical compounds selected from the group consisting of ethers of salicylic acid amide, and salts of

said ethers with inorganic and organic non-toxic acids, the said ethers having the general formula



wherein alkylene represents lower alkylene radicals, and Z represents a radical selected from the group consisting of a di-lower amino radical, a pyrrolidino radical, a morpholino radical, and an α -methyl-piperidino radical.

2,822,392

PROCESS FOR PRODUCING CYCLOHEXYLAMINE
George M. Illich, Jr., Lake Forest, and Ralph M. Robinson, Chicago, Ill., assignors to Abbott Laboratories, Chicago, Ill., a corporation of Illinois
Application September 20, 1954, Serial No. 457,020
4 Claims. (Cl. 260-563)

1. A continuous process of producing cyclohexylamine comprising passing continuously countercurrently aniline and hydrogen in the absence of a solvent once through a reaction zone containing a ruthenium catalyst maintained at a temperature between 200 and 250° C. and at a pressure between 250 and 10,000 pounds per square inch, the said aniline having a rate of flow through the said catalyst between about 0.5 and 3.5 volumes of feed per hour per volume of catalyst.

2,822,393

RECOVERY OF CYCLOHEXANONE OXIME
Bernard H. Nicolaisen, Kenmore, and Samuel A. Riccardi, Grand Island, N. Y., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application August 5, 1954
Serial No. 448,139
10 Claims. (Cl. 260-566)

1. A method for extracting cyclohexanone oxime from solution in a first water immiscible organic hydrocarbon solvent, said solution containing contaminants, which comprises contacting the said solution with a dilute, aqueous, strong mineral acid to form a water soluble salt of the oxime, separating the resulting aqueous phase containing the water soluble salt and neutralizing the separated aqueous phase by the addition of ammonia to a pH of about 4.5 to 7.5 in the presence of a second water immiscible organic hydrocarbon solvent while effecting solution of the oxime in the said second solvent, said solution of oxime in the second solvent being substantially free of said contaminants.

2,822,394

RECOVERY OF CYCLOHEXANONE OXIME
Bernard H. Nicolaisen, Kenmore, and Floro F. Frulla, Schenectady, N. Y., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia
No Drawing. Application August 5, 1954
Serial No. 448,140
10 Claims. (Cl. 260-566)

1. A method for recovering cyclohexanone oxime from solution in a water-immiscible organic hydrocarbon solvent, said solution containing contaminants, which comprises contacting the said solution with a dilute, aqueous, strong mineral acid to form a water-soluble salt of the oxime, separating the resulting aqueous phase containing the water-soluble oxime salt, partly neutralizing the separated aqueous phase with ammonia to a pH of about 2 to 4 to effect separation of the oxime from the aqueous phase and recovering the separated oxime, said oxime being substantially free of said contaminants.

2,822,395

PRODUCTION OF AMINES

Walter Theodore Dent, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

No Drawing. Application February 21, 1955
Serial No. 489,809

Claims priority, application Great Britain March 5, 1954
7 Claims. (Cl. 260-576)

1. A process for the production of 4-aminodiphenylamines in which one of the hydrogen atoms of the 4-amino group is replaced by a saturated hydrocarbon radical, which comprises coupling a diphenylamine with an amount of a benzene diazonium salt exceeding the stoichiometric amount thereof by from 10 to 55% by weight, and reductively alkylating the resulting phenylaminoazobenzene with a saturated ketone at 100° to 180° C., and at 10 to 300 atmospheres in the presence of a metal hydrogenation catalyst selected from the group consisting of copper and group VIII metals.

2,822,396

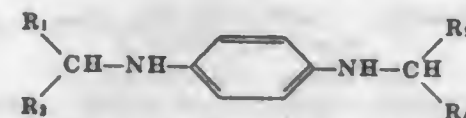
PRODUCTION OF AMINES

Walter Theodore Dent, Norton-on-Tees, England, assignor to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

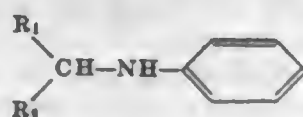
No Drawing. Application February 21, 1955
Serial No. 489,810

Claims priority, application Great Britain March 5, 1955
4 Claims. (Cl. 260-577)

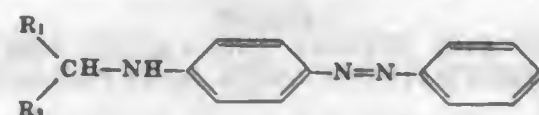
1. A process for the production of diamines having the formula:



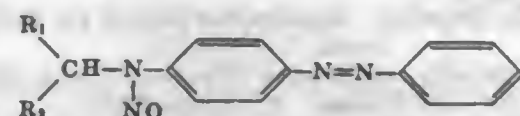
wherein R₁, R₂, R₃ and R₄ are aliphatic-saturated hydrocarbon groups which comprises coupling an amine having the formula:



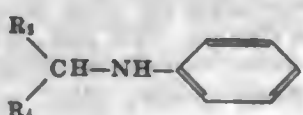
with a 30 to 50% excess of a benzene diazonium salt and thereby forming an azo compound having the formula:



treating this compound with aqueous nitrous acid at a temperature in the region of the freezing point of water, thereby forming the nitroso compound



and reductively alkylating this compound in the presence of an aliphatically-saturated ketone of the formula R₂-CO-R₃, where R₂ and R₃ are aliphatically-saturated hydrocarbon radicals, and a hydrogenating metal catalyst selected from the group consisting of copper and the metals of group VIII and at a temperature in the range from 100° to 180° C. and at a pressure in the range from 10 to 300 atmospheres gauge, whereby the aforesaid diamino product is obtained simultaneously with the amine of the formula:



2,822,397

CATALYTIC HYDROGENATION OF AROMATIC NITRO COMPOUNDS TO AMINES

Leon O. Winstrom, East Aurora, N. Y., assignor to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

No Drawing. Application August 18, 1955
Serial No. 529,310

8 Claims. (Cl. 260-580)

1. A catalyst suitable for effecting catalytic hydrogenation reactions, comprising essentially an intimate mixture of nickel sulfide and amorphous alumina, the amount of amorphous alumina being about 10% to about 90% of the weight of the catalyst, said catalyst having been obtained, by a procedure including a sulfiding treatment, from a mixture of oxides of nickel and aluminum which has been produced by igniting a mixture of nickel and aluminum salts.

5. In the process of manufacturing a mononuclear aromatic primary amine by the vapor-phase catalytic reduction of the corresponding mononuclear aromatic nitro hydrocarbon with hydrogen, the improvement which comprises contacting a mixture of vapor of said mononuclear aromatic nitro hydrocarbon and at least 4½ mols of hydrogen per mol of nitro hydrocarbon, at a temperature of 250° to 450° C., with a catalyst essentially comprising an intimate mixture of nickel sulfide and amorphous alumina, the amount of amorphous alumina being about 10% to about 90% of the weight of the catalyst, said catalyst having been obtained, by a procedure including a sulfiding treatment, from a mixture of oxides of nickel and aluminum which has been produced by igniting a mixture of nickel and aluminum salts.

2,822,398

PROCESS FOR PREPARING CYCLOHEXANONE

Robert E. McClure, Niagara Falls, N. Y., assignor to Olin Mathieson Chemical Corporation, a corporation of Virginia

No Drawing. Application September 24, 1954
Serial No. 458,267

6 Claims. (Cl. 260-586)

1. A method for the production of cyclohexanone which comprises reacting nitrocyclohexane with carbon monoxide at a temperature of about 150 to 250° C. and a pressure of about 1000 to 2000 p. s. i. while the reaction mixture contains a hydrogenation catalyst.

2,822,399

MANUFACTURE OF DIKETONES

John O. Punderson, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application May 1, 1953, Serial No. 352,487

3 Claims. (Cl. 260-593)

1. In a process for manufacturing 2,11-dodecanedione the step which comprises introducing, separately and simultaneously, into a reaction zone (1) an aqueous solution containing ferrous ion, and (2) methylcyclopentyl hydroperoxide, while maintaining the introduction of methylcyclopentyl hydroperoxide at the rate of at least 0.05 mol per minute per liter of aqueous phase in the reaction mixture, maintaining the rate of introduction of ferrous iron equivalent to the rate of introduction of methylcyclopentyl hydroperoxide throughout the reaction period, maintaining the temperature of reacting mixture within the range of 20° to 70° C., and thereafter separating 2,11-dodecanedione from the resulting products.

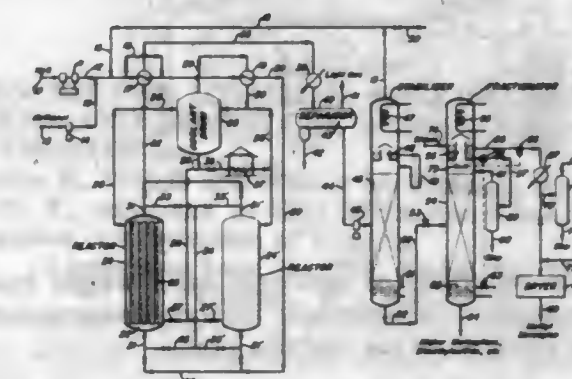
2,822,400

METHYL MERCAPTAN PRODUCTION PROCESS

Jack J. Clinque, Galveston, Herbert D. Grove, Jr., Texas City, William F. Hoot, La Marque, and James A. Jarboe III, Texas City, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas

Application June 22, 1955, Serial No. 517,304

11 Claims. (Cl. 260-609)



1. In the method of making methyl mercaptan which comprises contacting in vapor phase a mixture of hydrogen sulfide and methanol with an activated alumina catalyst having an adsorptive surface area (with respect to nitrogen) in the range of about 10 to 150 square meters per gram, employing an external hydrogen sulfide:methanol mol ratio in the range of about 1.1:1 to 2:1 and a total ratio in the range of 2.5:1 to 5:1 in the contacting step, effecting the contact at a temperature in the range of about 530 to 670° F. under superatmospheric pressure in the range of about 100 to 500 p. s. i. g. with a space velocity in the range of about .2 to 4 pounds of total hydrogen sulfide plus methanol and methanol equivalent per hour per pound of catalyst, said methanol equivalent consisting of dimethylether and each mol of the latter being equivalent to 2 mols of methanol on a weight basis, and maintaining a substantially uniform instantaneous temperature throughout the reaction zone, the improvement which comprises cooling effluent from the reaction zone to a temperature below 140° F. to effect condensation of an aqueous phase and a methyl mercaptan phase, venting uncondensed gases from condensate formed in the cooling step and removing the aqueous phase from the methyl mercaptan phase, introducing the methyl mercaptan phase to a stabilizer zone and therein separating hydrogen sulfide and other components lower boiling than methyl mercaptan, recycling the hydrogen sulfide stream to the reaction zone inlet and fractionating liquid from the base of the stabilizer zone for removing high boiling impurities from the methyl mercaptan.

2,822,401

METHYL MERCAPTAN PRODUCTION PROCESS

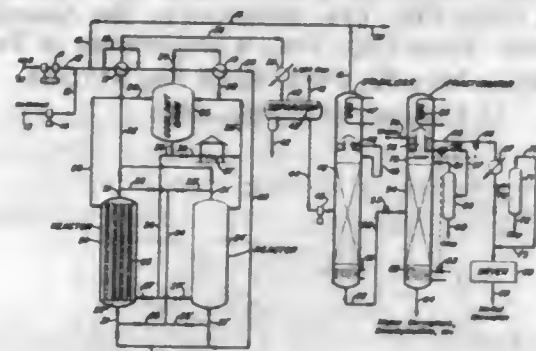
William F. Hoot, La Marque, and James A. Jarboe III and Herbert D. Grove, Jr., Texas City, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas

Application June 22, 1955, Serial No. 517,328

7 Claims. (Cl. 260-609)

1. The method of making methyl mercaptan which comprises contacting in vapor phase hydrogen sulfide and methanol in a mol ratio in the range of 2.5:1 to 5:1 with a catalyst consisting essentially of activated alumina which has been treated to reduce its adsorptive surface area below 150 square meters per gram but not lower than 10 square meters per gram and effecting the contact at a temperature in the range of about 530 to 670° F. under superatmospheric pressure with a space velocity in the range of about .2 to 4 pounds of total hydrogen sulfide plus methanol and methanol equivalent per hour

per pound of catalyst, said methanol equivalent consisting of dimethyl ether and each mol of the latter being



equivalent to two mols of methanol on a weight basis, while maintaining a substantially uniform instantaneous temperature throughout the reaction zone.

2,822,402

PREPARATION OF 1,1-DIMETHOXYCYCLO-
HEXANE

Robert E. McCoy, Sanford, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application February 6, 1956

Serial No. 563,441

4 Claims. (Cl. 260-611)

1. The method which comprises subjecting cyclohexanone to the action of an excess of methanol in the presence of an acid catalyst, at a temperature from 0° C. to about 65° C., thereafter rendering the mixture non-acidic, and fractionally distilling the mixture to recover 1,1-dimethoxycyclohexane the cyclohexanone and methanol being the sole reagents and the acid being the sole catalyst employed.

2,822,403

PROCESS FOR THE PREPARATION OF β -PHENYL
ETHYL ALCOHOL

Heinrich Hopff and Hansheirich Kuhn, Zurich, Switzerland, and Ulrich Hoffmann, Bad Homburg, Germany, assignors to Pittsburgh Coke & Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application December 7, 1954

Serial No. 473,732

11 Claims. (Cl. 260-618)

1. A process for the preparation of β -phenyl ethyl alcohol comprising catalytically hydrogenating styrene oxide at a temperature between about 20 and 100° C., and at an initial hydrogen pressure between about 20 and about 200 atmospheres while the styrene oxide is dispersed in water with vigorous agitation.

2,822,404

ALDEHYDE CONDENSATION PRODUCTS OF
2-ALKYL-5-METHYLPHENOLS

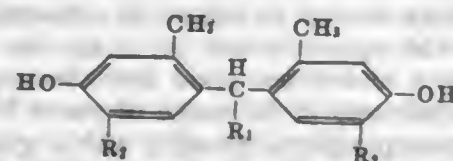
Joseph C. Ambelang, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application September 10, 1952

Serial No. 308,906

12 Claims. (Cl. 260-619)

10. As a new composition of matter a compound of the structure



in which R_1 is selected from the group consisting of

hydrogen and alkyl radicals containing from 1 to 8 carbon atoms, and R_2 is selected from the group consisting of alkyl radicals containing from 4 to 8 carbon atoms.

2,822,405

FREE-FLOWING, CRYSTALLINE 2,3,4,6-TETRA-
CHLOROPHENOL COMPOSITION

John C. Vander Weele, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 13, 1956

Serial No. 603,830

4 Claims. (Cl. 260-623)

1. A stable, free-flowing, solid, melt-derived complex-crystalline composition containing between 70 and 82.5 percent by weight of 2,3,4,6-tetrachlorophenol and correspondingly between 30 and 17.5 percent by weight of pentachlorophenol.

2,822,406

PRODUCTION OF ALKYL PHENOLS BY FUSION

George C. Feighner, Ponca City, Okla., assignor to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

No Drawing. Application October 5, 1955

Serial No. 538,776

1 Claim. (Cl. 260-628)

A process for the production of an alkyl phenol which consists essentially of adding an organic compound selected from the group consisting of an alkaryl sulfonic acid and a salt of said sulfonic acid to a molten mass of sodium hydroxide maintained at a temperature within the range of 340 to 450° C., wherein said sulfonic acid is produced by sulfonating an alkaryl hydrocarbon consisting of tertiary alkyl substituted benzenes wherein the number of carbon atoms in the alkyl group varies from 4 to 9 and said alkaryl hydrocarbon has the following properties:

Percent aromatics	55
Average molecular weight:	
Total product	157
Aromatics	149
Paraffins	163
A. P. I. gravity at 60° F.	41.2
Aniline point (° F.)	95
Flash point (closed cup), ° F.	129.5
A. S. T. M. distillation	
5%	290
10%	344
20%	355
30%	367
40%	375
50%	380
60%	390
70%	390
80%	405
90%	417
95%	438
End point	454
Percent recovered	482
	99

and said organic compound is added to said molten mass of sodium hydroxide at such a rate that the concentration of the unreacted organic compound present in the reaction mixture at 0, 25, 50, 75, and 95 percent completion of the reaction between said organic compound and said molten sodium hydroxide in the formation of sodium alkyl phenate does not exceed 1.5, 2.0, 4.0, 6.0, and 10 weight percent respectively based on the total weight of said reaction mixture, acidifying the sodium alkyl phenate thus formed and recovering the alkyl phenol.

2,822,407

1-TRISALOMETHYL-3-METHYLCYCLOHEXANOLS

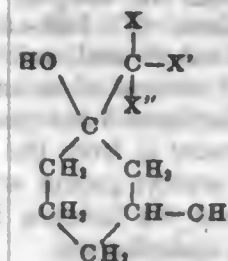
Sydney Archer, Delmar, N. Y., assignor to Sterling Drug Inc., New York, N. Y., a corporation of Delaware

No Drawing. Application July 16, 1956

Serial No. 597,871

8 Claims. (Cl. 260-631)

1. A 1-trisalomethyl-3-methylcyclohexanol having the formula



wherein X, X' and X'' are selected from the group consisting of chlorine and bromine.

2,822,408

CHLORINATION OF 1,1,1,3-TETRACHLORO-2-
METHYL-2-ALKANOLS WITH SULFURYL
CHLORIDE

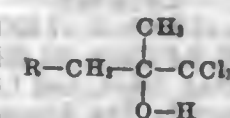
Donald G. Kundiger, Manhattan, Kans., and Elwin B. W. Oviat, Park Forest, Ill., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application August 6, 1956

Serial No. 602,415

5 Claims. (Cl. 260-633)

1. A method for the preparation of 1,1,1,3-tetrachloro-2-methyl-2-alkanols which comprises reacting a 1,1,1-trichloro-2-methyl-2-alkanol of the formula



wherein R is selected from the group consisting of hydrogen and alkyl radicals containing from 1 to 7 carbon atoms, with sulfonyl chloride in the presence of a catalytic amount of a free radical initiator.

2,822,409

DISTILLING ALCOHOLS IN PRESENCE OF
AMINES

Bernard H. Gwynn, Fawn Township, Allegheny County, and Arthur C. Whitaker, Fox Chapel, Pa., assignors to Gulf Research & Development Company, Pittsburgh, Pa., a corporation of Delaware

No Drawing. Application April 29, 1954

Serial No. 426,591

9 Claims. (Cl. 260-638)

5. A process for the production of alcohols which comprises reacting a mixture comprising an olefin, carbon monoxide and hydrogen in the presence of a metallic hydroformylation reaction catalyst at an elevated super-atmospheric pressure and elevated temperature to obtain a hydroformylation reaction mixture comprising an aldehyde, said hydroformylation catalyst and its decomposition and reaction products, treating said hydroformylation reaction product to remove substantially all of said hydroformylation catalyst and its decomposition and reaction products therefrom, reacting said latter treated product under hydrogenating conditions in the presence of a nickel hydrogenation catalyst to obtain an alcohol product comprising alcohols and small amounts of hydroformylation and hydrogenation catalysts and their reaction and decomposition products as impurities, incorporating in said alcohol product, prior to distillation, an amine selected from the group consisting of primary and

secondary aliphatic amines having a total of 2 to about 20 carbon atoms in the molecule and primary and secondary aromatic amines having a total of about 6 to about 20 carbon atoms in the molecule which will not boil out but will remain in the alcohol product at the distillation temperatures to be employed in distilling said alcohol product and will render said impurities unreactive and non-catalytic toward decomposition of the alcohol, and thereafter distilling said latter product to obtain alcohol.

2,822,410

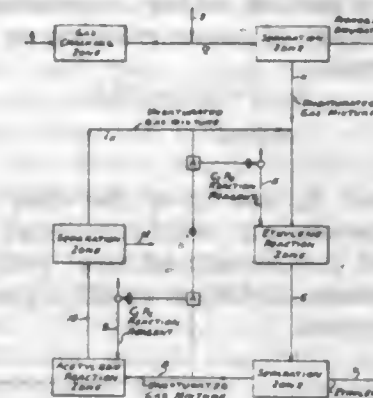
PROCESS FOR UTILIZING MIXTURES OF ETHYLENE
AND ACETYLENE WITHOUT SEPARATION
THEREOF

Bruno H. Wojcik and Robert M. Thomas, Niagara Falls, N. Y., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application June 11, 1952, Serial No. 292,956

3 Claims. (Cl. 260-679)

1. In the utilization of mixtures of acetylene and ethylene without pre-separation thereof the process which comprises passing a mixture of acetylene and ethylene in a closed cycle between an acetylene conversion zone and an ethylene conversion zone, adding fresh feed mixture as make-up to the gas stream circulating to one of the conversion zones while withdrawing a residual gas stream from the other of the conversion zones for recirculation with the make-up to the first conversion zone, reacting the mixture in the acetylene conversion zone with a reactant and under conditions selectively converting acetylene to a chemical derivative thereof which is susceptible to physical separation from the residual gas stream, reacting the mixture in the ethylene conversion zone with a reactant and under conditions selectively converting ethylene to a chemical derivative



thereof susceptible of physical separation from the residual gas stream, controlling the extent of conversion in each of the conversion zones to a level of partial conversion whereby the ultimate residual gas stream contains acetylene and ethylene in proportions suitable for recirculation with fresh feed make-up to the first conversion zone.

2,822,411

PROCESS FOR THE PYROLYSIS OF HYDRO-
CARBONS TO ACETYLENE

Frederic François Albert Braconier, Plainevaux, and Armand Hubert Auguste Delsemme, Ougree-Sclessin, Belgium, assignors to Societe Belge de l'Azote et des Produits Chimiques du Marly, Liege, Belgium, a company of Belgium

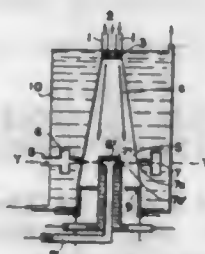
Application February 8, 1955, Serial No. 486,895

Claims priority, application Belgium July 15, 1954

1 Claim. (Cl. 260-679)

A process for the pyrolysis of hydrocarbons to acetylene comprising forming a flame in an open combustion zone

of increasing cross-section in the direction of flow of the gases from the flame, radially injecting a plurality of streams of hydrocarbons into the hot gases from said flame at a second zone wherein combustion is substantially complete, said plurality of streams emanating from a plurality of locations spaced circularly about said second zone and lying substantially in a plane transverse to



the flow of hot gases from said flame, injecting a plurality of streams of hydrocarbon radially outwardly from a location adjacent the center of the hot gases from said flame and lying in said transverse plane, subjecting the exterior of said combustion and said second zones to external water cooling and thereafter quenching the gases at a point beyond said zone of hydrocarbon injection.

2,822,412

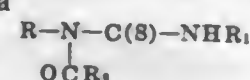
USE OF ACYL THIOUREAS IN RUBBER

Joseph C. Ambelang, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application October 15, 1954
Serial No. 462,621

13 Claims. (Cl. 260—801)

1. A sulfur-vulcanized rubber composition which contains as an inhibitor of ozone cracking an acyl thiourea having the formula



in which R and R₁ are from the class consisting of cyclopentyl, cyclohexyl, alkyl-substituted cyclopentyl, alkyl-substituted cyclohexyl and alkyl groups containing 1 to 9 carbon atoms, and R₂ is an alkyl group containing 1 to 5 carbon atoms.

ELECTRICAL

2,822,416

PRIMARY CELL

Norman Parkinson, Brentwood, England, assignor to P. R. Mallory & Co., Inc., Indianapolis, Ind., a corporation of Delaware

Application September 16, 1955, Serial No. 534,653
Claims priority, application Great Britain
September 27, 1954

7 Claims. (Cl. 136—107)



1. An alkaline dry cell comprising, in combination, an anode of compressed amalgamated zinc powder, a coherent

2,822,413

PROCESS OF VULCANIZING RUBBER CONTAINING AS AN ANTIOZONE AGENT A BIS(2-ALKYL-4-CHLOROPHENOL)MONOSULFIDE AND THE RESULTING PRODUCT

Harry E. Albert, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 24, 1953
Serial No. 400,343

12 Claims. (Cl. 260—810)

1. A sulfur-vulcanized shaped natural-rubber product which contains a small amount of an antiozone agent consisting of a bis(2-substituted-4-halophenol) monosulfide in which the 2-substituent is from the class consisting of alkyl, cycloalkyl and aralkyl groups which contain up to nine carbon atoms and the halogen is from the group consisting of bromine and chlorine.

2,822,414

VULCANIZED RUBBER CONTAINING BIS(3,4-DIMETHYL-6-ALKYLPHENOL) MONOSULFIDES AND PROCESS OF MAKING SAME

Harry E. Albert, Akron, Ohio, and Lloyd O. Bentz, Lancaster, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application December 24, 1953
Serial No. 400,345

6 Claims. (Cl. 260—810)

1. A sulfur-vulcanized composition of natural rubber which contains a small amount of a bis-3,4-dimethyl-6-substituted-phenol monosulfide in which the 6-substituent is a hydrocarbon radical of not less than three carbon atoms and not more than nine carbon atoms and includes an aliphatic carbon that is joined to the phenol.

2,822,415

USE OF BIS(2-ALKYL-4-ALKOXYPHENOL) MONOSULFIDES IN RUBBER

Harry E. Albert, Akron, Ohio, and Lloyd O. Bentz, Lancaster, Pa., assignors to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio

No Drawing. Application November 23, 1954
Serial No. 470,833

6 Claims. (Cl. 260—810)

1. A sulfur-vulcanized natural rubber which includes, as an antiozone agent, a small amount of bis(2-alkyl-4-alkoxyphenol) monosulfide in which the alkyl group contains three to nine carbon atoms and the alkoxy group is from the class consisting of methoxy, ethoxy and propoxy.

2,822,417

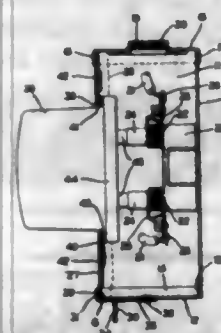
COVER WITH SLIDABLE INSERT FOR SOCKET METER ENCLOSURES

Charles M. Mathison, Canton, Ohio, assignor to The Superior Switchboard & Devices Company, Canton, Ohio, a corporation of Ohio

Application January 5, 1955, Serial No. 479,966
3 Claims. (Cl. 174—52)

1. In combination with an enclosure for a socket

meter, said enclosure having an open front side with an angular flange overhanging the upper end thereof, a cover for the open side of the enclosure, said cover being in the form of a flat sheet of such size and shape as to completely cover the open front side of said enclosure, the upper end of said cover being engaged under said overhanging flange of the enclosure, means for attaching the lower end of the cover to the enclosure, there being a circular opening in the cover of larger diameter than the socket meter, and an insert plate slidably mounted upon the inner side of the cover and having a circular opening therein of the same diameter as the socket meter, whereby the cover may be placed upon the enclosure



by positioning the cover in a plane parallel to the open front side of the enclosure with the meter inserted through the circular opening in the insert plate, and the upper edge of the opening in the cover in close proximity to the meter, then moving the cover flat against the open front side of the enclosure, then sliding the cover upwardly relative to the sliding insert, upon the open front side of the enclosure to engage the upper end of the cover under said overhanging flange so that the cover closes the entire open front side of the enclosure and the sliding insert snugly engages the meter and closes the opening in the cover around the meter, and then attaching the lower end of the cover to the enclosure.

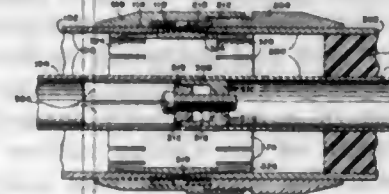
2,822,418

CONNECTOR FOR TUBULAR CONDUITS

George M. Dinnick, Oxon Hill, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application December 5, 1952, Serial No. 324,433
1 Claim. (Cl. 174—88)

(Granted under Title 35, U. S. Code (1952), sec. 266)



In a connector for joining sections of coaxial conductors of the type wherein one conductor is positioned within the other, first and second threaded thrust rings adapted to threadedly engage respectively first and second adjacent ends of the outer conductors of said sections to be connected, each of said first and second adjacent ends having tapered threads on the outer surface thereof progressively decreasing in depth as the thread extends away from said adjacent end of the outer conductor, the thread depth at one end of said tapered thread being substantially one half the thread depth at the opposite thereof, said threaded thrust rings being adapted to mate in a contiguous manner with said respective tapered ends of said outer conductors, a rigid internal sleeve member having a tapered outer diameter which varies to a maximum diameter at the midsection thereof and being adapted to be snugly positioned within the tubular mem-

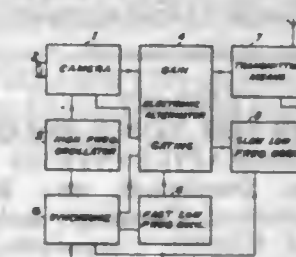
bers at their point of juncture, said internal sleeve member being of a thickness such as to maintain the characteristic impedance of the joint substantially the same as that of the sections of coaxial conductors, means operative to maintain the adjacent ends of the inner conductors in alignment, a first coupling sleeve surrounding one of said outer conductors between the associated thrust ring and the far end of said outer conductor, a second coupling sleeve surrounding the other outer conductor at a point between its associated thrust ring and the far end of said other outer conductor, each of said coupling sleeves having parts adapted to bear against the associated thrust ring and at least one of said coupling sleeves being adapted to overlie its associated thrust ring and threadedly engage the other coupling sleeve.

2,822,419

COLOR TELEVISION SYSTEM

Harry R. Lubcke, Los Angeles, Calif.

Application December 26, 1951, Serial No. 263,145
8 Claims. (Cl. 178—5.2)



1. A television system of plural image-forming characteristics comprising, color image-signal producing means, electronic scanning means actuating said means, an electronic circuit connected to both said means to cyclically alter the rate of operation of said scanning means and concurrently the amplitude of the output of said signal producing means to form a signal of large amplitude at one said rate and a signal of small amplitude at other said rates, image reproducing means coactively connected thereto and scanning at a fixed rate to reproduce an image of said signal of large amplitude at said one rate, further image reproducing means similarly and simultaneously connected, electronic scanning means and signal output means connected thereto, an electronic circuit coacting therewith to control said scanning means at said actuating and said altered rate, means to synchronize said first and said last electronic circuits, said last electronic circuit coactively connected to said signal output means to alter amplitude of the output thereof in an inverse manner to the alteration of said first electronic circuit prior to image reproduction by said further image reproducing means, said further image reproducing means constituted to reproduce superimposed transient light images at each of said rates, each reproduced image being of a different color than that of the previous one.

2,822,420

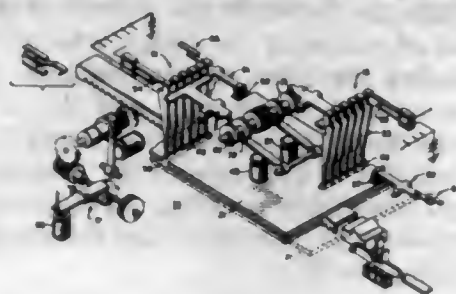
CONTROL UNIT FOR COMPOSING MACHINES

Ralph H. Halvorsen, Des Plaines, Ill., assignor to Teletypesetter Corporation, Chicago, Ill., a corporation of Delaware

Application June 21, 1955, Serial No. 516,861
5 Claims. (Cl. 178—26)

1. An arrangement for converting information punched in a tabulating card in one code into another code for the operation of a control unit for composing machines, comprising means for advancing said card column by column, means for sensing said card, an electrical circuit means including card controlled contact means controlled by said sensing means for effectuating said sensing operations, a fan circuit in said electrical circuit means, means under the control of the codes punched in said card for

establishing a circuit through said fan circuit, relay means governed by said fan circuit for establishing a condition whereby the card code is converted into said other code, means for transmitting a signal according to said other code, means for receiving said transmitted signal, said receiving means comprising reading means having a plu-



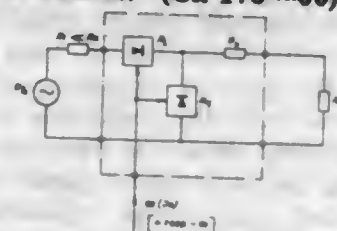
ality of reciprocable reading elements, instrumentalities mounted for sliding movement between a forward position over respective ones of said reading elements and a retracted position free of said reading elements, and means responsive to said transmitted signals for facilitating selective movement of said instrumentalities in a direction toward and away from said reading elements.

2,822,421

MODULATOR FOR VOICE FREQUENCY TELEGRAPH SYSTEMS

Wilhelm Schallerer, Darmstadt, and Rudolf Mosch, Ditzingen, Wurttemberg, Germany, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application October 16, 1953, Serial No. 386,611
Claims priority, application Germany October 16, 1952
4 Claims. (Cl. 178-66)



1. A modulator for voice frequency telegraph systems operable in both operate-on-current and operate-on-zero current conditions, said modulator comprising a four-terminal network having longitudinal means and cross-branch means respectively, at least one non-linear resistor connected in a longitudinal and a cross-branch, respectively, input and output circuits connected to said network, said non-linear resistors being so coupled in their respective branches that their resistance characteristics are opposite, means for keying said modulator, and means for applying selectively a biasing voltage of positive or negative D. C. simultaneously to said non-linear resistors and biasing them in the same sense whereby the rest attenuation for the modulator is defined for zero voltage condition.

2,822,422

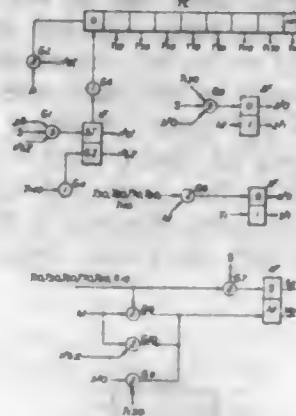
START-STOP TELEGRAPH REGENERATORS

Victor John Terry, Donald Adams Weir, and Nigel Frederick Fossey, London, England, assignors to International Standard Electric Corporation, New York, N. Y.

Application August 16, 1954, Serial No. 450,011
Claims priority, application Great Britain August 17, 1953
4 Claims. (Cl. 178-70)

1. An electronic regenerative telegraph repeater for start stop codes comprising an incoming signal line and an outgoing signal line, a time scale circuit, means for starting said time scale circuit upon the appearance of a start condition on said incoming signal line, means for examining the condition of said incoming signal line at intervals under control of said time scale circuit and for repeating each condition into said outgoing line,

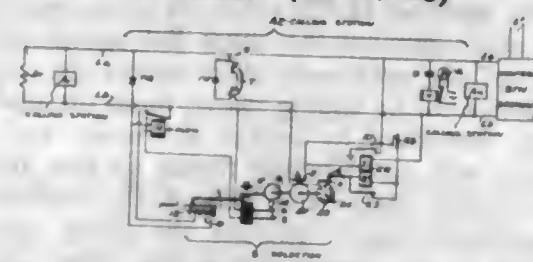
means for examining the incoming signal line during the period when a stop element should be present, means for restoring the time scale circuit to an initial position after the said last mentioned examination and means operative when a spacing condition is found on said last examination for preventing the restart of said time scale circuit until a mark to space transition is received on said incoming line.



2,822,423

FIRE AND POLICE INTERCOMMUNICATION SYSTEM

Per H. E. Claesson, Danderyd, Sweden
Application July 30, 1954, Serial No. 446,803
Claims priority, application Sweden March 19, 1949
16 Claims. (Cl. 179-5)



1. In a telecommunication system especially adapted for police and fire communications, a plurality of calling stations each having a telephone instrument, a central station for the establishment of communications with the said calling stations and a line connecting all of the said calling stations in parallel with one another and to the central station, an impedance connected across that end of the line situated farthest away from the central station, said impedance having a relatively high ohmic value compared with the individual impedances of said calling stations, a source of voltage connected to said line at said central station, relay means at said central station responsive to both increases and decreases in the current in said line to give indications both of breaks in the line and the initiation of a call through connection of the telephone instrument of any calling stations across said line, pulse transmitting means at said central station, means at each calling station for initiating operation of said pulse transmitting means, a selector at each calling station for registering the pulses received over the line and for terminating the transmission of pulses after receipt of a predetermined number characteristic of that calling station, and means at the central station for registering the number of pulses transmitted.

2,822,424

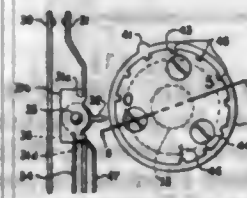
CALLING DEVICE IDENTIFICATION CAM ASSEMBLY

John E. Ostline, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application December 2, 1954, Serial No. 472,713
9 Claims. (Cl. 179-90)

1. In a dialing device, an impulse generator comprising a rotatable shaft, a finger wheel mounted at one ex-

remity of said shaft for manually rotating said shaft, a mounting plate mounted at the other extremity of said shaft and rotatable with said shaft, a cam means adjustably supported on said mounting plate, means for clamping said cam means to said mounting plate, said clamping means having locating indicia thereon, and contact spring

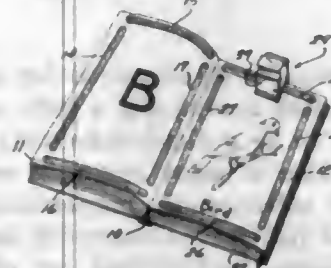


means including means cooperating with said cam means for periodically operating said contact spring means, adjustment of said cam means with respect to said mounting plate and to said locating indicia controlling the angle of rotation of said cam means at which said spring means are operated as said shaft and said cam are rotated.

2,822,425

BOOK WITH SOUND TRACK SPEAKING HEAD GUIDED BY OPPOSITE PAGE

Walter R. Hicks, Manhasset, N. Y.
Application September 14, 1954, Serial No. 456,044
4 Claims. (Cl. 179-100.1)



1. A talking book comprising a plurality of pages bound together along their rearward edges with the edges of successive pages held together and in fixed relation to one another, and with the pages, on opposite sides of a place where the book is open, converging along surfaces that are at substantially less than 180 degrees of angular relation to one another, and a magnetic sound track on each of a plurality of said pages and adjacent to and parallel with the bound edges of the pages, and a reproducer having guide means that extend into the space between the converging pages adjacent to their bound edges and that contact simultaneously with the converging surfaces of both pages when the reproducer is in working position over the sound track, the guide means being movable along said surfaces to guide the reproducer in its movement along the sound track.

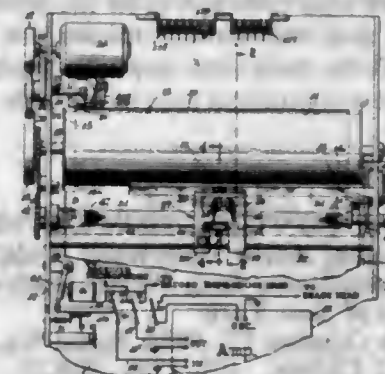
2,822,426

DICTATING MACHINE

Thomas L. Dinsmore, West Orange, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware
Application October 20, 1955, Serial No. 541,755
19 Claims. (Cl. 179-100.1)

1. In a dictating machine including a support for a record, record-cooperable recorder-reproducer means, and drive means for producing a relative progressive movement between the record and said recorder-reproducer means: the combination of an audio system connected to said recorder-reproducer means and including a selector switch means biased into reproduce position for normally conditioning said system for reproducing; a solenoid for operating said selector switch to record position; a holding circuit closed by operation of said solenoid for retaining said selector switch in record position when once moved thereto; means for backspacing said recorder-reproducer

means; and a control switch in said holding circuit operatively related to said backspacing means for opening

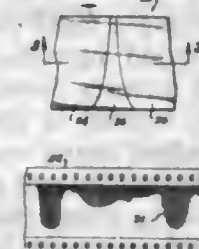


said holding circuit to cause said audio system to be restored to reproduce condition as an incident to backspacing said recorder-reproducer means.

2,822,427

METHOD AND APPARATUS OF PRODUCING VARIABLE AREA MAGNETIC RECORDS

Ralph B. Atkinson, Beverly Hills, and Steven G. Ellis, Van Nuys, Calif.; said Ellis assignor to said Atkinson
Application October 8, 1951, Serial No. 250,364
10 Claims. (Cl. 179-100.2)

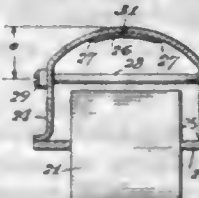


1. A system for producing a variable area magnetic record of an external signal, which includes: a modulator adapted to receive said external signal and modulate a carrier signal thereby; a magnetic recording head having a field-producing gap, said gap, when said head is energized, producing an effective magnetic field whose extent along the longitudinal axis of said gap varies in accordance with the signal applied to said head; means connecting said recording head to said modulator, whereby said modulated carrier signal is applied to said head; and means for moving a magnetic record material across said gap in a direction generally perpendicular to the longitudinal axis thereof, said record material being positioned with respect to said gap in such a manner that said effective magnetic field produces a magnetic record whose width, measured perpendicular to the direction of movement of said record material, is a function of said external signal.

2,822,428

VARIABLE GAP MAGNETIC TAPE HEAD

John F. Wood, Buchanan, Mich., assignor to Electro-Voice, Incorporated, Buchanan, Mich.
Application July 13, 1954, Serial No. 443,003
6 Claims. (Cl. 179-100.2)



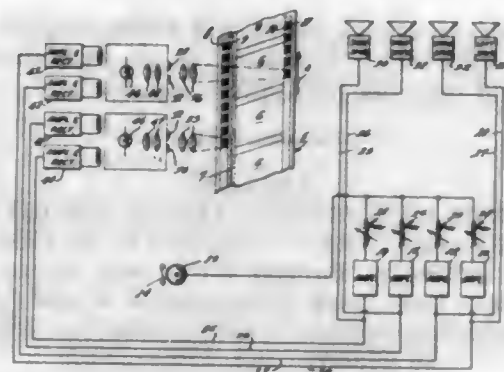
1. A magnetic tape head comprising a magnetic structure having a core portion and two arcuate pole pieces, a coil mounted on said core, one of said pole pieces being fixed to said core, the other of said pole pieces being positioned in abutment to said core and forming

a magnetic gap with the first pole piece, said pole pieces being aligned longitudinally, a non-magnetic member secured to each of said pole pieces in the proximity of the magnetic gap, and mechanical means for varying the effectiveness of the magnetic gap by applying a force transverse to the longitudinal axis of the pole pieces.

2,822,429

PLURAL CONTROL TRACK SYSTEM

Waldon O. Watson, North Hollywood, Calif., assignor to Republic Productions, Inc., North Hollywood, Calif., a corporation of New York
Application October 27, 1954, Serial No. 465,080
2 Claims. (Cl. 179-100.3)

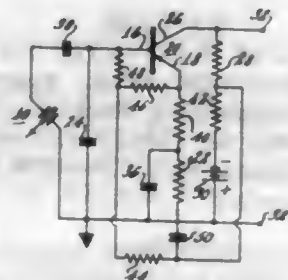


1. A system for producing a multi-control track sound film for a directional sound reproducing system, said film having standard size pictures thereon and a standard size sound track thereon located in the normal position of a sound track on standard sound motion picture film, comprising means for generating signal currents as a single signal, means for reproducing sound from said signal currents at a plurality of different positions, said last-mentioned means including a plurality of volume controls and a corresponding plurality of speakers located at said different positions, a volume control being provided for each speaker to vary the volume of said sound reproduced therefrom, a corresponding number of light modulators, means for impressing light from said modulators on the areas between the sprocket holes of said film to record a plurality of control tracks on said areas, and means for individually connecting each of said volume controls to a different one of said modulating units to provide modulation of each control track in accordance with the variations of its volume control.

2,822,430

TRANSISTOR AMPLIFIER CIRCUIT

Hung C. Lin, Levittown, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application August 15, 1956, Serial No. 604,276
6 Claims. (Cl. 179-100.4)



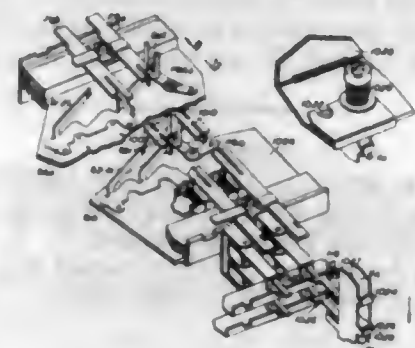
1. A transistor signal amplifier circuit for an electro-mechanical transducer having an essentially capacitive internal impedance, comprising a transistor having base, emitter, and collector electrodes, input circuit means for applying the output signal current of said transducer to said base and emitter electrodes, means for deriving an output signal from said collector electrode, means including a resistive impedance element connected with said emitter electrode providing an impedance in said

input circuit means, and capacitive impedance means connected in parallel with said input circuit means to provide with said impedance element and the internal capacitance of said transducer a load circuit for said transducer having a time constant of a high value to compensate for frequency response variation of the output current of said transducer.

2,822,431

ELECTRIC SWITCH

Jakob Kruithof, Louis Jacques Ghislain Nys, and Jules Louis Joseph Donceel, Antwerp, Belgium, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application April 3, 1952, Serial No. 280,252
Claims priority, application Netherlands April 13, 1951
10 Claims. (Cl. 179-27.54)



7. An electric cross-bar multi-switch for use in a telecommunications system comprising a first set of spaced parallel conductors (e. g. outlet conductors) arranged in rows in two directions at right angles, a second set of parallel conductors substantially perpendicular to those of said first set and interleaved therewith so as to form spaced crossing points, said second set of conductors comprising a first plurality of spaced movable contacts, first means for moving said contacts in either one of two directions substantially perpendicular to said first set of conductors to make electrical contact with either one of two of said first set of conductors according to the direction in which they are moved, a third set of conductors (e. g. inlet conductors), said second set of conductors comprising further movable contacts, additional means for moving said further contacts to make contact with either one of a pair of said third set of conductors, the conductors of each said third pair of conductors being electrically connected together and common actuating means for actuating both said first moving means and said additional moving means, whereby a circuit path from a given conductor of said third set to a given conductor of said first set, includes a given conductor of said second set via a first movable contact and a further movable contact associated therewith.

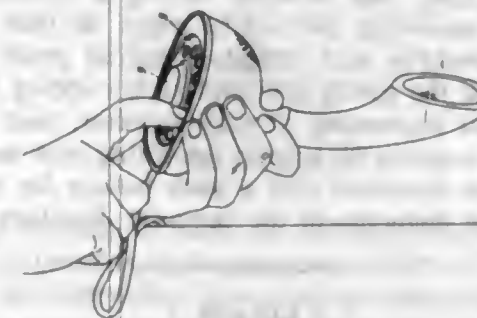
2,822,432

CASING FOR TELEPHONE INSTRUMENTS

Knut Hugo Blomberg, Appelviken, Helge Edward Lindström, Stuvsta, and Hans Gösta Thames, Hagersten, Sweden, assignors to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a company of Sweden
Application December 29, 1951, Serial No. 264,114
Claims priority, application Sweden January 25, 1951
2 Claims. (Cl. 179-103)

1. A telephone instrument of the hand-set type having a normally upright handle, which at its upper portion is provided with a receiver portion which is adapted to lie against the ear, and at its lower part widens into a foot, and a microphone disposed behind and adjacent a front wall portion of the foot; characterized in that the handle, at the juncture between the handle and the foot, has a groove running along the front and continuing along the sides of the handle, the height of the groove in the longi-

tudinal direction of the handle approximately corresponding to the width of the thumb, said groove having a pro-



truding upper edge for preventing the thumb in said groove from sliding up said handle.

2,822,433

SUPPORT FOR TELEPHONE HAND SET

Mable M. Sanford, San Francisco, Calif.
Application November 12, 1954, Serial No. 468,204
5 Claims. (Cl. 179-157)



1. A support for holding a telephone hand set by its handle in operative position on the body of a person comprising: a pair of shoulder engaging arms having extensions adapted to extend over the shoulders and downwardly over the chest of a person, holding means for releasably engaging and holding the handle of a hand set, a generally upwardly extending elongated member, means securing said holding means to the upper end of said member, means for securing the lower end of said member to said extensions, including a pivot supporting said lower end of said member for swinging its upper end and said holder laterally from a position adjacent to but spaced from one shoulder engaging arm of said pair to a position adjacent to but spaced from the other shoulder engaging arm of said pair and vice versa to enable said holding means to hold said hand set with its transmitter and receiver in operative position relative to the mouth and relative to one ear or the other of said person according to the side to which the holding means is swung.

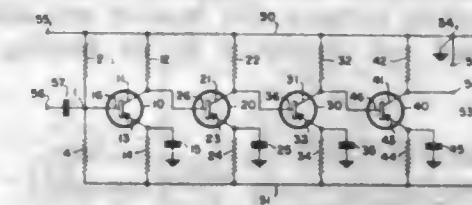
2,822,434

AMPLIFYING APPARATUS

Robert J. Ehret, Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application February 15, 1954, Serial No. 410,161
4 Claims. (Cl. 179-171)

1. A multistage alternating current amplifier having a direct current gain of less than unity, comprising in combination, a direct current power supply having a first and a second terminal, a plurality of transistors each having a collector electrode, an emitter electrode, and a base electrode, each of said transistors being connected as a ground emitter amplifying stage with the collector elec-

trode of each transistor being directly coupled to the base electrode of the transistor in the succeeding stage, each of said transistors having a resistor connecting its emitter electrode directly to said first power supply terminal, each of said transistors having a resistor of less than or of an equal magnitude than said emitter circuit

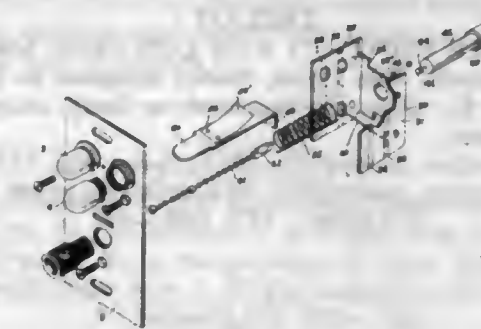


resistor directly connecting its collector electrode to said second power supply terminal, each of said transistors having a condenser connecting its emitter electrode to said second power supply terminal, and a resistive voltage divider connecting the base electrode of the transistor in said first stage to said power supply terminals.

2,822,435

SWITCHING SYSTEM

Walter F. Schuchard, Hingham, and Carl A. P. Johnson, Quincy, Mass., assignors to S. H. Couch Company, Inc., North Quincy, Mass., a corporation of Massachusetts
Application March 25, 1955, Serial No. 496,692
9 Claims. (Cl. 200-16)



1. A switching circuit of the type described comprising a housing having conductive contact elements spaced on the inside opposite walls thereof forming contacts in one side of the switching circuit, a U-shaped shell having a plurality of contact strips on the outer sides of the shell adapted to cooperate with said conductive contact elements to complete electrical circuits therewith, spring means positioned to act between the cross member of the U and the housing to bias the U in a first position wherein the strips engage a number of the contact elements, means for moving said U-shaped shell in the direction of the extension of the sides of the shell to a second position against said spring for effecting a change of electrical connections between the contact elements and the contact strips, a latching device automatically locking said shell in its second position, and means for releasing the latching device for permitting the spring to return the shell to its first position.

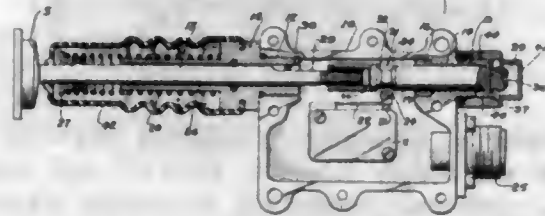
2,822,436

REACTION SWITCH

Robert G. Towle, New City, N. Y., assignor to Specialties Development Corporation, Belleville, N. J., a corporation of New Jersey
Application July 20, 1954, Serial No. 444,485
3 Claims. (Cl. 200-61.41)

1. A control mechanism of the class described comprising a frame having aligned apertures in opposite sides thereof, a slide bearing in each of said apertures, switch means supported by said frame having a member adapted to be actuated, a rod slidably mounted in one of said bearings and extending through said frame formed with a flat zone extending longitudinally from the inner end thereof to a point within said rod-mounting bearing, a

spring retainer at the outer end of said rod, an element adjustably connected to the inner end of said rod and slidably mounted in the other of said bearings, said element having an intermediate section of reduced diameter formed with oppositely facing frusto-conical cam faces at its respective ends for actuating said switch means member, a cylindrical helical spring surrounding said rod and extending between said retainer and said frame for urging said rod outwardly of its bearing, a slot

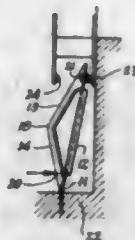


formed in the free end of said element adapted to be engaged by a tool for adjusting the position of said element with respect to said rod and said switch means, a pin projecting radially from said element adjacent the free end thereof, a stop in said element-mounting bearing constructed and arranged to receive said pin to limit the movement of said element, and pin means supported in said rod-mounting bearing extending transversely of said rod and abutting said flat zone thereof to prevent rotation of said rod.

2,822,437

FLEXIBLE CONTACT FOR CONTROL SWITCH
Hannes Ruesch, Van Dyke, Mich., assignor to Landis & Gyr, A. G., Zug, Switzerland, a body corporate of Switzerland

Application August 20, 1953, Serial No. 375,463
Claims priority, application Switzerland August 30, 1952
7 Claims. (Cl. 200-67)

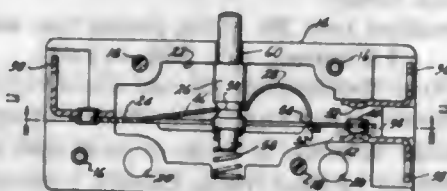


1. In an electrical switch, a flexible contact, said contact forming a polygonal member having one side adapted to be fixedly secured to a base and a free side disposed oppositely to the first-mentioned side and having oppositely disposed corners thereon, said contact being stressed so as to cause the corners of the free side to lie on opposite sides of the plane of the first-mentioned side whereby a force applied to the contact on a side other than the first-mentioned side will cause a snap motion in the corners of the free side.

2,822,438

SNAP ACTION SWITCH

Harold Tyzack, Schiller Park, Ill., assignor to Carter Parts Company, Chicago, Ill., a corporation of Illinois
Application December 10, 1954, Serial No. 474,343
4 Claims. (Cl. 200-67)



1. In a snap action switch, a contactor element comprising a spring blade having a U-shaped cut-out so as to form a flat spring arm within a contactor arm, the

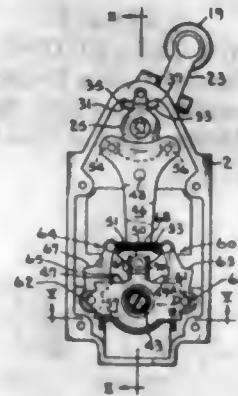
free end of said spring arm having a V-shaped knife edge, a rocker spring pivotally connected to said contactor arm and having an end with a V-shaped knife edge disposed opposite to the corresponding edge of the spring arm, and an actuator extending axially through the cut-out of the spring blade, said actuator having a circumferential groove for receiving said knife edges so that each of the latter straddles said actuator making point contacts therewith and the spring arm and rocker spring are movable on axial movement of said actuator, said actuator also having a spring for urging the spring arm and rocker spring in one direction and a push button for manually moving these elements in the opposite direction.

2,822,439

ELECTRIC SWITCH

Carl A. Schaefer, Whitefish Bay, Rudolf H. Kiessling, Milwaukee, and Earl F. Mekelburg, Wauwatosa, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan

Application February 10, 1955, Serial No. 487,282
20 Claims. (Cl. 200-70)



1. In an electric switch, an enclosure, a stationary contact mounted within said enclosure, a movable contact, a switch member supported within said enclosure and actuable to move said movable contact into and out of engagement with said fixed contact, a pivot for said switch member, a pair of interchangeable latches pivotally mounted within said enclosure and adapted to engage alternately with said switch member to restrain the movement thereof, each of said latches having oppositely disposed latch surfaces of a predetermined configuration arranged for selective engagement with the switch member to selectively vary the operation thereof, means biasing said latches into engagement with said switch member, spring means operable to effect snap movement of said switch member when moving out of engagement with one of said latches and into engagement with the other, and operating means movable within said enclosure and operable to engage said switch member and release one of said latches in one direction of travel to actuate said movable contact and operable to engage said switch member and release the other of said latches in another direction of travel to actuate said movable contact.

2,822,440

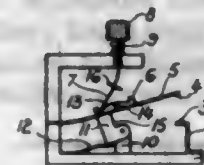
ELECTRIC SWITCH

Helge Karlsson, Huddinge, Sweden, assignor to Svenska Reläfabriken A B, Stockholm, Sweden, a Swedish joint-stock company

Application June 26, 1956, Serial No. 593,983
Claims priority, application Sweden June 28, 1955
4 Claims. (Cl. 200-74)

1. An electric switch comprising: a fixed contact; a resilient arm carrying a movable contact thereon adapted to engage the fixed contact in operated position; a butt member on said resilient arm; a displaceable operating means for acting upon said butt member to move the resilient arm and the movable contact from non-operated to operated position; first spring means for restoring said operat-

ing member to its home position after it has been operated; a locking member; second spring means acting upon said locking member for moving it into engagement with said butt member when the resilient arm is moved into operated position, said locking member having a surface



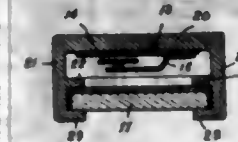
located in the path of travel of said operating means when the locking member is in engagement with said butt member, and said operating means being engageable with said surface to move said locking member out of engagement with said butt member.

2,822,441

PROTECTOR COVER

Grant S. Fortney, Chicago, Ill.

Application February 23, 1956, Serial No. 567,238
7 Claims. (Cl. 200-86.5)



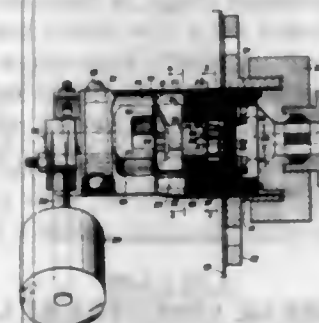
3. The combination with an accelerator pedal having a stop light switch therefor operable by an operator's foot in actuating the pedal, of a cover for said pedal and switch, said cover comprising a tread portion applicable to said pedal, and end and side walls overlapping corresponding edges of said pedal and switch, and means for removably attaching said cover to said pedal, said end wall being partially cut away to permit an accelerator pedal to extend therethrough.

2,822,442

ELECTRIC SWITCHES AND OPERATING MEANS THEREFOR

Eric C. Jones, Tarrant Rawston, near Blandford, England, assignor to Flight Refueling Incorporated, Baltimore, Md., a corporation

Application February 2, 1956, Serial No. 563,143
Claims priority, application Great Britain
February 3, 1955
7 Claims. (Cl. 200-87)



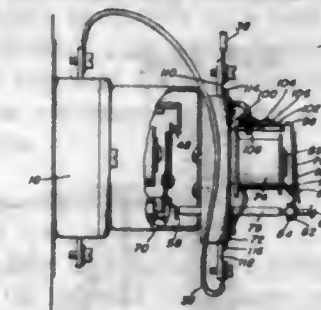
1. An electric switch mechanism comprising a rotary switch and a magnetic coupling device through which the switch is operated, the magnetic coupling device comprising a magnet element and an armature element movable about co-axial pivots, an operating member coupled to one element of the magnetic coupling device to effect rotation thereof through a predetermined angle, a rotor forming part of the rotary switch and coupled to the other element of the magnetic coupling, and means for limiting the two elements of the magnetic coupling to angular movement about mean positions at right angles to each other.

2,822,443

RESISTANCE LOWERING GENERATOR BOOSTER

Russell M. McDonald, Conway, Ark.

Application October 31, 1956, Serial No. 619,561
4 Claims. (Cl. 200-87)

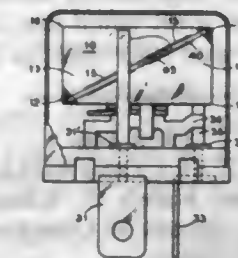


1. A device for reducing the resistance in contacts of a voltage regulator controlling current flow from a generator to a battery in a battery charging system, said voltage regulator including an armature carrying a movable contact, said movable contact being engageable with a fixed contact, electromagnetic means controlling said armature, said device comprising a solenoid connected in series circuit with said electromagnetic means, said solenoid actuating a plunger, and a spring positioned between said plunger and said armature so that upon actuation of said plunger said armature will be resiliently urged into a position with said movable contact tightly engaging said fixed contact, and means for adjusting said plunger relative to said armature.

2,822,444

FLASHERS

George Colombo, East Rockaway, and Boris Orlov, Brooklyn, N. Y., assignors to Signal-Stat Corporation, Brooklyn, N. Y., a corporation of New York
Application June 6, 1956, Serial No. 589,801
9 Claims. (Cl. 200-88)

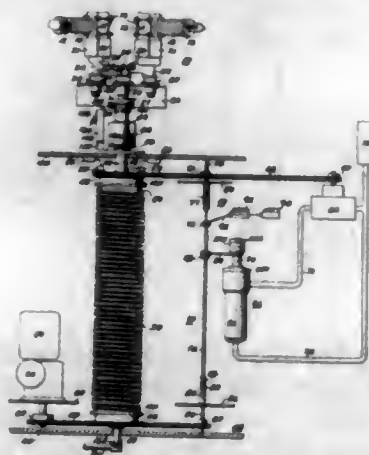


1. A flasher and relay unit comprising, in combination, a relay core of electrically conductive paramagnetic metal; a relay winding on said core; a contact mounted in insulated relation on said core and connected to one end of said winding; a snap action circuit closer mounted on said core in electrically conductive relation therewith; said contact being engageable by said circuit closer; thermostatic means, including a heat expansible electrical conductor mounted on said circuit closer, normally biasing said closer away from said contact; said thermostatic means, when heated due to current flow in said conductor, releasing said closer to engage said contact; a first terminal commonly connected to said conductor between its ends and to the other end of said winding; and a second terminal connected to said core; the ends of said conductor being electrically connected to said circuit closer to complete an initial series circuit including said first terminal, said conductor, said circuit closer, said core and said second terminal; said circuit closer, when engaged with said contact, completing a second series circuit, shunting said conductor, and including said first terminal, said winding, said contact, said circuit closer, said core and said second terminal.

2,822,445

STORED ENERGY DEVICE

Carl Schindler, Wauwatosa, Wis., and Anthony Van Ryan, Ocean Springs, Miss., assignors to McGraw-Edison Company, a corporation of Delaware
Application April 22, 1955, Serial No. 503,090
38 Claims. (Cl. 200—109)

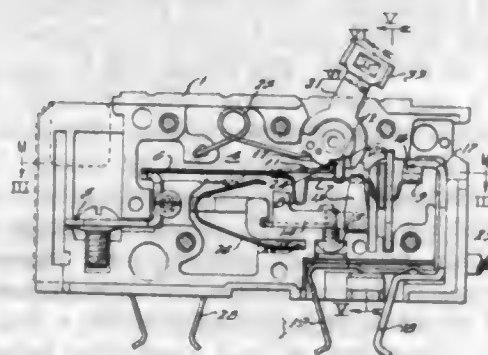


17. An electrical switch installation comprising, in combination, an electrical switch having a rotatable operating shaft and adapted to be operated between open and closed positions upon rotation of said shaft, a stored energy mechanism for operating said switch comprising a helical spring having an input end and an output end, an output shaft coaxial with and extending through said spring and rigidly affixed to the operating shaft of said switch, a rotatably mounted driving member continuously operatively connected to the output end of said spring, means for normally latching the output end of said spring against movement, drive means to wind the input end of said spring and to retain said spring in wound condition, said latching means being operable to release the output end of said spring to permit actuation of said driving member from the energy stored in said spring, and means for releasably connecting said driving member to said output shaft, whereby said electrical switch may be operated independent of said stored energy mechanism by rotation of said output shaft when the connection between said driving member and said shaft is released.

2,822,446

ELECTRIC CIRCUIT CONTROLLING DEVICE

Harris I. Stanback and Ralph H. Kingdon, Birmingham, Mich., assignors to Square D Company, Detroit, Mich., a corporation of Michigan
Application December 2, 1953, Serial No. 395,671
8 Claims. (Cl. 200—114)



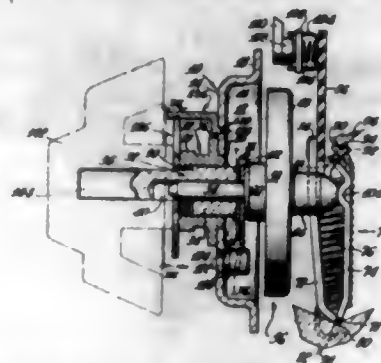
1. In an electric circuit controlling device, a first pair of cooperating contacts, manual means only for effecting operation of said contacts to engaged and disengaged positions and including a first manual operator, a second pair of cooperating contacts, manual means for effecting operation of said second pair of contacts to engaged and disengaged positions and including a second manual operator, automatic means responsive to current overload for operating only said second pair of contacts to dis-

gaged position, means connecting said manual operators for common movement toward contacts disengaged position, and means insuring a disengagement of said second pair of contacts not later than disengagement of said first pair of contacts, said operator connecting means providing for independent movement of said second operator toward contacts disengaged position in response to automatic disengagement of said second pair of contacts on the occurrence of a current overload.

2,822,447

CONTROL DEVICE

Russell F. Garner, Youngwood, Pa., assignor to Robertshaw-Fulton Controls Company, Greensburg, Pa., a corporation of Delaware
Application August 10, 1956, Serial No. 603,336
6 Claims. (Cl. 200—140)



6. In a control device, the combination comprising support means, rotatable means having an axial passage therein and threadedly mounted in said support means, for axial and rotary movement relative to said support means, thermally responsive means including a hollow shell for containing an expansible fluid therein and a shaft, said shaft journaled in said passage in said rotatable means whereby said thermally responsive means is capable of axial movement relative to said rotatable means, switch means operatively connected to said thermally responsive means and being movable by said thermally responsive means between a plurality of controlling positions in response to changes in a temperature condition, a plate having a projection thereon fixed to said rotatable means for rotation therewith, means carried by said rotatable means to predetermine the rotation of said rotatable means, and a thrust member carried by said shaft and positioned between said plate and said thermally responsive means, said thrust member engaged by said projection on said plate when said rotatable means is moved through a predetermined range of movement to produce a predetermined relative axial movement between said rotatable means and said thermally responsive means whereby said thermally responsive means moves said switch means to one of said controlling positions and retains said switch means in said one controlling position irrespective of a change in a temperature condition.

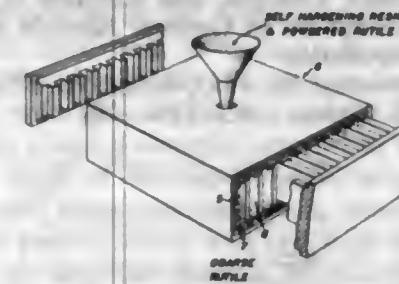
2,822,448

AIR-BREAK CIRCUIT BREAKER

Robert Wegmann, Wettingen, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application December 16, 1954, Serial No. 475,697
Claims priority, application Switzerland December 18, 1953
2 Claims. (Cl. 200—144)

1. A sparking chamber for electrical switches of the air-break circuit breaker type having blast coils, the walls of said chamber being of a multi-layer construction comprising an inner layer consisting of coarse lumps of rutile and a mixture of self-hardening resin of the ethoxilin type and powdered rutile filling the interstices between said lumps of rutile, and a second layer cast upon

said first layer, said second layer consisting of a self-hardening resin of the ethoxilin type and a refractory

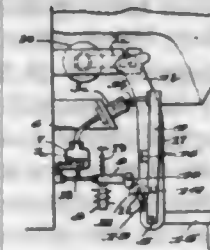


oxide filler selected from the group consisting of aluminum oxide, quartz and magnesia.

2,822,449

CIRCUIT BREAKER WITH COMBINED MAGNETIC AND AIR BLASTING DEVICES FOR ARC EXTINCTION

Hans Thommen, Baden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company
Application November 19, 1956, Serial No. 622,983
Claims priority, application Switzerland November 24, 1955
7 Claims. (Cl. 200—147)

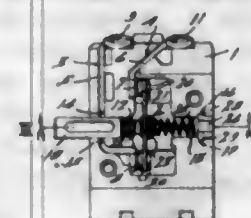


1. In a heavy duty switch, the combination comprising a first set of stationary and movable switching contacts, magnetic blasting means cooperative with said first set of contacts for breaking up the arc formed upon contact separation, a second set of stationary and movable contacts, compressed air blasting means cooperative with said second set of contacts for breaking up the arc formed upon contact separation, and means controlled by the amplitude of the current to be cut off by said switch for adjusting the sets of contacts such that the contacts of said first set are the last to open when said current is equal to or exceeds a predetermined amplitude while the contacts of said second set are the last to open when said current is below said predetermined amplitude.

2,822,450

ELECTRIC SWITCH

Paul R. Goudy, Milwaukee, and Howard P. Stock, Pewaukee, Wis., assignors to Square D Company, Detroit, Mich., a corporation of Michigan
Application May 20, 1955, Serial No. 509,888
5 Claims. (Cl. 200—166)



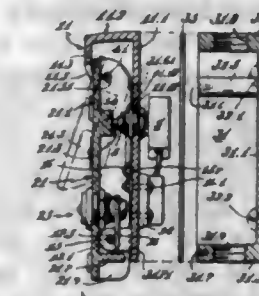
1. In an electrical switch having an insulating base, sidewalls on said base defining a central recess therein, a removable cover for said base and recess, a pair of coaxially disposed grooves of equal and complementary cross section extending from said central recess through opposed sidewalls to the exterior of said base, stationary contacts supported in said base and recess, an external

operator, a seat means, said operator and seat means being cooperative individually with said grooves at either side of said base and positionable in either of said grooves at opposite sides of said base, a movable contact member carried on said operator in cooperative alignment with said stationary contacts, said operator contact member and seat means being reversible as a unit with respect to said base and stationary contact to cooperate with either of the grooves in opposite sidewalls whereby said switch is convertible from a normally open to a normally closed switch, or vice versa.

2,822,451

ALARM SENDING STATION

Willis G. Holmes, Pembroke, Mass.
Application December 7, 1955, Serial No. 551,553
13 Claims. (Cl. 200—168)

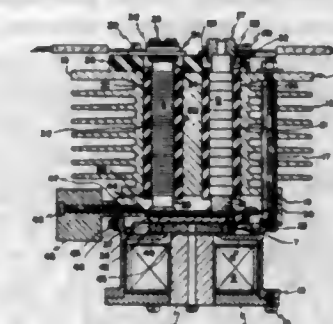


1. A manually operable alarm sending station comprising: a mounting base carrying switch actuating means that are accessible from the front of the base; hinged to said base a cover carrying lock means that are operable from the outside of the closed cover and have latch means on the inside of the cover; and, mounted on the front of the base, and normally concealed within said cover, keeper means made of shatterable material and arranged for engagement by said latch means; whereby the cover can be locked by engaging the latch means and the keeper means, and the cover can be opened in an emergency and the switch actuating means operated by pulling the cover open after breaking the keeper means with the latch means.

2,822,452

CARBON PILE REGULATOR

William G. Neild, Fair Haven, N. J., assignor to Bendix Aviation Corporation, Easton, N. J., a corporation of Delaware
Application March 31, 1955, Serial No. 498,272
1 Claim. (Cl. 201—51)



An electric regulator comprising a housing, a first plurality of compressible carbon discs forming a first carbon pile having one resistance characteristic, a second plurality of compressible carbon discs forming a second carbon pile having a different resistance characteristic, an armature operably connected so as to adjustably compress said carbon piles, a diaphragm type spring for biasing said armature in a first direction, and electromagnet for biasing said armature in the opposite direction in opposition to said spring, and means connecting said carbon piles in parallel whereby a third resistance characteristic is obtained.

2,822,453

HEATING A PORTION OF A PROFILE

Guido Zuppiroli, Milan, Italy, assignor to Innocenti Soc. Generale per l'Industria Metallurgica E. Meccanica, Milan, Italy

Application December 21, 1956, Serial No. 629,895
Claims priority, application Italy December 22, 1955
2 Claims. (Cl. 219—7.5)



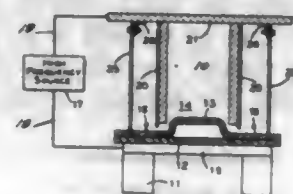
1. Method of heating a longitudinally confined region of a profile performing a substantially uniform motion, which comprises the steps of providing a plurality of electrical inductors which are each adapted to heat a longitudinally confined region of the profile and so arranged as to successively act on the profile during movement of the latter, and energizing the said inductors successively and synchronously with the movement of the profile to cause them to constantly act on a same longitudinally confined region of the movable profile for heating it.

2,822,454

HEAT SEALING APPARATUS

Milton Rothstein, Flushing, and Martin Kaplan, Belrose, N. Y., assignors to Radio Receptor Company, Inc., Brooklyn, N. Y., a corporation of New York

Application June 14, 1956, Serial No. 591,318
5 Claims. (Cl. 219—10.53)



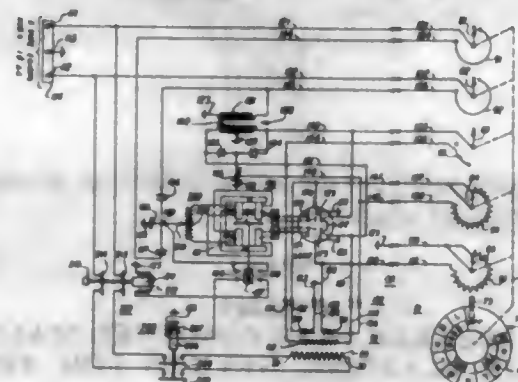
1. Apparatus for treating relatively thin sheets of dielectric material by the application of pressure and a high frequency electric heating field thereto, said apparatus comprising, in combination, first electrode means arranged to have the work supported thereon; second electrode means movable toward said first electrode means to engage and compress the work thereagainst; a source of high frequency electric potential having opposite polarity terminals connected to said electrode means to produce a high frequency electric heating field in the work compressed therebetween; the zone of engagement of said second electrode means with the work defining a useable portion of the work, the work outside said zone constituting a waste portion designed to be severed from such useable portion; and auxiliary electrode means mounted for movement with said second electrode means to engage the waste portion of said work in substantially spaced relation to the zones of engagement of said second electrode means; said auxiliary and second electrode means being connected to the same terminal of said source; said auxiliary electrode means projecting beyond said second electrode means whereby, when the work is engaged and compressed, said auxiliary electrode means will deform and thin the work to a greater extent than the second electrode means so that any potential breakdown and arcing through the work will occur at said auxiliary electrode means and in such waste portion.

2,822,455

ELECTRIC HEATING APPARATUS

Robert J. Molyneux, Chicago, and Kenneth H. Walkoe, Lombard, Ill., assignors to General Electric Company, a New York corporation

Application August 21, 1953, Serial No. 375,753
12 Claims. (Cl. 219—20)



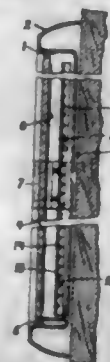
1. In electric heating apparatus including an electric heating unit adapted to support a vessel to be heated, a source of electric power, and a power switch operative between open and closed positions respectively to disconnect and to connect said heating unit with respect to said source; the combination comprising two temperature sensing resistors both arranged in heat exchange relation with a vessel supported by said heating unit, the resistances of said two sensing resistors being simultaneously varied in accordance with the temperature of the vessel supported by said heating unit, a bridge including said two sensing resistors, the balance condition of said bridge being controlled by the resistances of said two sensing resistors, two amplifiers each including an input circuit and an output circuit, means controlled by the balance condition of said bridge for supplying differential input signals to said two input circuits so that the currents in said two output circuits are differentially controlled in order that first and second relationships exist between the currents in said two output circuits when said two sensing resistors respectively have resistances corresponding to a relatively low temperature and resistances corresponding to a relatively high temperature, a relay operative between first and second positions, means responsive to said first and second relationships between the currents in said two output circuits for operating said relay respectively into its first and second positions, and means controlled by operation of said relay into its first and second positions for operating said power switch respectively into its closed and open positions.

2,822,456

ELECTRIC WALL HEATER WITH HEAT REFLECTOR

Theodore W. Glynn, Kingsport, Tenn., assignor to Blue Ridge Glass Corporation, Kingsport, Tenn., a corporation of New York

Application September 9, 1954, Serial No. 454,883
5 Claims. (Cl. 219—34)



1. An electric wall heater comprising a vertical glass heater plate provided with an electrical resistance heating element, a frame around the plate provided with a back

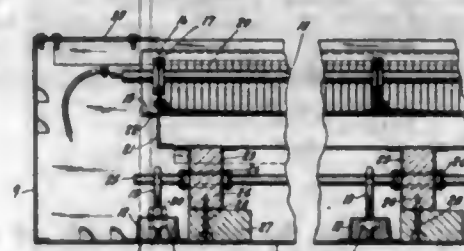
wall, means supporting the plate in the frame spaced from said back wall, and a vertical heat reflector mounted in the frame between the heater plate and said back wall and spaced from both of them to protect the back wall from overheating, said reflector being provided with openings uniformly distributed over substantially its entire area to allow a material amount of the heat radiating from the back of the heater plate to pass through the reflector into the space behind it, thereby reducing the amount of heat reflected and radiated by the reflector to the plate so that the wattage of the heater can be increased.

2,822,457

HEATING ELEMENT AND REFLECTOR MOUNTING METHOD

Gordon Hatch, Milwaukee, Wis.

Application November 12, 1954, Serial No. 468,322
8 Claims. (Cl. 219—34)



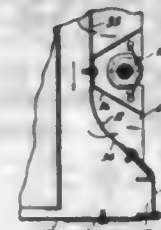
1. In a heating panel of the type employing a reflector tray and a shell, a mounting which comprises a thermal-insulating block connected to the rear of the tray, a rod extending laterally through the block and providing anchorage means projecting from such block, and an adjustable tension element connected with the shell and engaged with said anchorage means in a position laterally offset from the block and comprising means for drawing the tray toward the shell and engaging the insulating blocks under compression with the shell for supporting the tray therefrom.

2,822,458

VENTED PANEL

Gordon Hatch, Milwaukee, Wis.

Application November 12, 1954, Serial No. 468,321
7 Claims. (Cl. 219—35)



1. In a heat treating oven, a ventilated panel unit comprising in a unitarily removable separately fabricated structure, a shell and a tray disposed within the shell and spaced from a rear wall portion thereof to provide a passage for gas movement, a plurality of heating elements disposed wholly at the side of the tray opposite the passage, said unit having spaced inlet and outlet openings communicating with said passage, certain of said openings communicating with the interior of said oven, the unit being provided with closure means for at least one such opening.

2,822,459

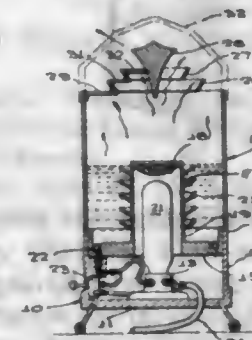
VAPORIZER

Sam Kamin, Houston, Tex.

Application April 12, 1957, Serial No. 652,516
4 Claims. (Cl. 219—38)

1. In a vaporizer, a base having a bottom and a wall extending about and rising from the perimeter of said bot-

tom, an electric socket supported upon said base bottom, a hollow standard having a bottom positioned so that the bottom is supported within the upper end of said base wall, an upstanding inverted cup-shaped member fabricated of heat and light transmitting material and having a concavely curved top positioned so that the top is spaced above said standard bottom and having the lower end attached to said standard bottom, and an up-



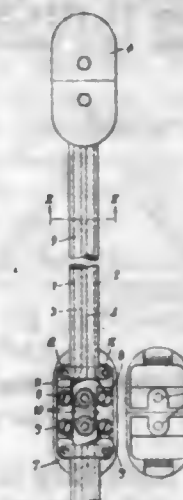
standing incandescent bulb mounted in said socket and having the portion adjacent the upper end housed within and spaced from said cup-shaped member, said member having on the exterior surface between the upper and lower ends thereof a plurality of open troughs arranged in superimposed spaced relation, the concave top of said member and each of said troughs forming liquid retaining and vaporizing surfaces for the body of vaporizable liquid when surrounding said cup-shaped member.

2,822,460

ELECTRICAL HEATING DEVICES

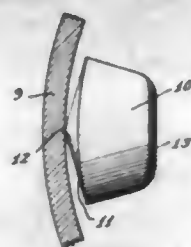
Henry Herbert Goldstaub, Chigwell, England

Application May 2, 1955, Serial No. 505,413
5 Claims. (Cl. 219—46)



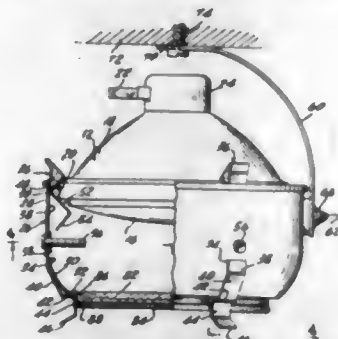
1. In combination a first conductor, a second conductor co-extensive therewith, a first heating resistance wire, the resistance wire being co-extensive with the first and second conductors, insulation separately enclosing the first and second conductors and the first heating resistance wire to form a first heating cable, a first terminal located at one end of said first heating cable and secured to said first heating resistance wire and said first conductor, a second terminal located at said one end and secured to said second conductor, a third conductor, a fourth conductor co-extensive therewith, a second heating resistance wire, the latter resistance wire being co-extensive with the third and fourth conductors, insulation separately enclosing the third and fourth conductors and the second heating resistance wire to form a second heating cable, a third terminal located at one end of said second heating cable and secured to said second resistance wire and to said third conductor, a fourth terminal located at said one end of said second heating cable and secured to said fourth conductor, a first connection between said first terminal and said fourth terminal, and a second connection between said second terminal and said third terminal.

2,822,461
BOMB HANGER SOCKET AND METHOD OF MAKING SAME
 George Albert Lyon, Detroit, Mich.
 Application February 18, 1955, Serial No. 489,166
 13 Claims. (Cl. 219-93)



1. In a metal stud structure for projection from an interior curved surface of a generally cylindrical metal bomb casing wall, a metal stud having an end to be welded to the curved surface of the metal wall and which end has a tapered surface irregularly and substantially smoothly curved about a given central point with the irregular substantially smoothly curved tapered surface being such as to more readily afford clearance for the elimination of flash incident to the metal stud being fused to and engulfed in the metal wall and such as to reduce the duration of the welding operation by virtue of the relatively matched relationship between the irregularly smoothly curved tapered stud surface and the curved surface of the cylindrical metal wall thereby reducing the possibility that the exterior surface of the casing wall will be marred.

2,822,462
LIGHTING DEVICE
 Edison A. Price, New York, N. Y.
 Application February 15, 1954, Serial No. 410,088
 6 Claims. (Cl. 240-138)

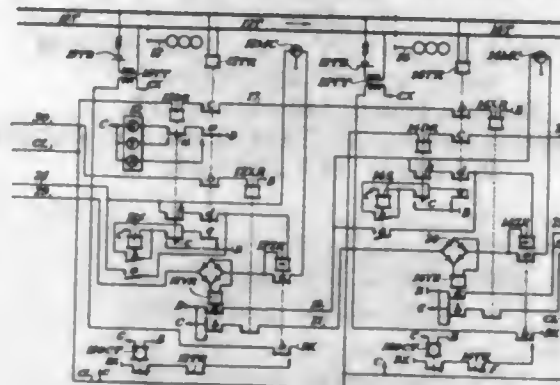


1. The combination comprising an electric light bulb, a circular lens element, a shell member having front and rear apertures and a plurality of peripherally spaced openings formed in its wall, a clip element formed of resilient material passing through each of said openings and extending rearwardly within said shell and forwardly external to said shell, each of said clip elements being provided at its rear portion with a section engaging said electric bulb and at its forward portion with a section engaging said lens element.

2,822,463
SUPPLEMENTAL SIGNALING SYSTEM FOR SPECIAL RAILWAY VEHICLE
 Howard A. Thompson, Edgewood, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
 Original application September 25, 1948, Serial No. 51,276, now Patent No. 2,617,922, dated November 11, 1952. Divided and this application May 20, 1952, Serial No. 288,802
 6 Claims. (Cl. 246-33)

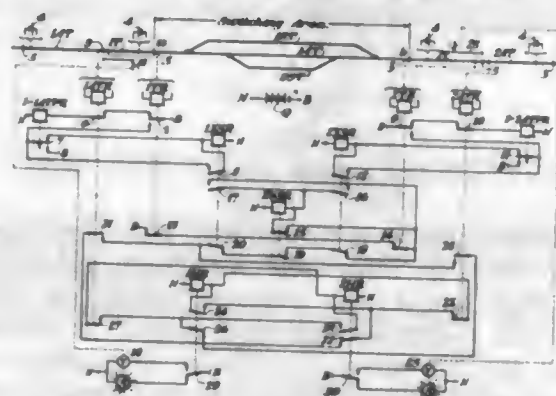
1. In combination with a stretch of railway track divided into a plurality of sections each having a track relay which is normally energized by current supplied to

the rails of its section and which releases due to the shunting effect of the wheels and axles when a train occupies its section, a signaling system for the protection of special vehicles in said stretch which are not adapted to shunt said track relays, comprising means for indicating to the operators of said special vehicles that no train is approaching the section in which they are located, a first series of line circuits, each circuit of said first series extending between the entrance ends of adjacent track sections and including front contacts of the track relays of said adjacent track sections and the winding of an approach relay at the advance end of the line circuit; a second series of line circuits, each circuit of said second



series extending between the entrance ends of adjacent track sections and including at its advance end the winding of a biased polar relay and the winding of a neutral relay, and at the entrance end a front contact of the approach relay at that location and pole-changing contacts operated by the neutral relay at that location; so arranged that each biased polar relay is energized only when the approach relay and the neutral relay which control its circuit are both energized and each neutral relay is energized whenever the approach relay which controls its circuit is energized; and means actuated by each such polar relay when energized for energizing the indicating means of its associated section.

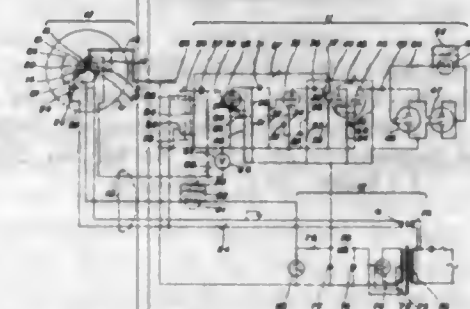
2,822,464
RAILWAY TRAFFIC CONTROLLING APPARATUS
 Frank T. Pascoe, Scott Township, Allegheny County, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
 Application November 28, 1952, Serial No. 323,049
 9 Claims. (Cl. 246-33)



1. Railway traffic controlling apparatus for controlling movements of railway vehicles onto a given stretch of track which is not equipped with traffic responsive means, comprising in combination, traffic governing means located adjacent each entrance point for said given stretch of track for governing traffic movements onto the given stretch of track at the corresponding entrance point, first traffic responsive means located in the rear of the traffic governing means for each of said entrance points, second traffic responsive means located in advance of the traffic governing means for each of said entrance points, means controlled by the said first traffic responsive means in response to a first vehicle approaching in the rear of the

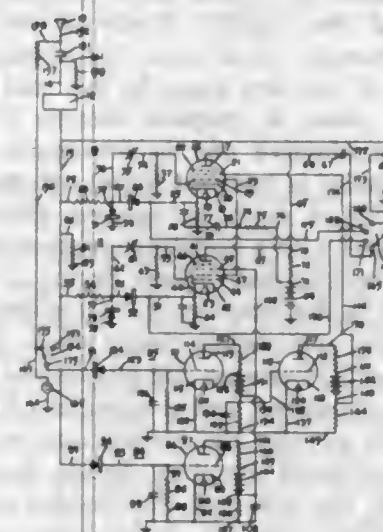
traffic governing means for any corresponding entrance point for placing the corresponding traffic governing means in condition to direct the said first vehicle to enter the said given stretch of track, means controlled by the said second traffic responsive means in response to said first vehicle passing the corresponding traffic governing means for placing all of said traffic governing means in condition to stop a second vehicle, and directional means controlled by both the traffic responsive means for any entrance point in response to said first vehicle leaving said given stretch of track at the corresponding entrance point for preparing the traffic governing means for all of the entrance points for directing a second vehicle to enter said given stretch of track at any entrance point in response to control of the first traffic responsive means at the corresponding entrance point by said second vehicle.

2,822,465
OSCILLATOR TESTING APPARATUS
 Lorence W. Fraser, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
 Application November 1, 1944, Serial No. 561,449
 8 Claims. (Cl. 250-17)



1. A testing device for gauging a characteristic of an oscillator of the type having an output circuit and including a radiator of high frequency energy comprising an artificial load coupled to said radiator for imposing radiation resistance thereupon, means for varying said radiation resistance in a predetermined manner, and means for gauging the resultant signal in said output circuit.

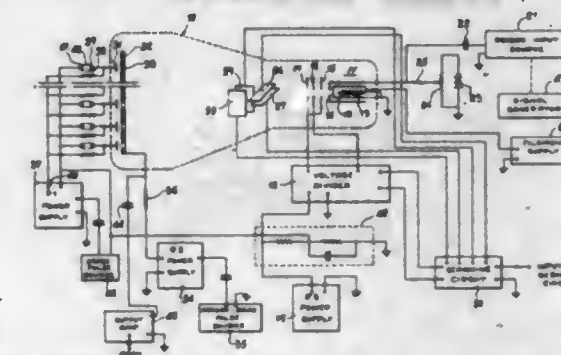
2,822,466
APPARATUS FOR REDUCING RADIO INTERFERENCE
 Morris M. Newman, St. Paul, Minn., assignor to Lighting & Transients Research Institute, Inc., Minneapolis, Minn., a corporation of Minnesota
 Application October 26, 1953, Serial No. 388,299
 9 Claims. (Cl. 250-20)



1. In apparatus for radio receiver noise reduction, an antenna, a discriminating device including a thermionic tube, an input circuit fed by said antenna and non-inductively coupled to said tube a resistor in said circuit;

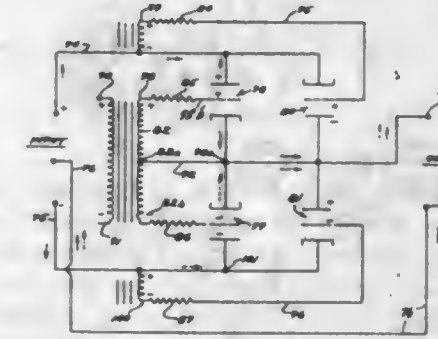
a rectifier in said circuit following said resistor and passing current of one polarity between said antenna and tube, a second rectifier connected to said input circuit at a locality between said first named rectifier and the resistor and to a common return, and passing current of the opposite polarity and an output circuit connected to said tube and to the receiver.

2,822,467
ELECTRONIC SIGNAL STORAGE AND READING SYSTEMS
 Frederick Leander Washburn, Jr., Schenectady, N. Y., assignor to National Union Electric Corporation, a corporation of Delaware
 Application June 25, 1952, Serial No. 295,522
 16 Claims. (Cl. 250-27)



1. Signal storage apparatus comprising in combination, means to develop a cathode-ray beam, a plurality of secondary emission targets to be scanned by said beam, a secondary electron collector, a plurality of gaseous conduction devices each having a pair of electrodes in an ionizable medium, means connecting one electrode of each device to a corresponding target, a source of direct current potential for said devices, means connecting each device in series with a respective voltage divider impedance across the terminals of said source with the positive terminal of the source connected to each target through a respective one of said impedances; the negative terminal of the source being connected in parallel to the other electrode of each device, said source being of insufficient voltage normally to render the said devices conductive, and means to selectively impinge said beam upon any target and thereby momentarily raise the target potential to cause the associated gaseous conduction device to become conductive and thereby to drop the potential of said target to a steady value as long as the associated device is conductive.

2,822,468
APPARATUS FOR DEMODULATING A SIGNAL
 Clarence L. Herbst, St. Paul, and Charles J. Wacker, Minneapolis, Minn., assignors to Northern Pump Company, Minneapolis, Minn., a corporation of Minnesota
 Application March 10, 1954, Serial No. 415,306
 7 Claims. (Cl. 250-27)



1. A demodulating system having in combination, first means providing an amplitude modulated wave, coupling means coupling said first means to a combined phase inverter and cathode follower to produce a double-

ended output, a phase-sensitive rectifier for producing a unidirectional output, means coupling said double-ended output to said phase-sensitive rectifier, a twin-T filter whose rejection frequency is twice that of said wave, means coupling said unidirectional output to said twin-T filter whereby the demodulated envelope of said amplitude modulated wave may be derived therefrom.

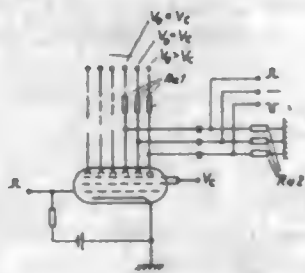
2,822,469

ELECTRONIC DEVICE FOR TRANSPOSING SIGNALS

Walter Emil Wilhelm Jacob, Hagersten, Sweden, assignor to Telefonaktiebolaget L M Ericsson, Stockholm, Sweden, a corporation of Sweden

Application October 1, 1954, Serial No. 459,719

Claims priority, application Sweden November 11, 1953
5 Claims. (Cl. 250-27)



1. An electronic device for transposing signals, comprising an electron tube including a thermionic cathode, an acceleration electrode for accelerating the electron current emitted by the cathode, a control electrode for controlling the electron current emitted by the cathode, the signals to be transposed being fed to said control electrode, several secondary electrons emitting electrodes, a common collector electrode for collecting the primary and secondary electron currents, each of said secondary electrodes emitting electrodes being separately and directly accessible from the outside of the tube, and control circuits individual to each secondary electron emitting electrode, each including individually variable bias potential means and resistance means connected to each of said secondary electron emitting electrodes, the value of said bias potential means in relation to the operational potential of the cathode controlling the amplitude of the output signals of said secondary electron emitting elements.

2,822,470

CIRCUITS FOR CONTROLLING THE PEAK AMPLITUDE OF ELECTRIC CURRENT PULSES

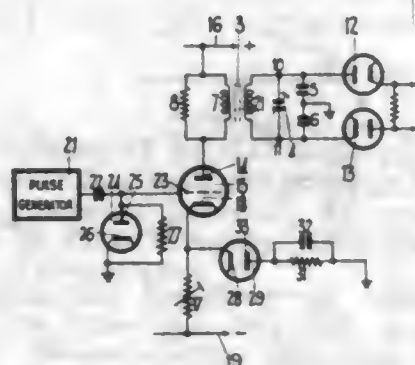
Ronald Charles Imm, Ruislip Manor, England, assignor to The General Electric Company Limited, London, England

Application November 3, 1954, Serial No. 466,529

Claims priority, application Great Britain

November 4, 1953

3 Claims. (Cl. 250-27)



1. A circuit for supplying a train of electric current pulses comprising a source of positive-going electric pulses, a grid-controlled thermionic valve, a pulse input

path for feeding the said positive-going electric pulses from the said source to the control grid of said valve, a resistance in the cathode circuit of said valve, means to maintain the end of said resistance remote from the valve cathode at a first voltage that is negative with respect to the voltage on the control grid of the valve in the absence of an applied pulse, a two-terminal rectifier element, a path connected between one terminal of the rectifier element and the end of the said resistance nearest to the valve, and a resistance-capacity network connected between the other terminal of the rectifier element and a point that is maintained during operation at a second voltage that is more positive than the first voltage, the arrangement being such that, during operation of the circuit, between pulses supplied by the source the said valve is cut off and current flows through the rectifier element and the said resistance towards the end of the resistance that is at the first voltage, thereby developing a bias across the resistance-capacity network, whilst each pulse supplied by the source causes the valve to be conducting and the rectifier element to be cut off, the peak amplitude of each pulse of current that passes through the valve as a result of a pulse supplied by the source thus being determined mainly by the magnitude of said resistance.

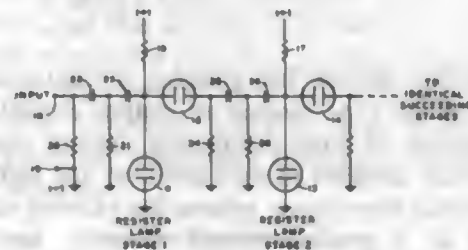
2,822,471

PULSE COUNTING CIRCUIT

Howard L. Foote, Fairport, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware

Application September 26, 1955, Serial No. 536,338

1 Claim. (Cl. 250-27)



A binary counting system comprising a plurality of binary stages, each of said binary stages having a register gaseous discharge device connected in series with a resistor to a source of direct current, the voltage supplied by said direct current source across the register device of each stage being normally of insufficient value to initially fire the register device but of sufficient value to maintain a conductive discharge once the register device has been fired, a source of pulses to be counted, an input condenser for coupling pulses to be counted to the junction between the resistor and the register device of the first binary stage in such manner as to raise the voltage across the register device of the first stage to fire said first register device when a pulse is coupled thereto if the register device is non-conductive and to extinguish the register device when a pulse is coupled thereto if the register device is conductive, a coupling gaseous discharge device connected in series with a coupling condenser between the junction of the resistor and register device of each preceding binary stage to the junction of the resistor and register device of the next succeeding binary stage, and a bleeder resistance connected between the junction of the coupling device with the condenser and a terminal of the source of direct current to prevent the maintaining of a discharge through the associated coupling device for longer than a pulse interval, the value of the bleeder resistance and the constants of the coupling device being such that said coupling device will discharge to conduct a pulse to the succeeding binary stage only when a pulse is applied to the register device of the preceding binary stage if such register device is non-conductive.

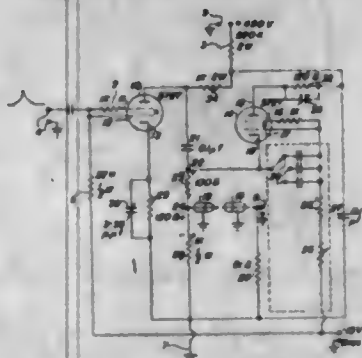
2,822,472

NEGATIVE GATE GENERATOR

Clarence S. Jones, Los Angeles, Calif., and Thomas E. Eaton, Los Alamos, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application January 13, 1956, Serial No. 559,082

4 Claims. (Cl. 250-27)



1. A pulse generator comprising a first capacitor, a two terminal switch, and a two conductor transmission line having a terminating load resistor at one end, means electrically connecting one plate of said first capacitor to one conductor of the transmission line at its other end and the other conductor of the transmission line at said other end to one terminal of said switch, means including a resistor electrically connecting the other terminal of the switch to the other plate of the first capacitor, a potential source connected in series with a resistor and said first capacitor, and a second capacitor connected in shunt with said last named resistor for compensating for stray circuit capacitance and capacitance in said transmission line, whereby closure of the switch and discharge of the first capacitor generates an output pulse at the terminating load resistor, the leading edge of which has substantially a right angle relationship with the body of the pulse.

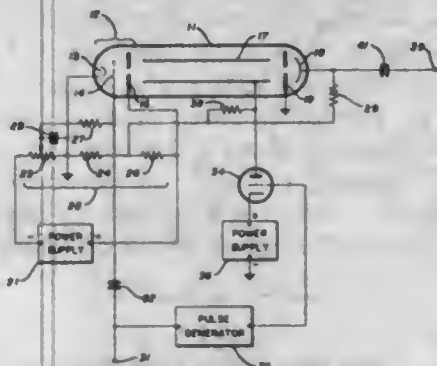
2,822,473

PULSE DURATION LENGTHENER

William R. Aiken, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application July 27, 1953, Serial No. 387,554

4 Claims. (Cl. 250-27)



4. In a frequency bandwidth changer, the combination comprising an evacuated envelope, means including a control element for establishing a beam of charged particles in said envelope, an input terminal for connection to a source of a signal having a wide band of frequencies coupled to said control element, a single elongated conducting cylinder disposed in said envelope coaxially with the path of said beam, a pulse generator of an exponentially varying voltage having an input and an output with the input connected to said input terminal, a vacuum tube having at least a cathode, control grid, and anode, said control grid connected to the output of said pulse generator, a bias power supply connected between said cathode and ground, a dropping resistor connected between said anode and a source of positive operating potential, a connection extended between said anode and

said cylinder, and means disposed in said envelope at one end of said cylinder for collecting said particles, the length of said cylinder and the maximum and minimum values of said exponentially varying voltage at said cylinder proportionately correlated with an expansion time, whereby the width of the band of frequencies of said signal is substantially linearly changed at said means for collecting said particles.

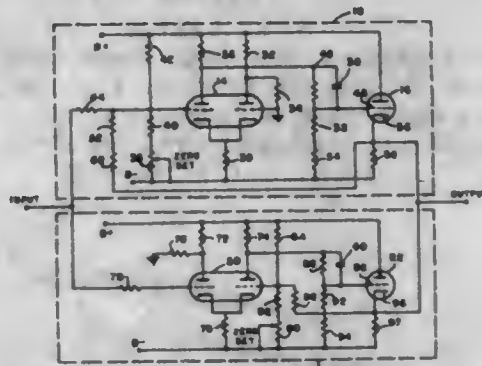
2,822,474

ABSOLUTE VALUE COMPUTER

Alexander Boecker, East Norwich, N. Y., assignor to the United States of America as represented by the Secretary of the Army

Application February 7, 1956, Serial No. 564,096

3 Claims. (Cl. 250-27)



1. A circuit for deriving the absolute magnitude of input voltage signals having positive or negative polarity with respect to ground comprising, discrete means responsive to said input signals for simultaneously producing distinct voltages having relative opposite polarities, first and second cathode followers having discrete input and output circuits, said input circuits being responsive respectively to the voltages of opposite polarity, discrete means connected between the first cathode follower output circuit and one of said voltage producing means, and between said second cathode follower output circuit and the other of said voltage producing means, whereby unity gain is produced between said input voltage signals and the voltages developed respectively across each of said cathode follower output circuits, and means linking the cathode follower output circuits whereby when the cathode follower having a relative positive voltage applied to its input circuit is rendered conductive to produce a positive output signal the other cathode follower is rendered non-conductive.

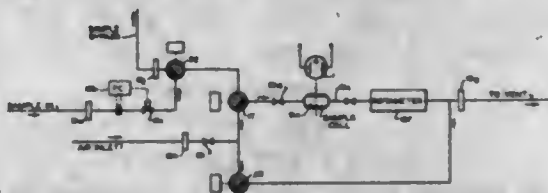
2,822,475

ANALYZER

Elmer C. Miller, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application March 4, 1955, Serial No. 492,114

13 Claims. (Cl. 250-43.5)



1. In an analyzer, in combination, a radiation source, a radiation detector adapted to receive radiation from said source, a sample cell and a standard cell both interposed in the path of radiation passing from said source to said detector, an indicating circuit connected to said detector to produce an output representative of the intensity of radiation incident thereon, a standardization circuit connected to said indicating circuit to vary a parameter thereof, a source (a) of standard fluid, a source (b) of sample fluid, and a source (c) of fluid sub-

stantially transparent to said radiation, a first three-way valve selectively connecting said standard cell to source (a) and source (c), a sample line, a bypass line, a three-way valve selectively connecting source (b) to said sample line and said bypass line, a three-way valve selectively connecting said sample cell to said sample line and source (c), and a timer operatively connected to said valves and said circuits, said timer being constructed and arranged to alternately (1) energize said indicating circuit, pass sample fluid from source (b) to said sample cell, and pass transparent fluid from source (c) to said standard cell and (2) energize said standardization circuit, bypass the sample from source (b), pass standard fluid from source (a) to the standard cell, and pass transparent fluid from source (c) through the sample cell.

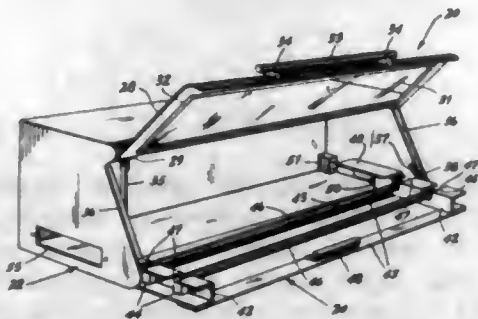
2,822,476

STERILIZER

Clarence H. Osgood, Stamford, Conn., assignor to The Stamford Engineered Products Co., Inc., Stamford, Conn., a corporation of Connecticut

Application December 26, 1952, Serial No. 328,020

1 Claim. (Cl. 250-51)



A sterilizer unit comprising: a cabinet having bottom, side, and top walls; one wall being open and having a door movably attached thereto for opening and closing actions; opposite flanges projecting from the side walls a short distance above the bottom wall of the cabinet; a removable frame of substantially the size of the bottom wall, to support disinfecting lamp tubes extending across the frame, the frame having end parts designed to receive the end elements of the tubes, the spacing of the flanges above the bottom wall being sufficient to enable the frame to be slid into place beneath the flanges, the flanges overlying the ends of the tubes to protect them; a plug and socket electrical connecting means, one part of which is secured to the wall of the cabinet adjacent the bottom thereof and the other part of which is attached to a back part of the frame, so that when the frame is inserted into place below the flanges, the plug and socket parts will be readily engaged to provide for bringing electrical energy to the lamps; an article supporting tray of open-work construction substantially the size of the bottom of the cabinet, adapted to be removably inserted into the cabinet and to have its opposite ends supported on the flanges; and reflecting surfaces on the inside of the cabinet to direct rays from the lamps over articles on the tray.

2,822,477

X-RAY APPARATUS

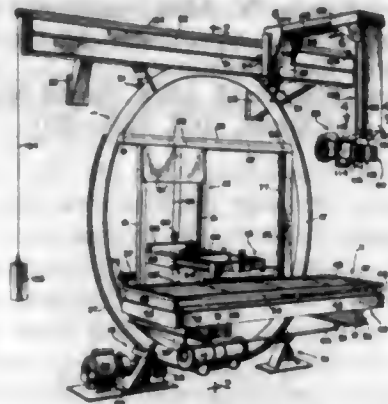
Arthur J. Kizaur, Wauwatosa, Wis., assignor to General Electric Company, a corporation of New York

Application November 16, 1951, Serial No. 256,801

14 Claims. (Cl. 250-57)

11. A table structure comprising support means embodying a ring-like track member and table carrying means supported on said track member, bearing means operatively associated with said track member for mounting the table carrying means for turning movement in the plane of said track member about the central axis thereof, said table carrying means comprising spaced arms extending in a direction intersecting the plane of said

track member, a table frame, and means for mounting the table frame on said arms for adjusting movement thereon



in a direction intersecting the plane of said track member.

2,822,478

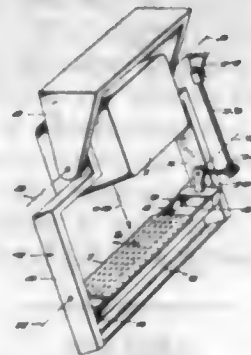
ARRANGEMENT INCLUDING A BETATRON FOR RADIATION OF THE HUMAN BODY

Rolf Wideröe, Nussbaumen, near Baden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application August 3, 1956, Serial No. 601,982

Claims priority, application Switzerland August 5, 1955

13 Claims. (Cl. 250-61.5)



1. In an arrangement for radiating the human body, the combination comprising a ray generator such as a betatron unit in which rays are produced by accelerating charged particles to high velocity and then causing the accelerated particles to strike a target anode, means mounting said ray generator for rotation on a horizontal axis, said rays being directed downwardly from said ray generator supporting means carried by and generally below and rotatable with said ray generator, a bed for the support of the patient mounted on said supporting means for rotation thereon about a horizontal axis parallel to the axis of rotation of said ray generator, and means maintaining said bed in a horizontal plane as said supporting means and ray generator are rotated.

2,822,479

RADIATION COUNTER

William W. Goldsworthy, Orinda, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application February 25, 1954, Serial No. 412,670

6 Claims. (Cl. 250-71)

1. In a radiation counter, the combination comprising a housing open at both ends, a planar light-tight radiation window secured across one end of said housing, a removable guard screen slideably mounted parallel to and spaced from said window and external of said housing, a scintillation detector of atomic radiation disposed parallel to and coextensive with said window internal of said housing, a plurality of photomultiplier tubes disposed in parallel relation in said housing to view equal portions of said detector and mounted on a chassis providing a light-tight seal at the other end of said housing, each of said tubes having a light-sensitive cathode, a plurality of

dynodes, and an anode, a single voltage divider having a plurality of taps successively connected to the elements of said tubes to supply operating potentials, separate variable means included in the connection of one of said dynodes of each tube to said voltage divider for balancing



the operation of said tubes circuit means disposed on said chassis and connected to said tubes for providing indication of radiation piercing said window and support means mounted on a base and affixed to said housing with said radiation window disposed adjacent to and parallel to said base.

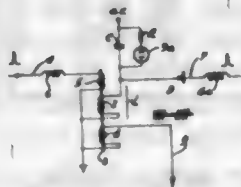
2,822,480

BISTABLE STATE CIRCUIT

Carl L. Isborn, Hawthorne, Calif., assignor, by mesne assignments, to The National Cash Register Company, a corporation of Maryland

Application July 25, 1950, Serial No. 175,784

32 Claims. (Cl. 307—88)



24. In a flip-flop circuit, an alternating voltage input circuit having impedance, a pair of branch circuits shunt connected across said input circuit, each said branch comprising a series arrangement of a capacitance and an inductor, said inductors having inductance values variable in accordance with current therein, a source of voltage, and means for applying said voltage to said branches to vary the current therein in accord with the magnitude of said voltage, whereby when either of said circuits becomes ferresonant a greater current flows in said impedance tending to reduce the voltage applied to the other circuit.

2,822,481

DIELECTRIC VOLTAGE TRANSFORMERS

Heinrich Schiller, Zurich, Switzerland

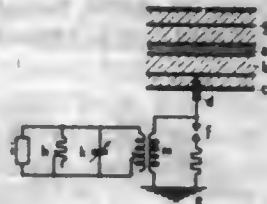
Application June 8, 1954, Serial No. 435,257

7 Claims. (Cl. 307—109)

1. In combination, a dielectric voltage transformer comprising a length of electric cable, said cable being comprised of an inner central conductor, an outer grounded sheath and at least one conductive layer intermediate said sheath and inner conductor, and a secondary circuit connected to said intermediate conductive layer, said secondary circuit being constituted solely by an electrical measuring means and a corrective network interposed be-

727 O. G.—13

tween said measuring means and said intermediate conductive layer for compensating for the step-down ratio and angular errors originating in said transformer there-



by to maintain optimum accuracy of measurement in said measuring means notwithstanding changes of magnitude in the primary side of said transformer.

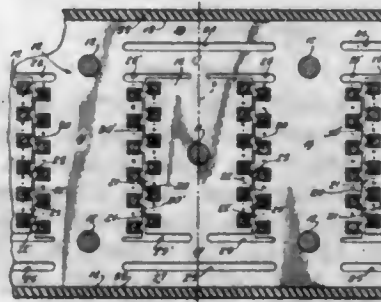
2,822,482

VARIABLE-POSITION TRANSDUCER

Wilbur T. Harris, Southbury, Conn., assignor to The Harris Transducer Corporation, Woodbury, Conn., a corporation of Connecticut

Application January 17, 1955, Serial No. 481,988

21 Claims. (Cl. 310—15)



1. In a transducer of the character indicated, an armature body, a rigid exterior stator body surrounding said armature body, means within the peripheral confines of said stator body reactively connecting said armature body to said stator body, said bodies and said means being of magnetic flux-conducting material and said bodies having through the reactive connection a natural predetermined mechanical oscillating characteristic along a longitudinal axis of oscillation, said bodies and said means defining a magnetic circuit extending through said bodies and including a gap defined by longitudinally offset pole faces, said pole faces being spaced transversely with respect to said longitudinal axis.

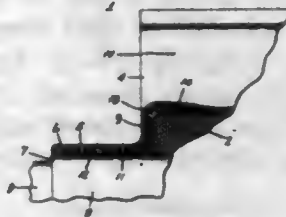
2,822,483

CORE MEMBER INSULATION

Milton V. De Jean, Fort Wayne, Ind., and Ivan L. Gray, Scotia, N. Y., assignors to General Electric Company, a corporation of New York

Application January 27, 1954, Serial No. 406,400

14 Claims. (Cl. 310—45)



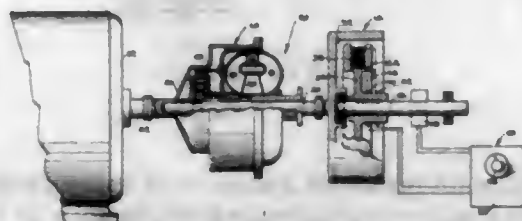
1. A core member for a dynamoelectric machine, and an insulating coating for the slots and an end of said core member comprising a thin layer of an adhesive base material applied to an end and to the slots of said core member, and a layer of a thixotropic epoxy resin applied over said first mentioned layer at the end of said core member and over the edges of the slots thereof.

2,822,484

CONSTANT HORSEPOWER DRIVE

Martin P. Winther, Gates Mills, Ohio, assignor to Eaton Manufacturing Company, Cleveland, Ohio, a corporation of Ohio

Application June 23, 1954, Serial No. 438,692
9 Claims. (Cl. 310-96)



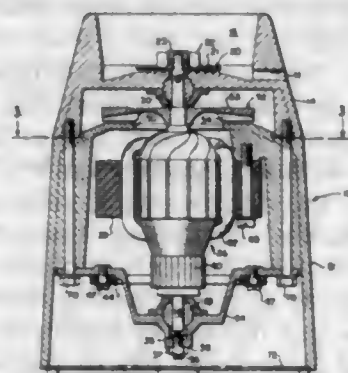
2. A drive comprising a constant speed electric motor including an output member, an automatically variable torque multiplication mechanism including input and output members, and a speed controlled coupling including input and output members, said input member of the mechanism being coupled to the output member of the prime mover, and said input member of the coupling being coupled to the output member of the mechanism and wherein upon a speed controlled setting of the output of the coupling, proportional to the speed of the prime mover, a constant horsepower output of the drive is maintained.

2,822,485

DRIVING UNIT FOR MIXING DEVICES

Artur Braun, Günther Falkenbach, and Heinrich Graichen, Frankfurt am Main, Germany, assignors to Max Braun, Frankfurt am Main, Germany, a partnership consisting of Erwin Braun and Artur Braun

Application June 14, 1955, Serial No. 515,452
Claims priority, application Germany July 15, 1954
9 Claims. (Cl. 310-157)



1. A driving unit for mixing devices and the like comprising an upright hollow casing which forms the entire housing for said unit, said casing consisting of a lower casing shell and a mating upper casing shell and means fastening said shells together, the upper shell being recessed at its top to accommodate a mixing device, a shaft bearing in each of said shells, an electric motor armature and armature shaft supported by said shaft bearings with the shaft extending through the upper casing shell into the recessed region of the upper shell, an electric motor stator secured to the inside of the lower casing shell in operative relation to said armature and independently thereof, coupling means for engaging and operating the mixing device mounted on the end of the armature shaft within said recessed region, and means for energizing said electric motor armature and stator.

2,822,486

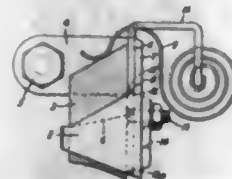
DYNAMOELECTRIC MACHINE BRUSH HOLDER

James K. Newell, Jr., Swampscott, Mass., assignor to General Electric Company, a corporation of New York

Application February 28, 1955, Serial No. 490,746
1 Claim. (Cl. 310-246)

A brush holder adapted for use with a dynamoelectric machine comprising a brush holder box arranged for

engagement with a commutator for said machine, a movably mounted backplate having smooth surfaces separating a side of said brush from said box, said backplate including a pair of studs arranged to extend through elongated slots in said box for providing incremental adjustment to said backplate, said backplate further including



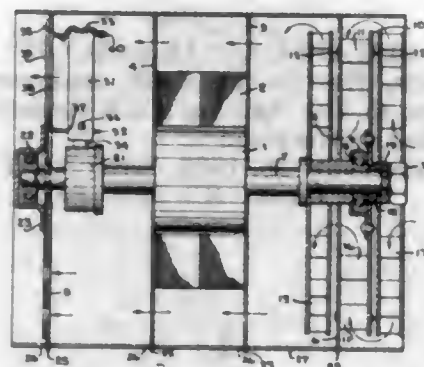
an extension protruding upwardly and outwardly from said box and arranged to support a spring having an end in contact with said brush for respectively biasing the latter into engagement with said commutator and against said backplate for preventing poor commutation in said machine.

2,822,487

METHODS OF MANUFACTURE OF ELECTRIC MOTORS, AND IN MOTORS MADE THEREBY

Cornelis Barel, Lelischendam, Netherlands, assignor to Rudolf Blik Electricische Apparaten-en Metaalwarenfabriek N. V., The Hague, Netherlands

Application July 23, 1954, Serial No. 445,431
8 Claims. (Cl. 310-258)



1. In an electric motor having a stator and a rotor, in combination, a series of plates having the same substantially circular circumferential shape, said stator being mounted concentrically on some of said plates, said rotor being mounted concentrically on other of said plates, a rolled sleeve surrounding said plates, said sleeve being tightenable and before tightening having internally a non-circular shape and upon tightening assuming internally the shape of said plates and being operable thereby to align said plates, and means releasably connected to said sleeve and actuatable for tightening the sleeve, said sleeve having slots formed in its wall spaced from each other, each plate including a lug operable to penetrate through, and to engage, a slot for spacing the plates apart from each other inside said sleeve.

2,822,488

HEADLAMP CONSTRUCTION FOR AUTOMOBILES AND THE LIKE

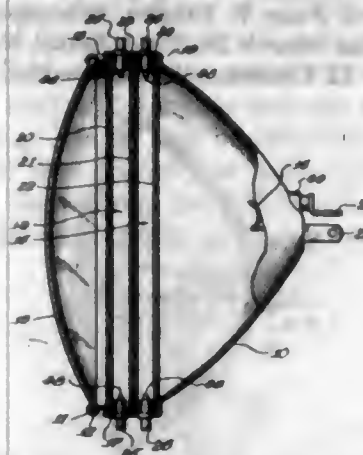
Robert R. Clifton, Stockton, Calif.

Application July 31, 1956, Serial No. 601,306

2 Claims. (Cl. 313-1)

1. A headlamp construction for automobiles and the like, comprising a reflector housing, primary light source means, including a filament mounted in one end of said reflector, a lens secured in the opposite end of said housing and means forming an ion chamber extending transversely entirely across the reflector housing and being dis-

posed in a medial plane in the path of and intersecting substantially all of the rays emitted from said filament,



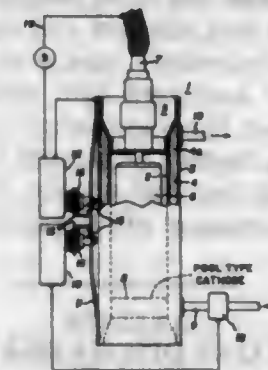
said ion chamber forming means being between said filament and said lens.

2,822,489

TEMPERATURE RESPONSIVE ARRANGEMENT

James L. Zehner, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York

Application September 15, 1953, Serial No. 380,281
23 Claims. (Cl. 313-22)



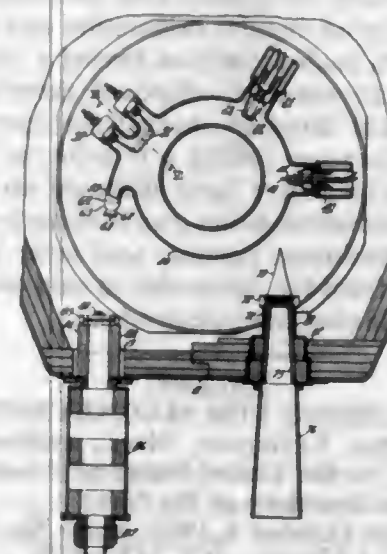
1. An envelope adapted for housing a device subject to heating, a bowed strip having the ends thereof secured at spaced points on the exterior of said envelope, and a switch disposed externally of said envelope and operated by movements of said bowed strip as effected by relative expansion and contraction of said envelope and strip.

2,822,490

COMBINATION ELECTRON X-RAY BEAM TUBE FOR A BETATRON

Dane T. Scag, Elm Grove, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.

Application January 14, 1955, Serial No. 481,860
12 Claims. (Cl. 313-35)



1. A combination electron X-ray beam tube for a charged particle accelerator in which electrons are accel-

erated along an orbital path, said tube comprising an evacuated envelope surrounding said orbital path, means for injecting electrons into said orbital path, means including an X-ray target to cause an X-ray beam to be radiated from said tube along a first path substantially tangent to said orbital path, and means to cause an electron beam to be extracted from said tube along a second path parallel to said first path, said first and second paths of said beams being on opposite sides of a reference plane disposed parallel to said beams and containing the axis of said orbital path.

2,822,491

ELECTRON ACCELERATOR TUBE

Rolf Wideröe, Emmethaden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application January 2, 1953, Serial No. 329,327
2 Claims. (Cl. 313-62)



1. An annular tube providing therein an orbital path along which charged particles such as electrons are adapted to be accelerated in a device including a time-varied magnetic field effective at the path to guide the electrons, said tube being provided on both its interior and exterior wall surfaces with equipotential coatings extending over the entire wall surfaces of the tube and presenting high resistance to the flow of eddy currents induced therein by the magnetic field, said interior and exterior coatings establishing electrical capacities therebetween for minimizing formation of localized charges on portions of said interior coated surface which otherwise produce a disturbing effect on the travel of the electrons along the orbital path.

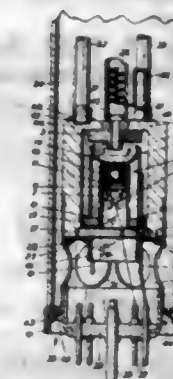
2,822,492

ELECTRON DISCHARGE DEVICES

Peter Francis Conway Burke, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware

Application August 10, 1954, Serial No. 448,850
Claims priority, application Great Britain
October 14, 1953

2 Claims. (Cl. 313-82)



1. An electron gun comprising: a hollow cylindrical pole piece of ferromagnetic material; a centrally apertured anode closing one end of the said pole piece, an annular step in the internal bore of the said pole piece at the other end thereof; a cathode having a cylindrical skirt terminating in a circular flange, a first ceramic washer of predetermined thickness on the anode side of said flange, said first washer being of smaller diameter than the internal bore of the said pole piece and a second ceramic washer having an accurately planar face and which is of larger diameter than the bore of the said cylindrical pole piece but of smaller diameter than the

said annular step on the other side of said flange, resilient means secured to the said pole piece for holding said second ceramic washer against the step in said pole piece; a focusing electrode comprising a cylindrical skirt surrounding the said cathode and seated on the said first ceramic washer; a thin mica centering washer fitting closely between the skirt of the said focusing electrode and the internal wall of the said pole piece; a hollow metal cylinder seated against the said second ceramic washer on the side remote from the anode; and a plurality of tie rods, passing through clearance holes in the two said ceramic washers secured at one end to the said cylindrical skirt of the focusing electrode and at the other end to the said hollow metal cylinder to clamp together the said ceramic washers, the focusing electrode and the said cathode.

2,822,493

GRAPHIC STORAGE TUBE

Maurice D. Harsh, Lancaster, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 24, 1953, Serial No. 350,972
4 Claims. (Cl. 313-89)

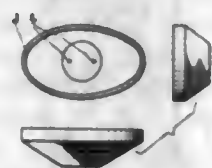


1. A target assembly for a storage tube comprising a target structure and a shield structure, said target structure including an annular target supporting member, a sheet-like target, and an annular retaining member, said target being stretched across said target supporting member, a peripheral part of said target being secured between said target supporting member and said retaining member, said shield structure comprising a tubular shield and an annular shield supporting member, said shield being secured to but insulated from said shield supporting member, said retaining member of said target structure being secured to said shield supporting member of said shield structure.

2,822,494

ELECTRON BEAM-TUNING-INDICATION TUBE

Horst Edgar John Heinrich Stietzel, Hamburg, and Alexander Hans Adolf Siebenberg, Hamburg-Fuhlsbuttel, Germany, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application November 13, 1952, Serial No. 320,166
Claims priority, application Germany March 20, 1952
5 Claims. (Cl. 313-107.5)

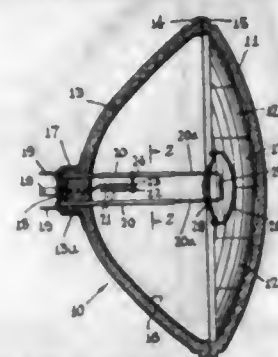


1. A cathode-ray tuning indicator tube comprising a hollow, luminescent screen, a cathode arranged centrally and coaxially within the luminescent screen, and means including deflection members disposed between the cathode and screen for controlling, by its potential, the extent of fluorescence of the screen and arranged to provide two opposed fluorescent areas on the screen, the intersections of orthogonal planes, having the axis of the screen as their line of intersection, with the screen being different, whereby said screen has a shape different from a surface of revolution and the equipotential lines of the electric field established between cathode and screen when a potential difference is applied therebetween are strongly elliptical in shape.

2,822,495

DUAL-PURPOSE INCANDESCENT LAMP

Frederick D. Albright, Bridgeport, Conn., assignor of one-half to Patsy F. Florito, Bridgeport, Conn.
Application March 24, 1954, Serial No. 418,333
12 Claims. (Cl. 313-111)

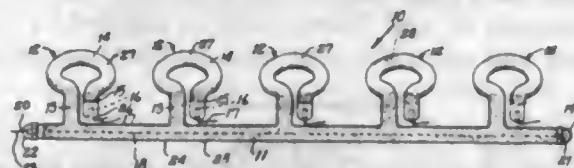


1. A dual-purpose incandescent lamp comprising a front filament and a rear filament; means providing a rarified atmosphere around said filaments; a collecting reflector behind the rear filament, directing light therefrom forward in a concentrated beam; a substantially opaque collecting reflector in front of the front filament, directing light therefrom rearward in a concentrated beam against the rear reflector to be redirected forwardly thereby; a colored lens disposed in front of the rear filament and behind the front filament, for imparting color to the light emanating from the front filament; and means disposed between the rear filament and the said colored lens and providing substantially one way passage of light, operable to reflect backward light which is directed forward from the rear filament toward said lens when said filament is lighted, thereby to prevent the lens from coloring said light, said lens and opaque reflector and means providing one-way passage of light enclosing the said front filament.

2,822,496

LOW-VOLTAGE GAS DISCHARGE ILLUMINATION DEVICE

Georg Maurer, Berlin-Tempelhof, Germany
Application December 5, 1956, Serial No. 626,376
8 Claims. (Cl. 313-188)



1. An illuminating device of the electric gaseous discharge type having a gas filled envelope, and being comprised of an elongated tube, an elongated electrode disposed longitudinally within said tube and having an electrical terminal means provided for external electrical connection, a plurality of spaced stub projections disposed along said tube at an angular orientation and in communication therewith, each projection having a curved tubular extension and an electrode disposed therein having an external electrical terminal means, the external surface of each said extension having a translucent portion, and an electrically conductive layer disposed on the external surface of said envelope being transmissive to light at least at each said translucent portion, said layer being electrically insulated from the electrodes in said projections but connected to said elongated electrode.

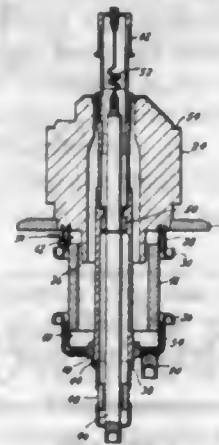
2,822,497

BUSHING FOR MAGNETRON

Albert D. LaRue, Lexington, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 4, 1955, Serial No. 538,547
2 Claims. (Cl. 313-240)

1. In combination, an insulating refractory ceramic circular cylinder, first and second annular metallic mem-

bers metal-bonded to the respective ends of said ceramic cylinder and extending from the respective ends thereof, a first annular metallic shield whose outside diameter is smaller than the inside diameter of said ceramic cylinder, a second annular metallic shield whose inside diameter is larger than the outside diameter of said ceramic cylinder, the free end of said first member and one end of each of said shields being rigidly and continuously attached together with said first shield and said second shield extending to and overlapping the entire inner side and the entire outer side respectively of the bond between said

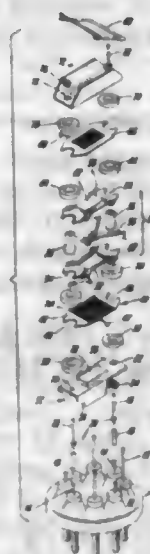


ceramic cylinder and said first metallic member whereby the bond between said first member and said ceramic cylinder is shielded by said first and second shields, a third annular metallic shield whose inside diameter is larger than the outside diameter of said ceramic cylinder, the free end of said second member and one end of said third shield being rigidly and continuously attached together with said third shield extending to and overlapping the entire outer side of the bond between said ceramic cylinder and said second metallic member whereby the bond between said second member and said ceramic cylinder is shielded by said third shield.

2,822,498

TUBE CONSTRUCTION FOR AUTOMATIC PRODUCTION

Paul Koskos, Williston Park, and Joseph J. Isole, Jr., Pelham, N. Y., assignors to Sylvania Electric Products Inc., a corporation of Massachusetts
Application April 19, 1954, Serial No. 424,063
10 Claims. (Cl. 313-250)



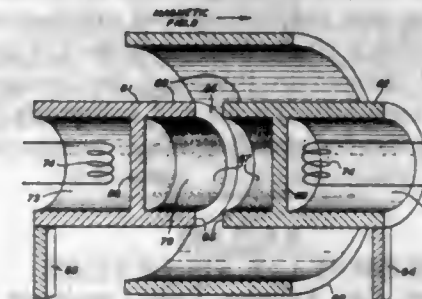
8. A tube mount comprising support pins, an anode having a central raised portion mounted thereon, an insulating cylindrical sleeve on each of said pins and an array of insulating washers and electrodes, said electrodes having notches at least as wide as the diameter

of the sleeves, with the spacing between the bights of the notches less than the spacing between sleeves, said array including a cathode, positioned by said sleeves, the washers constituting spacers between electrodes and the notches of the electrodes constituting means to prevent undesired shifting of the electrodes on the washers, while yet permitting longitudinal expansion of the cathode, when heating.

2,822,499

CATHODES FOR ELECTRON DISCHARGE DEVICES

Robert T. Lynch, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 17, 1955, Serial No. 488,802
10 Claims. (Cl. 313-346)



1. A high-density radial electron beam producing electrode assembly for magnetrons comprising a pair of aligned longitudinally spaced metallic cathode cylinders including corresponding recesses in adjacent ends defining a cavity, a coating of electron-emissive material on the recessed ends of said metallic cylinders, said ends of the cylinders also defining a restricted circumferential passage communicating between said cavity and the exterior of the cathode cylinders, an anode positioned opposite said restricted circumferential passage, and means for heating said coating to electron-emission temperature.

2,822,500

TRAVELING WAVE ELECTRON DISCHARGE DEVICES

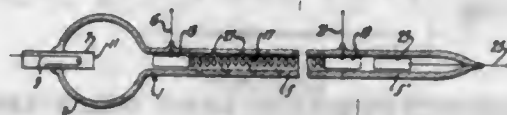
John H. Bryant, Nutley, N. J., assignor to International Telephone and Telegraph Corporation, a corporation of Maryland
Application October 31, 1952, Serial No. 318,060
9 Claims. (Cl. 315-3.5)



1. In a device of the traveling wave tube type which includes means for producing an electron beam for flow along a given path and a radio frequency propagating structure disposed adjacent said path to enable interaction between the electrons of said beam and radio frequency energy propagated along said structure; an electron-optical system disposed concentrically of said path comprising a hollow cylindrical permanent magnet magnetized longitudinally in a manner to produce oppositely polarized poles substantially at the ends of the cylindrical form of said magnet and a thin cylinder of saturable magnetic material disposed concentrically within said magnet and about said path to orient the axis of the developed magnetic field with the path of said beam, said permanent magnet comprising a cylindrical shell having a cross-section tapering from the center toward its ends.

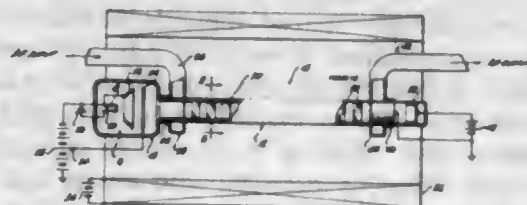
2,822,501
SLOW-WAVE GUIDE FOR TRAVELING WAVE TUBES
 Howard C. Poulter, Palo Alto, Calif., assignor to Research Corporation, New York, N. Y., a corporation of New York

Application January 10, 1955, Serial No. 480,629
 5 Claims. (Cl. 315-3.5)



1. A traveling wave tube comprising an electron gun for generating a beam of electrons, an anode positioned to receive the electrons of said beam, and a slow-wave guide interposed between said electron gun and said anode and surrounding the path of said beam and comprising a helically wound conductor, and a tube of insulating material surrounding and supporting said conductor, the wall of said tube having a single internal generally longitudinal groove formed therein to interrupt its contact with the conductor for regularly spaced and substantially uniform intervals along the length thereof.

2,822,502
SLOW-WAVE STRUCTURE
 Samuel Sensiper, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
 Application April 5, 1955, Serial No. 499,330
 6 Claims. (Cl. 315-3.5)

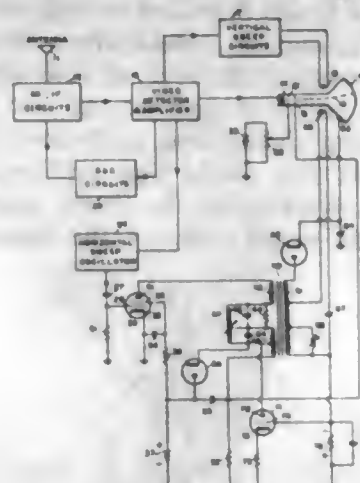


1. In a traveling-wave tube, a substantially unidirectional wave propagation structure comprising a slow-wave structure for propagating electromagnetic waves and having a longitudinal axis, said slow-wave structure including a plurality of conductive rings having apertures disposed in register with each other along said axis, and conductive means disposed between adjacent pairs of said conductive rings connecting said adjacent pairs of said conductive rings alternately at diametrically opposed points, said conductive means lying substantially in a first plane which also includes said axis, and an elongated ferromagnetic ferrite member disposed to at least one side of each of said conductive rings, said ferrite members on said one side of said conductive rings being disposed in a plane parallel to said first plane and each having a predetermined angle of inclination with respect to a plane transverse of said longitudinal axis of said slow-wave structure.

2,822,503
STABILIZED TV SYSTEM
 Edward J. Campbell, Clifton, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
 Application June 1, 1953, Serial No. 358,876
 5 Claims. (Cl. 315-27)

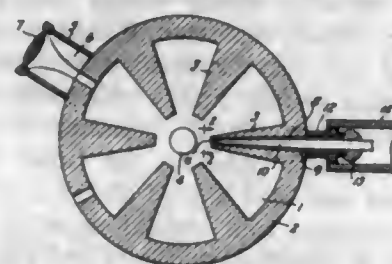
3. A stabilized television deflection system comprising a transformer, a source of deflection signals connected to a first winding of said transformer, a picture display tube having an accelerating anode, said anode connected to a second winding of said transformer and comprising part of a current carrying loop defined by said accelerating anode and said second winding, a stabilizing current control device comprising an amplifier tube having a control

grid and an anode, said amplifier tube anode connected directly to a third winding of said transformer, said control grid connected to said loop and energized by current



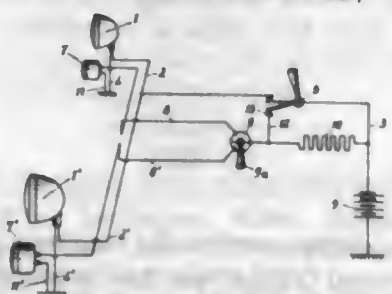
flowing therethrough, said grid controlling current flowing through said amplifier tube inversely with respect to the amount of current drawn by said accelerating anode.

2,822,504
MAGNETRON AMPLIFIER
 Charles V. Litton, Redwood City, Calif., assignor to Litton Industries, Inc.
 Application November 9, 1953, Serial No. 390,971
 3 Claims. (Cl. 315-39)



1. A magnetron comprising an anode having a body portion and a plurality of inwardly extending radial partition walls forming a plurality of resonators, a cathode positioned near the inner ends of said partition walls, and a coupling means for introducing energy into said magnetron to modify the energy developed in said resonators comprising an opening extending from one end through one of said partition walls to the external surface of said anode, the walls of said opening being formed by said one partition wall whereby the only energy transfer opening into said magnetron is at the inner end of said one partition wall.

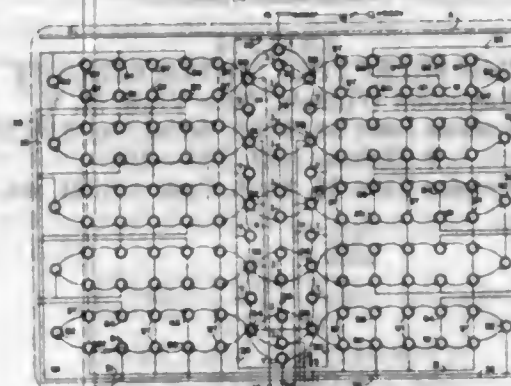
2,822,505
BLINKER DIRECTION INDICATOR SIGNAL, PARTICULARLY FOR MOTOR VEHICLES
 Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
 Application October 2, 1951, Serial No. 249,321
 2 Claims. (Cl. 315-82)



1. A switching arrangement for dimming blinking directional indicator lights for vehicles comprising main

headlights, directional indicator lights, a source of electrical energy, a first circuit connected between said source and said directional indicator lights including blinker switch means and a current reducing resistor, a second circuit connected between said source and said main headlights, a single pole double throw switch in said second circuit with the contact arm thereof permanently connected by a part of said second circuit with said source and one contact of said switch permanently connected by another part of said second circuit with said headlights, a second contact in said switch, and a third circuit interconnecting said second contact with said first circuit intermediate said resistor and said directional indicator lights, whereby the resistor is normally shorted with the contact arm of said switch establishing a connection with said second contact to produce full intensity of the directional indicator lights and wherein the indicator lights are dimmed upon energizing the main headlights by switching the contact arm of said switch over to the first contact thereof.

2,822,506
DECIMAL AND BINARY SELF-COMPLEMENTING GAS TUBE COUNTER
 Edward J. Rabenda, Poughkeepsie, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
 Application November 26, 1954, Serial No. 471,179
 9 Claims. (Cl. 315-84.6)

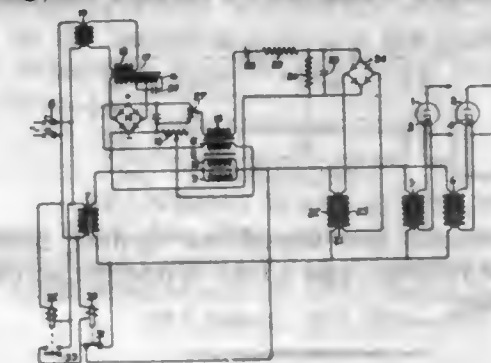


1. A pulse responsive gaseous discharge device of the glow transfer type including ten digit cathodes representative of the digits 0-9 inclusive, ten transfer cathodes located individually between successive digit cathodes, an anode common to all cathodes, means for establishing a glow discharge within said device, means for pulsing said transfer cathodes to thereby cause said glow to advance in a closed path assuming successive digit cathode positions in response to each applied pulse, and selectively operable means for determining in code form the decimal equivalent of a glow established to a digit representing cathode, said latter means including a further group of cathodes arranged in glow transfer relation with each said digit cathode.

2,822,507
REGULATING CIRCUIT FOR ENERGIZING VARIABLE RESISTANCE LOADS
 Marvin J. Mulhern, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
 Application July 18, 1952, Serial No. 299,665
 4 Claims. (Cl. 315-106)

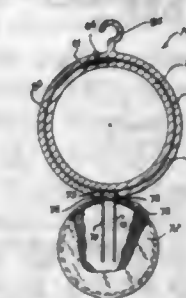
1. In combination, a source of alternating current, a load connected thereto, a saturable reactor having a main winding constructed of two magnetically opposed sections, said winding being in series with said load, a pair of control windings magnetically coupled with both of said sections of said main winding, an energizing circuit independent of said load for supplying controllable direct current to one of said control windings so as to maintain the current to the load at a predetermined value, and circuit means

coupled to said load and responsive to the load voltage for supplying direct current to the other of said control wind-



ings for values of load voltage in excess of a predetermined value.

2,822,508
REMOTE LIGHTING SYSTEM
 Jean Y. Rabette, Bellflower, Calif., assignor of two thirds to Homer C. Compton and R. A. Schaumlöffel, Los Angeles, Calif.
 Application August 1, 1955, Serial No. 525,489
 6 Claims. (Cl. 315-248)



2. A gaseous glow lamp comprising: a nonconducting sealed envelope; a pair of electrodes centrally positioned within said envelope, said electrodes being spaced from each other, each of said electrodes having an end extending from said envelope; a first conductor connected to one of said ends; a second conductor connected to the other of said ends, a portion of said first conductor overlapping a portion of said second conductor; and a dielectric positioned between said overlapping portions.

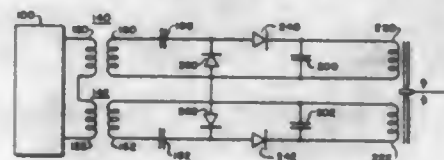
2,822,509
ADHESIVE PLASTER
 David R. M. Harvey, Santa Barbara, Calif.
 Application May 6, 1953, Serial No. 353,344
 1 Claim. (Cl. 317-2)



A non-sparking adhesive plaster comprising, a reel of conducting material connected electrically to ground, a roll of backing tape wound on the reel, said backing tape formed of conducting and non-conducting threads, and a mastic formed with metallic particles interspersed therein deposited on one side of the backing tape.

2,822,510
SERIES RESONANT FREQUENCY DISCRIMINATOR CIRCUIT
 Gerald S. Epstein, New York, N. Y., assignor to the United States of America as represented by the Secretary of the Army
 Application March 3, 1953, Serial No. 340,170
 4 Claims. (Cl. 317-147)
 (Granted under Title 35, U. S. Code (1952), sec. 266)
 1. A series-resonant detector comprising a coil connected in series with a first condenser and a first low im-

pedance rectifier to form a circuit which is series-resonant at a predetermined frequency, a second condenser in

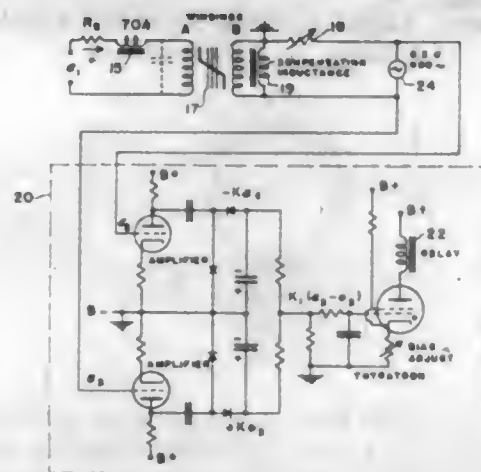


series with a second low impedance rectifier connected across said first rectifier, and a load connected across said second condenser.

2,822,511

MAGNETIC INTEGRATOR

William B. McLean and Jack A. Crawford, China Lake, Calif., assignors to the United States of America as represented by the Secretary of the Navy
Application June 22, 1955, Serial No. 517,407
10 Claims. (Cl. 317-149)
(Granted under Title 35, U. S. Code (1952), sec. 266)

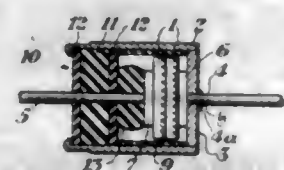


1. A magnetic integrator comprising a saturable reactor core capable of being positively or negatively saturated, a first winding and a second winding around said core, said core adapted initially to be either positively or negatively saturated, means for applying a voltage across said first winding in such a direction as to drive said core from its initial condition, a resistor in series with said second winding, the impedance of said resistor substantially equalling the impedance of said second winding when said core is unsaturated, a source of A. C. voltage in series with said second winding and resistor, and relay means operative when the voltages across said second winding and said resistor are substantially equal.

2,822,512

RECTIFIER ASSEMBLIES

Eric Lionel French, London, England, assignor to Westinghouse Brake and Signal Company, Limited, London, England
Application March 28, 1956, Serial No. 574,527
Claims priority, application Great Britain May 17, 1955
9 Claims. (Cl. 317-234)

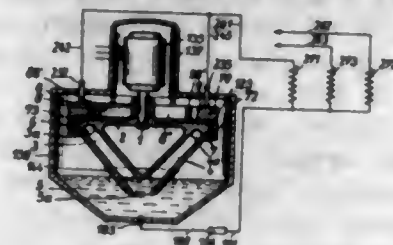


1. A rectifier assembly comprising a metallic case having a closed end, a stack of rectifier elements in said case, means for insulating said stack from said case, means for maintaining the rectifier elements under pressure, a plug for the open end of said case including a resilient washer, means for holding said washer under compression to seal the open end of the case, and means for making circuit connections through said plug to said rectifier stack.

2,822,513

CONVERTING DEVICE

Hellmuth Böhm and Paul Kuhnert, Berlin-Charlottenburg, Germany, assignors to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application July 15, 1953, Serial No. 368,194
Claims priority, application Germany October 8, 1951
18 Claims. (Cl. 321-48)



1. In a converting device, in combination, a plurality of stationary contacts arranged along a circle and separated from one another by gaps; a rotating contact including means for directing a rotating electro-conductive jet stream against said stationary contacts in succession, said jet stream forming a continuous electrically-conductive path between said rotary contact and each of said stationary contacts respectively in succession; and means for imparting a curtain-like shape to said jet stream so as to decrease the resistance of said electrically-conductive path, said curtain-shaped jet stream being forced by centrifugal force into said gaps between said stationary contacts.

2,822,514

TIME SELECTIVE METER CIRCUIT

Raymond Winfield, New York, N. Y.
Application June 14, 1954, Serial No. 436,750
9 Claims. (Cl. 324-20)
(Granted under Title 35, U. S. Code (1952), sec. 266)



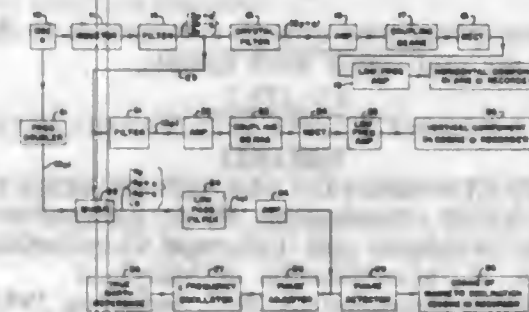
6. A variable delayed gate generating means for a time selective meter circuit comprising a pulse shaping amplifier for connection to a source of a synchronizing start pulse to provide an output pulse with a steep leading edge coincident with the synchronizing start pulse, a bistable multivibrator circuit connected to said amplifier and having settable means for setting said multivibrator to a particular one of its two stable operating conditions whereby after said multivibrator is set and it receives a pulse from said amplifier it generates only one trigger pulse whose leading edge is substantially coincident with the leading edge of the pulse from said amplifier and until said multivibrator is reset it generates no other pulse, an adjustable time-delay multivibrator coupled to said bistable multivibrator circuit for generating a trigger pulse spaced by a predetermined time delay from the leading edge of the trigger pulse generated by said bistable multivibrator circuit, and a fixed-width gate multivibrator coupled to said time-delay multivibrator for generating a gating pulse whose leading edge is substantially coincident with the leading edge of a pulse from said time delay multivibrator for rendering the meter circuit operative during the gating pulse.

2,822,515

SPINNING TYPE MAGNETOMETER

James M. Klaasse, Chevy Chase, Md.
Application July 13, 1955, Serial No. 521,939
12 Claims. (Cl. 324-43)
(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A magnetic field responsive device comprising, exciting coil means of saturable character mounted to be

rotated about a spin axis, means for rotating said coil means at a predetermined rate, an alternating current supply circuit for said coil means, said supply circuit having a current of predetermined frequency and of sufficient amplitude to saturate the coil means on each half cycle whereby a number of harmonics of said frequency are produced and amplitude modulated at said predetermined rate in the exciting coil means output, means for filtering the exciting coil means output to pass a predetermined harmonic component so that the filtered output is a carrier frequency equal to said predetermined harmonic which is modulated at a rate corre-

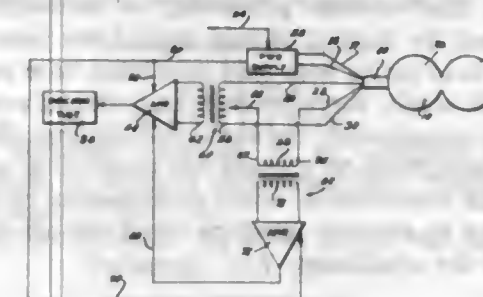


sponding to said predetermined rate, first circuit means including filtering means and unidirectional translating means responsive to a predetermined sideband of said filtered output for deriving a signal correlative to the horizontal component of the earth's magnetic field, second circuit means including filtering means and unidirectional translating means responsive to said carrier frequency for deriving a signal correlative to the vertical component of the earth's magnetic field, and means responsive to the outputs of said first and second circuit means for giving indications proportional to the horizontal and vertical components, respectively, of the earth's magnetic field.

2,822,516

ELECTRIC COIL TESTER

Roy K. Raynes, Ocala, Fla.
Application May 27, 1953, Serial No. 357,660
5 Claims. (Cl. 324-51)



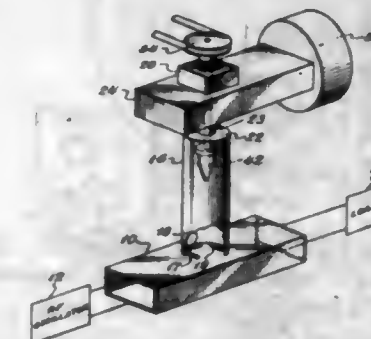
1. Apparatus for testing an electric coil comprising inducing means and detecting means adapted to be placed in operative sympathetic magnetic relation to a coil under test, said inducing means generating at one location with respect to the coil an electromagnetic field for the purpose of inducing in the coil a current, said detecting means detecting at another location with respect to the coil whether or not a current has actually been induced in the coil, said detecting means having a center-tapped winding, a first transformer having a center-tapped winding, the outside connections of said winding being connected to the outside connections of the center-tapped winding, a second transformer having a primary connected in series between the center taps of the center-tapped detecting means winding and of the primary of the first transformer, a first amplifier connected to the secondary of the first transformer, indicating means connected to the first amplifier for indicating whether or not the coil is short-circuited, and a second amplifier connected to the secondary of said second transformer, the

output of said second amplifier being effective to influence the indicating means whereby to avoid spurious indications on the indicating means in the event of a non-uniform linkage of the detecting means winding with the coil alone.

2,822,517

STANDING WAVE DETECTOR

Seymour B. Cohn, Palo Alto, Calif., assignor to The Sperry Rand Corporation, a corporation of Delaware
Application March 18, 1954, Serial No. 417,074
20 Claims. (Cl. 324-58)

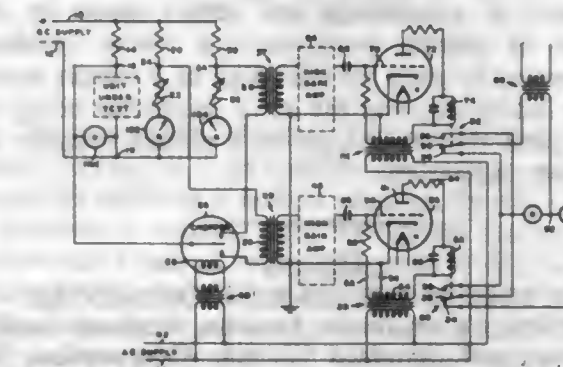


11. A first wave guide adapted to transmit electromagnetic energy in the $TE_{1,0}$ mode, a circular wave guide one end of which is coupled to said first wave guide by a coupling means arranged to convert energy in the $TE_{1,0}$ mode into circularly polarized energy in the $TE_{1,1}$ mode, the other end of said circular wave guide terminating in a coaxial line including a rotatable shaft as an inner conductor, said coaxial line extending along the axis of said circular wave guide and being electrically connected to an output means extending substantially perpendicularly to the axis of said circular wave guide, one end of said shaft extending into said circular wave guide and terminating in a radial conducting member, and lossy planar means mounted adjacent said radial member and mounted for rotation with said shaft so that the plane of said lossy material includes the axis of said shaft and is perpendicular to said radial member, the other end of said shaft extending externally of said coaxial means and said output means and terminating in rotating means.

2,822,518

TESTING CIRCUIT

Archie D. Jordan, Emporium, Pa., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
Application November 21, 1956, Serial No. 623,617
6 Claims. (Cl. 324-62)

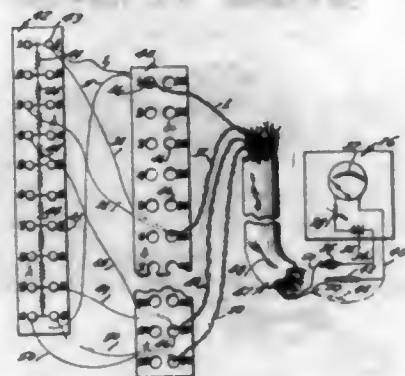


1. A testing equipment comprising a direct current supply line comprising a pair of wires, a voltage dropping element connected to one wire and to a terminal, the latter forming a voltage reference point, a second terminal connected to the other wire of the pair, said terminals being provided for connection to the terminals of a unit to be placed under test, a pair of series connected voltage dropping devices connected across the wires, the connection between said devices forming a second voltage reference point, a pulse forming network including means

for periodically making and breaking the circuit connected across the two reference points, and a load circuit forming the output of the pulse forming network.

2,822,519 IDENTIFIER AND TESTER FOR ELECTRICAL CIRCUITS

Freland M. Murphy, Houston, Tex.
Application February 9, 1954, Serial No. 409,141
1 Claim. (Cl. 324-66)



In combination with a plurality of twisted pair conductors, a conductor identifier and tester for use by a person where the conductors are to be tested in pairs, and wherein each conductor is paired with an easily identifiable mate by being twisted together with the mate for the entire length of the cable, each pair consisting of one insulated conductor that bears an identifying mark, and one insulated conductor that is plain; said circuit identifier tester comprising a terminal board including a plurality of binding posts arranged in spaced parallel relation with respect to each other, said binding posts projecting outwardly from said terminal board, numerals arranged alongside said posts, a resistance network arranged on said terminal board and embodying a plurality of resistors connected between said posts, a tag board spaced from said terminal board and provided with a plurality of openings, there being numerals arranged alongside said openings, said openings adapted to have individual pairs of conductors extended therethrough in random fashion, and said conductors being connected to said binding posts; a meter unit including a source of current and a variable resistance, said meter unit further including a knob for controlling said variable resistance, and a dial mechanism; and a test clip and test pick connected to said conductors and to said meter unit, whereby said tester can be used for testing and determining the circuit numbers of pairs of conductors and cables made up of a multiplicity of paired conductors, a tracer conductor being connected to yield the tens digit of a circuit number as a meter indication, and the plain conductor being connected to yield the units digit of a circuit number as a further meter indication.

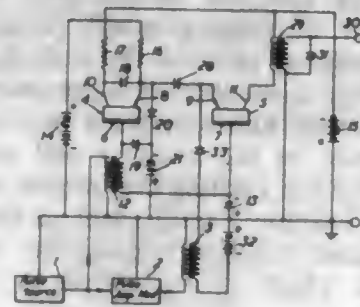
2,822,520

ELECTRIC PULSE TIME MODULATORS

Kenneth William Cattermole, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application March 23, 1955, Serial No. 496,305
Claims priority, application Great Britain May 14, 1954
7 Claims. (Cl. 332-1)

1. An electric pulse time position modulating arrangement comprising means for generating a train of short, regularly repeated, amplitude modulated sample pulses respectively representing samples of the signal waves of one or more communication channels, means for storing in a reactive device energy corresponding to the magnitude of the signal wave sample represented by each sample pulse, and means for applying the said energy to control

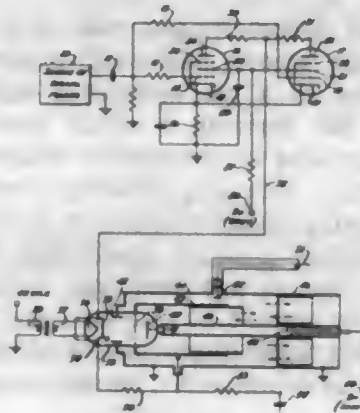
the time of generation of an output position-modulated pulse, whose time position with respect to one of a series



of regularly spaced time instants corresponds to the magnitude of the said signal wave sample.

2,822,521

GRID NETWORK FOR PULSED OSCILLATOR
Frank T. Littell, Bergenfield, N. J., assignor to International Telephone and Telegraph Corporation, New York, N. Y., a corporation of Maryland
Application December 23, 1953, Serial No. 399,955
1 Claim. (Cl. 332-9)

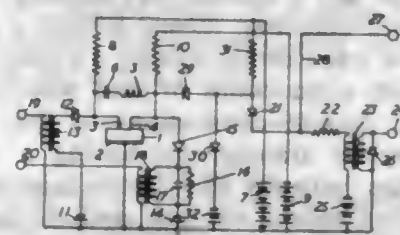


A pulse modulator-oscillator system, comprising a grid-controlled modulator tube, means to apply a modulation pulse to the input of said modulator tube, a grid-controlled oscillator tube having its cathode driven by the output of said modulator tube, a tuning device for said oscillator, said system producing a substantial capacitance across the output of said modulator tube which capacitance is in series with said oscillator tube and so as to be charged solely therethrough and means comprising a resistance-capacitance network connecting the grid of said oscillator tube to ground for producing rapid charging of said capacitance upon termination of the modulating pulse to thereby produce rapid cut-off of the oscillations of the oscillator.

2,822,522

ELECTRIC PULSE MODULATORS

John Clifford Price, Aldwych, London, England, assignor to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application May 12, 1955, Serial No. 507,961
Claims priority, application Great Britain June 8, 1954
12 Claims. (Cl. 332-9)



1. A circuit for generating an electric pulse of controllable duration comprising an initially blocked crystal triode having emitter, collector and base electrodes in contact with a semiconductor body, and being of the kind

in which, if the emitter contact is unblocked for a period after being initially blocked, the resulting increase in collector current persists after the end of the said period before the crystal reverts to its blocked stage, said persistence depending upon the intensity of the unblocking, means for unblocking the crystal triode for a given period at a given intensity to produce an increase in collector current, means for varying the potential of the collector electrode during the period of increase of the collector current to correspondingly vary the intensity of said unblocking and thus to vary the time during which the increase persists, and means for deriving an output pulse from the collector electrode.

2,822,523

SEMICONDUCTOR ANGLE MODULATOR CIRCUIT

Pier L. Bargellini, Morton, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application October 31, 1956, Serial No. 619,506
5 Claims. (Cl. 332-16)



1. An angle modulator circuit comprising in combination, a semiconductor device having a body of semiconductor material, an emitter electrode and a collector electrode located on said body, and a plurality of ohmic base contacts on said body symmetrically located equidistant about said emitter electrode; means connected with said base contacts for applying carrier signals of the same frequency and suitable phase difference to said contacts for establishing a rotating electrical field within said semiconductor body; means for applying a modulation signal to said base contacts; and means connected with said device for deriving an angle-modulated output signal from said collector electrode having a center frequency equal to the frequency of said carrier signals.

2,822,524

WAVE GUIDE

Robert L. Williston, Milford, N. H., assignor, by mesne assignments, to Sanders Associates, Inc., Nashua, N. H., a corporation of Delaware
Application October 25, 1954, Serial No. 464,415
2 Claims. (Cl. 333-6)

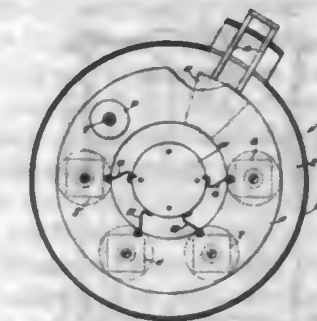


1. A high frequency wave guide transmission line having a conductive pattern of such weak mechanical structure that it is incapable of self-maintaining its configuration and having terminations providing an irregular pattern comprising: a dielectric material formed in a predetermined irregular configuration; conductive material chemically deposited on selected surfaces surrounding said dielectric material to provide a continuous boundary and forming a wave guide of irregular shape and having a pattern of irregular terminations; and a resin transparent to visible light encapsulating said wave guide to provide said wave guide component in a regular plane configuration having substantial rigidity and enabling ready location of the wave guide termination as well as adapting the component for assembly as a modular component.

2,822,525

HIGH FREQUENCY HYBRID CIRCUIT

Anthony M. Casabona, North White Plains, N. Y., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application October 2, 1953, Serial No. 383,777
11 Claims. (Cl. 333-11)

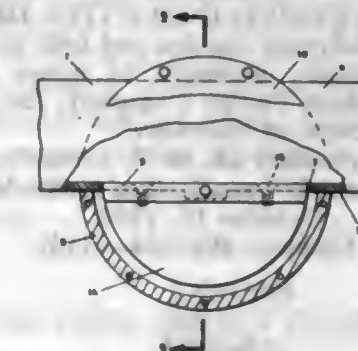


1. A high frequency hybrid circuit for operation over a predetermined frequency range comprising a planar conductor, a loop conductor disposed above said planar conductor, a plurality of coaxial transmission lines each having an inner conductor coupled to said loop conductor and an outer conductor coupled to said planar conductor, said transmission lines being disposed in such a manner as to divide said loop conductor into a plurality of segments, one of said segments being of a one-half wavelength greater length at the highest operating frequency of said predetermined frequency range than the other of said segments and a conductor coupled to said planar conductor and located in spaced relation centrally of said loop conductor.

2,822,526

WAVEGUIDE SHUTTER

Bert E. Wallace, Towson, and William A. Scanga, Baltimore, Md., assignors to Aircraft Armaments, Inc., Baltimore, Md., a corporation of Maryland
Application March 24, 1954, Serial No. 418,334
11 Claims. (Cl. 333-98)

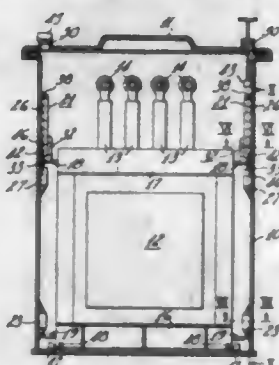


1. A waveguide shutter for attenuating microwave energy flowing in a waveguide comprising, a rectangular waveguide defining a hollow passage for the transmission of microwave energy, said waveguide having a pair of narrow and a pair of wide walls, one of said narrow walls having a segment thereof rotatable relative to the waveguide about an axis located medially of the segment and arranged generally parallel with said narrow wall and transversely of said waveguide, said segment having an inner and outer surface and a length no greater than substantially twice the wide dimension of said waveguide whereby rotation of the segment is unobstructed by said waveguide, a semicircular block of microwave absorbing material secured at its base to the outer surface of the waveguide segment, the thickness of said semicircular block being substantially equal to the width of said narrow walls, and means connecting with said waveguide segment for rotating the latter to insert said absorbing material into said waveguide for attenuating the microwave energy flowing therein.

2,822,527

SLIDING GUIDE ASSEMBLY HAVING A MOVABLE SEGMENT

William M. Terry, Jr., Pittsburgh, Pa., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application September 17, 1954, Serial No. 456,660
4 Claims. (Cl. 336-92)

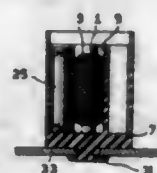


1. A stationary induction apparatus comprising in combination a magnetic core member, a tank member for enclosing said core member, and guide means for accurately positioning said core member in said tank member, said guide means comprising a vertical guide rail attached to one of said members, and first and second guide plates attached to the other of said members, said plates having surfaces for engaging said rail to guide said core member centrally of said tank member while being lowered to its final position within said tank member, said guide rail having a plurality of sections spaced vertically to prevent contact between said plates and said rail when said core member is in said final position, one of said sections being movable vertically into engagement with one of said plates to fix said core member with respect to said tank member during movement of said apparatus and movable out of engagement with said one plate when said apparatus is in place to thereby isolate said core member from the sides of said tank member.

2,822,528

PREMAGNETIZED INDUCTIVE DEVICE

Peter Johannes Hubertus Janssen and Jelle de Vries, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application September 28, 1955, Serial No. 537,177
Claims priority, application Netherlands October 15, 1954
2 Claims. (Cl. 336-110)



1. An inductive device comprising a supporting member of non-magnetic, insulating material and having a central receiving aperture and a plurality of further receiving apertures substantially surrounding said central aperture, an end of each of the apertures being exposed to the outside, a rod-like core and coil mounted on said core, said core and coil being mounted in said central aperture, a plurality of rod-like permanent magnets each detachably secured in one of said further apertures, said rod-like magnets being magnetized all in the same direction and extending substantially parallel to said rod-like core, said permanent magnets being provided in quantities and in a distribution relative to the core at which the latter attains a predetermined degree of premagnetization, and means for mounting said supporting member onto a base.

2,822,529

ELECTRICAL CONTACT WITH RESILIENT ARMS

Clarence Willams Heath, Bleasby, England, assignor to Clinch Manufacturing Corporation, Chicago, Ill., a corporation of Illinois
Application August 16, 1954, Serial No. 450,029
2 Claims. (Cl. 339-258)

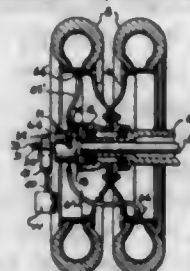


1. An electrical contact comprising a pair of complementary sleeve-like members, each comprising a body having a series of longitudinally spaced resilient arms extending laterally from opposite side edges, one of said sleeve-like portions being nested within the other in such a manner that the resilient arms of the two members are in overlapping alignment with their free ends defining a slot into which a contact blade is adapted to be inserted and resiliently engaged by said arms, the body of each member being provided with an axially disposed extension, said extensions being arranged in overlapping abutment and having inter-engaging portions for securing said extensions in assembly.

2,822,530

TIRE PRESSURE INDICATING SYSTEM

Geter J. Roten, Creston, N. C.
Application February 17, 1956, Serial No. 566,271
7 Claims. (Cl. 340-58)



1. A tire pressure indicating device adapted to be positioned on the hub of a dual wheeled vehicle having pairs of pneumatic tires comprising a housing secured to the hub of said vehicle, a pair of opposed pressure operated switches positioned in said housing, conduit means communicatively connecting each of said switches to the pressure in a different tire of a pair of tires, each of said pressure operated switches comprising a flexible diaphragm, a stationary contact, a movable contact adapted to be normally held out of engagement with the stationary contact by the force exerted on said diaphragm by the pressure in one of said tires, means contacting said diaphragm and exerting a force thereon in a direction opposite to the force exerted thereon by the pressure in said tire to insure the closing of the switch upon the pressure in the tire falling below a predetermined amount, electrical warning means positioned in the cab of the vehicle, and means electrically connecting said warning means with each of said switches whereby upon the pressure in any one of said tires dropping below a predetermined amount, the corresponding switch will be closed to energize the electrical warning means.

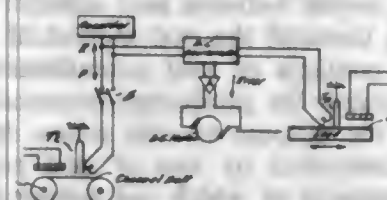
2,822,531

PROGRAMMING CONTROL SYSTEM

Robert P. Carroll, Chicago, Ill.
Application January 26, 1954, Serial No. 406,219
8 Claims. (Cl. 340-174)

1. A programming control system, comprising an oscillating command transmitter, a movable magnetic channel

magnetically coupled to said command transmitter whereby the output signal of said transmitter uniquely defines the relative position of said transmitter with respect to said channel, a load whose movements are to be controlled by the command transmitter, a second magnetic channel mechanically coupled to said load, an oscillating position transmitter magnetically coupled to said second

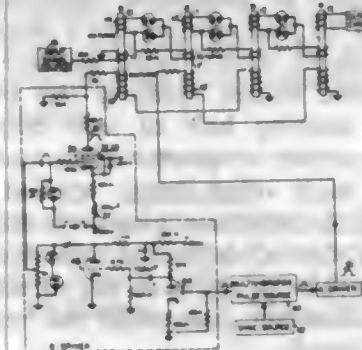


channel whereby the output signal of said transmitter uniquely defines the relative position of said load with respect to said position transmitter, a motor for driving said load to a commanded position, and a discriminator connected to said control and position transmitter and said motor whereby the discriminator output energizes said motor so that load is driven to the command position.

2,822,532

MAGNETIC MEMORY STORAGE CIRCUITS AND APPARATUS

Lyle G. Thompson, Broomall, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application April 29, 1954, Serial No. 426,350
14 Claims. (Cl. 340-174)

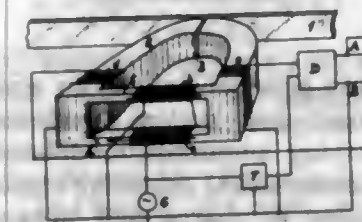


2. Magnetic memory apparatus comprising first and second magnetic binary storage cores, means including a receiving winding on said first core for storing a baud therein, shift and transmitting windings on said first core, a receiving winding on said second core, connections including a rectifier connecting said transmitting winding to said receiving winding on said second core, and means for generating and supplying a rounded shift current pulse to said shift winding for causing said baud to be transferred to said second core.

2,822,533

DEVICE FOR READING MAGNETICALLY RECORDED MEMORY ELEMENTS

Simon Duinker, Derk Kleis, and Willem Klaas Westmijze, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application July 8, 1954, Serial No. 442,086
Claims priority, application Netherlands July 15, 1953
3 Claims. (Cl. 340-174)



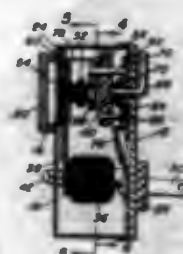
1. A magnetic device for interaction with a magnetic medium, comprising a magnetic circuit, said circuit in-

cluding two substantially magnetically parallel and identical branches each constituted of ferromagnetic material having a non-linear magnetization characteristic, and a ferromagnetic portion including a gap and common to both of said branches, a winding coupled to each of said branches and wound to produce fluxes in opposite directions through said branches whereby these fluxes tend to cancel one another in the common ferromagnetic portion; a source of alternating current connected to said windings on the branches; output means coupled to said circuit for deriving an output voltage therefrom dependent upon the flux condition of the common ferromagnetic portion; a winding coupled to said common ferromagnetic portion; and means coupled to said output means and to said winding on said common ferromagnetic portion for feeding back a portion of the output voltage to the magnetic circuit to produce a flux therein, the flux produced by said fed-back voltage and that produced by interaction between the gap and the magnetic medium being in additive relationship.

2,822,534

FIRE ALARM

Sidney G. Miller, Moosup, Conn., assignor of fifty percent to Frank R. Odum, Hartford, Conn.
Application September 16, 1955, Serial No. 534,637
7 Claims. (Cl. 340-227)

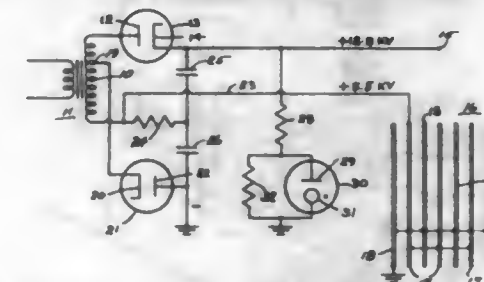


1. A fire alarm comprising a housing having a base plate, a pair of contact prongs extending from said base plate for connection to an electric outlet to support and electrically energize said fire alarm, a coil electrically connected to one of said prongs, a vibrator actuated by said coil, spaced support studs carrying said coil, a dial plate carried by said studs, a temperature responsive member carried by said dial plate and having a contact brush associated therewith electrically connected to said coil, and an adjustable contact carried by said base plate, said adjustable contact being electrically connected to the other of said pair of prongs and being engageable by said contact brush.

2,822,535

HIGH VOLTAGE, DIRECT CURRENT, POWER PACKS

Arnold C. Fields, Medfield, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 1, 1956, Serial No. 613,298
2 Claims. (Cl. 340-252)



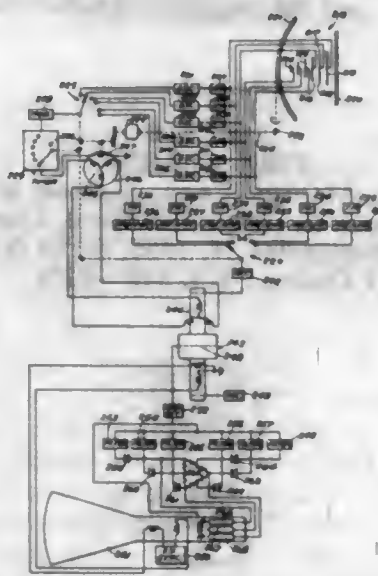
1. A voltage-doubler circuit comprising a pair of half-wave rectifiers having cathodes and anodes, a pair of capacitors connected in series to the anode of one of said rectifiers and to the cathode of the other of said rectifiers, a transformer secondary winding connected at one end

to said anode of said one rectifier, said winding having a tap connected to said cathode of said other rectifier, a surge resistor connected at one end to the other end of said winding and at its other end to the junction of said capacitors, a high voltage D. C. output connection connected to said cathode of said one rectifier, an intermediate voltage D. C. output connection connected to said one end of said resistor, and a negative output connection connected to said anode of said other rectifier.

2,822,536

METEOROLOGICAL RADAR

Peter C. Sandretto, East Orange, N. J., assignor to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application December 31, 1954, Serial No. 479,087
8 Claims. (Cl. 343-11)

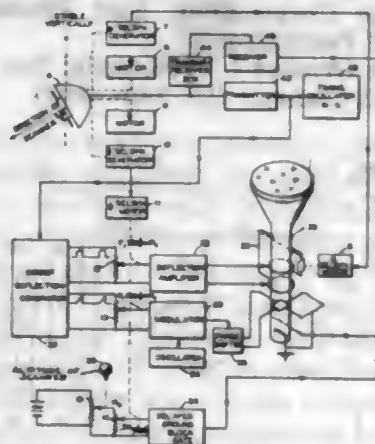


1. A radar system to detect at least one of a plurality of targets each reflecting energy at a preferential frequency comprising a plurality of signal sources each at a different frequency, means to transmit said plurality of frequencies, receiving means for detecting the reflected signals from at least one of said targets and means for deriving information signals representative of said targets from said detected signals in accordance with the frequency of said detected signals.

2,822,537

COMMAND RADAR

Everhard H. B. Bartelink, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 29, 1945, Serial No. 631,741
7 Claims. (Cl. 343-11)



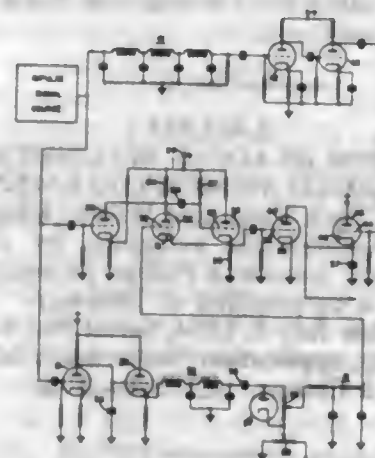
1. In a radar system the combination of a spiral scan antenna, stabilized vertically, a motor for driving said antenna in azimuth, a plan position indicator including a cathode ray tube having an intensifier grid, deflection

plates, a deflection coil and a yoke, an azimuth selsyn system between said spiral scan antenna and the deflection yoke of said plan position indicator for the purpose of rotating the yoke of said plan position indicator in synchronization with the rotation of said spiral scan antenna, a motor for driving said spiral scan antenna in a nodding motion simultaneous with the azimuth rotation of said antenna, two potentiometers having rotary sliding contacts, a selsyn system between said antenna and said potentiometers to transmit the nod motion of said antenna to said rotary contacts of said potentiometers, a sweep deflection generator for producing trapezoidal and sawtooth voltage, the outputs of said sweep deflection generator being controlled by two of said potentiometers, the movable contacts of which are actuated by said elevation selsyn system, said potentiometer controlling said trapezoidal voltage from said sweep deflection generator to provide from said trapezoidal voltage output of said sweep deflection generator a voltage varying as the product of the sine of the angle of elevation and the slant range to the target, a deflection amplifier, said varying trapezoidal voltage being applied to said deflection amplifier, the output of said deflection amplifier being applied to the yoke of said plan position indicator for controlling the sweep of the electron beam of said plan position indicator cathode ray tube, said potentiometer controlling said sawtooth voltage from said sweep deflection generator to provide from said sawtooth voltage a voltage varying as the product of the cosine of the angle of elevation and said slant range to said target, a modulator, an oscillator, said last mentioned varying voltage being used to amplitude modulate the output of said oscillator in said modulator, a phase shifter, said amplitude modulated output being applied to said phase shifter, said phase shifter splitting the output of said modulator and shifting half of said output a quarter cycle, the two outputs a quarter cycle out of phase relationship with each other being applied to the horizontal and vertical deflection plates of said cathode ray tube for the purpose of deflecting said electron beam of said cathode ray tube to show on the screen of said tube a circle whose diameter represents the relative altitude of said target aircraft.

2,822,538

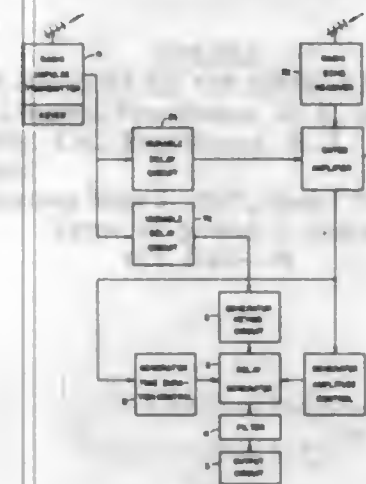
PULSE POWER CONTROL

John B. Trevor, Jr., New York, N. Y.
Application November 5, 1945, Serial No. 626,868
4 Claims. (Cl. 343-17.1)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. An automatic gain control for an amplitude modulated pulse transmission system comprising an input channel for receiving amplitude modulated signals, potential storage means, means operative responsive to the input channel signal to charge said storage means proportional to an input channel pulse amplitude, relay means operative to discharge said storage means at a

variable time after said charging occurs, relay control means responsive to the input channel signal for controlling said variable time after said storage means is charged, said variable time being inversely proportional to the average power of said received pulse, and an output circuit fed by the potential storage means.

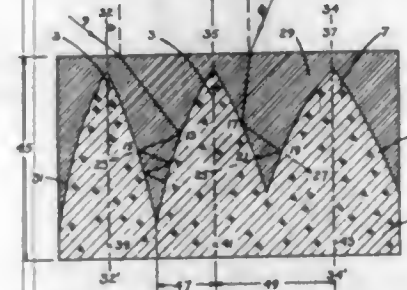


2. In combination, a radio pulse transmitter, a radio echo receiver adapted for reception of amplitude modulated pulse signals, potential storage means, means operative responsive to the receiver to charge said storage means proportional to a received pulse amplitude, relay means operative to discharge said storage means at a variable time after said charging occurs, relay control means responsive to the receiver signal for controlling said variable time after said storage means is charged, said variable time being inversely proportional to the average power of said received pulse, and an output channel fed by the potential storage means.

2,822,539

MICROWAVE RADIATION ABSORBERS

Edward B. McMillan, Ipswich, Mass.
Application June 6, 1952, Serial No. 292,089
19 Claims. (Cl. 343-18)



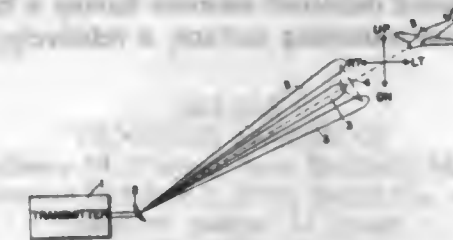
1. A microwave-radiation absorber comprising a sub-surface of sloped radiation-absorbing bodies of electrical-energy-absorbing dielectric material, said bodies sloping toward the direction of the source of incoming radiation, the angles of slope of surfaces of said bodies toward said direction of source of radiation being selected to divert reflected waves away from the source of said radiation, and an outer surface of impedance-matching material surrounding said bodies and presenting a surface into which the radiation enters more easily than into said bodies, whereby the reflectivity of said radiation-absorbing bodies is reduced.

2,822,540

AIRCRAFT INSTRUMENT LANDING SYSTEM
Jesse L. Butler, Nashua, N. H., assignor, by mesne assignments, to Sanders Associates, Inc., Nashua, N. H., a corporation of Delaware
Application March 17, 1955, Serial No. 494,911
14 Claims. (Cl. 343-108)

1. A radio control apparatus, comprising: a transmitting means having a plurality of radiating members

adapted sequentially to radiate at least three plane-polarized beams of high frequency electromagnetic energy characterized by electric vectors mutually so oriented at angles as to provide a static reference coordinate system having at least one pre-selected control path; a receiver responsive

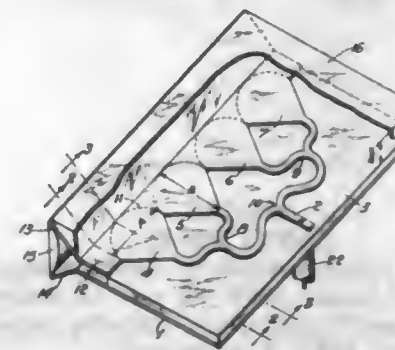


to said electromagnetic energy; and a polarization discriminator coupled to said receiver and adapted, in response to said polarized electromagnetic energy, to develop an error signal having an amplitude varying in accordance with the resultant polarization of said beams.

2,822,541

LENS ANTENNA SYSTEM

William Sichak, Lyndhurst, and Edwin P. Westbrook, Nutley, N. J., assignors to International Telephone and Telegraph Corporation, Nutley, N. J., a corporation of Maryland
Application December 10, 1954, Serial No. 474,359
14 Claims. (Cl. 343-783)

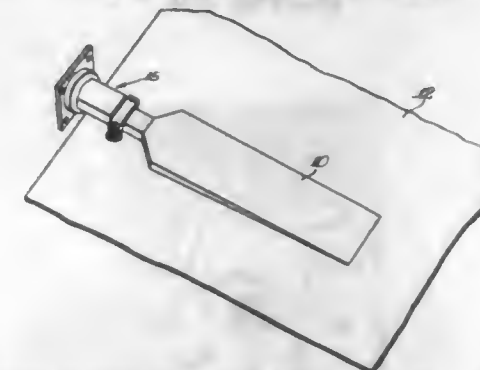


1. A lens antenna for radio frequency waves comprising a waveguide having first and second strip conductors and a layer of dielectric material disposing said conductors in parallel spaced relation, said first conductor being wider than said second conductor to present thereto a planar conducting surface for propagation of radio frequency energy therealong in a mode approximating the TEM mode, said second conductor being flared adjacent the end thereof in a plane parallel to said planar surface and said layer of dielectric being terminated adjacent said flared portion with its forward edge arcuately shaped in a plane parallel to said planar surface to produce a focusing effect on radio frequency energy propagated therethrough.

2,822,542

DIRECTIVE ANTENNA

Frank E. Butterfield, Mountain View, Calif., assignor to Motorola, Inc., Chicago, Ill., a corporation of Illinois
Application October 18, 1954, Serial No. 462,893
8 Claims. (Cl. 343-785)



1. Wave signal antenna apparatus for transferring of high frequency electromagnetic wave signals in a given

relation with respect to a selected surface such as a vehicle body, said apparatus including in combination, an electrically conductive mounting surface, wave signal coupling means having an output portion for conducting high frequency electromagnetic wave signals to be transferred, and an elongated dielectric member having a base section secured to said mounting surface, a relatively thick coupling portion engaging said output portion of said wave signal coupling means for deriving wave signals therefrom, and a transfer portion exposed to free space and tapered toward said mounting surface, whereby wave signals may be transferred by said dielectric member with maximum transfer substantially tangent to said mounting surface.

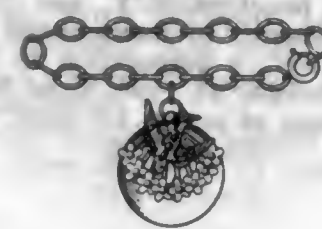
DESIGNS

FEBRUARY 4, 1958

182,012

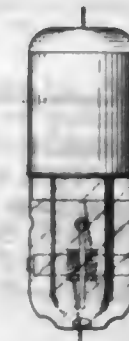
CHARM BRACELET OR SIMILAR ARTICLE
Leonard R. Abrams, Providence, R. I., assignor to Arden Jewelry Mfg. Co., Providence, R. I., a corporation of Rhode Island

Application May 2, 1957, Serial No. 45,972
Term of patent 7 years
(Cl. D45-4)



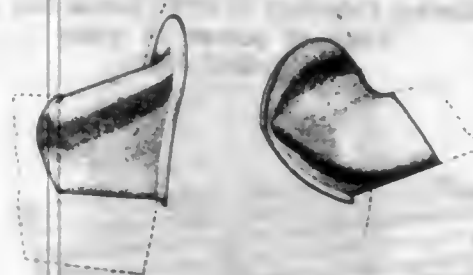
182,013

CASTING FLOAT UNIT
Cornelius Albritton, Houston, Tex.
Application December 16, 1955, Serial No. 39,359
Term of patent 14 years
(Cl. D31-4)



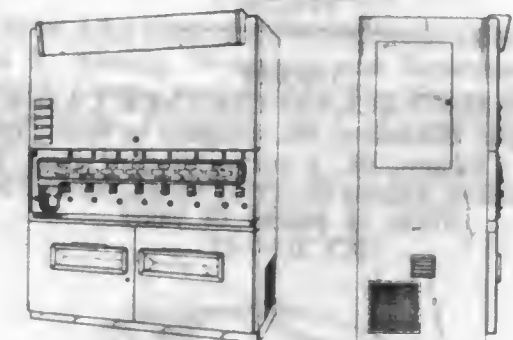
182,014

WING-FUSELAGE FAIRING
Walter T. Brownell, Mount Prospect, Ill.
Application February 1, 1956, Serial No. 39,989
Term of patent 14 years
(Cl. D71-1)



182,015

VENDING MACHINE
Anthony M. Caruso, New Bedford, Mass.
Application October 5, 1956, Serial No. 43,245
Term of patent 14 years
(Cl. D52-3)



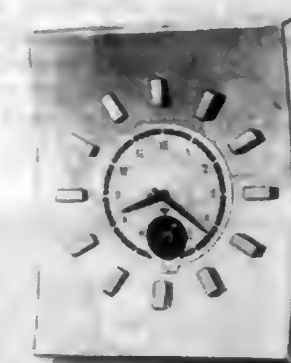
182,016

HAIR COMB
John Denman Dean, Welwyn Garden City, England
Application May 31, 1956, Serial No. 41,712
Claims priority, application Great Britain
December 1, 1955
Term of patent 14 years
(Cl. D86-8)

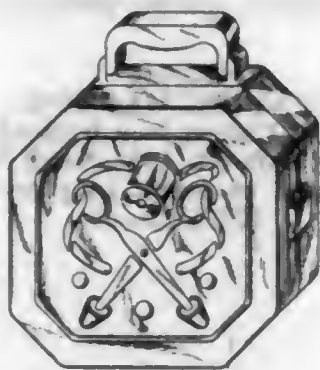


182,017

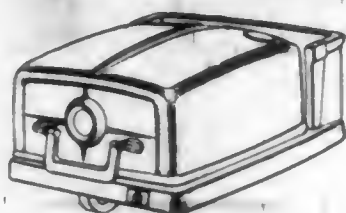
COMBINED TEMPERATURE CONTROL PANEL AND CLOCK
Henry Dreyfuss, South Pasadena, Calif., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application November 10, 1955, Serial No. 38,823
Term of patent 14 years
(Cl. D52-7)



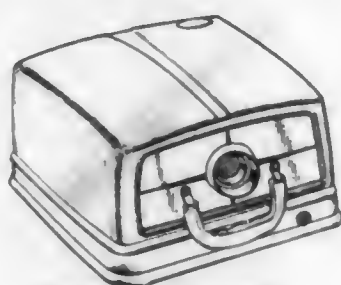
182,018
SEWING ACCESSORY CARRYING CASE
Cecile B. Edwards, Los Angeles, Calif.
Application June 17, 1957, Serial No. 46,614
Term of patent 14 years
(Cl. D87-5)



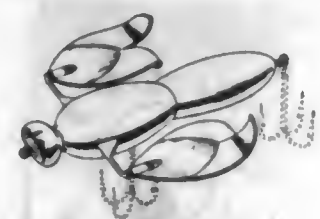
182,019
PORTABLE VACUUM CLEANER CASING
Philip S. Egan, Glenview, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application August 26, 1957, Serial No. 47,500
Term of patent 14 years
(Cl. D9-2)



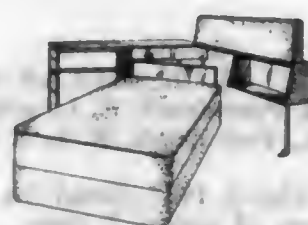
182,020
PORTABLE VACUUM CLEANER CASING
Philip S. Egan, Glenview, Ill., assignor to Sears, Roebuck and Co., Chicago, Ill., a corporation of New York
Application August 26, 1957, Serial No. 47,501
Term of patent 14 years
(Cl. D9-2)



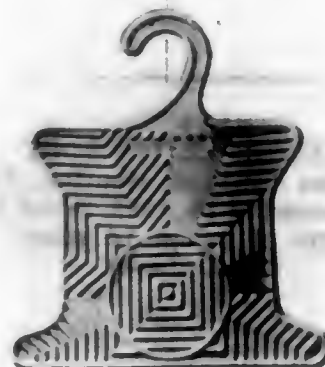
182,021
FISHING LURE
George E. Elrod and Vern E. Wood, Tucson, Ariz.
Application October 30, 1956, Serial No. 43,583
Term of patent 14 years
(Cl. D31-4)



182,022
COMBINED SOFA BED, TABLE, AND DESK
Louis Elliott Frey, Los Angeles, Calif.
Application July 22, 1957, Serial No. 47,033
Term of patent 14 years
(Cl. D5-4)



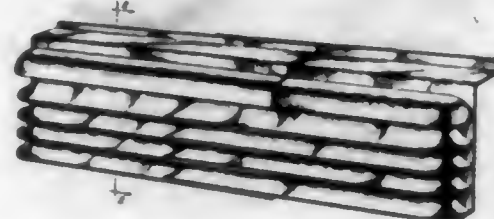
182,023
CLOTHES HANGER
Sydney H. Gleich, Brooklyn, N. Y., and Marc S. Landau, Dover, Del., assignors to International Latex Corporation, Dover, Del., a corporation of Delaware
Application October 31, 1956, Serial No. 43,605
Term of patent 14 years
(Cl. D80-8)



182,024
BAR STOOL OR SIMILAR ARTICLE
Harry R. Greenberg, Lake Success, N. Y.
Application July 19, 1957, Serial No. 46,993
Term of patent 7 years
(Cl. D15-8)



182,025
WINDOW VENTILATOR
Pauline Groleau, née Gagnon, Three Rivers, Quebec, Canada
Application February 5, 1957, Serial No. 44,760
Term of patent 14 years
(Cl. D62-4)



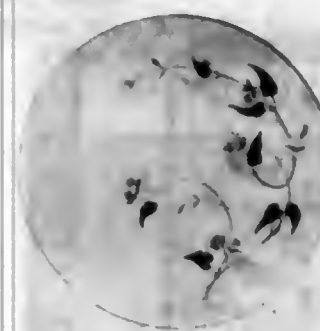
182,026
ABRADING TOOL OR SIMILAR ARTICLE
Leonard Garth Huxtable, New York, N. Y., assignor to Millers Falls Company, Greenfield, Mass., a corporation of Massachusetts
Application May 31, 1957, Serial No. 46,424
Term of patent 14 years
(Cl. D37-1)



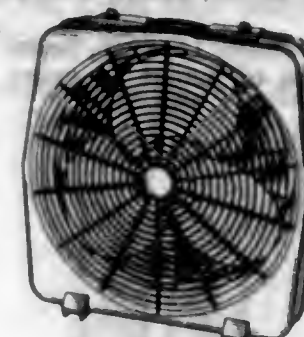
182,027
ABRADING TOOL OR SIMILAR ARTICLE
Leonard Garth Huxtable, New York, N. Y., assignor to Millers Falls Company, Greenfield, Mass., a corporation of Massachusetts
Application May 31, 1957, Serial No. 46,425
Term of patent 14 years
(Cl. D37-1)



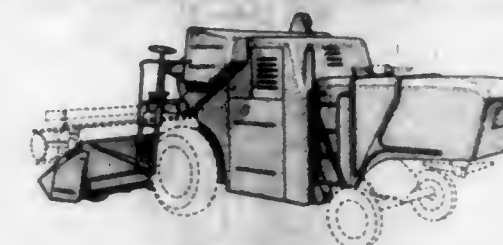
182,028
PLATE OR SIMILAR ARTICLE
Takeshi Inoue, Atsuta-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York
Application January 13, 1956, Serial No. 39,727
Term of patent 7 years
(Cl. D44-15)



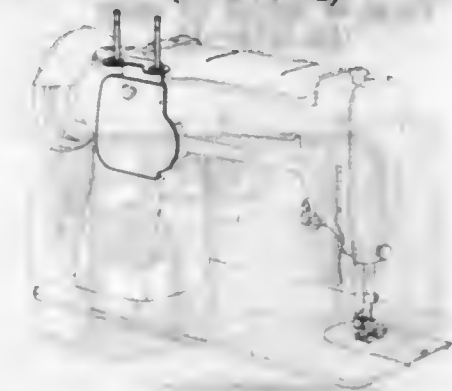
182,029
FAN HOUSING
Harold L. Kirk, Indianapolis, Ind., assignor to Meier Electric and Machine Company, Inc., Indianapolis, Ind., a corporation
Application December 3, 1956, Serial No. 44,050
Term of patent 7 years
(Cl. D26-7)



182,030
SELF-PROPELLED COMBINE
Herman G. Klemm, Birmingham, Mich., assignor to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland
Application October 18, 1956, Serial No. 43,395
Term of patent 14 years
(Cl. D40-1)



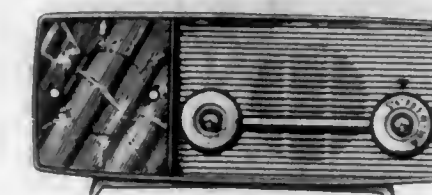
182,031
COVER PLATE FOR A SEWING MACHINE FRAME
Edward L. Koenig, Westport, and Raymond J. Evans, Fairfield, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application December 13, 1955, Serial No. 39,307
Term of patent 14 years
(Cl. D70-2)



182,032
CONTAINER FOR FLUID CLEANER FOR CHAMOIS OR THE LIKE
Marrs F. Koontz, Houston, Tex.
Application October 29, 1956, Serial No. 43,559
Term of patent 14 years
(Cl. D49-1)



182,033
COMBINED CLOCK AND RADIO CABINET
John W. Mason, Glenview, and Ralph E. Hammer, Oak Park, Ill., assignors to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application August 9, 1957, Serial No. 47,287
Term of patent 14 years
(Cl. D56-4)



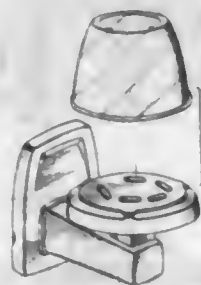
182,034

TOOTHBRUSH HOLDER

Salvatore Merendino, Pasadena, Calif., assignor, by mesne assignments, to The Yale and Towne Manufacturing Company, New York, N. Y., a corporation of Connecticut

Application March 4, 1957, Serial No. 45,084

Term of patent 14 years
(Cl. D4—3)



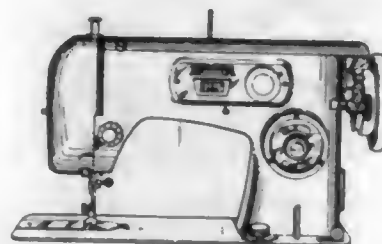
182,035

SEWING MACHINE

Phillip S. Morse, New York, N. Y.

Application February 5, 1957, Serial No. 44,765

Term of patent 14 years
(Cl. D70—1)



182,036

TISSUE PAPER AND LIKE SHEET MATERIAL

Paul Adolf Muller, Herrliberg, Switzerland

Application November 9, 1955, Serial No. 38,809

Term of patent 14 years
(Cl. D59—2)



182,037

TABLE OR THE LIKE

Isamu Noguchi, Carmel, N. Y.

Application January 3, 1956, Serial No. 39,549

Term of patent 14 years
(Cl. D33—14)



182,038

STOOL

Isamu Noguchi, Carmel, N. Y.

Original application January 3, 1956, Serial No. 39,549.
Divided and this application June 13, 1957, Serial No. 46,676

Term of patent 14 years
(Cl. D15—3)



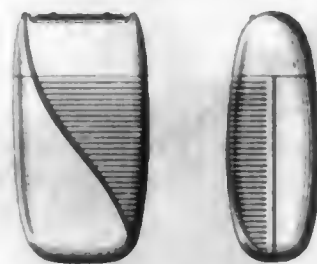
182,039

SHAVER OR SIMILAR ARTICLE

Seymour Rappoport, New York, N. Y., assignor to Ronson Electric Shaver Corporation, Stamford, Conn., a corporation of Connecticut

Application April 12, 1956, Serial No. 41,037

Term of patent 14 years
(Cl. D22—3)



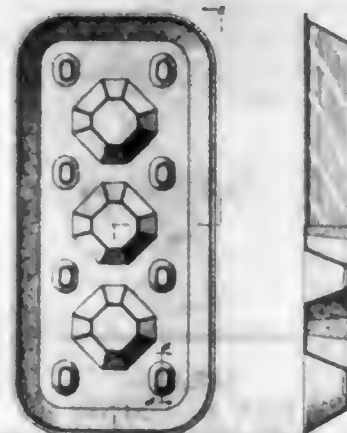
182,040

MOLDED PULP TRAY

Horace W. Raymond, Waterville, Maine, assignor to Keyes Fibre Company, Portland, Maine, a corporation of Maine

Application August 21, 1956, Serial No. 42,677

Term of patent 14 years
(Cl. D58—13)



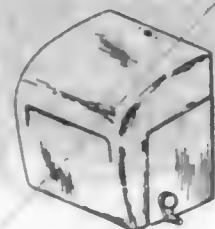
182,041

TOWEL CABINET

Mario D. Rosiello, Glendora, Calif., assignor to Towlsaver, Inc., Los Angeles, Calif., a corporation of California

Application November 16, 1956, Serial No. 43,789

Term of patent 14 years
(Cl. D4—3)



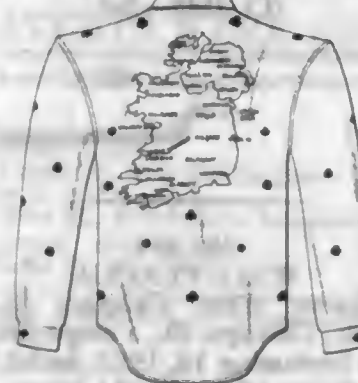
182,042

BLOUSE

Merl J. Ryan and Shirley M. Ryan, Chicago, Ill.

Application August 2, 1957, Serial No. 47,201

Term of patent 14 years
(Cl. D3—25)



182,043

VEHICLE WINDSHIELD

Alfred B. Sanchez, Sandia, Tex.

Application July 15, 1957, Serial No. 46,932

Term of patent 7 years
(Cl. D14—6)



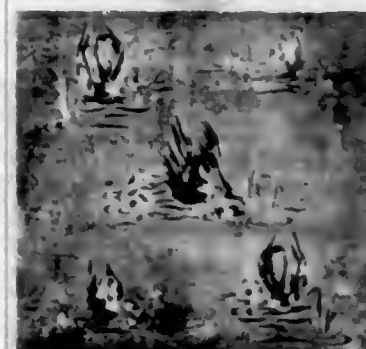
182,044

PANEL OF PLASTIC SHEET MATERIAL OR SIMILAR ARTICLE

Arno H. Scheiding, Rowayton, Conn., assignor to L. E. Carpenter & Company, Inc., Wharton, N. J., a corporation of New Jersey

Application May 9, 1957, Serial No. 46,081

Term of patent 14 years
(Cl. D87—3)



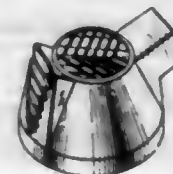
182,045

COMBINATION CAP AND ACTUATOR FOR AEROSOL DISPENSERS

Jack W. Soffer, St. Louis, Mo., assignor to Development Research, Inc., St. Louis, Mo., a corporation of Missouri

Application October 10, 1956, Serial No. 43,302

Term of patent 14 years
(Cl. D58—26)



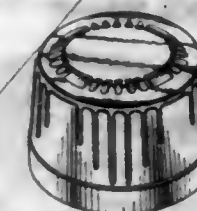
182,046

CLOSURE CAP

Jack W. Soffer, St. Louis, Mo., and Donald M. Kitterman, Kansas City, Kans., assignors to Development Research, Inc., St. Louis, Mo., a corporation of Missouri

Application October 10, 1956, Serial No. 43,308

Term of patent 14 years
(Cl. D58—26)



182,047

CASING FOR AN ELECTRIC SHAVER

Raymond A. Somers, Fairfield, Conn., assignor to Sperry Rand Corp., New York, N. Y., a corporation of Delaware

Application November 29, 1956, Serial No. 43,988

Term of patent 7 years
(Cl. D22—3)



182,048

FISHING LURE

Paul R. Staley, Fort Wayne, Ind.

Application October 8, 1956, Serial No. 43,255

Term of patent 14 years
(Cl. D31—4)



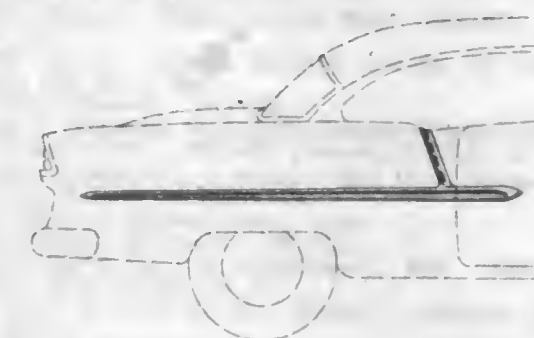
182,049

MOLDING STRIP

William D. Steere, Oak Park, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 18, 1957, Serial No. 44,520

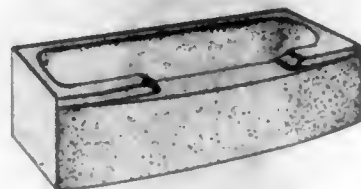
Term of patent 7 years
(Cl. D14—6)



182,050
BATHTUB

Walter D. Teague, Annandale, N. J., and Robert J. Harper, Scarsdale, and Alban G. Jackson, New York, N. Y., assignors to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application December 9, 1955, Serial No. 39,269
Term of patent 14 years
(Cl. D4—4)



182,053

COMBINATION FLASHLIGHT AND MAGNIFYING GLASS OR SIMILAR ARTICLE

Louise S. Weston and Lois S. Miner, Tucson, Ariz.

Application April 17, 1957, Serial No. 45,763
Term of patent 14 years
(Cl. D48—24)



182,054

WALL PLAQUE

Franklin McKeever Willis, Chicago, Ill., assignor to Arabesque, Inc., Chicago, Ill., a corporation of Illinois

Application September 16, 1957, Serial No. 47,739
Term of patent 14 years
(Cl. D29—23)

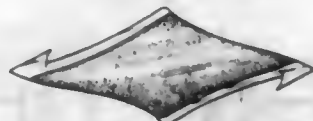


182,051

FLEXIBLE ENVELOPE FOR THE STORAGE OF LIQUIDS

Frederick E. Tinsley, Great Neck, N. Y., assignor to Charmaine, Inc., New York, N. Y., a corporation of New York

Application April 24, 1957, Serial No. 45,873
Term of patent 14 years
(Cl. D58—2)

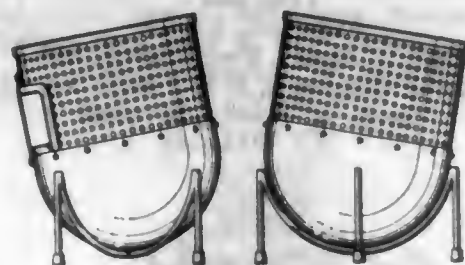


182,052

INFANT'S SWIVEL CHAIR

Anna E. Trebilcock, Normandy, Mo.

Application May 29, 1957, Serial No. 46,393
Term of patent 14 years
(Cl. D15—1)

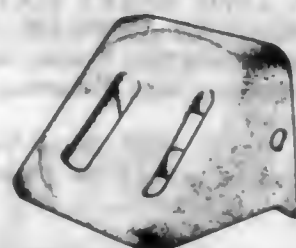


182,055

WHEEL BLOCK

Marion C. Wilson, Hammond, Ind., assignor to Calumet Steel Castings Corporation, Hammond, Ind., a corporation of Indiana

Application April 8, 1957, Serial No. 45,638
Term of patent 14 years
(Cl. D41—1)



LIST OF REISSUE PATENTEEES

TO WHOM

PATENTS WERE ISSUED ON THE 4TH DAY OF FEBRUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

- Ballargeon, Laurier: See—
Oesterle, Frank D., and Ballargeon. Re. 24,423.
Brock, Brantley A.: See—
Samfield, Max M., Brock, and Locklair. Re. 24,424.
Cutter Laboratories: See—
Hardie, Waldo R. Re. 24,422.
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220— 4: 2,822,106 24: 2,822,107 24.5: 2,822,108 46: 2,822,109 80: 2,822,110 222— 100: 2,822,111 129.1: 2,822,112 165: 2,822,113 223— 83: 2,822,114 96: 2,822,115 224— 5: 2,822,116 8: 2,822,117 229— 17: 2,822,118 31: 2,822,119 51: 2,822,120 230— 20: 2,822,121 117: 2,822,122 2,822,123 232— 141: 2,822,124 5: 2,822,125 233— 1: 2,822,126 2: 2,822,127 235— 23: 2,822,128 59: 2,822,129 61: 2,822,130 2,822,131 236— 13: 2,822,132 21: 2,822,133 99: 2,822,134 2,822,135 237— 17: 2,822,136 238— 231: 2,822,137 240— 138: 2,822,142 241— 194: 2,822,138 242— 79: 2,822,139 244— 153: 2,822,140 245— 1.5: 2,822,141 246— 33: 2,822,143 2,822,144 248— 4: 2,822,142 41: 2,822,143 361: 2,822,144 250— 17: 2,822,145 20: 2,822,146 27: 2,822,147 2,822,148 2,822,149 2,822,150 2,822,151 2,822,152 2,822,153 2,822,154 2,822,155 2,822,156 2,822,157 2,822,158 2,822,159 2,822,160 2,822,161 2,822,162 2,822,163 2,822,164 2,822,165 2,822,166 2,822,167 2,822,168 2,822,169 2,822,170 2,822,171 2,822,172 2,822,173 2,822,174 2,822,175 2,822,176 2,822,177 2,822,178 2,822,179 2,822,180 2,822,181 2,822,182 2,822,183 2,822,184 2,822,185 2,822,186 2,822,187 2,822,188 2,822,189 2,822,190 2,822,191 2,822,192 2,822,193 2,822,194 2,822,195 2,822,196 2,822,197 2,822,198 2,822,199	250— 27: 2,822,173 43.5: 2,822,174 51: 2,822,175 57: 2,822,176 61.5: 2,822,177 71: 2,822,178 252— 8.55: 2,822,179 40: 2,822,180 45: 2,822,181 49.6: 2,822,182 152: 2,822,183 465: 2,822,184 2,822,185 253— 39: 2,822,186 254— 134.3: 2,822,187 255— 1: 2,822,188 36: 2,822,189 76: 2,822,190 2,822,191 257— 256: 2,822,192 259— 30: 2,822,193 89: 2,822,194 152: 2,822,195 2,822,196 260— 2.5: 2,822,197 8: 2,822,198 22: 2,822,199 23: 2,822,200 41.5: 2,822,201 45.4: 2,822,202 2,822,203 53: 2,822,204 67.6: 2,822,205 75: 2,822,206 2,822,207 78.4: 2,822,208 79.3: 2,822,209 79.5: 2,822,210 82.1: 2,822,211 84.7: 2,822,212 87.5: 2,822,213 93.5: 2,822,214 94.9: 2,822,215 2,822,216 124: 2,822,217 146: 2,822,218 151: 2,822,219 211.3: 2,822,220 223: 2,822,221	260— 248: 2,822,222 249.9: 2,822,223 253: 2,822,224 302: 2,822,225 306.6: 2,822,226 348: 2,822,227 404: 2,822,228 406: 2,822,229 439: 2,822,230 453: 2,822,231 461: 2,822,232 465: 2,822,233 465.1: 2,822,234 468: 2,822,235 474: 2,822,236 482: 2,822,237 488: 2,822,238 2,822,239 504: 2,822,240 505: 2,822,241 506: 2,822,242 513: 2,822,243 525: 2,822,244 533: 2,822,245 553: 2,822,246 559: 2,822,247 563: 2,822,248 566: 2,822,249 576: 2,822,250 577: 2,822,251 580: 2,822,252 586: 2,822,253 593: 2,822,254 609: 2,822,255 2,822,256 611: 2,822,257 618: 2,822,258 619: 2,822,259 623: 2,822,260 628: 2,822,261 631: 2,822,262 633: 2,822,263 638: 2,822,264 679: 2,822,265 2,822,266	260— 801: 2,822,267 810: 2,822,268 2,822,269 2,822,270 261— 23: 2,822,271 121: 2,822,272 124: 2,822,273 3: 2,822,274 7: 2,822,275 5: 2,822,276 1: 2,822,277 4: 2,822,278 34: 2,822,279 8: 2,822,280 33: 2,822,281 59: 2,822,282 271— 2.3: 2,822,283 2.5: 2,822,284 2.6: 2,822,285 64: 2,822,286 71: 2,822,287 74: 2,822,288 36: 2,822,289 80: 2,822,290 80.4: 2,822,291 106: 2,822,292 112: 2,822,293 113: 2,822,294 114: 2,822,295 280— 11.28: 2,822,296 47.13: 2,822,297 63: 2,822,298 96.2: 2,822,299 106.5: 2,822,300 150: 2,822,301 432: 2,822,302 282— 20: 2,822,303 285— 5: 2,822,304 18: 2,822,305 97: 2,822,306 114: 2,822,307 299: 2,822,308 337: 2,822,309 286— 7: 2,822,310 8: 2,822,311 287— 20.5: 2,822,312 60: 2,822,313	287— 89: 2,822,314 288— 1: 2,822,315 292— 1: 2,822,316 67: Re.24,426 144: 2,822,317 19: 2,822,318 21: 2,822,319 63: 2,822,320 83: 2,822,321 87.2: 2,822,322 99: 2,822,323 109: 2,822,324 131: 2,822,325 23: 2,822,326 2,822,327 44: 2,822,328 44.5: 2,822,329 29: 2,822,330 58: 2,822,331 6: 2,822,332 37: 2,822,333 4: 2,822,334 9: 2,822,335 88: 2,822,336 109: 2,822,337 122: 2,822,338 2,822,339 180: 2,822,340 183: 2,822,341 236: 2,822,342 34: 2,822,343 45: 2,822,344 96: 2,822,345 157: 2,822,346 246: 2,822,347 258: 2,822,348 111: 2,822,349 27: 2,822,350 323: 2,822,351 336: 2,822,352 341: 2,822,353 1: 2,822,354 22: 2,822,355 55: 2,822,356 62: 2,822,357 82: 2,822,358 89: 2,822,359 107.5: 2,822,360	313— 111: 2,822,361 188: 2,822,362 240: 2,822,363 250: 2,822,364 346: 2,822,365 3.5: 2,822,366 2,822,367 27: 2,822,368 39: 2,822,369 82: 2,822,370 84.6: 2,822,371 106: 2,822,372 248: 2,822,373 2: 2,822,374 147: 2,822,375 149: 2,822,376 234: 2,822,377 48: 2,822,378 20: 2,822,379 43: 2,822,380 51: 2,822,381 58: 2,822,382 62: 2,822,383 66: 2,822,384 1: 2,822,385 9: 2,822,386 16: 2,822,387 6: 2,822,388 11: 2,822,389 98: 2,822,390 92: 2,822,391 110: 2,822,392 258: 2,822,393 58: 2,822,394 174: 2,822,395 2,822,396 2,822,397 227: 2,822,398 252: 2,822,399 11: 2,822,400 17.1: 2,822,401 18: 2,822,402 108: 2,822,403 783: 2,822,404 785: 2,822,405 66: 2,822,406
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CLASSIFICATION OF DESIGNS

D 3—25: Des. 182,042 D 4— 3: Des. 182,043 Des. 182,044 Des. 182,045 4: Des. 182,046 D 5— 4: Des. 182,047 D 9— 2: Des. 182,048 Des. 182,049 D 14— 6: Des. 182,050	D 14— 6: Des. 182,051 D 15— 1: Des. 182,052 8: Des. 182,053 Des. 182,054 D 22— 3: Des. 182,055 Des. 182,056 Des. 182,057 D 26— 7: Des. 182,058 D 29— 23: Des. 182,059	D 31— 4: Des. 182,060 Des. 182,061 Des. 182,062 D 33— 14: Des. 182,063 D 37— 1: Des. 182,064 Des. 182,065 D 40— 1: Des. 182,066	D 41— 1: Des. 182,067 D 44— 15: Des. 182,068 D 45— 4: Des. 182,069 D 46— 24: Des. 182,070 D 49— 1: Des. 182,071 D 52— 3: Des. 182,072 7: Des. 182,073	D 56— 4: Des. 182,074 D 58— 2: Des. 182,075 13: Des. 182,076 26: Des. 182,077 Des. 182,078 D 59— 2: Des. 182,079 D 62— 4: Des. 182,080	D 70— 1: Des. 182,081 2: Des. 182,082 D 71— 1: Des. 182,083 D 80— 8: Des. 182,084 D 86— 8: Des. 182,085 D 87— 3: Des. 182,086 5: Des. 182,087
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OFFICIAL GAZETTE • UNITED STATES PATENT OFFICE

February 4, 1958

Volume 727

Number 1

TRADEMARKS
NOTICES

Erratum

Application Serial No. 27,054, The O. M. Scott and Sons Company, for the mark ABC, Class 10, Fertilizers, filed March 27, 1957 and published October 22, 1957 having been abandoned by the applicant prior to issuance as a registration, the listing in 726 O. G. TM 30 as Registration No. 656,680 should be disregarded.

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 137,701 (SIMONIZ), Simons Mfg. Co., Paste for cleaning and polishing automobile bodies, furniture, etc.; TM 561,771, same, The Simoniz Co., Hard paste material for providing a preservative and polishing coating or film on automobiles, etc.; TM 563,837, same, Cleaning compounds, in both paste and liquid form for any painted, lacquered, enameled or porcelain surface etc.; TM 563,838, same, Chrome and metal cleaner in liquid form, and for a tar solvent in liquid form; TM 563,839 (MOTORISTS WISE SIMONIZ), same, Connection with liquid and paste cleaning and coating compounds; TM 560,021, same, Hard paste waxlike material for providing a coating or film, etc., filed Nov. 10, 1954, D. C., N. D. Ill. (Chicago), Doc. 54c1671, *Simoniz Co. v. Sparkon Products Co.* Defendant enjoined and restrained from using word "Simoniz" and slogan "Be Luster Wise—Simoniz"; trade-

marks "Simoniz" and "Motorists Wise Simoniz" held valid (notice Dec. 20, 1957).

TM 535,677 (PENTHOUSE AND DESIGN), Elsmann, Ewen and Rose, Inc., Garment bags, shoe bags, blanket boxes, etc., filed Dec. 27, 1957, D. C., S. D. N. Y., Doc. 128/151, *Elsmann, Ewen and Rose, Inc. et al. v. Brown & Bigelow*.

TM 548,858. (See TM 137,701.)

TM 558,820 (DORMIN), Dormin, Inc., Medicinal preparations intended as aids for the relief of insomnia, headaches and neuralgia, filed June 13, 1955, D. C., S. D. N. Y., Doc. 101/178, *Dormin, Inc. v. Henry G. Knoll et al.* Consent order and judgment; defendants enjoined Dec. 26, 1957.

TM 561,771. (See TM 137,701.)

TM 563,837. (See TM 137,701.)

TM 563,838. (See TM 137,701.)

TM 560,021. (See TM 137,701.)

TM 564,845 (FLAMOMETER), Phillips Petroleum Co., Flame detectors, filed Dec. 23, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2128, *The Tetra Co. v. Midwest Chemical Co.*

TM 600,018 (PLAYBOY), HMM Publishing Co., Inc., Monthly magazine, filed Aug. 17, 1956, D. C., N. D. Calif. (San Francisco), Doc. 35771, *HMM Publishing Co., Inc. v. Walter Hale*. Decree of permanent injunction for further trademark infringement Dec. 16, 1957.

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1957

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]..... 11,274
Date of oldest new application..... May 8, 1957
Date of oldest amended application..... May 14, 1957

J. H. MERCHANT, Director, Trademark Examining Operation		Oldest Application	
TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION		New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation			
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50		5-8-57	6-14-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 300		7-17-57	9-5-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks		6-18-57	6-17-57
Renewals (All Classes)		11-18-57	12-16-57
Sec. 12 (c) Publications (All Classes)		10-9-57	

Applications Filed During the Month of December 1957—1,703

Registrations Issued..... 252—No. 657,921 to No. 658,172
Renewals Issued..... 20

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

TM 623,601 (FIOCCO), Bart Schwartz International Textiles, Ltd., Textile fabrics in the piece of cotton, rayon, synthetic fibers, and mixtures thereof, filed Dec. 24, 1957, D. C., S. D. N. Y., Doc. 128/121, *Bart Schwartz International Textiles, Ltd. v. Robert Hall Clothes, Inc.*

TM 646,075 (CHOP-O-MATIC), Popell Bros., Food choppers,

filed Dec. 20, 1957, D. C., E. D. Pa. (Philadelphia), Doc. 23797, *Popell Brothers, Inc. v. Lit Brothers, Inc.*

TM 648,176 (SPILL AND SPELL), J. M. Smith, Educational spelling game played with cubes, filed Dec. 16, 1957, D. C., N. D. Ill. (Chicago), Doc. 5762067, *Phillips Publishers, Inc. v. Toycraft Corp.*

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5. As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 7,665. Coggins Granite and Marble Industries, Inc., Elberton, Ga. Filed May 4, 1956. Sec. 2(f).

OGLESBY

Owner of Reg. No. 352,616.
For Rough and Sawed Granite, Blue Granite, Grey Granite, and Monumental Granite.
First use 1892.

SN 19,736. Bjorksten Research Laboratories, Inc., Madison, Wis. Filed Nov. 23, 1956.

GLAMETTA

For Fibrous Glass Provided With One or More Coatings Thereof of Uncolored or Colored Aluminum or Other Material.
First use Nov. 21, 1956.

SN 32,429. W. J. Volt Rubber Corp., Los Angeles, Calif. Filed June 21, 1957.

VEON

For Plastic Covering Material for Use on Athletic and Toy Balls.
First use May 16, 1957.

Class 2—Receptacles

SN 697,645. Standard Packaging Corporation, Chicago, Ill. Filed Nov. 3, 1955.

SIP AND SNAK

For Paper Trays.
First use Oct. 25, 1955.

SN 19,088. Boston Envelope Company, d. b. a. Boston Drinking Cup Co., Dedham, Mass. Filed Nov. 13, 1956.



The words "Sanitary Drinking Cup" are disclaimed apart from the mark as shown. The lining constitutes part of the mark and does not indicate color. Owner of Reg. No. 162,686.
For Paper Drinking Cups.
First use June 30, 1916.

Class 4—Abrasives and Polishing Materials

SN 27,367. Barton Mines Corporation, North Creek, N. Y. Filed Apr. 2, 1957.



The words "Crystal" and "Garnet," either alone or in combination, are disclaimed apart from the mark.
For Garnet Abrasive Grains and Powders.
First use on or about Jan. 1, 1886.

SN 30,952. Scouring Corp. of America, Ozone Park, N. Y. Filed May 28, 1957.

SCOURING

For Holders for Scouring Pads and Sets Including a Container, a Holder, a Scouring Pad and a Tray for the Holder and the Pad, Sold as a Unit.
First use Mar. 14, 1957.

Class 6—Chemicals and Chemical Compositions

SN 9,664. A/S Protan, Drammen, Norway. Filed June 5, 1956.

PROTANAL

For Alginates—Namely, Chemical Compounds for Technical, Medical, Pharmaceutical Use, and for Use in the Food Industry, and for Use as a Reducing Agent and as a Water Softener and as an Auxiliary Compound for Deep-Freezing.
First use about 1944; in commerce on or before Jan. 1, 1946.

SN 18,440. Lewis Research Laboratories, Inc., New York, N. Y. Filed Oct. 30, 1956.



For Enzyme and Bacteria Powder Used in Septic Tanks and Cesspools To Help Liquefy Waste.
First use May 7, 1956.

SN 26,258. Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. Filed Mar. 15, 1957.

POLYSTAL

Owner of German Reg. No. 426,379, dated Nov. 28, 1930. For Chemical Products for Industrial Purposes—Namely, Synthetic Resins and Waxes, Mordants, Leather-Preserving Agents, Dressing Agents, and Tanning Agents.

SN 30,482. Dow Corning Corporation, Midland, Mich. Filed May 22, 1957.

SYL-KEM

Owner of Reg. No. 576,193. For Reactive Silicon Chemicals. First use May 8, 1957.

Class 7—Cordage

SN 31,132. Milton L. Mintzer, New York, N. Y. Filed May 31, 1957.

Emerald

For Wrapping Twine, Rope, Baler Twine, and Binder Twine. First use Nov. 1, 1955.

SN 31,134. Milton L. Mintzer, New York, N. Y. Filed May 31, 1957.

MILCORD

For Wrapping Twine, Rope, Baler Twine, and Binder Twine. First use Jan. 2, 1944.

Class 8—Smokers' Articles, Not Including Tobacco Products

SN 29,436. Cragstan Corporation, New York, N. Y. Filed May 6, 1957.

CRAGSTAN

For Ash-Trays and Cigarette Lighters. First use in July 1956.

Class 10—Fertilizers

SN 35,866. George Koch Sons, Inc., Evansville, Ind. Filed Aug. 20, 1957.

BOTANE

For Plant Food. First use July 30, 1957.

Class 12—Construction Materials

SN 695,111. Rickel Bros. Inc., Union, N. J. Filed Sept. 21, 1955.



For Lumber, and Windows, Doors, Fencings, and Paneling, All Made of Wood. First use Sept. 12, 1954.

SN 6,406. Coast Aluminum Company, Gardena, Calif. Filed Apr. 16, 1956.

CALCO

For Aluminum Windows. First use Mar. 22, 1956.

SN 8,921. Erwin Behr, Wendlingen, Germany. Filed May 24, 1956.



BEHR-PROCESS

Owner of German Reg. No. 686,032, dated Dec. 29, 1955. For Molded Wood Composition Parts, and Boards Made of Wood Shavings and Wood Chips.

SN 14,637. Glide Windows, Inc., North Hollywood, Calif., to Gridwall Company, North Hollywood, Calif. Filed Aug. 27, 1956.

GRIDWALL

For Prefabricated Curtain Wall Construction Fabricated From Extruded Metal Parts. First use Oct. 26, 1955.

SN 16,821. Arthur C. Mangels Industries, Inc., d. b. a. Arthur C. Mangels Industries, Philadelphia, Pa. Filed Oct. 2, 1956.

PLASTI-GLAS

For Resurfacing Composition Comprising a Plastic Preparation Combined With Asbestos and Fiber Glass for Construction Purposes. First use Aug. 3, 1956.

SN 21,631. Heyno von Munchhausen, New York, N. Y. Filed Dec. 26, 1956.

WHERE SILENCE MATTERS

For Sound Proof Doors and Windows. First use Sept. 1, 1955.

SN 22,173. General Plywood Corporation, Louisville, Ky. Filed Jan. 7, 1957.

SS

For Wood Doors. First use Dec. 29, 1955.

SN 22,174. General Plywood Corporation, Louisville, Ky. Filed Jan. 7, 1957.

SSS

For Wood Doors. First use Sept. 28, 1956.

SN 22,204. Mastic Asphalt Corporation, South Bend, Ind. Filed Jan. 7, 1957.

ROCK-TEX

For Exterior Building Siding Panel Consisting of a Base of Rigid Fibrous Insulation Board Coated With Weatherproofing Material of the Asphaltic Type and Having Granular Material Partly Imbedded in the Coating, the Coated Surface of the Panel Being Impressed To Produce a Decorative Appearance. First use Nov. 22, 1955.

SN 23,382. The Atlas Mineral Products Company of Pennsylvania, Mertstown, Pa. Filed Jan. 29, 1957. Sec. 2(f).

MINERALEAD

For Jointing Compound for Pipe Connections. First use May 1, 1929.

SN 25,183. Mahogany Corporation, Ukiah, Calif. Filed Feb. 27, 1957.

TROPICRAFT

For Imported Tropical and Other Foreign Hardwoods. First use Feb. 6, 1956.

SN 27,324. Lexsuco, Incorporated, Cleveland, Ohio. Filed Apr. 1, 1957.

LEXSUCO

For Roofing Materials—Namely, Vapor Barriers and Adhesives and Fastening Elements for Their Securement, the Vapor Barriers Being Sold With Either Adhesives or Fastening Elements, for Conjoint Use. First use June 1955.

SN 27,334. National Chemical & Manufacturing Company, Chicago, Ill. Filed Apr. 1, 1957.

AWL-SEAL

Owner of Reg. No. 131,533. For Calking Compound. First use in 1948.

SN 28,205. Terrasac Proprietary Limited, Johannesburg, Union of South Africa. Filed Apr. 15, 1957.

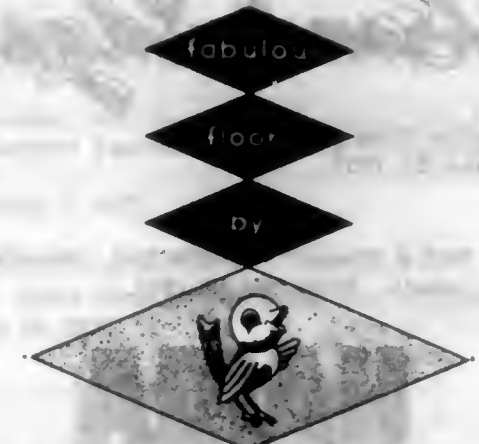
GLAMOROCK

Owner of South African Reg. No. 3540/56, filed Nov. 7, 1956. For Plaster, Cement, and Mineral or Other Chippings (Non-Metallic) and Admixtures Thereof, All Being for Use in Building or Decoration.

TILT-O-LITE

For Aluminum Storm Windows. First use Jan. 25, 1957.

SN 28,802. Robbins Floor Products, Inc., Tuscumbia, Ala. Filed Apr. 24, 1957.



Owner of Reg. No. 566,354. For Tile, Cove Base, Feature Strip, Feature Inlays, Stair Treads, and Wall Tile, Made of Rubber, Cork, and Vinyl Plastic. First use Jan. 1, 1957.

SN 29,054. Fromson Urban Company, Inc., New York, N. Y. Filed Apr. 29, 1957.

FURAL

For Metallic Roofing and Siding Sheet. First use in or about December 1956.

SN 29,975. Thermo Insulation, Incorporated, Phoenix, Ariz. Filed May 13, 1957.



For Loose Particles of Fibrous Cellulose Material, Chemically Treated To Resist Fire and Insects. First use Nov. 15, 1954.

SN 32,306. Gets Bros. & Co., San Francisco, Calif. Filed June 20, 1957.



For Mismatched Jointed Faced Hardwood Plywood. First use Nov. 1, 1956.

SN 32,603. Johns-Manville Corporation, New York, N. Y. Filed June 25, 1957.

PARALLEL-O-LAP

For Building Shingles. First use May 22, 1957.

SN 33,384. United States Steel Corporation, Pittsburgh, Pa. Filed July 8, 1957.

SN 23,917. Hanna Engineering Works, Chicago, Ill. Filed Feb. 6, 1957. Sec. 2(f) as to "Hanna."

SUPER-TENS

Owner of Reg. No. 590,294.
For Steel Wire Members for Reinforcing Concrete.
First use Mar. 11, 1953.

SN 33,503. Roddis Plywood Corporation, Marshfield, Wis. Filed July 10, 1957.

Band-Edge

For Decorative Wood Edging.
First use Jan. 24, 1957.

SN 34,067. Mill & Timber Products Ltd., Burnaby, British Columbia, Canada. Filed July 19, 1957.

HAIDA

Owner of Canadian Reg. N. S. 42,532, dated Oct. 8, 1952.
For Wood Siding.

SN 34,287. Lloyd A. Fry Roofing Co., Summit, Ill. Filed July 24, 1957.

SHADO-BILT

For Composition Roofing and Shingles.
First use on or about Feb. 28, 1957; on or about Jan. 31, 1957, as to "Shadow Bilt."

SN 34,616. Kochton Plywood & Veneer Co., Inc., Chicago, Ill. Filed July 30, 1957.

STYL-PLY

For Plywood.
First use June 21, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 11,083. The Imperial Brass Manufacturing Company, Chicago, Ill. Filed June 27, 1956.

DIAMOND

For Diaphragm Type Valves Having Bodies of Brass or Other Nonferrous Metal and Adapted for Vacuum Applications, Instrumentation, Pneumatic Service, and General Purpose Use, Excluding Employment in the Processing of Foods or Food Products Intended for Human Consumption.
First use in January 1955.

SN 21,105. American Screen Products Company, Miami, Fla. Filed Dec. 17, 1956.

SLIDE-A-FOLD

For Hardware for Sliding-Folding Doors.
First use Aug. 15, 1956.

HANNA
Flo-Line

Owner of Reg. Nos. 528,559, 534,149, and 606,901.
For Valves, Particularly Directional Control Valves for the Directional Control of Air.
First use on or about Oct. 1, 1956.

SN 24,172. Knappe and Vogt Manufacturing Company, Grand Rapids, Mich. Filed Feb. 11, 1957.

K-VENIENCE

For Closet and Cupboard Fixtures Such as: Clothing Carriers; Extension Closet Rods; Hangers and Racks for Skirts, Trousers, Ties, Hats, Shoes, Belts, Purses, Pans, Cups, and Towels; Garment Hooks and Brackets.
First use Dec. 18, 1930.

SN 24,524. The Prestige Group Limited, London, England. Filed Feb. 15, 1957.

PRESTIGE

Owner of British Reg. No. 652,099, dated Sept. 30, 1946.
For Cooking Vessels, Baking Pans, Canisters, Top of Stove Oven Units, Strainers and Sifters, None Being of Precious Metal or Coated Therewith.

SN 29,098. Refinite Corporation, Ralston, Nebr. Filed Apr. 29, 1957.



The words "The Finest Swimming Pool Equipment" are disclaimed apart from the mark as shown.

For Swimming Pool Equipment and Accessories Comprising Adjustable Inlets, Fill Spouts, Vacuum Cleaner Fittings, Lane Marker Wall Anchors, Scum Gutter Drains, Angle Gutter Drains, Spray Fittings, No Leak Flanges, Walk Drains, Pool Drains, Trench Grates, Chromed Eye Bolts, Diving Board Stands, Life Guard Chairs, Dual Fulcrum for Diving Boards, Anchor Sockets and Escutcheons, Under Water Lights, Automatic Pool Skimmers, Nylon Safety Line, Life Buoys, Shepherd's Crooks, Pool Ladders, Rear Anchor Hinge Assembly for Diving Boards, Water Filters, Pool Vacuum Cleaners, Hose Floats, Suction Hose for Vacuum Cleaners, Hose Connectors for Vacuum Cleaners, Vacuum Cleaner Handles, Pool Brushes, Handles and Handle Connectors, Pool Rake, Leaf Skimmers, Vacuum Cleaner Pumps, Hose Floats, Diving Helmet Sets, Water Test Sets, Deck Boxes, Safety Line Hooks, Safety Line Floats.
First use Apr. 1, 1957.

Class 15—Oils and Greases

SN 19,975. Leona M. Lolchinger, d. b. a. Industrial Chemical Company, Los Angeles, Calif. Filed Nov. 27, 1956.



For Additives for Gasolines and Fuel Oils for Reducing Smoke, Fumes, Sludge, and Rust.
First use during 1944.

SN 24,254. Daubert Chemical Company, Chicago, Ill. Filed Feb. 12, 1957.

COOL-SPEED

For Synthetic Liquid Coolant Used in Metal Cutting and Grinding Operations.
First use Jan. 21, 1957.

SN 30,859. The Texas Company, New York, N. Y. Filed May 27, 1957.



The drawing is lined to represent the colors red and green.
Owner of Reg. Nos. 57,902, 195,000, and others.

For Coal Spray Oil, Aircraft Engine Preservative Oil, Motor Detergent Concentrate, Flux Concentrate, Jet Engine Fuel, Hydraulic Oil, Flushing Oil, Absorption Oil, Diesel Fuel, Petroleum Base Rust Inhibitor, Rust Proof Compound and Anti-Rust Concentrate.

First use during March 1957 on motor detergent concentrate.

Class 16—Protective and Decorative Coatings

SN 25,690. Frank W. Dunne Co., Oakland, Calif. Filed Mar. 7, 1957.

RUB-R-SHEEN

For Ready-Mixed Paints and Colorants.
First use Feb. 17, 1952.

SN 33,410. The Foy Paint Company, Inc., d. b. a. The A. Burdall Company, Indianapolis, Ind. Filed July 9, 1957.

HILUNDALE

Owner of Reg. No. 192,456.
For Oil Base, Texture Finish for Use on Plaster, Wall Board, and Previously Painted Surfaces.
First use June 6, 1957.

SN 34,325. Tobias Paint Mfg. Co., Cleveland, Ohio. Filed July 24, 1957.

Blue Bay

For Paints, Paint Primers, Paint Enamels, Stains, Varnishes, Asphalt Products, and Paint Colors.
First use February 1957.

SN 34,384. Carl O. Wakefield, Decatur, Ill. Filed July 25, 1957.

PABS AUTO BEAUTY

For Protective and Decorative Coatings for Automobiles including Lacquer Paints and Dressing Compounds for Rubber Goods.
First use Feb. 7, 1957.

SN 35,599. Pinol Manufacturing Co. Inc., Philadelphia, Pa. Filed Aug. 15, 1957.



For Paints, Enamels, and Paint Sundries.
First use Jan. 15, 1957.

SN 36,538. The Sherwin-Williams Company, Cleveland, Ohio. Filed Aug. 30, 1957.

POTENT

For Lacquer Thinner.
First use Dec. 29, 1954.

SN 37,258. M. Grumbacher, Inc., New York, N. Y. Filed Sept. 16, 1957.

PIERRE AUGUSTE RENOIR

For Artists' Pastels.
First use Sept. 21, 1956.

SN 37,425. Felton, Sibley & Co., Inc., Philadelphia, Pa. Filed Sept. 18, 1957.



The drawing is lined for red and blue, but these colors are not an essential part of the mark. Owner of Reg. No. 119,887.
For House Paint, Flat Wall Paint, Rubber Base Wall Paint, Floor and Deck Enamel, Primer, Sealer, Varnishes, and the Like.

First use Nov. 7, 1955; prior to January 1908 as to "F-S."

Class 18—Medicines and Pharmaceutical Preparations Class 22—Games, Toys, and Sporting Goods

SN 27,459. Parke, Davis & Company, Detroit, Mich. Filed Apr. 3, 1957.

NORLUTIN

For Hormone Preparation for Use as a Progestational Agent.

First use Jan. 16, 1957.

SN 31,721. The Norwich Pharmacal Company, d. b. a. Eaton Laboratories, Norwich, N. Y. Filed June 10, 1957.

FURESTROL

For Anti-Bacterial Preparation Put Up in the Form of Urethral Suppositories.

First use May 3, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 17,239. SUD-Atlas-Werke G. m. b. H., Munich, Germany. Filed July 12, 1957.

STENOCORD

Owner of German Reg. No. 609,559, dated Jan. 30, 1957. For Sound-Recording and -Reproducing Devices, Especially Dictation-Machines.

SN 24,196. Robbins & Myers, Inc., Springfield, Ohio. Filed Feb. 11, 1957.



Owner of Reg. Nos. 609,608, 610,307, and others. For Electric Fans for Circulating Air. First use Oct. 29, 1956.

SN 32,009. H. K. Porter Company, Inc., Pittsburgh, Pa. Filed June 14, 1957.

HKP

For Electrical Apparatus Including Transformers, Switches, Wire, Electrical Insulating Tape, Escalator Hand Rails, and Mine Trolley Electric Cable Guard. First use December 1950 on switches.

SN 32,568. Notifier Corporation, Lincoln, Nebr. Filed June 21, 1957.

DU-O-MATIC

For Electrical Fire Alarm Systems, Sprinkler Supervisory Systems, and Parts Thereof. First use Mar. 18, 1957.

SN 32,569. Notifier Corporation, Lincoln, Nebr. Filed June 21, 1957.

UN-O-MATIC

For Electrical Fire Alarm Systems, Sprinkler Supervisory Systems, and Parts Thereof. First use Feb. 19, 1957.

SN 27,831. John Frier, d. b. a. Alox Manufacturing Company, Wellston, Mo. Filed Apr. 3, 1957.

AMERICAN EAGLE



Owner of Reg. No. 346,355.

For Kites.

First use Jan. 2, 1927.

SN 30,130. John Peter, New York, N. Y. Filed Apr. 24, 1957.

PLAYPATTERNS

For Instructive Games or Toys for Children Consisting of Patterns, Rules, Instructions, Designs, Parts, Plans, and Diagrams for Making, Building, Arranging, Planning, Assembling, and Preparing Clothes, Foodstuffs, Parties, Games, Novelties, and Children's Furniture.

First use Sept. 20, 1954.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 12,664. Raybestos-Manhattan, Inc., Passaic, N. J. Filed July 23, 1956.

Raybestos ke-ram'ik

The portion "Ke-ram'ik" is disclaimed apart from the mark as shown.

For Ceramic Tool Tips and Holders or Shanks Having Said Ceramic Tips Affixed Thereto; Ceramic Thread Guides; Ceramic Wire Drawing Dies; Ceramic Tipped Gauges; Ceramic Grooving Tools, and Ceramic Pellets for Tumbling Barrel Use.

First use May 18, 1956.

SN 14,524. The Anderson Company, Gary, Ind. Filed Aug. 24, 1956.

ROTON

For Anti-Friction Bearing Means for Use in Motion Transmitting Apparatus and Components of Both.

First use September 1953.

SN 20,036. Maintenance Engineering Corporation, Pittsburgh, Pa. Filed Nov. 28, 1956.

MECO



For Portable Machine Tools Such as Milling Machines, Planers, Shapers, and Grinders. First use September 1949.

SN 22,328. Metal Carbides Corporation, Youngstown, Ohio. Filed Jan. 9, 1957.

KLAMP-LOK

For Insert or Tool Holders.

First use January 1952.

SN 22,740. Clark Equipment Company, Buchanan, Mich. Filed Jan. 17, 1957. Sec. 2(f).

CLARKLIFT

Owner of Reg. Nos. 165,644, 618,602, and others.

For Power Operated Industrial Lift Trucks.

First use June 5, 1956.

SN 24,076. Phillips Drill Company, Michigan City, Ind. Filed Feb. 8, 1957.

RED HEAD



Applicant disclaims the representation of the goods apart from the mark as shown. The drawing is lined for red.

For Self Drilling Expansion Shells for Concrete and Masonry, Self Drilling Expansion Shell Holders, Hammer Chucks, Hand Setting Tools, and Manually and Power Operated Spring Hammers.

First use Dec. 14, 1956.

SN 24,813. Wright Machinery Company, Durham, N. C., to Sperry Rand Corporation, New York, N. Y. Filed Feb. 20, 1957.



For Packaging Machinery Comprising Weighing Machines, Bag Applicators, Bag Closers, Bag Transfer Apparatus, Carton Set-Up Machines, and Wrapping Machines.

First use Jan. 23, 1953.

SN 25,268. L. A. Young Spring & Wire Corporation, d. b. a. Ottawa Steel Division, Detroit, Mich. Filed Feb. 28, 1957.

LAYCO

For Powered Scrapers, Scoops, Loaders, Hoists, Compactors, Tampers, Hammers, and Breakers Adapted To Be Operatively Mounted on Powered Vehicles.

First use Nov. 20, 1956.

SN 28,567. The B. G. Corporation, Ridgefield, N. J. Filed Apr. 22, 1957.

BG

Owner of Reg. Nos. 131,713, 331,049, and 651,457. For Fuel Systems for All Types of Combustion Engines. First use in April 1951.

TM 727 O. G.—2

PERMAC BOWE

Owner of German Reg. No. 699,018, dated Jan. 14, 1957.

For Machines for Chemical Cleaning and Parts Thereof Such as Filtering Devices for Fluids; Washing Machines, Dishwashing Machines; Machines for Cleaning Metals, Pressing Machines and Ironing Tables; Vacuum Machines; Steam Boilers, Pumps, Blowers, Conveying and Transportation Equipment Comprising Transport Cars, Lift Trucks, Elevators and Lifting Appliances; Paper-Cutting Machines, Perforating Devices and Printing Machines; Machines for Uncollaring Paper, Addressographs, Devices for Sorting Papers and Checks; Office Equipment Machines and Devices, Registers and Bookkeeping Machines; Metal-Working Machines, Machine Tools; Hoisting Machines, Machine Casting; Machine Parts, i. e. Gear Wheels, Axles, Wheels, Bearings, Casings, Machine Frames, and Hand Wheels; Shaping Machines for Wheel Sets, Electronic and Light-Electronic Steering Devices and Apparatuses.

SN 34,332. A. C. E. Machinery Limited, London, England. Filed July 25, 1957.

A.C.E.

Owner of British Reg. No. 716,877, dated Apr. 17, 1953. For Hoisting Machinery, Screening and Shifting Machinery, Cranes, and Stacking Apparatus.

SN 34,333. A. C. E. Machinery Limited, London, England. Filed July 25, 1957.



Owner of British Reg. Nos. B. 567,649 and 625,904, dated Mar. 27, 1936, and Oct. 19, 1943, respectively.

For Hoisting Machinery, Screening and Shifting Machinery, Cranes, and Stacking Apparatus.

SN 35,650. Holsclaw Bros., Inc., Evansville, Ind. Filed Aug. 16, 1957.



The drawing is lined to indicate the colors red and yellow or gold.

For Tube Benders.

First use Jan. 16, 1952.

SN 35,662. Link-Belt Company, Chicago, Ill. Filed Aug. 16, 1957. SN 37,566. Farrington Manufacturing Company, Needham Heights, Mass. Filed Sept. 20, 1957.

LINK-BELT
Flexmount

Owner of Reg. Nos. 63,503, 63,609, and 646,434.
For Oscillating Conveyors and Feeders and Repair and Replacement Parts Therefor.
First use Nov. 28, 1951.

SN 35,663. Link-Belt Company, Chicago, Ill. Filed Aug. 16, 1957.

LINK-BELT
Coilmount

Owner of Reg. Nos. 63,503, 63,609, and 646,434.
For Oscillating Conveyors and Repair and Replacement Parts Therefor.
First use June 30, 1956.

SN 37,288. Pettibone Mulliken Corporation, Chicago, Ill. Filed Sept. 16, 1957.

CORMATIC

For Core Production Units for Use in Foundries.
First use Jan. 30, 1953.

SN 37,321. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Sept. 16, 1957.

TPS

For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons, and Stainless Steel Table Hollowware.
First use Aug. 19, 1957.

SN 37,322. Wallace Silversmiths, Inc., Wallingford, Conn. Filed Sept. 16, 1957.

STAR BRIGHT

Owner of Reg. No. 648,215.
For Stainless Steel Flatware, i. e., Knives, Forks, and Spoons.
First use Aug. 12, 1957.

SN 37,395. Advance Products Corporation, Benton Harbor, Mich. Filed Sept. 18, 1957.

ADVANCE

For Machining Equipment, Including Cross-Slide Rotary Work-Holding Tables, Rotary Work-Holding Tables, Profiling Tables, and Indexing Attachments for Rotary and Cross-Slide Rotary Work-Holding Tables.
First use Mar. 12, 1954.

SN 37,492. Graymills Corporation, Chicago, Ill. Filed Sept. 19, 1957.

VISGARD

For Printing Press Accessory—Namely, a Diluent Control Device for an Ink Reservoir.
First use July 30, 1957.

CHARGA-CARD

Owner of Reg. No. 557,626.
For Addressers—Namely, Imprinting Machines.
First use Aug. 29, 1956.

SN 37,577. Walter Kidde & Company, Inc., Belleville, N. J. Filed Sept. 20, 1957.

Inflatair

For Aspirating Apparatus for Inflating Inflatable Structures.
First use on or about Dec. 21, 1954.

SN 37,602. Square Manufacturing Company, Chicago, Ill. Filed Sept. 20, 1957.

SODA-FRESH

For Beverage Dispensing Machines.
First use Aug. 23, 1957.

SN 37,618. American Saw and Tool Company, Louisville, Ky. Filed Sept. 23, 1957.

VERMONT

For Taps, Dies, Tap Wrenches, Reamers, Die Stocks, Screw Extractors, Collets, and Router Bits.
First use in 1930.

SN 37,619. American Saw and Tool Company, Louisville, Ky. Filed Sept. 23, 1957.

LUCKY

For Taps, Dies, and Reamers.
First use in 1941.

SN 37,669. Multi-Score, Inc., Seattle, Wash. Filed Sept. 23, 1957.

MULTISCORE

For Lumber Surfacing Machines.
First use Sept. 1, 1956.

Class 26—Measuring and Scientific Appliances

SN 29,114. Triplett & Barton, Incorporated, Burbank, Calif. Filed Apr. 29, 1957.

PORT-A-LAB

For Units Containing Equipment and Accessories for Developing and Processing X-Ray Film.
First use Oct. 12, 1956.

SN 29,212. Henry Valve Company, Incorporated, Melrose Park, Ill. Filed May 1, 1957. Sec. 2(f).

CROSS-VU

Owner of Reg. No. 596,123.
For Fluid Flow Indicators for Mounting in Fluid Handling Conduits.
First use May 23, 1951.

SN 30,034. Oberg Laboratories, Inc., New York, N. Y. Filed May 14, 1957. SN 33,192. Elizabeth Arden Sales Corporation, New York, N. Y. Filed July 5, 1957. Sec. 2(f).

CONCENTRA

For Contact Lenses.
First use Mar. 29, 1957.

Class 27—Horological Instruments

SN 11,597. Marc Nicolet & Cie S. A., La Chaux-de-Fonds, Switzerland. Filed July 5, 1956.

MARC NICOLET

For Watches and Parts Thereof.
First use 1946; in commerce 1946.

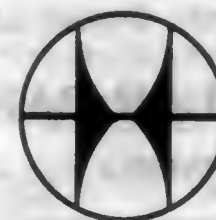
SN 13,022. Chesterfield Jewelers, Inc., New York, N. Y. Filed July 30, 1956.



The letters "14K" are disclaimed apart from the mark as shown.

For Watches for Ladies, and Parts Thereof, Including Complete Watches, but Without Movements.
First use July 19, 1956.

SN 20,936. Hamilton Watch Company, Lancaster, Pa. Filed Dec. 12, 1956.



For Men's and Women's Pocket and Wrist Watches, Chronometers and Electric Wrist Watches, Battery and Spring Wound Clocks and Automobile Clocks.
First use Dec. 10, 1956.

SN 29,553. Recta Manufacture d'Horlogerie S. A., Bienne, Switzerland. Filed May 7, 1957.

RECTA

Owner of Swiss Reg. No. 102,536, dated July 14, 1942.
For Watches, Watch Movements, Watch Dials, Watch Cases, Small Pendulum Clocks, Pendulums, and Clocks.

Class 28—Jewelry and Precious-Metal Ware

SN 30,447. Rogers, Lunt & Bowlen Company, d. b. a. Lunt Sterling, Greenfield, Mass. Filed May 21, 1957.

SPRING SERENADE

For Knives, Forks, Spoons, Butter Spreaders, Butter Picks, Cake Separators, Ladles, Sugar Tongs, Servers, and Carving Sets, All Made of Sterling Silver.
First use Apr. 24, 1957.

ELIZABETH ARDEN

The consent of Elizabeth Arden to the use and registration of her name is of record. Owner of Reg. No. 418,848.

For Finger Rings, Wrist and Ankle Bracelets, Earrings, Necklaces, Brooch Pins, Costume Jewelry, Made in Whole or in Part of Precious or Semiprecious Metals, and Watch Bracelets.
First use Mar. 7, 1939.

Class 31—Filters and Refrigerators

SN 16,991. Auburn Fishhook Company, Inc., Auburn, N. Y., to Corbett Specialties, Inc., Auburn, N. Y. Filed Oct. 5, 1956.



For Cooler.
First use Aug. 20, 1956.

SN 19,623. Schuyler Manufacturing Corporation, North Arlington, N. J. Filed Nov. 20, 1956.

SCHUYLERNIT

For Mist Eliminators of the Filter Type Comprising a Pad Formed From Multiple Layers of Knitted Wire Mesh for Use in Distillation Towers, Evaporators, and Other Types of Vessels and Operative To Separate Entrained Liquid Particles From a Gas and/or Vapor Stream; and Support Grids Therefor.
First use on or about May 21, 1956.

SN 23,788. Giddings & Lewis Machine Tool Company, Fond du Lac, Wis. Filed Feb. 5, 1957.

LUBRI-COOL

For Lubricant Refrigerating Systems for Incorporation in or Attachment to Machine Tools.
First use Sept. 18, 1956.

SN 31,224. Jamison Cold Storage Door Company, Hagerstown, Md. Filed June 3, 1957.

VAP-R-TYT

For Refrigerator Doors.
First use May 15, 1955.

SN 31,225. Jamison Cold Storage Door Company, Hagerstown, Md. Filed June 3, 1957.

JAMISON

FROSTOP

For Refrigerator Doors.
First use May 15, 1955.

SN 37,391. Whirlpool Corporation, St. Joseph, Mich. Filed Sept. 17, 1957.

WHIRLPOOL

Owner of Reg. No. 626,550.
For Ice Cube Makers.
First use Aug. 8, 1957.

Class 32—Furniture and Upholstery

SN 14,838. Viko Furniture Co., Eldred, Pa. Filed Aug. 29, 1956.

VIKORE

For Furniture—Namely, Living Room Furniture, Bedroom Furniture, and Kitchen Furniture.
First use November 1955.

SN 22,804. Ekco Products Company, Chicago, Ill. Filed Jan. 18, 1957. Sec. 2(f).

McCLINTOCK

For Display Fixtures—Namely, Separators for Meat and Produce and Artificial Greens for Use With Such Separators Sold as a Unit.
First use Dec. 1, 1947.

SN 28,097. Erwin Behr, Wendlingen, Germany. Filed Apr. 15, 1957.



Owner of German Reg. No. 676,453, dated May 23, 1955.
For Furniture—Namely, Living Room Furniture, Study Furniture, Bedroom Furniture; and Radio Cabinets, Television Cabinets, and Cabinets for Built-In Radios and Phonographs.

SN 35,207. Frank E. Ryan, d. b. a. Contemporary Distributors, Chicago, Ill. Filed Aug. 8, 1957.

NORSKAN

For Furniture—Namely, Cabinets, Chests, Tables, Chairs, Stools, Sofas, Upholstered and Upholstered Occasional Pieces, Beds, Desks, and Related Office Furniture.
First use Jan. 15, 1957.

SN 37,474. The Autoyre Company, Chicago, Ill. Filed Sept. 19, 1957.

FAIRFIELD

For Furniture—Namely, Tables and Stools.
First use May 1, 1957.

SN 37,475. The Autoyre Company, Chicago, Ill. Filed Sept. 19, 1957.

AUTOYRE

For Furniture—Namely, Tables and Stools.
First use May 1, 1957.

Class 33—Glassware

SN 36,045. Arkwright, Incorporated, New York, N. Y. Filed Aug. 23, 1957.

ARKCREST

For Glassware—Namely, Dishes, Goblets, Cups, Pitchers, Vases, Trays, Plates, Cocktail Shakers.
First use Mar. 1, 1953.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 14,548. Excel, Incorporated, Franklin Park, Ill. Filed Aug. 24, 1956.

**SEATER
HEATER**

The word "Heater" is disclaimed apart from its use in the mark.
For Portable Fuel Burning Stoves for Outdoor Use.
First use Apr. 20, 1956.

SN 22,545. Hupp Corporation, Gibson Refrigerator Company Division, Greenville, Mich. Filed Jan. 14, 1957.

AIR SWEEP

For Air Conditioners.
First use Dec. 19, 1956.

SN 22,606. The Coleman Company, Inc., Wichita, Kans. Filed Jan. 15, 1957.

POLAR-PAK

For Electric Air Conditioners.
First use Nov. 20, 1956.

SN 23,742. Premier Furnace Company, Dowagiac, Mich. Filed Feb. 4, 1957.

PREMIER

For Coal Burning Furnaces and Heaters, Stokers for Coal Burning Furnaces, Oil Burning Furnaces and Heaters and Burners Therefor, Blowers and Filtering Units and Air Conditioning Units.
First use on or about Mar. 1, 1920.

SN 24,197. Robbins & Myers, Inc., Springfield, Ohio. Filed Feb. 11, 1957.



Owner of Reg. Nos. 600,806, 610,307, and others.
For Attic Fans, Exhaust Fans, Window Fans, Industrial Ventilating Fans.
First use Oct. 29, 1956.

SN 29,376. McGraw-Edison Company, Chicago, Ill. Filed May 3, 1957.



For Window Air Conditioners.
First use Mar. 12, 1957.

SN 29,455. Knapp-Monarch Company, d. b. a. Insta Products Company, St. Louis, Mo. Filed May 6, 1957.

FIREBALL

For Barbecue, Campfire, and Fireplace Lighting Device Consisting of a Liquid Fuel Container and Burner Head, Functioning in the Nature of a Torch.
First use Mar. 15, 1957.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 32,012. H. K. Porter Company, Inc., Pittsburgh, Pa. Filed June 14, 1957.

HKP

For Conveyor and Power Transmission Belting, Plastic and Rubber Garden, Fire and Industrial Hoses, and Sheet Packing and Packing Gaskets.
First use May 1955 on belting.

Class 36—Musical Instruments and Supplies

SN 699,107. Haviland Smith, d. b. a. Dixie Record Company, Charlotte, N. C. Filed Nov. 29, 1955.

DIXIE

For Grooved Phonograph Records.
First use May 18, 1955.

Class 37—Paper and Stationery

SN 695,825. Lilla Edets Pappersbruks Aktiebolag, Lilla Edet, Sweden. Filed Oct. 4, 1955.



Owner of Swedish Reg. No. 78,448, dated June 17, 1955.
For Toilet Paper, Napkins, Towels, Facial Tissues, Handkerchiefs, Face Serviettes, and Face Kerchiefs, All Made of Crepe Paper.

SN 1,767. Carteret Printing Company, New York, N. Y. Filed Jan. 31, 1956.



For Sets Consisting of Carbon Paper and Attached Copy Paper.
First use Jan. 16, 1956.

SN 5,694. The Western Paper Goods Co., Cincinnati, Ohio. Filed Apr. 2, 1956.

PAN-O-RAM

For Printed Paper Envelopes for Mailing Advertising Matter, Etc.
First use July 1, 1955.

SN 13,266. Herbert C. Agnew, Pittsburgh, Pa. Filed Aug. 2, 1956.

TIP TALLY

The word "Tally" is disclaimed apart from the mark shown.
For Contract Bridge Tallies.
First use Feb. 15, 1956.

SN 29,760. The Standard Register Company, Dayton, Ohio. Filed May 9, 1957.

STANLOCK

For Multiple Forms for Business Machines.
First use Apr. 23, 1957.

SN 32,933. Eveready Manifold Corporation, Chicago, Ill. Filed July 1, 1957.

SPACEFINDER

For Tabulating Forms.
First use May 24, 1957.

Class 38—Prints and Publications

SN 20,994. Council for Basic Education, Inc., Washington, D. C. Filed Dec. 13, 1956.



The term "Bulletin" is disclaimed.
For Monthly Bulletin and Reprints of Articles Distributed to Members of the Public Interested in Strengthening the Public School System in the United States.
First use on or about Oct. 18, 1956.

SN 25,373. Van Valkenburgh, Nooger & Neville, Inc., New York, N. Y. Filed Mar. 1, 1957.

SYNTHETIC SIMULATION

For Sheets Containing Printed or Pictorial Matter Issued From Time to Time.
First use Oct. 2, 1956.

SN 26,711. Litho-Krome Company, Columbus, Ga. Filed Mar. 22, 1957. Sec. 2(f).

LITHO-KROME

For Lithographic Color Process Prints, Advertising Displays, Picture Post Cards, Printed Posters, Calendars, Printed Labels, and for Color Process Half-Tone Pictures.
First use June 22, 1946.

SN 29,415. The Argonaut Publishing Company, San Francisco, Calif. Filed May 6, 1957.

The Argonaut.

For Weekly Periodical.
First use Mar. 25, 1877.

SN 32,924. H. S. Crocker Co., Inc., San Francisco, Calif. Filed July 1, 1957.

Mirroroscope

Owner of Reg. No. 563,009.
For Picture Post Cards.
First use May 24, 1957.

SN 33,140. Duke Publishing Company, Inc., Chicago, Ill. Filed July 3, 1957.

DUKE

For Monthly Magazine.
First use Apr. 25, 1957.

SN 33,169. Francis E. Pickerill, El Cerrito, Calif. Filed July 3, 1957.

THOT-A-DAY-CARD

For Printed Cards Containing Human Relations Messages.
First use May 15, 1957.

SN 33,317. The Administrative Publishing Company, Inc., Greenwich, Conn. Filed July 8, 1957.

CATHOLIC INSTITUTIONS

For Periodical Issued From Time to Time.
First use June 7, 1957.

SN 33,328. The Billboard Publishing Company, Cincinnati, Ohio. Filed July 8, 1957.

BILLBOARD INTERNATIONAL

Owner of Reg. No. 606,753.
For Periodical.
First use on or about March 1957.

SN 33,457. Richard Neil Bibler, d. b. a. Bibler Feature Service, Elkhart, Kans. Filed July 10, 1957.

LITTLE MAN ON CAMPUS

For Syndicated Cartoon Panel.
First use Sept. 20, 1947.

Class 39—Clothing

SN 4,305. Desmond's, Inc., Los Angeles, Calif. Filed Mar. 12, 1956. CONCURRENT USE restricted to the States of California, Arizona, Nevada, Oregon, and Washington. Concurrent Use with Reg. No. 590,135 restricted to the States of Alabama, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming, and the District of Columbia.

Guildhall

For Shirts, Pajamas, Underwear, Hats, and Suits, for Men, Women, and Boys.
First use Aug. 1, 1933, on hats and suits.

SN 22,774. Samuel Spitz & Sons, Inc., Chicago, Ill. Filed Jan. 17, 1957.

CRICKETEER

For Men's and Boys' Suits and Sport Coats, Students' Suits and Sport Coats, Slacks, and Women's Suits, Jackets, and Skirts.
First use in 1938.

SN 29,997. The Classic Uniform Corp., Baltimore, Md. Filed May 14, 1957.

CHAMPAGNE

For Women's Uniforms.
First use May 1, 1957.

SN 30,883. A. S. Beck Shoe Corporation, New York, N. Y. Filed May 28, 1957. Sec. 2(f) as to "A. S. Beck."

A. S. BECK

"Gum Drops"

Owner of Reg. Nos. 337,500, 578,852, and others.
For Women's Shoes and Slippers Made of Leather and/or Fabric or Mixtures of These Materials.
First use Feb. 6, 1956; in December 1920 as to "A. S. Beck."

SN 31,119. The Hayes Garment Co., Louisville, Ky. Filed May 31, 1957.

STURDI-DOT

For Plastic Pockets Used in Garments for Men, Women, Boys, and Girls.
First use July 10, 1956.

SN 31,126. Kreider-Creveling Shoe Company, Boston, Mass. Filed May 31, 1957. Sec. 2(f).

SO-NIFT-EE

Owner of Reg. No. 391,741.
For Girls' Shoes.
First use Sept. 12, 1940.

SN 31,394. Haggard Company, Dallas, Tex. Filed June 5, 1957.

MILAZO

For Men's and Boys' Clothing—Namely, Slacks.
First use on or about Sept. 1, 1956.

SN 31,395. Haggard Company, Dallas, Tex. Filed June 5, 1957.

LUSETA

For Men's and Boys' Clothing—Namely, Slacks.
First use in or about September 1956.

SN 31,693. Samuel E. Schlein, Inc., New York, N. Y. Filed June 10, 1957. Sec. 2(f).

WESTBROOKE CLOTHES

The word "Clothes" is disclaimed apart from the mark as shown. Owner of Reg. No. 558,139.
For Men's and Boys' Outer Wearing Apparel—Namely, Suits, Topcoats, Overcoats, Sport Jackets, and Slacks.
First use May 9, 1950.

SN 31,789. Phoenix Inc., New York, N. Y. Filed June 11, 1957.

CAREERMAN

For Men's and Boys' Coats, Suits, Trousers, Jackets, Vests, Slacks, and Lounging Coats.
First use Mar. 1, 1956.
Subj. to Intf. with SN 28,762.

SN 31,878. Tootle Dry Goods Company, St. Joseph, Mo. Filed June 12, 1957.

TOOTLE TOPPERS

For Men's and Boys' Caps and Hats.
First use Jan. 7, 1952.

SN 32,051. Philip R. Brachman, Park Ridge, Ill. Filed June 17, 1957.

BALINSOLE

For Men's, Women's, and Children's Work and Dress Shoes Made Principally of Leather.
First use Apr. 19, 1957.

SN 32,092. Kings Footwear Inc., New York, N. Y. Filed June 17, 1957.

LITTLE BEE

Owner of Reg. No. 617,238.
For Misses' and Children's Shoes, Slippers, and Sandals Made of Leather, Fabric, and Combinations Thereof.
First use Jan. 1, 1957.

SN 32,109. Ben Moss, Inc., New York, N. Y. Filed June 17, 1957.

Toby Heart
by BEN MOSS

For Ladies' Sweaters, Jackets, Skirts, Slacks.
First use Jan. 3, 1957.

SN 32,776. B. Rosenberg & Sons, New Orleans, La. Filed June 27, 1957.

REX

For Shoes.
First use Apr. 23, 1901.

Class 40—Fancy Goods, Furnishings, and Notions

SN 31,186. Ben-Hur Products, Inc., New York, N. Y. Filed June 3, 1957.

SWING

Owner of Reg. No. 342,530.
For Hair Ornaments Not Made of Precious Metal—Namely, Combs, Clips, Barrettes, Hair-Rollers, Hair-Pins, Clamping Combs, Hair Curlers, and Head Bands.
First use June 15, 1936.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 28,747. Asher & Boretz, Inc., New York, N. Y. Filed Apr. 24, 1957.

PARAKID

For Rubber Saturated Flannel Fabrics Coated on Both Sides With Rubber Used in the Manufacture of Wallets, Pass Cases, and Outer Belts.
First use Mar. 1, 1945.

SN 28,841. Columbus Coated Fabrics Corporation, Columbus, Ohio. Filed Apr. 25, 1957.

SATIN-GLO

Owner of Reg. No. 312,393.
For Woven and Unwoven Vinyl-Coated Fabrics for Table Coverings, Draperies, and Other Miscellaneous Uses.
First use Apr. 16, 1957.

SN 30,411. Dan River Mills, Incorporated, Danville, Va. Filed May 21, 1957.

DAN LUSTRE

For Cotton Piece Goods.
First use May 8, 1957.

SN 30,439. North American Rayon Corporation, New York, N. Y. Filed May 21, 1957.

HIGH-NARCO

Owner of Reg. Nos. 340,465 and 375,096.
For Knitted Fabrics Composed Wholly or in Part of Yarn of Artificial Origin.
First use January 1945.

SN 30,508. Massachusetts Textile Inc., New York, N. Y. Filed May 22, 1957.

Bernady

For Cashmere Fabrics in the Piece.
First use Jan. 16, 1957.

SN 30,510. Massachusetts Textile Inc., New York, N. Y. Filed May 22, 1957.

Isongaria

For Cashmere Fabrics in the Piece.
First use Jan. 17, 1957.

SN 30,511. Massachusetts Textile Inc., New York, N. Y. Filed May 22, 1957.

Bernasty

For Cashmere Fabrics in the Piece.
First use Jan. 16, 1957.

SN 31,349. Shirley Fabrics Corporation, New York, N. Y. Filed June 4, 1957.

FIREFLI

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Apr. 2, 1956.

SN 31,350. Shirley Fabrics Corporation, New York, N. Y. Filed June 4, 1957.

NIGHTBEAT

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibres, and Mixtures Thereof.
First use June 1, 1955.

SN 31,467. Crompton Company, New York, N. Y. Filed June 6, 1957.



The word "Fabrics" is disclaimed apart from the mark as shown. Owner of Reg. No. 93,264.
For Textile Fabrics in the Piece Composed of Cotton, Wool, Silk, and Synthetic Fibers.
First use Jan. 18, 1957.

SN 31,674. Maygien Company, Inc., New York, N. Y. Filed June 10, 1957.

TRIMSAIL

For Cotton Piece Goods.
First use Apr. 18, 1957.

SN 31,733. The Forstmann Woolen Co., Passaic, N. J. Filed June 10, 1957.

Fleur de Lis

Owner of Reg. Nos. 516,734 and 517,964.
For Woolen Piece Goods.
First use May 14, 1957.

SN 31,841. Hockmeyer Bros., Inc., New York, N. Y. Filed June 12, 1957.

MELOROY

For Corduroy Fabrics in the Piece.
First use Mar. 14, 1940.

Class 43—Thread and Yarn

SN 30,994. The Chemstrand Corporation, Decatur, Ala. Filed May 29, 1957.

CHEMSTRAND

Owner of Reg. Nos. 540,399, 600,796, and others.
For Yarns, Threads, and Yarn and Thread Filaments.
First use July 19, 1949.

SN 31,322. Hess, Goldsmith & Co., Inc., New York, N. Y. Filed June 4, 1957. Sec. 2(f).



For Yarns.
First use Sept. 14, 1936.

Class 44—Dental, Medical, and Surgical Appliances

SN 9,752. Otto (Bo) Suter, Jr., d. b. a. O. Suter Dental Mfg. Co., Chico, Calif. Filed June 6, 1956. Sec. 2(f).

JEFFERY

For Dental Hand Instruments.
First use June 4, 1951.

SN 27,901. The Scholl Mfg. Co., Inc., Chicago, Ill. Filed Apr. 10, 1957.

IMPRESOL

For Insoles.
First use Apr. 5, 1957.

SN 34,569. The Urex Company, Pleasant Hill, Calif. Filed July 29, 1957.

UREX

For Urine Drains for Male Patients.
First use June 17, 1957.

Class 46—Foods and Ingredients of Foods

SN 10,403. Cordon Bleu Limited, Montreal, Quebec, Canada. Filed June 18, 1956.

CORDON BLEU

The French term "Cordon Bleu" may be translated, "The blue ribbon of the Order of the Holy Ghost, the highest order of the old French monarchy; a person regarded as entitled to a badge of eminent distinction; specifically, a first class cook, particularly a woman cook." Owner of Canadian Reg. No. N. S. 15,209, dated Feb. 3, 1940; and U. S. Reg. No. 532,003.

For Sugar, Peanut Butters and Canned Goods—Namely, Meats, Soups, Pork and Beans, Spaghetti, Macaroni, Fish, Vegetables, Vegetable Juices, Fruit Juices, Sandwich Spreads Containing Meat, and Condiments and Sauces—Namely, Katsup, Pickles, Hot Sauce for Chicken, Tomato Sauce for Spaghetti and Meat Sauce for Spaghetti.

SN 18,361. Strohmeyer & Arpe Company, New York, N. Y. Filed Oct. 29, 1956.

PARSIFAL

For Canned Fish and Mustard.
First use 1905.

SN 25,004. Henderson Sugar Refinery, Inc., New Orleans, La. Filed Feb. 26, 1957. Sec. 2(f) as to "Henderson."



No claim is made to "Superfine" apart from the mark as shown, applicant reserving all common law rights. Owner of Reg. Nos. 99,048 and 563,266.

For Sugar.
First use Sept. 24, 1956; 1886 as to "Henderson."

SN 30,358. The Procter & Gamble Company, Cincinnati, Ohio. Filed May 20, 1957.

HEF

For Feed Compound for Use as an Animal Feed Supplement for Domestic Pets, Livestock, and Poultry.
First use Apr. 8, 1957.

SN 31,627. Garn L. Baum, Provo, Utah. Filed June 10, 1957.

PEGGY'S

For Fresh and Frozen Fruit Apple Cider.
First use September 1951.

SN 33,756. S. E. Rykoff & Company, Los Angeles, Calif. Filed July 15, 1957.

GLOWING STAR

For Canned Fruits, Canned Vegetables, and Tomato Catsup.
First use in August 1932.

SN 26,641. William R. Davis, d. b. a. Ol Mammy Company, Enfield, N. C. Filed Aug. 29, 1957.



No claim is made for the representation of the peanuts, apart from the mark shown. The portrait shown is that of Della Bailey, whose consent is of record.
For Raw and Parched Peanuts.
First use Aug. 26, 1947.

Class 47—Wines

SN 21,886. Dopff & Irion S. A. R. L., Riquewihr, Haut Rhin, France. Filed Dec. 31, 1956.

**DOPFF & IRION
"CRUSTACES"**

The word "Crustaces" is the pluralized form of the French word "crustace," meaning in English "a crustacean animal," etc.

For Wines.
First use Sept. 7, 1956; in commerce Sept. 7, 1956.

Class 48—Malt Beverages and Liquors

SN 671,973. Aktieselskabet de Forenede Bryggerier, d. b. a. Tuborg Breweries Ltd., Copenhagen, Denmark. Filed Aug. 20, 1954.



The lining is for gold. No claim is made to the word "Beer" apart from the mark as shown. Owner of U. S. Reg. Nos. 283,927, 437,127, and others.

For Beer.
First use 1895; in commerce Apr. 18, 1933.

Class 51—Cosmetics and Toilet Preparations

SN 20,836. Richard Hudnut, Morris Plains, N. J. Filed Dec. 11, 1956.

BLISS

For Creme Wave Solution in a Tube.
First use Dec. 7, 1956.

SN 29,169. Prince Matchabelli, Inc., New York, N. Y. Filed Apr. 30, 1957.

SN 33,365. Pal-Pen Chemical Co., Carmichael, Calif. Filed July 8, 1957.

PERSISTEX

For Hexachlorophene Used as an Ingredient in Deodorants.
First use Sept. 12, 1955.

Class 52—Detergents and Soaps

SN 32,655. B. A. Ralton Co., Chicago, Ill. Filed June 26, 1957.



The disk is lined for yellow. Owner of Reg. Nos. 162,870, 244,828, and others.

For Dishwashing and/or Laundering Compound, Cleaning Compound, Scouring Powder, Detergents, Water Softener, a Composition Which Is a Bleach and/or Deodorizer and/or Disinfectant and/or Cleanser, Soap (Cake, Granulated, Powdered, a Liquid), Cold Cream Hand Soap and Preparations for Removing Stains, Dirt, and Grease.

First use at least as early as 1940; at least as early as 1915 as to "Sunny."

For Cleaning and Spotting Fluids.
First use May 10, 1957.



SN 33,999. Thomas Petronio, Mamaroneck, N. Y. Filed July 18, 1957.



For Preparation for Use in Cleaning the Hands.
First use Mar. 28, 1956.

SN 34,180. Scientific Supply Co., Inc., Denver, Colo. Filed July 22, 1957.



For Dishwashing Compounds.
First use on or about June 17, 1957.

SERVICE MARKS

Class 100—Miscellaneous

SN 6,069. Tennessee Service Company, Knoxville, Tenn. Filed Apr. 9, 1956.

SERVA-TERIA

For Snack Bar Services on a Contract Basis—Namely, Dispensing of Food and Beverages in Industrial and Commercial Establishments by Means of Vending Machines.

First use Nov. 1, 1955.

Subj. to Intf. with SN 33,316.

SN 14,069. Ionics, Incorporated, Cambridge, Mass. Filed Aug. 16, 1956.



For Consultation and Research Development in Electrolysis, Ion-Exchange, Electrochemical, Inorganic, Organic and Chemical Fields.
First use Sept. 23, 1949.

For Restaurant Services.
First use Feb. 18, 1937.



SN 24,223. Balmaco, Incorporated, d. b. a. The Kimbark Company, Denver, Colo. Filed Feb. 11, 1957.

KIMCO

For Services Rendered for Others in Locating Oil Pools, and Performing Engineering Services To Develop and Extract Oil From the Earth.
First use May 28, 1956.

SN 29,033. E. L. Chrisman Company, Inc., Los Angeles, Calif. Filed Apr. 29, 1957.

SN 27,851. Design Dynamics, Inc., Chicago, Ill. Filed Apr. 10, 1957.



No claim is made to the word "System" apart from the mark. The drawing is lined for blue, and claim is made to such color.

For Promotional Advertising and Credit Card System for Dry Cleaning Businesses.
First use Jan. 15, 1957.

SN 33,316. Frank J. Ablah, Wichita, Kans. Filed July 8, 1957.



For Restaurant Services Including the Management and Operating of Restaurants.
First use in February 1954.
Subj. to Intf. with SN 6,069.

Class 101—Advertising and Business

SN 7,541. Stop and Save Trading Stamp Corporation, Paterson, N. J. Filed May 2, 1956.

TRIPLE S

For Promoting the Sale of the Goods of Others Through the Medium of Trading Stamps Redeemable in Merchandise.
First use on or about Jan. 10, 1956.

SN 11,534. Berneice U. Briggs, Dayton, Ohio. Filed July 5, 1956.

NEW NEIGHBORS LEAGUE

For Promoting the Sale of Goods and Services of Various Sponsors Through Hostesses Who Call on New Residents.
First use in or about December 1939.

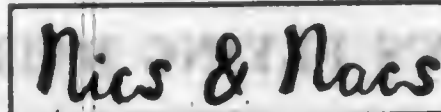
SN 20,366. Dun & Bradstreet, Inc., New York, N. Y. Filed Dec. 4, 1956.

THE D & B

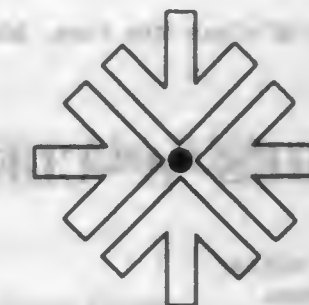
DRUG AUDEX

For Assembling, Analyzing, and Furnishing Market Information in the Drug Field, Which Information Is Disseminated by Means of Periodical Reports.
First use October 1956.

SN 25,170. Marvin Goldson, New York, N. Y. Filed Feb. 27, 1957.



For Retail Selling of the Goods of Others in the Field of Novelties and Gifts for the Home or Individuals.
First use Feb. 15, 1955.



For Design and Consulting Service in the Industrial, Packaging, Graphic, Decorative, and Merchandising Fields.
First use Jan. 3, 1957.

Class 102—Insurance and Financial

SN 16,888. General Fire and Casualty Company, New York, N. Y. Filed Oct. 3, 1956.



For Underwriting Insurance.
First use Apr. 1, 1952.

SN 25,008. Life Insurance Company of America, Wilmington, Del. Filed Feb. 25, 1957.



For Underwriting of Life, Accident, and Health Insurance.
First use Dec. 12, 1956.

SN 25,840. Bank-A-Count Corporation, Wisconsin Rapids, Wis. Filed Mar. 11, 1957.

BANK-A-COUNT

For Periodic Inventory of Individual or Business Bank Statements for Tax and Other Business or Personal Services—Namely, the Furnishing and Installation of a System of Prepared Checks Which Facilitate the Users With a Practical and Expedient Method of Classifying and Tabulating Their Receipts and Expenditures and the Periodic Compilation of Such Receipts and Expenditures for the Users Thereof.
First use Dec. 15, 1955.

SN 28,200. State Bank and Trust Company of Wellston, St. Louis, Mo. Filed Apr. 15, 1957.

BANKING IN THE SKY

The word "Banking" is disclaimed apart from the mark. For General Banking Services.
First use Mar. 1, 1955.

Class 103—Construction and Repair

SN 21,676. Clothes-"A"-Clean Mfg. Corp., Miami, Fla. Filed Dec. 27, 1956.

CLOTHES-"A"-CLEAN

Owner of Reg. No. 633,582.
For Laundry Services.
First use Aug. 4, 1955.

SN 30,627. American Airlines, Inc., New York, N. Y. Filed May 24, 1957.



Owner of Reg. Nos. 514,293 and 514,294.
For Air Transportation of Passengers.
First use Mar. 26, 1956.

Class 104—Communication

SN 31,606. Tri-City Broadcasting Company, Wheeling, W. Va. Filed June 7, 1957.



For Television and Radio Broadcasting Communication Service.
First use Apr. 10, 1957.

Class 105—Transportation and Storage

SN 22,334. Penthouse Travel Center, Inc., New York, N. Y. Filed Jan. 9, 1957.

TRAVELTYME TOURS

The word "Tours" is disclaimed apart from the mark as shown.

For Travel Agency Services—Namely, Planning Vacations, Tours, and Trips, Arranging Travel Accommodations and Reservations, Arranging Car Rentals, and Making Hotel and Sleeping Reservations.
First use Dec. 28, 1956.

SN 22,785. Abbotsford Travel Service, Inc., Chicago, Ill. Filed Jan. 18, 1957.

PRIZE HOLIDAYS

For Travel Agency Services—Namely, the Arranging and Conducting of Sightseeing and Other Similar Types of Tours.
First use Jan. 10, 1957.

SN 31,521. Trans World Airlines, Inc., Kansas City, Mo. Filed June 6, 1957.

JETSTREAM

For Air Transportation of Persons.
First use June 1, 1957.

Class 106—Material Treatment

SN 684,447. Mercast Corporation, New York, N. Y. Filed Mar. 29, 1955.

MERCAST

Owner of Reg. Nos. 620,232 and 633,454.
For Custom Moulding and Casting of Precision Parts of Others Through the Use of Frozen Mercury Patterns.
First use Feb. 1, 1951.

Class 107—Education and Entertainment

SN 699,023. Florence Utt Switchboard (PBX) Receptionist Schools, Inc., Detroit, Mich. Filed Nov. 28, 1955.

Florence Utt
Switchboard Schools Across the Nation



The person portrayed is Florence Utt, which is the maiden name of Florence Utt Rhinear, president of applicant corporation. The drawing is lined to indicate red.
For Educational Services, viz., Instruction in the Operation of the Switchboard and in Receptionists' Duties.
First use January 1948.

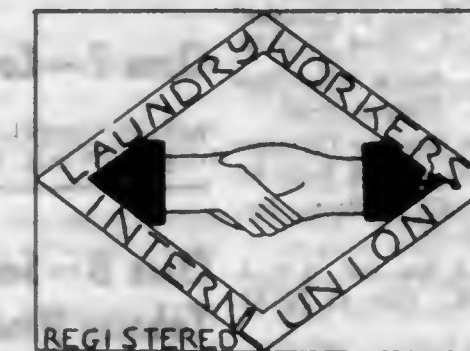
SN 2,540. Joseph Kirby, d. b. a. Kirby's Flying Ballet, Sussex, England. Filed Feb. 13, 1956.

KIRBY'S FLYING BALLET

For Service of Leasing Apparatus for Lifting and Controlling in the Air Individual Stage Artists and Props, and Supplying Trained Supervisor for Operating Said Apparatus.
First use April 1936.

COLLECTIVE MEMBERSHIP MARKS**Class 200**

SN 24,173. Laundry Workers' International Union, Chicago, Ill. Filed Feb. 11, 1937. Sec. 2(f).



The lining is not representation of color but is a feature of the mark.
For Indicating Membership in Applicant Union.
First use Oct. 17, 1916.

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

- 657,921. CAMELINE AND DESIGN. Harry T. Campbell Sons' Corp. SN 700,415. Pub. 11-19-57. Filed 12-9-55.
657,922. CAMEL-WITE AND DESIGN. Harry T. Campbell Sons' Corp. SN 700,416. Pub. 11-19-57. Filed 12-9-55.
657,923. SPARTAN ETC. AND DESIGN. Bell & Zoller Coal Company. SN 22,078. Pub. 11-19-57. Filed 1-4-57.
657,924. BUCKEYE AND DESIGN. The Buckeye Cellulose Corporation. SN 22,601. Pub. 10-15-57. Filed 1-15-57.
657,925. WONDERFILL. Moody-Wonderfill Products, Inc. SN 25,107. Pub. 11-19-57. Filed 2-26-57.
657,926. RICH-FIELD. E. K. Peterson & Son Inc., d. b. a. E. K. Peterson & Sons, Inc. SN 28,223. Pub. 11-19-57. Filed 3-22-57.
657,927. NATSYN. The Goodyear Tire & Rubber Company. SN 28,346. Pub. 11-19-57. Filed 4-17-57.
657,928. ZYLITE. Seattle Quilt Mfg. Co., Inc. SN 28,550. Pub. 11-19-57. Filed 4-19-57.
657,929. E-Z-E FILTER. Perlite Corporation of America. SN 28,880. Pub. 11-19-57. Filed 4-25-57.
657,930. FEATHER LEATHER. Irving Tanning Co. SN 29,216. Pub. 11-19-57. Filed 5-1-57.
657,931. ASGROW IN OVAL. Associated Seed Growers, Incorporated. SN 29,513. Pub. 11-19-57. Filed 5-7-57.

Class 2—Receptacles

- 657,932. KEGLINED AND DESIGN. American Can Company. SN 26,147. Pub. 11-19-57. Filed 2-14-57.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

- 657,933. ACELLA. J. H. Benecke. SN 3,076. Pub. 11-19-57. Filed 2-21-56.
657,934. RELCO. Reliable Luggage, Inc. SN 28,458. Pub. 11-19-57. Filed 4-18-57.

Class 6—Chemicals and Chemical Compositions

- 657,935. ESQUIRE SHOE RE-FRESHER. Knomark Manufacturing Co., Inc. SN 699,509. Pub. 11-19-57. Filed 12-6-55.
657,936. WATER SHED. Knomark Manufacturing Co., Inc. SN 699,511. Pub. 11-19-57. Filed 12-6-55.
657,937. FYR PAK. Hibbit, Inc. SN 699,967. Pub. 10-1-57. Filed 12-14-55.
657,938. MOBILCHEM. Socony Mobil Oil Company, Inc. SN 2,922. Pub. 11-19-57. Filed 2-17-56.
657,939. SANTONOX. Monsanto Chemical Company. SN 17,027. Pub. 7-16-57. Filed 10-5-56.
657,940. P. M. P. Donco, Inc. SN 23,300. Pub. 11-19-57. Filed 1-28-57.
657,941. TES-TAPE. Eli Lilly and Company. SN 23,560. Pub. 11-19-57. Filed 1-31-57.
657,942. ARAZYM. Röhm & Haas, G. m. b. H. SN 24,002. Pub. 11-19-57. Filed 2-7-57.

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- 657,943. EMBER-GLO. Prairie States Oil & Grease Company. SN 24,628. Pub. 11-19-57. Filed 2-18-57.
657,944. FUNGITROL. Heyden Newport Chemical Corporation. SN 25,985. Pub. 11-19-57. Filed 3-12-57.

Class 7—Cordage

- 657,945. HANSCOM. H. F. Hanscom & Company, Inc. SN 25,615. Pub. 11-19-57. Filed 3-6-57.

Class 8—Smokers' Articles, Not Including Tobacco Products

- 657,946. CHEMEX. Chemex Corporation. SN 21,878. Pub. 11-19-57. Filed 12-31-56.

Class 9—Explosives, Firearms, Equipments, and Projectiles

- 657,947. FLEXO-BAG AND DESIGN. Hercules Powder Company. SN 20,750. Pub. 11-19-57. Filed 12-10-56.

Class 10—Fertilizers

- 657,948. ELEPHANT BRAND. The Consolidated Mining and Smelting Company of Canada Limited. SN 19,229. Pub. 11-19-57. Filed 11-14-56.
657,949. RE-NU AND DESIGN. Calvin P. Stephenson, d. b. a. Stephenson Chemical Company. SN 20,321. Pub. 11-19-57. Filed 12-3-56.

Class 12—Construction Materials

- 657,950. PERMACEDAR AND DESIGN. The Yoho & Hooker Youngstown Co. SN 19,553. Pub. 11-19-57. Filed 11-19-56.
657,951. TAB-LOK. The Eagle-Picher Company. SN 20,164. Pub. 11-19-57. Filed 11-30-56.
657,952. VESTO. The Vesto Company, Inc. SN 20,809. Pub. 11-19-57. Filed 12-10-56.
657,953. LFP AND DESIGN. Lansdale Forest Products Corp. SN 24,787. Pub. 11-19-57. Filed 2-20-57.
657,954. D'PELCO. Blocks, Inc. SN 24,831. Pub. 11-19-57. Filed 2-21-57.
657,955. COPPER-GRAIN. Globe Roofing Products Co., Inc. SN 25,773. Pub. 11-19-57. Filed 3-8-57.
657,956. E-Z-PLY. The Trenton Corporation. SN 26,897. Pub. 11-19-57. Filed 3-25-57.
657,957. AMBERA. William L. Marshall, Ltd. SN 27,613. Pub. 11-19-57. Filed 4-5-57.
657,958. BREEZE PORT. Kwik-Bilt, Inc. SN 27,956. Pub. 11-19-57. Filed 4-11-57.
657,959. PANLASTIC. Butler Manufacturing Company. SN 28,103. Pub. 11-19-57. Filed 4-15-57.
657,960. MASTERSEAL. The Philip Carey Manufacturing Company. SN 28,106. Pub. 11-19-57. Filed 4-15-57.

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- 657,961. WEATHERPANE. Copco Steel & Engineering Company. SN 28,112. Pub. 11-19-57. Filed 4-15-57.
657,962. KROMIGHT. The Babcock & Wilcox Company. SN 28,229. Pub. 11-19-57. Filed 4-16-57.
657,963. ROOF-ALUM. Milton H. Volpert, d. b. a. Roof-Alum Industries. SN 28,307. Pub. 11-19-57. Filed 4-16-57.
657,964. TIGER RED AND DESIGN. Mexico Refractories Company. SN 28,872. Pub. 11-19-57. Filed 4-25-57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

- 657,965. S AND DESIGN. Smith Tube Corporation. SN 697,330. Pub. 10-2-56. Filed 10-28-55.
657,966. KASSWAY ETC. AND DESIGN. Samuel M. Kass, d. b. a. Kass Hardware. SN 26,833. Pub. 11-19-57. Filed 3-25-57.
657,967. P-K AND TRIANGLE DESIGN. General American Transportation Corporation. SN 27,948. Pub. 11-19-57. Filed 4-11-57.
657,968. B & G. Bell & Gossett Company. SN 29,003. Pub. 11-19-57. Filed 4-29-57.
657,969. PERMA-JET. Webb Industries, Inc. SN 29,118. Pub. 11-19-57. Filed 4-29-57.
657,970. PRIDE & JOY SET. Bridgeport Brass Company. SN 29,197. Pub. 11-19-57. Filed 5-1-57.
657,971. FLUSH O MATIC AND DESIGN. Ronald S. Blough, d. b. a. Fairfield Engineering Company. SN 29,861. Pub. 11-19-57. Filed 5-13-57.

Class 15—Oils and Greases

- 657,972. GULF SUPER NO-NOX AND DESIGN. Gulf Oil Corporation. SN 28,854. Pub. 11-19-57. Filed 4-25-57.
657,973. PATHFINDER. Pathfinder Petroleum Company. SN 30,825. Pub. 11-19-57. Filed 5-27-57.

Class 16—Protective and Decorative Coatings

- 657,974. MULTIFLEX. Wolverine Finishes Corporation. SN 675,861. Pub. 12-6-55. Filed 11-1-54.
657,975. GALVAFROID. Secomastic Limited. SN 17,405. Pub. 11-19-57. Filed 10-12-56.
657,976. OIL STOP. Minnesota Mining and Manufacturing Company. SN 18,911. Pub. 11-19-57. Filed 11-7-56.
657,977. PLASTI-BAR. Carthage Mills Incorporated. SN 21,126. Pub. 11-19-57. Filed 12-17-56.
657,978. MICASHELL. Carthage Mills Incorporated. SN 22,162. Pub. 11-19-57. Filed 1-7-57.
657,979. LINOGEL. Archer-Daniels-Midland Company. SN 23,013. Pub. 11-19-57. Filed 1-23-57.
657,980. VAR. Archer-Daniels-Midland Company. SN 23,014. Pub. 11-19-57. Filed 1-23-57.
657,981. PENETROID. W. W. Lawrence & Company. SN 30,793. Pub. 11-19-57. Filed 5-27-57.
657,982. CHEMFAST. Devco & Reynolds Company, Inc. SN 33,219. Pub. 11-19-57. Filed 7-5-57.
657,983. T. L. C. AND DESIGN. Tubular Lining Corporation. SN 33,382. Pub. 11-19-57. Filed 7-8-57.

Class 18—Medicines and Pharmaceutical Preparations

- 657,984. METICILLIN. Schering Corporation. SN 4,236. Pub. 11-19-57. Filed 3-9-56.

- 657,985. WALKERS IDEAL. Leonard Walker Remedy Manufacturing Co. SN 11,727. Pub. 12-10-57. Filed 7-6-56.
657,986. CORDENT. Graham Chemical Corp. SN 16,039. Pub. 11-19-57. Filed 9-20-56.
657,987. SUPER CAL. Standard Merchandising Co., Inc. SN 17,195. Pub. 11-19-57. Filed 10-9-56.
657,988. HEXAMID. Nordmark-Werke Gesellschaft mit beschränkter Haftung. SN 23,498. Pub. 11-19-57. Filed 1-30-57.
657,989. SKOPYL. Aktiebolaget Pharmacia. SN 23,885. Pub. 11-19-57. Filed 2-6-57.
657,990. OMAFAC. Olin Mathieson Chemical Corporation. SN 25,350. Pub. 11-19-57. Filed 3-1-57.
657,991. SEROCICLINA. Eli Lilly and Company. SN 25,548. Pub. 11-19-57. Filed 3-5-57.
657,992. WEMETT'S. Earl W. Clark, d. b. a. Edward Wemett & Co. SN 25,584. Pub. 11-19-57. Filed 3-6-57.
657,993. SUNDRI-AID. Schnepf Associates, Inc. SN 27,349. Pub. 11-19-57. Filed 4-1-57.
657,994. ELIXIR GESTEIRA. Dr. J. Gesteira, Inc. SN 27,949. Pub. 11-19-57. Filed 4-11-57.
657,995. DYNACORT. Armour and Company. SN 28,009. Pub. 11-19-57. Filed 4-12-57.
657,996. L-POVAC. Armour and Company. SN 28,010. Pub. 11-19-57. Filed 4-12-57.
657,997. BIDROLAR. Armour and Company. SN 28,013. Pub. 11-19-57. Filed 4-12-57.
657,998. FX. Kenneth C. Fay, d. b. a. Deseghers. SN 28,586. Pub. 11-19-57. Filed 4-22-57.
657,999. SALAMANCA. Howard F. Freeman. SN 28,700. Pub. 11-19-57. Filed 4-23-57.
658,000. BUCLADIN. The Stuart Company. SN 29,969. Pub. 11-19-57. Filed 5-13-57.
658,001. NEO-ACROMICINA. American Cyanamid Company. SN 30,214. Pub. 11-19-57. Filed 5-17-57.
658,002. DORNAVAC. Merck & Co., Inc. SN 30,435. Pub. 11-19-57. Filed 5-21-57.
658,003. HYASORB. Key Corporation. Pharmaceuticals. SN 30,500. Pub. 11-19-57. Filed 5-22-57.
658,004. KEYBRIN. Key Corporation. Pharmaceuticals. SN 30,501. Pub. 11-19-57. Filed 5-22-57.
658,005. CLOCKWISE. Vick Chemical Company. SN 30,700. Pub. 11-19-57. Filed 5-24-57.
658,006. DESA-HIST. Deseret Pharmaceutical Company, Inc. SN 30,748. Pub. 11-19-57. Filed 5-27-57.

Class 21—Electrical Apparatus, Machines, and Supplies

- 658,007. IWI INVENTORY WITHOUT INVESTMENT. Insulation & Wires Incorporated (Missouri corporation), to Insulation and Wires, Incorporated (Delaware corporation). SN 6,617. Pub. 11-19-57. Filed 4-18-56.
658,008. COLUMBUS AND DESIGN. Columbus-Dixon Limited. SN 9,844. Pub. 11-19-57. Filed 6-8-56.
658,009. MVCO AND DESIGN. Master Vibrator Company. SN 19,475. Pub. 11-19-57. Filed 11-19-56.
658,010. TRAKODE. General Railway Signal Company. SN 20,027. Pub. 11-19-57. Filed 11-28-56.
658,011. SCAN-TENNA. Philco Corporation. SN 25,353. Pub. 11-19-57. Filed 3-1-57.
658,012. ASTROL-O-PHONE. La Velle Golf-Bent. SN 27,691. Pub. 11-19-57. Filed 4-8-57.
658,013. ISOLANTITE. Isolantite Manufacturing Corp. SN 28,601. Pub. 11-19-57. Filed 4-22-57.
658,014. YARDNEY SILCAD AND DESIGN. Yardney Electric Corporation. SN 28,672. Pub. 11-19-57. Filed 4-22-57.
658,015. EPRAD. Electrical Products Research and Development Company. SN 28,694. Pub. 11-19-57. Filed 4-23-57.

- 658,016. SPEEDOLET. Killark Electric Manufacturing Co. SN 28,711. Pub. 11-19-57. Filed 4-29-57.
 658,017. NATIONAL AND DESIGN. Union Carbide and Carbon Corporation. SN 28,820. Pub. 11-19-57. Filed 4-24-57.
 658,018. PALMER. Rufus N. Palmer. SN 31,682. Pub. 11-19-57. Filed 8-10-57.

Class 22—Games, Toys, and Sporting Goods

- 658,019. IMPERIAL. Jorgensen Bros. SN 27,818. Pub. 11-19-57. Filed 4-1-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 658,020. MUD MONARCH. Mission Manufacturing Company. SN 695,174. Pub. 11-19-57. Filed 9-22-56.
 658,021. KNIFEMASTER. Richard B. Smith, d. b. a. Knife-master Products Co. SN 3,233. Pub. 2-19-57. Filed 2-23-56.
 658,022. EMG. Elektro-Mechanik G. m. b. H. SN 5,767. Pub. 11-19-57. Filed 4-4-58.
 658,023. SQUARE AND CIRCLE DESIGN WITH LETTERS M AND T. Elektro-Mechanik G. m. b. H. SN 5,768. Pub. 11-19-57. Filed 4-4-58.
 658,024. CONTINENTAL AND DESIGN. Continental Pump Co. SN 9,628. Pub. 11-19-57. Filed 6-5-56.
 658,025. POLYGRAPH PLANETA AND DESIGN. Veb Druckmaschinenwerk Planeta. SN 13,102. Pub. 9-2-57. Filed 7-30-56.
 658,026. MAY-FRAN AND DESIGN. May-Fran Engineering, Inc. SN 16,900. Pub. 11-19-57. Filed 10-3-56.
 658,027. VERI-SHARP. Imperial Knife Company, Inc. SN 19,782. Pub. 11-19-57. Filed 11-23-56.
 658,028. PRIBNOW. Hanchett Manufacturing Company. SN 21,153. Pub. 11-19-57. Filed 12-17-56.
 658,029. PTCO AND DESIGN. Putnam Tool Company. SN 21,349. Pub. 11-19-57. Filed 12-12-56.
 658,030. ROLLECTRIC. Sperry Rand Corporation. SN 21,754. Pub. 11-19-57. Filed 12-27-56.
 658,031. GOOD EARTH. Great Neck Saw Manufacturers, Inc. SN 23,790. Pub. 11-19-57. Filed 2-5-57.
 658,032. DON JUAN. Don Juan Blade Company. SN 23,899. Pub. 11-19-57. Filed 2-6-57.
 658,033. STAR GLASDRIL. Star Expansion N. Y., Inc. SN 25,572. Pub. 11-19-57. Filed 3-5-57.
 658,034. CARDKNIT. Stanley Home Products, Inc. SN 26,887. Pub. 11-19-57. Filed 3-25-57.
 658,035. M-P AND DESIGN. Crompton & Knowles Corporation. SN 26,925. Pub. 10-15-57. Filed 3-26-57.
 658,036. BETTA. Georgia Pacific Pump Company. SN 30,328. Pub. 11-19-57. Filed 5-20-57.
 658,037. CLAYJECTOR. Dorr-Oliver Incorporated. SN 31,642. Pub. 11-19-57. Filed 6-10-57.
 658,038. SUN-MASTER. Sunflower Industries, Inc. SN 33,381. Pub. 11-19-57. Filed 7-8-57.

Class 26—Measuring and Scientific Appliances

- 658,039. SOFTSIDES. Jack B. Hirschmann, d. b. a. H. L. Bouton Company. SN 7,007. Pub. 11-19-57. Filed 4-24-56.
 658,040. SAFEATHER. Aviation Instrument Manufacturing Co. SN 11,518. Pub. 11-19-57. Filed 7-5-56.
 658,041. TOPCOFLEX. Tokyo Optical Company Limited. SN 16,916. Pub. 11-19-57. Filed 10-3-56.

- 658,042. TOPCON. Tokyo Optical Company Limited. SN 16,917. Pub. 11-19-57. Filed 10-3-56.
 658,043. TOPCOR. Tokyo Optical Company Limited. SN 16,918. Pub. 11-19-57. Filed 10-3-56.
 658,044. DURAX. Jenaer Glaswerk Schott & Gen. SN 17,370. Pub. 11-19-57. Filed 10-12-56.
 658,045. MAXOS. Jenaer Glaswerk Schott & Gen. SN 17,372. Pub. 11-19-57. Filed 10-12-56.
 658,046. DUROBAX. Jenaer Glaswerk Schott & Gen. SN 17,375. Pub. 11-19-57. Filed 10-12-56.
 658,047. JENAER SUPRAX GLAS. Jenaer Glaswerk Schott & Gen. SN 17,642. Pub. 11-19-57. Filed 10-17-56.
 658,048. PRESTO-FIL. Dearborn Chemical Company. SN 20,253. Pub. 11-19-57. Filed 12-3-56.
 658,049. SAF-T-EYE. The Lau Blower Company. SN 22,324. Pub. 11-19-57. Filed 1-6-57.
 658,050. IVSL. Specialties, Inc. SN 22,391. Pub. 11-19-57. Filed 1-10-57.

Class 27—Horological Instruments

- 658,051. L & W. Lisnow & Weiss Co., Inc. SN 28,613. Pub. 11-19-57. Filed 4-22-57.
 658,052. TENDERLEE. Mepa Watch Corp. SN 28,624. Pub. 11-19-57. Filed 4-22-57.
 658,053. HENRILINE. Henry Line. SN 30,503. Pub. 11-19-57. Filed 5-22-57.

Class 28—Jewelry and Precious-Metal Ware

- 658,054. IKORA. Württembergische Metallwarenfabrik. SN 23,192. Pub. 11-19-57. Filed 1-24-57.

Class 29—Brooms, Brushes, and Dusters

- 658,055. PROVENBEST. Maendler Brush Mfg. Co. Inc. SN 20,111. Pub. 11-19-57. Filed 11-29-56.
 658,056. SKILCRAFT AND DESIGN. National Industries for the Blind. SN 20,649. Pub. 11-19-57. Filed 12-7-56.

Class 30—Crockery, Earthenware, and Porcelain

- 658,057. LINNEA. Shenango China, Inc. SN 29,173. Pub. 11-19-57. Filed 4-30-57.

Class 31—Filters and Refrigerators

- 658,058. KLEEN PAK. Kleen Pak Corporation. SN 13,589. Pub. 11-19-57. Filed 8-8-56.
 658,059. NORTH STAR. Lyle E. Branchflower. SN 21,868. Pub. 11-19-57. Filed 12-31-56.

Class 32—Furniture and Upholstery

- 658,060. ELLDECO. Frank G. Ellerman, d. b. a. F. G. Ellerman & Co. SN 2,517. Pub. 11-19-57. Filed 2-19-56.
 658,061. UNIFUSE. Bedding Manufacturers Associates, Inc. SN 22,045. Pub. 11-19-57. Filed 1-3-57.
 658,062. COPPES NAPANEE. Coppes, Inc. SN 34,042. Pub. 11-19-57. Filed 7-19-57.
 658,063. COPPES NAPANEE AND DESIGN. Coppes, Inc. SN 34,043. Pub. 11-19-57. Filed 7-19-57.
 658,064. EASTERN AND DESIGN. Eastern Cabinet Company, Inc. SN 36,290. Pub. 11-19-57. Filed 3-27-57.

Class 33—Glassware

- 658,065. SYENITE. Mississippi Glass Company. SN 29,541. Pub. 11-19-57. Filed 5-7-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

- 658,066. UNARCO WEATHER CONDITIONING. Union Asbestos & Rubber Company. SN 684,192. Pub. 9-13-55. Filed 4-8-54.
 658,067. REMEMBRANCE LITE. Muench-Kreuzer Candle Co., Inc. SN 678,133. Pub. 7-12-55. Filed 12-10-54.
 658,068. IMPERIAL Teter, Inc. SN 13,328. Pub. 11-19-57. Filed 8-2-56.
 658,069. AEROTROL. Aerotrol, Inc. SN 18,143. Pub. 11-19-57. Filed 10-25-56.
 658,070. TRI-FAB. Triangle Manufacturing Company. SN 20,497. Pub. 11-19-57. Filed 12-5-56.

Class 36—Musical Instruments and Supplies

- 658,071. UNI-BELL. The I. T. Verdin Co. SN 19,080. Pub. 11-19-57. Filed 11-9-56.
 658,072. CIMA. Hilario Caballero, d. b. a. Cima Records. SN 21,875. Pub. 11-19-57. Filed 12-31-56.
 658,073. CELEBRITY SERIES. Mercury Record Corporation. SN 23,817. Pub. 11-19-57. Filed 2-5-57.
 658,074. VOICE CAMERA. Southern Distributors, Inc. SN 26,884. Pub. 11-19-57. Filed 3-25-57.
 658,075. CARIBE. Cook Laboratories, Inc. SN 28,495. Pub. 11-19-57. Filed 4-19-57.

Class 37—Paper and Stationery

- 658,076. TAGSONS ETC. AND DESIGN. Tagsons Papers, Inc. SN 16,377. Pub. 11-19-57. Filed 9-25-56.
 658,077. HECTO-LITH. Ditto, Incorporated. SN 18,087. Pub. 11-19-57. Filed 10-24-56.
 658,078. SEVEN STAR DIARY AND DESIGN. N. V. Maandblad Succes. SN 19,155. Pub. 11-19-57. Filed 11-12-56.
 658,079. TOWNCRAFT-TANDEM. Windsor Pen Corp. SN 25,580. Pub. 11-19-57. Filed 3-5-57.
 658,080. DURA WEVE. Scott Paper Company. SN 26,301. Pub. 11-19-57. Filed 3-15-57.
 658,081. CHERIE. Groveton Papers Company. SN 28,348. Pub. 11-19-57. Filed 4-17-57.
 658,082. BILTMORE AND DESIGN. Graham Paper Company. SN 28,593. Pub. 11-19-57. Filed 4-22-57.

Class 38—Prints and Publications

- 658,083. FOREIGN SERVICE BUREAU AND DESIGN. John A. Carney, d. b. a. Foreign Service Bureau. SN 12,571. Pub. 11-19-57. Filed 7-5-56.

Class 39—Clothing

- 658,084. DESIGN OF HAT. E. D. Bullard Company. SN 669,735. Pub. 11-12-57. Filed 7-12-54.
 658,085. SEDGEFIELD. Blue Bell, Inc. SN 687,672. Pub. 11-19-57. Filed 5-17-55.
 658,086. QUANTO. Società Accomandita Semplice Calzaturificio Vibelsport di Vibelli & C. SN 19,527. Pub. 11-19-57. Filed 11-19-56.

- 658,087. BREEZIES. The Barbison Corporation. SN 22,295. Pub. 11-19-57. Filed 1-9-57.
 658,088. THE CRYSTAL LOOK. David Crystal, Inc. SN 23,613. Pub. 11-19-57. Filed 2-1-57.
 658,089. HAND-WARMER AND DESIGN. Imperial Refineries Corporation. SN 26,356. Pub. 11-19-57. Filed 3-18-57.
 658,090. ROGERS CAMPUS KICKS. Kingsboro Mills, Inc. SN 26,835. Pub. 11-19-57. Filed 3-25-57.
 658,091. BEVERLY PAIGE. Beverly Paige Casuals. SN 28,099. Pub. 11-19-57. Filed 4-15-57.
 658,092. SWITCHEROO AND DESIGN. Miss Stephanie, Inc. SN 28,174. Pub. 11-19-57. Filed 4-15-57.
 658,093. TUF-E-TOGS. Alpha Mills Corporation. SN 28,227. Pub. 11-19-57. Filed 4-16-57.
 658,094. FANNY PANTY. Romay, Incorporated. SN 28,384. Pub. 11-19-57. Filed 4-17-57.
 658,095. CHALEEN. Superba Cravats, Inc. SN 28,466. Pub. 11-19-57. Filed 4-18-57.
 658,096. RAINLARK. The B. F. Goodrich Company. SN 28,589. Pub. 11-19-57. Filed 4-22-57.
 658,097. BEN-HUR. Troutman Shirt Company, Inc. SN 29,317. Pub. 11-19-57. Filed 5-2-57.
 658,098. KNITABOUTS. White Stag Mfg. Co. SN 29,403. Pub. 11-19-57. Filed 5-3-57.
 658,099. KUMFY PANTS. Dutchess Underwear Corporation. SN 29,443. Pub. 11-19-57. Filed 5-6-57.
 658,100. LITTLE MISS KNIT. Little Miss Knit Company. SN 29,460. Pub. 11-19-57. Filed 5-6-57.
 658,101. LYNN'S AND DESIGN. Lynn's Fashions, Inc. SN 29,463. Pub. 11-19-57. Filed 5-6-57.
 658,102. THE F.O.B. SLIP "FIT-OVER BRA." Samette Manufacturing Company, Inc. SN 29,490. Pub. 11-19-57. Filed 5-6-57.

Class 40—Fancy Goods, Furnishings, and Notions

- 658,103. HIDE'M. Louis Heyman, d. b. a. Hide'M Products. SN 16,806. Pub. 11-19-57. Filed 10-2-56.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

- 658,104. NIRVANA. Edward Shapiro, d. b. a. Abraham Shapiro & Son. SN 22,340. Pub. 11-19-57. Filed 1-9-57.
 658,105. HAREM. Glenoit Mills, Inc. SN 24,344. Pub. 11-19-57. Filed 2-13-57.
 658,106. BON-SILLA. D. B. Fuller & Co., Inc. SN 24,685. Pub. 9-17-57. Filed 2-19-57.
 658,107. AEROLON AND DESIGN. Western Backing and Coating Company. SN 27,918. Pub. 11-19-57. Filed 4-10-57.
 658,108. GLOFORT. United Merchants and Manufacturers, Inc. SN 28,303. Pub. 11-19-57. Filed 4-16-57.
 658,109. COOLA CLOTH. Brand & Oppenheimer, Inc. SN 28,678. Pub. 11-19-57. Filed 4-23-57.
 658,110. STAND-FAST. Joseph Bancroft & Sons Co. SN 28,917. Pub. 11-19-57. Filed 4-26-57.
 658,111. OBOE. D. B. Fuller & Co. Inc. SN 29,532. Pub. 11-19-57. Filed 5-7-57.
 658,112. "FACE 'N FANNY." James W. Smyth, d. b. a. J. W. Smyth Company. SN 29,756. Pub. 11-19-57. Filed 5-9-57.
 658,113. GOLDEN KEY. William Skinner & Sons. SN 29,964. Pub. 11-19-57. Filed 5-13-57.

Class 43—Thread and Yarn

- 658,114. MERSHEEN. Dixie Mercerizing Company. SN 24,332. Pub. 11-19-57. Filed 2-13-57.
 658,115. NILEX. Advance Silk Thread Corporation. SN 29,687. Pub. 11-19-57. Filed 5-9-57.
 658,116. FLEX-ON-FLEX. Raydex Fabrics, Inc. SN 29,821. Pub. 11-19-57. Filed 5-10-57.

Class 44—Dental, Medical, and Surgical Appliances

- 658,117. TWIN WORKS. J. A. Henckels Zwillingwerk Aktiengesellschaft. SN 11,010. Pub. 11-19-57. Filed 6-26-56.
 658,118. DERMATEX. John D. Reese, to Mountain Ash Research Corporation. SN 19,990. Pub. 11-19-57. Filed 11-27-56.
 658,119. VACU KIT AND DESIGN. Joseph J. Stalin, d. b. a. Joell Mfg. Co. SN 29,109. Pub. 11-19-57. Filed 4-29-57.
 658,120. THERMOSETA. Internationale Verbandstoff-Fabrik Schaffhausen. SN 29,124. Pub. 11-19-57. Filed 4-23-57.
 658,121. RHENA VARIDRESS AND DESIGN. Internationale Verbandstoff-Fabrik Schaffhausen. SN 29,911. Pub. 11-19-57. Filed 5-13-57.
 658,122. MARK:RITE. Charles Holg. SN 30,022. Pub. 11-19-57. Filed 5-14-57.
 658,123. MEDIPONT. Medipoint, Inc. SN 30,030. Pub. 11-19-57. Filed 5-14-57.

Class 45—Soft Drinks and Carbonated Waters

- 658,124. LAUREL BLEND-ABILITY ETC. AND DESIGN. Phillip Sigheol, d. b. a. Laurel Brand Food Products Co. SN 16,853. Pub. 11-19-57. Filed 10-2-56.

Class 46—Foods and Ingredients of Foods

- 658,125. WHITE SWAN. B. A. Eckhart Milling Co. SN 546,981. CONCURRENT USE. Pub. 11-19-57. Filed 1-14-48.
 658,126. WHITE SWAN. Flour Mills of America, Inc., d. b. a. Anthony Mills. SN 564,326. CONCURRENT USE. Pub. 11-19-57. Filed 8-28-48.
 658,127. CHEF ARMAND'S. Armand Tomal, d. b. a. Chef Armand Food Co. SN 655,283. Pub. 11-29-55. Filed 10-23-53.
 658,128. APPLE JUICE JJJ AND DESIGN. Joseph Dall Vechia, Sr., d. b. a. Highland Cider Mill, to Highland Cider and Vinegar Mill. SN 684,503. Pub. 11-19-57. Filed 3-29-55.
 658,129. SUN RAY. Herbert S. Ray, d. b. a. Ray Brokerage Co. SN 685,398. Pub. 4-10-56. Filed 4-12-55.
 658,130. DB DUVERNOY AND DESIGN. Duvernoy & Sons Inc., d. b. a. Duvernoy Bakeries. SN 972. Pub. 11-19-57. Filed 1-18-56.
 658,131. MASTER AND DESIGN. Toronto Elevators Limited. SN 3,485. Pub. 11-19-57. Filed 2-27-56.
 658,132. JET. General Mills, Inc. SN 4,680. Pub. 11-19-57. Filed 3-15-56.
 658,133. FFV CHEF'S. Weston Biscuit Company Inc., d. b. a. Southern Biscuit Company. SN 7,407. Pub. 11-19-57. Filed 4-30-56.
 658,134. MARTHA SCOTT. S. S. Kresge Company. SN 17,017. Pub. 11-19-57. Filed 10-5-56.
 658,135. NEWFORGE. Lovell & Christmas (Liverpool) Limited. SN 21,640. Pub. 11-19-57. Filed 12-26-56.

- 658,136. DESIGN OF GROTESQUE MAN. American Potato Company. SN 22,075. Pub. 7-2-57. Filed 1-4-57.
 658,137. McDANIEL'S BUNKER HILL. Sam McDaniel & Sons, Inc. SN 25,564. Pub. 11-19-57. Filed 3-5-57.
 658,138. DON PEPINO. Violet Packing Company. SN 26,029. Pub. 11-19-57. Filed 3-12-57.
 658,139. DESIGN OF STEER'S HEAD. Adolph H. Kloepper, d. b. a. The Bar-B-Q Co. SN 26,230. Pub. 11-19-57. Filed 3-15-57.
 658,140. VICTOR SEA SWEET. Mavar Shrimp and Oyster Company, Ltd. SN 27,219. Pub. 11-19-57. Filed 3-29-57.
 658,141. VAN SUPRA. The U. S. Cocoa Corporation. SN 27,247. Pub. 11-19-57. Filed 3-29-57.
 658,142. BEEFLICIOUS. Safeway Stores, Incorporated. SN 29,828. Pub. 11-19-57. Filed 5-10-57.
 658,143. IVY. Prior's Foods, Limited. SN 29,943. Pub. 11-19-57. Filed 5-13-57.
 658,144. DELMARVALOUS ETC. AND DESIGN. Del-Mar-Va Poultry Industry, Inc. SN 31,092. COLLECTIVE MARK. Pub. 11-19-57. Filed 5-31-57.
 658,145. LEM-N-JOY. S. Reese Scheffel, d. b. a. Lem-N-Joy Company. SN 31,417. Pub. 11-19-57. Filed 6-5-57.
 658,146. AMAZON. Amazon Coffee & Tea Co., Inc. SN 31,450. Pub. 11-19-57. Filed 6-6-57.
 658,147. BON-TON. Tobin Packing Co., Inc. SN 31,603. Pub. 11-19-57. Filed 6-7-57.
 658,148. TOM THUMB. Tobin Packing Co., Inc. SN 31,605. Pub. 11-19-57. Filed 6-7-57.
 658,149. DISCOSPRAY. International Foodcraft Corporation. SN 31,762. Pub. 11-19-57. Filed 6-11-57.

Class 47—Wines

- 658,150. DESIGN OF MAN WITH GLASS. Dubonnet Wine Corporation. SN 17,718. Pub. 11-19-57. Filed 10-18-56.
 658,151. DUBONNET BLONDE. Dubonnet Wine Corporation. SN 17,719. Pub. 11-19-57. Filed 10-18-56.

Class 49—Distilled Alcoholic Liquors

- 658,152. ND AND DESIGN. National Distillers Products Corporation, now by change of name National Distillers and Chemical Corporation. SN 26,189. Pub. 11-19-57. Filed 3-14-57.

Class 50—Merchandise Not Otherwise Classified

- 658,153. TERAISE. Monsanto Chemical Company. SN 27,712. Pub. 11-19-57. Filed 4-8-57.
 658,154. CRAGSTAN. Cragstan Corporation. SN 29,430. Pub. 11-19-57. Filed 5-6-57.
 658,155. CONSOWELD AND DESIGN. Consoweld Corporation. SN 30,890. Pub. 11-19-57. Filed 5-28-57.

Class 51—Cosmetics and Toilet Preparations

- 658,156. SOGAL. Everett C. Burns, d. b. a. Fodeen Distributors. SN 23,027. Pub. 10-15-57. Filed 1-23-57.

Class 52—Detergents and Soaps

- 658,157. DRI-SHAMP. Lanolin Plus, Inc. SN 14,746. Pub. 11-19-57. Filed 8-28-56.

Service Marks**Class 100—Miscellaneous**

- 658,158. "FOR THE ONLY PAIR OF EYES YOU WILL EVER HAVE." The White-Haines Optical Company. SN 685,795. Pub. 11-19-57. Filed 4-18-55.

Class 101—Advertising and Business

- 658,159. FOODLINER. Independent Grocers' Alliance Distributing Co. SN 18,567. COLLECTIVE MARK. Pub. 11-19-57. Filed 11-1-56.
 658,160. SBC. The Service Bureau Corporation. SN 30,276. Pub. 11-19-57. Filed 5-17-57.

Class 102—Insurance and Financial

- 658,161. SAVE-O-RAMA. La Salle National Bank. SN 23,782. Pub. 11-19-57. Filed 3-8-57.

Class 104—Communication

- 658,162. NBC AND DESIGN. National Broadcasting Company, Inc. SN 541,323. Pub. 7-26-49. Filed 11-15-47.

Class 105—Transportation and Storage

- 658,163. STATES LINE. States Steamship Company. SN 30,852. Pub. 11-19-57. Filed 5-27-57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 12—Construction Materials

- 658,164. H. E. Fletcher Company, West Chelmsford, Mass. SN 8,654. Filed P. R. 5-21-56. Am. S. R. 12-11-57.

ANDEER GREEN

For Granite Products, Such as Ashlar Pieces, and Other Decorative Wall Covering Structural Materials.
 First use Feb. 16, 1956.

- 658,165. H. E. Fletcher Company, West Chelmsford, Mass. SN 8,655. Filed P. R. 5-21-56. Am. S. R. 12-11-57.

FERRERA GREEN

For Granite Products, Such as Ashlar Pieces, and Other Decorative Wall Covering Structural Materials.
 First use Apr. 25, 1956.

Class 16—Protective and Decorative Coatings

- 658,166. Hill-Behan Lumber Company, St. Louis, Mo. SN 14,145. Filed P. R. 8-17-56. Am. S. R. 12-11-57.



For Liquid Paints, Shellac, Varnish, Turpentine, Caulking, and Linseed Oil.
 First use Apr. 27, 1956.



For Paints, Paint Primers, Paint Enamels, Raw Linseed Oil, Asphalt Products, Stains, Varnishes, Paint Thinners, and Paint Colors.
 First use November 1940.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 658,168. Vulcan Safety Razor Corporation, Maplewood, N. J. SN 19,551. Filed P. R. 11-19-56. Am. S. R. 12-11-57.

VERI-SHARP

For Razor Blades.
 First use Oct. 22, 1956.

Class 37—Paper and Stationery

- 658,169. United States Envelope Company, Springfield, Mass. SN 700,915. Filed P. R. 12-30-55. Am. S. R. 11-30-56.



For Correspondence and Mailing Envelopes.
 First use on or about Oct. 1, 1954.

Class 38 — Prints and Publications

658,170. Department Store Guide, Inc., New York, N. Y. SN 23,484.
28,843. Filed P. R. 4-25-57. Am. S. R. 11-14-57.

DEPARTMENT STORE GUIDE

For Directory Published Periodically.
First use in October 1956.

Class 39 — Clothing

658,171. Clnett, Peabody & Co., Inc., Troy, N. Y. SN 9,108.
Filed P. R. 5-28-56. Am. S. R. 11-25-57.

POE

For Outer Shirts.
First use January 1956.

658,172. Lehigh Safety Shoe Co., Emmaus, Pa. SN 23,484.
Filed P. R. 1-30-57. Am. S. R. 11-25-57.

LEHIGH**Footshields**

For Workman's Protective Shoes.
First use Aug. 15, 1956.

TRADEMARK REGISTRATIONS RENEWED

- | | |
|---|---|
| 119,303. SAGAMORE. Cl. 35. 11-13-17. | 352,392. ROBINS. Cl. 28. 11-30-37. |
| 119,443. MOHAWK. Cl. 35. 11-20-17. | 352,788. SUPER-GYRALOX. Cl. 13. 12-14-37. |
| 119,454. THOR. Cl. 24. 11-20-17. | 352,789. CYRALOX. Cl. 13. 12-14-37. |
| 119,927. T L AND DESIGN. Cl. 18. 12-18-17. | 353,352. GRANITEEN. Cl. 42. 1-4-38. |
| 120,399. KAYSER. Cl. 39. 2-5-18. | 353,753. GRANITINE. Cl. 42. 1-18-38. |
| 121,667. SUMMIT. Cl. 43. 5-14-18. | 354,136. CRANSWADE. Cl. 42. 2-1-38. |
| 349,162. RUSH-ERASER. Cl. 37. 8-24-37. | 354,338. MIDDLEAN. Cl. 52. 2-8-38. |
| 352,106. EXEROW. Cl. 22. 11-16-37. | 354,845. NOBILITY AND DESIGN. Cl. 40. 2-22-38. |
| 352,216. VAPACK. Cl. 6. 11-23-37. | 356,360. BASSORAN. Cl. 18. 4-26-38. |
| 352,229. REXALL A. B. C. SELTZER. Cl. 18. 11-23-37. | 356,752. NU TEMPER AND DESIGN. Cl. 27. 5-10-38. |

TRADEMARK REGISTRATIONS CANCELED**Section 7(d)**

- 432,672. DESERTAIRE. Cl. 46. 9-9-47.
553,237. KETIED. Cl. 42. 1-8-52.
599,842. PAS-TY. Cl. 7. 12-28-54.
639,600. MASTER CHEF. Cl. 21. 1-8-57.

Section 8

- 84,233. ACHILLES. Cl. 6. 11-21-11.
275,824. THE AVIATION NEWS. Cl. 38. 9-30-30.
284,991. VALUE. Cl. 46. 7-14-31.
379,552. STAR ROCK. Cl. 1. 7-16-40.

The following registrations issued Dec. 18, 1951

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|---|---|
| 552,118. VIKING. Cl. 46. | 552,227. MODERN MODE. Cl. 39. |
| 552,124. TUFF TEST. Cl. 39. | 552,230. SLIKZIP. Cl. 39. |
| 552,125. MICRO PAK. Cl. 31. | 552,231. PELAYO. Cl. 46. |
| 552,127. BLISS. Cl. 46. | 552,233. CLICHE. Cl. 39. |
| 552,128. COMET. Cl. 46. | 552,234. RED BEAM. Cl. 22. |
| 552,133. TROLLMASTER. Cl. 22. | 552,238. JEFFERSON ISLAND SOF-WATER SALT AND DESIGN. Cl. 46. |
| 552,147. SAVAL WITH EMBLEM. Cl. 13. | 552,239. J M ETC. AND DESIGN. Cl. 39. |
| 552,152. JAY BROOKE AND DESIGN. Cl. 39. | 552,240. WHIZZBLO. Cl. 22. |
| 552,156. AQUAFORM. Cl. 13. | 552,251. QUADRANGLE. Cl. 39. |
| 552,159. MASTER CADDIE. Cl. 22. | 552,252. RAINFLOWER. Cl. 13. |
| 552,161. TIDE-OVERS. Cl. 39. | 552,253. G P T. Cl. 18. |
| 552,162. MARVEL-LINER. Cl. 39. | 552,256. PEER-O-PANE AND DESIGN. Cl. 6. |
| 552,164. PRESTO BOLT AND DESIGN. Cl. 13. | 552,264. ADELICIA. Cl. 39. |
| 552,165. ROPERS HEEL. Cl. 39. | 552,267. MARVILLADO. Cl. 42. |
| 552,169. SUSAN KAY SEWS. Cl. 22. | 552,270. SALAD *BLESSING. Cl. 46. |
| 552,172. LOLLITOPPER. Cl. 39. | 552,279. CATTYCORNEK. Cl. 39. |
| 552,179. TEMPLE FIRE. Cl. 51. | 552,281. BAGUETTE. Cl. 39. |
| 552,180. PADDY-GRIP. Cl. 42. | 552,288. 29 AND DESIGN. Cl. 46. |
| 552,187. SANI-LYX. Cl. 51. | 552,289. GYRON. Cl. 6. |
| 552,193. FLY-TAINER. Cl. 22. | 552,291. SQUI-TON. Cl. 6. |
| 552,194. IMPERMEABLE WITHIN DESIGN. Cl. 42. | 552,292. STRO-KON. Cl. 6. |
| 552,196. DETROLITE. Cl. 13. | 552,296. BOB-T ILS. Cl. 42. |
| 552,201. ZODD. Cl. 39. | 552,297. GAIETE. Cl. 39. |
| 552,208. ROSALIE AND LETTER L. Cl. 22. | 552,307. WHISK. Cl. 6. |
| 552,222. TALLER MISS. Cl. 39. | 552,308. R-242. Cl. 6. |
| 552,223. TALLER TEEN. Cl. 39. | 552,309. SOVATEX. Cl. 6. |
| 552,224. TALLER WOMEN. Cl. 39. | 552,311. SPINDLWET AND DESIGN. Cl. 6. |
| 552,225. REFRIG A TRAY. Cl. 13. | 552,323. GRO-MORE. Cl. 6. |
| | 552,324. LANKIRK. Cl. 39. |
| | 552,325. VALENTINE. Cl. 46. |
| | 552,328. BONOFUR. Cl. 6. |
| | 552,329. PORT LIGHT. Cl. 46. |
| | 552,331. THE 3 MILLERS CANDY MARSHMALLOWS AND DESIGN. Cl. 46. |
| | 552,333. GOLFO. Cl. 14. |
| | 552,338. SOLOLAH. Cl. 42. |
| | 552,339. SPACEMASTER. Cl. 13. |
| | 552,344. CACTUS. Cl. 42. |
| | 552,346. HYPRALOY. Cl. 14. |
| | 552,350. PUZO AND DESIGN. Cl. 22. |
| | 552,351. GLENDALE. Cl. 22. |

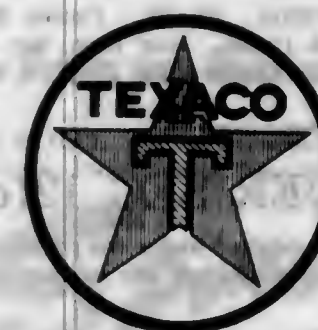
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|---|---|
| 552,354. PRESERVER OF DEPENDABLE MOTOR CARS ETC. Cl. 103. | 552,389. SNAP BLOCKS. Cl. 22. |
| 552,359. WOLMANIZED ETC. AND DESIGN. Cl. 106. | 552,391. SCRUMSHUS AND DESIGN. Cl. 46. |
| 552,370. WOOSTER ETC. Cl. 10. | 552,392. ARCHITECTURAL ABSTRACTS. Cl. 38. |
| 552,371. NEW HOLLAND FARMER. Cl. 38. | 552,394. MUSIC GUILD. Cl. 38. |
| 552,372. TIEN FOO AND DESIGN. Cl. 46. | 552,395. THERMOGRID. Cl. 13. |
| 552,375. SLIDE-A-FRAME. Cl. 32. | 552,397. AIR PRESS. Cl. 104. |
| 552,379. SNAP T CK. Cl. 13. | |
| 552,380. THE CATTLE DIGEST. Cl. 38. | |
| 552,384. PET CLEAN. Cl. 52. | |
| 552,385. CRADLED IN STEEL AND DESIGN. Cl. 32. | |
| 552,388. TELEVISION APPLIANCE RETAILING. Cl. 38. | |

Section 18

- 383,351. WIZARDAIRE. Cl. 34. 12-3-40.
398,122. MINT JULEP. Cl. 8. 10-13-42.
572,848. TYRON. Cl. 23. 4-7-53.
643,276. TYRON. Cl. 35. 3-26-57.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

140,227. TEXACO AND DESIGN. Cl. 12. 3-8-21. The Texas Company, New York, N. Y. Amended to appear:



298,283. LABRATEST AND DESIGN. Cl. 51. 10-18-32. Bloomingdale Bros., Inc. Federated Department Stores, Inc., New York, N. Y. Amended to appear:

LABRATEST

352,267. DONFIELD ETC. AND DESIGN. Cl. 39. 11-23-37. Brown-McDonald Co. J. M. McDonald Co., Hastings, Nebr. Amended to appear:



437,924. HIGHLAND QUEEN ETC. AND DESIGN. Cl. 49. 4-6-48. Macdonald & Muir Limited, Leith, Scotland. Amended to appear:



520,920. CONTINENTAL CASUALTY COMPANY ETC. AND DESIGN. Cl. 102. 2-7-50. Continental Casualty Company, Chicago, Ill. Corrected: In line 4 of the certificate, and in line 3 of the statement, "Indiana" should be Illinois.

534,191. MICROCARD. Cl. 38. 12-5-50. The Micro Library Incorporated, now by change of name The Micro-card Corporation, West Salem, Wis. Amended: In the certificate, line 3, and in the statement, line 3, "La Crosse" is deleted and West Salem is inserted in lieu thereof, and in line 4 of the statement, "La Crosse" is deleted and 365 South Oak Street, West Salem is inserted in lieu thereof.

541,664. NORVAN. Cl. 6. 5-1-51. R. T. Vanderbilt Company, Inc., New York, N. Y. Amended: In the statement, column 1, line 7, before "high" insert and; in line 9, "and styrene butadiene latex" is deleted.

561,181. DR PEPPER. Cl. 45. 7-8-52. Dr. Pepper Company, Dallas, Tex. Amended to appear:

DR PEPPER

563,463. VELSICOL. Cl. 6. 8-26-52. Velsicol Corporation. Velsicol Chemical Corporation, Chicago, Ill. Amended: In the statement, column 1, line 9, the comma is deleted and and is inserted; in line 10, "dieldrin and aldrin," is deleted; in line 11, the comma is deleted and or is inserted; in line 12, ", dieldrin or aldrin" is deleted.

572,705. VELSICOL ETC. AND DESIGN. Cl. 6. 3-31-53. Velsicol Corporation. Velsicol Chemical Corporation, Chicago, Ill. Amended: In the statement, column 1, line 9, the comma is deleted and and is inserted; in line 10, "dieldrin and aldrin," is deleted; in line 11, the comma is deleted and or is inserted; in line 12, ", dieldrin or aldrin" is deleted.

597,558. ELECTRO-VOICE. Cl. 21. 11-2-54. Electro-Voice, Incorporated, Buchanan, Mich. Amended to appear:

ELECTRO-VOICE

612,590. MICROTAP. Cl. 38. 9-20-55. The Microcard Corporation, West Salem, Wis. Amended: In the certificate, line 3, "La Crosse" is deleted and West Salem is inserted in lieu thereof; in the printed copy of the registration, lines 2 and 3 are deleted and 365 South Oak Street, West Salem, Wisconsin is inserted in lieu thereof.

635,938. BANTAM. Cl. 34. 10-16-56. Electric Furnace-Man, Inc., Emmaus, Pa. Amended: The identification of goods is deleted and oil, gas and coal fired heaters for heating buildings is inserted in lieu thereof.

644,579. ESQUIRE BRUSHLESS SCUFF-KOTE. Cl. 4. 4-30-57. Knomark Manufacturing Co., Inc., Brooklyn, N. Y. Amended: In column 2, lines 5 and 6 are deleted, and the drawing is amended to appear:



- 651,766. REDDY KILOWATT ETC. AND DESIGN. Cl. 38. 9-17-57. Reddy Kilowatt, Inc., New York, N. Y. Corrected: In line 1, "New York" should be *Delaware*.
- 651,767. REDDY KILOWATT ETC. AND DESIGN. Cl. 38. 9-17-57. Reddy Kilowatt, Inc., New York, N. Y. Corrected: In line 1, "New York" should be *Delaware*.
- 651,768. REDDY KILOWATT ETC. AND DESIGN. Cl. 38. 9-17-57. Reddy Kilowatt, Inc., New York, N. Y. Corrected: In line 1, "New York" should be *Delaware*.
- 653,389. CYCLAMATIC. Cl. 23. 10-22-57. California Wire Products Co., Inc., now by change of name Calwire, Visalia, Calif. Corrected: In line 3, "Visa Lia" should be *Visalia*.
- 653,959. POLYVIS. Cl. 6. 11-5-57. Cosden Petroleum Corporation, Big Spring, Tex. Corrected: In line 1, "Texas" should be *Delaware*.
- 654,241. STRATHCLYDE. Cl. 49. 11-5-57. The Scottish Grain Distilling Co., Limited, Glasgow, Scotland. Corrected: In line 2, "as" should be *at*.
- 655,655. STARLANE. Cl. 2. 12-17-57. Chicago Molded Products Corporation, Chicago, Ill. Corrected: In column 2, line 1, after "tumblers" and *dinnerware* should be inserted.
- 655,662. HANDIMET. Cl. 4. 12-17-57. Buehler Ltd., Evanston, Ill. Corrected: In the heading, "Ser. No. 25,675" should be *Ser. No. 24,675*.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates Issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

- 585,115. HYDROTOR AND DESIGN. Cl. 23. Hydramotive, Inc. 1-26-54. New Cert. Sec. 7(c), to American Bosch Arms Corporation, Springfield, Mass., 2-4-58.
- 628,605. NEWS VENO. Cl. 23. United Sound & Signal Company, Inc. 6-12-56. New Cert. Sec. 7(c), to Automatic News vending Corporation, Clayton, Mo., 2-4-58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 12—Construction Materials

- 356,042. Apr. 12, 1938. James E. Marble, Delawanna, N. J. Pub. by registrant.

WEATHERCAP



for

PERMANENT MASONRY JOINT PROTECTION

For Guards for Protecting the Bonding Material Used Between Masonry Joints.

Class 15—Oils and Greases

- 195,000. Feb. 17, 1925. The Texas Company, Houston, Tex., and New York, N. Y. Pub. by The Texas Company, New York, N. Y.

ESTRELLA

For Kerosene Oil.

Class 17—Tobacco Products

- 354,084. Feb. 1, 1938. S. S. Pierce Co., Boston, Mass. Pub. by registrant.

Gold Coast

For Pipe Tobacco.

PETRI

For Tobacco Products—Namely, Cigars and Cigarettes.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 311,585. Mar. 27, 1934. Hepworth & Grandage Limited, Bradford, England. Pub. by registrant.

HEPOLITE

For Pistons and Valves for Internal Combustion Engines.

Class 32—Furniture and Upholstery

- 122,620. Aug. 27, 1918. Sealy Mattress Co., Sugar Land, Tex. Pub. by Sealy, Incorporated, Chicago, Ill.

Sunspun

For Mattresses.

- 439,415. June 22, 1948. The Waterbury Mattress Company, Waterbury, Conn. Pub. by registrant.

LONG
JOHN

For Mattresses, Bed Springs, Studio Couches, Beds, and Sofa Beds.

Class 38—Prints and Publications

- 390,130. Sept. 9, 1941. Sponsor Company, Washington, D. C. Pub. by Sponsor Publications Inc., New York, N. Y.

Sponsor

For Publication.

Class 39—Clothing

- 285,551. July 28, 1931. A. E. Allen & Co., Ltd., Nottingham, England. Pub. by Aristoc Limited, Nottingham, England.

Aristoc

For Stockings and Socks.

- 351,644. Nov. 2, 1937. J. Schoeneman, Inc., Baltimore, Md. Pub. by J. Schoeneman, Incorporated, Baltimore, Md.

Aerzone

For Coats, Vests, and Trousers for Men, Youths, and Boys.

- 352,669. Dec. 7, 1937. J. Schoeneman, Inc., Baltimore, Md. Pub. by J. Schoeneman, Incorporated, Baltimore, Md.

WILL-O-WISP

For Coats, Vests, and Trousers for Men, Youths, and Boys.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

- 343,762. Mar. 2, 1937. Pepperell Manufacturing Company, Boston, Mass. Pub. by registrant.

PLAINSMAN

For Textile Fabrics in the Piece.

- 344,955. Apr. 13, 1937. Pepperell Manufacturing Company, Boston, Mass. Pub. by registrant.

BRIGADIER

For Piece Goods of Cotton and Other Fibers.

Class 46—Foods and Ingredients of Foods

- 117,812. Aug. 7, 1917. H. C. Baxter & Bro., Brunswick, Maine. Pub. by registrant.

BAXTER'S

For Canned Corn and Canned Succotash.

- 142,268. May 10, 1921. Frank H. Gibson, Omaha, Nebr. Pub. by National Coffee Corporation, Chicago, Ill.

MELLO CUP

For Coffee.

Class 49—Distilled Alcoholic Liquors

- 349,838. Sept. 7, 1937. S. S. Pierce Co., Boston, Mass. Pub. by registrant.

ROUND TABLE

For Whiskey.

Class 51—Cosmetics and Toilet Preparations

- 351,529. Nov. 2, 1937. Der-Mo-Tine, Inc., Fort Wayne, Ind. Pub. by registrant.



DER-MO-TINE

For Hair Tonic, Cold Cream, Massage Cream, Face Lotion, and a Shampoo.

INDEX OF REGISTRANTS

FEBRUARY 4, 1958

(Registered; Renewed; Canceled; Amended, Disclaimed, Corrected, etc.; New Certificates; 12c Publications.)

- Abraham Shapiro & Son: See—
Shapiro, Edward.
- Adelphi, St. Petersburg, Fla. 552,264, canc. Cl. 39.
- Advance Silk Thread Corp., New York, N. Y. 658,115, pub. 11-19-57. Cl. 43.
- Advertising Arts Corp., New York, N. Y. 552,172, canc. Cl. 39.
- Aerotrol, Inc., New York, N. Y. 658,609, pub. 11-19-57. Cl. 34.
- Aktiebolaget Bofors, Bofors, Sweden. 552,328, canc. Cl. 6.
- Aktiebolaget Pharmacia, Uppsala, Sweden. 657,989, pub. 11-19-57. Cl. 18.
- Allen, A. E. & Co., Ltd., by Aristoc Ltd., Nottingham, Eng-land. 285,551, 12(c) pub. 2-4-58. Cl. 39.
- Allied Paper Corp.: See—
Hurley Machine Co.
- Alpha Mills Corp., Schuylkill Haven, Pa. 658,093, pub. 11-19-57. Cl. 39.
- Amazon Coffee & Tea Co., Inc., New York, N. Y. 658,146, pub. 11-19-57. Cl. 46.
- American Bosch Arms Corp.: See—
Hydramotive, Inc.
- American Can Co., New York, N. Y. 657,932, pub. 11-19-57. Cl. 2.
- American Cyanamid Co., New York, N. Y. 658,001, pub. 11-19-57. Cl. 18.
- American Institute of Architects, The, Washington, D. C. 552,392, canc. Cl. 38.
- American Lumber & Treating Co., Chicago, Ill. 552,359, canc. Cl. 106.
- American Molasses Co.: See—
Nulomoline Co., The.
- American Potato Co., Idaho Falls, Idaho. 658,186, pub. 7-2-57. Cl. 46.
- Anthony Mills: See—
Flour Mills of America, Inc.
- Archer-Daniels-Midland Co., Minneapolis, Minn. 657,979-80, pub. 11-19-57. Cl. 16.
- Aristoc Ltd.: See—
Allen, A. E. & Co., Ltd.
- Armour and Co., Chicago, Ill. 657,995-7, pub. 11-19-57. Cl. 18.
- Associated Seed Growers, Inc., New Haven, Conn. 657,931, pub. 11-19-57. Cl. 1.
- Automatic Newsavending Corp.: See—
United Sound & Signal Co., Inc.
- Aviation Instrument Mfg. Co., Houston, Tex. 658,040, pub. 11-19-57. Cl. 26.
- Ayres and Roberts, d. b. a. Quality Frozen Co., San Francisco, Calif. 552,288, canc. Cl. 46.
- Babcock & Wilcox Co., The, New York, N. Y. 657,962, pub. 11-19-57. Cl. 12.
- Babs Creations, Inc., New York, N. Y. 398,122, canc. Cl. 8.
- Bancroft, Joseph, & Sons Co., Wilmington, Del. 558,237, canc. Cl. 42.
- Bancroft, Joseph, & Sons Co., Wilmington, Del. 658,110, pub. 11-19-57. Cl. 42.
- Baramark World Corp., New York, N. Y. 552,252, canc. Cl. 13.
- Barbison Corp., The, New York, N. Y. 658,087, pub. 11-19-57. Cl. 39.
- Bar-B-Q Co., The: See—
Klopper, Adolph H.
- Battle Creek Equipment Co.: See—
Marlowe Equipment Inc.
- Baxter, H. C. & Bro., Brunswick, Maine. 117,812, 12(c) pub. 1-28-58.
- Bedding Manufacturers Associates, Inc., Philadelphia, Pa. 658,061, pub. 11-19-57. Cl. 32.
- Belding Heminway Co., Inc.: See—
Summit Thread Co.
- Bell & Gossett Co., Morton Grove, Ill. 657,968, pub. 11-19-57. Cl. 13.
- Bell & Zoller Coal Co., Chicago, Ill. 657,923, pub. 11-19-57. Cl. 1.
- Benecke, J. H., Hannover-Vinnhorst, Germany. 657,933, pub. 11-19-57. Cl. 3.
- Beverly Paige Casuals, New York, N. Y. 658,091, pub. 11-19-57. Cl. 39.
- Blessing Co.: See—
Hillstrom, Sylvia.
- Bliss Syrup & Preserving Co., Kansas City, Mo. 552,127, canc. Cl. 46.
- Blocks, Inc., Leominster, Mass. 657,954, pub. 11-19-57. Cl. 12.
- Bloomington Bros., Inc. Federated Department Stores, Inc., New York, N. Y. 298,283. Am. 7(d). Cl. 51.
- Blough, Ronald S., d. b. a. Fairfield Engineering Co., Fair-Field, Iowa. 657,971, pub. 11-19-57. Cl. 13.
- Blue Bell, Inc., Greensboro, N. C. 658,085, pub. 11-19-57. Cl. 39.
- Bouton, H. L. Co.: See—
Hirschmann, Jack B.
- Branchflower, Lyle E., Seattle, Wash. 658,059, pub. 11-19-57. Cl. 31.
- Brand & Oppenheimer, Inc., New York, N. Y. 658,109, pub. 11-19-57. Cl. 42.
- Bridgeport Brass Co., Bridgeport, Conn. 657,970, pub. 11-19-57. Cl. 13.
- Brindel, Arthur M., d. b. a. Brindel Mfg., Muncie, Ind. 552,384, canc. Cl. 52.
- Brindel Mfg.: See—
Brindel, Arthur M.
- Brown-McDonald Co., J. M. McDonald Co., Hastings, Nebr. 552,267. Am. 7(d). Cl. 39.
- Brownstown Silica Co., Brownstown, Wis. 379,552, canc. Cl. 1.
- Bryan Full Fashioned Mills, Chattanooga, Tenn. 552,281, canc. Cl. 39.
- Buckeye Cellulose Corp., The, Cincinnati, Ohio. 657,924, pub. 10-15-57. Cl. 1.
- Buehler Ltd., Evanston, Ill. 658,062, cor. Cl. 4.
- Bullard, E. D. Co., San Francisco, Calif. 658,084, pub. 11-12-57. Cl. 39.
- Burns, Everett C., d. b. a. Fodeen Distributors, Oakland, N. J. 658,156, pub. 10-15-57. Cl. 51.
- Butler Mfg. Co., Kansas City, Mo. 657,959, pub. 11-19-57. Cl. 12.
- Callahan, Hilario, d. b. a. Cima Records, San Jose, Calif. 658,072, pub. 11-19-57. Cl. 36.
- Cady, Evelyn, New York, N. Y. 552,169, canc. Cl. 22.
- Caldwell-Clements, Inc., New York, N. Y. 552,388, canc. Cl. 38.
- California Wire Products Co., Inc., now by change of name Calwire, Visalia, Calif. 658,389, cor. Cl. 23.
- Calwire: See—
California Wire Products Co., Inc.
- Campbell, Harry T., Sons' Corp., Towson, Md. 657,921-2, pub. 11-19-57. Cl. 1.
- Cannon Shoe Co., Baltimore, Md. 552,251, canc. Cl. 39.
- Carey, Philip Mfg. Co., The, Cincinnati, Ohio. 657,960, pub. 11-19-57. Cl. 12.
- Carney, John A., d. b. a. Foreign Service Bureau, Maria, Fla. 658,083, pub. 11-19-57. Cl. 38.
- Carthage Mills, Inc., Cincinnati, Ohio. 657,977-8, pub. 11-19-57. Cl. 16.
- Cattle Digest, Inc., Montgomery, Ala. 552,380, canc. Cl. 38.
- Cerasi, Vincent C., Rome, Italy. 552,156, canc. Cl. 13.
- Certified Products Co., to Certified Products Co., Toledo, Ohio. 383,351, canc. Cl. 34.
- Chagin & Cia.: See—
Chagin, Gabriel.
- Chagin, Gabriel, d. b. a. G. Chagin & Cia, Barranquilla, Columbia. 552,187, canc. Cl. 51.
- Chef Armand Food Co.: See—
Toam, Armand.
- Chemex Corp., New York, N. Y. 657,946, pub. 11-19-57. Cl. 3.
- Chen Yu, Inc., New York, N. Y., to Richard Hudnut. 552,179, canc. Cl. 51.
- Chicago Molded Products Corp., Chicago, Ill. 655,655, cor. Cl. 2.
- Clark, Earl W., d. b. a. Edward Wemett & Co., Los Angeles, Calif. 657,992, pub. 11-19-57. Cl. 18.
- Cluett, Peabody & Co., Inc., Troy, N. Y. 658,171. Cl. 39.
- Columbus-Dixon Ltd., Wembley, Middlesex, England. 658,008, pub. 11-19-57. Cl. 21.
- Consolidated Mining and Smelting Co. of Canada Ltd., The, Montreal, Quebec, Canada. 657,948, pub. 11-19-57. Cl. 10.
- Consoweld Corp., Wisconsin Rapids, Wis. 658,155, pub. 11-19-57. Cl. 50.
- Continental Casualty Co., Chicago, Ill. 520,920, cor. Cl. 102.
- Continental Pump Co., St. Louis, Mo. 658,024, pub. 11-19-57. Cl. 23.
- Cook Laboratories, Inc., Stamford, Conn. 658,075, pub. 11-19-57. Cl. 36.
- Copco Steel & Engineering Co., Detroit, Mich. 657,961, pub. 11-19-57. Cl. 12.
- Coppes, Inc., Nappanee, Ind. 658,062-3, pub. 11-19-57. Cl. 32.
- Coronet Sportswear, Inc., Sunbury, Pa. 552,230, canc. Cl. 39.
- Cosden Petroleum Corp., Big Spring, Tex. 653,959, cor. Cl. 6.
- Costa Distributing Co. of El Centro, El Centro, Calif. 432,672, canc. Cl. 46.
- Cragstan Corp., New York, N. Y. 658,154, pub. 11-19-57. Cl. 50.
- Cranston Print Works Co., Cranston, R. I. 354,136, ren. 2-1-58. Cl. 42.
- Crompton & Knowles Corp., Worcester, Mass. 658,035, pub. 10-15-57. Cl. 23.
- Crystal, David, Inc., New York, N. Y. 658,068, pub. 11-19-57. Cl. 39.
- Custom Upholstering and Carpet Co., Inc., Baltimore, Md. 552,385, canc. Cl. 32.
- Dearborn Chemical Co., Chicago, Ill. 658,048, pub. 11-19-57. Cl. 26.
- Del-Mar-Va Poultry Industry, Inc., Georgetown, Del. 658,144, pub. 11-19-57. Cl. 46.
- Department Store Guide, Inc., New York, N. Y. 658,170, Cl. 38.
- Der-Mo-Tine, Inc., Fort Wayne, Ind. 351,529, 12(c) pub. 2-4-58. Cl. 51.
- Deseghers: See—
Fay, Kenneth C.

Deseret Pharmaceutical Co., Inc., Salt Lake City, Utah. 658,006, pub. 11-19-57. Cl. 18.
 Detroit Hardware Mfg. Co., Detroit, Mich. 552,190, can. Cl. 13.
 Devos & Reynolds Co., Inc., Louisville, Ky. 657,982, pub. 11-19-57. Cl. 16.
 Ditto, Inc., Chicago, Ill. 658,077, pub. 11-19-57. Cl. 37.
 Dixie Mercantile Co., Chattanooga, Tenn. 658,114, pub. 11-19-57. Cl. 43.
 Dr. Pepper Co., Dallas, Tex. 561,181, Am. 7(d), Cl. 45.
 Donco, Inc., Englewood, Colo. 657,940, pub. 11-19-57. Cl. 6.
 Don Juan Blade Co., New York, N. Y. 658,032, pub. 11-19-57. Cl. 23.
 Dorr-Oliver Inc., Stamford, Conn. 658,037, pub. 11-19-57. Cl. 23.
 Dubonnet Wine Corp., New York, N. Y. 658,150-1, pub. 11-19-57. Cl. 47.
 Dutchess Underwear Corp., New York, N. Y. 658,099, pub. 11-19-57. Cl. 39.
 Duvernoy Bakeries: See—
 Duvernoy & Sons Inc.
 Duvernoy & Sons Inc., d. b. a. Duvernoy Bakeries, New York, N. Y. 658,130, pub. 11-19-57. Cl. 46.
 Eagle-Picher Co., The, Cincinnati, Ohio. 657,951, pub. 11-19-57. Cl. 12.
 Eastern Cabinet Co., Inc., (Glendale) Brooklyn, N. Y. 658,064, pub. 11-19-57. Cl. 32.
 Eastover Engineering and Sales Co., Inc., Charlotte, N. C. 552,249, can. Cl. 22.
 Eckhart, B. A., Milling Co., Chicago, Ill. 658,125, pub. 11-19-57. Cl. 46.
 Electric Furnace-Man, Inc., Emmaus, Pa. 635,938, Am. 7(d), Cl. 34.
 Electrical Products Research and Development Co., Toledo, Ohio. 658,015, pub. 11-19-57. Cl. 21.
 Electro-Voice, Inc., Buchanan, Mich. 597,558, Am. 7(d), Cl. 21.
 Elektro-Mechanik G. m. b. H., Wendenerhutte Kreis Olpe, (Westphalia), Germany. 658,022-8, pub. 11-19-57. Cl. 28.
 Ellerman, F. G., & Co.: See—
 Ellerman, Frank G.
 Ellerman, Frank G., d. b. a. F. G. Ellerman & Co., Evanston, Ill. 658,060, pub. 11-19-57. Cl. 32.
 Elvick Import Corp., New York, N. Y. 552,194, can. Cl. 42.
 Eraser Co., Inc., The, Syracuse, N. Y. 349,162, ren. 8-24-57. Cl. 37.
 Fairfield Engineering Co.: See—
 Blough, Ronald S.
 Fay, Kenneth C., d. b. a. Deseghers, New York, N. Y. 657,998, pub. 11-19-57. Cl. 18.
 Federated Department Stores, Inc.: See—
 Bloomingdale Bros., Inc.
 Finch, William G. H., New York, N. Y. 552,397, can. Cl. 104.
 Fletcher, H. E., Co., West Chelmsford, Mass. 658,164-5, Cl. 12.
 Flour Mills of America, Inc., d. b. a. Anthony Mills, Alva, Okla. 658,126, pub. 11-19-57. Cl. 46.
 Fodeen Distributors: See—
 Burns, Everett C.
 Foreign Service Bureau: See—
 Carney, John A.
 Forstmann, Woolen Co., to Forstmann Woolen Co., Passaic, N. J. 353,352, ren. 1-4-58, Cl. 42.
 Forstmann, Woolen Co., to Forstmann Woolen Co., Passaic, N. J. 353,753, ren. 1-18-58, Cl. 42.
 Freeman, Howard F., Salamanca, N. Y. 657,999, pub. 11-19-57. Cl. 18.
 French Art Silk Creations Co.: See—
 Tardy, Suzanne.
 Fuld Bros., to Fuld Bros., Inc., Baltimore, Md. 352,216, ren. 11-23-57. Cl. 6.
 Fuld Bros., Inc.: See—
 Fuld Bros.
 Fuller, D. B., & Co., Inc., New York, N. Y. 552,338, can. Cl. 42.
 Fuller, D. B., & Co., Inc., New York, N. Y. 658,106, pub. 9-17-57. Cl. 42.
 Fuller, D. B., & Co., Inc., New York, N. Y. 658,111, pub. 11-19-57. Cl. 42.
 Furgatch, Bernard: See—
 Weinberg, Albert B.
 G & M Co., Carrollton, Ky. 552,253, can. Cl. 18.
 Gelgy Co., Inc., New York, N. Y. 552,289, can. Cl. 6.
 General American Transportation Corp., Chicago, Ill. 657,967, pub. 11-19-57. Cl. 13.
 General Mills, Inc., Minneapolis, Minn. 658,132, pub. 11-19-57. Cl. 46.
 General Railway Signal Co., Rochester, N. Y. 658,010, pub. 11-19-57. Cl. 21.
 Georgia Pacific Pump Co., Vienna, Ga. 658,036, pub. 11-19-57. Cl. 23.
 Gestelra, Dr. J., Inc., Miami, Fla. 657,994, pub. 11-19-57. Cl. 18.
 Gibson, Frank H., Omaha, Nebr., by National Coffee Corp., Chicago, Ill. 142,268, 12(c) pub. 2-4-58. Cl. 46.
 Glarden, Alfred, d. b. a. Glarden Importing Co., New York, N. Y. 356,752, ren. 3-10-58. Cl. 27.
 Glenoit Mills, Inc., Janesville, Wis. 658,105, pub. 11-19-57. Cl. 42.
 Globe Roofing Products Co., Inc., Whiting, Ind. 657,955, pub. 11-19-57. Cl. 12.
 Golf-Ben-Norton, British Columbia, Canada. 658,012, pub. 11-19-57. Cl. 21.
 Goodrich, B. F., Co., The, Akron, Ohio. 658,096, pub. 11-19-57. Cl. 39.
 Goodyear Tire & Rubber Co., The, Akron, Ohio. 657,927, pub. 11-19-57. Cl. 1.
 Graham Chemical Corp., Springfield Gardens, N. Y. 657,986, pub. 11-19-57. Cl. 18.
 Graham Paper Co., St. Louis, Mo. 658,082, pub. 11-19-57. Cl. 37.
 Great Neck Saw Manufacturers, Inc., Mineola, N. Y. 658,031, pub. 11-19-57. Cl. 23.
 Grove Papers Co., Groveton, N. H. 658,081, pub. 11-19-57. Cl. 37.
 Gulf Minerals Corp., Baton Rouge, La. 552,333, can. Cl. 14.
 Gulf Oil Corp., Pittsburgh, Pa. 657,972, pub. 11-19-57. Cl. 15.
 Gutta Percha & Rubber Mfg. Co., The, to Hewitt-Robins Inc., New York, N. Y. 119,303, ren. 11-13-57. Cl. 35.
 Gutta Percha & Rubber Mfg. Co., The, to Hewitt-Robins Inc., New York, N. Y. 119,443, ren. 11-20-57. Cl. 35.
 Hamre Specialty Co., Chicago, Ill. 552,133, can. Cl. 22.
 Hanchett Mfg. Co., Big Rapids, Mich. 658,028, pub. 11-19-57. Cl. 23.
 Hanacom, H. F., & Co., Inc., Providence, R. I. 657,945, pub. 11-19-57. Cl. 7.
 Harloe, Hal B.: See—
 Rialto Heights Orange Growers.
 Hartmann-Schneider Co., Johnstown, Pa. 552,124, can. Cl. 39.
 Heeman Mfg. Co., Wooster, Ohio. 552,370, can. Cl. 10.
 Henckels, J. A., Zwillingswerk Aktiengesellschaft, Solingen, Germany. 658,117, pub. 11-19-57. Cl. 44.
 Hepworth & Grandage Ltd., Bradford, England. 311,585, 12(c) pub. 2-4-58. Cl. 23.
 Hercules Powder Co., Wilmington, Del. 657,947, pub. 11-19-57. Cl. 9.
 Hewitt-Robins Inc.: See—
 Gutta Percha & Rubber Mfg., The.
 Heyden Newport Chemical Corp., New York, N. Y. 657,944, pub. 11-19-57. Cl. 6.
 Heyman, Louis, d. b. a. Hide'M Products, Plainfield, N. J. 658,103, pub. 11-19-57. Cl. 40.
 Hibbl, Inc., Stonington, Conn. 657,937, pub. 10-1-57. Cl. 6.
 Hide'M Products: See—
 Heyman, Louis.
 Highland Cider Mill: See—
 Vechia, Joseph D., Sr.
 Highland Cider and Vinegar Mill: See—
 Vechia, Joseph D., Sr.
 Hill-Behan Lumber Co., St. Louis, Mo. 658,166, Cl. 16.
 Hillstrom, Sylvia, d. b. a. Blessing Co., Wilton, Conn. 552,270, can. Cl. 46.
 Hirschmann, Jack B., d. b. a. H. L. Bouton Co., Buzzards Bay, Mass. 658,039, pub. 11-19-57. Cl. 26.
 Holz, Charles, Chicago, Ill. 658,122, pub. 11-19-57. Cl. 44.
 Horton Bristol Mfg. Co., The: See—
 Horton Mfg. Co., The.
 Horton Mfg. Co., The, Bristol, Conn., now by change of name The Horton Bristol Mfg. Co. 552,234, can. Cl. 22.
 Houghton, E. F., & Co., Philadelphia, Pa. 84,233, can. Cl. 6.
 Hudnut, Richard: See—
 Chen Yu, Inc.
 Huntington Moulding & Art, Inc., Huntington Station, N. Y., and elsewhere in the United States. 552,375, can. Cl. 32.
 Horley Machine Co., to Allied Paper Corp., Chicago, Ill. 119,454, ren. 11-20-57. Cl. 24.
 Hydramotive, Inc., to American Bosch Arms Corp., Springfield, Mass. 585,115, new cert. Cl. 23.
 Hyer, C. H., & Sons, Olathe, Kans. 552,165, can. Cl. 39.
 Imperial Knife Co., Inc., Providence, R. I. 658,027, pub. 11-19-57. Cl. 23.
 Imperial Refractories Corp., Clayton, Mo. 658,089, pub. 11-19-57. Cl. 39.
 Independent Grocers' Alliance Distributing Co., Chicago, Ill. 658,159, pub. 11-19-57. Cl. 101.
 Insulation and Wires, Inc.: See—
 Insulation & Wires Inc.
 Insulation & Wires Inc., Fort Wayne, Ind., to Insulation and Wires, Inc., St. Paul, Minn. 658,007, pub. 11-19-57. Cl. 21.
 International Foodcraft Corp., Brooklyn, N. Y. 658,149, pub. 11-19-57. Cl. 46.
 International Molded Plastics, Inc., Cleveland, Ohio. 552,389, can. Cl. 22.
 Internationale Verbandstoff-Fabrik Schaffhausen, Schaffhausen, Switzerland. 658,120-1, pub. 11-19-57. Cl. 44.
 Irving Tanning Co., Boston, Mass. 657,930, pub. 11-19-57. Cl. 1.
 Isolantite Mfg. Corp., Stirling, N. J. 658,013, pub. 11-19-57. Cl. 21.
 Jefferson Island Salt Co., Louisville, Ky. 552,238, can. Cl. 46.
 Jenaer Glaswerk Schott & Gen., Mainz, Germany. 658,044-7, pub. 11-19-57. Cl. 26.
 Joell Mfg. Co.: See—
 Stallin, Joseph J.
 Jorgensen Bros., Pleasanton, Calif. 658,019, pub. 11-19-57. Cl. 22.
 Joyce, Inc., Pasadena, Calif. 552,279, can. Cl. 39.
 Kass, Samuel M., d. b. a. Kass Hardware, Philadelphia, Pa. 657,966, pub. 11-19-57. Cl. 13.
 Kayser, Julius, & Co., New York, N. Y. 120,399, ren. 2-5-58. Cl. 39.
 Key Corp., Miami, Fla. 658,003-4, pub. 11-19-57. Cl. 18.
 Killark Electric Mfg. Co., St. Louis, Mo. 658,016, pub. 11-19-57. Cl. 21.
 Kingsboro Mills, Inc., Chattanooga, Tenn. 658,090, pub. 11-19-57. Cl. 39.
 Kleen Pak Corp., West Salem, Ill. 658,058, pub. 11-19-57. Cl. 31.
 Kloepper, Adolph H., d. b. a. The Far-B-Q Co., Seattle, Wash. 658,139, pub. 11-19-57. Cl. 46.

Knifemaster Products Co.: See—
 Smith, Richard B.
 Knomark Mfg. Co., Inc., Brooklyn, N. Y. 644,679, Am. 7(d), Cl. 4.
 Knomark Mfg. Co., Inc., Brooklyn, N. Y. 657,935-6, pub. 11-19-57. Cl. 6.
 Kresge, S. S., Co., Detroit, Mich. 658,134, pub. 11-19-57. Cl. 46.
 Kress, S. H., and Co., New York, N. Y. 552,351, can. Cl. 22.
 Kwik-Bilt, Inc., Dallas, Tex. 657,958, pub. 11-19-57. Cl. 12.
 Lanolin Plus, Inc., Chicago, Ill. 658,157, pub. 11-19-57. Cl. 52.
 Lansdale Forest Products Corp., Lansdale, Pa. 657,953, pub. 11-19-57. Cl. 12.
 La Salle National Bank, Chicago, Ill. 658,161, pub. 11-19-57. Cl. 102.
 Lau Blower Co., The, Dayton, Ohio. 658,049, pub. 11-19-57. Cl. 26.
 Laurel Brand Food Products Co.: See—
 Sigheis, Philip.
 Lawndale Specialties Co., Evanston, Ill. 552,180, can. Cl. 42.
 Lawrence, Gordon H., Sunnyside, N. Y. 552,193, can. Cl. 22.
 Lawrence, W. W., & Co., Pittsburgh, Pa. 657,981, pub. 11-19-57. Cl. 18.
 Lazara Doll Co., Inc., New York, N. Y. 552,208, can. Cl. 22.
 Lehigh Safety Shoe Co., Emmaus, Pa. 658,172, Cl. 39.
 Lem-N-Joy Co.: See—
 Scheffel, S. Reese.
 Lilee Products, Inc., Chicago, Ill. 552,339, can. Cl. 13.
 Lilly, Eli, and Co., Indianapolis, Ind. 657,941, pub. 11-19-57. Cl. 6.
 Lilly, Eli, and Co., Indianapolis, Ind. 657,991, pub. 11-19-57. Cl. 18.
 Line, Henry, Carlisle, Pa. 658,053, pub. 11-19-57. Cl. 27.
 Lisnow & Weiss Co., Inc., New York, N. Y. 658,051, pub. 11-19-57. Cl. 27.
 Little Miss Knit Co., New York, N. Y. 658,100, pub. 11-19-57. Cl. 39.
 Lovell & Christmas (Liverpool) Ltd., Liverpool, England. 658,135, pub. 11-19-57. Cl. 46.
 Lynn's Fashions, Inc., New York, N. Y. 658,101, pub. 11-19-57. Cl. 39.
 Macdonald & Muir Ltd., Leith, Scotland. 487,924, Am. 7(d), Cl. 49.
 Maendler Brush Mfg. Co., Inc., St. Paul, Minn. 658,055, pub. 11-19-57. Cl. 29.
 Mandee Fabrics, Inc., New York, N. Y. 552,267, can. Cl. 42.
 Marble, James E., Delawanna, N. J. 356,042, 12(c) pub. 2-4-58. Cl. 12.
 Marcus, Louis, Corp., The, Baltimore, Md. 652,162, can. Cl. 39.
 Marino & Son Shoe Corp., New York, N. Y. 552,289, can. Cl. 30.
 Marlowe Equipment Inc., New York, N. Y., to Battle Creek Equipment Co., Battle Creek, Mich. 352,106, ren. 11-16-57. Cl. 22.
 Marshall, William L., Ltd., New York, N. Y. 657,957, pub. 11-19-57. Cl. 12.
 Master Vibrator Co., Dayton, Ohio. 658,009, pub. 11-19-57. Cl. 21.
 Mathieson Chemical Corp., Baltimore, Md. 552,323, can. Cl. 6.
 Mavar Shrimp and Oyster Co., Ltd., Biloxi, Miss. 658,140, pub. 11-19-57. Cl. 46.
 Mayer, B. W., Ltd., New York, N. Y. 552,233, can. Cl. 39.
 May-Fran Engineering, Inc., Cleveland, Ohio. 658,026, pub. 11-19-57. Cl. 23.
 McDaniel, Sam, & Sons, Inc., Bedford, Va. 658,137, pub. 11-19-57. Cl. 46.
 McDonald, J. M., Co.: See—
 Brown-McDonald Co.
 McGraw-Hill Publishing Co., Inc., New York, N. Y. 275,824, can. Cl. 38.
 Medipoint, Inc., Brooklyn, N. Y. 658,123, pub. 11-19-57. Cl. 44.
 Mena Watch Corp., New York, N. Y. 658,052, pub. 11-19-57. Cl. 27.
 Merck & Co., Inc., Rahway, N. J. 658,002, pub. 11-19-57. Cl. 18.
 Mercury Record Corp., Chicago, Ill. 658,073, pub. 11-19-57. Cl. 36.
 Merrell, Wm. S., Co., The, Reading, to The Wm. S. Merrell Co., to The Wm. S. Merrell Co., Cincinnati, Ohio. 356,860, ren. 4-26-58. Cl. 18.
 Mexico Refractories Co., Mexico, Md. 657,964, pub. 11-19-57. Cl. 12.
 Micro Library Inc., The, now by change of name The Microcard Corp., West Salem, Wis. 534,191, Am. 7(d), Cl. 38.
 Microcard Corp.: See—
 Micro Library Inc., The.
 Microcard Corp., The, West Salem, Wis. 612,590, Am. 7(d), Cl. 38.
 Midland Chemical Laboratories, Inc., to Midland Laboratories, Dubuque, Iowa. 354,338, ren. 2-8-58. Cl. 52.
 Mid-State Chemical Supply Co., Lindsay, Calif. 552,311, can. Cl. 6.
 Miles Laboratories, Inc.: See—
 Takamine Laboratory, Inc.
 Miller, David W., & Sons, Inc., New York, N. Y. 552,152, can. Cl. 39.
 Miller Protecto Products Co., Kalamazoo, Mich. 552,307, can. Cl. 6.
 Minnesota Mining and Mfg. Co., St. Paul, Minn. 657,976, pub. 11-19-57. Cl. 16.
 Mission Mfg. Co., Houston, Tex. 658,020, pub. 11-19-57. Cl. 23.
 Mississippi Glass Co., St. Louis, Mo. 658,065, pub. 11-19-57. Cl. 33.
 Miss Stephanie, Inc., New York, N. Y. 658,092, pub. 11-19-57. Cl. 39.
 Monsanto Chemical Co., St. Louis, Mo. 657,939, pub. 7-16-57. Cl. 6.
 Monsanto Chemical Co., St. Louis, Mo. 658,153, pub. 11-19-57. Cl. 50.
 Moody-Wonderful Products, Inc., Ballardvale, Mass. 657,925, pub. 11-19-57. Cl. 1.
 Mooresville Mills, Inc., Mooresville, N. C. 552,344, can. Cl. 42.
 Mountain Ash Research Corp.: See—
 Reese, John D.
 Muench-Kreuser Candle Co., Inc., Syracuse, N. Y. 658,067, pub. 7-12-55. Cl. 34.
 Muniz, Manuel, d. b. a. Pelayo Sausage Co., Tampa, Fla. 552,231, can. Cl. 46.
 Music Guild of America, Newark, N. J. 552,394, can. Cl. 38.
 N. V. Maandblad Success, The Hague, Netherlands. 658,078, pub. 11-19-57. Cl. 37.
 National Bakers Supply Corp., Somerville, Mass. 552,331, can. Cl. 46.
 National Broadcasting Co., Inc., New York, N. Y. 658,162, pub. 7-26-49. Cl. 104.
 National Coffee Corp.: See—
 Gibson, Frank H.
 National Distillers and Chemical Corp.: See—
 National Distillers Products Corp.
 National Distillers Products Corp., New York, N. Y., now by change of name National Distillers and Chemical Corp. 658,152, pub. 11-19-57. Cl. 49.
 National Industries for the Blind, New York, N. Y. 658,056, pub. 11-19-57. Cl. 29.
 Nesco Division of New York: See—
 New York Shipbuilding Corp.
 Nesco Division of New York Shipbuilding Corp.: See—
 New York Shipbuilding Corp.
 New England Fish Co., Seattle, Wash. 284,991, can. Cl. 46.
 New Holland Machine Co., New Holland, Pa. 552,371, can. Cl. 38.
 New Jersey Zinc Co., The, New York, N. Y. 552,346, can. Cl. 14.
 New York Shipbuilding Corp., d. b. a. Nesco Division of New York Shipbuilding Corp., Milwaukee, Wis. 639,600, can. Cl. 21.
 Nordmark-Werke Gesellschaft mit beschränkter Haftung, Hamburg, Germany. 657,988, pub. 11-19-57. Cl. 18.
 Nots Sweney Inc., Englewood, Colo. 572,848, can. Cl. 23.
 Olin Mathieson Chemical Corp., New York, N. Y. 657,990, pub. 11-19-57. Cl. 18.
 Palmer, Rufus N., Mount Lebanon, Pa. 658,018, pub. 11-19-57. Cl. 21.
 Pathfinder Petroleum Co., Los Angeles, Calif. 657,978, pub. 11-19-57. Cl. 15.
 Pelayo Sausage Co.: See—
 Muniz, Manuel.
 Pepperell Mfg. Co., Boston, Mass. 343,762, 12(c) pub. 2-4-58. Cl. 42.
 Pepperell Mfg. Co., Boston, Mass. 344,955, 12(c) pub. 2-4-58. Cl. 42.
 Perlite Corp. of America, New York, N. Y. 657,929, pub. 11-19-57. Cl. 1.
 Peterson, E. K., & Son Inc., d. b. a. E. K. Peterson & Sons, Inc., Minneapolis, Minn. 657,926, pub. 11-19-57. Cl. 1.
 Peterson, E. K., & Son Inc.: See—
 Peterson, E. K., & Son Inc.
 Petri Cigar Co., Inc., by United Vintners, Inc., San Francisco, Calif. 397,223, 12(c) pub. 2-4-58. Cl. 17.
 Petroleum Accessories, Inc., Detroit, Mich. 552,125, can. Cl. 31.
 Philco Corp., Philadelphia, Pa. 658,011, pub. 11-19-57. Cl. 21.
 Pierce, S. S., Co., Boston, Mass. 349,838, 12(c) pub. 2-4-58. Cl. 49.
 Pierce, S. S., Co., Boston, Mass. 354,084, 12(c) pub. 2-4-58. Cl. 17.
 Prairie States Oil & Grease Co., Danville, Ill. 657,943, pub. 11-19-57. Cl. 6.
 Premier Knitting Co., Inc., New York, N. Y. 552,324, can. Cl. 39.
 Presto-Bolt Mfg. Co., Sun Valley, Calif. 552,164, can. Cl. 13.
 Prior's Foods, Ltd., Hamilton, Ontario, Canada. 658,143, pub. 11-19-57. Cl. 46.
 Prym, William, of America, Inc., New York, N. Y., to William Prym, Inc., Dayton, Conn. 354,845, ren. 2-22-58. Cl. 40.
 Pryor, Edward J., Santa Maria, Calif. 552,325, can. Cl. 46.
 Pur-O-Pane Bottled Gas Co., Sparta, Ill. 552,256, can. Cl. 6.
 Putnam Tool Co., Detroit, Mich. 658,029, pub. 11-19-57. Cl. 23.
 Quality Frozen Co.: See—
 Ayres and Roberts.
 Raxon Fabrics Corp., New York, N. Y. 552,296, can. Cl. 42.
 Ray Brokerage Co.: See—
 Ray, Herbert S.
 Ray, Herbert S., d. b. a. Ray Brokerage Co., San Francisco, Calif. 658,129, pub. 4-10-56. Cl. 48.
 Raydex Fabrics, Inc., New York, N. Y. 658,116, pub. 11-19-57. Cl. 43.
 Reddy Kilowatt, Inc., New York, N. Y. 651,768, cor. Cl. 38.
 Reddy Kilowatt, Inc., New York, N. Y. 651,767, cor. Cl. 38.
 Reddy Kilowatt, Inc., New York, N. Y. 651,768, cor. Cl. 38.
 Reese, John D., Philadelphia, Pa., to Mountain Ash Research Corp. 658,118, pub. 11-19-57. Cl. 44.
 Reliable Luggage, Inc., West Pittsburg, Pa. 657,934, pub. 11-19-57. Cl. 3.
 Rexall Drug Co.: See—
 United Drug Co.

Rialto Heights Association: See—
Rialto Heights Orange Growers.
Rialto Heights Orange Growers, Rialto, Calif., from H. B. Harlow, d. b. a. Rialto Heights Orange Growers, also d. b. a. Rialto Heights Association. 552,118, can. Cl. 46.
Robins Conveying Belt Co., Passaic, N. J., and New York, N. Y., to Hewitt-Robins Inc., New York, N. Y. 352,392, ren. 11-30-57. Cl. 23.
Robins Conveying Belt Co., Passaic, N. J., and New York, N. Y., to Hewitt-Robins Inc., New York, N. Y. 352,788, ren. 12-14-57. Cl. 13.
Robins Conveying Belt Co., Passaic, N. J., and New York, N. Y., to Hewitt-Robins Inc., New York, N. Y. 352,789, ren. 12-14-57. Cl. 13.
Rohm & Haas, G. m. b. H., Darmstadt, Germany. 657,942, pub. 11-9-57. Cl. 6.
Romay Inc., Lavonia, Ga. 658,094, pub. 11-19-57. Cl. 39.
Roof-Alum Industries: See—
Volpert, Milton H.
Rosnov and Rosnov, Philadelphia, Pa. 552,350, can. Cl. 22.
Safeway Stores, Inc., Oakland, Calif. 658,142, pub. 11-19-57. Cl. 46.
Saks, M. J., Shoe Corp., New York, N. Y. 552,227, can. Cl. 39.
Samette Mfg. Co., Inc., Allentown, Pa. 658,102, pub. 11-19-57. Cl. 39.
Saval Co., Los Angeles, Calif. 552,147, can. Cl. 13.
Scheffel, S. Reese, d. b. a. Lem-N-Joy Co., New York, N. Y. 658,145, pub. 11-19-57. Cl. 46.
Schering Corp., Bloomfield, N. J. 657,984, pub. 11-19-57. Cl. 18.
Schnepp Associates, Inc., Decatur, Ill. 657,993, pub. 11-19-57. Cl. 18.
Schoeneman, J., Inc., by J. Schoeneman, Inc., Baltimore, Md. 351,644, 12(c) pub. 2-4-58. Cl. 39.
Schoeneman, J., Inc., by J. Schoeneman, Inc., Baltimore, Md. 352,660, 12(c) pub. 2-4-58. Cl. 39.
Scott Paper Co., Chester, Pa. 658,080, pub. 11-19-57. Cl. 37.
Scottish Grain Distilling Co., Ltd., The, Glasgow, Scotland. 654,241, cor. Cl. 49.
Scrumshus and Scrumshus: See—
Sovern, Harold A.
Sealy, Inc.: See—
Sealy Mattress Co.
Sealy Mattress Co., Sugar Land, Tex., by Sealy, Inc., Chicago, Ill. 122,620, 12(c) pub. 2-4-58. Cl. 32.
Seattle Quilt Mfg. Co., Inc., Seattle, Wash. 657,928, pub. 11-19-57. Cl. 1.
Secomastic Ltd., Bracknell, England. 657,975, pub. 11-19-57. Cl. 16.
Service Bureau Corp., The, New York, N. Y. 658,160, pub. 11-19-57. Cl. 101.
Shanghai Syndicate, Inc., San Francisco, Calif. 552,372, can. Cl. 46.
Shapiro, Abraham, & Son: See—
Shapiro, Edward.
Shapiro, Edward, d. b. a. Abraham Shapiro & Son, New York, N. Y. 658,104, pub. 11-19-57. Cl. 42.
Shenango China, Inc., New Castle, Pa. 658,057, pub. 11-19-57. Cl. 30.
Sigheis, Philip, d. b. a. Laurel Brand Food Products Co., Woodside, N. Y. 658,124, pub. 11-19-57. Cl. 45.
Skinner, William, & Sons, New York, N. Y. 658,113, pub. 11-19-57. Cl. 42.
Smith, Richard B., d. b. a. Knifemaster Products Co., Hickory, N. C. 658,021, pub. 2-19-57. Cl. 23.
Smith Tube Corp., Ridgewood, N. J. 657,965, pub. 10-2-50. Cl. 13.
Smyth, J. W., Co.: See—
Smyth, James W.
Smyth, James W., d. b. a. J. W. Smyth Co., Milwaukee, Wis. 658,112, pub. 11-19-57. Cl. 42.
Snap Tack Co., Vernon, Calif. 552,379, can. Cl. 13.
Societa Accomandita Semplice Calsaturificio Vibelaport di Vibelletti & C., Milan, Italy. 658,096, pub. 11-19-57. Cl. 39.
Socony Mobil Oil Co., Inc., New York, N. Y. 657,938, pub. 11-19-57. Cl. 6.
Socony-Vacuum Oil Co., Inc., New York, N. Y. 552,309, can. Cl. 6.
Southern Biscuit Co.: See—
Western Biscuit Co., Inc.
Southern Distributors, Inc., Fort Lauderdale, Fla. 658,074, pub. 11-19-57. Cl. 36.
Sovern, Harold A., d. b. a. Scrumshus and Scrumshus, Cedar Rapids, Iowa. 552,391, can. Cl. 46.
Specialties, Inc., Syosset, N. Y. 658,050, pub. 11-19-57. Cl. 26.
Sperry Rand Corp., New York, N. Y. 658,030, pub. 11-19-57. Cl. 23.
Sponsor Co., Washington, D. C., by Sponsor Publications Inc., New York, N. Y. 390,130, 12(c) pub. 2-4-58. Cl. 38.
Sponsor Publications Inc.: See—
Sponsor Co.
Stallin, Joseph J., d. b. a. Joell Mfg. Co., Seattle, Wash. 658,119, pub. 11-19-57. Cl. 44.
Standard Merchandising Co., Inc., Hillsdale, N. J. 657,987, pub. 11-19-57. Cl. 18.
Standard Milling Co., Chicago, Ill. 552,128, can. Cl. 46.
Stanley Home Products, Inc., Westfield, Mass. 658,084, pub. 11-19-57. Cl. 23.
Star Expansion N. Y., Inc., New York, N. Y. 658,033, pub. 11-19-57. Cl. 23.
States Steamship Co., San Francisco, Calif. 658,163, pub. 11-19-57. Cl. 105.
Stauffer Chemical Co., San Francisco, Calif. 652,308, can. Cl. 6.
Stephenson, Calvin P., d. b. a. Stephenson Chemical Co., College Park, Ga. 657,949, pub. 11-19-57. Cl. 10.
Stephenson Chemical Co.: See—
Stephenson, Calvin P.
Strausbaugh, W. O., Motor Co., Youngstown, Ohio. 552,954, can. Cl. 103.
Stro-Kon Co., The, Whittier, Calif. 552,291, can. Cl. 6.
Stro-Kon Co., The, Whittier, Calif. 552,292, can. Cl. 6.
Stuart Co., The, Pasadena, Calif. 658,000, pub. 11-19-57. Cl. 18.
Summit Thread Co., East Hampton, Conn., to Belding Hemingway Co., Inc., New York, N. Y. 121,667, ren. 5-14-58. Cl. 43.
Sunflower Industries, Inc., Olathe, Kans. 658,088, pub. 11-19-57. Cl. 23.
Superba Cravats, Inc., Rochester, N. Y. 658,095, pub. 11-19-57. Cl. 39.
Tagson Papers, Inc., Mechanicville, N. Y. 658,076, pub. 11-19-57. Cl. 37.
Takamine Laboratory, Inc., New York, N. Y., to Miles Laboratories, Inc., Elkhart, Ind. 119,927, ren. 12-18-57. Cl. 18.
Tappan Stove Co., The, Mansfield, Ohio. 552,395, can. Cl. 13.
Tardy, Suzanne, d. b. a. French Art Silk Creations Co., New York, N. Y. 552,201, can. Cl. 39.
Teter, Inc., Dolton, Ill. 658,068, pub. 11-10-57. Cl. 34.
Texas Co., The, New York, N. Y. 140,227, Am. 7(d). Cl. 12.
Texas Co., The, Houston, Tex., and New York, by The Texas Co., New York, N. Y. 195,000, 12(c) pub. 2-4-58. Cl. 15.
Tide-Overs Co., Providence, R. I. 552,161, can. Cl. 39.
Tobias Paint Mfg. Co., Cleveland, Ohio. 658,167, Cl. 16.
Tobin Packing Co., Inc., Rochester, N. Y. 658,147-8, pub. 11-19-57. Cl. 46.
Tokyo Optical Co. Ltd., Itabashi-ku, Tokyo, Japan. 658,041-3, pub. 11-19-57. Cl. 26.
Toledo Guild Products, Inc., Toledo, Ohio. 552,159, can. Cl. 22.
Tomal, Armand, d. b. a. Chef Armand Food Co., Rochester, N. Y. 658,127, pub. 11-29-55. Cl. 46.
Toronto Elevators Ltd., Toronto, Ontario, Canada. 658,181, pub. 11-19-57. Cl. 46.
Trenton Corp., The, Ann Arbor, Mich. 657,956, pub. 11-19-57. Cl. 12.
Triangle Mfg. Co., Baltimore, Md. 658,070, pub. 11-19-57. Cl. 34.
Troutman Shirt Co., Inc., Troutman, N. C. 658,097, pub. 11-19-57. Cl. 39.
Tubular Lining Corp., Houston, Tex. 657,983, pub. 11-19-57. Cl. 16.
Twitchell, E. W., Inc., Philadelphia, Pa. 599,842, can. Cl. 7.
Tyron Corp., Eaglewood, Colo. 643,276, can. Cl. 35.
Union Asbestos & Rubber Co., Chicago, Ill. 658,066, pub. 9-13-55. Cl. 34.
Union Carbide and Carbon Corp., New York, N. Y. 658,017, pub. 11-19-57. Cl. 21.
United Drug Co., Boston, Mass., to Rexall Drug Co., Los Angeles, Calif. 352,229, ren. 11-23-57. Cl. 18.
United Merchants and Manufacturers, Inc., New York, N. Y. 658,108, pub. 11-19-57. Cl. 42.
United Sound & Signal Co., Inc., to Automatic Newsending Corp., Clayton, Mo. 628,005, new cert. Cl. 23.
U. S. Cocoa Corp., The, Camden, N. J. 658,141, pub. 11-19-57. Cl. 46.
United States Envelope Co., Springfield, Mass. 658,169, Cl. 37.
United States Rubber Co.: See—
United States Rubber Products, Inc.
United Vintners, Inc.: See—
Petri Cigar Co., Inc.
VEB Druckmaschinenwerk Planeta, Radebeul, Germany. 658,023, pub. 9-8-57. Cl. 28.
Vanderbilt, R. T., Co., Inc., New York, N. Y. 541,664, Am. 7(d). Cl. 6.
Vechia, Joseph D., Sr., d. b. a. Highland Cider Mill to Highland Cider and Vinegar Mill, Highland, N. Y. 658,128, pub. 11-19-57. Cl. 46.
Velsicol Chemical Corp.: See—
Velsicol Corp.
Velsicol Corp., Velsicol Chemical Corp., Chicago, Ill. 563,463, Am. 7(d). Cl. 6.
Velsicol Corp., Velsicol Chemical Corp., Chicago, Ill. 572,705, Am. 7(d). Cl. 6.
Verdin, I. T., Co., The, Cincinnati, Ohio. 658,071, pub. 11-19-57. Cl. 36.
Vesto Co., Inc., The, North Kansas City, Mo. 657,952, pub. 11-19-57. Cl. 12.
Vick Chemical Co., New York, N. Y. 658,005, pub. 11-19-57. Cl. 18.
Violet Packing Co., Williamstown, N. J. 658,188, pub. 11-19-57. Cl. 46.
Volpert, Milton H., d. b. a. Roof-Alum Industries, Youngstown, Ohio. 657,963, pub. 11-19-57. Cl. 12.
Vulcan Safety Razor Corp., Maplewood, N. J. 658,168, Cl. 23.
Walker, Leonard, Remedy Mfg. Co., Chicago, Ill. 657,985, pub. 12-10-57. Cl. 18.
Waterbury Mattress Co., The, Waterbury, Conn. 439,415, 12(c) pub. 2-4-58. Cl. 32.
Webb Industries, Inc., Bay Village, Ohio. 657,969, pub. 11-19-57. Cl. 13.
Weinberg, Albert B., deceased, New York, N. Y., to Maxine Weinberg and Bernard Furgatch, executors, to H. L. Weinberg. 552,222, can. Cl. 39.
Weinberg, Albert B., deceased, New York, N. Y., to Maxine Weinberg and Bernard Furgatch, executors, to H. L. Weinberg. 552,223, can. Cl. 39.
Weinberg, Albert B., deceased, New York, N. Y., to Maxine Weinberg and Bernard Furgatch, executors, to H. L. Weinberg. 552,224, can. Cl. 39.

Weinberg, Maxine: See—
Weinberg, Albert B.
Welsburg, Henry L.: See—
Weinberg, Albert B.
Wemett, Edward, & Co.: See—
Clark, Earl W.
West Coast Packing Corp., Long Beach, Calif. 552,329, can. Cl. 46.
Western Backing and Coating Co., Culver City, Calif. 658,107, pub. 11-19-57. Cl. 42.
Weston Biscuit Co. Inc., d. b. a. Southern Biscuit Co., Richmond, Va. 658,183, pub. 11-19-57. Cl. 46.
White-Haines Optical Co., Columbus, Ohio. 658,158, pub. 11-19-57. Cl. 100.
White Stag Mfg. Co., Portland, Ore. 658,098, pub. 11-19-57. Cl. 39.
Windsor Pen Corp., New York, N. Y. 658,079, pub. 11-19-57. Cl. 37.
Wolcott Co., The, Hartford, Conn. 552,225, can. Cl. 13.
Wolverine Finishes Corp., Grand Rapids, Mich. 657,974, pub. 12-6-55. Cl. 16.
Woods, H., Co., San Francisco, Calif. 552,297, can. Cl. 39.
Wurttembergische Metallwarenfabrik, Geislingen an der, Germany. 658,064, pub. 11-19-57. Cl. 28.
Yardney Electric Corp., New York, N. Y. 658,014, pub. 11-19-58. Cl. 21.
Yoho & Hooker Youngstown Co., The, Youngstown, Ohio. 657,950, pub. 11-19-57. Cl. 12.

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NOTICES

Errata

In the OFFICIAL GAZETTE, issue of December 24, 1957, list of patentees, page viii, under "Hyler, John H.", the patent numbers there listed should be reversed to read as follows:

Clark, Ralph B., and Hyler. 2,817,426
Clark, Ralph B., Hyler, and Whaley. 2,817,427

Also in the Patentee Index, same issue, page ix, under LeTourneau-Westinghouse Company, the numbers should be reversed to read as follows:

Clark, Ralph B., and Hyler. 2,817,426
Clark, Ralph B., Hyler, and Whaley. 2,817,427

Adjudicated Patent

(C. A. N. Y.) Guide Patent No. 2,674,963 (112-2), for spiral seam production mechanism for sewing machines. Claims 1 to 3, 6, 7, 12, and 14 Held Invalid. *Guide v. Desperak*, 249 F.2d 145; 115 USPQ 156.

Classification Order No. 244

The following class transfer, for concurrent reclassification and examination of applications pending therein, is directed to take effect on Thursday, January 16, 1958:

From Division 8 to Classification Division V

Class 304, SCAFFOLDS

M. C. ROSA,
Director, Patent Examining Operation.

Patents Available for Licensing or Sale

2,718,912. Cover for the Roof and Window Portions of a Vehicle. Helen C. Zimmerman, 1031 Eastern Ave., Baltimore 21, Md.

2,805,667. Process for Treating Tobacco. Firma Martin Brinkmann K. G., Bremen, Germany. Correspondence to Michael S. Striker, 511 Fifth Ave., New York 17, N. Y.

The following two patents are offered by Anna Ptacek, 417 West 44th St., New York 36, N. Y.

2,309,508. Speaker Attachment for Radios.

2,444,750. Radio Device for Secret Communication.

General Electric Company is prepared to grant non-exclusive licenses under the following 22 patents on reasonable terms to domestic manufacturers.

Applications for licenses under the following 18 patents may be addressed to: General Electric Company, Aircraft Gas

Turbine Division, Cincinnati 15, Ohio, Attention: Patent Counsel.

- 2,351,066. Electrical Discharge Device.
- 2,351,543. Electrical Discharge Devices.
- 2,374,588. Hydraulic Torque Transmission Arrangement.
- 2,390,789. Method of Making Hollow Propellers.
- 2,399,008. Hydraulic Gear of the Positive Displacement Type.
- 2,423,738. Forgeable Alloy for High Temperature Use.
- 2,427,244. Gas Turbine.
- 2,456,933. Brazing Alloy.
- 2,519,015. Sonic Airspeed and Stall Indicator.
- 2,545,340. Method of Measuring Gas Pressure in Flames.
- 2,564,497. Combustion Chamber Liner.
- 2,584,663. Variable Warp Airfoils.
- 2,677,430. Cyclic Pitch Control for Rotary-Wing Aircraft.
- 2,745,250. Reverse Vortex Combustion Chamber.
- 2,791,088. Device for Thrust Spoiling and Thrust Reversal.
- 2,799,445. High Speed Rotor.
- 2,800,766. Variable Exhaust Nozzle.
- 2,811,379. Sealing Means.

Applications for licenses under the following 2 patents may be addressed to: General Electric Company, Transformer Division, 100 Woodlawn Ave., Pittsfield, Mass., Attention: Patent Counsel.

- 2,409,200. Electrical Connector.
- 2,812,475. Load Break Device.

Applications for licenses under the following 2 patents may be addressed to: General Electric Company, Component Products Division, 1635 Broadway, Fort Wayne, Ind., Attention: Patent Counsel.

- 2,810,112. Transformer.
- 2,810,536. Cradle Type Base for Rotatable Machinery.

General Electric Company is prepared to grant non-exclusive licenses in the field of radio purposes under the following 4 patents upon reasonable terms to domestic manufacturers.

Applications for licenses may be addressed to: Patent Counsel, Defense Electronics Division, General Electric Company, Syracuse, N. Y.

- 2,808,202. Carry Unit for Binary Digital Computing Devices.
- 2,811,713. Signal Processing Circuit.
- 2,816,180. Protective Circuit.
- 2,816,236. Method of and Means for Detecting Stress Patterns.

New Applications Received During December 1957

Patents	6,609
Designs	361
Plant Patents	12
Reissues	27
Total	7,009

Issue

Patents	840—No. 2,822,543 to No. 2,823,382, incl.
Designs	41—No. 182,056 to No. 182,096, incl.
Plant Patents	2—No. 1,681 to No. 1,682, incl.
Reissues	5—No. 24,427 to No. 24,431, incl.
Total	888

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1957

Total number of pending applications (excluding Designs).....	212, 606
Total number of pending Design applications.....	6, 654
Total number of applications awaiting action (excluding Designs).....	94, 856
Total number of Design applications awaiting action.....	3, 138
Date of oldest new application.....	Dec. 20, 1956
Date of oldest amended application.....	Aug. 1, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS.....	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS.....	16, 26, 37, 41, 42, 44, 48, 51, 54, 60, 70.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS.....	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.....	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION.....	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS.....	1, 4, 9, 10, 18, 22, 23, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.....	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders.....	4-12-57	1-11-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps.....	4-1-57	1-8-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats.....	4-4-57	1-2-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways.....	4-8-57	1-2-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors, Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing.....	3-25-57	12-13-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines.....	5-2-57	5-2-57
7. (IV) GONSALVES, J. E. (ANDERSON, E. G., acting), Optics, Photographic Apparatus.....	4-1-57	1-18-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles.....	5-24-57	1-28-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines.....	4-1-57	1-17-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making.....	4-3-57	2-20-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits.....	5-6-57	5-2-57
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls.....	4-4-57	1-17-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning.....	4-8-57	1-22-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes.....	4-4-57	2-20-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass.....	4-2-57	1-30-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part).....	12-20-56	10-16-56
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding.....	4-1-57	1-2-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices.....	4-1-57	1-11-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating.....	4-10-57	2-11-57
20. (V) KAMPE, A. H., (acting), Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors.....	4-1-57	1-2-57
21. (III) MADER, R. C., Textiles.....	1-16-57	12-12-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows.....	4-1-57	1-2-57
23. (VI) SMILOW, L., Cash and Fare Registers; Calculators and Counters; Education.....	2-19-57	8-1-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control.....	5-6-57	3-4-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making.....	1-31-57	1-7-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms.....	5-31-57	5-2-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids.....	5-2-57	5-1-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes.....	4-1-57	1-8-57
29. (V) FRITZ, M. M., (acting), Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings.....	2-19-57	12-14-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling.....	4-1-57	11-21-56

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1-11-57

2-11-57

1-2-57

12-12-56

1-2-57
8-1-56

3-4-57

1-7-57

5-2-57

5-1-57

1-8-57

12-14-56

11-21-56

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils.....	1-11-57	1-11-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers.....	5-7-57	3-4-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering, Roads and Pavements.....	4-9-57	1-14-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements.....	4-1-57	3-1-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding.....	6-4-57	6-3-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales.....	1-22-57	1-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits.....	4-9-57	3-21-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols.....	6-3-57	5-20-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows).....	5-7-57	4-23-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages.....	6-4-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television.....	1-7-57	12-17-56
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part).....	1-2-57	1-9-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles.....	4-8-57	1-3-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes.....	4-1-57	1-2-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part).....	4-5-57	2-12-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part).....	4-23-57	1-9-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles.....	6-14-57	4-24-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers.....	4-1-57	12-10-56
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring.....	4-15-57	3-12-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber.....	6-5-57	6-10-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices.....	2-14-57	3-14-57
52. (V) NEFF, P. R., Supports and Racks.....	4-8-57	1-30-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators.....	5-16-57	4-25-57
54. (II) NILSON, R. O., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications.....	3-18-57	2-13-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators.....	12-31-56	12-24-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry.....	6-4-57	3-27-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending.....	5-13-57	4-4-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spittoons; Boring and Drilling; Paper Manufactures; Packaging (part).....	4-2-57	1-11-57
59. (I) BRINDISI, M. A. (acting), Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating.....	4-1-57	12-27-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products.....	5-6-57	4-1-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths.....	4-4-57	1-9-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination.....	8-6-57	8-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds.....	4-1-57	12-7-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions.....	4-2-57	1-14-57
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures.....	4-1-57	1-3-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification.....	4-2-57	1-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators.....	5-1-57	2-14-57
70. (II) BREWRINK, J. L., Security Laws Administration.....		
I—BAILEY, J. S., Laminated Fabrics.....	4-29-57	2-18-57
II—LADY, J. E., Oscillators; Amplifiers.....	4-2-57	2-13-57
III—WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres.....	4-1-57	1-3-57
IV—BERLOWITZ, W., Harrows and Diggers; Plows.....	4-10-57	1-17-57
V—ANGEL, C. D., Refrigeration; Roofs.....	4-1-57	4-1-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part).....	4-19-57	2-3-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts.....	6-10-57	7-2-57
B—GRAY, M. A., Household, Personal and Fine Arts.....	6-3-57	6-3-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents.....	Numbers 2,227,418 to 2,230,217, inclusive
Plant Patents.....	Numbers 437 to 444, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals District of Columbia Circuit

ROBERT C. SWITZER v. ROBERT C. WATSON,
COMMISSIONER OF PATENTS

No. 13,948. Decided January 9, 1958

[— U. S. App. D. C. —; — F.2d —; — USPQ —]

PATENTABILITY—PARTICULAR SUBJECT MATTER—VISIBLE
PENETRANT METHOD OF NON-DESTRUCTIVE TESTING.

The judgment of the District Court denying patentability
of a visible penetrant method of non-destructive testing
is affirmed.

APPEAL from the United States District Court.
AFFIRMED.

Albert L. Ely, Jr., Roberts B. Larson and Andrew
E. Taylor for Switzer.

Clarence W. Moore (Joseph Schimmel of counsel)
for Robert C. Watson, Commissioner of Patents.

Before PRETTYMAN, FAHY and BASTIAN, Circuit Judges
PER CURIAM:

This is an appeal from a judgment of the District
Court denying, after a trial de novo under 35 U. S. C.
145, patentability of a visible penetrant method of
non-destructive testing, a method by which the exist-
ence and location of minute cracks and flaws may be
readily detected. The ground for the denial in the
District Court was that the subject matter of the
claims was nonpatentable over prior art and patents,
and, in the case of one of the claims (No. 11), unpat-
entable on the ground of double patenting. The
Primary Examiner and Board of Patent Appeals had
reached the same conclusion.¹

An examination of the record discloses no error
which would warrant disturbing the findings of the
District Court. See *Standard Oil Development Co.
v. Marzall*, 86 U. S. App. D. C. 210, 181 F.2d 280
(1950); *Esso Standard Oil Co. v. Sun Oil Co.*, 97
U. S. App. D. C. 154, 229 F.2d 37 (1956).

AFFIRMED.

¹ Cf. *Application of Ward and Switzer*, 236 F.2d 428 (CCPA
1956).

U. S. Court of Customs and Patent Appeals

AMERICAN THROWING CO., INC. v. FAMOUS
BATHROBE CO., INC.

No. 6313. Decided December 13, 1957

[— CCPA —; — F.2d —; — USPQ —]

1. TRADEMARKS—OPPOSITION—OPPOSER NEED ONLY SHOW
LIKELIHOOD OF DAMAGE.

" . . . In an opposition proceeding, the opposer need
not show actual damage . . . but only likelihood of
damage . . ."

2. SAME—SAME—CONFUSING SIMILARITY AS SHOWING LIKE-
LIHOOD OF DAMAGE.

"One of the more common methods of showing likelihood
of damage is to show confusing similarity between opposer's
mark and the mark sought to be registered, both as applied
to the merchandise with which the marks are used."

3. SAME—SAME—PRIMA FACIE EVIDENCE OF OWNERSHIP AND
USE FROM REGISTRATION—RELATING BACK TO FILING
DATE.

In regard to showing damage and prior use in a trade-
mark opposition based on prior registrations of opposer
Held that opposer is "relying on its registrations, which
constitute prima facie evidence of ownership . . . which
ownership is prima facie evidence of use . . . and use
will be implied by virtue of such registration even where
there is no evidence of record relative to such use," and
Held that "The presumption of use created by the regis-
tration is deemed to relate back to the filing date thereof."

4. SAME—SAME—BURDEN OF PROCEEDING SHIFTS TO APPLI-
CANT AFTER PRIMA FACIE CASE BY OPPOSER.

Held that where opposer in a trademark opposition has,
by its registrations, established a prima facie case, the
burden of proceeding shifts to applicant and it becomes
incumbent upon it to refute opposer's prima facie case.

5. SAME—SUGGESTIVE MARKS HAVE TRADEMARK SIGNIFICANCE.
" . . . suggestive marks (as distinguished from descrip-
tive marks) do have trademark significance."

6. SAME—CONFUSING SIMILARITY—DOMINANT PART OF MARK
WHERE PREFIX IS DISCLAIMED—"WIPER-KINS" AND
"KNIT-KINS."

In a consideration of the confusing similarity of
"WIPER-KINS," used on children's bibs, and "KNIT-
KINS," used on children's knitted underwear, where the
prefixes "WIPER" and "KNIT" have been disclaimed apart
from the marks as a whole Held that the prefixes are
relegated to a position of minor importance, and the
suffix "KINS" is the dominant part of each of the two
marks, and Held that the average purchaser of infants'
wear would be likely to be confused as to the origin of
applicant's "KNIT-KINS."

APPEAL from the Patent Office. Opposition No. 32,322.
AFFIRMED.

Howard A. Rosenberg for American Throwing
Company, Inc.

William R. Liberman for Famous Bathrobe Com-
pany, Inc.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY,
RICH and JACKSON (retired), Associate Judges

JOHNSON, Chief Judge, delivered the opinion of the
court.

This is an appeal in an opposition proceeding under
section 13 of the Lanham Trademark Act, 60 Stat.
433 (1946), 15 U. S. C. 1063 (1952), from the decision
of the Commissioner of Patents, 109 USPQ 366, speak-
ing through the Assistant Commissioner, reversing the
decision of the Examiner of Interferences which dis-
missed the opposition and which held that applicant
(appellant here) was entitled to the registration
sought. The Assistant Commissioner was of the opin-
ion that appellant's mark was confusingly similar to
appellee's registered marks and she accordingly sus-
tained the opposition.

Appellee is a manufacturer of infants' and young
children's wear, such as layette items, gowns, kimonos,
buntings, robes and bibs. The registrations on which
it relies in its notice of opposition are for "SLUMBER-
KINS,"¹ alleged on the registration certificate to be
used on "Children's Playsuits and Pajamas," and
"WIPER-KINS,"² used on children's bibs. The filing
date of the application for registration of each of

¹ Reg. No. 565,356, issued October 14, 1952.

² Reg. No. 568,570, issued December 30, 1952.

these marks is December 15, 1951. The record indicates that the items identified by the mark "SLUMBER-KINS" consist of a terry cloth shirt, pants and booties, which are suitable for playing, sleeping and napping.

Appellant is a manufacturer of infants' and children's knitted underwear. "KNIT-KINS," which is the mark sought to be registered, is shown by the record to be used in conjunction with those items. The record establishes that the mark was first used on March 3, 1952, a date subsequent to appellee's filing dates.

The word "WIPER" has been disclaimed by appellee apart from the mark "WIPER-KINS." The Examiner of Interferences, in his decision, indicated also that appellant has disclaimed the word "KNIT" apart from the mark "KNIT-KINS."

Much of the testimony taken below and a good portion of appellant's arguments on appeal, is directed to the matter of appellee's sales and advertising in connection with "SLUMBER-KINS" and "WIPER-KINS." Appellant argues that all of the testimony of Murray M. Stern, Vice-President and Sales Manager of appellee, was vague and based on guesswork or approximation and, inasmuch as it was not based on the books and records of the business,² which would be the "best evidence" of these facts, his motion to strike all the evidence of this witness as to appellee's costs of advertising and sales should have been granted. Apparently, appellant is of the opinion that if this testimony is stricken, appellee will be without any evidence tending to show actual damage by virtue of appellant's use of "KNIT-KINS" and will accordingly lose its cause.

The fallacy in appellant's argument is evident on its face. Whether or not its motion to strike was properly or improperly denied, appellant could not show any prejudice resulting therefrom. For even if appellee had introduced no testimony at all as to the number and amount of sales of products under its two marks, as well as to any advertising in relation to them, appellant would be in no better position. It is well settled that, [1] in an opposition proceeding, the opposer need not show actual damage, *The Asbestone Co. v. The Philip Carey Mfg. Co.*, 41 App. D. C. 507 (1914), but only likelihood of damage, *Wilson v. Delaunay*, 44 CCPA (Patents) 1019, 245 F.2d 877, 114 USPQ 330; *Armour and Co. v. Organon, Inc.*, 44 CCPA (Patents) 1010, 245 F.2d 495, 114 USPQ 344. [2] One of the more common methods of showing likelihood of damage is to show confusing similarity between opposer's mark and the mark sought to be registered, both as applied to the merchandise with which the marks are used. *The Pop Boys v. The Fisher Bros. Co.*, 25 CCPA (Patents) 818, 94 F.2d 204, 36 USPQ 262; *Ely & Walker Dry Goods Co. v. Sears, Roebuck & Co.*, 24 CCPA (Patents) 1244, 90 F.2d 257, 33 USPQ 549. The question of confusing similarity as to the marks here involved will be discussed infra.

American Stove Co. v. Detroit Stove Works, 31 App. D. C. 304 (1908) and *H. C. Cole & Co. v. William Lea & Sons Co.*, 35 App. D. C. 355 (1910), cited by appellant

² Except for documentary exhibits relating to certain advertisements from newspapers and periodicals, the record utterly lacks documentary evidence as to sales and advertising related to "SLUMBER-KINS" and "WIPER-KINS."

³ This motion was made before the Examiner and urged on appeal to the Commissioner.

in support of its motion to strike, do not conflict with our reasoning. The former case involved an interference proceeding. In considering the question as to whether one of the parties had sufficiently proved its date of first use, the court noted that the evidence of that party was weak and uncertain and that there was better evidence available which was not introduced. The court accordingly refused to find the date of first use as alleged by that party. In that case, however, the party was an applicant for registration and therefore was forced to prove, by competent evidence, its date of first use. No such situation exists in the case at bar, for [3] appellee is here relying on its registrations, which constitute prima facie evidence of ownership, Lanham Trademark Act, § 7(b), 60 Stat. 430 (1946), 15 U. S. C. 1057 (1952), which ownership is prima facie evidence of use, *Rosengurt, Etc. v. Ostrez Co.*, 30 CCPA (Patents) 1046, 136 F.2d 249, 57 USPQ 543, and use will be implied by virtue of such registration even where there is no evidence of record relative to such use, *Bielzoff Products Co. v. White Horse Distillers, Ltd.*, 27 CCPA (Patents) 722, 107 F.2d 583, 43 USPQ 397. The presumption of use created by the registration is deemed to relate back to the filing date thereof. *Rolley, Inc. v. Young-husband*, 204 F.2d 209 (9th Cir. 1953).

The *H. C. Cole & Co.* case, supra, merely cites the *American Stove* case, supra, with approval and adds nothing thereto material to the instant question.

For the foregoing reasons, appellant's additional argument that appellee must show that it had prior use of its marks is without merit. As aforesaid, appellant's earliest alleged use is subsequent to the filing date of each of appellee's applications for registration.

Appellant's argument that our holding would shift the burden of proof to it, whereas such burden is rightfully appellee's, as opposer, is also unavailing. True, the opposer, as the moving party, has the burden of proof. [4] Where, as here, however, appellee has, by its registrations, established a prima facie case, the burden of proceeding shifts to appellant and it becomes incumbent upon it to refute appellee's prima facie case if it is to be successful in this proceeding.

In the view we take of this case, it will not be necessary to consider appellant's argument to the effect that appellee's registration for "SLUMBER-KINS" was obtained on a false affidavit and therefore cannot be relied upon for any purpose in this opposition proceeding. For we are of the opinion, as will presently be shown, that appellant's "KNIT-KINS" is confusingly similar to appellee's "WIPER-KINS" as applied to the respective goods in question.

On the question of confusing similarity we agree with the Assistant Commissioner at the outset that . . . bibs . . . and underwear for infants and small children are all items which a single manufacturer might reasonably be expected to make.

Appellant, however, urges that:

The word KINS is the English version of the German word kinder, or children. This version is well-known and has been in use for generations, to show the application of a word to something little, or a child. The singular in German is "kind," with the "d" silent, and is pronounced like the English word kin. The simple transition, in English, from "kind" to the plural "kins" is obvious. Actually, the common English "kin" is directly derived from the German "kind."

The term "kins" is defined in Webster's New International Dictionary (1948), page 1363, as:

-Kin. Also -Kins. A diminutive suffix, as in manikin, lambkin, sonnkins.

The same dictionary, page 1496, defines the noun "manikin"

as "1. A little man; a dwarf; a pygmy," and the adjective "manikin" as "diminutive; dwarf; puny"; "lambkin" is defined, page 1386, as "2. A young or tender person; chiefly in endearment."

The only common feature in the marks here at issue is the suffix "Kins." It is urged that this word Kins has a well understood significance as suggesting a small child, so that opposer cannot preempt the field as to this word, when used in conjunction with the goods of the parties.

"KINS" can have no real distinctiveness when applied to infants' and children's underwear, playsuits and pajamas.

Under such circumstances, the law is that the entire marks must be considered as determinative of the question of confusion. A comparison of the marks in their entireties shows no similarity whatsoever.

Each mark has its own, specific and easily understood meaning: SLUMBER-KINS, a sleeping garment for children; WIPER-KINS, a bib or face wiper for children; and KNIT-KINS, knitted wear for children.

We are inclined to disagree with appellant. The relationship of the suffix "KINS" to the German words kind or kinder is remote at best. Indeed, the suffix would appear to be equally if not more suggestive of the well understood definition of "Kin" as indicating one's relatives or a family relationship in general. Furthermore, the literal application of that portion of the Webster definition relied upon by appellant to the marks at bar, would result in, at best (as the Assistant Commissioner points out), "little wipers" or "little knits," a designation not intended to be conveyed by these marks. We do agree, however, that one might conclude, based upon the Webster definition, supra, that there is a degree of suggestibility connected to the suffix "KINS"; that the marks might be construed to be somewhat suggestive of wipers (bibs) and knitted garments for infants. We feel, though, that the marks are not nearly so suggestive as appellant asserts them to be. It is clear then, that appellant's argument that the suffix "KINS" can have no real distinctiveness as applied to the merchandise in question is not well founded, for [5] suggestive marks (as distinguished from descriptive marks) do have trademark significance. *Van Camp Sea Food Co. v. The A. B. Stewart Organizations*, 18 CCPA (Patents) 1415, 1420, 50 F.2d 976, 9 USPQ 541.

As aforesaid, the prefixes "KNIT" and "WIPER" of appellant's and appellee's marks, respectively, have been disclaimed apart from the respective marks as a whole. The situation resolves itself, therefore, to a competition between two composite marks, one containing a prefix disclaimed as descriptive and a suffix which is remotely suggestive, the other containing a prefix different from the prefix in the first mark, but equally descriptive (and disclaimed), and a suffix identical to that of the first mark.

In *American Brewing Co. v. Delatour Beverage Corp.*, 26 CCPA (Patents) 778, 100 F.2d 253, 40 USPQ 173, it was said by this court that:

"... we are of the opinion that disclaimed descriptive words in a mark should not be given the same prominence as that portion of the mark which possesses all of the qualities of a valid technical trademark. It is true that the general rule is that marks should be regarded in their entirety, including disclaimed words, but we do not think it could well be argued that disclaimed descriptive words could ever constitute the dominant part of a mark."

Inasmuch as the disclaimed words are clearly not registrable, apart from the mark shown, any one has the right to use those words in a descriptive way, if descriptive of his merchandise. It therefore seems to us that the disclaimed words, although they are part of the mark, could only in a very minor degree indicate origin of goods in the registrant.

[6] It is clear from the foregoing that the prefixes "WIPER" and "KNIT" are relegated to a position of minor importance as to the question of confusing similarity. Though the suffix "KINS" is not as strong an indication of origin as a completely arbitrary or coined word might be, it nonetheless is the dominant

part of each of the two marks. We are of the opinion that, considering the marks as a whole in light of the foregoing, the average purchaser of infant's wear would likely be confused as to the origin of appellant's "KNIT-KINS."

As stated by the late Judge Hatfield in a concurring opinion in *The Bon Ami Co. v. McKesson & Robbins, Inc.*, 25 CCPA (Patents) 826, 93 F.2d 915, 36 USPQ 260:

If all that a newcomer in the field need do in order to avoid the charge of confusing similarity is to select a word descriptive of his goods and combine it with a word which is the dominant feature of a registered trademark so that the borrowed word becomes the dominant feature of his mark, the registered trademark, made valuable and outstanding by extensive advertising and use, soon becomes of little value, and, of course, each of the subsequent imitating trademarks (and there would be many) is of value only to the extent that its users are trading on the good will of the owner of the original registered trademark.

Were there any doubt in our minds we would, of course, resolve it against appellant, the newcomer in the field. The *Bon Ami Co.* case, supra.

Of the cases cited by appellant on this question, only two need be briefly mentioned. The first *Lauritzen & Co. v. The Borden Co.*, 44 CCPA (Patents) 720, 239 F.2d 405, 112 USPQ 60, involved an opposition between the owner of a registration for "Protolac" and an applicant for "Fortilac," both applied to milk products. This court, stating that the suffix "lac" should be given little weight inasmuch as it "has a somewhat descriptive connotation as applied to milk products," held the marks not confusingly similar. In the instant case, however, the suffix common to each of the marks is the dominant portion of each mark. The *Lauritzen* case, supra, is, therefore, distinguishable.

In the second case, *Smith v. Tobacco By-Products & Chemical Corp.*, 44 CCPA (Patents) 880, 243 F.2d 188, 113 USPQ 330, an opposition was dismissed against the mark "Green Leaf" on the grounds that it was not confusingly similar to "Black Leaf," both applied to plant and garden sprays. Here again, "Leaf" was held highly suggestive of the use to which the products were to be put and thus entitled to little trademark significance. This case is obviously in the same category as the *Lauritzen* case, supra, and is distinguishable for the same reasons.

In the view we have taken, it is not necessary to consider appellee's second mark, "SLUMBER-KINS."

For the foregoing reasons, the decision of the Assistant Commissioner is affirmed.

AFFIRMED.

WORLEY and RICH, JJ., concur in the result.

JACKSON, J., retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

RINES v. MORGAN

No. 6304. Decided December 13, 1957

[— CCPA —; — F.2d —; — USPQ —]

1. INTERFERENCE—DILIGENCE—PREPARATION OF APPLICATION.

In considering the question of appellant Rines' diligence in the preparation of the application in issue *Held* that, under the circumstances of the case, appellant "cannot properly be charged with any deliberate delay or preferential treatment of other applications on inventions made after the one here in issue," and *Held* that the failure to include the invention in the draft of a particular application at a certain time "seems to have been the result of an oversight or a misunderstanding between Rines and the attorney, rather than of any intention to delay preparation of the instant application in order to work on others."

2. SAME—SAME—SAME.

"The question as to whether an invention has exercised reasonable diligence is one which must be determined by the particular circumstances of each individual case. . . . It is not necessary that an inventor or his attorney should drop all other work and concentrate on the particular invention involved; and if the attorney has a reasonable backlog of work which he takes up in chronological order and carries out expeditiously, that is sufficient."

3. SAME—SAME—SAME—WORK ON ONE APPLICATION SHOWING DILIGENCE IN PREPARATION OF ANOTHER.

" . . . Rines and his attorney were diligently engaged throughout November and December of 1943 in preparing Rines' case 2, which was filed January 22, 1944, and it appears to have been Rines' intention, up to and including December 23, 1944, to include the invention here in issue in that application. . . .

" . . . It is to be noted that the Rines' application involved in this interference is closely related to his case 2 and incorporates much of the matter of that case. Accordingly, the work done on case 2 during November and December of 1943 contributed substantially to the ultimate preparation of the involved application. Such work, therefore, may properly be regarded as showing diligence in the preparation and filing of the instant application, even though case 2 did not include a disclosure of all the features of the invention here in issue."

4. SAME—PRIORITY—TELEVISION SYSTEM.

The decision of the Board of Patent Interferences awarding priority of invention on a television system to the senior party appellee is reversed.

APPEAL from the Patent Office. Interference No. 83,544.

REVERSED.

Robert H. Rines (David Rines of counsel) for Rines.

Donald J. Simpson (Charles F. Meroni, Carlton Hill, and Hill, Sherman, Meroni, Gross & Simpson of counsel) for Morgan.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY, RICH and JACKSON (retired), Associate Judges
O'CONNELL, J., delivered the opinion of the court.

This is an appeal from the decision of the Board of Patent Interferences of the United States Patent Office awarding priority of invention of the subject matter in issue in Interference No. 83,544 to the senior party Harry C. Morgan, the appellee here.

The invention in issue relates to a television system in which radio waves reflected from the object to be televised are focused on an antenna array comprising a large number of pick-up units of a material such as uranium oxide, the resistance of which varies dependent upon the magnitude of radio frequency energy received. The antenna array is scanned with an electron beam and the resultant signals are rectified and amplified and caused to form a visible image on a cathode ray tube.

The invention in issue is defined by the following counts:

1. A system comprising means for propagating ultra high-frequency electromagnetic energy modulated with a high-frequency wave of electro-magnetic energy, a receiving antenna array including a plurality of closely spaced conductors, an antenna array load impedance connected to said conductors, means for focusing the point of emanation of the propagated energy on a small portion of said antenna array, means for projecting a narrow beam of electrons against said antenna array, means for causing said beam of electrons to scan said antenna array, means for rectifying the electromagnetic energy received by said antenna array, circuit means forming a closed circuit including said beam of electrons, said antenna conductors, said load impedance and said rectifier means in which electron current flows, amplifier means, means for feeding the rectified component of said electromagnetic energy to said amplifier, and means for utilizing the amplified output of said amplifier.

2. An electric system having, in combination, an oscilloscope-like member having a mosaic of absorbing-and-rectifying radio-receiving elements and means for producing an electron stream for impinging on the elements, means for focusing radio energy on the mosaic, means for causing the electron

stream to scan the elements, means controlled by the radio waves focused on the mosaic for producing varying potentials on the elements of the mosaic, and means controlled by the electron stream, as it scans the elements, for indicating variations in the current of the electron stream.

The application of appellee, Morgan, was filed on February 23, 1944, and that of appellant, Rines, on March 18, 1944, less than one month later. Neither party alleges an actual reduction to practice of the invention in issue and accordingly each is restricted to his filing date for constructive reduction to practice.

The Board of Patent Interferences found that Morgan could be accorded no date of conception prior to December 1, 1943, that being the date on which he first disclosed the use of the rectifier which is required by each of the counts. We find that holding to be correct and, since it is not controverted here by Morgan, it will not be further discussed. We also agree with the further holding of the Board, not disputed by Morgan, that the record shows Rines disclosed the invention here involved to his father, a patent attorney, as early as May 1943.

From the foregoing, it follows that Rines was the first to conceive and the last to reduce to practice, and the sole issue is whether he continuously exercised reasonable diligence, beginning just prior to Morgan's entry into the field, in preparing and filing his application here involved. In considering that question we shall assume that Morgan has established conception as of December 1, 1943, as found by the Board, although Rines contends that Morgan should be awarded no date of conception prior to his filing date, February 23, 1944.

The record shows that from June 1943 until March 1944, when his application was filed, the party Rines was an officer in the Signal Corps and was stationed in Florida, while his father, who prepared and filed the application, resided in Massachusetts. The father, David Rines, will hereinafter be referred to as the attorney.

Rines testified that in May 1943 he was in doubt as to the practical value of the invention here in issue, in the form in which he had then conceived it, and accordingly did not take steps to file an application for a patent on it. However, he gave the matter further consideration and, on September 4, 1943, mailed to his attorney a sketch and description (Rines Exhibit 35) of the invention with the notation "Best I can do on Mosaic. We'd better file."

The circumstances surrounding the preparation and filing of the Rines application here involved are summarized in the decision of the Board of Patent Interferences as follows:

Notwithstanding the heavy work load which he carried as an officer in wartime in the Signal Corps, by October 12, 1942 Rines had evolved a number of ideas as improvements on his basic idea of a means for displaying the image of a distant objective. Some of these ideas were closely related to the subject matter now in issue, and some were more remote. In his letter of October 12, 1943 (not in evidence) Rines sent to his father final drawings on four different systems referred to as (1) Gas display system (2) Condenser iconoscope display (3) Wave guide-horn method and (4) Original dipole system. (Rines Rec. P. 170-171). The gas display system (1 above) became the subject matter of a patent application filed January 29, 1944, which matured into Patent No. 2,673,343 (R. Ex. 43) and the condenser system (2 above) with modifications became application Ser. No. 519,376, filed January 22, 1944. The record shows (P. 178) that the father was actively preparing patent applications on 2 and 4 as of October 26, 1943. The procedure seems to have been that the father prepared rough drafts and submitted them to Rines who made extensive revisions thereon.

About October 28, 1943 a rough draft of part of the disclosure of what became application Ser. No. 519,376, was sent to Rines who decided to add thereto a modification showing a wave guide, which is shown in Fig. 2 of said application. The rough draft with this additional material

was sent back to the father on November 22, 1943, who on December 2, 1943 prepared another rough draft incorporating the added material.

By December 23, 1943, Rines had prepared a further addition to the rough draft of Ser. No. 519,376, which additional material incorporates the subject matter of Rines' Exhibits 5 and 35 (R. Rec. P. 194-5) and constitutes a disclosure of the subject matter now in issue. It does not appear that any effort was made to incorporate this subject matter in an application prior to this time, notwithstanding the fact that Rines on September 4, 1943 in Ex. 35 had written his father that "We'd better file" on this subject matter because, "aside from Neon Mosaic this is next best"; and had again urged preparation of an application on this subject matter in a letter dated September 30, 1943 (R. Ex. 40). The father decided that the proposed additional material would make the application too heavy so proceeded to prepare a separate application thereon.

Except as hereinafter indicated we find the above summary to be accurate.

Neither the Board nor the party Morgan has raised any specific question as to Rines' diligence between December 23, 1943, when it was decided to file a separate application on the invention here involved, and March 18, 1944, when the application was filed. The record shows extensive work on the application by the attorney and correspondence relative to it between him and Rines during that period of less than three months, and we think it is clear that Rines cannot be charged with any lack of diligence after December 23, 1943. Since Morgan did not enter the field until December 1, 1943, the critical period with respect to Rines' diligence is, therefore, less than one month.

As above indicated, Rines and his attorney were engaged during the last three months of 1943 in simultaneously preparing a number of different applications. It was the opinion of the Board that Rines made no effort to incorporate the invention here in issue in any application prior to December 1943, that he gave preference to the preparation of applications on later conceived inventions, and hence was not exercising reasonable diligence during the critical period. *Fearon v. Krasnow et al.*, 36 CCPA (Patents) 785, 172 F.2d 233, 80 USPQ 435, was cited in support of that holding. Rines, on the other hand, contends that it was his intention during November and the early part of December 1943 to incorporate the instant invention into his so-called case 2, which was filed January 22, 1944 as application No. 519,376, and that he was proceeding diligently toward that end.

As noted by the Board, Rines requested his attorney on September 4, and again on September 30, 1943, to prepare an application covering the subject matter here in issue. The attorney testified, however, that, as of September 30, 1943, he did not consider that he was in possession of all the information needed to prepare such an application.

On October 26, 1943 the attorney wrote a long letter to Rines advising him as to what was being done as to the preparation of some of his patent applications and asking for information as to certain matters. Rines returned the letter with certain notes, one of which was to the effect that the latest case should include "Xtal dipoles," which, Rines stated, was a reference to the combination dipole and crystal disclosed in his application here involved. This indicates that when Rines returned the letter, early in November 1943, he was under the impression that the invention here in issue was to be included in one of the applications then being prepared.

On October 29, 1943 the attorney mailed a draft specification of case 2 to his draftsman with instruc-

tions to prepare drawings and, when the drawings were prepared, the draftsman sent them, together with the draft specification, to Rines, who noted some proposed revisions and returned the papers to the attorney on November 22, 1943. The papers did not contain a disclosure of the invention here in issue, and the revisions proposed by Rines did not include such a disclosure. It was not until the papers had been revised and returned to Rines on December 19, 1943 that he prepared a detailed addition to case 2 to incorporate a disclosure of the said invention. That addition was promptly mailed to the attorney and received by him on December 23, 1943. As above indicated, the attorney found it inexpedient to include the additional matter in case 2 and proceeded to prepare and file the separate Rines application involved in the instant interference.

While it might have been well for Rines to have included a detailed disclosure such as that made on December 23, 1943 with the first draft returned by him on November 22, 1943, his failure to do so seems entirely reasonable. The draft had been prepared by the attorney and mailed to the draftsman on October 20, 1943 and, subsequently to that date, Rines had advised the attorney, by means of his notations on the October 26, 1943 letter which he returned to the attorney, as to the disclosure of the crystal dipole. Rines might properly assume, therefore, that such disclosure would be included without further specific directions from him. When it became clear, by the submission of the later draft on December 19, 1943, that this had not been done, Rines promptly took steps to correct the matter.

[1] Under these circumstances, we are of the opinion that Rines cannot properly be charged with any deliberate delay or preferential treatment of other applications on inventions made after the one here in issue. The record shows that twice he definitely requested in September 1943 that an application including the invention in issue be prepared and there is nothing to suggest any change of purpose on his part or any suggestion that other applications be given precedence. The failure to include the invention in case 2 in November 1943 seems to have been the result of an oversight or a misunderstanding between Rines and the attorney, rather than of any intention to delay preparation of the instant application in order to work on others. Accordingly, *Fearon v. Krasnow et al.*, supra, is not in point.

[2] The question as to whether an inventor has exercised reasonable diligence is one which must be determined by the particular circumstances of each individual case. As was pointed out in *Powell v. Poupitch*, 35 CCPA (Patents) 1080, 167 F.2d 514, 77 USPQ 379, it is not necessary that an inventor or his attorney should drop all other work and concentrate on the particular invention involved; and if the attorney has a reasonable backlog of work which he takes up in chronological order and carries out expeditiously, that is sufficient.

[3] As above indicated, Rines and his attorney were diligently engaged throughout November and December of 1943 in preparing Rines' case 2, which was filed January 22, 1944, and it appears to have been Rines' intention, up to and including December 23, 1944, to

include the invention here in issue in that application. This is indicated by his notation on the October 26, 1943, letter which he returned to his attorney, and also by his taking immediate steps to include the disclosure when he found it had been omitted from the draft of case 2 which he received December 19, 1943.

Moreover, it is to be noted that the Rines' application involved in this interference is closely related to his case 2 and incorporates much of the matter of that case. Accordingly, the work done on case 2 during November and December of 1943 contributed substantially to the ultimate preparation of the involved application. Such work, therefore, may properly be regarded as showing diligence in the preparation and filing of the instant application, even though case 2 did not include a disclosure of all the features of the invention here in issue.

The record shows that throughout the latter part of 1943 and the early part of 1944 Rines and his attorney were engaged in the preparation of four rather complex applications, including the one here in issue. During that period Rines was kept quite busy with his duties in the Signal Corps, and could communicate with his attorney only by mail. Under such circumstances, rapid progress could not be expected.

A voluminous record has been presented which shows beyond question that, considering the group of applications as a whole, Rines and his attorney were working diligently from October 1943 until the application here involved was filed in March 1944. The exact lines of demarcation between the cases were not clear in all respects at the start and it was necessary for the attorney to prepare tentative drafts and submit them to Rines for revision. Naturally it was necessary for the attorney to determine the exact order of procedure in the manner which promised the best over-all results.

We find no evidence that either Rines or his attorney ever laid aside the invention here in issue at any time after September 1943, or that they gave preference to the preparation of an application of any later invention. Considering the circumstances as a whole we are of the opinion that the conduct of Rines and his attorney throughout a period beginning in November 1943 and ending with the filing of the Rines' application on March 18, 1944, shows reasonable diligence in the preparation and filing of his application here involved. Having been the first to conceive the invention in issue and having exercised reasonable diligence in reducing it to practice over the critical period, Rines should have received the award of priority.

[4] The decision of the Board of Patent Interferences is reversed.

REVERSED.

JACKSON, J., retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

IN RE CRAWFORD

No. 6305. Decided December 13, 1957

[— CCPA —; — F.2d —; — USPQ —]

I. APPLICATION — DISCLOSURE — CLAIMS COPIED FROM PATENT

Held that the rejection by the Board of Appeals of certain claims, copied from a patent, as not supported by the disclosure of appellant's application is affirmed.

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2. PATENTABILITY—CANNOT BE PREDICATED ON FEATURE NOT DISCLOSED.

"... there is no disclosure in appellant's application that the glass of which the casing is made has the property recited in claim 28 of 'substantially complete disintegration at a vibration frequency corresponding to that of the shock wave generated by detonation of the explosive body' and accordingly patentability cannot be predicated on that feature."

3. SAME—PARTICULAR SUBJECT MATTER—EARTH BORING APPARATUS.

Held that the decision of the Board of Appeals rejecting certain claims in an application on an earth boring apparatus is affirmed.

APPEAL from the Patent Office. Serial No. 388,175.

AFFIRMED.

J. Arthur Young, Donald J. Quigg, and Martin A. Ryan for Crawford.

Clarence W. Moore (S. Wm. Cochran of counsel) for the Commissioner of Patents.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY, RICH, and JACKSON (retired), Associate Judges

O'CONNELL, J., delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office sustaining the Primary Examiner's rejection of claims 24, 25, 27 and 28 of appellant's application No. 388,175 for a patent on an earth boring method and apparatus. Claims 30, 31, 39 and 40 were originally included in the appeal, but the appeal as to those claims has been withdrawn. Fifteen claims of the application have been allowed.

Claims 24 and 27 which are representative of the appealed claims are as follows:

24. An explosive perforating unit, comprising, a hollow casing composed of impermeable glass material and hermetically sealed, a body of a detonating explosive enclosed within said casing, said body having a generally conical hollow in one end thereof spaced from one end wall of said casing and said body having its other end in contact with the opposite end wall of said casing, and a thin metallic liner having a shape corresponding to said hollow seated therein, said glass material transmitting detonating shock at high order from the exterior of said casing through the glass material of said opposite end wall directly to said body to obtain substantially complete high order detonation of said body to produce an effective perforating jet and with substantially complete disintegration of said casing.

27. An explosive unit, comprising, a hollow casing composed of glass material and sealed, a body of an explosive enclosed within said casing said body having a generally conical hollow in one end thereof spaced from one end wall of said casing and said body having its other end in contact with the opposite end wall of said casing, and a thin metallic liner having a shape corresponding to said hollow seated therein.

The references relied on by the Patent Office tribunals are:

Beach, 82,586, September 29, 1868.

Miller, 494,877, April 4, 1893.

Bolton, 2,285,982, December 16, 1941.

Whitman, 2,300,823, November 3, 1942.

Mohaupt, 2,407,093, September 3, 1946.

Muskat et al., 2,494,256, January 10, 1950.

Sweetman, 2,629,325, February 24, 1953.

"The Shaped Charge" by Volta Torrey, published in "The Explosives Engineer," July-August, 1945.

Appellant's application relates to earth boring apparatus of the type in which a hollow drill bit is rotated at the end of a string of pipe. When a difficult earth formation is encountered, appellant raises the drill bit a short distance above the bottom of the bore and lowers an explosive perforating unit through the pipe string and drill bit until it rests on the bottom of the bore. The explosive charge is then detonated

thus blasting out, or at least improving the drillability of, some of the material in the formation to be drilled. The appealed claims are concerned only with the particular type of explosive perforating unit and the process which results from its use, and it is unnecessary to consider further the other features of appellant's invention.

Appellant's application discloses two generally similar forms of explosive perforating unit, each of which comprises an elongated cylindrical body made of glass or similar material and having a cylindrical chamber which occupies approximately the lower half of the body and which contains the explosive charge. The upper portion of the body may be solid or hollow or may comprise a central core extending through an annular chamber. Such a core may carry electrical wires connecting with a detonator located at the top of the explosive charge, or it may take the form of a percussion cap extending to the top of the body and adapted to be actuated by a "go-devil" dropped down the pipe string.

The lower end of the explosive charge terminates above the bottom of the chamber in which it is located and is formed with a conical hollow which flares downwardly, and in which is seated a metal liner corresponding in shape with that of the hollow. When the charge is detonated the hollow tends to direct the force of the explosion axially against the bottom of the bore.

The patent to Beach discloses a torpedo for oil wells comprising a cylindrical shell of glass or similar material containing an explosive charge. It is stated in the patent specification that the shell is broken by the explosion into fine particles which will not choke the well or cause derangement of the pumping mechanism.

The patent to Mohaupt discloses an apparatus for punching sheet material, comprising a cylindrical casing adapted to be placed upon the material to be punched. The upper part of the casing contains an explosive charge which is supported above the bottom of the casing by a cutter member. When the charge is exploded the cutter member is driven downwardly through the bottom of the casing and punches a hole in the sheet material.

The Muskat et al. patent and the Torrey publication disclose the shaping of explosive charges by providing a conical hollow, covered by a similarly shaped metal liner, in the end of the charge toward which the force of the explosion is to be directed, and Torrey explains that such an arrangement greatly increases the explosive force in a direction axial with respect to the hollow. He also states that when the explosion is to be used to form a cavity in a surface, the charge should be spaced from the surface in order to obtain the maximum effect.

The Sweetman patent relates to a jet type perforating unit for use in oil wells. It discloses a glass casing containing an explosive charge having a conical hollow in one end covered by a similarly shaped liner. The end of the charge which contains the hollow is spaced from one end wall of the casing. The other end of the charge is in contact with the opposite end wall of the container, and the charge at that point is made more sensitive than elsewhere, either

by packing it to a different density or by using a different type of material. The charge is detonated by a force applied externally of the casing and transmitted through the glass wall of the casing to the more sensitive portion of the charge. The patent specification states that it is important that the thickness of the casing wall at the point where the detonating force is applied must be such as to permit effective transmission of that force, and that such thickness should ordinarily be between one-eighth and one-fourth of an inch.

The patents to Miller, Bolton, and Whitman were not relied on in the rejection of the claims here on appeal, and need not be considered.

Appealed claims 24 and 25, which were copied by appellant from the Sweetman patent, were rejected on the ground that they are not supported by the disclosure of appellant's application. It was held by the Examiner and the Board that appellant's disclosure does not satisfy the following requirement of those claims: "said glass material transmitting detonating shock at high order from the exterior of said casing through the glass material of said opposite end wall directly to said body [of detonating explosive] to obtain substantially complete high order detonation."

The statement just quoted clearly requires that the wall of the casing must be of such a character and thickness that it will transmit a shock *from the exterior of the casing* sufficient to detonate the charge. As above noted, Sweetman indicates that the necessary thickness lies within the comparatively narrow range between one-eighth and one-quarter of an inch.

There is no suggestion in appellant's specification that the detonating force may be applied to the charge from the exterior of the casing through the glass. On the contrary, as pointed out by the Examiner, appellant, in each of the disclosed embodiments of his invention, employs a detonator which is directly in engagement with the explosive. It is true that the detonators are embedded in, or at least in contact with, the glass, and that, as contended by appellant, some of the force may be transmitted from the detonator through the glass to some parts of the charge. However, the specification makes no mention of such transmission and it seems clear that it is not relied on. It is plain that the primary, if not the only, force which causes detonation in appellant's device reaches the charge directly from the detonator and not through the glass. It is evident that if appellant had considered that the detonating force could be transmitted through the glass he would not have taken the trouble to provide a detonator extending through the glass into contact with the charge.

Appellant urges that it is not necessary that the limitation here in question be expressly disclosed in his application, if it is inherent in what is disclosed therein. However, it is by no means inherent in the teaching of appellant's application that the casing wall with which the charge is in contact shall be of such a character and thickness that the charge may be detonated through it by the application of an external force. On the contrary, in each of appellant's embodiments, the casing wall in which the detonator is located is much thicker than the remainder of that

wall, as distinguished from Sweetman's structure in which the wall where the charge is to be detonated is thinner than the other portions of the casing wall.

Appellant notes that Sweetman's claim 5 adds to claim 1, which corresponds to appealed claim 24, "a detonating means arranged entirely externally of said casing." It is argued that this addition would be meaningless if claim 1 were read as including such a detonating means. That contention appears to be sound but, while Sweetman's claim 1 (appealed claim 24) does not call for an external detonating means, it does, in our opinion, call for a structure in which the casing wall is so designed that such a means may be used, and appellant's application does not disclose a casing wall of that type.

[1] We are in agreement with the tribunals of the Patent Office that claim 24 is limited to a device in which the charge may be detonated solely by a force applied to the glass wall of the casing from an exterior point, and that appellant's application does not, expressly or inherently, disclose such a device.

The Board further held that appellant's charge does not contact an end wall of the casing, as required by claim 24, but an intermediate partition. In view of the conclusion reached above, it is unnecessary to consider that holding here.

Appealed claim 25 is dependent on claim 24 and includes an additional limitation. Accordingly, for the reasons given in connection with claim 24, the rejection of claim 25 as unsupported by the disclosure of appellant's application will be affirmed.

Claims 27 and 28 were rejected as unpatentable over Beach in view of Mohaupt, Torrey or Muskat et al. Beach shows the use in oil wells of a torpedo which is made of glass so that it will be shattered by the explosion and may be readily removed. It was the opinion of the Board, in which we concur, that it would not involve invention to employ in the Beach torpedo a shaped charge having a lined conical depression at one end and exploded by a detonator at the other, in the manner shown by Mohaupt, Torrey or Muskat et al.

The problem of removing the torpedo casing after the explosion is independent of the particular shape of the casing or charge. It is evident that the idea of making the casing of glass, which is clearly taught by Beach, is of general application and may be used with any desired shape or charge. The association of features of the different references as defined in claims 27 and 28 produces no advantage other than the sum of the advantages of the individual features. Under such circumstances no patentable invention is involved.

As noted by the Board [2] there is no disclosure in appellant's application that the glass of which the casing is made has the property recited in claim 28 of "substantially complete disintegration at a vibration frequency corresponding to that of the shock wave generated by detonation of the explosive body" and accordingly patentability cannot be predicated on that feature. *In re Dalzell et al.*, 35 CCPA (Patents) 1024, 166 F.2d 834, 77 USPQ 164; *Abbott et al. v. Ooe*, 71 App. D. C. 195, 109 F.2d 449, 43 USPQ 267. Moreover, since Beach states that his casing is broken into "minute fragments" by the explosion, it is

apparently composed of a material satisfying the requirement set forth in claim 28.

[3] The decision of the Board of Appeals is affirmed. **AFFIRMED.**

JACKSON, J., retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

SOCIETE ANONYME MARNE ET CHAMPAGNE v. MYERS

No. 6311. Decided December 13, 1957

[— CCPA —; — F.2d —; — USPQ —]

1. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—QUESTION OF PATENT OFFICE PROCEDURE—RULING OF ASSISTANT COMMISSIONER NOT SET ASIDE UNLESS CLEARLY ERRONEOUS.

"The first question presented here is one of Patent Office procedure, and the ruling of the Assistant Commissioner on that point should not be set aside by this court unless the ruling was clearly erroneous."

2. TRADEMARKS—COURT REVIEW OF PROCEDURE IN OPPOSITION BEFORE EXAMINER OF INTERFERENCES.

On review of the procedure followed in a trademark opposition before the Examiner of Interferences, which included a dismissal of the opposition on motion without a final hearing after testimony had been taken by the opposer, *Held* that no error was involved in the procedure which would justify a reversal of the appealed decision of the Assistant Commissioner, which affirmed the decision of the Examiner of Interferences.

3. SAME—OPPOSITION—BURDEN OF PROOF.

"The burden of proof rests upon an opposer to establish his superior right to the use of the mark defined and relied upon in the notice of opposition."

4. SAME—SAME—TRADEMARK ACT OF 1946, SEC. 45—EVIDENCE OF ABANDONMENT OF MARK BY OPPOSER.

Where opposer in a trademark opposition offered testimony that a firm, in June or July, 1950, had imported two hundred cases of "Rothschild" Champagne, ordered from opposer, and that a further quantity was ordered March 5, 1955, and no evidence was offered of orders between those dates, *Held* that it would appear that opposer had not been using the mark during a period of more than two years prior to the filing date, July 23, 1953, of applicant's application for registration, and "such discontinuance of use, under the definition of 'abandonment' in section 45 of the Trademark Act of 1946, constitutes prima facie evidence of abandonment," and *Held* that the testimony is, therefore, of no value in showing ownership by opposer of the mark in issue, or such prior use of the mark as would bar applicant's right to registration.

5. SAME—SAME—OPPOSER'S USE TO BE ESTABLISHED BY PROOFS NOT SPECULATION.

"It is incumbent on an opposer to establish by proofs the use on which he relies and not leave that important obligation to be discharged by speculation."

6. SAME—SAME—RELIANCE BY OPPOSER ON FOREIGN REGISTRATION AND ABANDONED U. S. APPLICATION.

"Appellant . . . relies on a French registration of the name 'Rothschild' and an abandoned United States application for the registration of that name. Neither of those documents, however, is of any value in support of the opposition, since neither affords evidence of use or ownership of the mark in this country."

7. SAME—SAME—NEGOTIATIONS BETWEEN PARTIES AS EVIDENCE.

"The fact that appellee may have entered into negotiations with appellant with a view to settling the opposition, as noted by appellant, obviously cannot be accepted as proof that the opposition was well founded."

8. APPEAL TO U. S. COURT OF CUSTOMS AND PATENT APPEALS—TRADEMARK OPPOSITION—MATTER BEFORE COURT—QUESTIONS NOT RAISED IN NOTICE OF OPPOSITION OR REASONS OF APPEAL.

In an appeal to the U. S. Court of Customs and Patent Appeals from the dismissal of a trademark opposition *Held* that certain questions, not raised in the notice of opposition or in the reasons of appeal to the court, were not properly before the court for consideration.

9. TRADEMARKS—OPPOSITION—REGISTRATION OF "MONOPOLES ALFRED ROTHSCHILD" AS TRADEMARK FOR WINES.

In an appeal a decision dismissing an opposition to appellee's application for registration of "Monopoles Alfred Rothschild" as a trademark for wines held that opposer failed to discharge the burden of proof which rested upon it and the decision is accordingly affirmed.

APPEAL from the Patent Office. Opposition No. 33,550.

AFFIRMED.

Mock & Blum (Asher Blum and Charles R. Allen, Jr., of counsel) for Societe Anonyme Marne Et Champagne. Manuel J. Davis for Myers.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY, RICH and JACKSON (retired), Associate Judges O'CONNELL, J., delivered the opinion of the court.

This is an appeal from the decision of the Assistant Commissioner of Patents acting for the Commissioner and affirming the decision of the Examiner of Interferences, 109 USPQ 316, who thereby dismissed appellant's opposition to appellee's application for the registration of "Monopoles Alfred Rothschild" as a trademark for wines. The application was filed July 20, 1953 and alleges therein first use of the mark in commerce among the several states on May 23, 1953. Opposer claims use in the United States since 1937 of "A. Rothschild & Cie" also for wines.

The procedure in the Patent Office in this case appears to have been out of the ordinary and as such is correctly summarized in the decision of the Assistant Commissioner as follows:

"On September 16, 1954 the parties were notified that opposer's trial period was fixed at January 16, 1955 to February 16, 1955. On February 10, 1955 opposer filed a motion to take testimony in France and requested that all further proceedings be suspended until completion and filing of such testimony. Applicant resisted the motion, and on March 2, 1955, the motion was denied.

Since no testimony was taken on behalf of opposer, applicant filed a motion for an order to show cause why judgment in favor of applicant should not be granted. The order to show cause was issued on March 2, 1955. In reply to the order, opposer moved that it be given an opportunity to take testimony to show its priority of use and to show that applicant is not entitled to registration. Under date of March 18, 1955 the Examiner of Interferences reset the trial periods, with opposer's period to end on April 18, 1955, and merely noted the applicant's motion for judgment.

On April 7, 1955 opposer filed a notice that it would use as evidence a refused and abandoned application to register "Rothschild" which it had filed in 1948.

Testimony of one witness on behalf of opposer was taken in New York on April 14, 1955.

On April 18, 1955 opposer filed another motion for leave to take testimony in France; and it filed a notice of reliance upon a French registration dated March 12, 1942, attaching a photocopy of what was asserted to be a renewal of said registration.

On April 19, 1955 applicant filed a paper resisting opposer's motion and renewed his motion for judgment. The Examiner of Interferences denied opposer's motion and again issued an order to show cause why judgment should not be entered against it. On May 16, 1955 opposer filed a request for extension of time within which to respond to the order. Applicant resisted the extension. On June 3, 1955 opposer filed a paper to which was attached photocopies of what was alleged to be correspondence between applicant and opposer. The alleged correspondence was in the French language and on June 8, 1955 opposer filed what was stated to be English translations of the alleged correspondence.

On July 1, 1955 the Examiner of Interferences suspended proceedings until January 2, 1956 stating in part:

It appears from said correspondence that applicant, without regard to the conduct of this case in his behalf by counsel, has personally undertaken negotiations which might result in settlement of the present controversy between the parties. It is believed that proceedings herein should be held in abeyance until such negotiations have been concluded.

On July 11, 1955, applicant petitioned the Examiner of Interferences to take the matter up for appropriate action, attaching a photocopy of a French registration of a label showing "Champagne des Monopoles Alfred Rothschild" dated July 22, 1947 issued to Alfred Rothschild.

On July 13, 1955 opposer filed a photocopy of a French registration of "Rothschild (A. Rothschild et Cie)" for wine, sparkling wine, champagne, cider, beer, alcohol, brandy and liqueurs dated March 12, 1942, issued to opposer.

On July 26, 1955 the Examiner of Interferences granted applicant's petition to take action, held that no sufficient

response had been made by opposer to the order to show cause, and dismissed the opposition. Opposer has appealed.

Appellant contends that the Patent Office tribunals committed reversible error in dismissing the opposition on motion and without a final hearing. Certainly such procedure was irregular since testimony had been taken by the opposer. However, as was stated by the Assistant Commissioner, it does not appear that appellant suffered any material damage through the failure of the Examiner of Interferences to set the case down for final hearing. It is noted that, so far as the record shows, appellant did not ask the Examiner of Interferences to set a final hearing.

[1] The first question presented here is one of Patent Office procedure, and the ruling of the Assistant Commissioner on that point should not be set aside by this court unless the ruling was clearly erroneous.

[2] No such error has been found and it is accordingly held that the procedure hereinbefore described and followed in the Patent Office involves no error which would justify a reversal of the decision appealed from.

[3] The burden of proof rests upon an opposer to establish his superior right to the use of the mark defined and relied upon in the notice of opposition. To meet that requirement of the trademark law appellant has had recourse to a variety of expedients including certain testimony, documents of record, and a series of arguments which are hereinafter discussed and passed upon.

[4] Appellant offered the testimony of a single witness, Irving C. Dobrow, an officer of Vintage Wines Inc., a New York corporation, who testified that his firm, in June or July, 1950, imported two hundred cases of Rothschild champagne ordered from the appellant, and that a further quantity was ordered March 5, 1955. No evidence was offered of orders for the period of more than four years between those dates. On the basis of that evidence it would appear that appellant had not been using the mark during a period of more than two years prior to the filing date, July 23, 1953, of appellee's application for registration, and such discontinuance of use, under the definition of "abandonment" in section 45 of the Trademark Act of 1946, constitutes prima facie evidence of abandonment. Dobrow's testimony as to the importation of merchandise hereinbefore described is therefore of no value in showing ownership by appellant of the mark in issue, or such prior use of that mark as would bar appellee's right to registration.

Appellant argues that it is entitled to the benefit of a presumption that some of the "Rothschild" champagne purchased by Dobrow's corporation in 1950 might still have been available at some retail store as late as May 18, 1954, when the opposition here involved was filed. We do not consider such a presumption justified. [5] It is incumbent on an opposer to establish by proofs the use on which he relies and not leave that important obligation to be discharged by speculation.

Dobrow also stated that he had seen "Rothschild" champagne in appellant's winery for many years and that for seven years he had considered that mark to be "anonymous" with appellant. Such testimony involves merely a conclusion of the witness and cannot take the place of the required testimony as to actual use of the mark in the United States.

[6] Appellant also relies on a French registration of the name "Rothschild" and an abandoned United States application for the registration of that name. Neither of those documents, however, is of any value in support of the opposition, since neither affords evidence of use or ownership of the mark in this country.

The alleged correspondence between appellant and appellee, referred to in the above-quoted excerpt from the decision of the Assistant Commissioner, is clearly not competent evidence in support of appellant's case. It was presented after the expiration of appellant's time for taking more testimony and was not identified by any witness. The fact that the case was not set for final hearing by the Examiner of Interferences cannot serve to make the offer of the correspondence timely or to convert it into proper evidence.

[7] The fact that appellee may have entered into negotiations with appellant with a view to settling the opposition, as noted by appellant, obviously cannot be accepted as proof that the opposition was well founded.

Appellant urges in its brief that appellee is not entitled to the registration of the mark in issue because the labels filed with the opposed application indicate origin of the goods in someone other than appellee and because the papers by which appellee purports to derive title to the mark from its predecessor are insufficient. [8] Neither of those questions was raised either in the notice of opposition or in the reasons of appeal to this court. Accordingly they are not properly before us for consideration.

[9] We agree with the Assistant Commissioner that appellant has failed to discharge the burden of proof which rested upon it as an opposer, and the decision appealed from dismissing the opposition is accordingly affirmed.

AFFIRMED.

JACKSON, J., retired, recalled to participate.

U. S. Court of Customs and Patent Appeals

IN RE HENRY C. PFAFF, JR.

No. 6309. Decided December 13, 1957

[— CCPA —; — F.2d —; — USPQ —]

PATENTABILITY — PARTICULAR SUBJECT MATTER — TRAFFIC LIGHT HOLDER.

The decision of the Board of Appeals affirming a rejection of claims to a traffic light holder as unpatentable over the cited prior art is reversed.

APPEAL from the Patent Office. Serial No. 185,184.

REVERSED.

Harry Sommers (William A. Smith, Jr., of counsel) for Pfaff.

Clarence W. Moore (Arthur H. Behrens of counsel) for the Commissioner of Patents.

Before JOHNSON, Chief Judge, and O'CONNELL, WORLEY, RICH and JACKSON (retired), Associate Judges

WORLEY, J., delivered the opinion of the court.

This is an appeal from the decision of the Board of Appeals of the United States Patent Office affirming the Primary Examiner's rejection of claims 18 and 19 of appellant's application for a patent on a traffic light holder, on the ground of lack of invention over a single prior patent.

The appealed claims are:

18. A traffic light holder comprising a pair of spaced

parallel bars integrally connected at one end by an arcuate end member defining, with said bars, a U-shaped frame, the free ends of said bars being adapted to be secured to a vertical traffic pole by clamp means to dispose the frame horizontally pendantly therefrom, a member of "I" outline having open ends slidably positioned on said bar members, means engaging the ends of said "I" member in predetermined relation to the frame end member, cooperating means on said "I" member and the end member of the U-shaped frame for holding the traffic light unit suspended within the frame intermediate the "I" member, end member and bar members of the frame, and means on said frame to receive a guying member secured at its opposite end to the traffic pole at a point above the points at which the free ends of the frame are secured to the pole, to stabilize the frame on the pole.

19. In a traffic light holder as set forth in claim 18, a second member of "I" outline slidably positioned on the frame between the first mentioned "I" member and the free ends of the frame, and means engaging the second "I" member and the frame to fix the position of the second "I" member on the frame, to stabilize the frame.

The reference relied on is

Ganster, 1,601,819, October 5, 1926.

The device disclosed by appellant's application comprises an elongated U-shaped frame formed of a single piece of tubular material, the free ends of which are secured to a vertical pole by means of clamps, so that the frame extends horizontally from the pole. A guy wire is provided which extends from a point near the top of the pole to the outer end of the frame. Two "I" members are provided, each consisting of a straight section of tubing secured at its ends to coupling members which are slidably mounted on the horizontal arms of the frame and which may be fixed at any desired position thereon by means of set screws. One of the "I" members serves merely as a brace while the other is fixed at such a distance from the closed end of the frame as to provide a space for receiving the traffic light. Cooperating bracket members are provided on this "I" member and on the closed end of the frame for holding the light suspended within the frame.

The Ganster patent shows a sign which is mounted in a frame composed of four tubular elements, two of which extend horizontally and are provided at one end with flattened portions adapted to be connected to a building or other support, while the other two extend vertically and are connected at their ends to couplings which are slidably mounted on the horizontal members and are adapted to be secured in any desired position thereon by means of pins which extend through openings in the coupling and through a selected one of a number of openings in the horizontal members. As shown, one vertical member is fixed at the end of the horizontal members opposite the support, while the other vertical member is located at such a point that the sign is accommodated between the vertical members. The vertical members and couplings form "I" members similar to those of appellant's application. Both the vertical and horizontal members are provided with longitudinal slits, which receive the edges of the sign when the parts are in assembled position, so that the sign is clamped in a rigid rectangular frame formed by the members. One of the horizontal members is provided with an eyelet for connection with a guy-rope or wire.

It will be seen from the foregoing description that appellant's device comprises a frame having three of its four sides formed of a single-piece U-shaped frame and providing a space within which a traffic light may be suspended, whereas Ganster provides a number of separate elements which are fitted rigidly together about a sign and then secured in position. Those dis-

inctions are properly brought out in the appealed claims and, in our opinion, are sufficient to render them patentable.

The idea of *suspending* an object within a frame is wholly foreign to Ganster's disclosure. The tubular members are designed to be fitted around a particular sign to form a rigid frame which engages the sign throughout its entire periphery, as distinguished from appellant's structure in which the holder is a complete separate unit providing a frame within which the traffic light may be suspended and adjusted to the desired position.

It does not seem likely that it would occur to anyone seeking to design a holder for a traffic light that the

single reference relied on by the Patent Office could be modified for that purpose. Nor did the Patent Office cite any other references suggesting appellant's device.

Appellant has provided a simple, unitary article which differs materially, both in structure and function, from the reference relied on by the Patent Office tribunals. The differences are properly brought out in the appealed claims, which are limited to the advance made by appellant over the prior art. Under such circumstances we think the claims should have been allowed. Accordingly, the decision of the Board of Appeals is reversed.

REVERSED.

JACKSON, J., retired, recalled to participate.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,327,679, E. W. Swenson, Material spreader, filed Feb. 7, 1957, D. C., S. D. Ill. (Springfield), Doc. 2295, *Swenson Spreader & Mfg. Co. et al. v. Baughman Mfg. Co.* Consent final judgment; defendant enjoined Dec. 30, 1957.

2,412,587, E. L. Larson, Cylinder liner; 2,435,837, same, filed June 23, 1955, D. C., N. D. Ohio (Cleveland); Doc. 31926, *United Parts Mfg. Co. v. Lee Motor Products, Inc. et al.* Complaint dismissed; patents held invalid and not infringed Jan. 3, 1958.

2,418,000, Ostertag and Boylan, Method and machine for forming paper, filed Dec. 31, 1957, D. C., S. D. Fla. (Jacksonville), Doc. 3907-JAX, *Scott Paper Co. v. Hudson Pulp & Paper Corp.*

2,435,837. (See 2,327,679.)

2,439,703, B. F. Toffemire, Matrix retainer; 2,502,903, same, Dental matrix retainer, filed Dec. 24, 1957, D. C., E. D. Wis. (Milwaukee), Doc. 57c312, *Benjamin F. Toffemire et al. v. The Toothmaster Co.*

2,489,112, A. G. Talbert, Coupling for tractor and semi-trailer units or the like, filed Dec. 20, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2105, *Talbert Construction Equipment Co. v. L. M. Miller Co., et al.*

2,502,903. (See 2,439,703.)

2,509,042, M. S. McIlroy, Electric analyzers for fluid-distribution systems, appeal filed Dec. 16, 1957, C. C. A., 1st Cir., Doc. 5319, *United States of America v. The Standard Electric Time Co.*

2,520,300, D. E. Priest, Saw frames, filed Dec. 30, 1957, D. C. Conn. (New Haven), Doc. 7053, *Parker Mfg. Co. v. Forsberg Mfg. Co.*

2,526,523, E. E. Weiss, Yarns and fabrics and method of making same, filed Mar. 29, 1955, D. C. R. I. (Providence), Doc. 1822, *United Merchants and Manufacturers, Inc. et al. v. Sidney Blumenthal & Co., Inc.* Claims 6, 12 and 14 held invalid; judgment for defendant Oct. 17, 1957.

2,579,304, J. B. Crawford, Self-adjusting recirculating overflow; 2,701,235, O. M. King, Operating system for swimming pool, filed Dec. 31, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1436/57-BH, *Paddock of California v. O. M. King Construction Co. et al.*

2,582,735, A. L. Alaj, Hot plate, filed Apr. 28, 1955, D. C., District of Columbia, Doc. 1915/55, *Dudley G. Skinker et al. v. Annette Maida Alaj.* Judgment for plaintiff Oct. 28, 1957.

2,645,776, H. A. Kiler, Magnetic pot holder, filed Aug. 2, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1313, *Magnes, Inc. v. Duro Manufacturing Co., Inc.* Patent held invalid; complaint dismissed (notice Dec. 30, 1957).

2,645,902, L. J. Mundo, Sectional brush assembly, filed July 19, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c1235, *Louis J. Mundo v. Flash Automatic Car Wash Co.* Final consent judgment; patent held valid; defendants restrained Dec. 17, 1957.

2,653,116, K. R. Whitcomb et al., Method of removing sealant from fuel tanks, filed Oct. 26, 1954, D. C., S. D. Calif. (Los Angeles), Doc. 17387-WB, *Delco Chemicals, Inc. v. Cee-Bee Chemical Co., Inc. et al.* Patent held invalid; counterclaim dismissed (notice Dec. 30, 1957).

2,674,963, A. Guide, Spiral seam producing mechanism for sewing machines, filed Oct. 31, 1955, D. C., S. D. N. Y., Doc. 104/279, *Anthony Guide v. Esquisite Form Brassiere, Inc.* Stipulation and order of dismissal Jan. 2, 1958.

2,684,556, H. G. Molinari, Machine and method for forming syringe barrels; 2,771,710, Molinari and Magash, Glass syringe barrel forming method and machine, filed Dec. 30, 1957, D. C. N. J. (Newark), Doc. 1281/57, *Becton, Dickinson & Co. v. East Rutherford Syringes, Inc. et al.*

2,701,235. (See 2,579,304.)

2,706,230, M. E. Bourns et al., Variable resistor; 2,777,926, M. E. Bourns, same, filed Oct. 7, 1957, Ct. of Cls., Doc. 467/57, *Marlan E. Bourns v. The United States.* (Corrected notice. Notice originally appeared as: "2,706,230, M. E. Bourns et al., Variable resistor; 2,776,926, E. S. Sharpe et al., Preparation of alphakeloglutaric acid by *serratia marcescens*, filed Oct. 7, 1957, Ct. of Cls., Doc. 467/57, *Marlan E. Bourns v. The United States.*")

2,717,603, J. J. Colm, Pacifier, filed Jan. 3, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18361, *Jack J. Colm v. John G. Kyles.*

2,771,710. (See 2,684,556.)

2,777,926. (See 2,706,230.)

2,806,834, W. G. Marden, Apparatus for semen collection, filed Jan. 2, 1958, D. C. Colo. (Denver), Doc. 5906, *William G. Marden v. Nicholson Manufacturing Co. et al.*

Des. 173,934, I. Mershon, Frame for a picture or similar article, filed June 27, 1957, D. C., S. D. N. Y., Doc. 122/33, *Globe Silver Co., Inc. v. Hamilton Starling Corp.* Consent judgment; defendant enjoined Dec. 30, 1957.

Des. 176,601, R. L. Doerfler, Spoon or other similar article of flatware, filed Dec. 30, 1957, D. C., S. D. N. Y., Doc. 128/175, *The International Silver Co. v. Wellingware, Inc.*

Des. 178,001, L. W. Sparks, Watch or similar article, filed Dec. 13, 1957, D. C., S. D. N. Y., Doc. 127/374, *Vacheron & Constantin-Le Coultre Watches, Inc. v. Wakman Watch Co., Inc.* Final judgment for permanent injunction Dec. 30, 1957. Same, filed Dec. 13, 1957, D. C., S. D. N. Y., Doc. 127/375, *Vacheron & Constantin-Le Coultre Watches, Inc. v. Bores Shein.* Consent judgment; defendant enjoined Jan. 10, 1958.

Des. 180,907, Kay and Cormier, Sock, filed Dec. 3, 1957, D. C., S. D. N. Y., Doc. 127/235, *Roland J. G. Nadeau, Trustee Under a Declaration of Trust v. Alexander's Department Stores, Inc.* Stipulation and order of discontinuance Dec. 30, 1957.

REISSUES

FEBRUARY 11, 1958

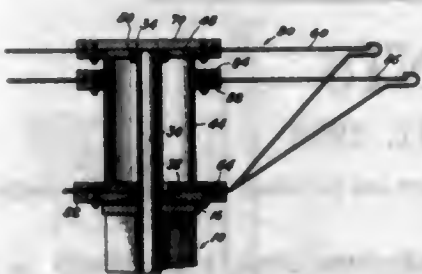
Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,427

GARMENT DISPLAY RACK

Maurice Cohen, Miami, Fla.

Original No. 2,701,646, dated February 8, 1955, Serial No. 281,773, April 11, 1952. Application for reissue January 28, 1957, Serial No. 639,595
4 Claims. (Cl. 211-165)

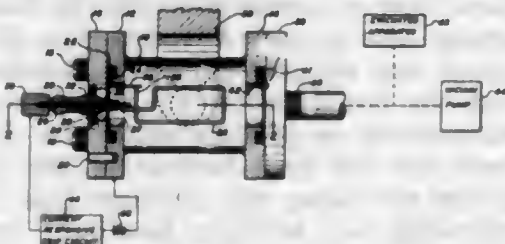


4. In a garment display rack, a hanger assembly rotatably mounted on a shaft, said hanger assembly comprising an upper disc, disc means spaced from said upper disc, structural means secured to said upper disc and disc means, an intermediate disc secured to said structural means and positioned between said upper disc and disc means, a first set of hangers pivotally secured to said upper disc and disc means on an axis parallel to said structural means, and a second set of hangers secured to said intermediate disc and disc means and mounted for pivotal movement independent of said first set of hangers on an axis parallel to said structural means, each of the hangers in the second set of hangers being equally spaced between a pair of said hangers in the first set of hangers.

24,428

VACUUM DISCHARGE GAUGE

Frederick L. Fox, Pasadena, Calif., assignor, by mesne assignments, to Consolidated Electrodynamics Corporation, Pasadena, Calif., a corporation of California
Original No. 2,758,232, dated August 7, 1956, Serial No. 242,259, August 17, 1951. Application for reissue August 5, 1957, Serial No. 677,189
5 Claims. (Cl. 313-7)



5. In a vacuum discharge gauge, the combination comprising a conductive member, a conductive electrode, means for maintaining the space between the member and the electrode evacuated, the electrode being electrically insulated from the conductive member to provide a first electron discharge path in the space for passing an increasing amount of current with increasing pressure over a predetermined range of pressures, and means for providing a second electron discharge path located within the evacuated space with the second electron discharge path being connected in shunt with and having a shorter electron travel distance than the first electron discharge path for passing current over a range of pressures greater than said predetermined range, so that the conductive

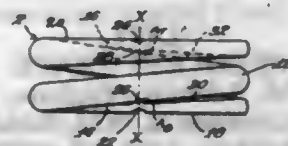
member and the conductive electrode may be energized as terminals to simultaneously energize both said first and said second electron discharge paths.

24,429

COIL SPRING

Harold C. Keysor, La Grange Park, Ill., assignor to American Steel Foundries, Chicago, Ill., a corporation of New Jersey

Original No. 2,695,169, dated November 23, 1954, Serial No. 130,320, November 30, 1949. Application for reissue November 9, 1955, Serial No. 546,019
13 Claims. (Cl. 267-61)



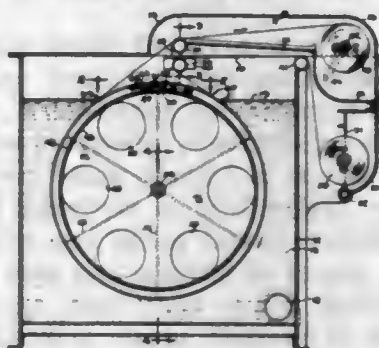
1. A straight spring bar for coiling into a helical spring having a pair of fulcrum points projecting transversely of the bar in opposed directions and being spaced from one another a whole number of turns plus one half turn when the bar is coiled with a number of turns about a helix axis to form a helical spring, said points being disposed adjacent the ends of the bar.

24,430

PERFORATED DRUM TYPE LIQUID FILTER

Lloyd Hornbostel, Beloit, Wis., assignor of one-half to Rogers Hornbostel and one-half to Lloyd Hornbostel, Jr., both of Beloit, Wis.

Original No. 2,752,045, dated June 26, 1956, Serial No. 370,737, July 28, 1953. Application for reissue May 31, 1957, Serial No. 663,574
5 Claims. (Cl. 210-387)



3. A filter having in combination, a tank adapted to contain a body of liquid to be filtered, a drum having a perforated periphery mounted within said tank to turn about a horizontal axis coincident with the drum axis, parallel [vertically spaced] supply and take up rolls [disposed outwardly beyond the side wall of said tank and] mounted to turn about axes paralleling the drum axis, a flexible filter sheet encircling said supply roll and extending across the top of said tank, downwardly around the drum to cover the perforated area thereof, upwardly and around said take up roll, means for draining filtrate from the interior of the drum, a bracket rotatably supporting said supply roll, and means pivotally supporting said bracket to swing outwardly and downwardly [toward and away from the wall of said tank] between an inner operating position and an outer loading position.

24,431
AGE-HARDENING AUSTENITIC STAINLESS
STEEL

Paul A. Jennings, Baltimore, Md., assignor to Armco Steel Corporation, a corporation of Ohio
Original No. 2,698,785, dated January 4, 1955, Serial No. 328,882, December 31, 1952. Application for reissue February 20, 1957, Serial No. 641,793
8 Claims. (Cl. 75-126)

1. Age-hardening austenitic stainless steel having a hardness when aged exceeding 145 Brinell at a temperature of 1400° F. and containing about 0.08% to [1.50%] 1.00% carbon, 12% to 30% chromium, 7% to 20% manganese, [1%] .30% to 0.60% nitrogen, silicon up to 4.0%, with the sum of the carbon and nitrogen con-

tents at least 0.40%, and with the various elements all in such proportions as to assure a substantially fully

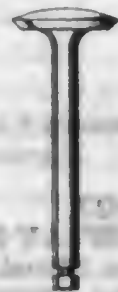


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austenitic structure, and the remainder substantially all iron.

PLANT PATENTS

GRANTED FEBRUARY 11, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,681
SEEDLESS GRAPE

Frank M. Schwab, Mankato, Minn.
Application November 2, 1956, Serial No. 620,160
1 Claim. (Cl. 47-62)

A new and distinct variety grape plant substantially as herein shown and described, characterized by its seedless fruit; the productivity and hardiness of the plant; and the sweetness, high flavor, and tender skin and flesh of its fruit.

1,682
ROSE PLANT

Eugene S. Boerner, Newark, N. Y., assignor, by mesne assignments, to C. W. Stuart & Co., Newark, N. Y., a corporation of New York
Application February 27, 1957, Serial No. 642,920
1 Claim. (Cl. 47-61)

A new and distinct variety of rose plant of the large-

flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its low-growing, bushy and spreading habits of growth, with horizontal and pendulous branches, its red colored edging on the new growth, the dark, glossy dark green foliage, the good resistance of the foliage to blackspot and mildew, the distinctive clear yellow color of the flowers which holds well throughout the flower life, the fully double form of the flowers and their habit of rarely showing their stamen and pistils, but having their outer petals tightly rolled outward and reflexing to the stem and forming a ball-like bloom when fully open, and the brilliant red color of the peduncles.

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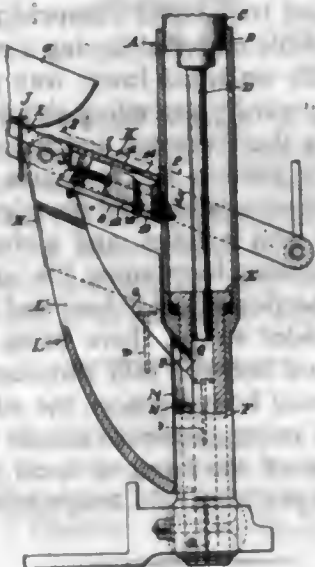
GRANTED FEBRUARY 11, 1958

GENERAL AND MECHANICAL

2,822,543

NAIL SELECTOR MECHANISM FOR NAILING MACHINES

Edmond H. de la Garrigue, Culver City, Calif.
Application March 7, 1956, Serial No. 570,000
4 Claims. (Cl. 1-6)



1. In a nail selector mechanism for nailing machines of the type embodying a cylinder having a reciprocal piston therein carrying a nail driving pin and including a nail hopper fitted with a discharge chute through which nails are delivered from the hopper in a row with the nails disposed upright and supported by their heads; a housing extending between the discharge end of said chute and said cylinder, said housing having top and bottom walls formed with longitudinally extending slots, said slots having open ends presented to the discharge end of said chute for the reception of nails discharged therefrom and said slots having a width slightly exceeding the diameter of the nail delivered thereto and leading to circular apertures having a diameter slightly exceeding the diameters of the heads of said nails; means in said housing for delivering the nails one at a time to said apertures including a projection extending into the said cylinder in the path of said piston for actuating said last named means directly by said piston whereby on downstroke of the latter a nail will be selected from the row thereof and delivered to said apertures; and means for receiving a nail discharged from said apertures and delivering it into a driving position beneath said rod.

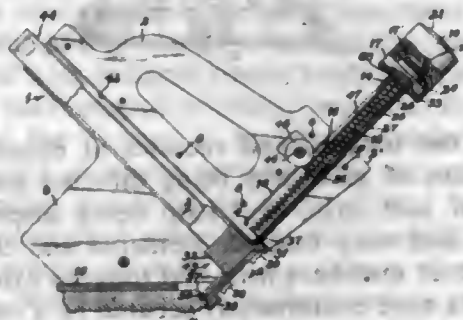
2,822,544

NAILING MACHINE

Edgar P. Anstett, Chicago, Ill., assignor to Powernall Co., Chicago, Ill., a corporation of Illinois
Application April 13, 1955, Serial No. 501,035
5 Claims. (Cl. 1-46)

2. A driver assembly for nailing machines and the like comprising a driver body having a shank portion and an overhanging driving head portion, a driving blade fixed to the driver for longitudinal movement therewith, and means for holding the driving blade against the side of the driver body comprising a ring of elastic material fitted over the driver body immediately below the driving

head portion thereof and engaging with the upper end of the driving blade for both holding the blade resiliently

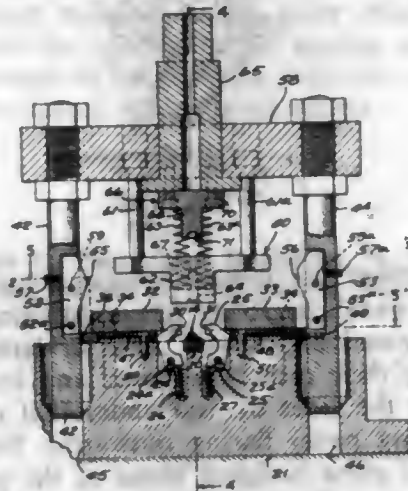


against the driver body and for cushioning the machine with which it is associated against shock.

2,822,545

TERMINAL CRIMPING DIE

Louis Elckhoff, Westbury, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application December 29, 1953, Serial No. 400,846
4 Claims. (Cl. 1-222)



1. A crimping device for securing a terminal having a pair of opposing insulation lugs and a pair of opposing contact lugs to a conductor comprising a base, a pair of spring biased jaws pivotally attached to said base, the free ends of said jaws being adapted to engage the insulation lugs and urged therefrom by said springs, a pair of longitudinally slidable and spring biased crimping plates supported by the base and adapted to engage said jaws and said contact lugs and being urged therefrom by said springs, reciprocating means disposed in bores provided by said base, said reciprocating means having plate engaging cams adapted to move said plates towards each other so as to pivot said jaws and effect the desired insulation and contact lug deflection, terminal holding means supported by said base, and a cradle mounted in the base between the jaws and proximate said terminal holding means for supporting the terminal in the path of said plates, said jaws having their pivotal axes transversely supported on the base and below said cradle.

2,822,546

SUSPENSION DEVICE FOR HELMETS

Luther Paul Barker, Jr., Pacific Palisades, Calif.
Application August 2, 1954, Serial No. 447,099
3 Claims. (Cl. 2-3)

1. A helmet structure, comprising: a helmet member having a crown; a plurality of snap fastener elements

arranged in spaced relation within the crown; a suspension means including a sweatband and means having snap fastener members for attachment to said snap fastener elements thereby to dispose said sweatband in spaced relation to said crown; a cape attachment member, including a flexible strip having a plurality of spaced offset tongues extending parallel therewith to form horizontal



recesses, the tongues and recesses at either side of the mid portion of said strip being directed toward the extremity of said strip, said strip being disposed under a series of said snap fastener elements and their attached snap fastener members with said tongues extending thereover; and a cape continuously secured by a margin thereof to said strip.

2,822,547

GARMENT FOR FEMININE WEAR

Marian Halstead, New York, N. Y.

Application August 24, 1954, Serial No. 451,891

4 Claims. (Cl. 2-30)



1. A garment for feminine wear comprising a front abdominal panel, a lower chest bridging panel, said abdominal panel and lower chest bridging panel being joined along their respective upper and lower edges, the edges along the sides of said abdominal panel and said chest bridging panel flaring outwardly from the upper edge of said chest bridging panel to the point of maximum transverse dimension of said abdominal panel, a pair of side panels secured to said side edges respectively, said front abdominal panel tapering in width along a pair of concavely curved lines below said point of maximum transverse dimension and the lower edges of said side panels forming outward continuations of said concavely curved lines, the junctures of said side panels with the side edges of said abdominal panel having a fullness of material immediately adjacent said concavely curved lines to insure snug, non-cutting engagement of said lines across the hips and rearwardly around the back of a wearer, cooperating fastening means secured to the outer free end portions of said side panels for securing the garment about the waist of a wearer, the upper edge of said lower chest bridging panel having a central upstanding portion forming with the remainder of said upper edge a pair of similarly formed breast cup receiving cut-outs, a pair of breast cups each having an upper section and a lower section, said lower section being joined along one edge thereof to the edge of one of said cut-outs, the opposite edge of said lower section being united with one edge of said upper section to form a seam extending generally horizontally from the side edge of said central upstanding portion outwardly to the apex of the breast cup and thence curving downwardly and laterally to the intersection of the side edge and upper edge of said lower chest bridging panel, and said upper section having an edge joined with the upper edge of the adjacent side panel.

2,822,548

CHILD'S BIB AND TRAY COVER

Lavinia Bauer Rhowmine, Grand Rapids, Mich.

Application December 8, 1955, Serial No. 551,900

1 Claim. (Cl. 2-49)



A child's bib and tray cover comprising a single sheet of water proof flexible material having a central body portion with a laterally enlarged lower tray portion and two laterally spaced upwardly extending shoulder straps defining a neck opening therebetween and spaced from the side edges of the body portion to form arm notches, an inelastic binding tape secured around the edges of said straps, neck opening and arm notches, and a single elastic band secured in a continuous loop along the edges of the body portion and tray portion of said sheet and across the outer ends of said shoulder straps, there being free unsecured lengths of said band between said shoulder straps and the upper corners of said body portion, the edges of said tray and body portions being gathered on said band in the unstretched condition of the band to form a tray receiving pocket in said tray portion and a longitudinally stretchable body.

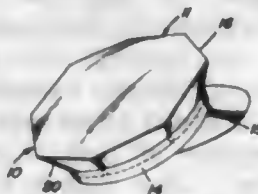
2,822,549

STRAIGHT SIDED HAT OR CAP AND SHAPING MEANS THEREFOR

Martin Thomas Glass, Grand Prairie, and Frank Ernest Houghton, Fort Worth, Tex.

Application October 12, 1956, Serial No. 615,674

2 Claims. (Cl. 2-195)



1. In combination with a cap having a substantially flat crown portion and a depending wall portion, the juncture between the crown and wall portions being formed as a series of angularly related straight edges, a shaping strip for such cap comprising a concavo-convex band of spring material positioned inside the cap at the juncture of said crown and wall portions, said band having the concave portion facing outwardly against the interior of the cap and having bends fitted between successive pairs of said angularly related straight edge portions.

2,822,550

KNEE JOINT FOR ARTIFICIAL LIMB

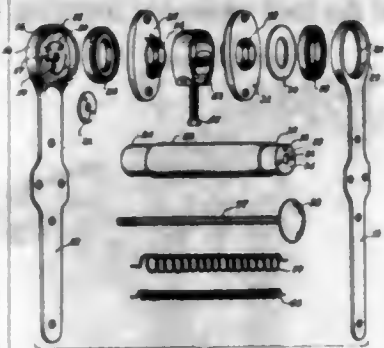
Merle A. Grodzki, Youngstown, Ohio

Application July 17, 1956, Serial No. 598,333

4 Claims. (Cl. 3-22)

1. A knee joint for an artificial limb comprising a pair of vertical mounting brackets adapted to be secured to one portion of said artificial limb, a hollow axle journaled at its ends in said brackets, said hollow axle having a closed apertured end, a boss having apertures therein formed on one of said vertical mounting brackets in axial alignment with said axle and a bolt positioned through one of said brackets and said hollow axle and engaged in the other of said brackets, a pair

of coil springs one of which is of a greater diameter than the other disposed within said hollow axle around said bolt, the respective ends of said coil springs being secured to said closed end of said axle and said apertured boss of said bracket, the convolutions of said coil springs arranged in oppositely disposed pattern so that tensioning



of one coil spring releases tension of the other, a pair of elongated mounting brackets positioned on said hollow axle and forming means for securing said hollow axle to the other part of said artificial limb, a compression clamp positioned on said hollow axle and mounted in said last-mentioned portion of said artificial limb for holding said hollow axle stationary with respect thereto.

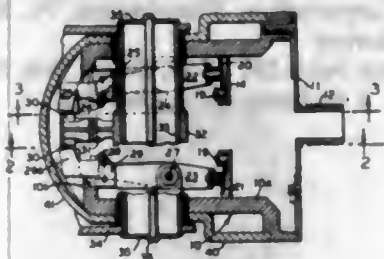
2,822,551

ELBOW LOCK

Samuel W. Alderson, New York, N. Y.

Application December 28, 1955, Serial No. 555,880

8 Claims. (Cl. 3—12.2)



1. An elbow lock for an artificial forearm comprising a frame, a link provided with a tooth pivoted on the frame, a notched sector rotatably mounted on the frame, a shaft associated with the sector for attachment to the artificial forearm, a solenoid provided with a ratchet element for moving the link carrying the tooth into alternate locking and unlocking position, and means permitting the solenoid to complete its action regardless of the position of the elbow or the load on it.

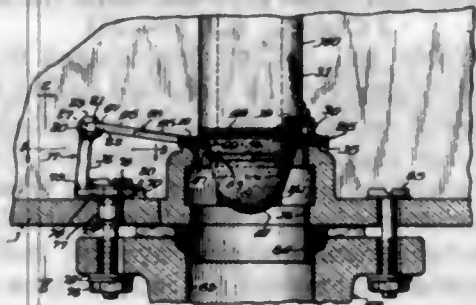
2,822,552

DISCHARGE VALVES FOR FLUSH TANKS

Roy H. Zinkl, Oak Park, Thomas P. Newman, Geneva, and Edward G. Schmidt, La Grange, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois

Application September 14, 1954, Serial No. 455,842

6 Claims. (Cl. 4—57)



1. In combination with a flush tank or the like provided with an outlet opening and a seat surface around the opening at the inner end thereof, a valve closure en-

gageable with the seat surface in the closed valve position, said valve closure including integral means extending therefrom, means attaching said valve closure to said tank for non-pivotal swinging movement into the open and closed positions, said attachment means comprising a separate attachment member having post means projecting through said integral extending means of the closure, said post means extending substantially in the plane of the swinging movement of the closure, said integral extending means being flexible in the direction of the swinging movement of the closure and being apertured for the projection of the post means therethrough, said post means being provided with enlarged means extending partly over and retaining said integral extending means of the closure thereon when the closure is in attached relation, said post means being elongated in transverse section and the integral extending means of the valve closure being correspondingly apertured whereby to substantially prevent any sidewise pivotal rotation of the closure about its attachment in a direction normal to the swinging movement of the closure, said attachment member being separate and removed from the portion of the tank having the seat surface and outlet opening therethrough, said attachment means including single means extending from the attachment member for securing the same to the tank at a point removed from the above portion of the tank in position for substantially predetermined seating engagement of the valve closure with the seat surface, said tank and attachment member having matched surfaces interengageable in only a single position of the attachment member to prevent substantial rotation of the latter relative to the tank and provide the predetermined seating engagement of the valve closure in cooperation with the non-pivotal mounting of the closure on said post means.

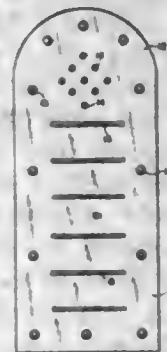
2,822,553

MATS

Kathryn M. Florentine, Brooklyn, N. Y.

Application November 26, 1952, Serial No. 323,157

2 Claims. (Cl. 4—185)



1. A bath mat or the like being a single sheet of paper resistant to water and having high wet strength and of such size for covering a substantial portion of the bottom of a normal bath tub or shower room, normally downwardly extending open ended embossings at one end of said sheet capable of being inserted into the openings of a bath tub drain cap, said mat being capable of remaining intact while in use, and after use being capable of being crumpled for disposal.

2,822,554

VARIABLE DENSITY FOAM CUSHIONS, PILLOW AND THE LIKE

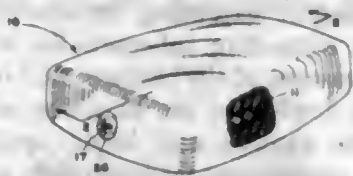
Elwood P. Wenzelberger, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application January 7, 1955, Serial No. 480,585

4 Claims. (Cl. 5—337)

1. A cushion or pillow comprising an elongated sponge rubber body having a central cavity extending lengthwise of said sponge rubber body, said central cavity having

corrugated walls to provide increased flexibility and to resist lateral distortion of said sponge rubber body, an inflatable inner tube disposed in said cavity and having the side walls contiguous with said corrugated cavity walls, and a valve stem communicating with said inner tube and



having a valve therein for controlling the passage of inflating gas admitted to and released from said tube, said valve stem being countersunk into said sponge rubber body, and said inner tube being inflated to provide a sponge rubber cushion of a requisite hardness.

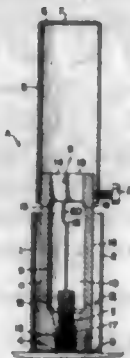
2,822,555

DIE STOCK FOR RETHREADING WORM THREADS

Daniel E. Davis, Joplin, Mo.

Application February 21, 1955, Serial No. 489,385

2 Claims. (Cl. 10-1)



1. A stud-die adapted for use with a turning tool having a projecting shank, said stud-die comprising an outer shell having a flush, flat-bottomed wall having an aperture adapted for fitting around a threaded stud and being provided with an axial slot which extends longitudinally substantially the length thereof, an intermediate shell telescopically fitted within the outer shell and being open at both ends, said intermediate shell being axially shiftable with respect to the outer shell, a plurality of thread-cutting die elements loosely disposed within the intermediate shell and being adapted for radial separation in relation to each other so as to fit loosely around the stud which is to be threaded, said die elements being shaped at their upper ends to form a socket for engagement with the shank in such a manner that the stud-die can be turned by the shank, and a clamping screw threadedly mounted in and projecting loosely within the axial slot for urging the die elements and intermediate shell into rigid assembly for thread-cutting engagement with the stud.

2,822,556

MACHINE FOR SLOTTING SCREW BLANK HEADS BY MEANS OF A RECIPROCATING CUTTING TOOL

Paolo Chiala, Milan, Italy

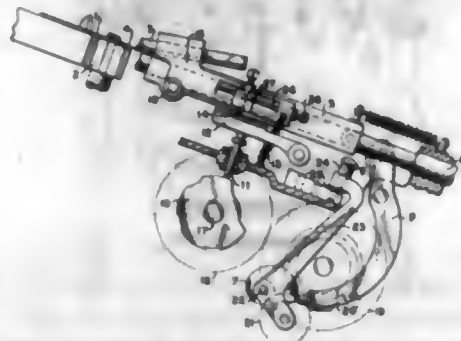
Application July 20, 1953, Serial No. 369,066

Claims priority, application Italy April 14, 1953

3 Claims. (Cl. 10-6)

1. A screw head slotter comprising a fixed-profile tool, means for feeding blanks successively to and retaining them at a work station, first cam-actuated means for reciprocating the tool in a rectilinear motion at and across the work station comprising a single-rise cam having a progressive slope followed by an abrupt termination and a dwell portion, second cam-actuated means for feeding the tool progressively toward the

blank a predetermined amount for each stroke applied to that blank, and a gear train relating the movements of both cam-actuated means in a fixed cycle; the second cam-actuated means comprising a multiple-rise cam and a shaft whereon the multiple-rise cam is mounted, a dwell portion on said multiple-rise cam for controlling the retraction of the tool to enable indexing of the blanks



at the work station; the gear-train comprising a first gear also mounted on the shaft and a last gear driving the first cam-actuated means, the gear ratio from first to last gears being such that for each rotation of the multiple-rise cam the first cam-actuated means are driven a number of times equal to the number of rises of the multiple-rise cam plus one.

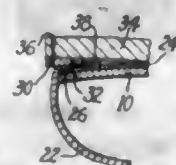
2,822,557

METHODS OF MAKING FLEXIBLE FOREPART SHOES

Karl A. Stritter, Nahant, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application June 29, 1955, Serial No. 518,767

4 Claims. (Cl. 12-142)



1. That improvement in methods of making flexible shoes which consists in providing a flexible insole stiffened with amylaceous material to maintain the feather line of the shoe, completing the shoe to the stage where an outsole is to be applied, then reducing the stiffness of the insole by applying an enzyme to the amylaceous material, and then applying the outsole.

2,822,558

PORTABLE GOLF BALL WASHER

Donnie G. Vandervort and Donald J. Dawson, Salem, Oreg.

Application December 17, 1956, Serial No. 628,864

2 Claims. (Cl. 15-21)

1. A portable golf ball washer adapted to contain a cleansing fluid comprising an elongated hollow tube closed at its ends and having a pair of diametrically opposed lateral openings adjacent one end thereof for insertion and removal of a golf ball, a hollow cylindrical brush mounted in the tube, the bristles of which extend radially inwardly defining a cylindrical brushing surface, ball retaining means mounted for longitudinal reciprocation within the tube coaxial with said brushing surface, a sleeve mounted movably on the tube adjacent said one end and having diametrically opposed lateral openings therein, the sleeve being movable between a first position of registration of the lateral openings in the tube and sleeve for insertion and

removal of a golf ball and a second position of non-registry of said openings, and sealing means interposed



between the tube and sleeve to prevent leakage of cleansing fluid when the sleeve is moved to said second position.

2,822,559

BRUSH LOCK

Charles J. Manville, Pontiac, Mich., assignor to Manville Manufacturing Corporation, Pontiac, Mich., a corporation

Application April 8, 1955, Serial No. 500,215
2 Claims. (Cl. 15-128)



1. A locking device for two tubular members to be removably telescoped together, one member having an integral inwardly and radially extending rigid lug, the other member including a locking collar over which said one member is adapted to be telescoped, said collar having a lug-receiving gap extending axially inwardly from the receiving end thereof, said collar being peripherally lanced along spaced parallel lines from near the bottom of said gap to form a peripherally disposed depressible spring locking tongue integral with said collar, said tongue having intermediate its ends a radial offset bend to yieldingly interlock with said lug upon relative angular displacement therebetween.

2,822,560

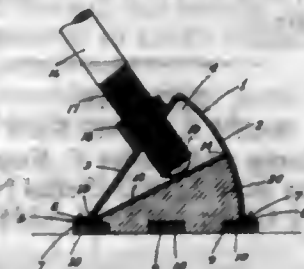
APPLICATOR FOR PASTE-TYPE FLOOR WAX

Frederick W. Pape, Los Angeles, Calif.

Application April 24, 1956, Serial No. 580,229
1 Claim. (Cl. 15-131)

A paste-wax applicator comprising a closed-end housing having, in integral relation, a back wall, parallel end walls, a front wall, and flanges projecting laterally out from the lower edges of the front and back walls, all said walls at their lower edges defining a rectangular area, the back wall sloping upwardly from its lower end in overhanging relation to said area and the front wall curving down from a junction with the upper end of the back wall about an axis centered at the lower end of the

back wall, a relatively thin pressure plate symmetrical to and of a size substantially equal to that of said area mounted in the housing, a push handle longitudinally adjustably mounted in the back plate to engage the pressure plate, and a bottom plate having wax dispensing open-



ings, removably supported by the flanges and engaging the under surface of the same; the junction of the rear wall and bottom plate forming an angular locating corner within the housing for the adjacent end of the pressure plate to allow the plate to swivel about said end as an axis.

2,822,561

PAINT BRUSH

Norman F. Rowley, Denver, Colo.

Application August 6, 1956, Serial No. 602,239
4 Claims. (Cl. 15-160)



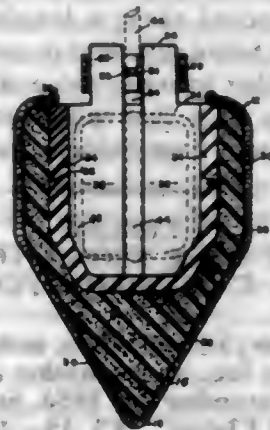
4. A paint brush for painting objects having curved surfaces comprising a rigid semi-circular frame having an inner substantially concentric surface, a handle extending outwardly from the frame, and a plurality of tufts of bristles mounted in the frame extending from the inner surface, the tufts located at and near the transverse center of the frame extending in radial directions to near the axial center of the frame and the tufts located at opposite sides of said center tufts extending in inclined directions at different angles to true radial directions intersecting near and slightly above the axial center of the frame, whereby the bristle ends are concentrated in work contacting areas.

2,822,562

POLISHING ATTACHMENT FOR ELECTRIC MIXERS

Renee M. F. Shackelford, Atlanta, Ga.

Application October 13, 1955, Serial No. 540,204
8 Claims. (Cl. 15-230)



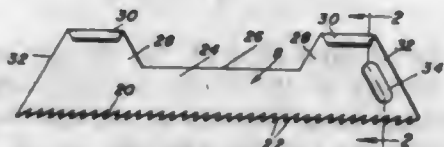
1. In a polishing attachment for positioning on and removal from the elongated, laterally projecting beaters

of a conventional kitchen mixer and the like, a polishing body having a relatively, resilient core with a plurality of slots therein for receiving and confining the beaters, a smooth outer polishing portion fixed in contact with and to remain on the inner core and presenting a resilient polishing surface, and means for holding said attachment firmly on said beaters.

2,822,563

SASH EASING SAW

Joseph W. Kump and Hester T. Kump, Dixon, Ill.
Application June 2, 1955, Serial No. 512,782
1 Claim. (Cl. 15—236)



A special purpose hand saw for easing tight-fitting sashes in a double hung window construction and thus freeing and promoting unrestricted sliding of said sashes, said jaw comprising a substantially rigid elongated blade thin enough to enter and operate between contacting surfaces of a sash frame and stop beads and/or parting strips, as the case may be, one side of said blade having a wholly flat and smooth surface, said blade being of a width allowing one lengthwise edge portion to project, when being used, to an accessible operating position beyond the adjacent lengthwise surface of a stop bead, said projecting edge portion at the respective end portions of said blade being fashioned into and providing longitudinally spaced individual hand-grips, said blade having its other lengthwise edge provided with raking and scraping teeth, the respective transverse ends of said blade being inclined at oblique angles toward said projecting edge portion whereby the toothed longitudinal edge is of a length greater than the projecting edge portion and so that said transverse ends thus converge toward each other.

2,822,564

WHEEL WASHING APPARATUS

Henry A. Crivelli, Belmont, Mass.
Application February 16, 1956, Serial No. 565,805
13 Claims. (Cl. 15—302)



1. Cleaning apparatus comprising an elongated base mounted for movement parallel to itself in a direction having a component perpendicular to its direction of elongation along a floor, a plurality of interspersed rotatable brushes and fluid nozzles distributed along said base with portions of said brushes and with mouths of said nozzles being disposed along a longitudinal edge of said base, said brushes being sufficient in number and sufficiently close to each other to scrub successive sections throughout the periphery of a tire rolling in contact therewith along said floor, said base being biased toward said tire.

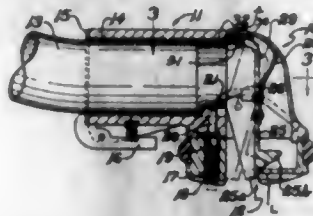
2,822,565

VACUUM CLEANER FLOOR TOOL ASSEMBLY HAVING A CAM ACTUATED VALVE AND AGITATOR

Dewey M. Dow, Toledo, Ohio, assignor to Air-Way Industries, Inc., a corporation of Delaware
Application November 15, 1954, Serial No. 468,776
5 Claims. (Cl. 15—373)

1. In a vacuum cleaner, a floor tool having an inlet mouth through which dust-laden air may be drawn from

the surface to be cleaned, a valve in said mouth actuatable between a position for restricting the opening from such surface thereby to increase the air velocity and pressure head and a position allowing normal air movement through the mouth, an agitator mounted in the floor tool for vertical movement, a handle, and means form-

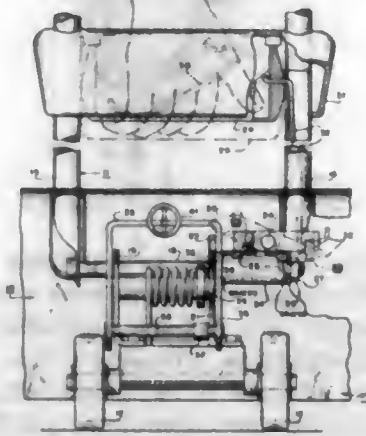


ing a rotatable connection between the handle and the floor tool, said means including a cylindrical bearing element which is rotatable with said handle, said cylindrical bearing element having two cams, one cam engaging the valve and the other cam engaging the agitator whereby turning of said handle actuates the valve and also the agitator.

2,822,566

HANDLE LOCK FOR SUCTION CLEANER APPARATUS

Arthur H. Eberhart, East Longmeadow, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 28, 1953, Serial No. 382,627
4 Claims. (Cl. 15—410)



4. The combination with a body and a handle pivoted thereto, said body being adapted to be maneuvered over a horizontal surface by said handle and said handle being movable relative to said body through a range of operating positions in which the handle is inclined and to a substantially vertical position, of locking mechanism for locking said body relative to said handle, said locking mechanism comprising a stop and a cooperating pivoted detent movable into abutting relation to said stop to prevent relative movement of said body and said handle from a position in which they are substantially at a right angle to each other, a hand grip carried by said handle whereby the body may be lifted through the handle, said hand grip being movable longitudinally of the handle, and a connection between said pivoted detent and said hand grip for moving the detent into abutting relation with said stop upon movement of the hand grip away from the pivoted end of the handle, whereby when the hand grip is raised to lift the device, its movement relative to the handle causes the detent to move into locking engagement.

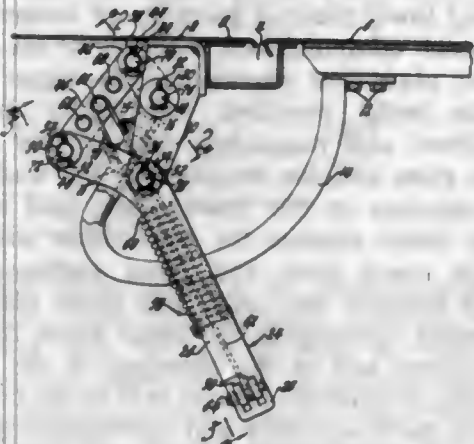
2,822,567

COUNTERBALANCE ASSEMBLY

Charles H. McCreary, Oak Park, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 23, 1955, Serial No. 490,030

3 Claims. (Cl. 16-85)



1. A hinge assembly for a swinging closure member adapted to be raised and lowered to open and close an opening in a compartment comprising a fixed support within the compartment and connected to a wall thereof, a hinge fixed to the closure member, a first pivotal connection securing said hinge to said support, an arm fixed to said hinge operable therewith about said first pivotal connection, a lever, a second pivotal connection securing said lever to said fixed support for movement about an axis parallel to the axis of said first pivotal connection, a link extending between said arm and said lever and pivotally connected thereto at points removed from said first and second pivotal connections, and spring means secured to and acting between said link and said lever tending to move said link and said lever together about the point of pivotal connection therebetween.

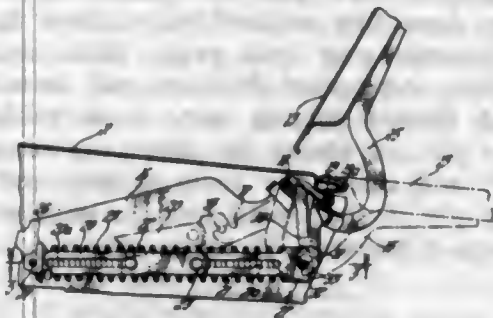
2,822,568

DECK LID HINGE WITH ADJUSTABLE SPRING COUNTERBALANCE

Thomas J. Hosea, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application May 11, 1954, Serial No. 428,923

6 Claims. (Cl. 16-190)



3. In an automobile body having an opening and a closure for said opening, a hinge and counterbalance for said closure comprising, a hinge member swingably mounted on said body and secured to said closure, compression spring means, guide means seating said spring means, and connector means connecting said guide means between said hinge member and said body and including a plurality of spaced anchor notches for selectively seating said guiding means to adjust the spring strength in fixed steps, said spring means urging said guide means against said connector means to counterbalance the weight of said closure during movement thereof.

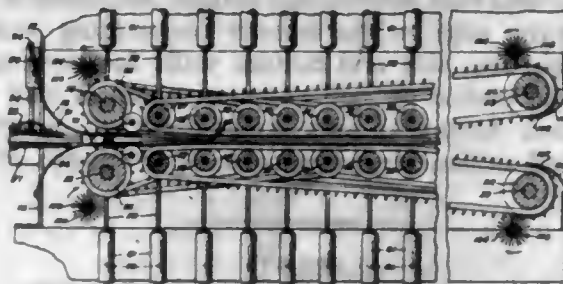
2,822,569

FISH FILLETING MACHINE

Alex Gradoff, Kenneth W. Howell, and Ivan Vinoff, San Francisco, Calif., assignors of three percent to Clarence Terry, two percent to Fred A. Mead, Jr., one percent to Harry King, one percent to Curtis Penrod, one percent to Clarence Brown, one percent to James R. Townsend, one-half percent to Leslie Musante, and one-half percent to Marjorie West

Application November 8, 1954, Serial No. 467,327

14 Claims. (Cl. 17-4)



1. In a fish filleting machine, a pair of complementary hollow casings, a filleting blade on each casing extending longitudinally of the casings generally along the plane where the casings meet, said casings forming an inlet at one end and an outlet at the other end thereof, filleting edges on each blade converging toward said inlet, a piercing point at the convergence of said filleting edges pointing toward said inlet, and conveyor means in said casing parallel with and adjacent to the respective blades being adapted to move said fish against said piercing points and then along said blades, each blade including a pair of resilient legs diverging from said point toward said outlet, said filleting edges being formed on the outer edges of said legs, means to anchor the ends of said legs on the adjacent casing so that said blades yieldably conform to the bone structure of the fish pulled along the blades, each piercing point being elongated and having a longitudinal slot therethrough open to the space between said legs.

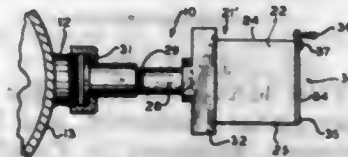
2,822,570

DEVICE FOR SHAPING FOOD PRODUCT

Anthony M. De Pascale, East Orange, N. J.

Application August 23, 1955, Serial No. 530,050

2 Claims. (Cl. 17-32)



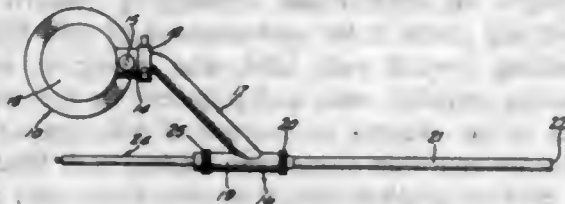
1. A device for the formation of a strip of ground compressed meat from ground meat discharged through the spout of a ground meat supply tank; said device comprising a casing providing an interior pressure compartment having a top wall, a bottom wall, side walls, and one end wall; said top, bottom and side walls all terminating in a common plane remotely opposite from said end wall and providing thereat an outlet orifice the full height and width of said compartment for the discharge of a strip of compressed meat; a meat-feeding conduit at the exterior of said end wall providing a passage of less cross-sectional area than, and leading into, said compartment through said end wall; a coupling for connecting said conduit to said spout for the passage of ground meat through said conduit into said compartment for expansion, reformation and compression therein and ultimate discharge from said orifice with a cross-sectional shape conforming to the shape of the orifice as defined by said top wall, side walls and bottom wall at said orifice, whereby the ground meat issues from said orifice compacted and in strip form; said top wall overlapping at its side edges both of the side walls of the compartment and having hinged

connection to one said side wall and entirely removable from position overlying the compartment by swinging on said hinged connection and thereby affording full access to and permitting inspection of meat in said compartment with the casing remaining intact on said spout and continuing operative as soon as said top wall is closed; latch means at the opposite side wall from the hinging of said top wall for releasably retaining said top wall closed in tight engagement with the side walls where overlapping the same; and a member transverse to and pivoted at the end of one side wall next to said orifice, said member having a cutting edge at its bottom cooperating with the ends of said top, side and bottom walls for severing the strip at said orifice on said common plane of said ends, said member having an area larger than and completely closing said orifice on completion of severance of said strip.

2,822,571

APPARATUS FOR MAKING HOLLOW FRANKFURTERS

Raymond M. Johnson, Los Angeles, Calif., assignor of one-half to Llewelyn B. Stearns, Rivera, Calif.
Application July 20, 1953, Serial No. 369,068
3 Claims. (Cl. 17-39)



1. A device for making hollow frankfurters and the like comprising in combination: an extrusion head having an opening therethrough and an inlet conduit extending laterally thereinto, a stuffer horn connected to said head in alignment with said opening and adapted to have a casing carried thereby, a carrier rod extending through said opening and said stuffer horn, a rod bearing and sealing means between said head and said rod and a casing securing means on the end of said rod outwardly of said stuffer horn, whereby when an end of the casing is secured to said rod and ground meat is introduced into said opening through said inlet, the same will fill the casing and force the rod outwardly of said head.

2,822,572

APPARATUS FOR MAKING RUBBER HEEL MOLDS

Karl Huff, Ahlem, near Hannover, and Wilhelm Ehlers, Sarstedt, Germany, assignors to Continental Gummi-Werke Aktiengesellschaft, Hannover-Limmer, Germany
Application May 23, 1955, Serial No. 510,318
In Germany May 20, 1949
Public Law 619, August 23, 1954
Patent expires May 20, 1969

4 Claims. (Cl. 18-1)



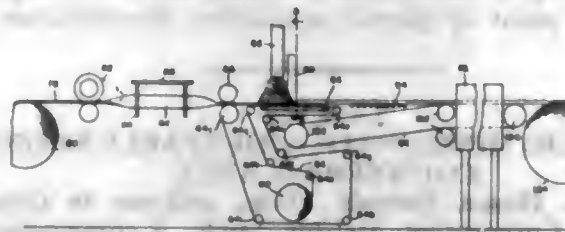
1. An apparatus for placing washers onto the washer-supporting pins of rubber heel molds comprising a mold having a heel-shaped mold cavity, a plurality of washer-supporting pins protruding upwardly from the bottom of said mold cavity, an upper and lower plate being spacedly arranged in parallel relation, a slide plate slid-

ably fitting in the interspace between said upper and lower plate, the thickness of said slide plate being thinner and the spacing between said upper and lower plate being only slightly greater than the thickness of the washers to be handled by the apparatus, said lower plate having passage openings therein coaxially with said supporting pins, said upper plate being provided with openings therein displaced relative to the passage openings in said lower plate, a plurality of washer magazines each of which communicates with one of the openings in said upper plate and carried by the upper plate, said slide plate being provided with holes for receiving washers from said magazines through the openings in the upper plate and for transmitting the washers to said passage openings in the lower plate; said holes in the slide plate being adapted for registration with the openings in the upper plate and, upon displacement of the slide plate between the upper and lower plate, with the corresponding openings in the lower plate; the centers of said magazines and of the openings in the upper plate being displaced from the central axes of the corresponding passages in the lower plate and corresponding supporting pins by a distance smaller than the diameter of the washers, so that the weight of the staple of washers remaining in the magazine presses upon the washer in the hole of the slide plate and prevents tilting thereof until the slide plate hole fully registers with the corresponding opening in the lower plate and the displaced washer can drop therethrough onto the corresponding supporting pin.

2,822,573

METHOD AND APPARATUS FOR PRODUCING FOAM RUBBER SLABS OR CONTOURED PADS

Adam S. Wasniewski, Trenton, and Russell L. Mains, Bordentown, N. J., assignors to National Automotive Fibres, Inc., Detroit, Mich., a corporation of Delaware
Application January 17, 1955, Serial No. 482,228
11 Claims. (Cl. 18-4)



1. The method of making a slab of foam rubber having a backing of porous material which comprises advancing a closed loop of the material in sliding contact over a gauge plate to provide a double ply of material thereover, depositing uncured foam rubber to the upper ply of material over said gauge plate, doctoring the foam rubber to required thickness and contour over the plate and thereby forcing some foam rubber through the upper ply, advancing the upper ply away from the lower ply and curing the foam rubber, and advancing the lower ply in the closed loop to position over said plate where it becomes the upper ply.

2,822,574

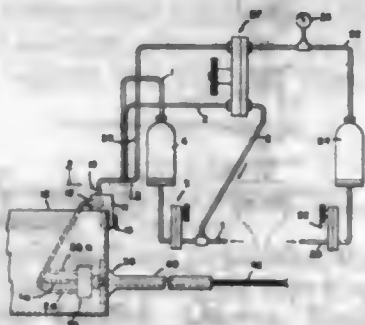
METHOD AND MEANS FOR SPINNING A BANDED FILAMENT

Francis L. Lavash, New Castle, Del., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware

Application April 17, 1956, Serial No. 578,825
15 Claims. (Cl. 18-8)

7. Apparatus for producing regenerated cellulose filaments of uniform cross-section but having bands of contrasting colors at selected intervals along its length comprising a spinneret, a central conduit connected to said spinneret, means for supplying a continuous stream of plain viscose to said central conduit for extrusion through

said spinneret, auxiliary means for adding increments of colored viscose to said central conduit, a return conduit for withdrawing a side stream of plain viscose from said central conduit at a point upstream from the point of colored viscose injection and in an amount equal to that added through said auxiliary means, a restriction in said



conduit which offers at least as great a resistance to viscose flow as does the spinneret, whereby bands of colored viscose may be injected into the plain viscose stream at regular intervals and equivalent amounts of plain viscose withdrawn simultaneously therewith through said return conduit, thereby maintaining an unvarying flow rate through the spinneret.

2,822,575

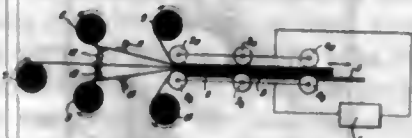
PROCESS AND MACHINE FOR THE CONTINUOUS PRODUCTION OF SECTIONS FROM SYNTHETIC RESINS

René Imbert and Pierre De Vinzelles, Casablanca, Morocco

Application July 25, 1955, Serial No. 524,107

Claims priority, application France July 29, 1954

5 Claims. (Cl. 18-10)



1. A process for the continuous production of sections having an indefinite length and constant cross-sections from a thermosetting material, which comprises passing said thermosetting material uninterruptedly through a series of at least two spaced apart, stationary curing zones at a rate corresponding to a duration of passage of about one quarter of a second through each zone, continuously passing electric waves of alternating electric current having a frequency above one megacycle through said material in each of said curing zones, and shaping said material to the desired cross-section in at least one of said zones while said material passes therethrough, the spacing of said curing zones being such as to correspond for said material to a period of passage of from two to fifteen seconds from the egress of one zone to the ingress into the next succeeding zone.

2. A machine for simultaneously shaping and curing a thermosetting material, which comprises a frame; a line of successive spaced-apart sets of complementary, rigid shaping rollers made of conducting material and revolvably borne in said frame, with the rollers in each set arranged in spaced-apart relationship across said line to provide between them a shaping gap of a predetermined cross-section; means supported from said frame for delivering thermosetting material into the shaping gap between the complementary shaping rollers of the set located at one of the ends of said line; means supported from said frame, for driving said thermosetting material successively through the last-named shaping gap and the following shaping gaps; means supported from said frame between said sets for supporting said thermosetting material as it is driven from a shaping gap to the next following one; means in each set for electrically connecting the complementary shaping rollers via a self-

induction coil, so as to provide an oscillating circuit in which said complementary shaping rollers and the thermosetting material therebetween constitute a condenser; and an oscillating device coupled electromagnetically with said self-induction coil for inducing electric oscillations in said oscillating circuit.

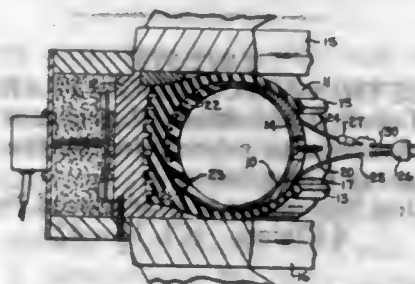
2,822,576

CURING TUBE

Daniel G. Rowe, Jr., Hickory, N. C.

Application March 31, 1955, Serial No. 498,302

1 Claim. (Cl. 18-18)



In an apparatus for retreading tire casings having a tread forming matrix and means for heating the matrix to apply heat to a tire casing positioned within said apparatus, said apparatus also including an annular curing tube adapted to be positioned within the tire casing and an annular curing rim for confining the curing tube within the tire casing, the combination of a heating element carried by the curing tube, said heating element having conductor lines extending inwardly therefrom and overlying opposite edge portions of said curing rim to straddle the same, an electrical plug connecting said conductor lines together, and a quick-connect-disconnect element interposed in a medial portion of one of said conductor lines whereby said one conductor line of the heating element may be disconnected to facilitate positioning the curing rim about the curing tube.

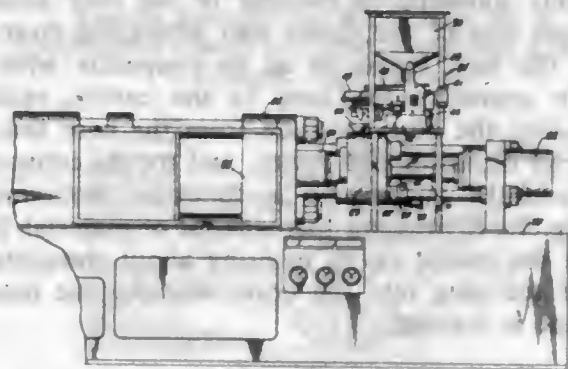
2,822,577

INJECTION MOLDING MACHINE WITH WEIGH-FEEDER AND PLUNGER POSITION CONTROL

Warren J. Schleser, John F. Kelley, and Donald G. Marshall, Columbus, Ohio, assignors to The Exact Weight Scale Company, Columbus, Ohio, a corporation of Ohio

Application March 21, 1956, Serial No. 572,990

5 Claims. (Cl. 18-30)



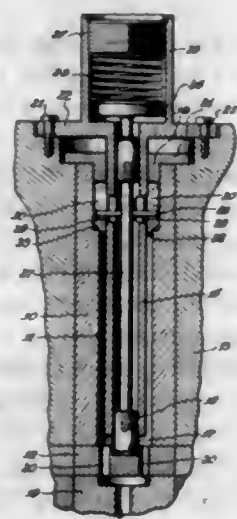
1. An injection molding machine having a plunger movable between injecting and non-injecting positions, a weigh feeder for weighing and supplying charges to the plunger, said weigh-feeder including weighing mechanism and material-feeding mechanism for feeding material thereto, a first control operatively connected to said material-feeding mechanism and actuated by said weighing mechanism for controlling said material-feeding mechanism to feed to said weighing mechanism an underweight charge of material, a second control operatively con-

ected to said material-feeding mechanism and actuated by the plunger for controlling said material-feeding mechanism to feed an additional amount of material when needed to said charge being weighed by said weighing mechanism in accordance with the injecting position of said plunger to thereby control the position of the plunger in the next injecting operation when the charge being weighed is supplied thereto, means actuated by said weighing mechanism when it reaches required weight condition for actuating said second control to control said material-feeding mechanism to cut off said additional feed to said weighing mechanism, and means for supplying the charge weighed by said weighing mechanism to said plunger.

2,822,578

INJECTION-MOULDING APPARATUS

George M. Lobell, Midlothian, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application September 6, 1956, Serial No. 608,413
4 Claims. (Cl. 18-42)



4. An injection-moulding apparatus for producing a tube closed at one end, said apparatus comprising a mould having a cavity, a recess at one end of the cavity, and an inlet at said one end of the cavity for material to be injected in the mould, a bushing slidably mounted in the other end of the cavity, a core fitting the bushing and projecting through the cavity into closely spaced relation with the said one end of the cavity, a plug slidably mounted in the end of the core adjacent the said one end of the cavity and projecting from the core into the said recess so as to cooperate with the bushing in centering the core in the cavity, resilient means making the plug protrude from the core into the said one end of the mould cavity, and means connecting the plug and the bushing so as to cause retraction of the bushing due to pressure thereagainst of material being injected in the mould cavity to bring about complete retraction of the plug into the core, whereby the base of the test tube is formed.

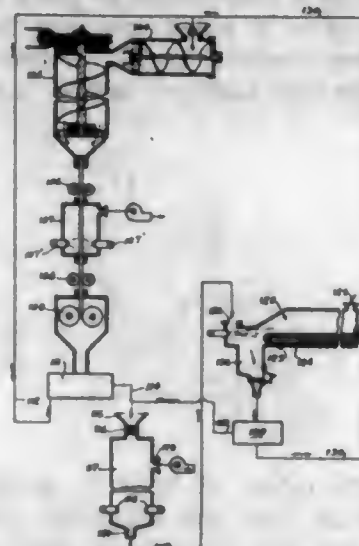
2,822,579

METHOD OF MAKING GLASS FILAMENTS

Alexander Silverman, Pittsburgh, Pa.
Application March 30, 1953, Serial No. 345,475
2 Claims. (Cl. 18-47.3)

1. A method of forming glass filaments which comprises forming a mixture of particles of glass-forming material, extruding the resultant mixture into a coherent shape, heating said shape to a temperature sufficient to cure and harden said shape, breaking said hardened shape into fragments of a size greater than the particle size of

said glass-forming material, heating said fragments to a temperature sufficient to convert them to liquid glass

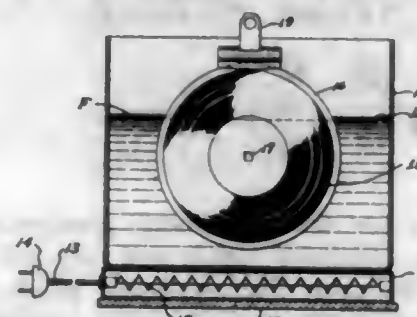


droplets, and attenuating said liquid glass droplets to form glass filaments.

2,822,580

PROCESS FOR ERASING RECORD DISKS TO REMOVE SOUND TRACKS AND BACKGROUND NOISES

Henry Allan Sherwood, Tarrytown, N. Y., assignor to The Soundsciber Corporation, New Haven, Conn., a corporation of Connecticut
Application March 24, 1954, Serial No. 418,407
2 Claims. (Cl. 18-48)



1. The process of simultaneously erasing recorded sound tracks from both surfaces of a thermoplastic disk record, which comprises first immersing the lower half of said disk while in a vertical position in an inert liquid heated to a plasticising temperature, which will permit said lower half of said record to soften and stretch by gravity to such an extent that all sound tracks and residual "ghost" noises will be removed therefrom, then lifting said disk out of said liquid, and allowing said lower half to cool and harden, thereafter rotating said disk 180 degrees and immersing the original upper half of said disk into said liquid to eradicate sound tracks and residual "ghost" noises therefrom, thereafter removing said disk entirely from said liquid allowing it to cool and harden, and subsequently flattening out wrinkles in said disk to place it in condition for reuse.

2,822,581

AMYLOSE FILMS

Johannes Muetgeert, Rotterdam, and Pieter Hlemstra, Veendam, Netherlands, assignors to Coöperatieve Verkoop-en Productievereniging van Aardappelmeel en Derivaten "Avebe" G. A., Veendam, Netherlands, a corporation of the Netherlands
No Drawing. Application April 15, 1955
Serial No. 501,744

Claims priority, application Netherlands April 22, 1954
7 Claims. (Cl. 18-57)

1. The process for the preparation of strong, pliable and transparent films comprising dissolving a starch-

carbohydrate containing at least 50 percent amylose in water in an amount sufficient to provide an amylose concentration of at least 5% by weight therein at a temperature of at least 120° C., cooling the solution to a temperature beneath its boiling point at atmospheric pressure and casting a film from the solution on a support having a temperature higher than the gelation temperature of the solution, after which the film is dried and cooled on the support and liberated from the support.

2,822,582

APPARATUS FOR PROCESSING FILAMENTARY TOWS

George Eric Hayward, Long Itchington, Rugby, and Geoffrey Keith Luggar, Leamington Spa, England, assignors to Courtaulds Limited, London, England, a British company
Application October 22, 1954, Serial No. 464,028
Claims priority, application Great Britain November 23, 1953

7 Claims. (Cl. 19-65)



1. Apparatus for opening a travelling tow of crimped continuous filaments while the tow is subjected to a tension not sufficient to stretch the filaments but sufficient substantially to straighten out the crimp comprising a tow feeding device, a tow delivery device at a point remote from the feeding device and at least two rotatable opening members placed at spaced points on a sinuous path between the feeding and delivery devices, a driving shaft connected to each rotatable opening member and driving means connected to the driving shafts, each rotatable opening member having at least two stepped filament bearing surfaces placed side by side in the direction of the axis of rotation of the member providing at least two separate supports for the tow whereby on rotation of the member those filaments bearing on one surface are separated from those filaments bearing on the other surface.

2,822,583

BUILDING STRUCTURES

Carlyle S. Cornwell, Shelby, N. C.
Application May 6, 1955, Serial No. 506,606
8 Claims. (Cl. 20-1.6)

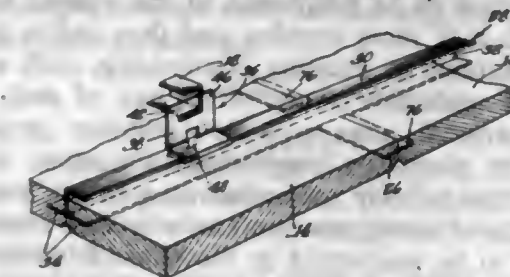


1. In a drive-in type building construction, an outside wall portion having an opening therein, a movable window positioned in said opening, a horizontally disposed counter member slidably mounted in said building construction for movement through said opening between a retracted position disposed substantially wholly within the building and a projected position wherein said counter member is projected outwardly through the opening, and there being a corridor leading up to said wall portion behind the counter when the same is in its projected position so that an attendant within the building may take a position just inside the wall portion with the length of the counter bridging the span between such attendant and a customer seated in an automobile outside the building.

2,822,584

SUSPENDED CEILING CONSTRUCTION

Leon F. Urbain, Chicago, Ill.
Application October 6, 1950, Serial No. 188,755
1 Claim. (Cl. 20-4)

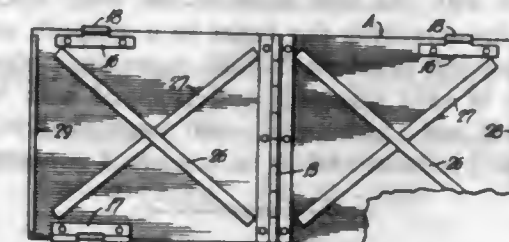


A supporting structure for kerfed wall construction units comprising an elongated spline member having a web normally positioned vertically in installed position, a first flange formed on one side of said web and adapted to cooperate with kerfed wall construction units, a second flange formed on said web and extending substantially perpendicular thereto and spaced from said first flange, a clip having a substantially flat body portion disposed normally vertically and parallel with said web, the lower side of said body portion having a first flange formed thereon disposed substantially perpendicular thereto, the edge of said first clip flange disposed away from said body portion having a second flange formed thereon and extending below said first clip flange and toward said body portion, said clip flanges engaging said second spline flange, said second clip flange engaging the face of said second spline flange disposed toward said first spline flange being shorter than said second spline flange, a tab formed from said body portion and connected substantially at the junction of said body portion and said first clip flange, said tab being bent over against said web in a direction away from said body portion to lock said clip flanges in engagement with said second spline flange, a channel having a horizontally disposed flange and a vertically disposed flange, an ear formed on said body portion and spaced therefrom to define a slot extending substantially parallel to said clip flanges, said horizontal channel flange extending into said slot, and a lug attached to said body portion and spaced from the free end of said ear and bendable into a position contacting the face of said vertical channel flange disposed away from said horizontal channel flange to lock said clip on said channel.

2,822,585

PORTABLE FLOORS

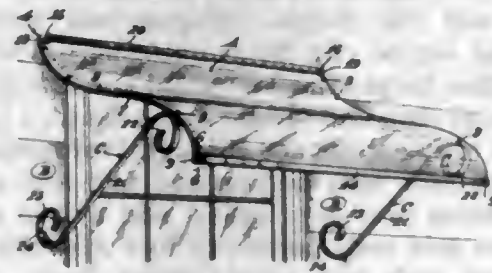
Joseph Baruch, Far Rockaway, N. Y.
Application March 31, 1954, Serial No. 420,008
2 Claims. (Cl. 20-6)



1. A portable floor suitable for use as a dance floor, consisting of sections readily assembled and disassembled, each section comprising two rectangular units hinged together on their undersides along a first marginal edge for folding into a compact member with the units in substantially parallel relation when folded and adapted to be unfolded to provide a flat surface free of obstructions and indentations throughout the entire area thereof, each unit having on its underside near a second marginal edge, which second edge is at right angles to the first-mentioned edge, a hollow tubular projection extending laterally away

from said second edge and having near a third marginal edge opposite the second marginal edge a hollow tubular projection adapted to be placed in longitudinal alignment with a tubular projection of a contiguous unit, a removable pin adapted to be positioned in the aligned tubular projections to lock them together and thus lock a pair of contiguous sections in abutting relationship, each section having on the underside of one of the pair of units along a fourth marginal edge a hollow tubular projection adapted to be placed in longitudinal alignment with at least one hollow tubular projection on a fourth marginal edge of a unit of contiguous section, a second removable pin adapted to be positioned in the aligned tubular projections on said fourth marginal edge of the units of a second pair of contiguous sections to lock said second pair of contiguous sections together in abutting relationship, thus providing a flat dance surface free of projections and indentations, each unit also having on its underside a supporting member of a thickness slightly greater than that of said projections and said hinge to support the unit at a height so that said projections and said hinge do not exert any appreciable pressure on the surface on which said floor rests.

2,822,586
RIGID KNOCK-DOWN AWNING
Neil F. McNeil, Los Angeles, Calif.
Application April 9, 1954, Serial No. 422,051
2 Claims. (Cl. 20—57.5)

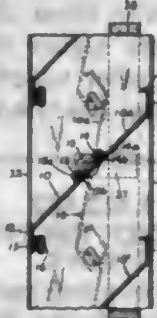


1. A knock-down awning comprising a single normally flat rectangular pliable fiber glass panel having straight flat side and end margins, a pair of flat rigid side rails contoured longitudinally on a reverse curve coextensively underlying the opposed side margins of said panel, a series of bolts detachably connecting said rails to said panel at spaced intervals along the lengths thereof whereby said panel is flexed longitudinally to conform to the curvatures of said rails, said rails having bolt receiving apertures at each end thereof, a rigid end rail of angle cross section abutting one end margin of said panel and overlying and seating on the upper face of said panel along said margin, a bolt extending through the bolt receiving aperture at one end of each of said side rails detachably securing the ends of said angle rail to said side rails, means engageable with the bolt holes at the other ends of said side rails for attaching the latter to a support, and a pair of rigid bracing brackets having outer ends abutting the undersides of said side rails and engaged with bolts connecting said rails and panel, said brackets having inner ends adapted to abut and be secured to a supporting wall.

2,822,587
MOUNTING MEANS FOR BLADES FOR LOUVERS
Edward C. Hallock, Summit, N. J.
Application February 28, 1957, Serial No. 643,147
11 Claims. (Cl. 20—62)

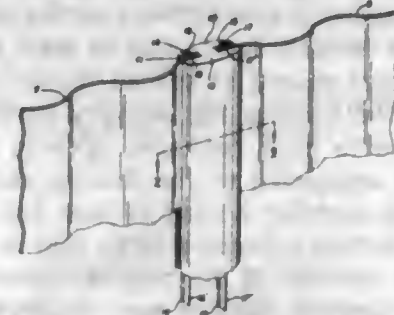
6. A movable louver blade for a louver unit, comprising an elongated, thin metal strip having a pair of substantially parallel bosses on one side of said strip and extending lengthwise thereof each of said bosses having a slot in its side facing toward the other boss and an internal cavity communicating with said slot, said cavity being of approximately circular cross-section and wider than said slot, pivot members at opposite ends of

said blade, each pivot member having a body portion bearing against said one side of said blade extending into said slots, ribs on the edges of said body portion engaging in said cavities with a drive fit, and a shaft extending



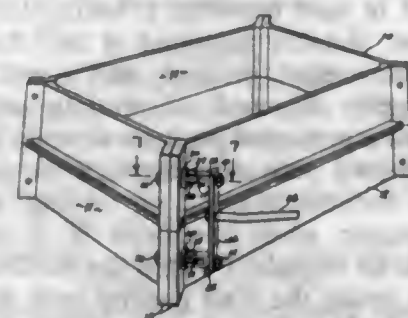
outwardly from said body portion beyond the end of said blade, said shaft having a substantially cylindrical bearing portion adjacent to said body portion, a non-circular portion adjacent to said body portion and an outer end portion for receiving a fastening device.

2,822,588
JOINING STRIP FOR PLASTIC SHEETS
Clifford H. West, Youngstown, Ohio, assignor to C & J Service, Inc., Youngstown, Ohio, a corporation of Ohio
Application February 4, 1957, Serial No. 638,147
4 Claims. (Cl. 20—92)



1. A joining strip for plastic sheets comprising an elongated body member of a flattened oval shape in cross section having oppositely disposed, inwardly formed, deep, narrow channels in its opposite side edges, secondary channels in said elongated body member, one of each of which communicates with one of said first-mentioned channels inwardly from the entrance thereof, the entrance of said secondary channels being narrower than said secondary channels inwardly thereof, and elongated resilient members having longitudinally extending flange formations disposed one in each of said secondary channels with said flange formations extending into said first-mentioned channels.

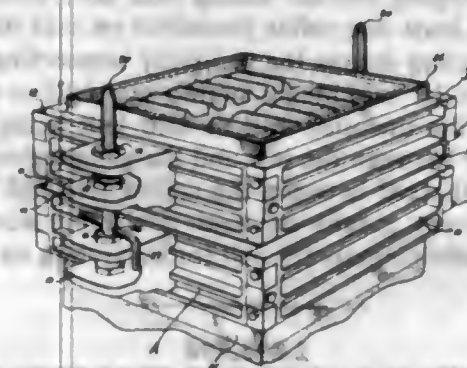
2,822,589
FLASK CLAMP
Russell J. Hines, Lakewood, Ohio, assignor to The Hines Flask Company, Cleveland, Ohio, a corporation of Ohio
Application July 27, 1955, Serial No. 524,630
2 Claims. (Cl. 22—107)



1. In a foundry flask having side walls with abutting ends adapted to be separably inter-connected to form a

corner, the abutting ends of said side walls each having extended portions adapted to meet along a common parting plane, resilient means disposed between and coacting with the abutting ends along an axis transverse to the parting plane to urge the abutting ends outwardly from one another, a rod disposed parallel to said transverse axis and having one end anchored to one of said extending portions, means including a cam surface pivotally mounted on the other end of said rod on an axis transverse to the rod axis, a cam guide supported on the rod intermediate said cam surface and another of said extended portions for free axial movement therebetween, said cam guide having a plane face adjacent said last-mentioned of said extended portions and adapted to provide a continuous surface contact therewith, the opposite face of said cam guide adjacent the cam surface having a recessed seat for receiving and retaining the cam surface therein, said cam surface engaging said seat in one pivoted position of said pivotally mounted means and coacting with the anchored end of the rod to urge the cam guide against the adjacent extended portion and thereby to clamp the extended portions of said side walls together, said pivotally mounted means including a plane abutment face disposed generally laterally of said cam surface and engaging said seat in another pivoted position of said last-mentioned means to coact with said anchored end of the rod for limiting the separation of said extended portions to a predetermined spacing.

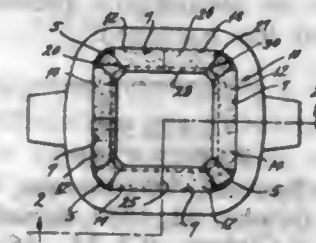
2,822,590
METHOD AND APPARATUS FOR MAKING CASTINGS
Russell J. Hines, Lakewood, Ohio, assignor to The Hines Flask Company, Cleveland, Ohio, a corporation of Ohio
Application August 11, 1955, Serial No. 527,805
5 Claims. (Cl. 22—110)



1. A method of stacking a plurality of separable flasks each containing a sand mold and each having apertured means forming guide sockets at opposite ends for receiving vertical guides and wherein each of said means on corresponding ends of said flasks are in generally vertically spaced relationship, comprising the steps of placing one of the flasks with its mold on a suitable base, mounting generally vertically extending guides in the guide socket at each end of the flask so that said guides project upwardly above the upper level of the flask, securing the vertical guides against downward movement by inserting a cross pin through a complementary opening in each of said guides adjacent the top of the associated of said means, aligning the guide sockets of another similar flask with the corresponding end guides of said first-mentioned flask in superimposed relationship to the latter and lowering such other flask along the vertical guides on the lower flask, removing the cross pin from each of said vertical guides, separating the guides from the lower flask by moving them upwardly through the guide sockets of the upper flask to clear the guide sockets of the lower flask and into the same relative position on the upper flask, reinserting the cross pins through the vertical guides to secure the guides against downward movement from their

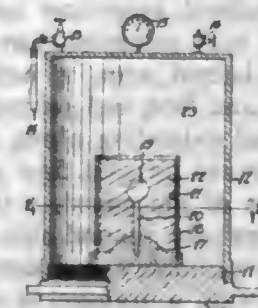
new location in the upper flask, and thereafter separating and removing the lower flask from its mold and repeating the foregoing operations progressively until a desired number of sand mold sections are stacked in surmounting relationship with their mold cavities aligned and registered for simultaneous pouring.

2,822,591
HOT TOP CASING
Harry C. Hampe, University City, Mo., assignor to Oswald Refractories Company, Brentwood, Mo., a corporation of Missouri
Application August 2, 1954, Serial No. 447,331
2 Claims. (Cl. 22—147)



1. In an ingot mold having an enlarged upper mold cavity, defined by generally flat walls and an internal annular shoulder, a refractory hot top casing comprising: wall blocks resting on said shoulder and extending along the walls defining the sides of the enlarged mold cavity but terminating short of the meeting corners thereof; said wall blocks having a plane substantially rectangular vertical back, a front face extending convergently downwardly toward said back, and a chamfered section of uniform angularity from top to bottom with respect to the said back, said chamfered section extending along the inner edge of the wall block adjacent the corner of the enlarged mold cavity; and corner wedge blocks, in corners of said enlarged cavity between the chamfered sections of adjacent wall blocks; said corner wedge blocks having a substantially rectangular flat back, a front face which extends convergently downwardly toward the flat back and sides which diverge in a direction away from the interior of the enlarged mold cavity, said sides being of uniform angularity with respect to the back of the corner wedge blocks, there being sufficient clearance between the back of the corner wedge blocks and the wall of the enlarged mold cavity to permit the insertion of the wedge blocks after the wall blocks are in place, the divergence of the sides of the wedge blocks permitting them to bear against the chamfered sections of the wall blocks when the corner wedge blocks are moved inwardly, so that the wall blocks and wedge blocks constituting the hot top casing are forced tightly together.

2,822,592
METHOD FOR MAKING INVESTMENT MOLDS AND CASTINGS
Douglas C. Wendt, Portland, Oreg.
Application February 24, 1954, Serial No. 412,269
1 Claim. (Cl. 22—200)

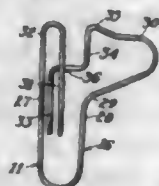


In the known method of making dental castings wherein a wax pattern is surrounded with a soft investment material, the investment material thereafter permitted to

harden, the wax pattern drained from the interior of the hardened investment material by heating and the cavity left by the wax pattern filled with a molten metal to thereby form a metal dental casting, the improvements which comprise: *a.* while the investment material surrounding the wax pattern is still in a soft condition, gradually applying an air pressure of approximately 45 pounds per square inch gage directly upon all exposed surfaces of said soft investment material, *b.* maintaining said air pressure of approximately 45 pounds per square inch gage on said soft investment material while the hardening of the investment material is taking place, *c.* preventing the circulation of air completely through said investment material while it is in the process of hardening, and *d.* decreasing the pressure from approximately 45 pounds per square inch gage to atmospheric pressure after said investment material has hardened.

2,822,593 PAPER CLIPS

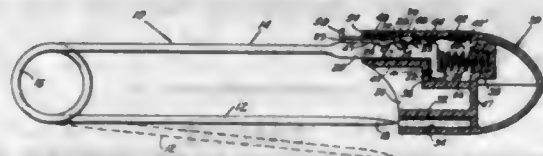
Charles Sponsel, Albuquerque, N. Mex.
Application October 22, 1953, Serial No. 387,576
6 Claims. (Cl. 24—66)



1. A clip for sheet material comprising a single continuous strip of resilient stock having a reverse bend portion, end portions of said strip constituting legs, at least one of said legs extending in the direction of said reverse bend and between said end portions, said other leg crossing said one leg only and contacting said one leg at the point of crossing over whereby the resiliency of the strip permits said legs to pivot about each other when pressure is applied to said clip in opposite directions substantially perpendicular to the plane of the reverse bend and sheet material is adapted to be retained between said leg extending in the direction of said reverse bend and said reverse bend.

2,822,594 SAFETY PIN

Emile Scheemaeker, Howard, R. I.
Application September 9, 1955, Serial No. 533,388
1 Claim. (Cl. 24—158)



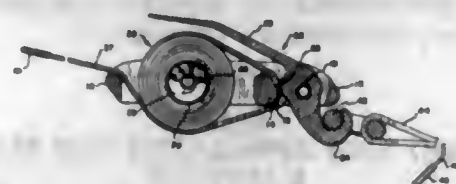
In a safety pin, a pin member having laterally spaced first and second legs having forward and rear ends, a spring loop resiliently connecting and spacing the rear ends of the legs, a point on the forward end of the first leg, a longitudinal extension on the forward end of the second leg, said extension having a forward end terminating in a lateral arm, a hollow guard having spaced side walls, and first and second side edges, a pin point socket on and extending along said first side edge for receiving the point on said first pin member leg in a guarding position of the guard, a tubular slideway on and extending along said second side edge of the head, said extension being slidably and non-rotatably engaged through said slideway, a transverse wall in said guard spaced forwardly from said slideway and having a spring seat facing said slideway, a compressed coil spring seated at one end in said seat and engaged at its other end with

said lateral arm of said extension whereby the guard is yieldably urged forwardly relative to the extension and the pin member legs and away from its guarding position, a spring dog secured along said second side edge of the guard having a rear end terminating in a lateral locking tongue, said extension having an outer side provided with a notch in which said tongue is arranged to engage only in the rearwardly retracted guarding position of the guard, and a locking slide slidably mounted on the said side edge of the guard for endwise movement along the outer side of the extension, said locking slide terminating at its forward end in a cam for engaging and depressing said tongue into the notch in the outer side of the extension and having an intermediate portion arranged to bear against the spring dog and hold the tongue in said notch when the extension is moved forwardly from a rearwardly retracted position with the guard in its guarding position.

2,822,595

RETRACTABLE SEAT BELT BUCKLE

John H. Ruhl, Lincoln Park, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware
Application October 2, 1956, Serial No. 613,407
9 Claims. (Cl. 24—170)



1. A retractable seat belt buckle comprising a frame, having end and side members, a jaw connected to said side members, a pivot located on each side of said jaw respectively, a latch pivotally mounted to one of said pivots and having a gripping surface facing said jaw, coiling means including at least one roller journaled on said other pivot, a belt, retracting means for yieldably connecting said belt about said roller said means urging said belt to coil about said roller, the uncoiled end of said belt being threaded downwardly between the jaw and the gripping surface and rearwardly thereof between the coiled belt and the frame and attachment means on said latch for securing said buckle to a complementary belt for encircling an occupant.

2,822,596

DETACHABLE CUFF FOR TROUSERS LEGS

Helmer Aaskov, Fresno, Calif.
Application October 14, 1955, Serial No. 540,506
1 Claim. (Cl. 24—252)



A clip comprising a pair of elongated clamp elements each formed from a length of thin, flat material, said elements being disposed in crossing relation intermediate their ends, one of the elements including at one end a head having side portions projecting laterally outwardly beyond the respectively opposite sides of said one clamp element, said one element further including, at the end thereof remote from the head, an elongated widened part of rectangular outer configuration, said widened part and the head of the one element cooperating to define

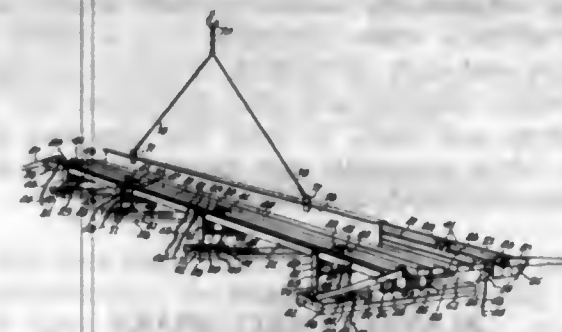
recesses opening upon the opposite sides of the one clamp element which recesses extend the full distance between the head and widened part, said widened part being formed adjacent the recess with outwardly struck hinge sleeves aligned transversely of the widened part, the other clamp element having an elongated straight body portion the transverse dimension of which is substantially equal to the distance between the recesses measured along a line extending transversely of the first named clamp element normally to the length of said first named clamp element, the widened part of said one clamp element having an elongated, slot-like opening of a width substantially equal to said distance between the recesses, said opening receiving the body portion of the second named clamp element and being extended the greatest part of the length of the widened part, said other clamp element including a head opposing the head of said one clamp element and projecting laterally outwardly beyond the sides of the body portion correspondingly to the head of said one clamp element, the respective heads being formed with inwardly struck, confronting teeth; a rubber band circumposed about the respective clamp elements and engaged in said recesses, said rubber band being tensioned to normally bias the heads toward one another; and lateral projections formed upon the body portion of the second named clamp element and rotatably engaged in the hinge sleeves to pivotally connect the elements at their point of crossing.

2,822,597

APPARATUS FOR MANIPULATING MOLD FORMS FOR MOLDING FLEXIBLE CONCRETE REVETMENT MATS

Frank I. Louckes, Memphis, Tenn.
Application July 24, 1956, Serial No. 599,888
4 Claims. (Cl. 25—1)

(Granted under Title 35, U. S. Code (1952), sec. 266)

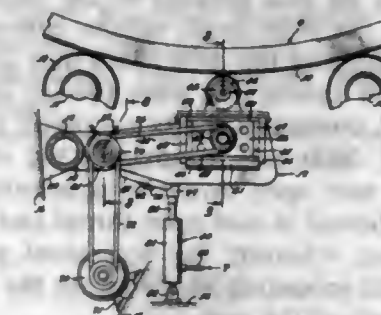


1. Apparatus for lifting top sections of mold forms employed for molding concrete revetment mats composed of reinforced concrete slabs, which comprises a frame defined by longitudinal side bars and end bars interconnecting the side bars, spaced pallet members depending from the frame adapted to engage concrete slabs hardening in the mold forms, operating shafts for vertically operating the pallet members, connecting rods interconnecting the pallet members and shafts, eccentric means on the shafts pivotally connecting the connecting rods to the shafts, levers on the shafts for rotating the said shafts, lifting devices spaced along the side bars of the frame adapted to engage lifting pins in lateral scarf boxes of the mold forms for lifting the mold forms relative to the slabs as the pallet members press against the slabs responsively to rotation of the operating shafts and resulting pressure of the pallet members against the slabs, operating the levers mounted on the operating shafts for enabling rotation of the shafts in clockwise and counter-clockwise directions, selectively, and stop brackets extending outwardly from the end bars of the frame and provided with top recesses for receiving and holding the operating levers at the ends of operative rotations thereof in either selected direction.

2,822,598 PIPE MOLD VIBRATOR

Carl W. Chanlund, Nampa, Idaho, and Stephen R. Hubbard, Compton, Calif., assignors to Cen-Vi-Ro Pipe Corporation, South Gate, Calif., a corporation of Delaware

Application May 9, 1955, Serial No. 506,952
7 Claims. (Cl. 25—30)

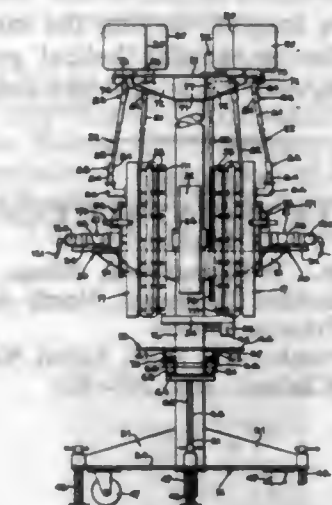


1. In a molding machine having a mold for plastic material the combination of a vibrator device for the mold, a base for mounting the mold and the vibrator device, a support arm pivotally secured to the base and extending to a position adjacent the mold, a positioner for the arm comprising mutually extensible elements and having one element thereof mounted on the base and the other element thereof attached to the arm, a damper intermediate ends of said last identified element, a vibrator frame on a free end of said arm, vibration-absorbing means between the frame and the arm, a vibration generator mounted on the frame, a vibrating element on the frame positioned in vibrating relationship with the mold, a source of power on the base and a drive train of vibration damping material from said source of power to the vibration generator.

2,822,599

CLAY PIPE PERFORATING MACHINE

Cecil E. Webb, Cincinnati, Ohio, assignor to M. S. Bowne, Clearfield, Ky., trustee
Application October 22, 1953, Serial No. 387,647
11 Claims. (Cl. 25—105)

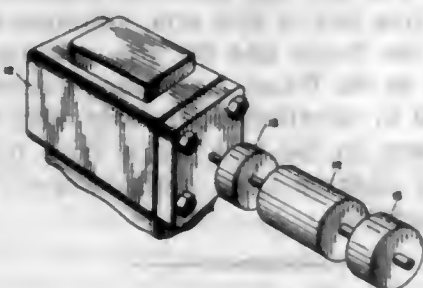


5. In a machine for forming multiple perforations in a length of plastic clay pipe, a column, a mounting bracket attached to the column, respective drill head mounting spiders attached to the mounting bracket, said spiders each including a drill head support member projecting upon respective axes which converge toward one another to a common center, respective pipe stop members attached to the extended ends of the support members, said stop members collectively delineating a semi-circular throat having an open side, which is concentric to said common center, and effective to guide and position a length of clay pipe upon the common center, a carriage having a horizontal surface effective to support a length of clay pipe in perpendicular position, the carriage movable along a generally horizontal path which

is radial to the common center of said throat and to the open side thereof, said carriage advancing a perpendicular length of pipe through the said open side and into contact with said stop members with the axis of the pipe residing on said common center, respective drill heads slidably mounted upon said drill head support members, each of said drill heads having a drill mounting shaft projecting along an axis parallel to the support member which supports the drill head, means connected to said drill heads for shifting the drill heads and drill mounting shafts along said converging axes toward said common center, the drill mounting shafts arranged to engage respective coaxial drills and to advance the drills through the confines of said open throat to penetrate the wall of a clay pipe positioned in said open throat and resting upon the said carriage, whereby the horizontal planes of the carriage and drill mounting shafts locate the drills lengthwise along the axis of the pipe.

2,822,600

METHODS OF MAKING CERAMIC ARTICLES
Walter J. Scott, Indianapolis, Ind., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application February 5, 1954, Serial No. 408,364
2 Claims. (Cl. 25-156)

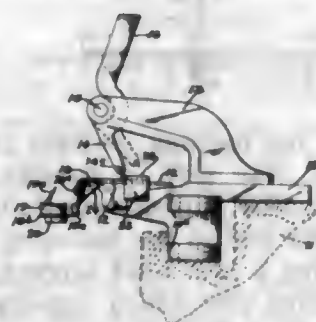


2. The method of forming tube resistor cores, which comprises continuously extruding an aqueous ceramic mix in the form of a tube, cutting the tube to core lengths, applying molten wax to the core lengths while still undried for a sufficient period of time to heat the core lengths to the temperature of the molten wax to dry and impregnate the core lengths, cooling the core lengths to solidify the wax thereon, cutting helical grooves in the cooled core lengths, and firing the core lengths.

2,822,601

PIN PLATE ATTACHMENT FOR CLIP TENTER CHAIN

Edgar C. Rust, Jr., Williamstown, Mass., assignor to James Hunter Machine Company, North Adams, Mass., a corporation of Massachusetts
Application November 25, 1955, Serial No. 548,929
5 Claims. (Cl. 26-62)



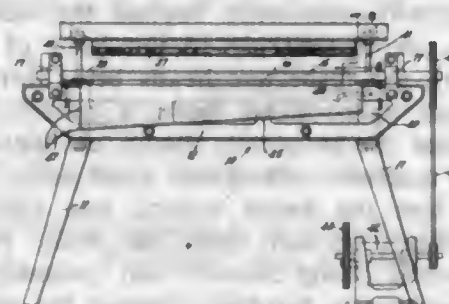
1. In a fabric holding device for tenters, the combination of a tenter chain link forming a fabric supporting base, the base extending lengthwise of the link along the inner edge portion thereof, a clip jaw, pivot means mounting the jaw on the link above said base to allow swinging of the jaw laterally of the link, the jaw extending downward and outward from the pivot means and being engageable at its lower end with said base

to limit inward swinging of the jaw, a removable plate held on said base by engagement with the lower end of the clip jaw, the plate being removable from the link upon outward swinging of the jaw to disengage the plate, tenter pins carried by the removable plate, and a biasing element disposed between said base and plate to urge the plate inward relative to the base, thereby wedging the plate between the clip jaw and said base.

2,822,602

FABRIC SEPARATING APPARATUS

Lawrence King, Brooklyn, N. Y., assignor to Pyramid Manufacturing Co. Inc., New York, N. Y., a corporation
Application February 24, 1956, Serial No. 567,542
11 Claims. (Cl. 28-17)

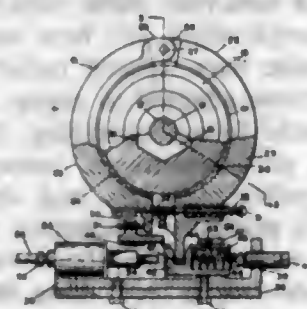


1. Apparatus for separating the edges of knitted strip fabric joined by separating threads during manufacture of the fabric to form a unitary relatively large piece of fabric having a width which is a multiple of the width of the strip fabric, said apparatus comprising, in combination, press means having flat surfaces of substantial extent constructed and arranged to clamp the unitary piece of fabric in flat position therebetween against movement and with the respective joined edges in substantially parallel relation; a shaft rotatably mounted with its axis extending substantially normal to such joined edges; a plurality of hook means extending in a common radial plane from said shaft for looping of stitches of the separator threads, adjacent said shaft thereover; and means for rotating said shaft, to draw the separator threads from the fabric to separate such joined edges and to wind the withdrawn threads around said shaft.

2,822,603

SLASHER CREEL BRAKE

Gaines L. Ball, West Point, Ga., assignor to Batson-Cook Company, West Point, Ga., a corporation of Georgia
Application July 19, 1954, Serial No. 444,147
5 Claims. (Cl. 28-28)



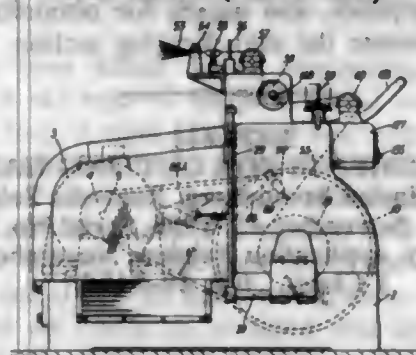
1. Tension control mechanism for a roll of material comprising a brake drum fixed axially to said roll, brake segments hingedly secured to each other embracing said brake drum, adjusting means securing the free ends of said segments together at a normal adjusted minimum braking pressure, a lug at the free end of each segment, movable means engaging one of said lugs whereby the rotation of the roll biases the said segments apart to hold the braking pressure at its adjusted minimum, and a stop so positioned that upon movement of said movable means in the direction of rotation of the roll the other

said lug contacts said stop to bias the said segments together to increase the braking pressure above the adjusted minimum.

2,822,604

WARPING MACHINES

Allan William Henry Porter and William Charles Arnold, Burton-on-Trent, and Andrew Robertson, Bristol, England, assignors to F. N. F. Machinery Manufacturing Company Limited, Burton-on-Trent, England
Application January 19, 1955, Serial No. 482,848
15 Claims. (Cl. 28-36)



1. A warping machine comprising a machine frame, a pair of endstocks each rotatably journaled in said frame and supporting in driving relationship a warp beam on which a sheet of warp yarns is wound, means to drive at least one of said endstocks, a sensitive feeler located to bear against the sheet of warp yarns along a line prior to the sheet arriving at the warp beam, a brake applied to retard the rotation of at least one of said endstocks, and means controlled by said feeler for adjusting the effort applied to said brakes.

2,822,605

MANUFACTURE OF PILE YARN AND OF PILE CARPET MADE THEREFROM

David B. Parlin, Thompsonville, Conn., assignor to Bigelow-Sanford Carpet Company, Inc., Thompsonville, Conn., a corporation of Delaware
Application January 26, 1953, Serial No. 333,221
13 Claims. (Cl. 28-72)

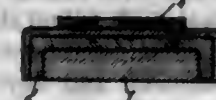


1. A pile yarn comprising two strands having different color characteristics, each strand being formed into a series of loops, of which each loop of one strand is enchain with the next succeeding loop of the other strand forming a series of lock stitches evenly spaced along the length of the yarn, predetermined lengths of said yarn having the loops of one strand tightly formed and the loops of the other strand loosely formed to provide a substantial preponderance of the loosely looped other strand and a preponderance of the associated color characteristic in said lengths of the yarn, and other lengths of said yarn having the loops of said one strand loosely formed and the loops of said other strand tightly formed to produce a substantial preponderance of said loosely looped one strand and a preponderance of the associated color characteristic in said other lengths of the yarn.

2,822,606

TITANIUM OXIDE RECTIFIER AND METHOD FOR MANUFACTURING SAME

Koji Yoshida, Kobe, Japan
Application October 1, 1956, Serial No. 613,073
Claims priority, application Japan October 9, 1955
4 Claims. (Cl. 29-25.3)



1. A method for manufacturing a titanium oxide rectifier which comprises forming a layer of titanium oxide

semi-conductor on a metallic titanium plate, oxidizing the surface of the titanium oxide semi-conductor in fused salt or salts to form a thin film or layer oxidized to a greater extent, and fixing a counter electrode on said last mentioned film or layer.

2,822,607

SPOT FACING REAMER

Clifford H. Bennett, Jackson, Mich., assignor to Kent-Moore Organization, Inc., Detroit, Mich., a corporation of Michigan
Application March 26, 1954, Serial No. 418,820
2 Claims. (Cl. 29-103)

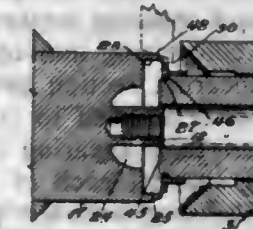


2. A spot-facing reamer for use in a tapered port opening through a workpiece comprising: a body member having the rear end adapted to be engaged by a driving tool and the forward end having a face exhibiting a plurality of radially outwardly extending cutting teeth each having its upper face beveled toward a radially extending edge of the tooth to form a cutting edge therealong, the upper face of each tooth adjacent the radial extremity of the tooth being beveled on an angle opposite the angle of the first bevel and inclined radially outwardly and toward the rear end of the body to form a non-cutting edge on the tooth radially outwardly of the cutting edge, and said beveled portions of the upper surface of each tooth intersecting along a line extending backwardly away from said cutting edge and forming a scraping surface adapted to abut the tapered wall of the port in conjunction with which the reamer is used radially outwardly of the cutting edge and limit the insertion of the cutting edge into the workpiece.

2,822,608

METHOD OF MAKING AND ASSEMBLING DIFFERENT ELEMENTS

John R. Watson, Bristol, R. I., assignor to B. A. Ballou & Co. Incorporated, a corporation of Rhode Island
Application September 7, 1955, Serial No. 532,900
5 Claims. (Cl. 29-416)



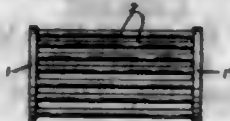
1. The method of making from a continuous rotating single length of bar material different elements and assembling said elements one within the other comprising reducing the end of the bar into the form of the inner of the said elements, and forming a recess adjacent to the rear side of said inner element larger than the diameter of said inner element, severing said inner element from the bar while holding the same in axial alignment with the bar, then with the said severed element still held in said axial alignment advancing the same within said recess and thereafter bending the marginal peripheral wall of the recess about the inner element to secure the same within the recess.

2,822,609

BRAZING PROCESS

Gerald J. Horvitz, Woodmere, N. Y., assignor to Niphos Corporation, New York, N. Y., a corporation of New York

Application November 10, 1955, Serial No. 546,089
10 Claims. (Cl. 29-494)



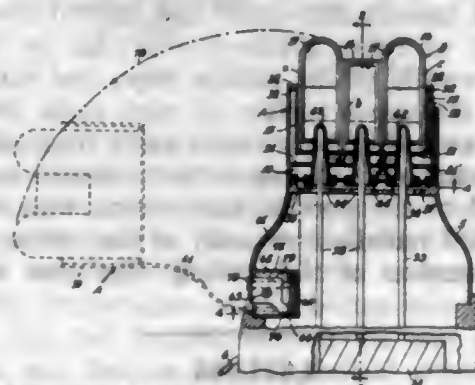
1. A method of brazing metallic parts and articles, comprising preparing a mixture of paint-like consistency (a) from an ammonium phosphate, (b) at least one oxide selected from the group consisting of oxides of nickel, cobalt, copper, molybdenum, tungsten and iron and (c) water; assembling the metallic parts to be brazed to form a joint; painting the edge portion of the joint with said mixture; heating the resulting assembly in a reducing atmosphere in order to cause said mixture to decompose and form a metallic alloy composed of the elements of said mixture and to cause said alloy to flow into the joint and bring about brazing of the metallic parts to be joined.

2,822,610

SHAVING IMPLEMENT HAVING A FRICTIONAL MOTOR COMPARTMENT COVER

Jacob L. Kleinman, New York, N. Y.

Application May 16, 1951, Serial No. 226,685
10 Claims. (Cl. 30-41)



1. In an electrically operated shearing implement, a handle, said handle provided with a compartment, a motor located within the said compartment, said handle provided with a recessed portion, said recessed portion having a floor and side walls, the said floor provided with an opening, a removably mounted shearing section adapted to be seated within the said recessed portion, means adapted to hold the said shearing section in its position, said shearing section comprising individually removable shearing units, said shearing section provided with adjustable cushioning means adapted to cushion the touch of the said units when their shearing faces are placed against the face being shaved, each of said units comprising a stationary shearing member provided with a chamber opening through the respective end portions thereof and a movable shearing member positioned within the said chamber, the said motor provided with actuating elements extending within the said recessed portion, said actuating elements adapted to engage the said movable shearing member for moving same within the said chamber, the shearing means of the movable member adapted to cooperate with the shearing means of the said stationary shearing member for shaving purposes, the said movable shearing member provided with a chamber opening through its respective end portions, the said chambers adapted to receive the cut hair while shaving, each of the open end portions of the chamber of the stationary shearing member positioned against one of the said side walls in a manner whereby such side walls are

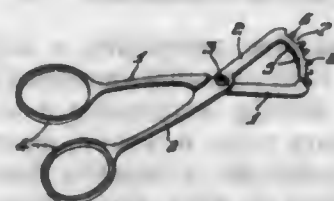
adapted to prevent the escape of sheared hair from such chambers, a removably mounted cover-element positioned under the said shearing section in a manner covering the opening of the said floor and also covering the said actuating elements, the said shearing section provided with a pair of arms, said arms secured to a side portion of the handle in a pivotal manner, said shearing section adapted to be swung out from its normal position into an open position, means adapted to hold the said shearing section in the said open position, said shearing section adapted to be swung back into normal position for shaving purposes, and means for obtaining a source of power to operate the said shearing section.

2,822,611

IMPLEMENTS FOR CUTTING HAIR

Chalm Haskel Swarcberg, Brussels, Belgium

Application November 15, 1956, Serial No. 622,329
Claims priority, application Belgium November 19, 1955
1 Claim. (Cl. 30-195)



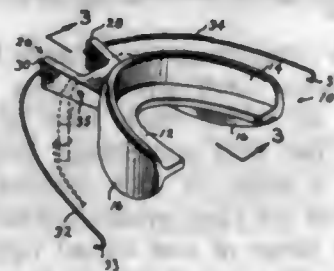
An implement for cutting hair comprising two levers articulated together in scissors-fashion and pivotal between open and closed positions, blades on the ends of said levers and intumed so as to be superimposed with said levers in closed position, and teeth on said blades, said teeth being spaced and thereby defining spaced regions for the cutting of hair by the manipulation of said levers.

2,822,612

DENTAL APPLIANCE

Carl D. Strickler, Oklahoma City, Okla.

Application October 11, 1956, Serial No. 615,399
2 Claims. (Cl. 32-14)



1. A dental appliance of resilient material for exerting a corrective influence against malocclusion, including: a substantially semi-elliptical horizontally disposed web having substantially parallel upper and lower surfaces adapted to be received between the maxilla and mandible dental arches of the wearer, the outer edge of said web having a curvature substantially conforming to the maxilla dental arch of a normal human being; a flange integrally carried by the outer edge of said web and projecting upwardly therefrom and adapted to lie between the teeth and upper lip of the wearer, the inner surface of said flange inclined rearwardly and upwardly from the forward medial portion of said web and adapted to contiguously contact the anterior surfaces of the incisor teeth of the wearer, said flange forming an inside radius at its juncture with the forward portion of said web; a pair of laterally spaced-apart prongs of resilient material integrally carried by the medial forward portion of said flange, said prongs adapted to project forwardly between and beyond the lips of the wearer; and a pair of retruding members each connected at one end to the respective free ends of said prongs.

2,822,613

SKI BOOT FITTING DEVICE

Eric Lundberg, Aspen, Colo.

Application March 13, 1956, Serial No. 571,284
5 Claims. (Cl. 33-3)



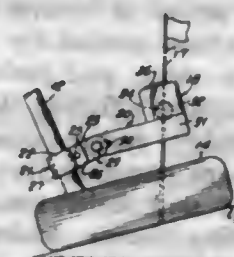
1. A ski boot fitting device comprising a base plate on which a ski boot is adapted to be supported while worn on a foot, a rigid U-shaped bail adapted to engage the upper surface of the rearwardly projecting portion of the heel of a ski boot, means to pivot the free end of each leg of the U-shaped bail to said base plate substantially at the surface of the base plate, the space between the legs of the U-shaped bail being greater than the width of any heel on boots to be fitted, the legs of the bail being relatively short with respect to the height of the heel of the boot while being of sufficient length whereby the bight portion of the U-shaped bail may engage the upper surface of the rearwardly projecting portion of the heel of any of the boots to be fitted, a boot toe engaging stop adjustably mounted on said base for movement toward and away from the heel receiving bail whereby the boot to be fitted may be secured to the foot of a person with the bail engaging the upper surface of the back of the heel with the plane of the rigid U-shaped bail being obtuse with relation to the bottom of the forwardly extending portion of the boot, whereby when the toe engaging stop is adjusted to engage the toe of the boot with the bight portion of the U-shaped heel engaging bail in intimate contact with the upper surface of the back of the heel, the boot will be firmly retained with the heel closely adjacent the base plate so that the person being fitted may flex the ankle and observe the reaction of the foot within the boot.

2,822,614

SIGHTING DEVICE FOR GOLF CLUBS

Vicent T. Susinno, Leonia, N. J.

Application May 19, 1954, Serial No. 430,797
6 Claims. (Cl. 33-46)



1. A sighting device for attachment to the shaft of a golf club comprising clamping means adapted to surround and be secured to said shaft, a bracket member adjustably secured to said clamping means and movable from one position extending outwardly from said shaft to another position alongside of said shaft and optical means on said bracket member for producing a horizontal image of objects in front of said club when said bracket member is in said one position.

2,822,615

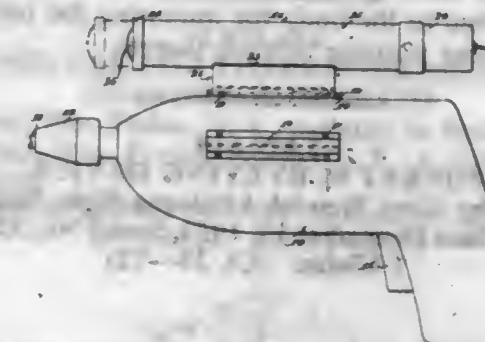
DRILL ATTACHMENT PRECISION VERIFIER

Charles I. Durst and Hazel Thompson, Long Beach, Calif.

Application September 13, 1956, Serial No. 609,741
3 Claims. (Cl. 33-46)

1. In combination with a tool, a support member arranged contiguous to the outer surface of said tool and

including a curved flange secured to the outer surface of the tool, a rib extending outwardly from said flange intermediate the sides thereof, a tongue arranged on the outer edge of said rib and arranged in spaced apart relation with respect to said flange and coacting with said flange to define a pair of spaced apart opposed trackways, a body member detachably connected to said support member and including a pair of spaced parallel walls, opposed fingers extending inwardly from an end of said walls and seated in said trackways, a partition arranged in said body member and extending between



said walls and secured thereto, resilient means interposed between said partition and tongue, a pair of spaced apart lips extending outwardly from said walls, a housing secured to said lips, a cap mounted on the rear end of said housing, a cap mounted on the front of said housing, a lens arranged in the rear of said housing, a reflector spaced rearwardly from said rear lens, a light bulb arranged contiguous to said reflector and adapted to be connected to a source of electrical energy, and a pair of spaced apart sight pieces mounted in said housing and secured thereto.

2,822,616

LUMINESCENT GUN SIGHT

William A. Gangl, St. Paul, Minn.

Application March 16, 1956, Serial No. 572,118
3 Claims. (Cl. 33-52)



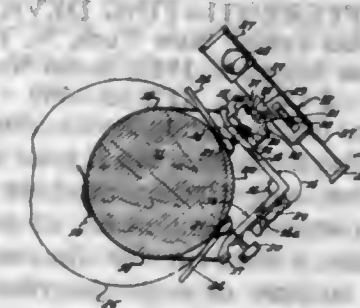
1. As an article of manufacture a quickly attachable gun sight comprising a flexible plastic base having a reduced iridescent sight body projecting from a surface thereof in secured relation therewith, an adhesive tape secured to said plastic base having endwise projecting flaps provided with an adhesive material upon the under surfaces thereof, and removable protecting means for said adhesive material.

2,822,617

LEVEL

Frederick W. Sampsel, El Monte, Calif.

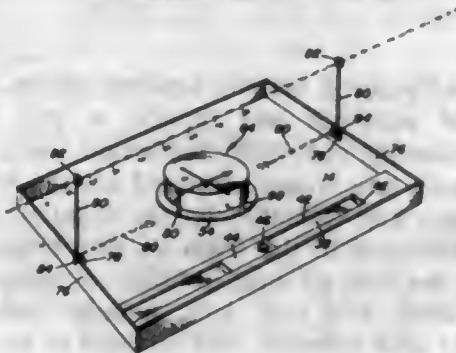
Application February 14, 1955, Serial No. 488,085
11 Claims. (Cl. 33-70)



1. Portable sighting apparatus removably attachable to differently shaped bodies for sighting purposes, compris-

ing a telescope, an assembly including a V-shaped base, means mounting the telescope at the exterior angle side of the base, a pair of elongated supports spaced from the telescope and engageable with a selected body at the interior angle side of said base and means including universally swingable joints connecting the supports with said base for independent relative swinging movement of the supports to directly engage and variably conform with the shape of the body, said supports extending relatively away from one another, and other means carried by the assembly and removably connectable with said body to hold the supports thereagainst whereby the assembly may be firmly attached to the body for mounting the telescope in spaced sighting position relative thereto.

2,822,618
POCKET SURVEYING DEVICE
Dorothy Gray Wendel, Llallagua-Siglo, Bolivia
Application December 15, 1952, Serial No. 325,952
1 Claim. (Cl. 33-72)

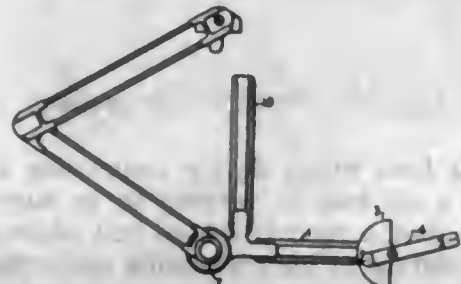


A pocket instrument comprising a generally flat base having an opening therein, a plate resting directly on the upper surface of the base and having a series of circumferentially spaced upstanding pointer arms that are generally perpendicular to the surface of said base, a compass overlying the plate and having a compass case, said compass case including a bottom wall which fits directly on the top surface of said plate and transparent side wall and top on said bottom wall of said compass case so that said upstanding pointer arms may be sighted through said compass case, said plate having a central aperture, said base having its opening in registry with said central aperture with said central aperture being slightly larger in diameter than said opening, a lug depending from said bottom of said compass case and having a part disposed in said aperture, another part of said lug which is slightly reduced in diameter being located in said opening, a pointer in contact with the bottom surface of said base, a plurality of screws securing said pointer to said lug and being tightened to clamp the pointer against the underside surface of said base in order to lock the compass against rotation, and magnetic declination graduations on said base about said pointer to indicate the rotation of said compass to compensate for magnetic declination.

2,822,619
DIFFERENTIATING DEVICE
Max Fogiel, New York, N. Y.
Application August 2, 1955, Serial No. 525,857
2 Claims. (Cl. 33-79)

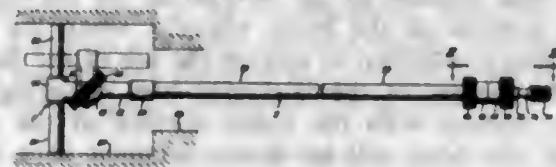
1. A graphical differentiating device comprising in combination a drafting machine, a linear scale attached to said drafting machine, said drafting machine to retain said scale in a fixed angular position for all positions of said drafting machine, a semi-circular disk, said disk having values for the tangents of angles inscribed on it to give direct reading of the slopes of the graphical curve to be differentiated by said differentiating device, means to fasten said disk to said scale, an arm pivoted at the center

of the periphery of said semi-circular disk to permit rotation and fine adjustment in the position of said arm for aligning said arm with the tangent to said graphical curve without changing the position of said drafting machine, means to fasten said arm to said semi-circular disk at said pivoting point, a first optical magnifier with hairline to indicate said tangent values inscribed on said disk, means



to fasten said first optical magnifier to said pivoting arm, a second optical magnifier with hairline to magnify the portion of the curve at which the slope is to be determined and aid in adjustment of said pivoting arm to bring said pivoting arm in line with the tangent to said graphical curve, and means to fasten said second optical magnifier to said pivoting arm.

2,822,620
GAUGE FOR MEASURING INSIDE DIAMETERS
John C. Ulfeldt, Los Angeles, Calif.
Application December 27, 1954, Serial No. 477,628
16 Claims. (Cl. 33-143)

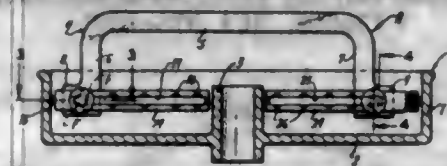


1. In a gauge of the character described for measuring the inside diameter of a bore hole, the combination of: a shank member having a leading end; a feeler assembly mounted on the leading end of said shank member for movement thereon between a folded position to permit the gauge to be inserted into the bore hole and a second unfolded position extending transversely of the shank, said feeler assembly being expansible in its unfolded position for measuring the inside diameter of the bore hole; yielding means to expand said feeler assembly; a first operating means carried by said shank member for manipulation to move said feeler assembly between its two positions without affecting the state of expansion of the feeler assembly; and a second operating means carried by said shank member for manipulation to releasably immobilize said feeler assembly against expansion by said yielding means, whereby, with the feeler assembly in its unfolded position in measuring contact with the inner circumferential surface of the bore hole, said second operating means may be manipulated to fix the measuring dimension of the feeler assembly and then said first operating means may be manipulated to fold the feeler assembly for withdrawal from the bore hole and for subsequent measurement to ascertain the inside diameter of the bore hole.

2,822,621
BRAKE DRUM GAUGES
Harry B. Barrett, Clayton, Mo.
Application November 9, 1953, Serial No. 390,898
7 Claims. (Cl. 33-165)

1. A brake drum gauge comprising a frame having spaced terminal portions having laterally presented coplanar flat faces, longitudinally aligned upstanding bosses on said flat faces, said bosses each having oppositely

presented flat surfaces which are respectively co-planar with the corresponding flat surfaces of the other boss, brake drum contacting elements having elongated slots for slidable disposition upon said bosses whereby said elements are adjustably supported in endwise alignment for diametral disposition within a brake drum, means



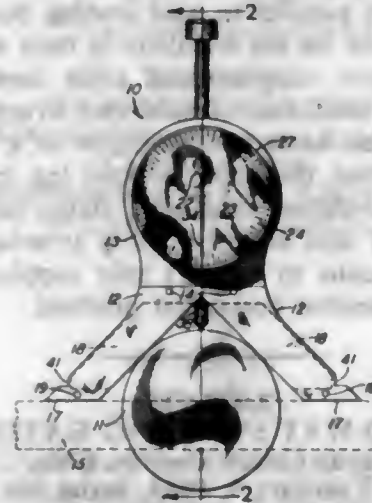
mounted in each boss for releasable engagement with the element mounted on such boss whereby to hold the element in a selected position of adjustment, and a vernier contactor adapted for endwise engagement against the brake drum surface, said vernier contactor being adjustably mounted in one of said contacting elements.

2,822,622
INTERNAL MEASURING INSTRUMENTS
Hans Meyer, Remens, Switzerland
Application February 6, 1956, Serial No. 563,795
Claims priority, application Switzerland February 21, 1955
4 Claims. (Cl. 33-178)



1. An internal measuring instrument comprising an elongated head having a bore extending longitudinally axially therein, a plurality of measuring pins mounted in said head at one end thereof for movement in directions radial to the axis of said head, an axially movable adjusting member in the bore of said head, a transmission element disposed in said bore between the inner ends of said measuring pins and said adjusting member, said transmission element having a spherically shaped portion the diameter of which substantially equals the diameter of that portion of the bore in said head which it engages thereby to provide an articulation without play for said transmission element in said head, said transmission element including a ball the center of which is located at the center of said spherical portion of said transmission element and said inner end of said adjusting member including a concave surface engaging said ball and having a like center of curvature.

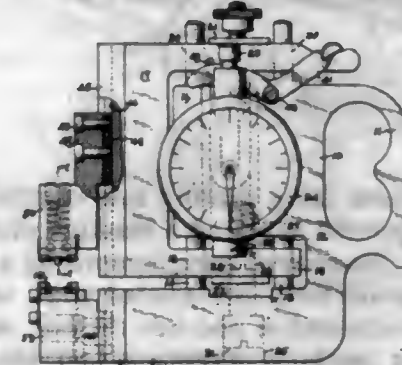
2,822,623
MARKING GAGE HAVING MEANS FOR SECURING SAID GAGE TO WORKPIECES
Richard J. Legois, Racine, Wis.
Application March 17, 1955, Serial No. 494,938
4 Claims. (Cl. 33-189)



1. A marking gage comprising a body portion, a pair of legs attached to said body portion to diverge therefrom,

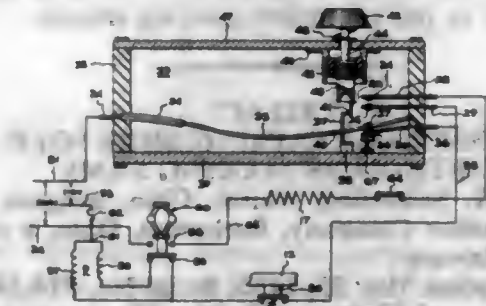
a magnet mounted in each of said legs, a punch movably disposed to extend through said body and intermediate said legs, a shaft rotatably mounted in said body perpendicular to said punch, a non-magnetic pointer non-rotatably attached to a front end of said shaft to be disposed in a plane parallel to said punch, a non-magnetic pendulum non-rotatably attached to a rear end of said shaft to be disposed in a plane parallel to said punch and aligned with said pointer, a dial disposed on the face of said body adjacent said pointer, means attached to said body to enclose said dial and said pointer and said pendulum.

2,822,624
WIRE HOLDER FOR THREE-WIRE METHOD OF MEASURING THREADS
John Klink, Pine Plains, N. Y., assignor to Standard Gage Company, Inc., Poughkeepsie, N. Y., a corporation of New York
Application July 18, 1955, Serial No. 522,418
15 Claims. (Cl. 33-199)



1. In a gaging instrument of the type described, a pair of relatively movable anvil members, a pair of gaging wires on the surface of one of said anvils, a single gaging wire on the surface of the other of said anvils, means releasably engaging said single wire intermediate its ends to facilitate pivotal movement thereof, means for limiting said pivotal movement, means for retaining said pair of gaging wires on its anvil, and means for holding the wires of said pair in spaced relation.

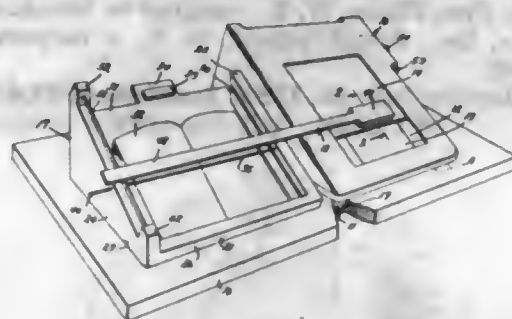
2,822,625
CONTROL SYSTEM FOR CLOTHES DRYING MACHINE
Eugene G. Olthuis, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application July 19, 1955, Serial No. 523,083
7 Claims. (Cl. 34-45)



1. A control system for a clothes dryer including electrical heating means and a drive motor, comprising a heater circuit, a motor circuit, and a single temperature-responsive switch for controlling both of said circuits, said switch including a single temperature-responsive element and a single contact operator movable by said element, said operator having a first position effective to close both of said circuits, a second position effective to close said motor circuit only, and a third position effective to open both of said circuits, a latch member normally retaining said contact operator in said third position and releasable to allow said contact operator to move

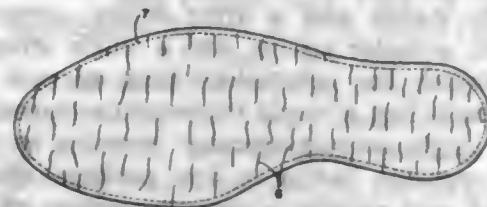
to said first position to initiate dryer operation, said temperature responsive element being operative thereafter to terminate said operation when the clothes have dried, said element first moving said contact operator to said second position upon a predetermined temperature condition of said dryer thereby to provide a cooling period for said dryer, and then moving said contact operator to said third position to terminate dryer operation.

2,822,626
ATTACHMENT FOR A READING RATE CONTROLLER
William J. Keyes, Plattsburg, N. Y.
Application January 17, 1955, Serial No. 482,103
4 Claims. (Cl. 35-35)



4. An attachment for a reading rate controller having a support for a printed page and a masking shutter adapted to move over the printed page comprising a receptacle for a book separate from the printed page support and adapted to be positioned at one side thereof, an auxiliary shutter overlying the book receptacle and adapted to be operatively connected to the masking shutter of the controller and to extend laterally therefrom to be moved over the book in the receptacle at the same rate of speed at which the controller masking shutter moves and in a path spaced from and substantially parallel to the path of movement of the controller shutter, and supporting and attaching means for holding the controller and the book receptacle in predetermined relative side by side positions so that the auxiliary shutter will be maintained in its said path of movement, one end portion of the auxiliary shutter being adapted to be connected to and supported by the controller masking shutter and its opposite end portion being narrow and guidingly supported by the receptacle at a point remote from the controller shutter, and said points of support constituting the sole support for the auxiliary shutter so as to reduce the frictional resistance of the auxiliary shutter to movement by the controller masking shutter, whereby the auxiliary shutter will be caused to move at substantially the same rate of speed as the controller masking shutter.

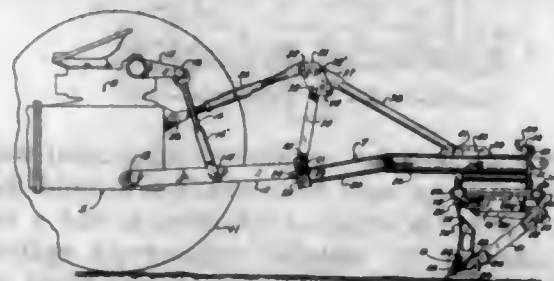
2,822,627
BLOWN FIBER-CONTAINING SHOE SOLE AND METHOD OF MAKING SAME
Theophilus K. Selberling, Akron, Ohio, assignor to Selberling Rubber Company, Barberton, Ohio, a corporation of Delaware
Application May 23, 1955, Serial No. 510,348
5 Claims. (Cl. 36-32)



1. A unicellular rubber shoe sole which contains flexible, elongated, individually distinct elements of a length up to not substantially over 1½ inches, said elements being closely distributed throughout the sole.

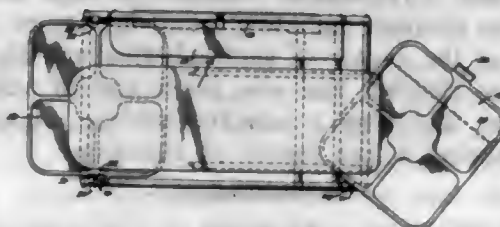
2,822,628
TRACTOR SCRAPER BLADE ADJUSTMENT ASSEMBLY

Bruno F. Arps, New Holstein, and Calvin O. Schmahl, Chilton, Wis., assignors to Arps Corporation, New Holstein, Wis., a corporation of Wisconsin
Application July 25, 1955, Serial No. 524,240
9 Claims. (Cl. 37-159)



6. In a scraper attachment for a tractor having a power lift and a hitch, the combination of a rearwardly extending frame unit operatively associated with said hitch and having a member attached thereto having projections, a scraper blade, connecting means adjustably associating said scraper blade with said frame unit, said connecting means comprising a longitudinally extending stub shaft rotatably mounted in said projections of the member attached to said frame unit, a housing element enclosing said shaft, said scraper blade being operatively connected with said housing element for tilting adjustment about said shaft, a turntable pivotally depending from said housing element, a connecting bar attached at one end to said turntable and selectively attached at the other end to said scraper blade to thereby transmit rotative action of said turntable part about its pivot point into angling adjustment of said scraper blade, and pitch adjusting means connecting said scraper blade to said turntable.

2,822,629
IRONING TABLE CONSTRUCTION
Harold L. Frick, Hamilton, Ohio, assignor to Beacee Products Corporation, Hamilton, Ohio, a corporation of Delaware
Application May 21, 1953, Serial No. 356,430
7 Claims. (Cl. 38-111)



1. An ironing table comprising a pair of end-supporting structures adapted to support the table, an ironing board supported by said end structures, said end structures including leg members hinged thereto to fold from extended vertical positions to flat positions underlying and substantially parallel to said ironing board, releasable latches to hold the leg members in their extended and their flat positions, supplemental table means pivotally mounted on at least one of said end structures to fold from an extended horizontal position to a flat position substantially within the plane of said leg members, and a substantially U-shaped releasable clamp support means engaging one of said end-supporting structures and said supplemental means to support said supplemental table means in an extended horizontal position.

2,822,630
TWO-WAY SWINGING GATES
Brada Guyer, Denver, Colo.
Application February 9, 1955, Serial No. 487,085
3 Claims. (Cl. 39-76)

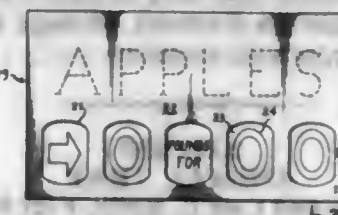
1. A two-way gate adapted for mounting between two gate posts comprising: a gate structure; an upper pad pro-

jecting outwardly from each extremity of said gate structure; a lower pad extending outwardly from each extremity of said gate structure; a lower angle clip secured to each gate post below each lower pad; an upper U-shaped clip secured to each gate post directly above and in alignment with the lower angle clip on that post, said U-shaped clips having horizontally extending upper and lower legs positioned to extend above and below each upper pad; a lift bar extending vertically through guide openings in said upper and lower legs of each U-shaped clip and through



a guide opening in the angle clip therebelow; a lower bracket arm secured to each lift bar above the lower angle clip; an upper bracket arm secured to each lift bar intermediate the legs of each U-shaped clip and overlying the upper pad positioned therebetween; pivot means connecting each bracket arm with the adjacent pad; an eccentric cam pivotally mounted on the upper extremity of each lift bar and resting upon the upper leg of the adjacent U-shaped clip; and means for rotating said eccentric cam against the adjacent upper leg to raise and lower the lift bar.

2,822,631
CHANGEABLE PRICE TAGS AND HOLDER THEREFOR
Gordon R. Lynch, Bellaire, Tex.
Application February 12, 1957, Serial No. 639,768
6 Claims. (Cl. 40-5)



1. A price tag display device comprising a windowed housing, a plurality of slides provided with price designating characters mounted within said housing, said slides being selectively slidably movable from display positions registering with a window to concealed positions within the housing to extend through a rearward access slot for accessibility for external selective manipulation, a cam in the inner forward part of said housing adjacent said window and spaced between said window and said slot to guide said slides into and out of display position, and means including resiliently urging means in said housing rearwardly of said window and slide display position for maintaining slide display position and slide position with relation to said slot.

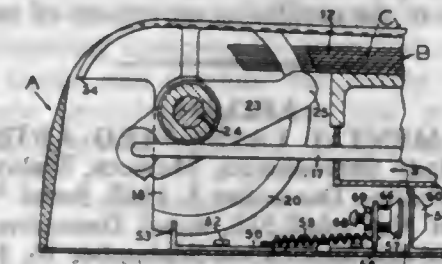
2,822,632
PLANNING BOARDS
Theodore B. Parker, Hamilton, and Robert G. Willard, Cincinnati, Ohio
Application November 2, 1955, Serial No. 544,474
3 Claims. (Cl. 40-63)



2. A planning board for releasably holding a flexible springy card, and comprising a vertical panel, a strip fastened at its top to the front of said panel and having a middle section with a convex area on its front and

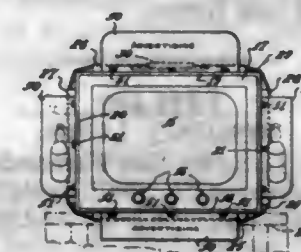
having a lower flat perpendicular section at its bottom and adjacent said convex area, and having a trough like means integral with said lower flat perpendicular section to receive the lower edge of said card, springy means intermediate said strip and said panel in springy contact with said strip to releasably hold said card in contact with said convex area whereby said card can be manually moved upwardly between said strip and said springy means to remove the lower edge of said card from said trough like means and allow the lower edge of said card to spring forwardly from contact with said strip to enable an operator to grasp the lower edge of said card with his fingers and pull the card downwardly from between said strip and said first mentioned means.

2,822,633
LOOSE LEAF MEMORANDUM INDEX
Everis D. Munson, St. Paul, Minn., assignor to Brown & Bigelow, St. Paul, Minn., a corporation of Minnesota
Application April 6, 1954, Serial No. 421,320
8 Claims. (Cl. 40-104)



1. In a selectable loose leaf index, a series of loose leaf sheets positioned in said casing, a cover hingedly mounted on said casing, a series of fingers pivotally mounted on a common shaft adapted to raise said cover and selected sheets, a series of finger keys slidably mounted on said casing, rod members connecting said fingers with said keys, and timed means positioned adjacent said cover and responsive to the movement of said cover for closing said cover after the same has remained open for a predetermined period of time.

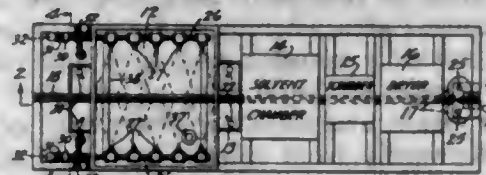
2,822,634
MEANS FOR MOUNTING ADVERTISING PLACARDS ON PUBLICLY DISPLAYED DEVICES
Jay H. Salyers and Selby W. Lewis, Cincinnati, Ohio
Application May 8, 1956, Serial No. 583,471
3 Claims. (Cl. 40-125)



1. An advertising display supporting device adapted for ready attachment to television sets and the like comprising placard supporting panels of substantial width having lengthwise grooves extending medially along the outer surfaces of the panels and a cable of sufficient length to enclose the top, side and bottom walls of the set with the panels in position thereon, and a turn buckle conveniently adjustable to tension the cable and clamp the panels in secure position whereby advertising displays may be secured to the front walls of the panels, and said cable being coated with a resilient outer cover, said placard supporting panels having their under surfaces coated with thin resilient material and one of the placard supporting panels being recessed to receive the turn buckle.

2,822,635 APPARATUS AND METHOD FOR ETCHING METAL WEBS

Norman B. Mears, Dakota County, Minn.
Application October 1, 1954, Serial No. 459,623
12 Claims. (Cl. 41-9)



1. In etching apparatus for a thin, elongated metal web having exposed areas and masked areas defined by an etching resistant coating, the improvements which comprise, means for moving said web longitudinally and continuously through and beyond an etching zone, spray nozzles operative in said zone to cause etching fluid to impinge against said areas of the continuously moving web, means for continuously oscillating said nozzles cross-ways of the direction of movement of the web and at a relatively high speed in said zone and means for adjusting the amplitude of the oscillating movement of said nozzles.

2,822,636
ORNAMENTAL LAMINATED ARTICLE
Kallady Shreedharan, Malacca, Malaya
Original application December 3, 1948, Serial No. 63,377,
now Patent No. 2,662,325, dated December 15, 1953.
Divided and this application September 16, 1953, Serial
No. 380,633

1 Claim. (Cl. 41-22)



An ornamental laminated article comprising a sheet of translucent paper base with variegated hues of transparent water colors thereover arranged in a meandering fashion, zero-graphed line-forms super-posed over said colors, a layer of opaque pigment dissolved in a water vehicle for imparting a desired appearance to the exposed line forms, a further super-imposition of opaque water colors of a contrasting nature, and a sheet on the reverse side of the finished article for imparting a luster in a vari-color manner to the exposed line forms.

2,822,637
FISHING LURE
Raymond E. Keith, San Fernando, Calif.
Application February 25, 1957, Serial No. 641,888
4 Claims. (Cl. 43-42.5)



1. A fishing lure comprising a body member formed of a strip of sheet metal having a bend disposed transversely and substantially at the mid length thereof to form a front end portion and spaced, parallel trailing end portions; said trailing end portions at the distal ends thereof being rounded and of greater width than the portions thereof disposed between said front end portion and said distal end portions and said distal end portions having a concavo-convex configuration and being disposed at substantially equal acute angles to the planes of the respective side surfaces of the said portions of said trail-

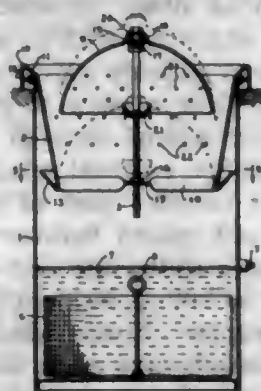
ing end portions disposed between said front end and said distal ends, a fishhook attached to one of said distal end portions, and an eye carried by said front end portion affording means for attachment of a fishing line to said lure.

2,822,638
FISHING LURE
Floyd E. Watterfield, Jr., Dallas, Tex.
Application October 7, 1954, Serial No. 460,793
1 Claim. (Cl. 43-42.16)



In a fishing lure, a body; said body having a pair of longitudinal grooves formed on one side thereof; a longitudinal fin separating the grooves, the grooves being sloped outwardly from front toward the rear of the body and terminating intermediate the ends of the body; a rotatable member carried by the body; a universal joint connecting the body and the rotatable member; a plurality of radially disposed, pitched, spiralled vanes integrally formed on the rotatable member, each vane having a convexo-concave contour; and the outer edges of the vanes being curved from an end of maximum diameter to a point of convergence at the opposite end adjacent the point of attachment to the body, the said body being generally elliptical in shape and converging to an end of minimum diameter adjacent the point of attachment to the rotatable member.

2,822,639
ANIMAL TRAP
Glen B. Kelly and Carl E. Kelly, Fort Wayne, Ind.
Application November 18, 1954, Serial No. 469,773
8 Claims. (Cl. 43-69)

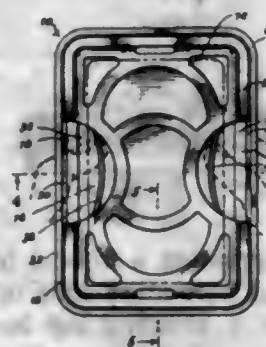


1. A trap assembly comprising a tubular shell, a support carried by the shell and disposed therein, a vertical spindle carried by the support and located centrally in the shell, an annular inverted cup member mounted on the spindle for tiltable movement with respect thereto for controlling entry of a creature into the shell and having a peripheral edge depending an appreciable distance into the shell, and a receptacle for bait carried by the spindle and located between the support and member.

2,822,640
SOAP DISHES
Clarence W. Fuller, Cos Cob, Conn.
Application February 27, 1956, Serial No. 568,109
2 Claims. (Cl. 45-28)

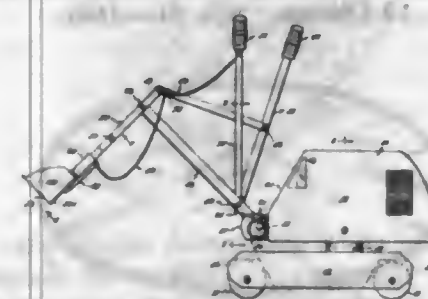
1. A soap dish for drying a wet cake of soap while same is held in the dish comprising a flat base member,

an outwardly inclined retaining wall extending from the periphery of said base member, the walled member forming a reservoir for soap in solution, a reversible grid adapted to closely fit into the said reservoir for supporting a cake of soap, opposed midportions of said grid being horizontally indented and spaced inwardly from oppositely disposed portions of the said retaining wall for digital access to the underside of the grid when same is nested in the reservoir, members supported by the said



grid extending longitudinally across the aforementioned indentations and upon which fingers inserted into the spaces may bear, a plurality of elevations extending from the grid for maintaining said grid elevated above said base member in a first position of the reversible grid, the reversible grid being dimensioned to rest upon the retaining wall elevated above the base member in a second position of the grid, the aforementioned elevations for supporting a cake of soap in the second position of the grid.

2,822,641
CHILD'S TOY LOADER
Daniel McDonald Lamb, Spokane, Wash.
Application April 21, 1955, Serial No. 502,920
2 Claims. (Cl. 46-40)

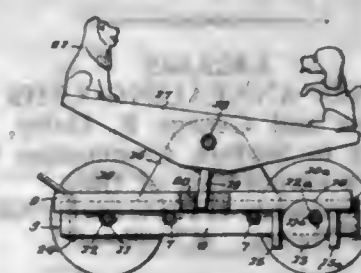


1. A child's toy loader for the purposes described comprising a wheeled base, an upright cylindrical pedestal supported on the base, a solid seat block having a bottom recess receiving the pedestal whereby to mount the seat block for rotation on the wheeled base, a pair of spaced apart outwardly extending brackets secured to the seat block, a pivot pin extending between said brackets, a U-shaped spring member having two legs including coil spring portions and having a transverse portion connecting the legs, said legs being pivoted at their free ends to the brackets whereby to support the spring member on the brackets, a boom arm pivotally mounted on the pivot pin, the transverse portion of the spring member being beneath the boom arm whereby to support the boom arm, said spring member being pivotable upward upon removal of the boom arm whereby to permit the boom arm to be supported between said brackets for free pivotal movement.

2,822,642
WHEELED TEETER TOY
Ross G. Ireland, Jeannette, Pa.
Application March 29, 1956, Serial No. 574,699
1 Claim. (Cl. 46-107)

A teeter toy comprising a base composed of right and left longitudinal sections and transverse members rigidly

connecting said sections and holding them in spaced relation, said transverse members being spaced downwardly from the top of said base, wheeled supporting means for said base including a driven axle, said axle having a cam operable in one end portion of the space between said right and left base sections, a longitudinally reciprocable teeter actuator bar in said space and disposed over said transverse members and said cam and resting thereon, said actuator bar having means depending therefrom and engaging said cam at opposite sides thereof to cause



reciprocation of the actuator bar as said cam rotates, right and left teeter supports projecting upwardly from said right and left base sections respectively, a figure-carrying teeter pivotally mounted between said supports, and a pin projecting downwardly from the central portion of said teeter, said actuator bar having an opening therein loosely receiving the lower end of said pin, whereby said teeter is oscillated as said actuator bar reciprocates.

2,822,643
SOIL CONDITIONING AND STABILIZING WITH A
COMPOSITION COMPRISING LOW MOLECULAR
WEIGHT DEXTRAN
Everette E. Witt and Leo J. Novak, Dayton, Ohio, as-
signors to The Commonwealth Engineering Company
of Ohio, Dayton, Ohio, a corporation of Ohio
No Drawing. Application August 14, 1953
Serial No. 374,428
7 Claims. (Cl. 47-1)

3. In the conditioning and stabilizing of soil for plant husbandry and comprising sand, silt and clay, using dextran as the soil conditioning and stabilizing agent, the improvement which comprises preferentially and selectively binding the coarse sand particles into small, workable aggregates by mixing with the soil, in the presence of moisture, hydratable dextran having an average molecular weight between 5,000 and 50,000, determined by light scattering measurements, and preferentially and selectively binding the fine clay and silt particles into small, workable aggregates by mixing with the soil, in the presence of moisture, hydratable dextran having an average molecular weight of at least 100,000, determined by light scattering measurements.

2,822,644
PLANT PROTECTOR
Edward H. Berger, Hawthorne, N. Y.
Application June 27, 1955, Serial No. 518,197
1 Claim. (Cl. 47-32)



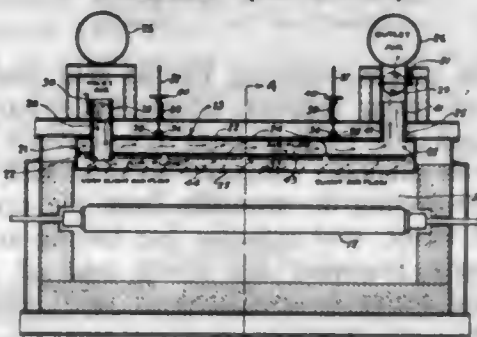
An improved plant protector comprising a body of thin resilient water impervious material having an outer edge and a raised center zone at its top and concentric spaced rings formed in said body around said zone, each of said rings having sides sloping down from the top of said body and having bottom surfaces substantially beneath said top, said bottom surfaces lying generally in the same plane

and being adapted to contact the ground on concentric circles around said center zone, said center zone having an opening through which a plant can grow, each of said rings adjacent their bottom surfaces having small water openings through them, said body having a radial cut through it extending from said center opening to its outer edge, said body being aligned edge-to-edge along said cut to seal it against the escape of moisture, the outer edge of said body being turned down in a generally circular rim, said outer edge terminating in the plane of said bottom surfaces.

2,822,645

GLASS ANNEALING LEHR

Harvey C. Weller and George F. Daley, Jr., Toledo, Ohio, assignors to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
Application September 1, 1954, Serial No. 453,535
8 Claims. (Cl. 49—47)

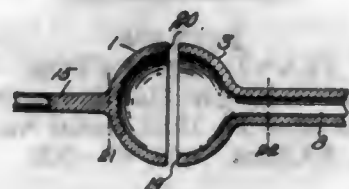


8. A glass lehr having means for moving ware into, through and from the lehr, and means for progressively cooling the ware to a temperature at which ware can be subjected to ambient air without breakage, characterized by apparatus for controlling the cooling rate of the ware comprising a cooling box having one perforate surface directed toward ware in the lehr for receiving radiant heat therefrom, a baffle dividing said cooling box into a portion adjacent ware and a portion remote from ware, duct means providing an exit for gas from the portion of said cooling box remote from the ware to the exterior of said lehr, duct means providing an entrance for gas from the exterior of said lehr to the portion of said cooling box adjacent the ware and means for moving said cooling box toward and away from said ware.

2,822,646

METHOD OF MANUFACTURE OF A LAMP ENVELOPE

Herman E. Krefft, East Orange, N. J., assignor to Hanovia Chemical & Mfg. Company, Newark, N. J., a corporation of New Jersey
Application March 30, 1955, Serial No. 497,912
5 Claims. (Cl. 49—79)

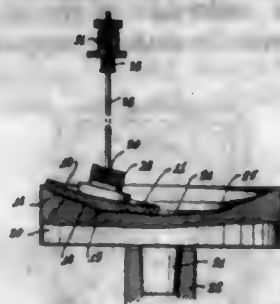


1. The method of manufacturing a vitreous container comprising bonding an end of an elongated vitreous member to a vitreous plate member substantially centrally thereof, simultaneously heating at least said plate member and shaping said plate member into a cup-like member with the elongated member extending in a direction opposite the opening of the cup-like member, said cup-like member and elongated member comprising an envelope section, reproducing said section to provide a complementary section, contacting the rims of a pair of said cup-like members and bonding the said rims to each other.

2,822,647

METHOD AND APPARATUS FOR FORMING BIFOCAL LENSES

Norman N. Rips and Irving Rips, Los Angeles, Calif., assignors to Younger Manufacturing Company, Los Angeles, Calif., a corporation of California
Application December 16, 1955, Serial No. 553,664
9 Claims. (Cl. 51—133)

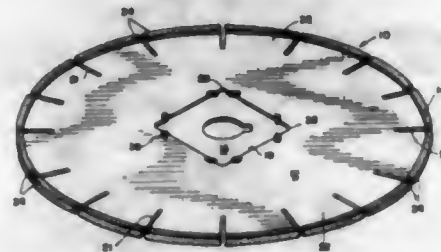


1. Apparatus for grinding a bifocal lens blank having a primary area and a secondary area of different curvature which includes: a grinding lap having a spherical surface of said primary curvature with an annular zone thereon concentric about an operating axis and providing a surface displaced from said spherical surface and having a cross sectional shape of said different curvature; means for rotating said lap about said operating axis; and means for holding a lens blank against said lap for rotation about the axis of said blank with said axis extending approximately normal to said spherical surface and intersecting the median circle of said annular zone.

2,822,648

ROTARY TOOL MOUNTING AND METHOD OF ASSEMBLING THE SAME

Leopold H. Metzger, Glencoe, and Vincent J. Fantozzi, Chicago, Ill., assignors to Super-Cut, Inc., Chicago, Ill., a corporation of Illinois
Application October 15, 1956, Serial No. 615,782
10 Claims. (Cl. 51—168)



1. The combination with a rotary tool blade in the form of a flat circular disc having a central aperture formed therein of polygonal linear configuration and having an outer peripheral cutting edge, of an adaptor member by means of which the disc may be operatively mounted on a central driving shaft, said adaptor member comprising a flat metallic plate conforming in configuration to the polygonal configuration of said opening, said plate being disposed and fitting within said opening with a close coextensive edge-to-edge fit completely therearound, said plate being formed with a central shaft-receiving opening therethrough and with torque-receiving means outwardly offset from said opening by means of which the plate may be driven from said shaft, and means frictionally maintaining said plate within said opening against dislodgment.

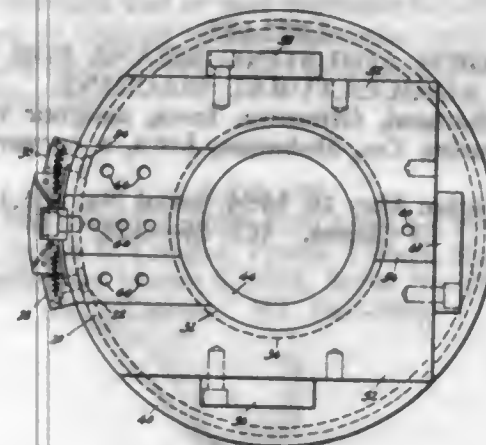
2,822,649

PROFILE GRINDER

George W. Bruderrick, Detroit, Mich.
Application December 1, 1953, Serial No. 395,419
8 Claims. (Cl. 51—234)

1. An apparatus of the class described comprising a flat base, a carriage supported for rotation on the top of the base, stops adjustable on the base for limiting rotation of the carriage, dogs for locking the carriage against

rotation, a platform slidable diametrically of the carriage, set-screws for securing the platform against movement, a secondary carriage rotatably supported on the top of the platform, a spring pressed plunger for locking the secondary carriage in any one of a plurality of positions,

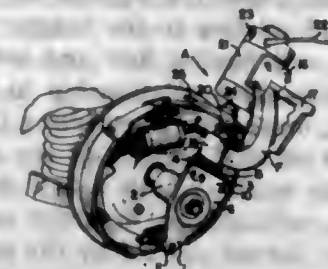


a secondary platform slidable diametrically of the secondary carriage, set-screws for securing the secondary platform against movement, a tertiary platform slidable transversely of the secondary platform, and a holder for a workpiece on the tertiary platform.

2,822,650

BRAKE SHOE GRINDERS

Harry B. Barrett, Clayton, Mo.
Application December 8, 1955, Serial No. 551,840
14 Claims. (Cl. 51—241)



1. A brake grinder comprising a hub having an internal bore adapted for rotative engagement upon an axle-spindle, a flat plate forming a part of said hub and having a contact face perpendicular to the longitudinal axis of the bore for optional securement to the wheel mounting lugs of a rear wheel assembly, a flat shoulder forming part of the hub and being located in outwardly spaced relation to the bore, said shoulder having a contact face which is angularly disposed to the contact face of the plate, a grinder frame swingably and adjustably mounted on said shoulder, and grinder means rigidly mounted on the outer end of the frame.

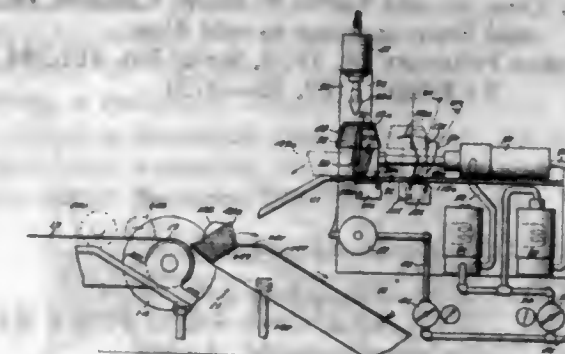
2,822,651

CANDY CUP SETTING AND LOADING MACHINE

Carl H. Mayer, Jr., Wilmette, Ill.
Application June 6, 1956, Serial No. 589,633
13 Claims. (Cl. 53—70)

1. In a confectionery cup-setting machine for feeding pleated cups from a tightly packed stack, the combination comprising, a mandrel for receiving an inverted stack of cups and conforming to the bottom dimension thereof, a friction finger located above the mandrel, means for moving the mandrel and friction finger relative to one another so that a transverse wiping movement is applied to the presented end of the topmost cup in the stack tending to slide the cup horizontally from said stack while applying a component of rotary movement thereto, a platform adjacent to and a short distance below the mandrel for

receiving the displaced cup face-up, a loading station for holding the cup in position for receiving a piece of candy

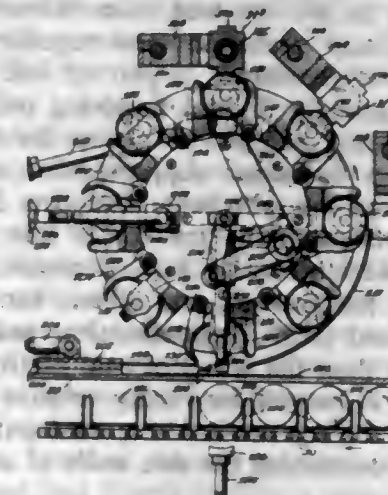


or the like, and means for laterally dislodging said cup face-up from said platform into the loading station.

2,822,652

WRAPPING MACHINE

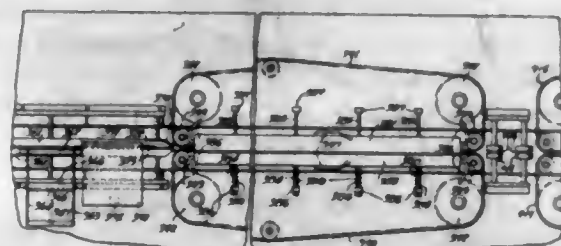
Robert E. Taggart and James C. Travis, Anderson, Ind., assignors to Lynch Corporation, Anderson, Ind., a corporation of Indiana
Application December 13, 1954, Serial No. 474,898
12 Claims. (Cl. 53—225)



2. In a wrapping machine, a wrapping head of barrel-like character supported for rotation at one end and having its center opening to the opposite end of the head, said head having circumferentially spaced pockets to receive articles and wrappers therefor, each of said pockets having a pair of ends and a pair of sides, one of said sides being openable to receive an article and a wrapper therefor, means for moving the article and wrapper into the pocket at a first station of said head, said pocket ends folding the first end flaps of the wrapper, cam means for opening said openable pocket side as the article and wrapper enter the pocket, a folder blade movable to fold a first circumferential flap of the wrapper, means for intermittently rotating said head a pocket at a time, a stationary blade engageable with a second circumferential flap of the wrapper to fold it around the article overlapping the first circumferential flap as the pocket is advanced to a second station during rotation of the head, push-out means entering said head through its open end and movable radially outward thereof to push the partly wrapped article out of the head at a further station thereof, end flap folder blades for folding the second end flaps of the wrapper as the package is so pushed, take-out conveyor means for moving the article thereafter, third and fourth end flap folder blades for folding the third and fourth end flaps of the wrapper as the package is further advanced by said take-out conveyor means, said cam means, said folder blade, said means for intermittently rotating said head, said push-out means and said take-out conveyor means being cyclically operated in accordance with the cycles of operation of said wrapping machine.

2,822,653
APPARATUS FOR CLOSING AND SEALING
CONTAINERS

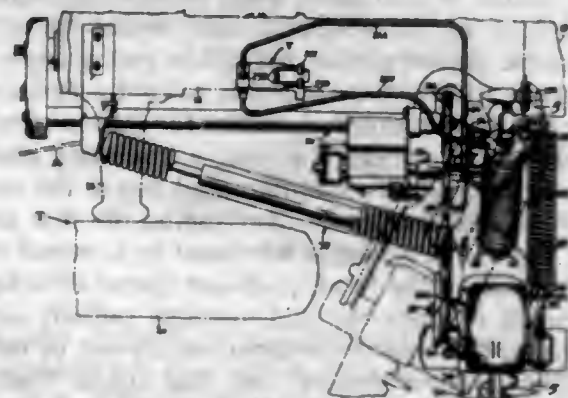
Julius A. Zinn, Jr. and Curtis B. Shaw, Chicago, Ill.;
said Shaw assignor to said Zinn
Application February 19, 1954, Serial No. 411,394
5 Claims. (Cl. 53-373)



4. Apparatus for closing and sealing paraffined or similarly treated paperboard containers of the type having a preformed body portion surmounted by an open mouthed portion scored along predetermined fold lines and adapted to form a fully depressible bellows type end closure comprising means for folding said mouth portion to form a fully depressed end closure having a fully formed closure rib, a container supporting platform supported for movement along a predetermined path and having a rear container gate upstanding therefrom, a pair of spaced guide members positioned along said path and having grooves in the opposed faces thereof, means resiliently urging said guide members together, means for heating said guide members, a pair of link chains positioned in said grooves in heat receiving relation to said guide members and adapted to clamp the fully formed closure rib of a container supported on said platform therebetween, one of said guide members having a top flange portion overhanging the center line of said path to maintain said closure rib fully depressed by engagement with the top thereof, and means for moving said chains along said path in synchronism and at a speed slightly greater than the speed of said platform, whereby said container is moved forwardly relative to said rear container gate during travel along said path to prevent said gate from deforming the side walls of said container.

2,822,654
HYDRAULIC LIFTING AND CONTROL MEANS
FOR TRACTOR MOUNTED MOWERS

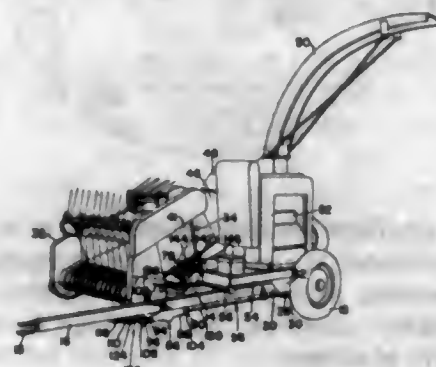
Lee E. Elfes, Birmingham, and Leo J. Lorenz, Detroit, Mich., assignors to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland
Application July 30, 1954, Serial No. 446,821
7 Claims. (Cl. 56-25)



1. In a mower, the combination with a frame mountable on a tractor, a drag bar supported at one end on said frame to swing in both vertical and horizontal planes, a cutter bar pivoted adjacent the other end of said drag bar to swing only in a vertical plane, a pressure fluid operated actuator connected to the tractor, means connecting said actuator to the drag bar to enable it to raise and lower the drag bar, another pressure fluid operated actuator connected to said drag bar, means connecting said

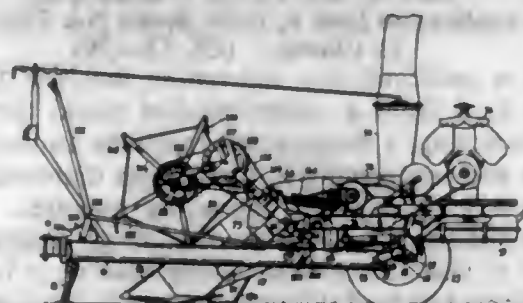
other actuator to said cutter bar to enable it to swing that bar about its pivot, and a pressure fluid supply system on the tractor including a manually operable valve for supplying pressure fluid to said actuators from a fluid source on the tractor.

2,822,655
PLATFORM ADJUSTING MEANS FOR AN
AGRICULTURAL MACHINE
Gail R. Sutherland, Ottumwa, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application May 20, 1954, Serial No. 431,142
13 Claims. (Cl. 56-208)



1. An agricultural machine of the character described, comprising: a mobile main frame; a draft tongue having front and rear ends and secured at its rear end to the main frame to project forwardly thereof; an agricultural working part positioned ahead of the main frame and alongside of the tongue; means mounting the working part on the main frame for vertical adjustment relative to said frame and relative to the tongue; a rockshaft on the main frame and having first and second arms fixed thereto in laterally offset relationship to the rear end of the draft tongue, means interconnecting the first arm and the working part so that rocking of the rockshaft effects adjustment of the working part; a first sheave carried by the main frame adjacent to the rear end of the draft tongue; a second sheave carried by the main frame adjacent to the second arm on the rockshaft; force-exerting means carried by the draft tongue forwardly of the first sheave and including a movable force-transmitting member; and a flexible force-transmitting element having one end connected to said member, extending rearwardly and about the first sheave, laterally and about the second sheave and thence forwardly and having its opposite end connected to the second arm on the rockshaft.

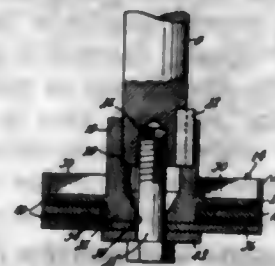
2,822,656
HARVESTER HAVING A SPECIFIC PLATFORM
ADJUSTING MEANS
Ivor C. Rogers, Toronto, Ontario, Canada, assignor to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland
Application December 12, 1955, Serial No. 552,519
9 Claims. (Cl. 56-208)



1. An ensilage harvester comprising, a draft frame, a crop-treating subframe pivotally mounted on said draft

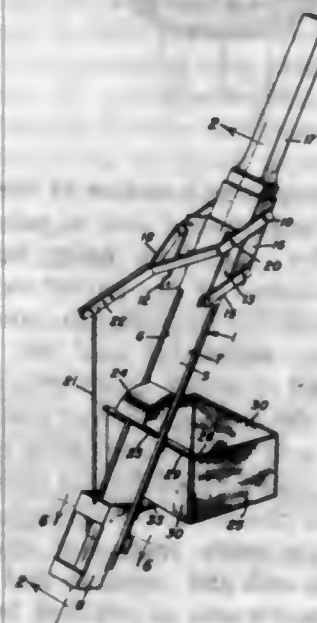
frame and having a forward end that is vertically swingable relative to said draft frame, a harvesting table having a rear end pivotally mounted to the forward end of said subframe for vertical swinging movement relative to said subframe, adjustable linkage means connected between said draft frame, said subframe and said table whereby only the forward end of said subframe is raised during a first phase of linkage means movement and the forward end of said table is raised during a second phase of said means movement.

2,822,657
BLADE MOUNTING FOR ROTARY LAWNMOWERS
Joseph E. Chaffee, Prairie Village, Kans.
Application March 8, 1956, Serial No. 570,365
2 Claims. (Cl. 56-295)



1. In combination with a lawnmower including a power driven vertical drive shaft, a mounting body having a socket formed in the upper end thereof in which the lower end of said drive shaft is engaged, an elongated blade bar having a central aperture formed therethrough through which said body extends, a fixed flange carried by said body above said blade bar, a screw extending upwardly through said body and threaded into said drive shaft, a detachable flange constituting a planar washer secured against the lower end of said body by said screw, said washer being held in non-rotating relation to said body by reason of metal-to-metal contact therebetween, and a pair of friction washers disposed respectively between said blade bar and said fixed flange and between said blade bar and said detachable flange, said flanges pressing said friction washers against said blade bar whereby rotation of said blade bar relative to said body is yieldably resisted.

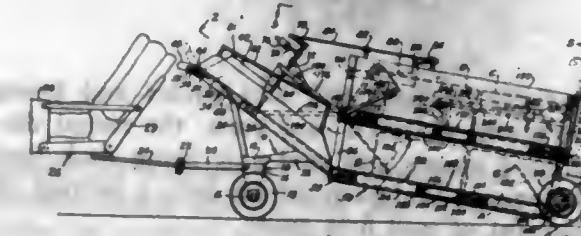
2,822,658
NUT HARVESTER
Joseph C. Bergeron, Sr., Livonia, La.
Application May 3, 1956, Serial No. 582,411
3 Claims. (Cl. 56-328)



1. A gathering device comprising a handle, an elevator slidably carried by the handle and including a vertical

plate having an opening therein and a scoop slidable on the plate, said scoop projecting below the lower end of the plate and adapted to scoop up an object from the ground, means connecting the plate and scoop to the handle for raising the former upon a relative depressing movement of the handle to deliver the object to the opening, a receptacle supported on the plate into which the object is deposited, and a deflector member on the vertical plate extending over said opening to deflect the object out of the scoop and into the opening.

2,822,659
BALE GROUPING AND STACKING APPARATUS
Ross L. Moore, Geary, Okla.
Application April 20, 1956, Serial No. 579,675
5 Claims. (Cl. 56-475)

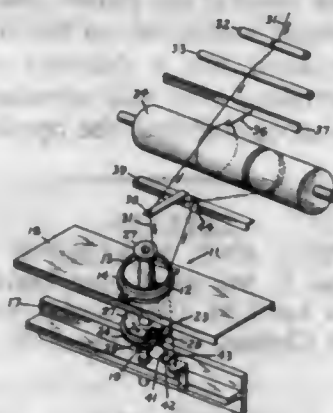


1. A bale grouper comprising a mobile chute structure partitioned into four elongated, parallel, open-ended chutes coextensive with one another and arranged to extend in a fore-and-aft direction in the structure, said chutes including a first chute, a second chute overlying the first chute, a third chute side-by-side with the first chute, and a fourth chute overlying the third chute and side-by-side with the second chute; a loading platform connected to and projecting forwardly from the bottoms of the front ends of the first and third chutes for guiding bales into the first and third chutes; deflector plates projecting forwardly from the bottoms of the second and fourth chutes above the platform and pivoted on the chute structure to swing on a horizontal, transverse axis between a normal, raised, first position permitting bales to enter the first and third chutes, and a lowered, second position deflecting bales into the second and fourth chutes; a gate pivoted on the platform forwardly of the deflector plates on an axis extending in an up-and-down direction, said gate being swingable from side to side of the platform between a normal, first position diverting bales to the first and second chutes and a second position diverting bales to the third and fourth chutes; movable means respectively having connections with the deflector plates and gate effective, on movement of said means, to bias the plates and gate to their second positions; stop means mounted in the aft parts of the several chutes for movement between normal first positions blocking passage of the bales out of the several chutes, and second positions freeing the bales for passage out of the several chutes; and means connected with the stop means and operative for movement between first and second positions effective for causing movement of the stop means between the first and second positions, respectively, of said stop means.

2,822,660
WINDING APPARATUS
Charles W. Hunt and Howard Sittig, Cumberland, Md., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application July 3, 1953, Serial No. 365,811
20 Claims. (Cl. 57-34)

1. In an apparatus for winding yarn on a yarn package support, a guide, mounted for axial movement relative to a yarn package support, for directing the yarn around said support, a second guide for engaging the yarn after it has left said first-mentioned guide, said second guide being spaced from said support, said guides being spaced at

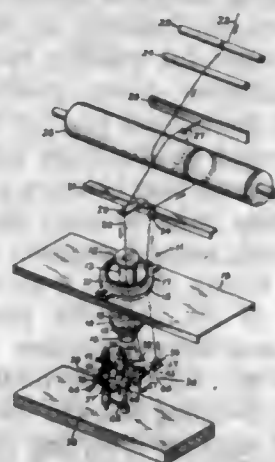
different radial distances from the axis of said support whereby the angular position of the yarn passing between said guides varies during the axial movement of said first guide, and means operatively connected to said support for rotation therewith, said means being spaced both



axially and radially intermediate said guides and being adapted, on rotation, to catch said yarn, the radial distance between said means and said axis being such that said means can engage said yarn during only a portion of the axial movement of said first guide.

2,822,661 YARN WINDING

William Farrady, Eckhart, and Roy W. Coleman, Cumberland, Md., assignors to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application July 3, 1953, Serial No. 365,813
13 Claims. (Cl. 57—34)



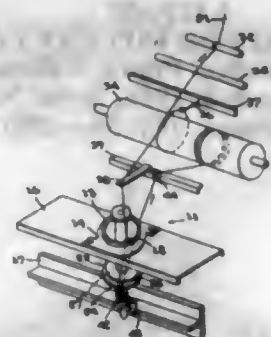
2. In a device for winding yarn on a yarn package support, an axially movable yarn guide for directing yarn around said support, a second movable yarn guide for receiving yarn coming from said first mentioned guide, said second guide being spaced radially from said support, being spaced away from the ends of said support in the direction of the axis of said support, and being movable relative to the axis of said support to cause the yarn coming from said first guide to begin to wind on said support, a third guide adjacent to said second guide for receiving yarn from said second guide, and movable means operatively connected to said second guide for severing the yarn on said third guide when said second guide is moved toward said axis.

2,822,662 WINDING APPARATUS

William Farrady, Eckhart, Md., assignor to Celanese Corporation of America, New York, N. Y., a corporation of Delaware
Application December 31, 1953, Serial No. 401,498
20 Claims. (Cl. 57—34)

2. In an apparatus for winding yarn on a yarn package support, a guide, mounted for axial movement relative to a yarn package support, for directing the yarn around

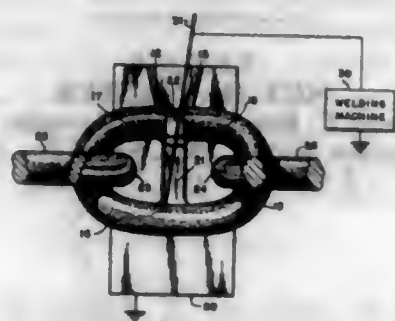
said support, a second guide for engaging the yarn after it has left said first-mentioned guide, said second guide being stationary and having a yarn guiding surface for receiving the yarn moving to said second guide, said surface extending between a yarn seat, spaced at a distance from the axis of said support greater than the radial distance between said first guide and said axis, and a point closer to said axis than said seat whereby the yarn is urged from said seat toward said point as said first guide moves axially toward said second guide, and means, operatively connected to said support for rotation therewith



and spaced both axially and radially intermediate said first guide and said seat, for catching the yarn moving between said guides as said first guide moves axially toward said second guide on rotation of said support, the construction and arrangement being such that the yarn travels directly from said first guide to said second guide and the axial movement of said first guide toward said second guide results in an angular change in the direction of travel of said yarn between said guides and pulls the point of engagement of said yarn and said second guide along said second guide and closer to said axis.

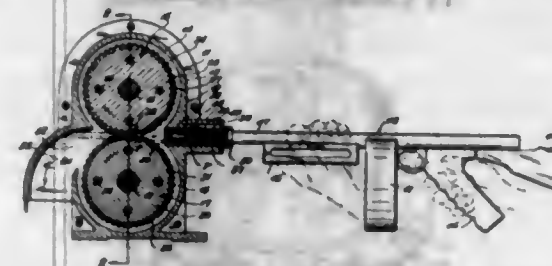
2,822,663 ANCHOR CHAIN STUD LINK WITH CROSS MADE ENTIRELY OF WELD METAL

Carlton G. Lutts, Salem, Mass.
Application April 24, 1952, Serial No. 284,193
2 Claims. (Cl. 59—90)
(Granted under Title 35, U. S. Code (1952), sec. 266)



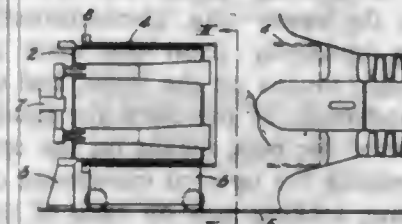
1. A chain link comprising a section of bar stock having opposite ends bent back toward and in substantial alignment with each other, said ends being homogeneously united by a molded deposit of non-parent weld metal provided therebetween and corresponding in cross section substantially to the cross section of said bar, said molded deposit being extended to bridge completely the space between said ends and the opposite side of said link to form a stud section, said stud section consisting exclusively of said molded deposit, said molded deposit being of uniform chemical and physical characteristics throughout, said stud section throughout its entire transverse end area being fused homogeneously with and united to said opposite side of said link, said opposite side of said link being homogeneously united by said molded deposit of weld metal including said stud section to both of said first-mentioned ends.

2,822,664 PROJECTILE ACTUATED POWER GENERATOR Paul V. Malloy, Lakewood, Ohio Application November 1, 1954, Serial No. 466,055 13 Claims. (Cl. 60—1)



1. A power generator comprising, paired conjointly movable members having cooperating portions thereof located in a substantially opposed spaced-apart relation, said portions, and at least a portion of the space therebetween, defining a through passage between said members and extending in the general direction of the conjoint movement of said members, and explosive-charge-detonating projector means operable to deliver solid velocity-bodies into said through passage in driving engagement with said members, said projector means having a delivery bore of a generally uniform transverse size in substantially coaxial alignment with said through passage, said velocity bodies being elongated bullet-shaped preformed solid bodies endwise movable through said bore and passage.

2,822,665 IMPROVEMENTS IN A DEVICE FOR STARTING GAS TURBINE PLANTS Curt René Nicollin, Flinspong, Sweden Application January 28, 1955, Serial No. 484,790 3 Claims. (Cl. 60—39.14)

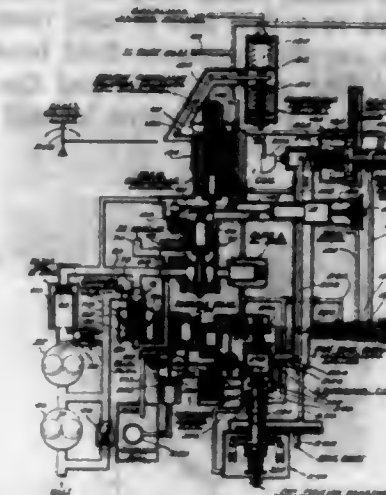


1. In a power plant, in combination, a gas turbine having a compressor and an air intake therefor, a separate compressor arranged in front of said air intake in spaced relation thereto for delivering compressed air thereto for starting purposes, a surrounding cover slidably mounted on said starting compressor, a carriage for supporting and moving said cover towards and away from the air intake of the gas turbine, said cover being adapted to be displaced into engagement with said air intake so as to form a closed air passage between the starting compressor and the gas turbine compressor during the starting period and to be retracted therefrom at the end of said period for allowing atmospheric air to be directly sucked in through the air intake by the action of the compressor of the gas turbine.

2,822,666 TURBINE POWER PLANT FUEL CONTROL UTILIZING SPEED, TEMPERATURE AND COMPRESSOR PRESSURE Stanley G. Best, Manchester, Conn., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware Application August 31, 1951, Serial No. 244,551 59 Claims. (Cl. 60—39.28)

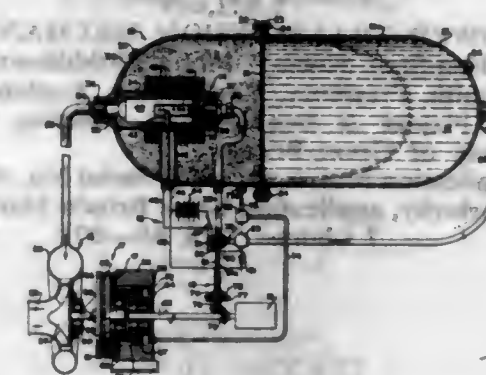
1. In a fuel control for a turbo power plant having a compressor, a combustion section and a turbine for driving the compressor, a source of fuel under pressure, means for injecting fuel into said combustion section including

a throttle valve between said source and said combustion section, a first means movable in response to compressor pressure, a second means movable in response to the speed of rotation of said power plant, means operatively connected to said throttle valve and said first and second



means for multiplying the movements of said first and second means and varying the opening of said throttle valve in proportion to the product of said movements, and means responsive to speed and another parameter of power plant operation and operatively connected to said throttle valve for limiting the throttle valve opening.

2,822,667 PROPELLANT FEED SYSTEM Charles F. Drexel, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California Application February 3, 1954, Serial No. 407,891 19 Claims. (Cl. 60—39.48)

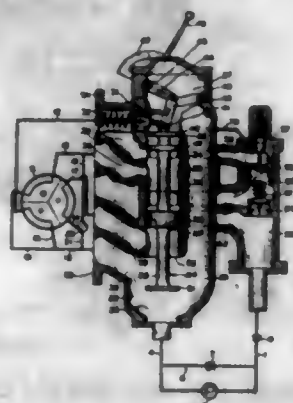


1. In a combustible propellant feed apparatus for use with a fluid driven motor: a container; a movable wall dividing said container into propellant and gas chambers; a combustion chamber, said combustion chamber being disposed in said gas chamber to permit direct transfer of heat energy therefrom to gas in said gas chamber, thereby to cause thermal expansion of said gas; means for conducting propellant from said propellant chamber to said combustion chamber for combustion therein; and means for conducting combustion products from said combustion chamber to said motor.

2,822,668 PRESSURE CONTROL FOR HYDRAULIC SYSTEMS Hans Vestre Huse, Brattvaag, Norway, assignor to Hydraulik A/S, Brattvaag, Norway, a Norwegian company Application November 24, 1954, Serial No. 470,863 10 Claims. (Cl. 60—53)

1. A hydraulic transmission system for a winch, comprising a source of pressure fluid, at least two fluid motor circuits connected in aiding mechanical relation to each other, an individual feed conduit for hydraulic fluid in each of said fluid motor circuits, a fluid circuit, manu-

ally adjustable control means, a main supply line in said fluid circuit from said source to said manually adjustable control means, a return line in said fluid circuit from said manually adjustable control means to said source, a short circuit to said return line, said manually adjustable control means being adapted to control the feed of pressure fluid to a first one of said motor circuits by distributing the supplied pressure fluid between the feed conduit of said first motor circuit and the short circuit to said return line, a check valve located in said feed



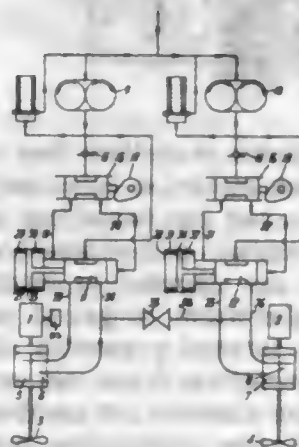
conduit of the first motor circuit at a point between the junction of said feed conduit with said short circuit and said first motor circuit, a branch constituting the feed conduit of said second motor circuit and leading from a point between said check valve and the inlet of said first motor circuit and to the inlet of a second motor circuit, and pressure responsive means for closing said branch at pressure differentials between the pressure in the feed conduit of said first motor circuit and the pressure of said return line below a given value.

2,822,669

POWER TRANSMISSION MECHANISMS

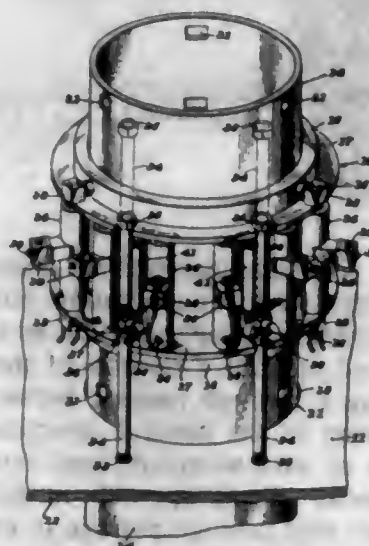
George Hamilton Murray, Pinner, Middlesex, and Peter Roy Smith, Prestbury, Cheltenham, England, assignors to D. Napier & Son Limited, London, England, a company of Great Britain

Application March 22, 1955, Serial No. 495,846
Claims priority, application Great Britain March 25, 1954
7 Claims. (Cl. 60-97)



1. A marine propulsion unit of the twin-screw type including two prime movers, two fluid operated clutches associated respectively with the two prime movers, and two propellers coupled respectively to the prime movers through the said clutches, a pump driven by each prime mover and arranged to supply fluid under pressure through a hydraulic circuit to operate the clutch associated with that prime mover, auxiliary motor means for starting one prime mover, and a hydraulic interconnecting duct between the hydraulic circuits of the two clutches, and flow control means in said interconnecting duct which when open permits pressure fluid from one circuit to operate both clutches.

2,822,670
PERFORATED CAISSON JACK ASSEMBLY
George E. Suderow, New York, N. Y., assignor to DeLong Corporation, a corporation of Delaware
Application September 2, 1953, Serial No. 378,103
11 Claims. (Cl. 61-46.5)



1. In combination with a floating barge having spaced openings in the deck thereof, caissons extending into said openings and provided with vertically spaced apertures, a jack assembly for releasably connecting the barge to each of the caissons and providing means for moving the caisson relative to the barge and for moving the barge relative to the caisson, said jack assembly including axially displaceable upper and lower rings through which the caissons extend, said rings being independently movable relative to each other, means connecting the upper ring to said barge, means for moving the upper ring and barge relative to the lower ring, means for moving the lower ring relative to the upper ring, circumferentially spaced bolts extending upwardly from the deck and loosely through said rings, means on the lower end of each bolt engaging the underside of the deck for limiting the upward movement of the bolt, means on the upper ends of the bolts for limiting the upward movement of the upper ring, reciprocating locking pins on each of the rings and arranged to engage apertures in the caissons when moved into registration therewith, and means for actuating said pins, each of said caissons arranged to be moved by the jack assembly into fixed engagement with the marine ground, and said barge when the caissons are in engagement with the ground being operable by the jack assembly to be raised above the water.

2,822,671

PILE DRIVER

Robert N. Dentz, Bergenfield, Earl S. Hoy, Hoboken, and Kenneth A. Kelsea, Delawanna, N. J., assignors to Geo. M. Brewster & Son, Inc., Bogota, N. J., a corporation of New Jersey

Application March 31, 1955, Serial No. 498,371
3 Claims. (Cl. 61-74)

1. In a pile-driver operating system for guiding and driving a pile vertically into the ground, an upright tower lead, a hammer dolly, dolly-actuating cable means above said dolly and coaxing with said lead to suspend the dolly from the lead, near the upper end of the latter, means for approximately equally paying out and retracting said cable means to vertically oscillate said dolly between fixed limits, a vertically reciprocable hammer between said dolly and said pile, first sheave means on said dolly, second sheave means on said lead toward the latter's lower end, and a compensating cable, on which said hammer is suspended, connected between said hammer and said pile, toward the latter's upper end and extending about both said sheave means to cause said hammer,

apart from the reciprocation derived by the latter from the reciprocation of said dolly, to descend to approxi-

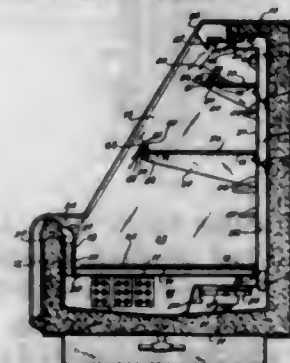


mately the same extent as the pile during the driving of the latter.

2,822,672

DISPLAY CASE WITH ADJUSTABLE REFRIGERATED SHELVES

Edgar V. Dickson, Ladue, and Theodore E. Weber, Afton, Mo., assignors to Husmann Refrigerator Co., St. Louis, Mo., a corporation of Delaware
Application March 12, 1956, Serial No. 571,085
7 Claims. (Cl. 62-89.5)



1. A refrigerated display case comprising an outer cabinet including a base, rear wall, end walls, and a relatively low front wall; inner cabinet means defining a display area and including a bottom panel spaced above said base to provide a refrigeration compartment, a rear panel spaced from said rear wall to provide a rear flue in communication with said refrigeration compartment, and a front panel spaced from said front wall to provide a front flue in communication with said refrigeration compartment, said rear and front panels having perforations adjacent to the upper edges thereof; air cooling means in said refrigeration compartment; air circulating means in said refrigeration compartment; said air circulating means being adapted to provide air movement in said rear and front flues, said refrigeration compartment and between said rear and front panels through the perforations therein; and means for directionalizing the air movement between the perforations in said rear and front panels to form an air curtain substantially excluding unrefrigerated air from said display area.

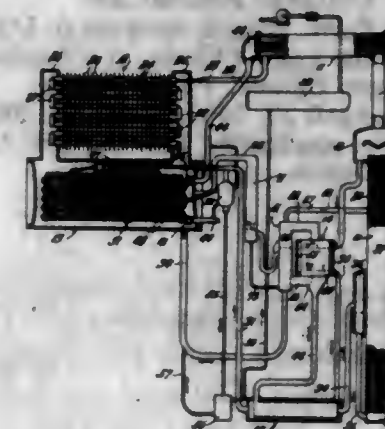
2,822,673

REFRIGERATION

Norton E. Berry, Newburgh, Ind., assignor, by mesne assignments, to Arkia Air Conditioning Corporation, a corporation of Delaware
Application August 18, 1953, Serial No. 374,862
4 Claims. (Cl. 62-119)

3. A system adapted for use as an absorption type refrigeration circuit including a generator, a condenser,

an evaporator, an absorber, conduits interconnecting said elements for circulation of refrigerant fluid and absorption liquid, certain of said conduits providing fluid flow control for maintaining a pressure differential between the generator and condenser on the high side and the evaporator and absorber on the low side during

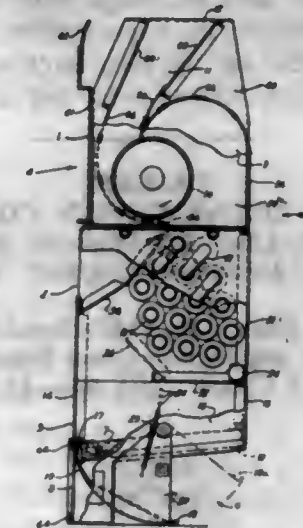


operation, said conduits also including a transfer vessel in the path of flow for absorption liquid to the high side, connections for flow of vapor from the high side through said transfer vessel during operation, and a liquid trap so constructed and arranged as to alternately stop and start said flow of vapor.

2,822,674

AIR CONDITIONING UNIT

Lance Lovejoy Simmons, Detroit, Mich., assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application May 5, 1955, Serial No. 506,271
8 Claims. (Cl. 62-140)

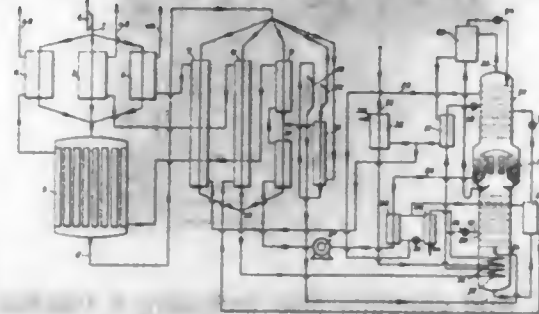


8. An assembly for an air conditioner comprising a heat exchange unit, a drip pan and a blower; said heat exchange unit including two parallel tube sheets having two right angularly disposed edge portions, a plurality of heat exchange tubes extended between said tube sheets, and passage-forming wall means extending between said tube sheets and at an acute angle to both of the aforementioned edge portions; said drip pan including two right angularly disposed wall portions extending between the tube sheets along the aforementioned edge portions to cooperate with the aforementioned wall means in the directing of air over the heat exchange tubes, one of said drip pan wall portions terminating short of the passage-forming wall means to define therewith an air inlet; said blower including a pair of end plates in alignment with the tube sheets, curved walls extending between said end plates from said passage-forming wall means and the other of said drip pan wall portions to

define a scroll-shaped fan housing, and a cylindrical fan rotor within said fan housing, said rotor having an axis of rotation at right angles to the end plates.

2,822,675 PRODUCTION OF GASEOUS OXYGEN UNDER PRESSURE

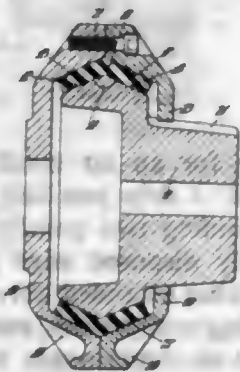
Maurice Grenier, Paris, France, assignor to L'Air Liquide, Societe Anonyme pour l'Etude et l'Exploitation des Procédés Georges Claude, Paris, France
Application April 22, 1955, Serial No. 503,137
Claims priority, application France April 23, 1954
8 Claims. (Cl. 62-175.5)



1. A process for the production by liquefaction and rectification of a gaseous oxygen under pressure from atmospheric air, in which the air to be rectified is cooled by vaporization under the relatively high pressure of liquid oxygen drawn under relatively low pressure from the rectification apparatus, comprising partially cooling the total amount of air to be treated compressed to a predetermined pressure, cooling the air by vaporization of the oxygen under pressure, dividing the air into four parts, subjecting the first part of the air to at least two successive expansions with external work while reheating the air between these expansions by heat exchange with the second part of the air, said second part being thus cooled, as an incident to said reheating, cooling the third part of the air by heat exchange with the liquid oxygen to be reheated before its vaporization, and cooling the fourth part of the air by heat exchange with at least part of the nitrogen derived from the separation.

2,822,676 TORQUE TRANSMISSION COUPLINGS

Marcus Horovitz, Leicester, England, assignor to Metalastik Limited, Leicester, England, a corporation of Great Britain
Application March 28, 1955, Serial No. 497,078
Claims priority, application Great Britain May 7, 1954
1 Claim. (Cl. 64-11)

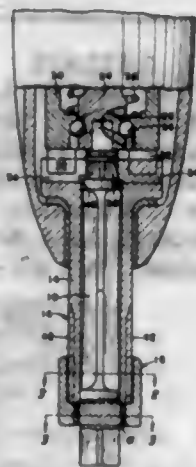


A torque transmission coupling comprising an inner coupling element having a circular section concentric with its axis, the middle portion of said circular section being of greater diameter than the end portions thereof, an outer coupling element formed of an internally grooved annular ring surrounding said circular section and providing an annular space between said circular section and the walls of said groove, the annular groove within said ring having a maximum diameter in a plane intermediate the sides of the groove and decreas-

ing in diameter towards the sides thereof to a diameter less than the maximum outside diameter of the circular section of said inner member, a sleeve of rubber filling said annular space and having a radial thickness in a free state greater than the radial thickness of said annular space, said annular ring being divided into two annular parts at the plane of maximum diameter of said groove, means for clamping said annular parts together to compress said rubber sleeve against said circular portion, a hub portion carried by the inner member adjacent said circular portion and having a longitudinal groove formed in the outer surface thereof and a spline on the annular ring, said spline extending inwardly into the groove in said hub and having a smaller width than said groove.

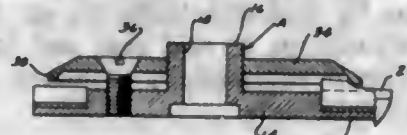
2,822,677 SPRING HOLDER

Harold C. Reynolds, Athens, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a corporation of New Jersey
Application December 27, 1955, Serial No. 555,666
6 Claims. (Cl. 64-15)



1. A device for holding under stress a spring having a grooved and splined end portion, comprising a member engaged to the other one end portion of the spring against relative rotary movement and having a grooved and splined end portion adjacent said splined end of the spring, and a coupling element having a splined and grooved portion adapted to receive the splines on said member and a second splined and grooved portion adapted to receive the splines on said spring, the grooves in the first said splined portion of said element are of substantially greater width than the splines of the spring so as to permit limited relative rotation between the splined end portion of the spring and the associated end of said member.

2,822,678
PATTERN WHEEL FOR KNITTING MACHINES
Jay Lipsey, Philadelphia, Pa., assignor to Jay Company, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application December 30, 1955, Serial No. 556,669
2 Claims. (Cl. 66-40)



1. A pattern wheel for a knitting machine comprising a disc having a peripheral recess extending about its upper face thereof, an annular ring interfitting with said recess and being detachably secured to said disc, the upper surface of said ring having a plurality of circumferentially spaced slots radially extending to its outer peripheral edge, a plurality of removable slot wall inserts having an elongated thin shank with a downwardly extending hooked end, and a plurality of jack inserts of identical

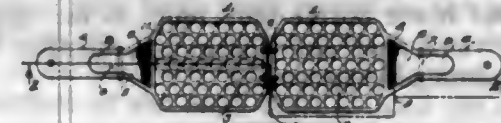
plan configuration to said slot wall inserts wherein a hooked portion downwardly extends from the end of an elongated thin shank, each of said jack inserts having a thickened uncinated portion adjacent the hooked end, said shank portions interfitting within said slots wherein adjacent slot wall inserts peripherally overhang said disc at their hooked end to define a slot through which needle butts may freely pass and the uncinated portion of said jack inserts about an adjacent hooked end to define a jack for engaging said needle butts.

2,822,679
YARN GUIDES
Peter J. Schoenster, Teaneck, N. J., assignor to Alfred Hofmann & Co., West New York, N. J., a corporation of New Jersey
Application December 6, 1955, Serial No. 551,247
12 Claims. (Cl. 66-86)



1. A yarn guide comprising an elongated member having an elongated shank portion and a guide portion extending from one end of said shank portion, said guide portion being formed with an opening for passing a yarn therethrough, said guide portion on one side thereof at the distal end thereof having a yarn contacting surface substantially coplanar with a yarn contacting surface on the other side of the shank portion at the distal end thereof defining the proximal end of said guide opening to provide a continuously rectilinear path for passing said yarn from said other side of said shank portion, through said guide opening to the one side of said guide portion.

2,822,680
DIAPER PRESS
Clifton L. Lamping, Beverly Hills, Calif.
Application August 2, 1954, Serial No. 447,006
2 Claims. (Cl. 68-213)

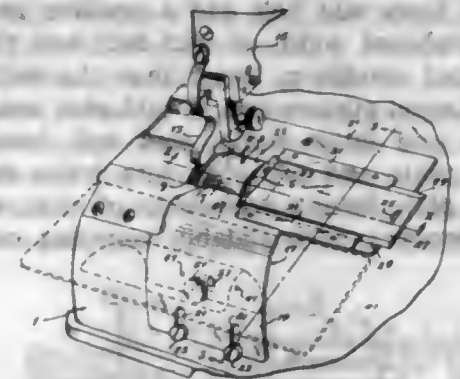


1. A diaper press, comprising: a pair of frames having foraminous areas; hinge means joining said frames to permit movement of said frames into superposed position with either of their surfaces confronting; handles at the ends of said frames remote from said hinge means; said frames adapted to occupy a coplanar position to receive a diaper; and a pair of clamp levers pivotally connected to said handles for temporarily securing the extremities of said diaper whereby said frames may be moved to dispose said diaper externally of said frames for rinsing or clamped therebetween for carrying and squeezing.

2,822,681
WORK TABLE FOR SKIVING MACHINES
Edwin H. Beck, Lemay, Mo., assignor to Manufacturers Supplies Co., St. Louis, Mo., a corporation of Missouri
Application May 31, 1957, Serial No. 662,926
2 Claims. (Cl. 69-9.5)

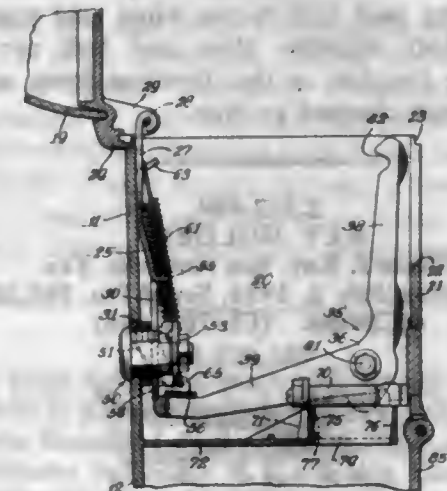
1. A work table device for the bell knife of a leather skiving machine of the type described, comprising a cover plate having a top portion adapted to overlie the work

table adjacent said knife and a depending portion adapted to be secured against the front of the housing, and a



guard plate slidably mounted on said top portion of the cover plate for movement toward and away from the knife thereby to close a gap adjacent the knife.

2,822,682
WEATHER-TIGHT ENCLOSURE
Lester D. Sollenberger, Chicago, Ill., assignor to Miller Meters, Inc., a corporation of Illinois
Application December 8, 1954, Serial No. 473,998
2 Claims. (Cl. 70-158)

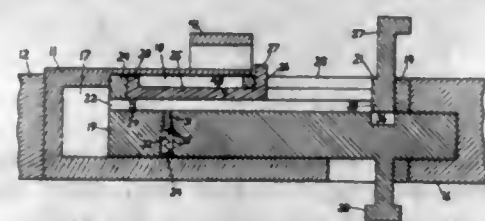


1. A weather-tight enclosure for a parking meter mechanism comprising a housing having a recess therein adapted to receive the mechanism and terminating in an upper stepped edge, crank lever means pivotally mounted within the recess, said crank lever means having an upwardly extending portion terminating in a hook portion and having a substantially horizontally extending portion, a cap adapted to cover said recess and having a lower edge complementary in shape to and adapted to seat upon said stepped edge of the recess, a hinge member vertically slidably mounted in the recess and hingedly secured to the cap, tension spring means secured at one end to the hinge member and at the other end to said crank lever means adjacent the end of said horizontally extending portion, and a rotatable lock member mounted on the housing having a cam portion positioned in the recess to contact the horizontal portion of the crank lever means to pivot the same to cause the hook portion lockingly to engage the cap, said lock member having a second portion positioned to engage the hinge member to lock the same against movement upwardly.

2,822,683
LOCK
Morris Kahn, Brooklyn, N. Y.
Application January 28, 1957, Serial No. 636,700
4 Claims. (Cl. 70-288)

1. A lock comprising a housing forming a channel having a wider and a narrower portion and having an aperture at the end of said wider portion, a bolt slidable along said channel and, in one extending position, reach-

ing through said aperture, a plate extending in said channel aside of said bolt and being movable between a position spaced from said bolt and a position near to said bolt, the combined width of said bolt and plate being, in said spaced condition, larger than the width of said narrower channel portion and, in said near condition, not larger than said latter width, said bolt having a side facing said plate and provided with holes and with a recess, said plate having a plurality of slots, and a plurality of members, each slidably engaging one of said

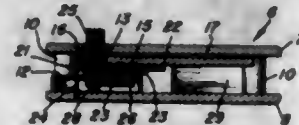


slots whereby each member can be positioned at any of a number of places, each of said members having a pin projecting toward one of said holes when the member is in one of said places and, when the member is in any other place, spacing said plate from said bolt whereby said plate can be moved toward said bolt only when all pins are in line with bolt holes, said plate having a projection engaging said bolt recess when said plate moves toward said bolt whereby plate and bolt are coupled and can move together in the direction from said wider to said narrower channel portion.

2,822,684

KEY HOLDER

William J. Ray, San Antonio, Tex.
Application July 2, 1956, Serial No. 595,205
4 Claims. (Cl. 70-456)



2. A key holder of the character described comprising: a case including a pair of spaced, opposed plates, a disk mounted in the case between said plates, a sleeve on said disk, an adapter journaled for swinging movement on the sleeve, said adapter having means for securing a key thereto, a spring encircling the sleeve and connected to the adapter for swinging the key outwardly in the case, and a spring pressed, manually actuated plunger slidable in the sleeve and including means for releasably securing the key in retracted position in the case.

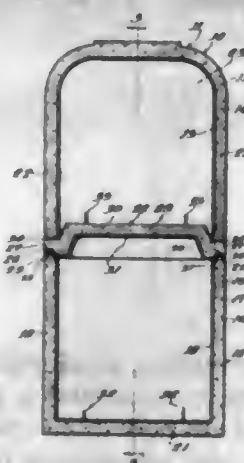
2,822,685

DUAL BURIAL VAULT STRUCTURE

Wesley Miles Chandler, St. Paul, Minn., and Richard G. Reichle, Riverside, Ill., assignors to Wilbert W. Haase Co., Broadview, Ill., a corporation of Illinois
Application November 23, 1956, Serial No. 623,962
1 Claim. (Cl. 72-7)

A dual burial vault structure comprising a lower burial vault unit and an upper burial vault unit, said lower burial vault unit including a box-shaped portion having an open top and composed of an outer concrete shell and an inner asphalt layer integrally bonded thereto, the upper burial vault unit including a dome-shaped member having an open bottom and composed of an outer concrete shell and an inner asphalt layer integrally bonded thereto, said upper and lower burial vault units being disposed with the open portions thereof in opposed relationship, a combination base and cover and structural reinforcing member seated upon the upper surfaces of the walls of said lower burial vault unit and providing a cover therefor, said combination base and cover and

structural reinforcing member being composed of an upper concrete wall and a lower asphalt layer integrally bonded thereto and said upper concrete wall including a generally rectangular-shaped raised center portion having a marginal flange formed integrally therewith and disposed therebelow and extending therearound, the bottom of said flange and the upper surface of the walls of the lower burial vault unit having a tongue and groove interlocking engagement so as to resist inward movement of such walls at the open top of the lower burial vault unit, said flange having a flat upper surface, the lower end portions of the side and end walls of the said dome-shaped member resting upon said upper surface of the marginal flange with said raised center portion projecting up into the open lower end of said upper burial vault unit and providing a base therefor, said raised center portion being of slightly less width and length

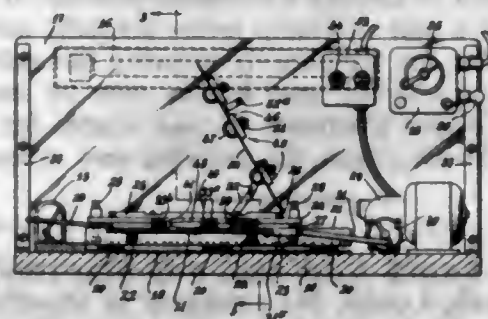


at its juncture with said flat upper surface of the marginal flange than the inside dimensions between the inner surfaces of the side and end walls of the upper unit so as to positively position the same and resist inward movement thereof at the open bottom of the upper burial vault unit, layer means hermetically sealing the said upper end portions of the side and end walls of said lower burial vault unit to the lower surface of said marginal flange of the reinforcing member, and layer means hermetically sealing the lower end portions of the side and end walls of the upper burial vault unit to the upper surface of said marginal flange, said combination base and cover and structural reinforcing member providing a structural reinforcement for the side and end walls of the upper and lower burial vault units as the upper and lower burial vault units and reinforcing member are disposed in assembled relationship.

2,822,686

WEAR AND ABRASION TESTING MACHINE

Charles Ralph Campana, New York, N. Y.
Application January 21, 1955, Serial No. 483,263
4 Claims. (Cl. 73-7)



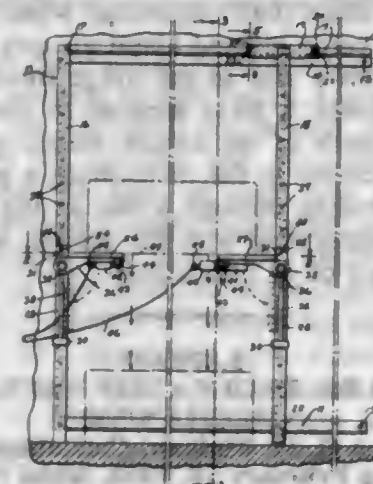
1. A machine for testing the wear resistance of a plated article, comprising a base member, a jig for holding a plated test piece, said jig being movably supported on the base member, a stationary frame member supported on the base member and having a socket therein

overlying the jig, an abrasive element and a carrier therefor floatingly disposed in the socket in the frame, said abrasive element being elastically deformable and softer than the plated test piece with which it is to cooperate and under the weight of the carrier being adapted to bear upon such test piece when mounted in the jig, and means for reciprocating the jig so that the abrasive element will rub over the plated surface of the test piece when mounted in the jig.

2,822,687

DROP TESTING MACHINE

Leslie G. Freedy, Wauwatosa, Wis., assignor to Vanant Company, Inc., Milwaukee, Wis., a corporation
Application January 4, 1957, Serial No. 632,564
4 Claims. (Cl. 73-12)



4. A drop testing machine comprising an upper horizontal track, a lower horizontal track, means rigidly securing the tracks in spaced relation to a support, a vertical track rigidly secured to and uniting the horizontal tracks, a second vertical track slidable on the horizontal tracks toward and away from the rigid track, means detachably connecting the adjustable vertical track in a selected position on the horizontal tracks, slide brackets mounted on the vertical tracks, means adjustably securing the slide brackets to the vertical tracks, outwardly projecting rods carried by the slide brackets, drop leaves mounted on said rods for swinging movement, supporting arms rigidly secured to said rods and projecting from said rods toward one another, slide latch bolts carried by the arms, means for operating the bolts, and rollers carried by the inner corners of the drop leaves for normally resting upon the upper surface of the latch bolts to hold the drop leaves against swinging movement, said latch bolts being movable from under the rollers to release the drop leaves.

2,822,688

FLOWMETER

Bruce F. Wiley, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
Application January 24, 1955, Serial No. 483,777
5 Claims. (Cl. 73-155)

1. Flow measuring apparatus comprising a housing adapted to be lowered into a well, a packer secured to said housing and extending outwardly therefrom to engage the wall of the well, first conduit means carried by said housing to define a first flow path between regions of the well on opposite sides of said packer, second conduit means carried by said housing to define a second flow path between regions of the well on opposite sides of said packer, an impeller positioned in said first flow path, means to rotate said impeller at variable speeds to direct fluid through said first flow path, a magnet attached to said impeller to rotate therewith, a coil carried by said housing adjacent said magnet so that a first voltage is

induced in said coil by rotation of said magnet, means connecting one terminal of said coil to a reference potential, a first temperature sensitive resistance element positioned in said first flow path, a second temperature sensitive resistance element positioned in said second flow path, circuit means including said first and second temperature sensitive resistance elements to provide a second voltage representative of the temperature difference between said first and second elements, a transmission line connected at one end to said housing and insulated therefrom, means

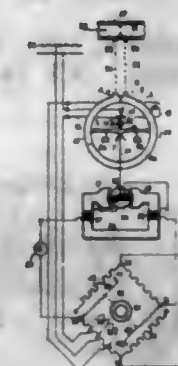


to apply said first and second voltages to said one end of said line, a third resistance element having a negative coefficient of thermal resistivity connected between the second terminal of said coil and said reference potential, means connected to the second end of said line to measure the amplitude of said second voltage, a frequency meter and means connecting said frequency meter to the second end of said line to measure the frequency of said first voltage.

2,822,689

DEVICE FOR MEASURING PRESSURE DIFFERENTIAL WITH ELECTRICAL REBALANCE MEANS

Antonio Bonapace, Genoa, Italy, assignor to Firma Siemens & Halske A. G., Berlin, Germany
Application June 14, 1954, Serial No. 436,661
Claims priority, application Italy June 20, 1953
3 Claims. (Cl. 73-405)



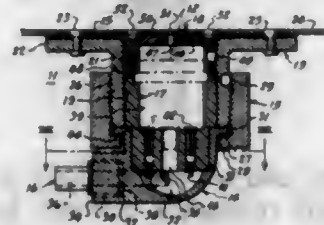
1. Apparatus for electrically measuring pressure differentials sensed by a pressure responsive device of the ring balance type comprising a ring balance having an axial shaft and a frictionless pivot permitting rotation, connection means to a source of pressure differentials to be sensed and measured, whereby a difference of pressures will rotate said ring balance and said axial shaft, electromagnetic means for applying a restoring moment to said ring balance, said electromagnetic means comprising the combination of a source of current, switching means selectively operable by said ring balance, a rotor coil carried by said axial shaft, connection means between the source of current, the coil and the switching means, whereby when the ring balance is rotated because of a pressure differential being sensed and measured, said switching means are selectively actuated to selectively

connect said source of current to the coil and supply a sufficient current to said coil to generate a counter-torque restoring said ring balance to an initial position, whereby said current represents the pressure differentials being measured, variable resistance follow-up means operably connected to control the current in said coil and instantaneously vary the current to generate a counter-torque as a function of the rotational torque applied to the ring balance by the pressure differential to restore the ring balance to an initial position, whereby the apparatus measures instantaneous changes and differences in said pressure differential.

2,822,690

HOLDER FOR FORCE SENSITIVE ELEMENT
Charles B. Walker, San Diego, Calif., assignor to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware

Application March 29, 1955, Serial No. 497,765
8 Claims. (Cl. 73-431)

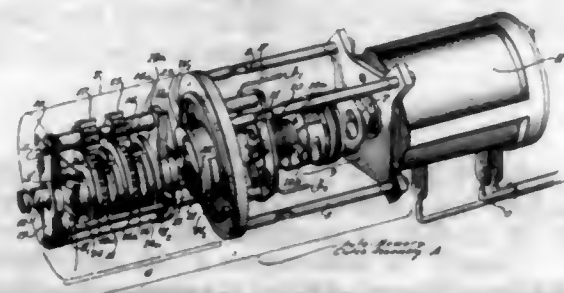


1. A holder for a force sensitive element, said holder comprising receptacle means for housing said element, insulating means positioned within said receptacle means, said insulating means comprising a generally cup-shaped member and an insulating cap removably secured to said receptacle means and cooperating with said cup-shaped member to enclose said force sensitive element to substantially insulate said element against rapid fluctuations in environmental temperatures which may act upon said holder.

2,822,691

AUTO-MEMORY CLUTCH
Irwin F. Hyden, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application November 2, 1953, Serial No. 389,552
2 Claims. (Cl. 74-1)

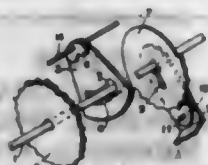


1. An auto-memory clutch comprising: an input shaft adapted to be rotatably driven by input driving means, an N-stage memory means connectable to said input shaft, an output shaft having a mechanically limited rotational range connectable to said input shaft, means for connecting said output shaft to said input shaft within said limited range and connecting said memory means to said input shaft outside said limited range so that said memory means is engaged by said input shaft when said output shaft is disconnected from said input shaft, a wafer switch having a rotary wiper movable between two contact making positions, and means on said output shaft to engage and rotatably move said wiper between said two contact making positions.

2,822,692
TIMER

James W. A. Jacobson, St. Paul, and Robert B. Brooks, St. Louis Park, Minn., assignors to the United States of America as represented by the Secretary of the Army

Application March 30, 1956, Serial No. 575,281
6 Claims. (Cl. 74-1.5)

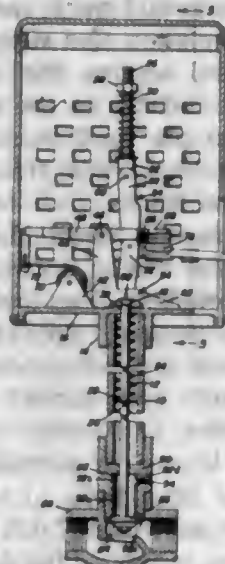


1. An escapement mechanism for ordnance devices comprising: a main shaft; an escape wheel secured to the main shaft; a verge pivoted about an axis parallel to the main shaft with a slot in the verge through which the main shaft passes; a pawl secured to the verge and in contact with teeth of the escape wheel; a second wheel pivoted at its center to the main shaft; a projection from the verge extending through a slot in the second wheel; and means cooperating with the second wheel for regulating the speed of its oscillation.

2,822,693

TEMPERATURE REGULATED VALVE CONTROL MECHANISM

Nelson O. W. Mulsow, Carrollton, Tex.
Application February 18, 1954, Serial No. 411,119
5 Claims. (Cl. 74-2)

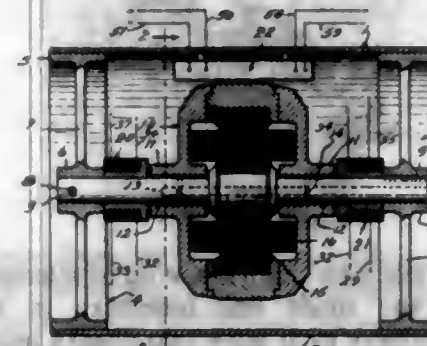


1. A temperature controlled valve actuating device comprising a support member having an opening extending therethrough, a stem reciprocally received in said opening, first and second compressor spring members each disposed about said stem on opposite sides of said support member, means non-slidably attaching the ends of each of said spring members remote from each other to said stem, the other end of said first spring member engaging said support, longitudinally extensible means engaging said support and the end of said second spring member adjacent said support, an arm pivoted to said support adjacent said extensible means, a latch member on said arm for engaging said extensible means and retaining it in its extended position against the action of said spring members and thermo-responsive means coupled to said arm for moving the latch member out of engagement with said extensible means when the temperature in the surrounding atmosphere attains a predetermined value.

2,822,694

SYSTEM FOR CONSTRAINING MASS OF GYRO WHEEL
Henry F. McKenney, Weston, Mass., assignor to Sperry Rand Corporation, Ford Instrument Company Division, Long Island City, N. Y., a corporation of Delaware

Application March 20, 1957, Serial No. 647,401
17 Claims. (Cl. 74-5)

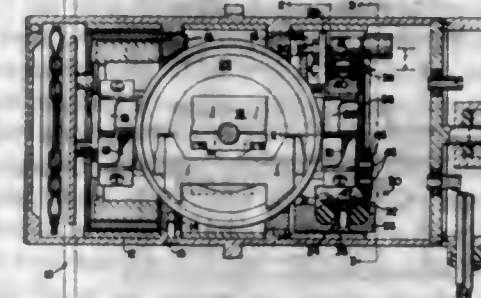


1. In a gyro mechanism having a casing, a shaft secured in fixed position in said casing, a gyro wheel rotatably mounted on said shaft for limited axial movement thereon, means for rotating said gyro wheel, means by which the center of mass of said gyro wheel is automatically maintained in fixed axial position on said shaft, said means comprising: means by which said wheel is biased axially in one direction on said shaft, electrically actuated means operative to counter-act the effect of said biasing means and move said gyro wheel in the opposite direction on said shaft, and an electric pickup secured to said casing in fixed position adjacent said gyro wheel by which the operation of said electrically actuated means is controlled.

2,822,695

GYROSCOPIC APPARATUS
Oscar G. Frykman, Edina, and David A. Laurie, Minneapolis, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application May 22, 1956, Serial No. 586,577
5 Claims. (Cl. 74-5.6)

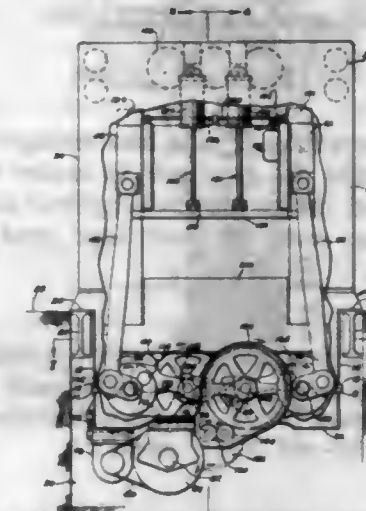


1. In a rate of turn gyroscope; a rotor; a gimbal frame supporting said rotor for rotation about a spin axis; a base; means for pivotally mounting said gimbal frame on said base for precession about a gimbal frame axis; a signal generator pickoff having a first part fixed to said base and a second part supported for rotation relative to said first part about a pickoff axis; and means for connecting said gimbal frame to said second part of said pickoff so that precession of said gimbal frame about said gimbal frame axis is translated into relative rotation between said first and second parts of said pickoff, said connection means comprising an arcuate ribbon of rectangular cross-section secured at its extremities to said gimbal frame at a distance R from said gimbal frame axis, and a lever arm attached to said second part of said pickoff and fastened to the midportion of said ribbon at a distance r from said pickoff axis, said precession of said gimbal frame about said gimbal frame axis being mechanically amplified by said connection means into rotation between said two parts of said pickoff about said pickoff axis an amount proportional to the ratio R/r.

2,822,696

SINGLE ACTION PRESS DRIVE
William Staecker and Wilbur H. Kitto, Canton, Ohio, assignors to E. W. Bliss Company, Canton, Ohio, a corporation of Delaware

Application January 28, 1955, Serial No. 484,789
14 Claims. (Cl. 74-44)



6. Drive mechanism for a press slide comprising a pair of bull gear cranks, means for rotatably supporting said cranks with their axes parallel and substantially horizontal, said cranks having throw portions disposed in alignment whereby corresponding parts of said throw portions rotate in substantially the same vertical plane, said axes of said cranks being spaced apart a distance greater than the length of said throw portions whereby said cranks may rotate without interference between said throw portions, a bull gear mounted at one end of one of said cranks, a second bull gear mounted at the opposite end of the other of said cranks, a drive shaft supported for rotation with its axis parallel to said cranks, a pinion on said drive shaft in engagement with one of said bull gears, a second pinion on said drive shaft, a reversing pinion interposed between and in engagement with said second pinion and said second bull gear whereby said bull gears and cranks are adapted to be rotated in opposite directions by said drive shaft, a pair of rockshafts, means for rotatably supporting said rockshafts respectively outwardly from said cranks and with their axes parallel thereto, each of said rockshafts having angularly offset throw portions, a connecting rod extending from the throw portion of one of said cranks to one of said throw portions of the rockshaft disposed outwardly therefrom, a second connecting rod extending from the throw portion of the other crankshaft to one of said throw portions of the other rockshaft, and operating links extending from the other throw portions of said rockshafts to said press slide.

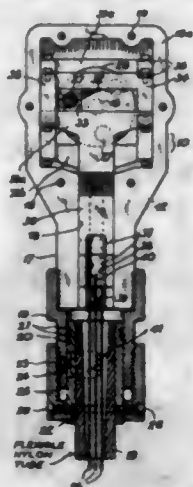
2,822,697

FLEXIBLE DRIVE MECHANISM
Royal Lee, Elm Grove, Wis., assignor to Lee Engineering Company, Milwaukee, Wis., a corporation of Wisconsin

Application September 26, 1952, Serial No. 311,647
4 Claims. (Cl. 74-63)

1. In a drive mechanism, a pair of casings, a flexible tubular member connected at opposite ends to said casings, a pair of multiple-throw crank shafts rotatably mounted in said respective casings and each having a plurality of at least three angularly spaced crank pins, cross heads reciprocally mounted in said casings for parallel motion therein and having operative connections with the respective crank pins, the cross heads in each casing having laterally adjacent parallel shanks slidable in said casing,

the shanks of the outermost cross heads being offset inwardly, and reciprocatory link-forming wires extending longitudinally in said tubular member and slidable therein in laterally adjacent relation, each wire being flexible and



connected at opposite ends to the corresponding cross head shanks in said casings for transmitting motion between said crank shafts, said wires lying relatively close to the longitudinal axis of said tubular member.

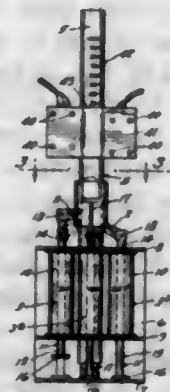
2,822,698

CONTROL MECHANISM

Arthur R. Gross, St. Paul, Minn.

Application May 14, 1953, Serial No. 354,933

10 Claims. (Cl. 74-161)



1. A device of the class described comprising a toothed ratchet bar, means mounting and guiding the toothed ratchet bar for longitudinal reciprocating movements from and back to a normal retracted position, said ratchet bar being yieldingly urged in the direction of its retracted inoperative position, means for advancing the ratchet bar in the direction of its extended position; said means comprising a solenoid fixedly mounted in spaced axially parallel relation to the ratchet bar, a magnetically responsive armature-acting push rod working axially in and through the solenoid for movements between retracted and advanced positions, and a ratchet bar tooth engaging pawl carried by the armature-acting push rod; there being a plurality of said means each being independently operative to advance the ratchet bar, each tooth of the ratchet bar representing an increment of movement, each said solenoid tending upon energization to advance its respective armature-acting push rod a distance to impart a plurality of increments of movements to the ratchet bar, stop means associated with each said armature-acting push rod to limit solenoid responsive movements of a plurality of said armature-acting push rods each to a distance representing a different number of increments of movement of the ratchet bar.

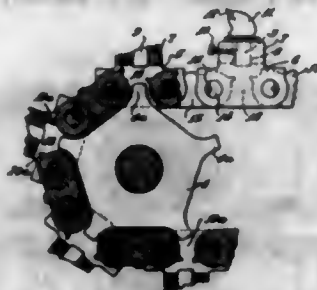
2,822,699

CUTTING CHAINS FOR MINING MACHINERY

Claude B. Krekeler, Mack, Ohio, assignor to The Cincinnati Mine Machinery Co., Cincinnati, Ohio, a corporation of Ohio

Application October 15, 1956, Serial No. 615,811

11 Claims. (Cl. 74-250)



1. A mining machine chain made up of alternate double link members and single link members, in which the double link members each have two cheeks integral with and held in spaced relationship by a socket member, and in which the ends of said single link members are engaged between the cheeks of the adjoining double link members and pivoted thereto by pintles, there being cavities between said cheeks and between the ends of said single link elements, which cavities are entered by the teeth of a driving sprocket for said chain, means for minimizing the packing of cuttings in said cavities, said means comprising projections on the ends of said single link members adapted to move within said cavities when said chain is flexed.

2,822,700

REDUCTION OF VIBRATION TRANSMISSION FROM MACHINES AND APPARATUS

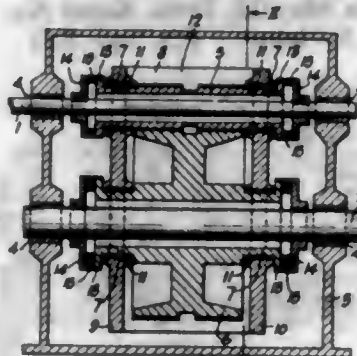
Arthur Samuel Eanis, Sale, England, assignor to Metropolitan-Vickers Electrical Company Limited, London, England, a company of Great Britain

Application August 24, 1954, Serial No. 451,895

Claims priority, application Great Britain

August 26, 1953

24 Claims. (Cl. 74-411)



1. A mechanical assembly comprising at least two relatively movable parts, a casing enclosing said parts, at least one drive shaft, bearings supporting said drive shaft, spacing means disposed within and movable independently of said casing, bearings in said spacing means locating said parts in required space relationship with one another for relative rotation in predetermined relative axial positioning, and resilient vibration attenuating means coupling said shaft with one of said parts and supporting said spacing means within said casing for movement within the casing.

2,822,701

APPARATUS FOR CONTROLLING ENGINE IDLING SPEED

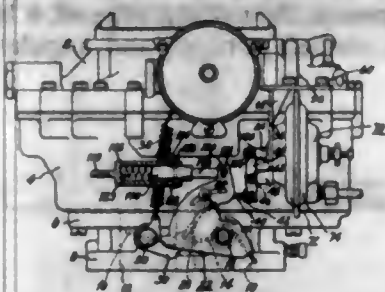
Elmer Olson, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 15, 1954, Serial No. 436,872

5 Claims. (Cl. 74-472)

1. Apparatus for controlling the idling speed of the engine of an automotive vehicle comprising in combina-

tion, a carburetor for supplying a combustible mixture of fuel and air to said engine and having a throttle valve for controlling the quantity of mixture supplied thereto, suction operated means for moving the throttle toward open position for increasing the idling speed of the engine, and a



control means movable to different positions to control the operation of the vehicle, said control means being movable to a position reducing the load on the engine thereby causing the suction effective on the suction operated means to be increased and the throttle to be moved to a further open position.

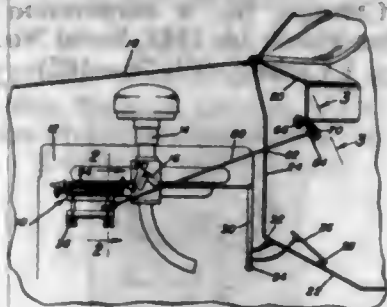
2,822,702

SPEED CONTROL

John J. Scheppe, Trenton, N. J.

Application December 8, 1953, Serial No. 396,914

2 Claims. (Cl. 74-526)



1. A speed control device for use in association with a bellcrank carburetor control member and an accelerator pedal comprising a bracket adapted to be supported adjacent the carburetor, an elongated member adjustably secured to said bracket, a yielding abutment member mounted on said elongated member and adapted to engage said control member at a predetermined point of its movement, and means for remotely adjusting said elongated member to determine the point of contact between the abutment and the control means, said bracket and elongated member being interconnected by a pair of parallel pivot links, one of said links having an internally screw-threaded bore, and said adjusting means includes a rod having a screw threaded end in engagement with said bore, an operating knob on the other end of said rod, a mounting bracket journalling said rod for rotation and precluding longitudinal movement wherein movement of said knob adjusts said elongated member in relation to said bracket, said elongated member including a pair of upstanding lugs in spaced relation, an aperture in each lug, said abutment including a rod having a shank and an enlarged head, said shank slidably positioned in said apertures, a coil spring surrounding said shank, a stop secured to said shank in spaced relation to said head, said spring disposed between said stop and the lug remote from said head wherein said abutment is urged outwardly in relation to the other of said lugs.

2,822,703

PEDALS FOR BICYCLES AND THE LIKE

Nicholas F. Pedersen, Torrington, Conn., assignor to The Torrington Company, Torrington, Conn., a corporation of Maine

Application August 24, 1955, Serial No. 530,344

5 Claims. (Cl. 74-594.4)

5. A pedal having a two-part sheet metal shell, a tapering center bore extending between the ends of the shell, a

series of inwardly projecting ribs in the bore near its larger end, said bore having an enlarged recess at the smaller end, an antifriction bearing held in the wider end



of the bore against said ribs, a second antifriction bearing held in the recess of the bore, an axle journaled in the bearings and having attaching means beyond the recessed end of the bore, and tread members carried by the shell.

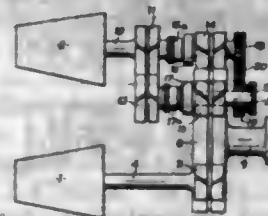
2,822,704

POWER TRANSMISSION SYSTEMS

Harold Sinclair, Windsor, England

Application October 12, 1954, Serial No. 461,827

4 Claims. (Cl. 74-665)



1. A power transmission system comprising a driven gear wheel, at least one forward drive turbine drivably coupled to said driven gear wheel, at least one further turbine, two shafts drivably coupled to said further turbine and drivably coupled to one another for rotation in opposite directions, two pinions mounted one on each of said shafts and meshing with said driven gear wheel, and clutch means operable to selectively clutch either of said pinions to its shaft and allow the other pinion to idle on its shaft.

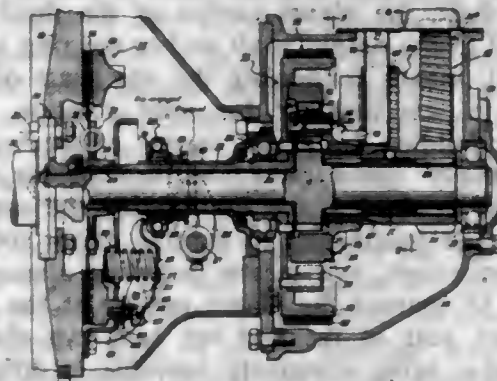
2,822,705

LUBRICATING SYSTEM IN TRANSMISSION AND REDUCTION DRIVE

Palmer Orr and Donald W. Kelbel, Muncie, Ind., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application July 9, 1952, Serial No. 297,884

1 Claim. (Cl. 74-695)



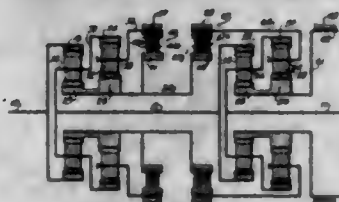
In transmission mechanism, a transmission housing, a first shaft rotatably disposed within said housing, a plurality of planet gears rotatable about axes radially spaced from said shaft, a planet gear carrier fixed on said shaft and carrying pinion shafts on which said planet gears are rotatably mounted, each said pinion shaft being provided with a passage extending from one end of the shaft to the exterior peripheral bearing surface of the shaft, a second shaft rotatably disposed in said housing disposed in a parallel and side by side relationship with said first-named shaft, a reduction gear train between said first and second shafts comprising a gear carried by said first shaft

which is the input gear of said reduction gear train, and a gear carried by said second shaft which is the output gear of said reduction gear train, said transmission housing being adapted to contain a body of liquid lubricant and said output gear being disposed in said lubricant, and a trough extending transversely between said first and second shafts in a tangential relationship to said output gear and having an inlet end adjacent the upper periphery of said output gear to collect liquid thrown off said output gear by centrifugal force and having an outlet end adjacent the passages in said pinion shafts for delivering lubricant thereto and thereby within said planet gears.

2,822,706

FIVE SPEED TRANSMISSION USING SIMPLE PLANETARY GEAR SETS

James A. Miller, Battle Creek, Mich., assignor to Clark Equipment Company, a corporation of Michigan
Application December 17, 1956, Serial No. 628,825
8 Claims. (Cl. 74-763)



1. A multiple speed transmission comprising an input shaft, an output shaft, an intermediate shaft disposed between said input and output shafts, first and second single pinion type planetary gear sets connected between said input shaft and said intermediate shaft, third and fourth single pinion type planetary gear sets connected between said intermediate shaft and said output shaft, each of said gear sets including a sun gear, a ring gear and a planet pinion meshing with said sun and ring gears and rotatably supported upon a planet carrier, the ring gear of the first set being connected to said input shaft and the planet carrier of the first set being connected directly to said intermediate shaft and to the ring gear of the second set, means connecting the sun gears of the first and second sets directly together for rotation in unison, means including a first clutch for locking up the first set to provide a direct drive from the input shaft to the intermediate shaft, means including a first brake for holding the planet carrier of the second set to provide a major speed reduction in the first and second sets, the ring gear of the third set being connected to said intermediate shaft, the planet carrier of the third set being connected to the output shaft and to the ring gear of the fourth set, means connecting the sun gears of the third and fourth sets together for joint rotation, a second brake for holding the planet carrier of the fourth set to provide major speed reduction through the third and fourth sets, a third brake for holding the sun gears of the third and fourth sets to provide minor speed reduction therethrough, and means including a second clutch operable to connect the planet carrier of the fourth set to the sun gear of the first set, said two clutches and three brakes being selectively operable in different pairs to provide at least five forward speed ratios and a reverse drive between said input and output shafts.

2,822,707

FILE HOLDER

Dewey E. Gommel, Indianapolis, Ind., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application August 5, 1955, Serial No. 526,712

2 Claims. (Cl. 76-36)

1. A file holder for use in sharpening the beveled cutting edges of right and left hand saw chain teeth dis-

posed along a longitudinal edge of a chain saw, said holder comprising an elongate member including means defining a generally channel shaped portion adapted for receiving said longitudinal edge of the chain saw therein, said member further including means defining a recess adapted for exposing the cutting edge of a tooth disposed in said channel shaped portion, and angularly adjustable



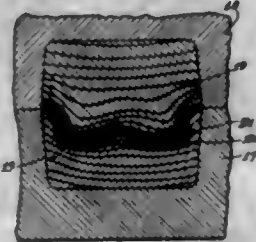
generally circular guide means having cylindrical file guide openings therein of slightly greater dimensions than the file and mounted on said member for aligning a file with exposed cutting edge of a selected right or left hand saw chain tooth for sliding contact therewith, whereby the file may be reciprocated to thereby sharpen the cutting edge of the selected tooth.

2,822,708

METHOD OF MAKING A FORGING DIE

John H. Nelson, Palos Park, Ill., assignor to Kropp Forge Company, Chicago, Ill., a corporation of Illinois
Application March 16, 1954, Serial No. 416,557

1 Claim. (Cl. 76-107)



In a method for forming a forging die with a replaceable metal insert, the steps of heating a thick metal insert blank to render it plastic, inserting and supporting the heated insert blank wholly in a cupped matrix cavity conforming generally to that of the desired insert blank with the generally flat top surface of the blank lying in the same general plane as the top surface of the matrix, then subjecting primarily the central area of the hot insert blank to a forging pressure inside said cavity to shape the exposed surface downwardly in the cavity into a given irregular die contour surface and to compress the grain of the metal wholly within the cavity and so that the grain is maintained substantially continuous along said die surface and follows said contour leaving the peripheral blank area about the forged central area in its substantially flat form generally within the cavity, removing the insert blank from the matrix cavity, cooling the insert blank and heat treating the same, then inserting the blank in a cavity of a heated die member and interlocking the die member to the insert by cooling the same.

2,822,709

BORING DEVICE

Edward T. Jezka, Chicago, Ill.

Application October 12, 1956, Serial No. 615,625

6 Claims. (Cl. 77-58)

1. A rotatable boring device for selectively boring cylindrical and tapered holes, comprising: a boring body rotatable about an axis of rotation; a cutting tool holder in said body having one end exposed at one end of the body and movable relative to said body along a path that is at an acute angle with respect to said axis, the tool holder having rack teeth on one side thereof; and apparatus movable relative to said body and said tool holder for thusly moving said tool holder including a

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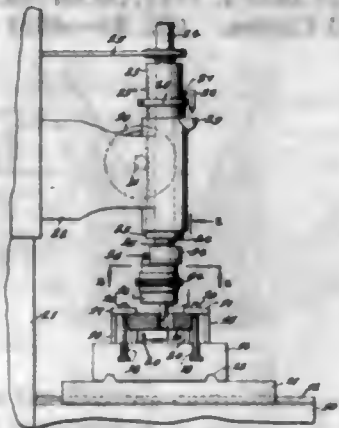
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gear train in said body having one gear at one end of said train operatively engaging said rack teeth and a ring gear at the other end of said train extending around said body having teeth on its inner edge with the outer edge portion exposed through an opening in said body and capable of being held against rotation during rotation



of said body to drive said train and thereby move said holder in said path, the ring gear being slidable on said body for selective engagement with a first and second gear in said train, the first gear causing movement of said holder in an outward direction for boring and the second gear causing retraction of the holder.

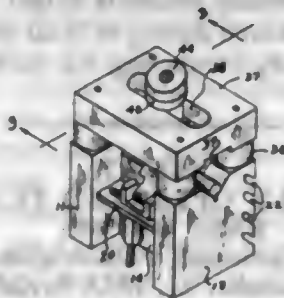
2,822,710

WORKPIECE ANCHORING V BLOCK

Max Halman, Detroit, Mich.

Application March 26, 1954, Serial No. 418,878

5 Claims. (Cl. 77-62)



1. A V block comprising a pair of parallel spaced upright end walls with aligned transverse V-shaped grooves formed in the top surfaces thereof to receive an elongated workpiece, a central interconnecting upright body joined to said end walls and having an elongated V-shaped groove therein aligned with said first grooves to receive said workpiece, means for securing said workpiece in said V grooves, a centering plate secured upon and bridging the top surfaces of said end walls, there being an elongated slot formed through said centering plate with its central axis in vertical alignment with the apexes of said V-shaped grooves, and a drill guide bushing adjustably positioned through said centering plate.

2,822,711

UTILITY PLIER TOOL

William A. Barnes, Utica, N. Y., assignor to Utica Drop Forge & Tool Corporation, a corporation of New York

Application September 15, 1953, Serial No. 380,323

2 Claims. (Cl. 78-82)

1. A plier-like hand tool having first and second closed and mutually pivoted levers with first and second parallel acting carriages actuated thereby, a first pivot interconnecting said first lever to said first carriage, a second pivot interconnecting said second lever to said second carriage, a swingable cam lever pivotally carried by said first pivot, said cam lever having a drive handle swingable to a closed and locked position against the side of said second lever in position to be struck and reversed by opening movement of said second lever, a work holding

clamp device carried by said first lever and operated by said swingable cam lever, and a similar swingable cam



lever and holding clamp associated in like manner with said second lever.

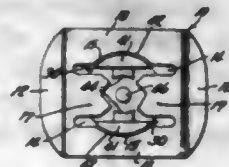
2,822,712

FASTENING DEVICE

Donald F. Garman, Cleveland, Ohio, assignor to Tinnerman Products, Inc., Cleveland, Ohio, a corporation of Ohio

Original application July 6, 1954, Serial No. 441,389, now Patent No. 2,752,805, dated July 3, 1956. Divided and this application May 12, 1955, Serial No. 507,851

2 Claims. (Cl. 81-3)



1. A fastener adapted to be applied in secured position on a stud extending from a relatively fragile part, by an associated tool having a tool head and guide fingers projecting longitudinally from said tool head for telescoping movement relative to said tool head and including inwardly extending jaws on said fingers for gripping said stud during application of said fastener to said stud to prevent damage to the connection of the said part and stud during said application of said fastener, said fastener comprising a sheet metal body defining a generally arched base provided with a stud receiving opening between a pair of spaced side portions, said base having slots defining stud engaging elements extending from said opening to junctions with said base, the central section of each of said portions adjacent said opening being notched outwardly to provide predetermined spacing between said central sections and the confronting sides of said stud, the corners of said elements at the free ends thereof being beveled to provide in combination with said notched sections of said portions, tool receiving holes adapted to receive said fingers and associated jaws of the tool to support said fastener on the tool in position to be engaged by said tool head for applying the fastener to secured position on said stud, the lateral edges of said elements lying in planes disposed outwardly of the inward extension of said jaws, said beveled corners providing clearance between said elements and said jaws during relative telescoping movement between the fingers and the tool head.

2,822,713

VALVE PACKING EXTRACTING TOOL

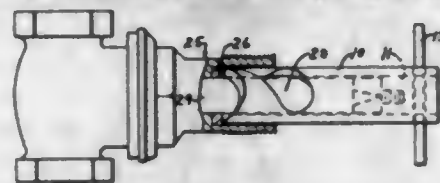
Leonard R. Schmidt, Richmond, Mich.

Application November 16, 1956, Serial No. 622,648

1 Claim. (Cl. 81-8.1)

A valve packing extracting tool comprising: a cylindrical body provided with a centrally disposed longitudinal bore therethrough; a first cutter formed on one end of said body

and having a radially disposed cutting edge; a second cutter formed on said one end of said body at a point diametrically opposite to said first cutter and having a peripherally disposed cutting edge extended outwardly longitudinally beyond said radially disposed cutting edge; said body being

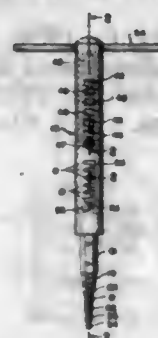


recessed on one side between said cutters and having a spiral groove formed in the other side between said cutters with said groove extending inwardly from said one end of the body and under said first cutter; and, a handle on the other end of said body.

2,822,714

ADJUSTABLE TOOL

Joseph Paparelli, Yonkers, N. Y., assignor to Kaster Incorporated, Bronx, N. Y., a corporation of New York
Application August 26, 1955, Serial No. 530,804
13 Claims. (Cl. 81-71)

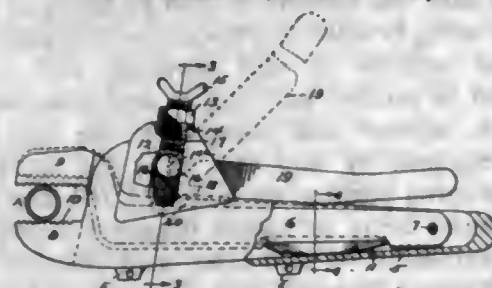


1. An adjustable tool comprising an outer tube, a plurality of nested tubes, each having a portion within said outer tube and each having a portion extending beyond the end of the tube of next larger size, spring means for maintaining said tubes in such extended condition, each of said tubes being movable inwardly relative to said outer tube against the pressure of said spring means upon the application of an inward force thereupon, and means for the obstruction of inward movement of any selected one of said tubes, said means being operative when an inward force is exerted upon the selected tube.

2,822,715

ADJUSTABLE CAM ACTUATED PLIERS

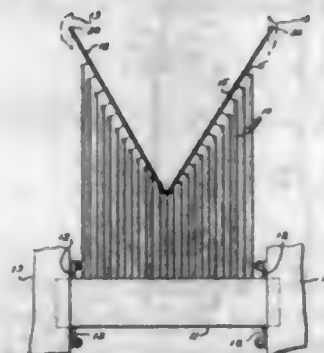
Louis P. Raimond, Miami, Fla.
Application May 23, 1955, Serial No. 510,068
5 Claims. (Cl. 81-330)



1. A tool of the character described comprising a pair of elongated handles pivotally connected to each other adjacent their rear ends and each carrying a work engaging jaw at its forward end, a fixed abutment carried by one of said handles, an adjusting screw having threaded engagement with said abutment, a pivot block movable bodily under the action of said screw, a lock lever pivoted upon said pivot block and comprising an elongated rearwardly extending handle and a cam heel, said cam heel engaging and imparting movement to the other of said handles.

2,822,716
MOUNTING FOR VIBRATOR OF ELECTRICAL MUSICAL INSTRUMENT

Jacob T. Kunz, North Hills, Pa., assignor to Schulmerich Electronics, Incorporated, Sellersville, Pa., a corporation of Pennsylvania
Application June 1, 1951, Serial No. 229,380
3 Claims. (Cl. 84-403)



1. An electric music instrument damping arrangement including a vibrator element, an intermittently acting solid material flexible damping means operatively loosely mounted and resting on said vibrator element, means loosely holding said damping means on said vibrator element, said damping means normally being in contact with said vibrator element when the vibrator element is at rest, said damping means being movable relative to said vibrator means upon vibration of said vibrator element, and a body having a grooved surface spaced from said vibrator element, a portion of said flexible damping means normally resting in one of the grooves of said grooved surface when the vibrator means is at rest but intermittently contacting the surface during at least part of the vibration and continuously contacting the surface as vibration decays.

2,822,717

ELECTRICALLY OPERATED PLAYER FOR BASS DRUMS

Mike Slawinski, Philadelphia, Pa.
Application December 21, 1953, Serial No. 399,245
1 Claim. (Cl. 84-422)

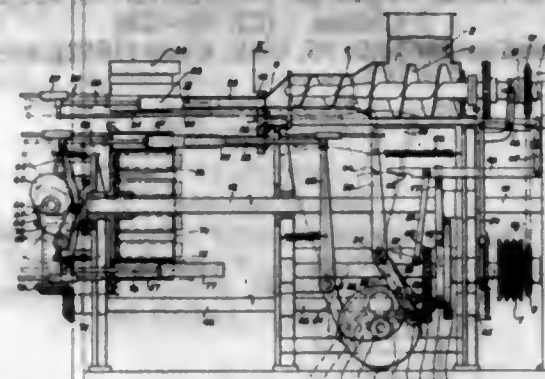


In an electrically operated player for drums, a case having communicating openings in one end and the top of said case, separate means to close said openings, a motor in the bottom of said case, a player shaft journaled in bearings located in the bottom of said case, means for transmitting motion from the motor to said player shaft, flexible drum sticks hinged in the bottom of said case and projectable through the case openings adjacent the player shaft and having hammers on the outer free ends thereof, said drum sticks capable of being flexed for insertion within the case, feet projecting inwardly from the drum sticks, roller means on said player shaft to strike the feet for intermittently retracting the drum sticks, and springs to resiliently urge the drum sticks forwardly to strike the head of a drum positioned adjacent said drum sticks, the means on the player shaft to intermittently retract the drum sticks consisting of a pair of wheels on the player shaft, two inwardly projecting trunnions on one wheel and a single inwardly projecting trunnion on the other wheel, and rollers on all of said trunnions to contact the feet of the respective drum sticks.

2,822,718

MACHINE FOR MAKING CARTRIDGE

Friedrich Niepmann, Gevelsberg, Germany
Application April 28, 1952, Serial No. 289,452
5 Claims. (Cl. 86-20)

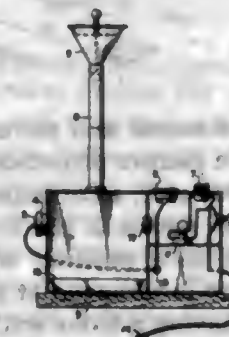


1. A machine for loading cartridges, particularly gelatinous explosive comprising a source of explosive material having a discharge mouth, endless screw means within the said source for forcing the material through the mouth, a rotatable filling dial located directly in front of the discharge mouth, a plurality of hollow tubes carried by the filling dial and movable into registry with said discharge mouth, means to guide and support a container having one closed end in alignment with the central axis of the hollow tubes, a pusher element movable toward and away from the tubes located on the central axis of the tubes, further means to move said last named pusher element toward the tubes to force the containers onto the tubes, a further pusher element movable into the tubes to force the container with the material therein off the tube, a rotatable stop dial arranged axially parallel to and spaced from the filling dial, a series of compartments on the stop dial facing in the direction of the tubes of the filling dial, a counterpoise push rod movable into at least one of the compartments from the end opposite the said filling dial, the push rod being movable in the same plane as the further pusher element, means moving the further pusher element toward the compartment and the push rod out of the compartment so that the material is tamped into the container, and further means to eject the container from the compartment.

2,822,719

MEASURING THE DUSTINESS OF PARTICULATE SOLIDS

Elmer A. Fike, Nitro, W. Va., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
Application October 29, 1953, Serial No. 389,017
2 Claims. (Cl. 88-14)

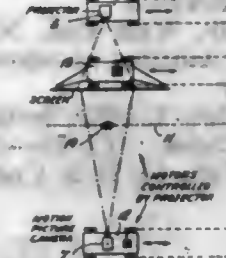


1. A method of evaluating the dustiness of a particulate solid which comprises dropping a given quantity of said particulate solid from a given height, after the solid has fallen, measuring the extent to which dust in the atmosphere above the solid reduces the light transmission across a section of the space above the solid by determining the light transmission at frequent intervals until substantial equilibrium is achieved and summing the results.

2,822,720

METHOD OF IMAGE REPRODUCTION AND CONTROL

Newhall Douglas, Hohokus, N. J.
Application August 1, 1951, Serial No. 239,728
8 Claims. (Cl. 88-16)

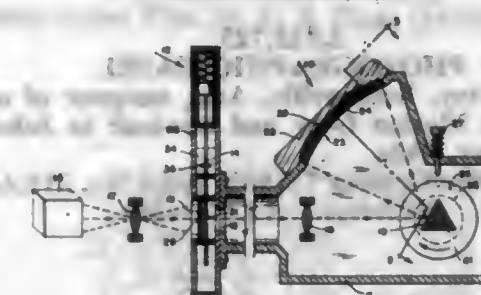


1. The method of reproducing scenes on a motion picture projection screen so that the projected images of objects in the scenes have the same spatial relationships as did the original objects and so that objects if stationary in the original scenes appear as stationary images in the projected pictures, which comprises photographing the scenes on a motion picture film while moving the motion picture camera to cover different fields of view, projecting the film by a movable motion picture projector on a movable dirigible projection screen, moving said projector during said projection so that the projected images occupy positions in space corresponding to those occupied by the original objects, generating signals in response to and corresponding to the movements of the projector, and automatically controlling by said signals the movement of said screen so that the projected images fall on said screen regardless of their spatial positions.

2,822,721

SHUTTER ATTACHMENT FOR HIGH SPEED CAMERAS

Theodore C. Parker, Pasadena, and William C. Griffin, China Lake, Calif.
Application February 2, 1954, Serial No. 407,822
10 Claims. (Cl. 88-16)
(Granted under Title 35, U. S. Code (1952), sec. 266)

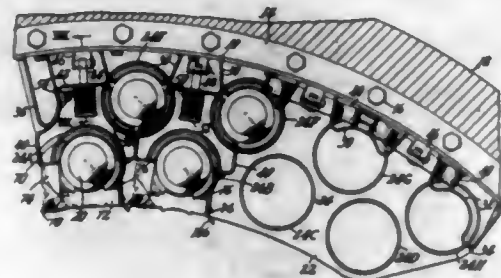


1. In a high-speed camera of the type which has means for holding a strip of film in a fixed position and utilizes a rotating mirror in the optical system thereof, means for releasably positioning said mirror in a given indexed position in which the light from an illuminated object may be reflected to a portion of said strip of film, shutter means to admit light from said illuminated object to said mirror through said optical system with said mirror held in said indexed position to form a latent image of the object on said strip of film, slit means interposable between said object and said optical system whereby upon a second operation of said shutter means with said mirror in the same given indexed position, a still, latent image of a thin strip of the same object in the same position is superimposed upon the first mentioned image on said film, and upon subsequent release of said mirror and operation of said camera as a high-speed camera with said slit still interposed in the optical system, a latent smear image of said thin strip of the same object in the same position is formed upon a different portion of said

2,822,730

READY RACKS FOR SHELLS

John W. Brennan, Salem, and Richard W. Daniels, Wenham, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application March 21, 1955, Serial No. 495,510
3 Claims. (Cl. 89-1)

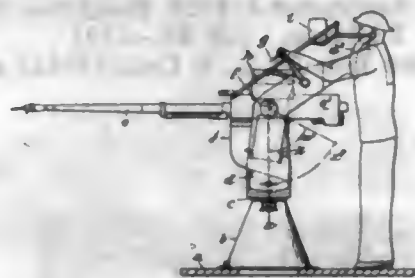


1. In a device for securing shells in upright positions adjacent to a wall, a series of shell holders spring urged toward the wall, each of said holders comprising narrow inner portions adapted to be interposed between two adjacent shells and a wider outer portion overlapping said shells, and latches each secured to and extending across an outer portion and spaced therefrom to enable another shell to be removably secured to the outer portion of a holder.

2,822,731

GUN MOUNTING WITH MAGAZINE AND SPENT AMMUNITION COLLECTOR

Leonard Stevens, Grantham, England, assignor to Brevets Aero-Mecaniques S. A., Geneva, Switzerland, a Swiss society
Application October 14, 1954, Serial No. 462,325
Claims priority, application Great Britain October 15, 1953
3 Claims. (Cl. 89-37)

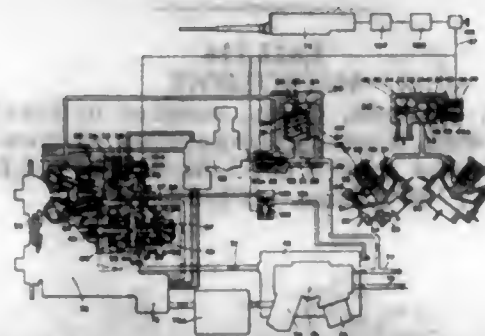


2. A gun installation which comprises, in combination, a base, at least one gun, gun mounting means for supporting said gun pivotally about a normally horizontal laying axis with respect to said base, a magazine for live ammunition components carried by said gun mounting means for rotation together with said gun about said laying axis, a rigid collector for spent ammunition components carried by said gun mounting means for rotation together with said gun about said laying axis, and means for conveying spent ammunition components ejected from said gun into said collector, the whole of said magazine, said collector and said gun mounting means being balanced with respect to said laying axis and said magazine and said collector being located with respect to said laying axis to have their respective lines of leverage to said axis in line with each other and extending in the same direction, with the mean line of leverage of said collector longer than the mean line of leverage of said magazine in the same ratio as the weight of a live ammunition component is greater than the weight of a spent ammunition component.

2,822,732

AIRCRAFT WITH JET PROPULSION ENGINE AND GUN FIRING MEANS

Thomas Laidler Metcalfe, Thorpe Grange, Thorpe, Ashbourne, England, assignor to Rolls-Royce Limited, Derby, England, a British company
Application May 16, 1956, Serial No. 585,190
Claims priority, application Great Britain May 25, 1955
18 Claims. (Cl. 89-133)



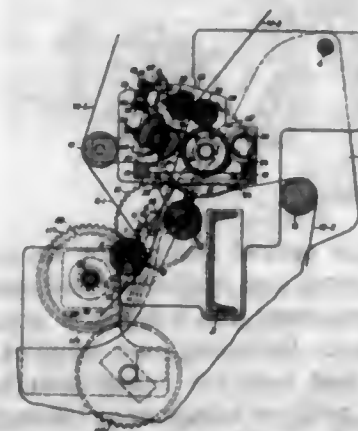
1. An aircraft fitted with a jet-propulsion gas-turbine engine and having at least one gun with firing means therefore, and from which firing there is a tendency for a compressor of the engine to surge at least under certain conditions, valve means arranged in the delivery from the compressor of said engine through which may be bled off air compressed in said compressor, means normally closing said valve, and means connected to the gun firing means whereby said valve means are opened on firing the gun.

2. An aircraft of the type described which is fitted with a simple jet-propulsion gas-turbine engine having a multi-stage axial-flow compressor driven through a single shaft by a turbine and having a compressor fitted with bleed valve means to bleed off from the delivery of the compressor air compressed in the compressor, a gun and firing means therefor on said aircraft, and means to open the bleed valve means when the firing means for the gun is actuated.

2,822,733

MANUFACTURE OF BAGS

Russell J. Williams, Clayton, and Milton J. Helmos, LeMay, Mo., assignors to Bemis Bag Company, St. Louis, Mo., a corporation of Missouri
Application April 5, 1954, Serial No. 420,958
7 Claims. (Cl. 93-8)



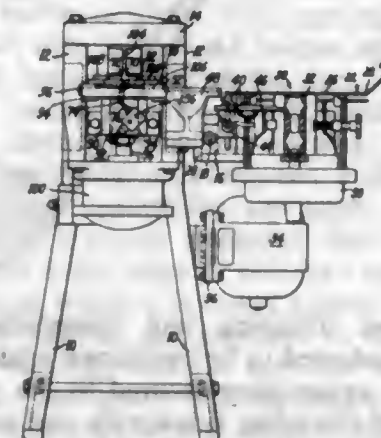
1. Apparatus for forming a continuous multi-ply web having patches between the plies thereof with the patches spaced at intervals along the length of the web, comprising a combining guide, means for guiding a plurality of continuous ply-forming webs for travel at a predetermined speed toward the combining guide in spaced paths with the webs converging together to meet at the combining guide, a cutter located in the space between the ply-forming webs where they converge toward the combining guide, and means for continuously feeding a patch-forming web at a speed lower than the speed of said

ply-forming webs past the cutter and into the bite of said ply-forming webs where they meet at said guide, said cutter being positioned for travel of the patch-forming web in a substantially straight-line path from the cutter to the combining guide and into the bite of said ply-forming webs, said cutter being so located relative to the combining guide as to cut off the patch-forming web on a transverse cutting line spaced from the bite of said ply-forming webs a distance measured along said straight-line path corresponding generally to the desired patch length, and means for operating said cutter and timing the operation thereof to cut the patch-forming web to form a patch substantially at the instant that the end of said patch as cut from the patch-forming web is caught in the bite of said ply-forming webs, whereby the patch immediately upon being cut is drawn in between the ply-forming webs at the speed of the ply-forming webs, and is pulled away from the freshly cut end of the patch-forming web.

2,822,734

BOX MAKING MACHINES

Willard A. Olson, Manchester, Mass., assignor to Hoague-Sprague Corporation, Lynn, Mass., a corporation of Massachusetts
Application December 16, 1955, Serial No. 553,503
12 Claims. (Cl. 93-36.3)

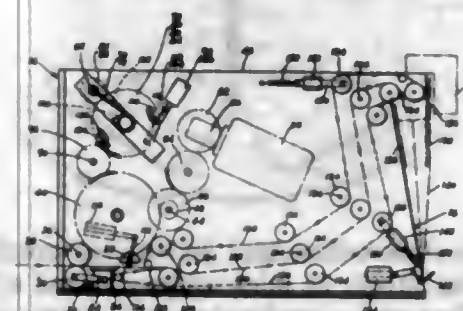


1. A box making machine comprising a movable support for a box end, an abutment normally out of register with said support, a motor for moving said abutment into and out of register with said support, a second motor for moving said support toward and away from said abutment, means operated by a box during its movement onto said support for initiating operation of said abutment moving motor whereby said abutment is moved into register with said support, and means operated by said abutment for initiating operation of said second motor whereby said support is moved toward said abutment for pressing a box end positioned on said support after said abutment has moved into register with said support.

2,822,735

FILM CUTTING MECHANISM

George L. Simon, York, Pa.
Application October 21, 1955, Serial No. 541,931
16 Claims. (Cl. 95-75)



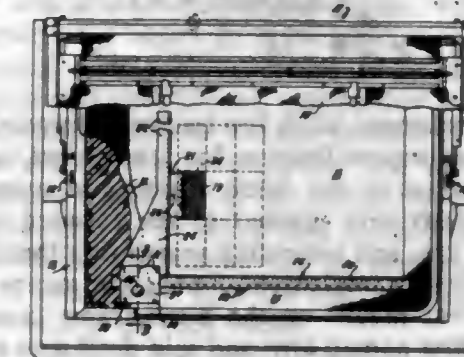
1. Film cutting apparatus operable selectively to feed a roll strip of photographic film selected from films of

different sizes to permit making prints therefrom and cut said roll strip into cut strips of uniform length each having a uniform number of negatives, said apparatus comprising in combination, film cutting means, film exposure means selectively positionable at various distances from said cutting means in accordance with the length of the negatives, means operable to move a roll strip of film longitudinally relative to said film exposure means sequentially an amount substantially equal to the length of one negative on said roll strip, electric motor power means connected to said film moving means to drive the same, electrical control means for said power means selectively adjustable to vary the movement of the film by the film moving means to conform said movement to the length of the negatives of the film strip, means operable to measure lengths of said film as advanced by said film moving means and interconnected to said cutting means and controlling actuation of the same to sever the strip of film into cut strips of film each having a uniform number of negatives therein, means operable to hold a receptacle for said cut strips of film, and conveying means positioned to receive cut strips of film from said cutting means and operable to move said cut strips of film from said cutting means to said receptacle.

2,822,736

SCALE ACTUATOR FOR VACUUM PRINTING FRAME

Jay D. Padgett, Dallas, Tex.
Application July 29, 1955, Serial No. 525,321
6 Claims. (Cl. 95-77)



1. In combination with the make-up mat and transparent cover of a photocomposing machine, means for positioning a negative in relation to a sensitized plate on said make-up mat comprising a negative holder, transverse scale member to which said negative holder is detachably secured, a longitudinal scale member, means including a retainer plate for holding said longitudinal scale member yieldably and slidably against an end of said transverse scale member and means extending through a hole in said retainer plate and engageable with said longitudinal scale member for adjusting the same in a plane at right angles to the plane of said transverse scale member, said adjusting means being removable to permit close union of said make-up mat and said cover in closed position of the latter.

2,822,737

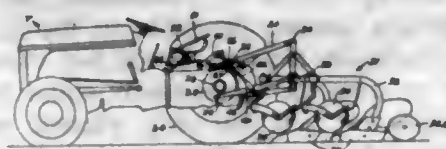
POWER OPERATING SYSTEM FOR TRACTOR HITCH LINKAGE

Ernest V. Bunting, Detroit, Mich., assignor, by mesne assignments, to Massey-Harris-Ferguson, Inc., a corporation of Maryland
Continuation of application Serial No. 16,904, March 25, 1948. This application June 3, 1954, Serial No. 434,177

24 Claims. (Cl. 97-46.07)

17. In a power operating system for a tractor-borne draft linkage, the combination of a hydraulic actuator adapted to be mechanically connected to the linkage for raising and lowering the same, a normal draft load re-

sponsive control mechanism for said actuator and a position responsive control mechanism for said actuator, selector means settable for rendering either one of said control mechanisms operative to control said actuator without being overridden by the other control mechanism



under normal operating conditions, and safety release means for disabling said actuator in response to application of a predetermined maximum value of draft load to an implement attached to the linkage irrespective of which one of said control mechanisms is in use at the moment.

2,822,738

ADJUSTABLE TRACTOR IMPLEMENT HITCH
Fred Thomas Smith, Golden, Colo., assignor, by mesne assignments, to The Calkins Manufacturing Company
Application July 12, 1954, Serial No. 442,701
8 Claims. (Cl. 97-46.93)

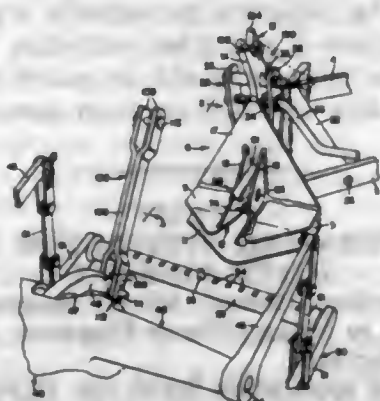


8. An implement hitch for tractors comprising a hitch frame having means thereon for attachment to a tractor, an arm pivoted to the hitch frame and extending forwardly, a draft arm pivoted to the forward end of the first named arm and extending rearwardly therefrom, said draft arm having implement connection means at its free end, and lever means on the hitch frame connected between said first named arm and said draft arm operable to move the rearward portion of the draft arm upwardly when the first named arm pivots downwardly with respect to the hitch frame.

2,822,739

HITCH DEVICE

Herman E. Altgelt, Moline, Ill., assignor to Deere & Company, Moline, Ill., a corporation of Illinois
Application February 23, 1951, Serial No. 212,368
12 Claims. (Cl. 97-47.14)



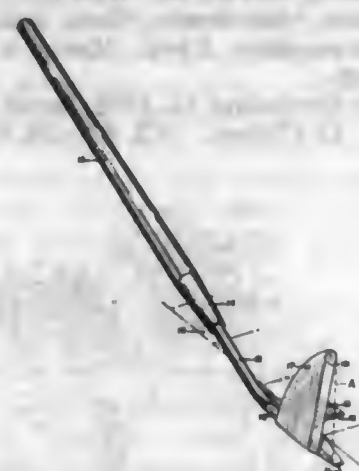
4. A hitch device for connecting an implement to a tractor in draft-transmitting relation, said device comprising a transversely disposed bar having a generally vertically extending guide abutment fixed to the bar, a bracket adapted to be carried on the implement and including upper and lower hitch plate sections disposed in vertically

spaced relation so as to receive said bar therebetween and a rear portion interconnecting said upper and lower sections, one of said plate sections having a generally V-shaped notch, the walls of which are adapted to engage said abutment for guiding the bar into position between said hitch plate sections, and latch means carried by said bracket and engageable with said bar for locking the bracket and bar together, said latch means including means engageable with the forward sides of said transversely disposed bar, there being sufficient clearance in a fore-and-aft direction between said bar engaging means and said bar, when the bar is disposed adjacent said rear bracket portion, to provide for pivotal movement of said transverse bar in a generally horizontal plane about said latch means as a fulcrum relative to the implement.

2,822,740

LAWN TRIMMING TOOLS

Carl Wasinger, Fort Collins, Colo.
Application September 16, 1955, Serial No. 534,697
2 Claims. (Cl. 97-227)

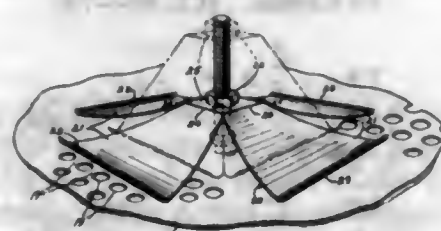


1. A lawn trimming tool comprising: a horizontal square bar adapted to be positioned against the edge of a sidewalk; a gauge plate secured to the upper surface of said bar and extending sidewardly and adapted to rest on the top of a sidewalk; a cutting blade secured on the outer side of said square bar and extending vertically therefrom; an inclined upper surface formed on the forward extremity of said square bar terminating in a transverse sharp edge in alignment with the lower surface of said bar; a cutting edge formed on the vertical forward edge of said vertical blade; the forward edge of the lower portion of said cutting blade being positioned rearwardly of said transverse sharp edge and means for forcing said square bar forwardly alongside a sidewalk.

2,822,741

AIR DISTRIBUTION OUTLET

Walter W. Kennedy, Rockford, Ill., assignor to Barber-Colman Company, Rockford, Ill., a corporation of Illinois
Application July 19, 1954, Serial No. 444,196
8 Claims. (Cl. 98-40)



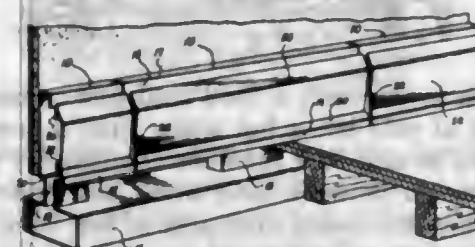
1. An air distribution unit having, in combination, a hollow casing having an inlet at one end and a larger outlet at the other end, a perforated face plate covering said outlet, a deflector smaller than said inlet for intercepting part of the air stream delivered therethrough, said de-

flexor comprising a screw extending through and journaled in said face plate along the axis of the plate, a nut threaded onto said screw above said plate, and a single sheet of resilient material having a central portion secured to said nut and four independently flexible trapezoidal wings sloping downwardly to the top of said face plate, the inclination of said wings relative to said plate being varied in response to movement of said nut toward and away from said plate.

2,822,742

HOT AIR REGISTER

Casimir J. Ochs, Andrew L. Ochs, and Raymond B. Ochs, Seattle, Wash.
Application August 2, 1954, Serial No. 447,232
4 Claims. (Cl. 98-40)

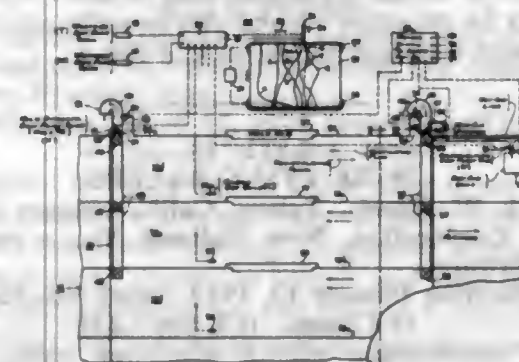


1. A hot air register comprising a horizontally directed tubular duct equipped to receive air therein under pressure; said duct having a front wall opening extending the length thereof, with its top and bottom edges located near the top and bottom limits of the duct, and a valve member applied within said front wall opening, means supporting said valve member for turning in opposite directions on a horizontal axis between a first position at which it is closed against the top edge of the wall opening and provides an air discharge slot between its lower edge and the lower edge of said wall opening, and a second position at which it is closed against the bottom edge of said wall opening and provides an air discharge slot between its top edge and the top edge of said wall opening; the upper and lower edge defining parts of said valve and of the said front wall opening of the duct comprising flat interned flanges so related as to coact, when opened apart, for the downward directing of air discharged at the lower edge of the valve and for an upward directing of air at the top edge of the valve, yieldable means for holding said valve member at a set position of adjustment, at either limit or at any position between its limits.

2,822,743

APPARATUS FOR FORECASTING AND CONTROLLING ATMOSPHERIC CONDITIONS IN STORAGE COMPARTMENTS

Oliver D. Colvin, Seattle, Wash.
Application October 12, 1953, Serial No. 385,642
6 Claims. (Cl. 98-53)



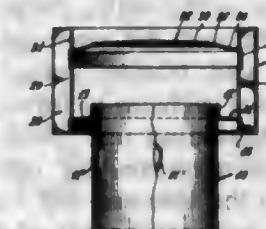
1. In an air conditioning system for use in the storage of goods in a storeroom, such as the hold of a ship, where the air of the storeroom and the goods therein are conditioned by means of such air conditioning system, the latter being of the class including storeroom ventila-

tion means for mixing outer air into the storeroom, air or replacing such storeroom air entirely by outer air, or recirculation means for recirculating the air of the storeroom therein, such air conditioning system including means for sensing the dry bulb temperature (T) of the outer air, and means for sensing the dewpoint temperature (W) of the outer air, the combination with such sensing means of means for sensing the dewpoint temperature (H) of the air in the storeroom, each such means for sensing such dewpoint temperatures comprising apparatus responsive to the quantity of moisture present in the air, and means for producing signals responsive to such quantity of moisture and which are functions of the dewpoint of such air and for acting on said signals to cause same to represent its respective dewpoint temperature (H) or (W), such means for sensing such dry bulb temperature being operatively connected to means for producing signals responsive to such temperature, the means for sensing and producing signals responsive to such dry bulb temperatures comprising one set of means and the means for sensing and producing signals representative of such dewpoint temperatures comprising a separate set of means, means for converting the values of the signals from one of such sets of means to the same scale as that of the signals from the other set of such means, thereby adapting all such values for comparison with respect to a common scale, such several means for sensing temperatures and producing signals including such signal value converting means being operatively connected to means for recording such signals upon a common surface having a common point of origin and a common system of coordinates, namely, a time coordinate and a temperature coordinate, whereby such signals appear as a series of lines or curves upon such surface having such common point of origin and such common system of coordinates, and further whereby such lines or curves comprise in a single graph a record adapted for the act of rapid evaluating and forecasting of the atmospheric conditions in the storeroom by personnel with no knowledge of aerology and psychrometry so that said air conditioning system can be regulated by such personnel in accordance with the trends of such lines or curves in relation to each other.

2,822,744

VENT CAP

Saul Epstein, Los Angeles, Calif.
Application March 15, 1956, Serial No. 571,619
3 Claims. (Cl. 98-84)



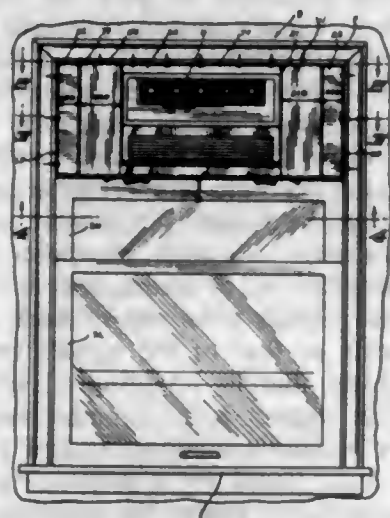
1. A vent cap comprising a vertical cylindrical vent pipe section; a generally annular flange having a generally horizontal continuous portion, an inner annular continuous portion extending vertically upward of the horizontal portion, an outer generally annular continuous portion extending vertically downward of the horizontal portion, and radially extending portions having mounting surfaces extending vertically at equal radial distances from the generally annular flange; a generally cylindrical shield of greater diameter than the annular flange mounted concentrically around the flange to extend vertically upward therefrom, the shield having vertical indented portions fixedly engaging the mounting surfaces of the radially extending portions of the flange; and a generally horizontal circular cap of a diameter substantially equal to

that of the outer annular portion of the flange and having a continuous peripheral portion extending vertically downward and fixedly engaging the vertical indented portions of the shield adjacent the upper end thereof.

2,822,745

AIR CONDITIONER MOUNTING

Richard E. Frank, Bloomington, and Archer W. Brown, Minneapolis, Minn., assignors to Frank Refrigeration, Inc., Minneapolis, Minn., a corporation of Minnesota
Application January 6, 1955, Serial No. 480,202
9 Claims. (Cl. 98-94)



1. A mounting for air conditioners which are adapted to be fitted to windows having a window casing there-around comprising an assemblage of rectangular frames, each including vertical sidewalls and top and bottom walls, said frames set in side by side relationship with their top edges forming a common top-fastening surface and their front facing edges in substantially a common vertical front plane, the side faces of the outermost of said assemblage of frames forming respectively right-side and left-side fastening surfaces, meeting the right and left ends respectively of said top-fastening surface and said common vertical plane substantially at right angles thereto, said assemblage including a central frame having open front and rear faces and horizontal top and bottom supporting surfaces therein for receiving a standard window mounted air conditioner unit, said central frame being provided with air openings in the sidewalls thereof, and at least a first right frame and a first left frame fastened at the right and left sides respectively of said central frame, said first right and left side frames being closed except for openings in the walls thereof adjacent to and communicating with said air openings and openings in their front faces, said frames being fastened together along their contiguous surfaces to form a common mounting for the air conditioning unit, said fastening surfaces being provided with apertures for introducing fastening screws or bolts into the side and top faces of the window frame forming the sole attachment of the assemblage to said window frame.

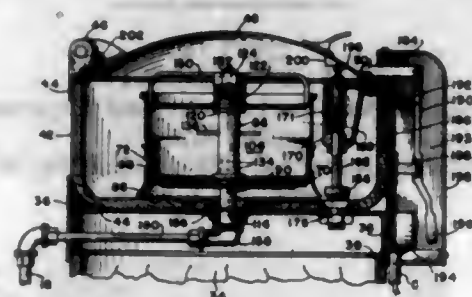
2,822,746

COFFEE BREWING MACHINE

Julius C. Schwall, Brooklyn, N. Y., assignor to Wallin Industrial Corp., New York, N. Y., a corporation
Application May 14, 1954, Serial No. 429,741
3 Claims. (Cl. 99-287)

1. In a coffee brewing machine comprising a base member, a brewed coffee container supported on said base member, a coffee brewing container closing the open upper end of said brewed coffee container, and means securing said base member and said containers together as a unit; the improvement comprising a ground coffee jar having a perforated bottom wall with a substantially cen-

tral opening; filter disk means seated on said bottom wall and having apertures aligned with said opening; a tubular fusion jet threaded through said bottom wall and having a radial flange clamping said filter disk means thereagainst, said jet having a closed upper end and radial ports below said bottom wall and above said filter disk means; the open lower end of said jet extending in fluid-tight relation through an opening in the lower wall of said coffee brewing container and supporting said jar

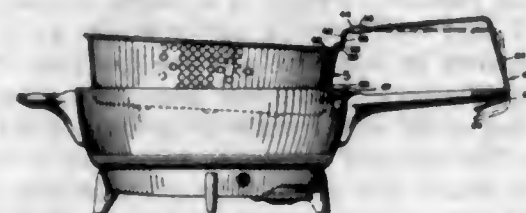


above such lower wall; a fluid feed line connected to the lower end of said jet; a hot water line; a pressure steam line; means in said base member controllably establishing communication between said water and steam lines and said feed line for radial discharge of hot water and steam into the ground coffee in said jar and the brewing coffee in said coffee brewing container beneath said bottom wall; and valve means controlling flow of the brewed coffee into the brewed coffee container.

2,822,747

SKILLET

Fred C. Schwaneke, Chicago, Ill., assignor to Dormeyer Corporation, Chicago, Ill., a corporation of Illinois
Application September 30, 1955, Serial No. 537,756
6 Claims. (Cl. 99-411)



1. In combination with a vessel having an elongate handle and a container removably received in said vessel, a lug on the exterior of said container intermediate the upper and lower boundaries of said container, a handle on said container having an elongate portion adapted to extend in overlying relation to the handle on said vessel and a hook portion integrally formed with said elongate portion having a foot contoured for locking engagement with the handle on said vessel when said lug is disposed in supporting relationship on the edge of said vessel in underlying abutting relation to said elongate portion, said elongate portion being resilient whereby said foot may be manually moved downwardly out of locking engagement with said handle on said vessel.

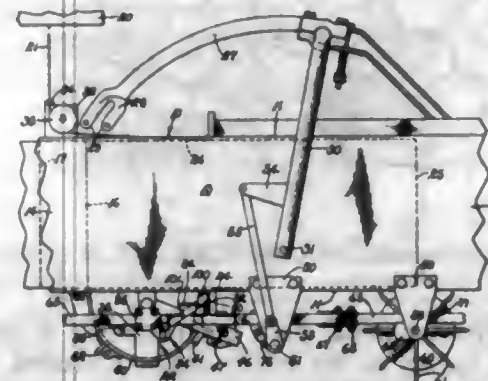
2,822,748

WIRE TYING BALERS

Frederick W. Harris, Tulare, Calif., assignor to Sperry Rand Corporation, New Holland, Pa., a corporation of Delaware
Application January 12, 1952, Serial No. 266,163
10 Claims. (Cl. 100-23)

1. In combination with a wire-tying baler having a bale chamber, means for compressing hay into the chamber, a source of tying wire mounted adjacent to the chamber, means for wrapping wire from the source thereof about a bale formed in the chamber, a wire cutter for severing wire wrapped about the bale from the source of wire, which hay compressing means, wire wrapping

means, and wire cutter are successively operated; an elongated sleeve mounted adjacent to the path of travel of wire wrapped about bales formed in the chamber having an inwardly disposed annular surface providing a shoulder, a rod rotatably mounted in the sleeve, a cam mounted on the rod adjacent to the annular end surface of the sleeve having a portion complementary to the shoulder, means for guiding wire wrapped about bales formed in the chamber into peripheral engagement with

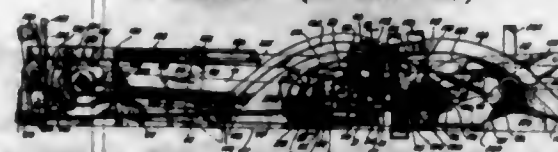


the rod between the cam thereof and the shoulder of the sleeve, and a control linkage synchronously actuated with the wire wrapping means and wire cutter connected to the rod rotating the rod to move the cam toward the shoulder to clamp the wire between the cam and the shoulder as the wire is wrapped about bales formed in the chamber, and to rotate the rod in the opposite direction to release the wire subsequent to the completion of wrapping of wire about the bales formed in the chamber and the cutting of the wire from its source.

2,822,749

HAY BALERS

Edwin B. Nolt, New Holland, and Richard R. Eby, Ephrata, Pa., assignors, by mesne assignments, to Sperry Rand Corporation, a corporation of Delaware
Application January 26, 1952, Serial No. 268,424
14 Claims. (Cl. 100-23)



1. Mechanism for wire tying bales comprising a wire twister, means for holding the free end of a wire extended about a bale, needle means for projecting into the proximity of the free end of the wire that portion of the wire which is to be tied to the free end to complete the tie about the bale, a wire laying device juxtaposed to said twister for laying said portion of the wire in the twister to be joined to the free end, and a wire transfer device for engaging the wire as projected by the needle means and transferring it to the wire laying device.

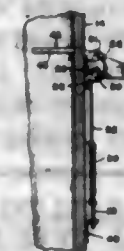
2,822,750

BALE PRESS

John A. Austin, Maricopa, and Ernest Pruitt, Chandler, Ariz., assignors to Producers Cotton Oil Company of Arizona, Phoenix, Ariz.
Application March 15, 1956, Serial No. 571,744
6 Claims. (Cl. 100-220)

1. Material retaining means for a baler press comprising a main shaft of a length approximately equal to the width of a bale door, bearings supporting said shaft for pivotal movement, means to secure said bearings to the bale door adjacent the upper end thereof, a pair of collars on said shaft for cooperation with opposed portions of said bearings to prevent endwise movement of the shaft, a plurality of lever plates each having a first aperture at one end for receiving said shaft and a second aperture at the other end for receiving a sprocket shaft, means fixing said lever plates on said main shaft, a sprocket shaft mounted in the second apertures in said lever plates and

being fixed against rotation therein, a plurality of sprockets fixedly mounted in spaced relation on said sprocket shaft, a chain on each sprocket having an end fixed to its associated sprocket and extending between the plane defined by said sprocket shaft and said main shaft when the sprocket shaft is above the main shaft and the bale door, a spring secured to the other end of each chain and an anchor bolt fixed to the free end of each spring, anchoring brackets mounted on said door through which the anchor bolts extend, means for adjusting the tension of said springs by means of the anchor bolts, and a plurality of chair-shaped retaining dogs having back and seat

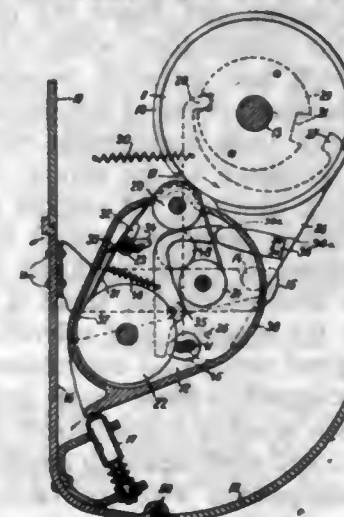


portions and having apertures therethrough adjacent the intersection of the back and the seat portions, said dogs being freely rotatably mounted on said sprocket shaft, the seat portion of such dogs being adapted to contact the main shaft to limit movement in one direction, the leg portion of the chair-shaped dog being of sufficient weight to cause the seat portion to normally engage the main shaft and maintain the back portion of the dog in a horizontally retaining position, said bale press door having slots through which the dogs project into the baling chamber, said dogs being completely withdrawable from the chamber to permit the baling ram to fully compress a bale.

2,822,751

APPARATUS FOR PRINTING VOUCHERS, TICKETS AND THE LIKE

Fritz Haseloff, Kassel, Germany, assignor to Licentia Patent-Verwaltungs-G. m. b. H., Hamburg, Germany
Application May 23, 1955, Serial No. 510,113
Claims priority, application Germany October 1, 1948
3 Claims. (Cl. 101-66)



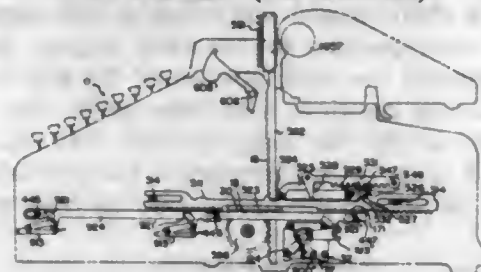
1. In an apparatus for printing vouchers, tickets and the like, having a housing, a printing roller, and a lockable record box, removably arranged in said housing, and movable to and from cooperative engagement with the printing roller, said record box comprising at least two parts forming the box casing and adapted to be locked together, and a recording strip in said record box, said printing roller being adapted to print a text on the recording strip; the improvement, in combination, of roller locking means in said housing, for locking the printing roller so as to prevent its operation; box locking means for locking said box casing parts together, and comprising tappet means; a shiftable strip control device in said record box adapted for being tensioned by said recording strip passing thereover, and shiftable upon rupture or exhaustion of the latter, and contact lever

means in said record box, cooperating, on the one hand, with said tappet means of said box locking means and with said strip control device, and, on the other hand, with said roller locking means; said roller locking means being actuated by way of said contact lever means to lock said printing roller in inoperative position, firstly, when the casing parts of said record box are unlocked by turning said box locking means and said tappet means therewith, the latter thereby shifting said contact lever means, relative to said roller locking means, secondly, when said strip control device is shifted from cooperation with said contact lever means upon the interruption of tension thereon due to rupture or exhaustion of the recording strip, and, thirdly, when said record box and said contact lever means therewith, are removed out of said housing and from cooperative engagement with said printing roller, and said roller locking means, respectively.

2,822,752

DIFFERENTIAL TYPE SETTING AND RESETTING MEANS

Robert S. Bradshaw, Broomall, and Du Ray E. Stromback, Paoli, Pa., assignors to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application March 4, 1955, Serial No. 492,186
19 Claims. (Cl. 101-93)



1. A system of the class described comprising, an elongated member having a plurality of ratchet teeth thereon, means to yieldingly drive said member in one direction and subsequently positively return said member, a clapper urged into engagement with the above mentioned ratchet teeth by an associated spring, a solenoid, means to energize said solenoid, said solenoid when energized being operable to resist the spring and retain the clapper out of engagement with the ratchet teeth when the clapper is in physical contact with said solenoid, however, said solenoid even when energized being of insufficient strength to withdraw the clapper from engagement with the ratchet teeth against the resistance of the spring, means for selectively determining which of the ratchet teeth is to be engaged by the clapper, additional means operable while the elongated member is being yieldingly driven to determine when the selected ratchet tooth is in a position to be engaged by the clapper, said solenoid being automatically de-energized when said determination is made, thus enabling the clapper to move under the urging of its spring to engage the selected ratchet tooth and arrest the elongated member, and reset means to positively move the clapper out of engagement with the ratchet tooth and back into contact with the solenoid prior to the positive return of the elongated member to its initial position.

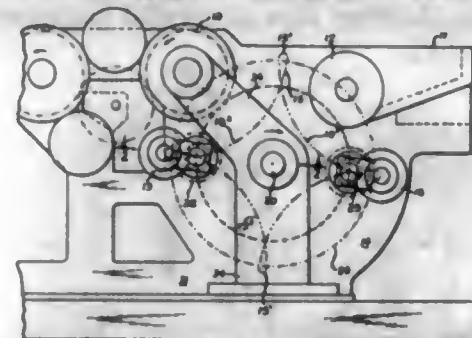
2,822,753

ROTARY DUCTOR MECHANISM

Richard Woessner, Fair Lawn, N. J., and Albert T. Zarick, York, Pa., assignors to R. Hoe & Co., Inc., a corporation of New York
Application September 21, 1956, Serial No. 611,307
4 Claims. (Cl. 101-350)

1. In a printing machine ink motion having a fountain roller and a train of ink motion rollers including a first ink drum, the combination with the ink drum and fountain roller of ductor roller mechanism for transferring ink from the fountain roller to the ink drum, and comprising a rotary support, bearings supporting the same between fountain roller and ink drum, a pair of ductor roller

supporting shafts rotatably journaled in the said support eccentrically to its axis of rotation and opposite each other with respect to the said axis, a spur gear carried by each said shaft at one end thereof and a roller supporting arm carried by each said shaft at the other end thereof, bearings at the ends of said arms supporting a pair of ductor rollers, an internal ring gear and means mounting it for engagement with the said spur gears,



whereby a hypotrochoidal path of movement is imparted to the ductor rollers as the rotary support rotates, the dimensions of the parts being such that the said path of movement comprises four concave sections with loops between them, one of the said concave sections being nearly concentric with an adjacent ink drum and another concave section being nearly concentric with the axis of the fountain roller.

2,822,754

PLATE LOCK-UP MECHANISMS FOR PRINTING MACHINES

William F. Heck, Forest Hills, N. Y.
Original application May 29, 1950, Serial No. 165,029, now Patent No. 2,694,976, dated November 23, 1954.
Divided and this application February 2, 1954, Serial No. 407,766

2 Claims. (Cl. 101-415.1)



1. A printing cylinder plate clamp arrangement for gripping and tensioning a flexible plate, of which one end is fixedly secured to the cylinder, said arrangement comprising a control shaft in the cylinder extending parallel to the cylinder axis and a clamp mounted in the cylinder for control by said control shaft; said clamp comprising a clamp jaw plate mounted for limited bodily movement between clamping and releasing positions; a cooperating jaw member mounted on said plate, a loaded compression spring bearing on said member to move the jaw member to a limiting position in which its jaw closes against said jaw plate and in which position the spring thrust urges said jaw plate and member as a unit in the plate tensioning direction, a control rod connected to said shaft and having a formation engaging said spring to increase the compression of the latter in one direction of rotation of said shaft, and means on the rod for pulling said member and said jaw plate against the spring force in the other direction of rotation of said shaft; whereby in the plate gripping and tensioning position the spring is in its state of maximum compression.

2,822,755

FLIGHT CONTROL MECHANISM FOR ROCKETS

Lawrence K. Edwards, Glendale, and Arthur L. Lowell, Ferguson, Mo., and Allan J. Summers, Altadena, Calif., assignors to McDonnell Aircraft Corporation, St. Louis, Mo., a corporation of Maryland
Application December 1, 1950, Serial No. 198,514
11 Claims. (Cl. 102-50)

1. A stabilizing device for self-propelled missiles comprising a tubular casing provided with a propellant chamber, a plurality of uniformly circumferentially spaced members supported by said casing, each member being

provided with a passage opening to said propellant chamber and having a nozzle adapted to discharge radially outwardly and a second nozzle discharging axially of said casing, a spoiler for each of said radial nozzles pivotally mounted on its respective member, pivotally mounted spoiler means opposite each of said second mentioned nozzles, means for actuating each of said pivotally mounted spoiler means for permitting gases issuing from said

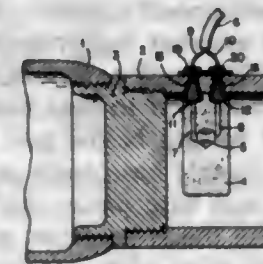


axial nozzle to be unopposed, an element on each of said spoilers positioned adjacent a corresponding one of said second mentioned nozzles and adapted to be impinged by the issuing jet to move said spoiler away from a position over said radially outwardly discharging nozzle; and means for selectively actuating any one of said pivotally mounted spoiler actuating means in order that the jet issuing from the uncovered radially outwardly discharging nozzle will cause the missile to retain its intended heading.

2,822,756

TERMINAL ARRANGEMENT FOR ROCKET MISSILES

Nils-Erik Gustaf Küller, Karliskoga, and Karl-John Thorild Thorildsson, Bofors, Sweden, assignors to Aktiebolaget Bofors, Bofors, Sweden, a Swedish corporation
Application May 15, 1953, Serial No. 355,242
8 Claims. (Cl. 102-49)



1. In a rocket missile having a war head, a generally tubular rocket motor, a firing charge and an electric detonating device for said charge disposed within the rocket motor, a generally cylindrical intermediate member joining the war head with the rocket motor and formed with an annular groove, electric terminal means extending through the wall portion of said member defining said groove for connecting the detonating device with a distant power supply, said terminal means comprising outwardly tapered bushings having a portion protruding into said groove, and a sleeve member fitted upon said intermediate member for covering said groove flush with the outer side wall of the rocket motor.

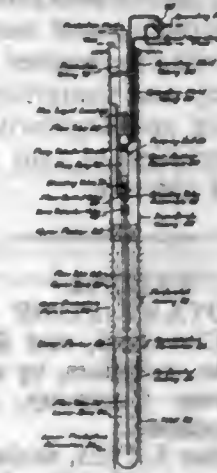
2,822,757

TWO-ZONE PUMPING SYSTEM AND METHOD

Clarence J. Coberly, San Marino, Calif., assignor to Kobe, Inc., Huntington Park, Calif., a corporation of California
Application March 7, 1955, Serial No. 492,690
22 Claims. (Cl. 103-46)

1. In a two-zone pumping system, the combination of: means providing upper and lower productive zones and a reservoir in a well; zone-selector valve means communicating with said zones and said reservoir and for selectively connecting said zones to said reservoir; and flow-

control valve means in series with said zone-selector valve means and responsive to the liquid level in said

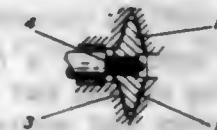


reservoir for regulating the rate of flow from the selected zone to said reservoir.

2,822,758

CENTRIFUGAL PUMPS AND COMPRESSORS

Ernest Baker Dove, Luton, England, assignor to D. Napier & Son Limited, London, England, a company of Great Britain
Application June 1, 1954, Serial No. 433,783
Claims priority, application Great Britain June 1, 1953
2 Claims. (Cl. 103-103)

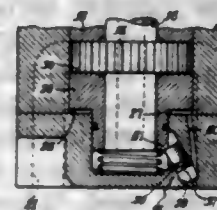


1. A centrifugal pump comprising a casing having oppositely disposed axially spaced end walls and a rotary double entry centrifugal impeller having blades provided with opposite radial edges conforming to the adjacent surfaces of the end walls, means mounting said impeller for rotation within the casing and for limited free movement in both axial directions up to the point where the opposite radial edges of the impeller blades contact their respective adjacent end wall of the casing, at least part of both opposite radial edges of the impeller blades at locations axially opposed to the axial end walls of the casing being inclined rearwardly to the direction of movement of the blades relative to the casing whereby the action of the fluid between such blade edge and the adjacent wall of the casing, when the edge approaches the wall, tends to urge the impeller bodily in the opposite axial direction.

2,822,759

PRESSURE LOADED GEAR PUMP

Francis E. Norlin, Chesterland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application September 28, 1953, Serial No. 382,604
9 Claims. (Cl. 103-126)



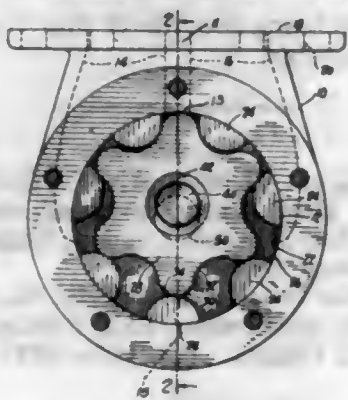
1. In a pressure generating pump of the type including a housing containing intermeshing gears and having an inlet leading to and an outlet leading from said housing, axially movable bushings and fixed bushings, each of said bushings having a forward surface engageable with the side face of said gears, said axially movable bush-

ings being subject to discharge pressure to maintain sealing engagement with the gear side faces during operation of the pump, and means associated with said axially movable bushings for urging said bushings towards the gears, said means exerting its greatest force adjacent the outlet side of the pump and comprising pistons adjacent an end of each bushing and angularly disposed with respect to the axis of rotation of said intermeshing gears and responsive to fluid pressure.

2,822,760

ROTARY PUMP

Waldo P. Schirmer, Cleveland, and Richard A. Knaus, Shaker Heights, Ohio, assignors, by mesne assignments, to The Wayne Pump Company, Salisbury, Md., a corporation of Maryland
Application October 5, 1953, Serial No. 383,996
2 Claims. (Cl. 103—126)



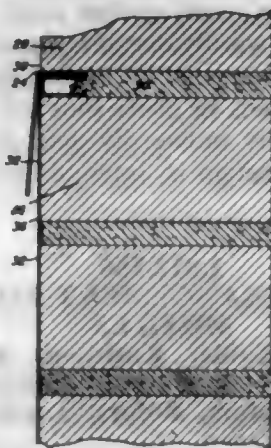
1. A rotary pump comprising a casing including a cylindrical cavity having an inlet and an outlet port disposed adjacent each other and separated by a dividing wall having an end contiguous to said cavity, an outer rotor including a cylindrical disc mounted upon a shaft, a bearing means mounted upon said casing for rotatably supporting said shaft, outer rotor teeth disposed about the periphery of said disc and extending longitudinally therefrom, the outer surfaces of said outer rotor teeth disposed adjacent the cylindrical surface of said casing forming a wall of said cavity being constructed and arranged as arcs of circles having a constant radius substantially equal to the radius of said adjacent wall to rotate in sealing contact relative thereto, the inner surfaces of said outer rotor teeth being shaped as arcs of circles having a constant radius, an inner rotor having teeth formed by tangent circular convex and concave surfaces, said inner rotor being rotatably mounted within said cavity in eccentric meshing engagement within said outer rotor to provide spaces between said teeth of said rotors of varying size about the periphery of said inner rotor, said outer rotor teeth being spaced from each other to provide passageways connecting said ports with said spaces between said teeth of said rotors, the number of teeth upon said inner rotor being one less than the number of teeth upon said outer rotor, said circular concave and convex surfaces of said inner rotor teeth being shaped as arcs of circles having a constant radius, said inner circular surfaces of said outer rotor teeth having a radius of curvature slightly less than the radius of curvature of said circular concave surfaces of said inner rotor, the axis of rotation of said inner rotor being disposed along an imaginary line extending through the axis of rotation of said shaft and the center of said dividing wall, said radius of curvature of said inner circular surfaces of said outer rotor teeth and said circular concave surfaces of said inner rotor having an identical center which is disposed upon said imaginary line when said outer rotor teeth are centered upon said line, said inner rotor teeth extending at said line in tangency with and between a pair of said outer rotor teeth to the periphery of said outer rotor in seal-

ing contact with said end of said dividing wall to displace a maximum amount of fluid from the spaces between said outer rotor teeth at said dividing wall and to seal said inlet port from said outlet port, and the centers of said rotors being displaced from each other along said line a distance equal to one-half of the height of said teeth upon said outer rotor to cause said inner rotor to have every one of its teeth in sufficient sealing contact with at least one of said teeth upon said outer rotor at all times to maintain an adequate seal between said spaces between said teeth and between said inlet and outlet ports about the longer path around the peripheries of said rotors.

2,822,761

FLASHING ARRANGEMENT

John W. Herring, Hannibal, Mo.
Application March 9, 1954, Serial No. 415,036
1 Claim. (Cl. 108—26)



A flashing arrangement for use in a masonry construction comprising a flashing channel member inserted between vertically superimposed courses of masonry units, said flashing channel member comprising a flashing plate, a downwardly extending back connected to said flashing plate, a base piece connected to said back and extending substantially parallel to and below said flashing plate, a front part connected to said base piece and extending substantially normal to said base piece, said front part lying substantially flush with the front faces of said courses of masonry units, a supporting plate connected to said front part extending substantially parallel to said flashing plate and spaced from said flashing plate and said base piece, a main flashing lying substantially against the front faces of said courses of masonry units, said main flashing having a flange attached thereto, said flange being received between said flashing plate and said supporting plate, said flashing plate having a downwardly extending portion overlying said main flashing, said back having a plurality of apertures extending therethrough for reception of mortar to lock said flashing channel member between said courses of masonry units, said flashing plate having a groove therein in alignment with said front faces of said courses of masonry units for enabling said flashing plate to be bent along said groove to overlie said main flashing.

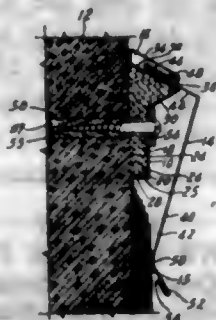
2,822,762

REGLET AND COUNTER-FLASHING

Edward T. Berg, San Francisco, Calif.
Application November 29, 1955, Serial No. 549,751
3 Claims. (Cl. 108—26)

2. The combination of a reglet adapted for attachment to a wall and comprising a metal sheet bent to form a first area, a second inwardly turned area formed along the lower edge of said first area, a third area slanting upwardly and outwardly away from the upper edge of said first area, a fourth oppositely slanted area extending upwardly away from the outer edge of said third area, a fifth area adjoining said fourth area along its upper edge

and bent backwardly upon said fourth area to form with said fourth area a downwardly slanted channel adapted to receive a counter-flashing, and a retaining lip formed along the mouth of said channel, calking compound packed into the concave space formed by the first, second, third and fourth areas of said metal sheet and means



for securing the reglet to the wall with said first area in substantially parallel and spaced relation thereto; with a counter-flashing comprising an apron adapted to overlie and shield roofing material, and a yieldable lip formed along the upper edge of said apron and inserted into the channel of said reglet past the retaining lip thereof.

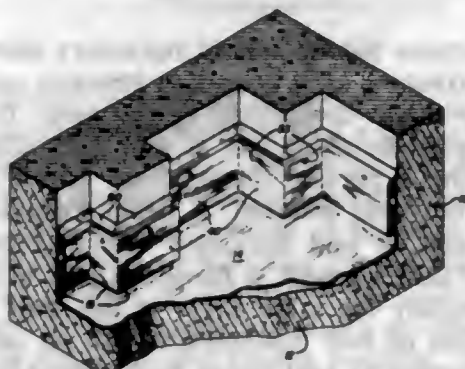
2,822,763

REGLET AND COUNTER-FLASHING

Edward T. Berg, San Francisco, Calif.

Application January 22, 1957, Serial No. 635,231

1 Claim. (Cl. 108—26)



A flashing installation for walls forming corners comprising a reglet of sheet metal having a support portion adapted to lie flat against the wall and a wall portion disposed parallel to and above said support portion in a different vertical plane and having a straight horizontally disposed upper edge, said wall portion having vertical incisions at points corresponding to the corners in said wall and said reglet being bent to conform to the configuration of the wall along vertical lines determined by said incisions, a continual counter-flashing formed by a metal sheet having its upper edge portion turned backwardly upon itself to form a retaining flange extending parallel to the remaining part of said sheet, vertical incisions provided in said flange at points corresponding to the corners in said wall, said counter-flashing being bent along vertical lines determined by said incisions to conform to the configuration of the wall and the flange of said counter-flashing being engaged over the upper edge of the wall portion of said reglet; and a plastic compound packed into the space between the wall and the engaged flange of said counter-flashing, said compound being banked up to form a slope slanting from said flange upwardly into contact with the face of the wall to which said reglet is secured.

2,822,764

FASTENING UNIT FOR INSULATING ROOFS

George D. Wildman, Gardena, Calif.

Application January 26, 1954, Serial No. 406,267

6 Claims. (Cl. 108—33)

1. In combination, a purlin, a headed pin resting on the purlin, means anchoring the pin to the purlin, said

pin having a large diameter portion at the headed end and a smaller diameter portion coaxial therewith and of a number of times greater length, the annular shoulder between the portions being rounded, a corrugated sheet with the bottom surfaces of its valleys resting on the



purlin and a bottom surface of a ridge resting upon the rounded shoulder, a second corrugated sheet, means between the corrugated sheets urging them apart, and a head on the pin limiting movement of the second sheet away from the first sheet.

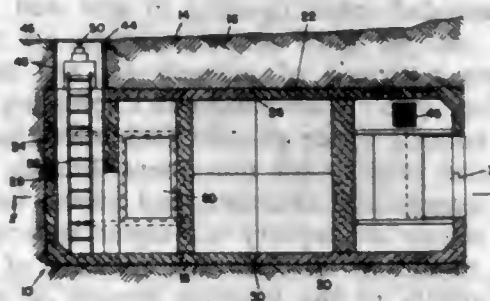
2,822,765

BOMBSHELTER

Fred Rudinger, New York, N. Y., assignor to Gibraltar Shelters Inc., New Rochelle, N. Y., a corporation of New York

Application February 13, 1956, Serial No. 564,971

1 Claim. (Cl. 109—1)

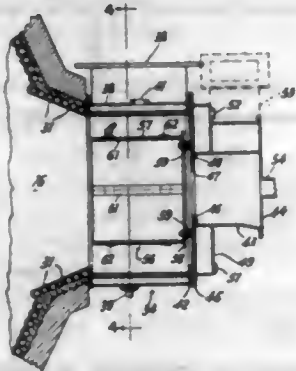


A residence dwelling comprising a basement, a passageway in the wall of said basement, said passageway descending appreciably below the level of the floor of the basement, an upright barrier on the floor of the basement barring the entrance to the passageway, the space intermediate the top of said barrier and the ceiling of the passageway being sufficient to permit a person to obtain access to the passageway, a generally imperforate shell formed from a plurality of precast concrete shell members in communication with said passageway, said shell having a rectangular cross-section, said precast concrete shell members being joined together along rabbeted joint lines, an entrance into said shell formed in one vertical wall of said shell, said entrance including a door spaced somewhat above the floor of the shell and passageway, a surrounding concrete partition within said shell proximate to and spaced from said door, an interior door in said partition positioned in a plane generally normal to the plane of said door, an escape hatchway extending through the uppermost precast concrete shell member at a point opposite from said entrance, a fitted cover for said hatchway, means disposed in the upper portion of said hatchway for raising said cover, a surrounding concrete partition within said shell proximate the escape hatchway, an interior door in said partition positioned in a plane generally normal to the plane of the entrance door, with said entire shell being disposed beneath the surface of the ground except for said fitted cover, said fitted cover being substantially flush with the ground surface.

2,822,766

FUEL BURNING APPARATUS

William T. McCullough, Jr., Scarsdale, N. Y., assignor to The Babcock & Wilcox Company, Rockleigh, N. J., a corporation of New Jersey
Application January 26, 1951, Serial No. 207,933
2 Claims. (Cl. 110—28)

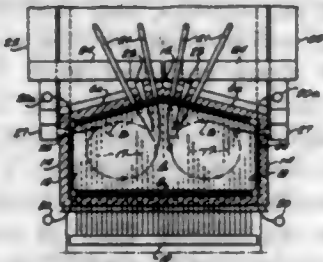


1. In a cyclone furnace having a circumferential wall defining a combustion chamber of substantially circular cross-section, an end wall portion having a fuel and air inlet opening therein, port means in said circumferential wall for introducing secondary combustion air under superatmospheric pressure conditions substantially tangentially into the circular cross-section portion of said combustion chamber, a fuel and primary air inlet chamber of substantially circular cross-section concentric with said combustion chamber and having an outlet at one end registering with said fuel and air inlet opening, a filler member of circular cross-section radially inwardly spaced from the circumferential wall of said inlet chamber and defining with said wall a circumferentially continuous annular space opening at one end directly to said fuel and air inlet opening, means for tangentially introducing a stream of primary air and slag-forming particle fuel under superatmospheric pressure conditions into the annular space of said fuel inlet chamber at a high angular velocity for movement through said outlet into said combustion chamber, and means for passing a whirling stream of tertiary air under superatmospheric pressure conditions through the interior of said filler member axially of the whirling stream of primary air and slag-forming particle fuel entering said combustion chamber.

2,822,767

SLAG TAP FURNACE

Karl-Heinz Küppers, Oberhausen, Rhineland, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application June 1, 1953, Serial No. 358,649
7 Claims. (Cl. 110—28)



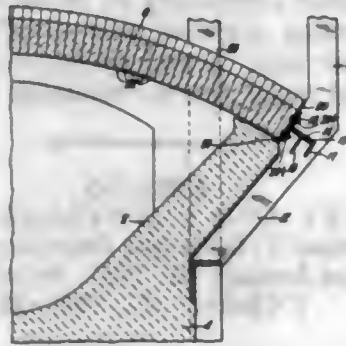
6. Apparatus for burning slag forming fuel comprising wall means forming a horizontally elongated combustion chamber of generally symmetrical formation about a central longitudinal plane, means forming a substantially restricted gas outlet in the upper portion and at one end of said chamber, means forming a restricted slag outlet in the lower portion of said combustion chamber for the continuous discharge of molten slag, means for burning a slag-forming solid fuel in said chamber under a mean chamber temperature above the fuel ash fusion temperature including a series of longitudinally spaced fuel nozzles opening

into the upper portion of said chamber on opposite sides of said plane, and a series of longitudinally spaced air nozzles opening into the upper portion of said chamber on opposite sides of said plane and intermediate said fuel nozzles, the nozzles on either side of said plane having convergently related axes and being arranged to introduce streams of fuel and air into the upper portion of said chamber substantially tangentially to an imaginary horizontally disposed cylinder thereby effecting the formation of whirling burning fuel-air streams of opposite rotation within the combustion chamber.

2,822,768

METALLIC SKEWBACK FOR FURNACE ROOFS

Charles J. Barkley, Orem, Utah, assignor to United States Steel Corporation, a corporation of New Jersey
Application January 22, 1953, Serial No. 332,645
1 Claim. (Cl. 110—99)

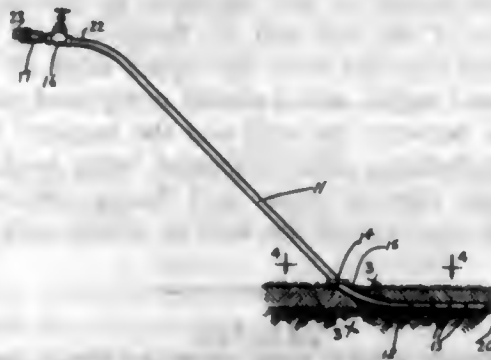


In a furnace having spaced refractory sidewalls and a sprung refractory arch extending between said sidewalls: the improvement comprising spaced apart buckstays extending upwardly along one of said sidewalls, said buckstays having a portion thereof bent outwardly and upwardly from said sidewall, a beam extending between and fastened to said buckstays and positioned entirely outside of said sidewall, a flange on said beam arranged at substantially the same angle as the inner face of the bent portion of said buckstays, a web on said beam extending normal to said flange and outwardly therefrom, said web being located intermediate the top and bottom of said arch, said flange and web being exposed to the surrounding air, a protective skewback plate fastened to said flange and extending upwardly and at least to the outward extremity of said flange and outwardly at an angle from a point adjacent the top outside face of the adjacent refractory wall in substantially the same plane as the inner face of the bent portion of said buckstays.

2,822,769

MEANS FOR SUB-IRRIGATION

Wilbur A. Green, Seattle, Wash.
Application August 30, 1954, Serial No. 453,009
5 Claims. (Cl. 111—7.1)



1. A sub-irrigating implement comprising a pipe providing a moderately long section adapted to be held in the hand, having at one end thereof a coupling for joining the pipe to a source of water supply under pressure, and at the other end presenting an elbow bend of approxi-

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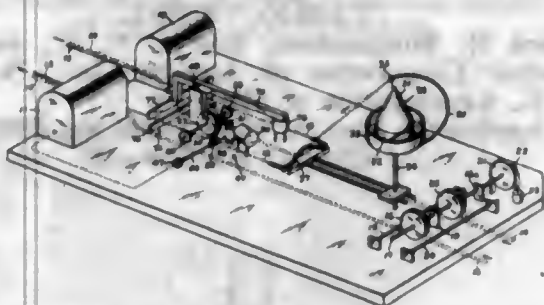
mately 135° terminating in a straight nozzle which is of short length compared with the length of the handle section, said implement in use being adapted to have the nozzle inserted in the ground with the inside angle of the elbow uppermost and such that the nozzle lies a moderate distance below and approximately parallel with the surface of the ground, the nozzle being imperforate along the top and being provided along the sides with laterally directed small diameter outlet openings spaced at intervals of the length, the nozzle being closed at the end so that the full pressure of water flowing through the pipe will be concentrated on said side openings.

2,822,770

HANDLING DEVICES FOR SLIDE FASTENER COMPONENTS

Lawrence Schwartz, New York, N. Y., assignor, by mesne assignments, to Cue Fastener, Inc., a corporation of New York

Application September 23, 1954, Serial No. 457,890
12 Claims. (Cl. 112-2)



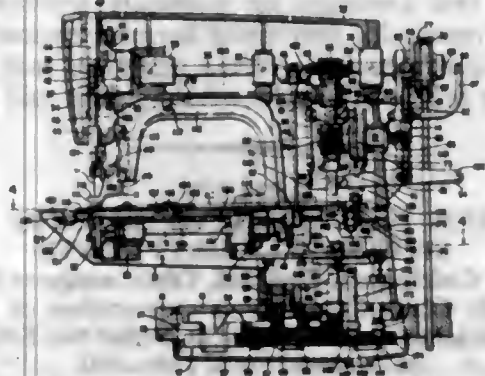
1. An apparatus for making slide fasteners comprising a sewing machine, means for supplying a strip of material to said sewing machine under substantially uniform tension, feed means responsive to the operation of the sewing machine for supplying a string of fastening elements to said sewing machine to be sewed to said strip of material in timed relation to the motion of said strip, the last mentioned means including a clutch to interrupt the supply of said string to said sewing machine, means for cutting said string before it is sewed to said strip, and means for releasing said clutch and actuating said cutting means in timed relation to the operation of said sewing machine to supply sections of said string in endwise spaced relation to said sewing machine.

2,822,771

SEWING MACHINES

Arthur N. Hale, Park Ridge, Ill., and Michael F. Ivanko and Richard P. Graham, Stratford, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application September 30, 1955, Serial No. 537,704
9 Claims. (Cl. 112-65)



1. A sewing machine having a frame including a sub-base portion having a substantially flat upper surface suitable for disposition flush with a supporting table-top, a bed unit including a standard portion adapted to be secured upon said sub-base portion, and a work-supporting

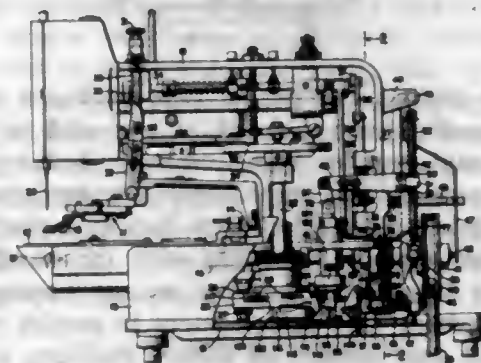
arm extending from said standard in spaced relation above the upper surface of said sub-base portion, and a head unit including a standard disposed to extend vertically upward from the standard of said bed unit, a bracket-arm extending from said head unit in vertically spaced relation to said work-supporting arm, a work penetrating needle carried in said bracket-arm, means within said bracket-arm for imparting endwise work penetrating reciprocations to said needle, stitch forming mechanism complementary to said needle carried in said work-supporting arm, actuating means for said stitch forming mechanism disposed in said work-supporting arm, a work holding clamp slidably pivoted to said work-supporting arm, a pattern cam carried in said sub-base portion, means controlled by said pattern cam for imparting relative motion between said work holding clamp and the path of endwise work penetrating reciprocation of said needle, and drive means extending into the sub-base portion, the bed unit and the head unit for synchronizing the operation of the needle, the complementary stitch-forming instrumentalities, and said pattern cam.

2,822,772

AUTOMATIC CLAMP-OPENER THROW-OUTS

William J. Edwards, Stratford, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application March 8, 1955, Serial No. 492,991
13 Claims. (Cl. 112-110)



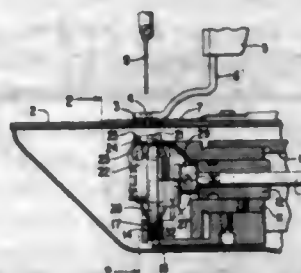
1. In a cyclically operated sewing machine having a drive means and a stop motion mechanism for stopping said sewing machine at a definite predetermined point in a sewing cycle, means for interrupting said drive means prior to said predetermined point comprising a control latch adapted to maintain said drive means in operative driving relation with said sewing machine, a plurality of latch releasing means operated by said sewing machine each being capable of tripping said latch to interrupt said drive means at a different interval prior to said predetermined point, and means rendering effective a selected one of said latch releasing means.

2,822,773

SHUTTLE MECHANISMS FOR SEWING MACHINES

Michael Francis Ivanko, Stratford, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application October 22, 1954, Serial No. 463,916
8 Claims. (Cl. 112-232)



1. Shuttle mechanism for a sewing machine comprising a shuttle support having a circular raceway, an oscillat-

ing shuttle having a bearing rib complementary to said raceway and journaled for oscillation in said raceway, means for imparting oscillation to said shuttle comprising a shuttle driver including a head having an outer surface which at a point upon each side of the center of oscillation thereof is complementary to said raceway and journaled in said raceway for oscillation, said shuttle driver being adapted to contact said shuttle upon opposite sides of the center of oscillation thereof whereby upon oscillation of said shuttle driver oscillation will be imparted to the shuttle, and means for oscillating said shuttle driver.

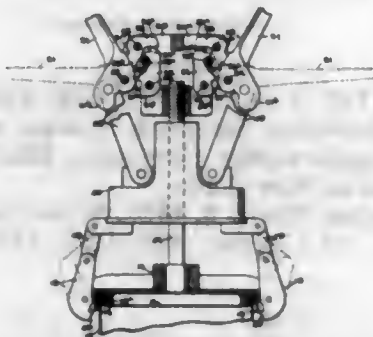
2,822,774

CAN CLOSING TOOL

Charles M. Stearns, Jr., Barrington, Ill., assignor to Grotnes Machine Works, Inc., Chicago, Ill., a corporation of Illinois

Application January 11, 1955, Serial No. 481,129

4 Claims. (Cl. 113-18)



1. In a closing tool of the type having a pair of operating handles each pivoted at one end in a support member, said handles being movable between first and second positions, that improvement comprising, in combination, latch means for each handle including a one-way ratchet segment movable with the handle, a pawl pivoted on the support member, means biasing said pawl into engagement with said segment to permit swinging of said handle only toward its second position, a projection movable with the handle and operatively disposed to cam said pawl against its biasing means from engagement with said segment when the handle reaches said second position, a lock-out dog pivoted on said support member, means biasing said dog to bear against a portion of said pawl when the latter is engaged with said teeth, said dog-biasing means shifting said dog to lock said pawl free of said segment when the latter is cammed by said projection, and means for shifting said dog against the force of its biasing means when the handle is moved to said first position to thereby permit re-engagement of said pawl with said segment, the handle once moved from its first position being thereby locked from return to the first position until first moved fully to its second position.

2,822,775

GROOVING MACHINE

Jacob Jacobson, Cincinnati, Ohio

Application September 16, 1953, Serial No. 380,413

3 Claims. (Cl. 113-54)



1. A machine for setting a sheet metal seam comprising an elongate anvil having a seaming groove extending longitudinally thereof, an elongate hollow box-like frame

extending parallel to the anvil, said frame having a longitudinal slot parallel and adjacent to but spaced from said seaming groove, a carriage movable inside of and along said hollow frame, said carriage comprising a carriage frame having a base portion disposed within said box frame, a portion of said carriage frame projecting outwardly through said slot toward said anvil and being bifurcated adjacent the anvil end, means on the carriage engaging the top and bottom interior faces of the hollow frame and means on the carriage engaging the interior side walls of the frame, a crushing roll, a crushing roll axle secured to and extending through the bifurcated portion of said carriage frame below said hollow frame, said crushing roll being disposed in the bifurcated portion, said crushing roll axle being parallel to a plane perpendicular to the longitudinal axis of said hollow frame, said crushing roll being adapted for rolling engagement with sheet metal seam metal on said anvil whereby the seam metal may be forced into said groove for setting the seam.

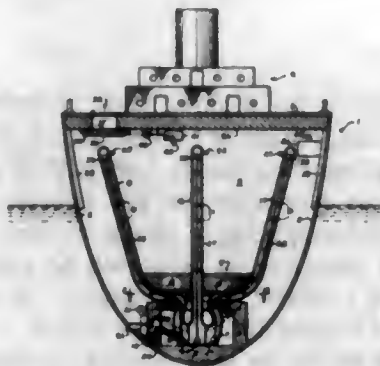
2,822,776

CARGO VESSEL

Kennard H. Morganstern, Roslyn, N. Y., assignor to Nuclear Corporation of America, Inc., New York, N. Y., a corporation of Michigan

Application May 24, 1956, Serial No. 587,169

12 Claims. (Cl. 114-5)



12. In combination a cargo vessel having a deck, a cargo compartment disposed below said deck, shielding means for radio-active emanations disposed between said compartment and said deck, said shielding means being of sufficient extent to shield all of said deck from harmful emanations, a container disposed below the water line of said vessel, a plurality of hollow members communicating with the interior of said container and extending through said compartment to spaced locations therein, a plurality of discrete bodies of radio-active material disposed throughout said hollow members to effect irradiation of the cargo in said compartment, said shielding means preventing harmful emanations from passing through said deck, means for returning said discrete bodies to said container to terminate treatment of the cargo and means for preventing harmful emanations from the radio-active material from entering said compartment upon return of the discrete bodies to said container.

2,822,777

APPARATUS FOR APPLYING SEALING COMPOSITIONS TO GLASS PARTS

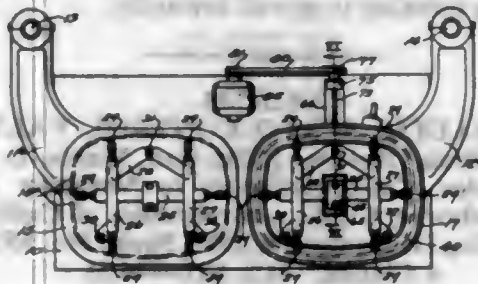
Robert D. Colchagoff, Holland, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application August 24, 1955, Serial No. 530,329

6 Claims. (Cl. 118-58)

1. In a device for coating the sealing edges of a glass article with a sealing composition, the combination of a supporting table, a heating member thereon adapted to apply heat to the sealing edges of the article, a trough for containing a sealing composition in molten form, means to support said edge heated article in vertical spaced

relation to said trough and molten composition, and means to rollingly rock the said heated sealing edge of said



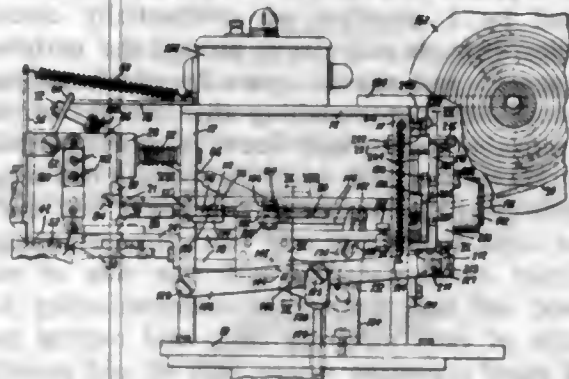
article into progressively rolling contact with said molten composition.

2,822,778

COATING MACHINE HAVING MEANS FOR MELTING AND EJECTING CHARGES OF THERMOPLASTIC CEMENT

Hans C. Paulsen, Medford, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey

Application March 23, 1954, Serial No. 418,075
18 Claims. (Cl. 118-410)



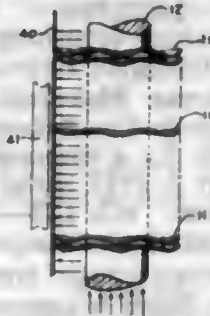
1. In a cement-applying apparatus for extruding measured amounts of melted thermoplastic cement, a melting device comprising a heater and a carrier rotatable therein, said device having an outlet communicating with said carrier, a feeding device movable to deliver discrete charges intermittently to the carrier, means for moving the feeding device, means connected with the feeding device for moving the carrier step by step a fraction of a turn at a time, and means for ejecting a melted charge from the carrier through the outlet.

2,822,779

DEVELOPER FOR ELECTROSTATIC PHOTOGRAPHY

John D. Schroeder, Tulsa, Okla., assignor, by mesne assignments, to Century Geophysical Corporation, Tulsa, Okla., a corporation of Delaware

Application September 24, 1956, Serial No. 611,693
4 Claims. (Cl. 118-637)



1. In an apparatus for developing a visual image on a sheet carrying a latent electrostatic image, the combination which comprises a source of finely divided toner powder, a rotatable shaft of magnetizable material carrying thereon a plurality of spaced washers of magnetizable material, each of said washers being secured axially to said shaft and having a plurality of radial corrugations,

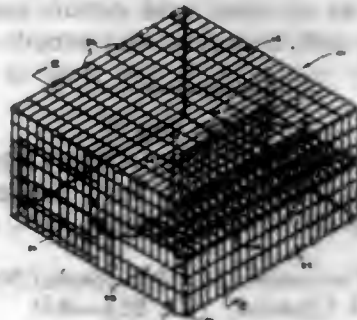
the corrugations on neighboring washers along said shaft being radially aligned, means for magnetizing said shaft and washers, and means for passing said sheet tangentially past the edges of said washers, said powder source being disposed near said shaft and washers for depositing said toner powder thereon.

2,822,780

ANIMAL CAGE

William S. Buell, Steilacoom, Wash.

Application November 2, 1956, Serial No. 619,969
1 Claim. (Cl. 119-17)



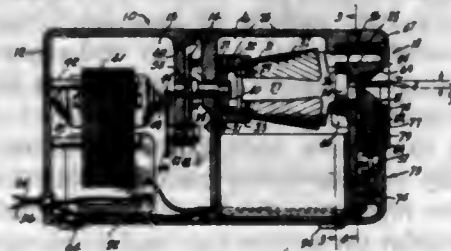
In an animal cage, a substantially rectangular enclosure having top, bottom, side and end walls, a bottom panel in said enclosure extending across the enclosure and secured at its ends to said side walls on a level spaced above said bottom wall, said bottom panel being narrower than the length of said enclosure and having inner and outer edges, said outer edge of the bottom panel being secured to and extending along one of said end walls, and a vertical panel extending along and secured to and rising from said inner edge of the bottom panel and having an upper edge secured to the top wall of the enclosure, said vertical panel being shorter than said bottom panel and having terminal ends spaced from the enclosure side walls to define animal entrance and exit openings at opposite ends of the vertical panel.

2,822,781

ELECTRIC PENCIL SHARPENER

Edward F. Burton, Los Angeles, Calif.

Application January 22, 1951, Serial No. 207,213
2 Claims. (Cl. 120-96)



1. Means for controlling the electric motor of an electric pencil sharpener of the type that includes a substantially hollow casing open at the one end thereof and including pencil sharpening means, comprising: a quickly detachable, double walled hollow closure plate attached to the casing at said open end so as to close same; means in said closure plate for guiding and supporting a pencil into the casing and into said sharpening means, said guiding means including a fixed pencil supporting jaw and a spring-loaded pencil supporting jaw together defining a pencil receiving aperture adjacent said sharpening means, the latter jaw having a depending portion; a horizontal bracket portion within said hollow closure plate provided with a vertical guide opening therein; a seal carried on said bracket portion; and the depending portion of said movable jaw slidably extending downwardly through said seal and said guide opening; and a snap action electrical

switch mounted between the double walls of said hollow closure member sub-adjacent said depending portion to completely isolate said switch from the electrically conductive cuttings produced by said sharpening means, said switch including a pair of terminals electrically connected to said motor for energizing same and an over-center snap action circuit-opening and closing member bridging said terminals and lying operatively subadjacent said depending portion so as to be urged over center to close said circuit and operate said motor by said depending portion upon insertion of a pencil between said jaws, said bridging member being adapted to follow up said spring-loaded depending portion upon spring retraction thereof so as to open said circuit and de-energize said motor upon withdrawal of said pencil.

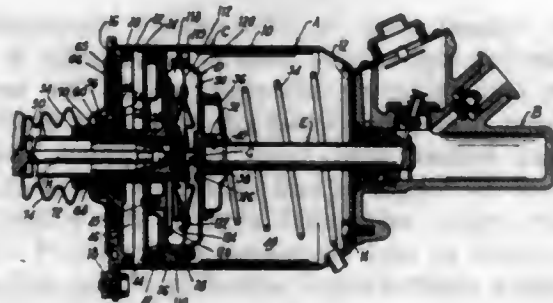
2,822,782

PNEUMATIC SERVO-MOTOR

Edward E. Hupp, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application December 14, 1955, Serial No. 553,089

2 Claims. (Cl. 121-41)



1. A vacuum suspended fluid pressure servo-motor comprising a power chamber, a movable wall in said power chamber dividing said power chamber into front and rear opposed power chambers, said movable wall having a first axially positioned tubular projection extending through the front opposed chamber and the front end wall of said power chamber and communicating with the atmosphere, said movable wall having an internal diaphragm chamber therein, a first generally tubular valve member slidably supported in said tubular projection of said movable wall and extending into said diaphragm chamber for abutment with the rear surface of said diaphragm chamber, said valve member having an inner end closure wall provided with an axially positioned valve port therethrough, a valve seat inside of said generally tubular valve member surrounding said valve port, a valve closure member in said generally tubular valve member biased against said valve seat for regulating the flow of atmospheric pressure from said tubular projection into said diaphragm chamber, a second axially positioned tubular projection on said rear wall of said diaphragm chamber extending into said diaphragm chamber and adapted to project into said valve port of said first valve member, a valve seat on the end of said second tubular projection adapted to abut said valve closure member, means communicating vacuum to the rear opposed power chamber, means communicating said rear opposed power chamber with the inside of said second tubular projection of said movable wall, a reaction diaphragm affixed to the portion of said first valve member in said diaphragm chamber, and means operatively connected to said first generally tubular valve member and projecting through said first tubular projection of said movable wall for moving said first generally tubular valve member toward said second tubular projection of said movable wall to cause said valve seat on said second tubular projection to abut said valve closure member and thereafter move the valve closure member away from its seat in said first generally tubular valve mem-

ber, whereby simple and reliable structure is provided for maintaining vacuum in both opposed chambers until said tubular valve member is moved inwardly.

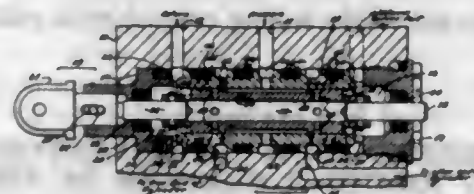
2,822,783

HYDRAULIC SERVO CONTROL VALVE

John R. Clifton, Rolling Hills, and Warde L. Parker, Los Angeles, Calif., assignors to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application December 16, 1955, Serial No. 553,477

4 Claims. (Cl. 121-46.5)



1. A valve assembly comprising a hollow sleeve having a fluid pressure inlet therethrough, a fluid outlet, and two cylinder passages adapted to be connected one with each side of a piston in a cylinder, each cylinder passage being defined by a plurality of substantially circular metering holes through said sleeve around the periphery thereof, staggered and spaced apart lengthwise of said sleeve, a spool member matching the interior of said sleeve and movable within said sleeve in either direction from a neutral position, said spool comprising two metering lands contacting the interior of said sleeve and spaced apart by the same distance as said two cylinder passages, said fluid inlet communicating with one side of each metering land and said fluid outlet communicating with the other side of each metering land, said neutral position of said spool occurring where each of said metering lands covers the openings of all of the circular metering holes in each cylinder passage, and noncircular means defining a flow passage adjacent each end of said plurality of circular metering holes of each cylinder passage and associated with the end holes thereof, the edges of said metering lands covering a major portion of said noncircular means, a minor portion of said noncircular means extending beyond the edges of said spool lands at each end thereof to provide an opening to direct a highly restricted balanced flow into said end circular metering holes and thence into and out of said cylinder on either side of said piston to preload the same when said valve spool is in neutral position, said noncircular means being shaped to gradually enlarge in cross-section in a direction toward said circular metering holes to intersect and open into the endmost circular metering hole of said plurality of circular metering holes of each of said cylinder passages at each end of said spool lands.

2,822,784

APPARATUS FOR AND METHOD OF GENERATING AND SUPERHEATING VAPOR

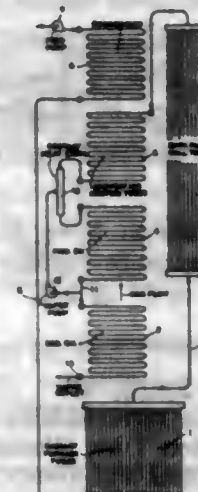
Lewis W. Heller, Lower Makefield Township, Bucks County, Pa., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application May 9, 1955, Serial No. 506,999

3 Claims. (Cl. 122-31)

1. In the art of generating and superheating vapor under pressure in a once-through type vapor generator wherein a vaporizable liquid is converted to superheated vapor by the transfer of thermal energy thereto, the method which comprises transmitting thermal energy from an appropriate source to said vaporizable fluid to an extent not less than 80 percent of the thermal energy required to effect the complete vaporization of the fluid, introducing said fluid into a contact heat exchange zone wherein it is vaporized, superheating the vapor in a subsequent superheating zone, withdrawing superheated vapor from

said vapor superheating zone, and introducing said withdrawn superheated vapor and the highly heated fluid into



said contact heat exchange zone in intimate heat transfer relationship to each other whereby superheated vapor completely vaporizes said highly heated fluid.

2,822,785

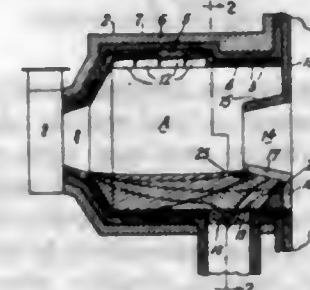
FUEL BURNING APPARATUS

Andreas Siffrin, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application December 4, 1952, Serial No. 324,029

Claims priority, application Germany December 8, 1951

5 Claims. (Cl. 122-235)



1. A cyclone furnace having a fluid cooled circumferential wall defining a combustion chamber of generally circular cross-section through which a stream of primary air having solid fuel particles in suspension therein is adapted to move rearwardly in a helical path toward the inner end of the chamber, said circumferential wall having a horizontally arranged axis, a fluid cooled wall at said inner end formed with a reentrant fluid cooled annular throat section spaced from said circumferential wall and defining a gas outlet, said end wall having a slag outlet formed in a lower portion thereof adjacent said circumferential wall, and means including tubes associated with said circumferential wall defining a bottom slag outlet in said last named wall having its rearmost marginal portion spaced from said inner end wall at a position of approximate alignment with the gas inlet end of said throat section, said tubes formed with U-bend portions oppositely arranged in planes extending transversely of said axis and defining circumferentially spaced marginal portions of said bottom slag outlet.

2,822,786

MULTIPLE CYCLONE FURNACE UNIT

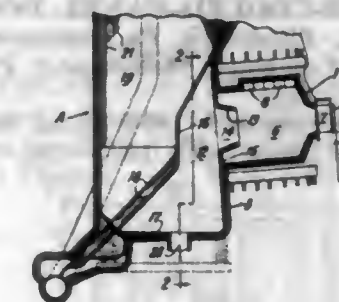
Johann Kölling, Oberhausen, Rhineland, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 20, 1953, Serial No. 369,145

5 Claims. (Cl. 122-240)

1. A multiple furnace unit formed with upright walls defining a furnace chamber having as its firing means a plurality of substantially spaced cyclone furnaces cylin-

drically formed about axes of substantially horizontal and parallel arrangement, one of said upright walls being arranged transversely of said axes and constituting the firing wall of said furnace chamber, an additional two of said walls being arranged parallel to said axes and forming opposing side walls of said chamber, each of said cyclone furnaces having a central gas outlet and a lower slag outlet each formed in said firing wall and opening into said furnace chamber, said furnace chamber being formed with a bottom wall in which there is provided a single slag outlet disposed in the same vertical plane as the slag outlet from a selected one of said cyclone furnaces, said bottom wall slag outlet being disposed in a location swept by the gases discharged from said selected cyclone furnace, said bottom wall being inclined downwardly from at least one of said side walls to the posi-



tion of said bottom wall slag outlet, a reflecting arch extending downwardly within said chamber from a front wall position above said cyclone furnaces to a position inwardly spaced from the gas outlets of all said furnaces whereby gases issuing from said cyclone furnaces are deflected downwardly into the vicinity of said bottom slag outlet, and means for delivering a slag forming solid fuel-and-air mixture simultaneously to each of said cyclone furnaces for effecting full load operation of said unit, said means being selectively operable for delivering a combustible fuel-and-air mixture to only said selected one cyclone furnace for effecting partial load operation of said unit, said selected one cyclone furnace having its slag outlet disposed substantially nearer to said bottom slag outlet of said furnace chamber than the slag outlet of any other one of said cyclone furnaces.

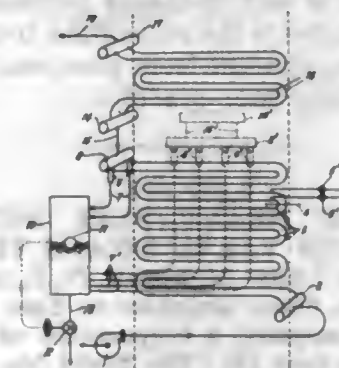
2,822,787

METHOD OF AND APPARATUS FOR REMOVING THE INTERNAL TUBE DEPOSITS IN A ONCE-THROUGH FORCED CIRCULATION VAPOR GENERATOR

Martin Gauger, Oberhausen, Germany, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application April 7, 1954, Serial No. 421,640

2 Claims. (Cl. 122-379)



1. In a vapor generator of the once-through type having tubes arranged in parallel flow paths in the transition zone of which internal scale deposits tend to occur, the combination of means for injecting flushing liquid into each tube path of said vapor generator at a position prior to the entry of vaporizable fluid into said transition zone, a plurality of vapor separators each arranged to receive

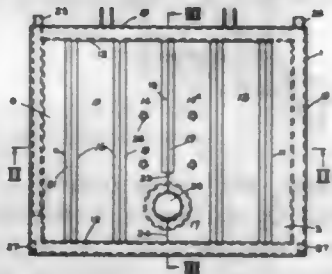
the vapor-flushing liquid mixture from one of said paths in said transition zones and to separate the higher density liquid from the lower density vapor, vapor superheating means arranged to receive the separated vapor from said separators, a flushing liquid receiver arranged below said separators at a pressure substantially equal to the operating pressure of said tubes, a drain pipe from each of said separators continuously in open communication with said separators and receiver for the gravitational draining of separated liquid from said separators to said receiver, and means for controlling the liquid level in said receiver and for discharging liquid from said receiver in proportion to the amount of separated liquid drained thereto.

2,822,788

WATER-COOLED PANEL DOOR

Ottwin L. Braun, Pittsburgh, Pa., assignor to Reliance Steel Products Company, McKeesport, Pa., a corporation of Pennsylvania

Application December 9, 1954, Serial No. 474,246
5 Claims. (Cl. 122-498)



1. In a water-cooled furnace door structure in combination, a back plate having a continuous peripheral flange comprised of a rearwardly-directed portion and a portion directed outwardly therefrom, a front plate comprised of connected marginal portions disposed in spaced relation to the back plate so as to overlie the back plate flange and a portion of the back plate body providing a central opening in the front plate, a rearwardly-disposed peripheral flange on said front plate forming side and end walls of the door and secured to the outwardly-directed back plate flange portion, the opening in the front plate defined by said marginal portions being closed by a corrugated panel member extending between a pair of opposite marginal door portions, said panel comprising a plurality of spaced web portions disposed in the plane of and having their ends welded to the adjacent marginal front plate portions; the spaces between adjacent panel web portions and between the endmost panel webs and adjacent front panel marginal portions being closed by substantially U-shaped portions having a web disposed between the planes of the front and back plates and forwardly and outwardly-extended flanges connected to said panel webs and adjacent front plate marginal portions, the ends of each of said U-shaped portions being closed by a member secured to the ends of the U-shaped portion flanges and to the adjacent front plate marginal portions to form a water-tight door structure.

2,822,789

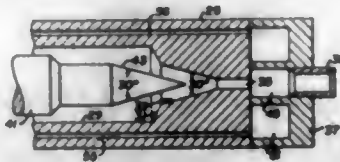
INJECTION OF HEAVY FUEL INTO DIESEL ENGINES AND VALVE MEANS THEREFOR

Judson L. Phillips, Upper Montclair, N. J., and Thomas J. Boy, Hamilton, Ohio, assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 15, 1956, Serial No. 591,712
5 Claims. (Cl. 123-32)

1. A diesel engine fuel injection valve for feeding heavy liquid residual fuel under high pressure, comprising a needle valve seat member having a large inlet opening converging in conical form towards a smaller outlet opening with a convergent angle along its longitudinal axis, of 20° to 40°, and a relatively movable needle having a relatively short tapered section of the same angle, adapted

to fit in said seat in closed position near said large inlet end, and having a smaller projecting portion extending



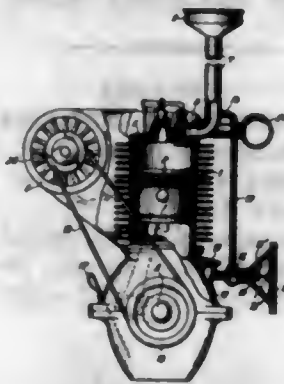
further into the seat member towards the smaller outlet opening, but converging more rapidly than the angle of the seat member by 2° to 6° of arc.

2,822,790

INTERNAL COMBUSTION ENGINE

Herbert Bartholomé, Neu Ulm (Danube), Germany, assignor to Klöckner-Humboldt-Deutz Aktiengesellschaft, Köln, Germany

Application May 16, 1956, Serial No. 585,316
Claims priority, application Germany May 26, 1955
7 Claims. (Cl. 123-41.11)



5. In combination in an internal combustion engine for use in connection with a land vehicle adapted to drive through water: a cylinder provided with cooling fins, a blower for blowing cooling air around said fins, driving means for driving said blower, electrically operable clutch means for effecting driving connection between said driving means and said blower, electric circuit means including electrically operable control means for selectively interrupting actuating current for said clutch means to thereby make said clutch means ineffective whereby operation of said blower is interrupted, a piston reciprocally mounted in said cylinder; an air intake conduit having one end connected to said engine for communication with said inlet valve means and having its other end extended upwardly so as to remain above the highest level of the water through which the vehicle to be equipped with said engine may pass, a crank case supporting said cylinder, venting conduit means effecting communication between said crank case and said air intake conduit for venting said crank case, valve means arranged within said venting conduit means and movable from a normally open position into a closing position for interrupting communication between said crank case and said air intake conduit, and means responsive to a certain water pressure acting thereupon while said vehicle is passing through water for causing said valve means to move into said closing position and for actuating said control means to bring about stoppage of said blower.

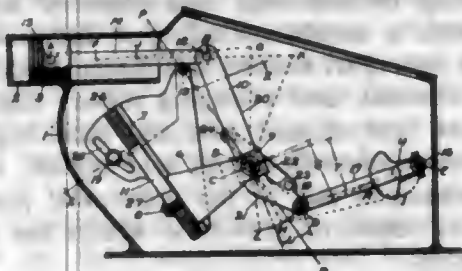
2,822,791

VARIABLE STROKE PISTON ENGINES

Arnold E. Biermann, Fairview Park, Ohio
Application July 1, 1955, Serial No. 519,314
7 Claims. (Cl. 123-48)

1. In a variable stroke engine having a frame, a cylinder and piston mounted on said frame, in a combination comprising a crank journaled in said frame, a fulcrum adjustably positioned on said frame, a rocker lever mounted to oscillate on said fulcrum, a connecting link

pivoted to said piston and said rocker lever, a connecting rod pivoted to said crank and to said rocker lever, support means pivoted to said rocker lever for guiding said rocker

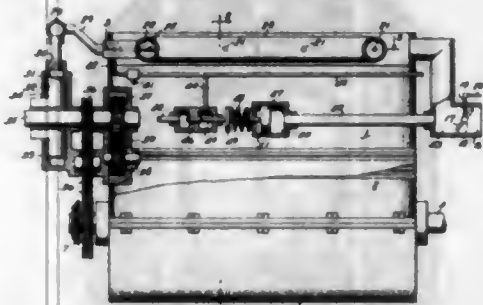


at the point of support on said rocker lever along the arc of a circle to cyclically vary the lever arm of said rocker lever for obtaining harmonic motion of said piston.

2,822,792

DIRECT AND INDIRECT INJECTION MEANS FOR COMBUSTION ENGINES

Adolphe C. Peterson, Minneapolis, Minn.
Application November 8, 1956, Serial No. 621,114
18 Claims. (Cl. 123—52)

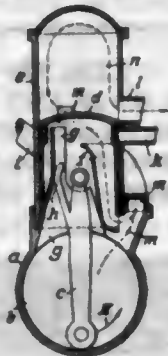


1. In a fuel distributing means for combustion engines: a plural number of combustion units each including a combustion chamber and an intake passage thereto; a conduit circuit and a plural number of passages each providing conduction from said conduit circuit, to one of said combustion units; an air compressing means and means driving it; a fuel pumping means and means driving it; a passage from said air compressing means to said conduit circuit to direct air into the conduit circuit to move fluid therein circuitously thereof; a passage from said fuel pumping means to inject fuel to the air stream entering said conduit circuit.

2,822,793

TWO-STROKE INTERNAL COMBUSTION ENGINES

Curt Bellwinkel and Friedrich Stuempfig,
Nurnberg, Germany
Application April 24, 1956, Serial No. 580,205
5 Claims. (Cl. 123—73)



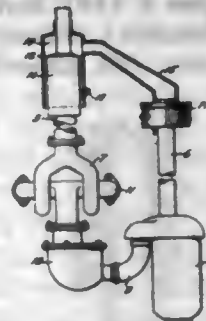
1. A two-stroke internal combustion engine of the type having a pump formed in the crank case by engine components for advancing the charge; said engine comprising a cylinder defined by a cylinder head constituting a combustion chamber and having an exhaust duct and a crank case presenting a cylindrical surface portion, a reciprocating piston in said cylinder, a member having walls defining a channel extending into said cylinder,

charge intake conduit means connected to said engine below the lower end of said combustion chamber for drawing a charge into the crank case pump, by-pass conduit means extending between said crank case pump and said combustion chamber for guiding a charge out of said crank case pump into said combustion chamber, a crank shaft rotatably disposed in said crank case presenting a pair of disks having peripheral and side surfaces in close proximity to the inner surfaces of said crank case and a connecting rod extending between said piston and said crank shaft and having sides slidable between said walls of said channel and ends slidable adjacent the bottom of said channel and adjacent the cylindrical surface portion of said crank case in sealing proximity thereto, whereby the piston and the connecting rod cooperate to increase the pumping capacity of said pump.

2,822,794

TEMPERATURE CONTROL APPARATUS

Harry C. Stearns, Glen Ellyn, Ill.
Application April 25, 1956, Serial No. 580,618
9 Claims. (Cl. 123—122)

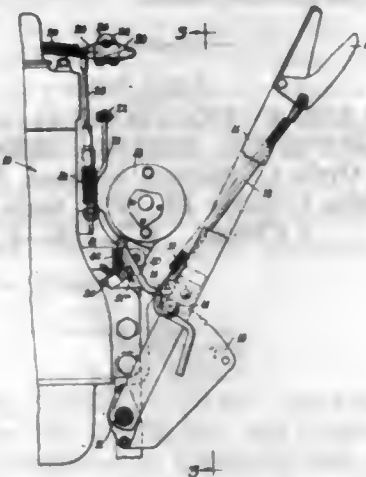


1. In a temperature control apparatus for the intake air of an internal combustion engine, the combination of a housing connected with the air intake of the engine, an exhaust heated air heater, distinct from the engine for supplying heated air to said housing, a valve controlling the passage of heated air to said housing, a passage in said housing open to atmosphere, a valve controlling air flow through said passage, and thermostatically controlled means for controlling the alternate opening and closing of said valves, each of said valves being operable by engine suction pressure as determined by the mixture demand of the engine.

2,822,795

CONTROL SYSTEM FOR ENGINES

Theodore J. Cicero and Curtis P. Parsons, Detroit, Mich.,
assignors, by mesne assignments, to Massey-Harris-Ferguson Inc., Racine, Wis., a corporation of Maryland
Application April 5, 1954, Serial No. 420,836
4 Claims. (Cl. 123—179)



1. A control mechanism for an engine having a clutch, a throttle control normally biased to a selectable running position, and a starting motor connected in circuit with a normally open manually operated starter switch,

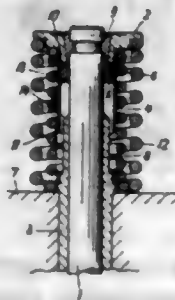
said mechanism comprising, in combination, a link pivoted intermediate its ends, biasing means yieldably urging said link into engagement with the throttle control and in a direction to shift the latter to its idling position, a manual clutch lever shiftable between clutch-engaging and clutch-disengaging positions, a projection on lever engageable with said link when said lever is shifted to its clutch-disengaging position for rocking said link against its biasing means to free the throttle control to return to its selected running position, an electric safety switch connectable in series with the starting motor and starting switch, and means for mounting said safety switch adjacent said link to be opened and closed by the latter in response respectively to shifting of said lever to its clutch-engaging and dis-engaging positions.

2,822,796

PACKING FOR VALVES OF INTERNAL COMBUSTION ENGINES

Anton Niess, Stuttgart-Unterturkheim, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany

Application October 8, 1953, Serial No. 384,947
Claims priority, application Germany October 10, 1952
2 Claims. (Cl. 123-188)



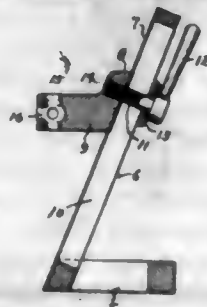
1. Packing for valves of internal combustion engines, comprising a poppet valve with a valve stem, a valve guide member, a valve spring retainer, a split conical insert securing said valve spring retainer to the end of said valve stem, a valve spring, a cylindrical covering sleeve attached to said valve spring retainer to form an integral part therewith, said covering sleeve enclosing the end of said valve stem within said spring in spaced relationship to said valve guide member and being provided with a flange extending inwardly to said valve stem and spaced from said retainer to form a groove of permanent width therewith, an elastic packing member inserted into said groove for sealing the gap between said valve stem and the split conical insert, said packing member being held in position by said flange, said sleeve being in the form of a cylindrical tube, and said flange being in the shape of a plain disk fixedly connected to said sleeve and closely surrounding said valve stem.

2,822,797

TOOL FOR USE IN HORIZONTAL AND VERTICAL GRINDING WHEEL DRESSING

Orrin C. Palmer, Melrose, Mass.

Application October 15, 1954, Serial No. 462,475
2 Claims. (Cl. 125-11)



1. A wheel dressing device comprising a base having a flat support engaging surface and a part inclined up-

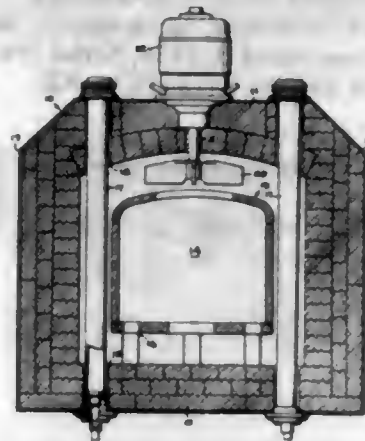
wardly and rearwardly from the front thereof, said part having a channel in its front face extending from end to end thereof to provide a slideway and provided with a slot extending therethrough and disposed lengthwise of said channel, a mount including a diamond holder and having its rear part shaped and dimensioned to slidably fit said channel, and clamping means slidably engaging the rear face of said part and including an adjustable threaded connection with said mount, said part being so dimensioned that in the uppermost position of said mount, its center of gravity is within the area defined by the base.

2,822,798

BURNER TUBE ASSEMBLY FOR HEAT TREATING FURNACES

Harold N. Ipsen, Rockford, Ill.

Application October 19, 1953, Serial No. 386,853
1 Claim. (Cl. 126-91)



A furnace having, in combination, a walled enclosure defining a chamber, two opposed walls of said enclosure having aligned holes extending therethrough and opening into said chamber, a rigid annular member attached to one of said walls with its opening coaxial with a hole therein and having an annular shoulder concentric with the opening and facing inwardly of said enclosure, an elongated heating tube having one end loosely seated on said shoulder and projecting across said chamber and through the hole in the other of said walls with the opposite end portion of the tube disposed exteriorly of the latter wall, a bellows surrounding and extending along said tube end portion with one end connected to the outer end of the tube, means detachably securing the other end of said bellows to said other wall, said bellows being stressed to hold said tube against said shoulder, a burner tip projecting through the opening in said member and into said tube, and means for detachably securing said burner tip to said member.

2,822,799

GAS BURNING RADIANT HEATING UNIT

Harrison D. Sterick, Pittsburgh, Pa.

Application August 19, 1954, Serial No. 450,873
3 Claims. (Cl. 126-92)



1. An overhead gas heating unit comprising a gas burner having an upper multi-ported face, a metallic screen extending above and surrounding the flame zone of said burner, a mat of radom oriented, fine metallic fibers supported in spaced relationship above said burner in generally parallel relationship to the face of the burner so that the flames from the burner ports will play only

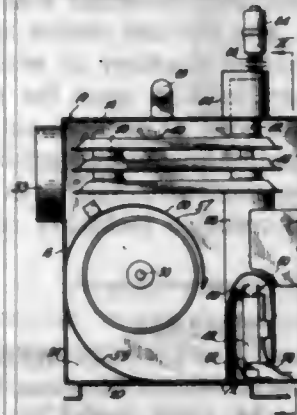
on the lower surface of the mat to make said surface incandescent and radiate heat downwardly and a metallic housing open at its bottom and closed at its top, said housing surrounding said mat and being perforated peripherally adjacent its top to serve as a vent and reflector, whereby said housing is kept relatively cool because of the heat insulating and the downward, heat reflective qualities of the upper portion of said mat, and said burner having a horizontal area less than half that of the open bottom of said housing whereby most of the heat developed is radiated downwardly, exteriorly of the burner and into the space underneath said housing.

2,822,800

COMBINED PORTABLE SPACE HEATER AND VENTILATOR

Vernon C. Hines, Denver, Colo., assignor to International Manufacturing Company, Littleton, Colo., a corporation of Nevada

Application November 9, 1954, Serial No. 467,773
2 Claims. (Cl. 126-110)



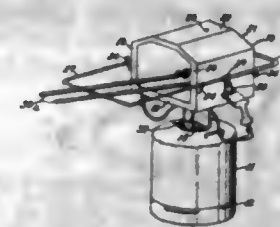
1. In a portable, combination space heater and ventilator, a relatively narrow, hollow rectangular casing having a top wall, a bottom wall, a pair of side walls, one being provided with an air inlet in the lower part thereof, and a pair of end walls, one being provided with an air outlet in the upper part thereof; an upright tubular heater having an open uppermost end, said heater being positioned within the casing on the bottom wall adjacent the other of said end walls and extending upwardly alongside said other end wall in spaced relationship thereto; a blower rotor rotatably mounted within the lowermost portion of the casing between the heater and said one end wall and located adjacent the inlet for creating currents of air and directing the same through the casing from the inlet to the outlet; an elongated, horizontal, sectional heat exchanger in the uppermost portion of the casing and having one end thereof secured to the open uppermost end of the heater and placing the exchanger in communication with the heater, said exchanger comprising a number of spaced, substantially parallel, relatively shallow, closed shells disposed in superimposed relationship, there being a plurality of tubular elements interconnecting the shells and placing the latter in intercommunication, said heat exchanger being located in superimposed relationship over the blower rotor and in substantial alignment with the air outlet, each of said shells substantially spanning the distance between the side walls and the ends of the shells terminating in spaced relationship to their respective end walls; a fuel burner disposed within the heater adjacent the lowermost end thereof; a flue mounted on the heat exchanger in communication therewith and extending through the casing for exhausting the heater and heat exchanger of products of combustion emanating from the burner; and a sectional spiral scroll between the blower and the heat exchanger and spanning the distance between the sides of the casing for guiding the air from the blower rotor directly against the burner, upwardly around the heater, laterally across the shells and outwardly through the air inlet.

2,822,801

BRANDING IRON FURNACE

Benniville O. Bissell, Troutdale, Oreg.

Application November 23, 1953, Serial No. 393,696
1 Claim. (Cl. 126-229)



A furnace adapted for mounting on the top of a portable fuel tank for heating branding irons and the like comprising a fire box having bottom wall, a pair of opposite side walls and a top wall, a portion of said top wall forming an exterior heating surface, said firebox having an open end, a pair of burner nozzles mounted angularly in opposed relation in said opposite side walls and protruding interiorly of said box at the junctions of said bottom wall and said side walls, a fuel valve adapted for mounting in the top of the fuel tank, a T fitting on said valve connected with both of said burner nozzles, a downwardly projecting bracket on said bottom wall having substantially semi-cylindrical leg portions spaced on opposite sides of said valve and adapted for mounting on said top of the fuel tank at a distance from said valve, a horizontal supporting bail in front of said open end to support branding irons in the furnace, lugs on said firebox to support said bail, a second bail pivotally mounted on said side walls and rotatable between an upright carrying position and an out-of-the-way position at the rear of the firebox, and lugs on said firebox to support said second bail in said out-of-the-way position.

2,822,802

SURGICAL RETRACTOR

William F. Corriero, Garden City, N. Y.

Application January 17, 1957, Serial No. 634,777
9 Claims. (Cl. 128-20)



1. A surgical retractor for use in limb amputations comprising first and second plate members each having a generally semi-circular cut-out in one edge thereof, and separable, interengageable hinge defining means on said one edge of said first member and on said one edge of said second member to hingedly connect said first and second members for swinging relative to each other about an axis corresponding to said one edges of the plate members and with said cut-outs registering to define an opening for the reception of the bone of the limb to be amputated, said hinge defining means being separable and interchangeable only when said plate members lie in substantially the same plane.

2,822,803

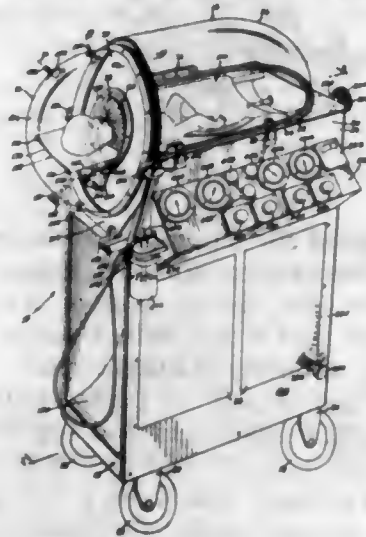
ARTIFICIAL RESPIRATION APPARATUS

Thomas C. Huxley III, Manhasset, and Nelson G. Kling, Roslyn, N. Y., assignors to Conitech, Ltd., New York, N. Y., a corporation of New York

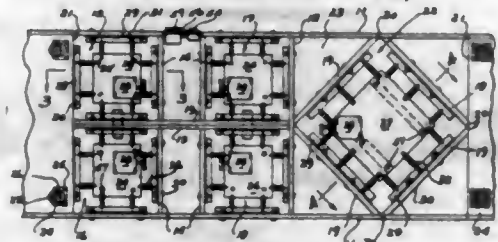
Application May 18, 1954, Serial No. 430,616
13 Claims. (Cl. 128-30)

1. Artificial respiration apparatus, comprising means forming a body chamber, means forming a head chamber, a wall between said chambers having an opening for the

patient's neck, and means associated with said opening to provide a fluid seal around the neck of the patient to substantially prevent the flow of air into and out of the body chamber through said opening, said chambers being relatively immovable, means selectively operable for rhythmically varying the air pressure alternatively either



2,822,804
VIBRATING COUCH CONSTRUCTION
Mark Leach, Pontiac, Mich.
Application March 14, 1957, Serial No. 646,140
13 Claims. (Cl. 128-33)

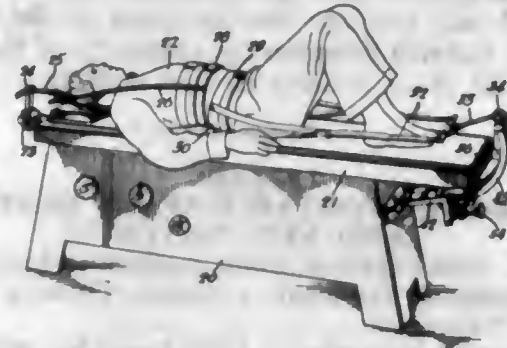


1. A massage couch comprising a hollow horizontally disposed frame on legs including a series of variably spaced compartments, a horizontal support platform bridging said frame and secured thereto, there being a series of enlarged apertures of predetermined shape formed through said platform, one aperture for each compartment arranged centrally thereof, a similarly shaped vibration pad loosely nested within each aperture within the plane of said platform, a mounting plate parallel to and spaced below each pad, a series of spacers between each pad and plate and interconnected therewith, a resilient body snugly nested between each pad and plate co-extensive with their opposed surfaces, a plurality of resilient means interconnecting spaced marginal portions of said plates with corresponding portions of said frame within individual compartments for yieldingly supporting said plates loosely therein, a vibration producing motor with an unbalanced shaft arranged off center with respect to each plate and suspended therefrom, and relatively thick flexible and resilient cover means snugly extending over the surface of said platform and over the pads.

2,822,805
THERAPEUTIC TRACTION APPARATUS
Benjamin Hill, Frazer, Pa., assignor to Hill Laboratories Company, Frazer, Pa., a corporation of Pennsylvania
Application May 2, 1955, Serial No. 505,284
8 Claims. (Cl. 128-71)

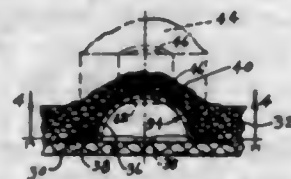
6. In apparatus for applying stretching traction to the human body, the combination comprising a table for sup-

porting the body while traction is applied, means connected to the table for moving said table longitudinally in opposite directions, a force transmitting member in the form of a harness mounted for securement to a portion of the body and also secured to said table for longitudinal movement therewith, a force-resisting traction member also in the form of a harness mounted for securement to another portion of the body and secured independently



of said table by a pivotally mounted arm for yieldable movement therewith, and friction means applied to said second-mentioned traction member to resist said movement and thereby exert traction upon the portion of the body between the positions of securement of said traction members, said friction means comprising a brake rotor secured for movement with said arm and a brake stator applied to said rotor to yieldably resist its movement.

2,822,806
MEANS PROVIDING A VENTED MEDICAL CAST
Ferdinand Blank, Mount Clemens, Mich.
Application June 14, 1955, Serial No. 515,466
5 Claims. (Cl. 128-91)



1. In combination, a surgical cast having a wall member; a ventilating nipple embedded in said wall member and including a body portion; said body portion having a height greater than the thickness of the cast in which it is to be incorporated; and, said body portion being provided with a plurality of outwardly extending flexible legs on the lower end thereof, which legs extend perpendicularly to the longitudinal axis of said body portion.

2,822,807
UNDERSHORTS CONSTRUCTION FOR MEN
Alvin Heyman, Brooklyn, N. Y.
Application August 1, 1955, Serial No. 525,609
1 Claim. (Cl. 128-159)



In men's undershorts, that improvement which comprises a fabric pocket having downwardly converging side walls secured to the inside of the lefthand leg portion and being adapted to receive therewith the male copulatory organ, a separable fabric liner received within said pocket and having a bottom spaced from the bottom of

said pocket, said pocket provided with an elastic band in the upper edge portion of the opening of the pocket thereby normally restricting the circumference of said opening so that a male copulatory organ when inserted therein will have a relatively closer fit with the interior of said upper edge portion of said opening of said pocket.

2,822,808
DISPOSABLE SPECIMEN COLLECTOR
George D. Boone, Tucson, Ariz.
Application November 20, 1956, Serial No. 623,381
8 Claims. (Cl. 128-276)



1. For use in trapping and recovering specimens of normal or abnormal material aspirated from human and animal body passages and cavities, a specimen collector which functions to intermittently trap and collect aspirated material without interruption of the usual and required suction airflow through said collector and which comprises a main unit embodying a tubular body providing the desired specimen trapping and collecting chamber and which permits centrifugation of the collected specimen without having to transfer the specimen from said chamber to a centrifuge tube, said body being equipped with proximal and distal end portions having reduced axially aligned cooperating bores, and a complementary auxiliary unit in the form of a removable open ended tube having constantly open proximal and distal end portions, said auxiliary tube spanning and traversing said chamber and having its respective end portions removably mounted in airtight engagement in the respective bores of the proximal and distal end portions of said body, whereby, with the auxiliary tube thus mounted, there will be no interruption of the section air flow and all of the aspirated material will be delivered to a suction apparatus which is communicatively attached to the proximal end portion of said body.

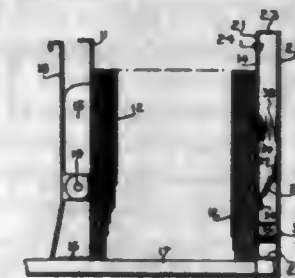
2,822,809
TIP FOR UTERINE CANNULA
Carl H. Sollmann, Far Hills, N. J., assignor to Kidde Manufacturing Co., Inc., Bloomfield, N. J., a corporation of Delaware
Application September 30, 1952, Serial No. 312,215
4 Claims. (Cl. 128-348)



1. A unitary tip for a uterine cannula, comprising an acorn-shaped body portion having a central bore for receiving the shaft of the cannula; and an elongate tubular tip section integral with said body portion having a passageway extending from said bore to the free end thereof and terminating in an opening defined by a smooth edge disposed in a plane substantially perpendicular to the longitudinal axis of said tip section, said tip being integrally

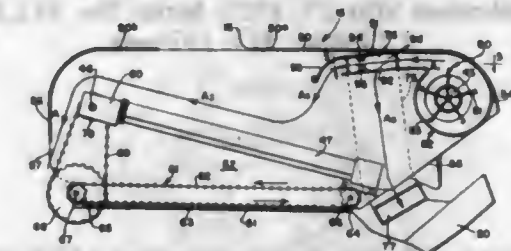
formed of a unitary mass of polyethylene type plastic material which is bendable and cuttable and said tip section having a uniform hollow cylindrical cross-section throughout its length and having a wall of a thickness to facilitate manually cutting the same to adjust the length of said tip section and to facilitate manually bending the same to adjust the shape of said tip section.

2,822,810
FILE CARD COMPRESSION INDICATING DEVICE
Theodore C. Halles, Bronxville, N. Y., assignor to The Wright Line, Inc., Worcester, Mass., a corporation of Massachusetts
Application January 26, 1955, Serial No. 484,225
4 Claims. (Cl. 129-16)



1. A card file tray comprising a bottom and a front wall, a slideway on the bottom, a card compressor comprising a standard mounted on said slideway for sliding movement toward and away from said front wall, a first compressor plate mounted on said standard, means for releasably clamping said standard in a desired position on said slideway, a second compressor plate having its upper margin pivotally mounted on said tray adjacent said front wall and rearwardly thereof for swinging movement about an axis transverse to said tray to and from a first vertical position and a second position in which it is inclined forwardly and upwardly toward the top of said front wall, limit stop means for limiting the movement of said second plate to and from said first and second positions, spring means for resiliently urging said second compressor plate to said second position, said front wall having an aperture therethrough, a signal device mounted on said second compressor plate in position to project through said aperture when said plate is in first position and to be withdrawn behind said front wall when said plate is in second position.

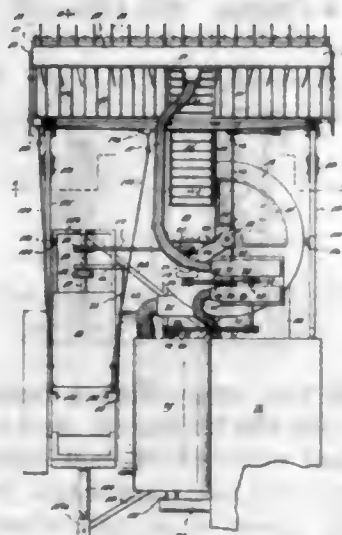
2,822,811
CORN HUSKING MECHANISM
Wayne E. Slavens and Howard C. Hadley, Des Moines, Iowa, assignors to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application June 22, 1956, Serial No. 593,197
8 Claims. (Cl. 130-5)



8. A corn husking mechanism comprising a supporting frame, a housing unit on the frame having an intake opening for receiving a mixture of trash and unhusked ears of corn, a trash discharge opening, and a corn discharge opening; husking rolls mounted on the frame under the intake opening to receive and direct ears of corn and incidental trash to the corn discharge opening; conveyor means under the husking rolls adapted to transfer trash and husks passing through the husking rolls to the trash

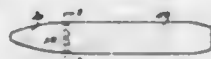
discharge opening; a fan directing a blast of air through the unhusked ears and through the trash discharge opening; and means redirecting a portion of the air blast for causing said portion of the blast to pass through the corn and incidental trash passing through the corn discharge opening to drive the trash therefrom.

2,822,812
DISK TYPE GRAIN THRESHER
Delbert Edwards, Condon, Oreg.
Application December 7, 1953, Serial No. 396,385
5 Claims. (Cl. 130—27)



1. In a harvester of the character described, a threshing unit comprising a crop supporting disk, means mounting the disk to rotate on an upright axis, said disk having circumferentially spaced rows of long straw-cutting teeth projecting upwardly from its top surface, the teeth in each row being spaced apart radially of the disk at least far enough to pass another like tooth between them, means to feed cut grain stalks and heads onto said disk, means to rotate the disk, and a housing for said disk having a member overlying a portion of the disk and provided with a multiplicity of long straw cutting teeth depending therefrom and positioned to pass the disk supported teeth between them, the disk having fan blades thereon and the housing having a guard between the depending teeth and the fan blades, the housing also having a tangential outlet spaced from the guard through which the fan blades blow the cut straw and the grain together out of the housing after passing them once through the depending teeth.

2,822,813
AIR COOLED AND FILTERED SMOKE
Francis T. Downs, Sunbury, Pa.
Application May 27, 1955, Serial No. 511,703
1 Claim. (Cl. 131—4)



In a smoking device, the combination which comprises a tubular shell filled with tobacco and having opposed openings through the wall thereof, and a split air tube extended through the openings and into tobacco within the shell, said split extending throughout the length of the tube whereby in smoking air is drawn through the split of the air tube into the tobacco, co-mingling with tobacco in the shell for cooling gases from the burning tobacco of the device as the gases are drawn into the mouth of a smoker.

2,822,814
BRUSH CLEANER AND DRYER
Alfred Torkelson, Grand Forks, N. Dak.
Application June 26, 1956, Serial No. 594,002
4 Claims. (Cl. 134—135)



1. A paint brush cleaner and dryer comprising a first container open at the top, a second container open at the bottom end and closed at the top end hingeably connected at said bottom end to the top of said first container, said second container defining a cover for said first container when rotated into an uppermost closed position above said first container to provide a unitary closed receptacle, a bearing member mounted on the top of said second container, an elongated shaft slidably and rotatably mounted within said bearing member, the top wall of said second container having an opening receiving said shaft therethrough, a sleeve positioned on said shaft above said bearing member, set screw means carried by said sleeve for locking the same to said shaft at any desired position of the latter, stop means at the upper end of said shaft for limiting its displacement downwardly through said sleeve and to facilitate the raising and lowering of the same to permit insertion and motion of a paint brush attached to the lower end of said shaft within said first container, and means for rotating said sleeve whereby to rotate said shaft within the closed receptacle with solvent disposed in the first container and means at the lower end of said shaft for fixedly holding in a removable manner the handle of a paint brush.

2,822,815
UMBRELLA FRAME
Fritz Bremshey, Sollingen-Obbils, Germany
Application November 1, 1955, Serial No. 544,233
Claims priority, application Germany November 2, 1954
1 Claim. (Cl. 135—39)

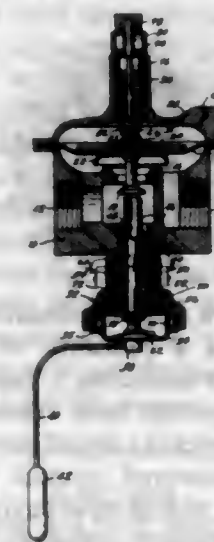


In combination with an umbrella frame including an umbrella stick, a slider slidable on said stick, a locking member on said stick engageable in a slot in said slider, umbrella stretchers, a rim to which said umbrella stretchers are hinged, a barrel-shaped ring axially displaceable on said slider, said ring having a first cam surface above a second cam surface, said first cam surface being in the form of a frustum of a cone and the second cam surface being in the form of an inverted frustum of a cone, a funnel-shaped projection extending from the upper edge of the first cam surface, the upper edge portion of the funnel-shaped projection extending inwardly and downwardly to form a bearing on the slider.

2,822,816
AUTOMATIC SHUT-OFF
Wayne H. Schutmaat, Elkhart, Ind., assignor to Penn Controls, Inc., Goshen, Ind., a corporation of Indiana
Application January 22, 1954, Serial No. 405,645
8 Claims. (Cl. 137—80)

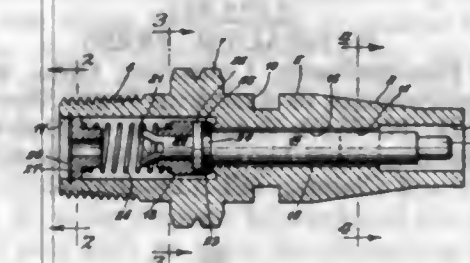
1. In an automatic shut-off for regulator valves and the like, a shut-off unit comprising a body, a shut-off

element projectable from said body, a spring within said body tending to cause such projection, means holding said element against movement into said body, means comprising magnet and armature members to normally retain said shut-off element against the bias of said spring, one of said members movable relative to the body and the other carried by said shut-off element, said magnet and armature members when in engagement overcoming



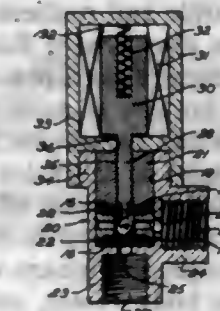
the bias of said spring, a second spring in said body biasing said one of the members to a predetermined position, and automatic means to overcome the force of said second spring on said one of the members, said automatic means when it fails to function, permitting said second spring to overcome the pull of said magnet member on said armature member to thereby permit the first spring to function and cause such projection of said shut-off element.

2,822,817
FILLER VALVE
Howard A. Benzel, Lancaster, N. Y., assignor to Scott Aviation Corporation, Lancaster, N. Y., a corporation of New York
Application June 8, 1956, Serial No. 590,146
1 Claim. (Cl. 137—223)



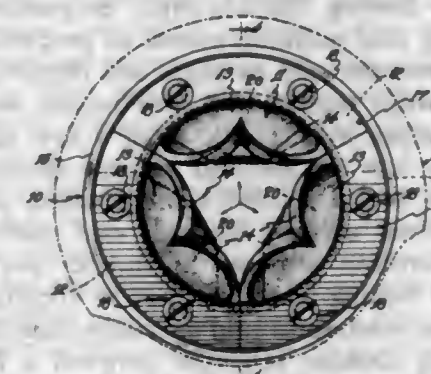
A filler valve comprising: a tubular casing having a flat-faced guide hole near its front end and a cylindrical guide bore near its rear end and a cylindrical clearance bore intermediate said guide hole and guide bore and having a valve seat at the rear end of said clearance bore; a plunger having a cylindrical shank at its front end and a reduced head disposed forwardly of said cylindrical shank and having an integral collar near its rear end and a reduced neck between said collar and said cylindrical shank and having an annular extension disposed rearwardly of said collar, the rear end of said extension being split; a flat-faced, guide head arranged on said extension; a washer-shaped valve arranged in said reduced neck against the front face of said collar; a hollow stop arranged in the rear end of said guide bore; and a compression spring arranged in said guide bore between the front face of said hollow stop and the rear face of said guide head.

2,822,818
VALVE DEVICE
Albert J. Breznick, North Hollywood, Calif., assignor to Frank A. Pachmayr, Los Angeles, Calif.
Application January 9, 1956, Serial No. 557,930
3 Claims. (Cl. 137—454.6)



1. The combination, comprising a valve body containing an outwardly opening cylindrical chamber and having an inlet and outlet communicating respectively with the bottom and side of said chamber, a valve assembly removably mounted within said chamber including a cylindrical manifold containing a bore communicating between a pair of counterbores at opposite ends of the manifold and an outlet communicating between said bore and the valve body outlet, a pair of cylindrically ported Babbitt metal valve seats fitted within said counterbores against displacement therein with said ports in axial aligned communication with said bore and with one of said ports communicating with said inlet, said seats extending transversely across the bore in closing relation therewith and projecting from said recesses, and a hard metal ball valve larger than the ports centered within the bore and axially movable therein into pressing engagement with said seats about said ports to deform the engaged seat metal in accordance with the seat engaging portions of the valve adapting the valve to seal against the seats, a retainer in said chamber holding said valve assembly against the chamber bottom, and a plunger extending through the retainer and the other of said ports and movable relative thereto into and out of engagement with the valve to close the valve against the seat containing said one port for preventing fluid flow therethrough and alternately to free the valve for movement within the bore to engagement with the seat containing said other port for preventing fluid escape therethrough during fluid flow through said inlet and outlets.

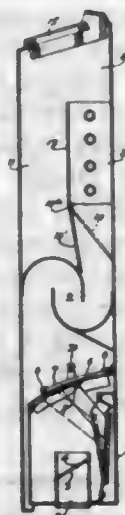
2,822,819
CUSPATE CHECK VALVE
Leon Jean Geeraert, Brooklyn, N. Y., assignor to Geeraert Corporation, New York, N. Y., a corporation of New York
Application August 7, 1953, Serial No. 372,922
4 Claims. (Cl. 137—525.1)



1. A check valve comprising: an annular valve body; and a movable valve element mounted in the valve body in closing relation thereto and including more than two separate identical mated sections of segmental form having respective peripheral portions removably secured to

the valve body with their radial side edges in abutting relation and inwardly presented cusps of concavo-convex axial section projecting in the direction of normal fluid flow and arranged so that their concave faces are radially outwardly presented and their radial free edges intersect when in closed condition, said sections being composed of soft, flexible and resilient material and being adapted to flex in the direction of fluid flow to open the valve under the influence of fluid pressure in back of said cusps, the peripheral portion of each section of the movable valve element having an arcuate flange portion lying in a plane at right angles to the valve axis and the valve body having an annular recess in which the flange portions of all sections are removably fitted to complete a circular composite flange, and means to clamp said flange portions in the valve body recess, said clamping means including an annular clamping gland countersunk in the valve body recess on the outside of said flange portions of the movable valve element, and at least one axially extending lag screw penetrating said gland and each of said flange portions and having adjustable screwthreaded engagement with the valve body.

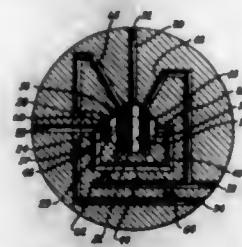
2,822,820
DEVICE FOR REGULATING THE FLOW OF A GASEOUS MEDIUM
Evert Georg Samuelsson, Göteborg, Sweden, assignor to Aktiebolaget Svenska Flaktfabriken, Stockholm, Sweden
Application October 17, 1955, Serial No. 541,009
Claims priority, application Sweden October 20, 1954
7 Claims. (Cl. 137-599)



1. In a device for regulating the flow of a gaseous medium, comprising means defining a channel having an inlet at one end and an outlet at the other end, partition means extending longitudinally in one portion of said channel forming a main passage and a by-pass passage connected in parallel, means in said main passage to treat the medium flowing therethrough, proportioning means at one end of said partition means to proportion the flow of medium between said passages and thereby control the ratio of between treated and non-treated medium comprising a damper movable between a first limit position directing the flow of medium entirely through said by-pass passage and a second limit position directing the flow of medium entirely through said main passage, a transverse partition disposed in another portion of said channel and having apertures therein forming flow passages in series relation to said parallel-connected passages, and a sliding damper operable between a first position fully opening said flow passages and a second position closing said flow passages to thereby regulate the total flow of medium through said channel; a common operator for said dampers to move them concurrently towards the first and second positions thereof respectively whereby a decrease in the ratio of treated medium to non-treated

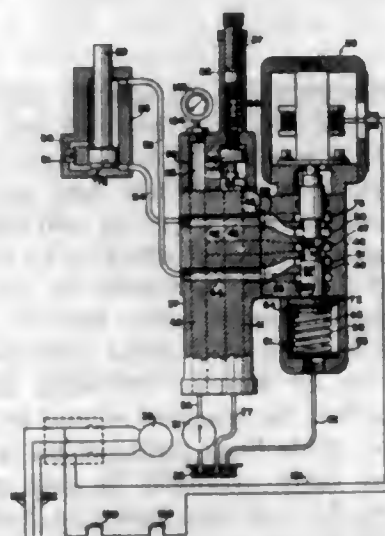
medium is accompanied by an increase in total flow, and, vice versa, an increase in said ratio is accompanied by a decrease in total flow.

2,822,821
BALANCED FLUID VALVE
Carroll G. Gordon, Pasadena, Calif.
Application October 5, 1953, Serial No. 384,196
4 Claims. (Cl. 137-624)



1. In a rotary valve, the combination of: a body having a cavity therein and a plurality of ports opening into said cavity, said ports including a fluid supply port, a pair of opposed interconnected fluid exhaust ports, a first pair of opposed interconnected control ports and a second pair of opposed interconnected control ports; and a rotor rotatably positioned within said cavity, said rotor having three substantially parallel passages therein, the axis of each of said passages being perpendicular to the axis of rotation of said rotor, the central of said passages being a supply passage and the other two of said passages being return passages, said rotor having a neutral, a right and a left position, said supply passage communicating with said supply port and each of said return passages communicating respectively with one of said exhaust ports when said rotor is in said neutral position, said supply passage coupling said supply port to said first pair of control ports and each of said return passages coupling respectively one of said second pair of control ports to one of said pair of exhaust ports when said rotor is in said left position, and said supply passage coupling said supply port to said second pair of control ports and each of said return passages coupling respectively one of said first pair of control ports to one of said pair of exhaust ports when said rotor is in said right position.

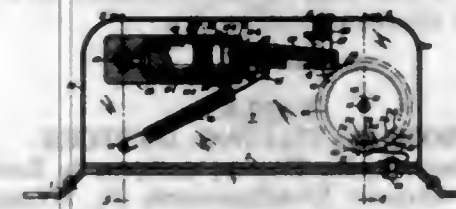
2,822,822
HYDRAULIC PRESS
Edwin C. Pinsenschaum, Columbus, Ohio, assignor, by mesne assignments, to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application April 15, 1954, Serial No. 423,462
2 Claims. (Cl. 137-622.5)



1. A hydraulic cylinder control valve mechanism comprising a casing having a longitudinally extending bore and inlet, first and second cylinder and exhaust ports

spaced longitudinally thereof; spool means disposed for movement in said bore, said spool being operative in a first position to establish communication between said inlet and said first cylinder port and between the second cylinder port and an exhaust port; resilient means tending to urge said spool means toward said first position; means for moving said spool means in opposition to said resilient means to a second position in which said spool means establishes communication between said second cylinder port and said inlet port; means forming a chamber at one end of said bore, said chamber having an exhaust port at one end; a piston engaging said spool and dividing said chamber into inner and outer sections, said spool forming a passage operative in the second position of said spool to establish communication between said first cylinder port and the inner section of said chamber, the outer section of said chamber communicating with said exhaust port; and means forming a restricted passage establishing limited communication between the inner and outer ends of said chamber, fluid flow from the inner to the outer end through said passage creating a pressure differential which causes said piston to restrain said spool against movement by said resilient means.

2,822,823
ROTARY DISK VALVE WITH RATCHET OPERATING MEANS
Victor G. Klein, Defiance, and Norbert F. Cook, St. Louis, Mo., assignors to The McNell Machine & Engineering Company, Akron, Ohio, a corporation of Ohio
Application August 4, 1954, Serial No. 447,861
10 Claims. (Cl. 137-625.21)

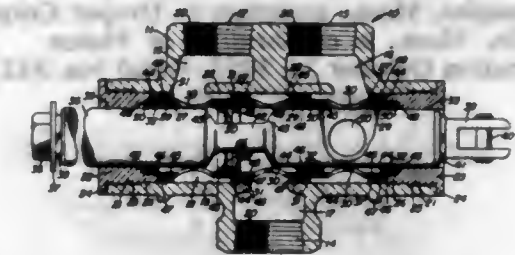


1. A valve comprising a support, a ratchet disk rotary on the support, aligned valve fittings fixed on the support in engagement with opposite faces of the disk on a radius from the axis of the disk, the disk having a series of ports extending therethrough from one face to the other on the radius of the fittings for establishing communication from one fitting to the other in various rotary positions of the disk, a cylinder fixed on the support closed at one end constituting its rearward end and open at its forward end, a plunger slidable in the cylinder and extending out of its forward end, the cylinder having a port for admitting fluid under pressure rearward of the plunger to drive the plunger forward and for venting the cylinder of said fluid to allow the plunger to move rearward, a pawl pivoted on the forward end of the plunger for rotating the ratchet disk in one direction, means biasing the plunger rearward, a stop on the support engageable by the plunger for limiting its forward movement, and means positionable at different locations on the plunger engageable with the forward end of the cylinder for determining different retracted positions of the plunger thereby to change its stroke.

2,822,824
FLUID VALVE
Donald D. Glower and Albert M. Rockwood, Columbus, Ohio, assignors, by mesne assignments, to Valvair Corporation, Akron, Ohio, a corporation of Ohio
Application June 22, 1954, Serial No. 438,530
4 Claims. (Cl. 137-625.42)

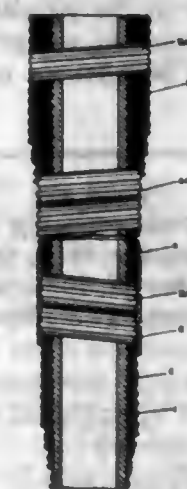
1. A valve comprising, a housing having a bore therethrough and having a plurality of ports in communication with the bore, a plurality of annular spacers coaxially

longitudinally disposed in the bore, retainer means for retaining the spacers in position in the bore, a stem reciprocally disposed in the bore and adapted to slide longitudinally in said spacers, said spacers and retainers have telescoping engaging means at adjacent ends thereof to form separate longitudinally contractable outer annular



grooves facing the adjacent bore wall and separate annular inner grooves facing the adjacent stem, a compression seal disposed in each of said outer grooves, said compression seals being compressed by the longitudinal contraction of the respective outer grooves, and a resilient seal disposed in said inner grooves.

2,822,825
TAPE-WOUND VESSELS OR PIPES FOR HIGH-PRESSURE SERVICE
Hans Zanderlein, Ludwigshafen (Rhine), and Otto Konrad, Schriesheim-Bergstrasse, Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
Application December 29, 1954, Serial No. 478,445
Claims priority, application Germany January 2, 1954
3 Claims. (Cl. 138-64)

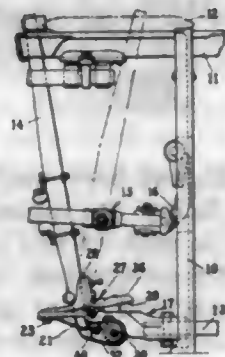


1. In a metallic hollow body for high pressure service of the type having a core tube with a plurality of profiled metal bands spirally wrapped and shrink-stressed on the core tube, the improvement which comprises at least two adjoining profiled metal bands having a direction of spiral wrapping transverse to each other to provide an opposite torsional stress, each of said adjoining metal bands having their contacting sides profiled for interengagement in the direction of spiral wrapping of the outermost metal band.

2. In a metallic hollow body for high pressure service of the type having a core tube with a plurality of profiled metal bands spirally wrapped and shrink-stressed on the core tube, the improvement which comprises at least two adjoining profiled metal bands having a direction of spiral wrapping transverse to each other to provide an opposite torsional stress, each of said adjoining metal bands having their contacting sides profiled for interengagement in the direction of spiral wrapping of the outermost metal band and each of said adjoining metal bands having their remote sides profiled such that each metal band is profiled in its own direction of spiral wrapping.

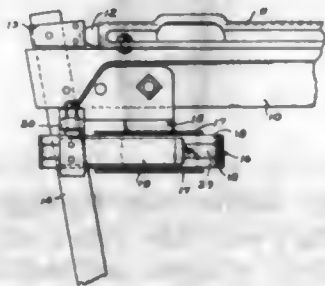
2,822,826
WITHDRAWN

2,822,827
LOOM PARALLEL MECHANISM
Clifford G. Moon, Hopedale, and Joseph M. Budzyna, East Douglas, Mass., assignors to Draper Corporation, Hopedale, Mass., a corporation of Maine
Application October 26, 1955, Serial No. 542,909
4 Claims. (Cl. 139-149)



1. In combination with a loom parallel having an opening, a curved shoe rocking on said parallel, a picker stick fixed in said shoe and extending through said opening in the parallel, a parallel tongue fixed to the lower stick end and passing through the parallel opening, and an abutment extending laterally of the tongue at its lower end beneath and spaced from the parallel, a means for preventing jumping of the stick and shoe as the stick is picked which comprises a resilient shock absorbing pad between the said abutment and lower side of the parallel and a spring member fixed to the parallel and interposed between the pad and abutment and pressing the pad against the lower side of the parallel, to transmit impact of the abutment to the pad.

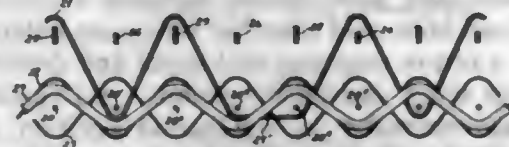
2,822,828
CHECK STRAP FOR PICKER STICK OF LOOM
John C. Crocker, Ware Shoals, S. C.
Application October 17, 1956, Serial No. 616,501
4 Claims. (Cl. 139-161)



1. In a loom, a picker stick check strap, said check strap comprising a unitary relatively thick all leather body portion provided in one side only with an elongated continuous longitudinal groove extending throughout the major portion of the length of the strap body portion, said groove being substantially narrower than the total width of the strap body portion so as to provide leather shoulder portions and leather longitudinal edges upon the opposite sides of the groove, said leather shoulder portions having the thickness of said body portion, the depth of said groove being uniform and less than one-half of the thickness of said body portion, an insert of woven synthetic textile material disposed within and substantially filling said groove and being flush in said one side of the body portion and having high resistance to wear caused by abrasion, and means for permanently securing said insert within said groove.

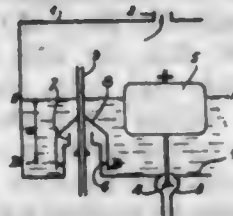
2,822,829
PILE FABRIC WOVEN WITH WIRE VARIATIONS
John Henry Harding, generally known as Harry J. Harding, Philadelphia, Pa., assignor to C. H. Masland & Sons, Carlisle, Pa., a corporation of Pennsylvania
Original application February 25, 1953, Serial No. 338,694, now Patent No. 2,714,400, dated August 2, 1955. Divided and this application April 25, 1955, Serial No. 503,499

1 Claim. (Cl. 139-404)



A one-shot pile floor covering fabric comprising pile warp ends, binder warp ends and wefts interwoven together, the binder warp ends crossing between each weft, the fabric having first pile areas of one character in which a first group of pile warp ends is raised in pile of a first character over even numbered wefts and bound beneath odd numbered wefts and a second group of pile warp ends is raised in pile of a second character over odd numbered wefts and bound beneath even numbered wefts, the fabric having second pile areas of another character in which the first group of pile warp ends is raised in pile of the second character over odd numbered wefts and bound beneath even numbered wefts and the second group of pile warp ends is raised in pile of the first character over even numbered wefts and bound beneath odd numbered wefts, the pile warp ends floating clear at the back of the fabric behind two wefts at points of pattern change from a pile area of one character to a pile area of a different character.

2,822,830
BOTTLE FILLING DEVICES
Lucien Grosbois, Lyon, France, assignor to Société Nouvelle des Anciens Etablissements F. Wenger, Paris, France, a limited liability company of France
Application January 26, 1954, Serial No. 406,210
5 Claims. (Cl. 141-59)

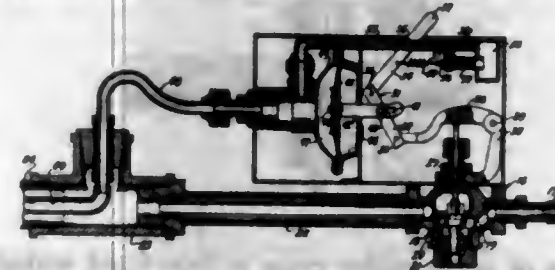


5. A filling device for bottles comprising a constant level storage tank in the air space of which there is maintained a substantially constant negative pressure; a filling nozzle connected with said storage tank by a passage in the form of a syphon duct having an ascending branch opening in said tank, the level of the liquid within the tank being substantially above the upper bend of said syphon duct, and said filling nozzle opening downwardly below the lower end of the ascending branch of said syphon duct within said tank; and an air exhaust tube associated to said filling nozzle, said air exhaust tube having its lower end so disposed with respect to said nozzle that it is received within the neck of the bottle being filled while its upper end opens in the air space of said tank.

2,822,831
AUTOMATIC STOP FOR BATTERY FILLING DEVICE
Wyatt H. Williams, Gurnee, Ill., assignor to Gould-National Batteries, Inc., a corporation of Delaware
Application June 4, 1953, Serial No. 359,493
5 Claims. (Cl. 141-209)

5. In a vehicle battery filling device with liquid level automatic flow stop, a normally closed liquid supply valve

having inlet and outlet ports, resilient means urging the valve toward closed position, a liquid delivery nozzle connected to the outlet port of said liquid supply valve, manually operable means for opening said valve, latch means for securing said valve in open position, a diaphragm operatively connected to said latch means for releasing the valve to cut off flow to said delivery nozzle, a casing for



the diaphragm open to atmosphere at one side and having a normally closed chamber at the other side of the diaphragm, an air tube telescoped within said delivery nozzle with liquid flow clearance between them and ending within said nozzle near the delivery end thereof, and means including an air passage connecting said normally closed diaphragm chamber with said air tube, said nozzle having a constriction adjacent to the end of the air tube.

2,822,832
FILLING NOZZLE ASSEMBLY
Norman E. Craw, Chehalis, Wash.
Application February 10, 1956, Serial No. 564,670
3 Claims. (Cl. 141-360)

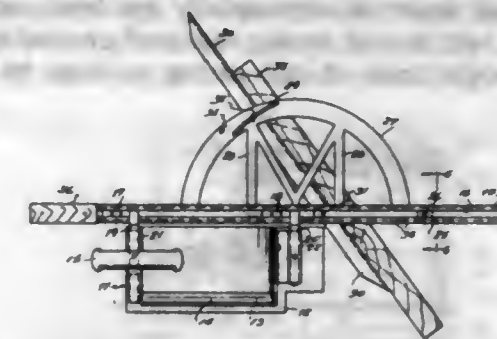


1. A nozzle assembly for filler cans comprising a tubular elongated nozzle member, a cap element secured on one end of the nozzle member for mounting the nozzle member on a filler can, said cap element having a central aperture portion in communication with the interior of the nozzle member and defining at the intersection therewith a valve seat portion, said nozzle member including at the other end a lateral cutout portion extending through a side wall portion thereof, a reciprocable valve element seated on the valve seat portion for controlling communication between the filler can and the interior of the nozzle member, a valve actuating rod secured at one end to the valve element, the other end of said actuating rod terminating in a laterally extending end portion below the outer end of the nozzle member, said lateral end portion extending through and reciprocable in the lateral cutout portion in the side wall of the nozzle member and extending beyond the outer periphery of the nozzle member, abutment means extending laterally from longitudinally spaced portions of the inner periphery of the nozzle member and an intermediate portion of the actuating rod, and compression spring means interposed between the abutment means for urging the valve element into sealing engagement on the valve seat portion.

2,822,833
PORTABLE POWER HAND SAW GUIDE
Gus Mondrick, Rhome, Tex.
Application April 25, 1955, Serial No. 503,442
1 Claim. (Cl. 143-6)

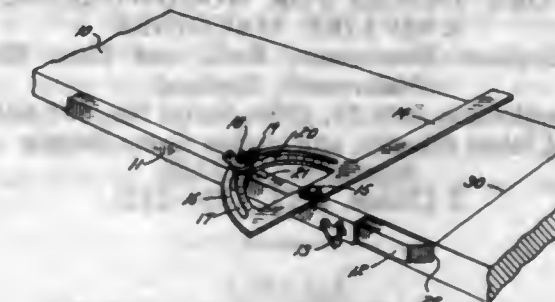
In combination with a portable electric saw having a base, a guide frame having a guide bar formed with a T-

groove longitudinally thereof and a pair of arms slidably arranged in the T-groove and extending laterally therefrom for detachably securing the saw base thereto, a semi-circular segment formed with the guide bar and extending oppositely from the arms and having an arcuate slot



therein, an adjustable angular bar pivoted to the guide bar at the center of the arcuate slot and securable to the segment in the slot in different fixed angular adjustments with respect to the guide bar, the slot having an arcuate curvature eccentric to that of the segment, and an adjustable stop in the T-groove for the saw.

2,822,834
MITERING GUIDES FOR HAND POWER SAWS
Harvard E. Hammers, Colorado Springs, Colo.
Application October 26, 1956, Serial No. 618,566
3 Claims. (Cl. 143-6)

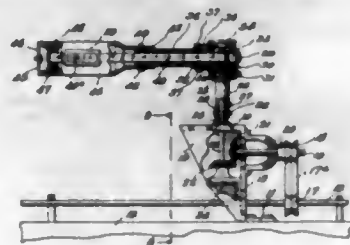


1. A mitering guide for guiding a power saw of the type having a base plate, one edge of which is spaced laterally from a power-driven circular saw, so that the circular saw will follow a predrawn cutting line across a work piece, comprising: an elongated, hollow, rectangular edge tube adapted to be positioned along one side of the work piece in engagement with the edge thereof, and with its upper face in the plane of the upper face of the work piece; a straight edge member pivotally mounted on the upper face of said edge tube adjacent one extremity of the latter and adapted to lie upon the upper surface of said work piece as a guide abutment for the base plate of said saw; means for securing said straight edge member at any desired angle to said edge tube; an elongated, rectangular pointer member axially slidable in and projecting from said one extremity of said edge tube; and a set screw in said edge tube engaging said pointer member and locking the latter in said edge tube, with its extremities at a preset distance from said straight edge member so that when the extremity of the pointer member is positioned at said predrawn cutting line, and when said base plate is positioned against and forced forwardly along said straight edge member, said circular saw will follow said line.

2,822,835
FIGURE GAUGE FOR SAW MILLS
George L. Berry, Culpeper County, Va.
Application May 27, 1955, Serial No. 511,578
5 Claims. (Cl. 143-124)

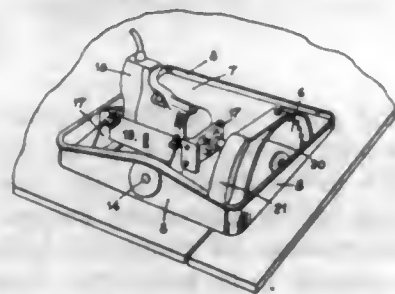
1. A device of the class described comprising a support, a rotatable line shaft on the support, an indicator mounted on the support adjacent said line shaft, said indicator comprising a base, a vertically extending ro-

tatable shaft projecting from the base, means for rotating said vertical shaft from said line shaft, a journal sleeve rotatable about said vertical shaft and upon said base, said indicator also including an elongated laterally and outwardly extending indicator casing carried by said journal sleeve at substantially eye level, an endless indicator belt in said casing mounted around spaced means at opposite ends of said casing to form an elon-



gated loop the sides of which have longitudinal movement within said casing, drive means carried by said vertically extending shaft and engaging said endless indicator belt for driving said endless indicator belt so the sides of the loop travel longitudinally within said indicator casing, and said belt having consecutively arranged numerals formed peripherally of said belt and co-operating with an index mark on said casing to indicate the position of rotation of said line shaft.

2,822,836
WORK TABLES FOR WOODWORKING AND LIKE MACHINES
Bevan Graham Horstmann, Bath, and Theo Sherwen, Nailsworth, England
Application July 23, 1956, Serial No. 599,625
Claims priority, application Great Britain September 15, 1955
2 Claims. (Cl. 143-132)

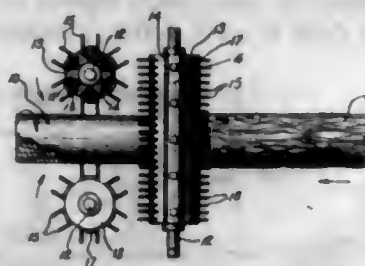


1. A plate for use with woodworking implements such as a motor-driven circular tool, said plate having a top and a bottom and reversible selectively for connection with a bracket on a post to support the work relative to the tool and when inverted supporting the tool relative to the work, said plate having first and second right-angularly disposed tool-receiving slots, a flange at the edge of the plate opposite said first slot, said flange having an opening to receive a stud carried by said bracket to hold the top surface of the plate uppermost, and a tool carrier on the bottom surface of the plate for clamping a motor-driven circular tool thereto with said tool disposed in said second slot when the bottom surface of the plate is uppermost.

2,822,837
DEBARKER ROTOR HAVING AXIALLY AND CIRCUMFERENTIALLY SPACED U-SHAPED BRISTLES
Stanley J. Clausen, Ladysmith, British Columbia, Canada
Application August 2, 1956, Serial No. 601,842
1 Claim. (Cl. 144-206)

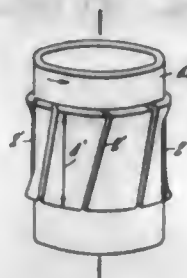
A log-peeling rotor comprising a shaft, a cylinder fixedly mounted on said shaft, said cylinder having angularly spaced, longitudinally extending grooves in the periphery thereof, said grooves being of substantially semicircular cross section, a plurality of longitudinally spaced bristles of U-shaped configuration positioned within each of said

grooves, and means for retaining said bristles in fixed relationship to the cylinder and within said grooves whereby upon rotation of said shaft and cylinder, said bristles will peel the bark from log chunks, said means for retaining said bristles in position comprising a plural-



ity of bars of semicircular cross section fitted within said grooves and accommodating therebeneath the central portions of the bristles, and longitudinally spaced screw means extending through each of said bars and into said cylinder to secure said bars within said grooves.

2,822,838
ROTARY MACHINES FOR THE SHREDDING OF WOOD INTO SHAPED PARTICLES
Walter Kull, Freudenstadt, Germany, assignor, by mesne assignments, to Allwood Incorporated, Glarus, Switzerland, a corporation of Switzerland
Application August 12, 1953, Serial No. 373,779
5 Claims. (Cl. 144-221)

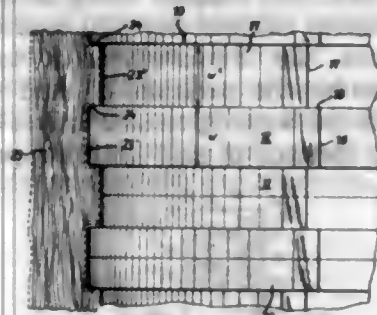


1. A cutter head for shredding pieces of wood, comprising a rotor having a portion shaped as a body of revolution, said portion having a curved generatrix, a set of knife blades of substantially plane shape disposed on the peripheral surface of said rotor portion and projecting therefrom for severing particles from the wood to be shredded, each of said blades having a straight cutting edge extending oblique to the axis of said rotor and intersecting any chosen axial plane of said rotor at an acute angle, whereby the totality of said cutting edges define a substantially hyperbolic envelope curve in said axial plane, with said generatrix being parallel to said envelope curve.

2,822,839
ROTARY CUTTER HEAD WITH SLOTTED CUTTER SEATS
Wilhelm Frodermann, Westphalia, Germany, assignor to F. Meyer & Schwabedissen, Herford-Westphalia, Germany, a German firm
Application April 21, 1955, Serial No. 502,800
Claims priority, application Germany April 22, 1954
8 Claims. (Cl. 144-230)

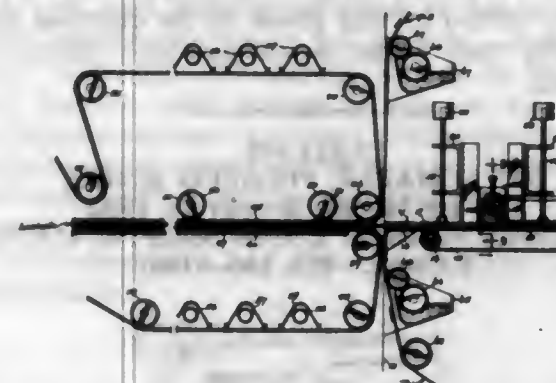
1. A device for cutting splinters, shavings, and like pieces from wood and similar materials; comprising a shaft of circular cross-section provided with a plurality of circumferentially extending channels having flat bottoms disposed substantially parallel to the longitudinal axis of said shaft, said shaft being provided with a plurality of circumferentially spaced, radial recesses interrupting said channels at regular intervals and extending substantially transversely to said channels, a cutting tool supported by said shaft within each of said recesses, each of said cutting tools being provided with alternate outer and inner cutting edges arranged to project, respectively,

beyond the outer surface of said shaft and beyond said bottoms of said channels, said tools being further provided with lateral cutting edges extending substantially transversely to said inner and outer cutting edges and interconnecting respective adjacent inner and outer cut-



ting edges, and wedge means disposed within each of said recesses and operable to clampingly retain said tools within their respective recesses and with all of their cutting edges in predetermined position relative to said outer shaft surface.

2,822,840
MACHINE FOR BONDING KRAFT PAPER TO VENEER SHEET
Gilbert I. Reynolds, Port Blakely, and Axel A. Tallquist, Seattle, Wash., assignors to Ederer Engineering Company, Seattle, Wash., a corporation of Washington
Application December 27, 1954, Serial No. 477,816
4 Claims. (Cl. 144-279)

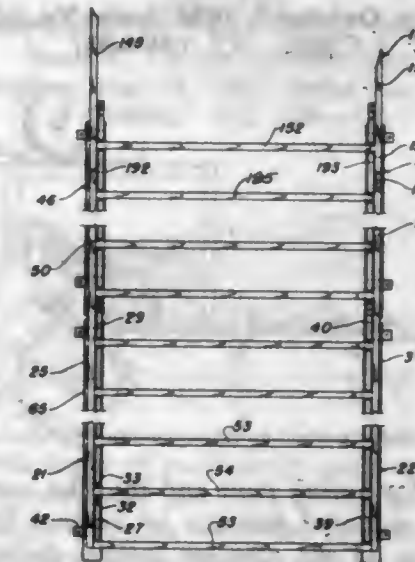


1. A machine for producing the described kraft veneer laminate and namely a laminate composed of wood veneer sandwiched between facing sheets of kraft paper, said machine comprising a generally horizontal bonding throat defined at the bottom by the upper run of a lower endless conveyor belt and at the top by the lower run of an upper endless conveyor belt, both of said belts having high thermal capacity, a flat table underlying and giving support to said upper run of the lower conveyor belt, a series of transversely extending longitudinally spaced apart pressure rolls bearing from above upon the lower run of said upper conveyor belt, a respective means for concentrating heat upon each of said conveyor belts so located as to apply its heat to the related belt along a section of the belt's travel which is outside the bonding throat and thereby storing heat within said belt in advance of the traversal by said belt of the bonding throat, means for applying a thermo-setting glue to one surface of each of the facing sheets, and means for bringing said glued surfaces against the opposite faces of the veneer and feeding the laminate into the admission end of the bonding throat.

2,822,841
METHOD AND APPARATUS FOR ASSEMBLING WALLS
William H. Huffman, Newark, Ohio
Application March 29, 1955, Serial No. 497,669
6 Claims. (Cl. 144-288)

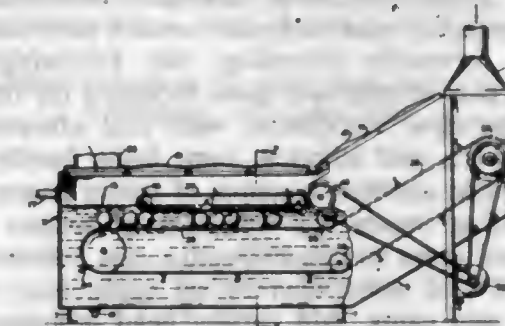
1. An apparatus for assembling prefabricated walls comprising, in combination, a pair of spaced parallel support members forming a base for supporting spaced

parallel plate members of said wall; a plurality of guide means on each of said support members, said support members being arranged to underlie opposite ends of a plurality of spaced stud members extended transversely to said plate members, each of said guide means serving to locate an end of one of said stud members longitudinally along one of said plate members; a flange on each of said support members extending longitudinally



and upwardly thereof and adapted to engage an outer side of one of said plate members to provide lateral support when the other of said plate members is being nailed to said stud members, said flange including spaced openings to expose nail-receiving surfaces on said plate member when nailing said plate member to the ends of said studs, each of said nail-receiving surfaces being aligned with one of said guide means, and means for mounting each of said support members to an underlying surface.

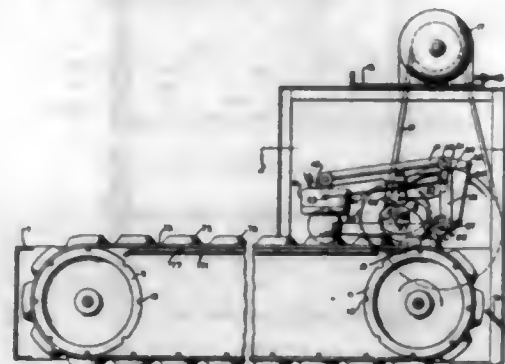
2,822,842
TOMATO TREATING MACHINE
Alfred A. Morici, San Jose, Calif., assignor to Hershel California Fruit Products Co., Inc., a corporation of California
Application September 6, 1956, Serial No. 608,304
1 Claim. (Cl. 146-47)



An apparatus for treating tomatoes or the like in a submerged bath comprising an elongated tank, said tank having a long horizontal portion and being raised at one end, an aqueous layer in said tank, a first pair of parallel chains having a continuous mesh screen and a series of spaced lugs therebetween, driving means for propelling said chains through said solution in the horizontal portion of said tank and guide means for lifting the chains out of the solution at the raised end of the tank, a second pair of parallel chains located above said first pair of parallel chains, said second pair of parallel chains having continuous mesh therebetween and lugs thereon spaced at the same distance as the lugs on the first chain, synchronizing drive means connecting said first and second parallel chains causing said chains to move through the bath at the same rate of speed, said synchronizing means causing said lugs to mate with one another, said mesh on the first pair of chains supporting fruit and the mesh on

the second pair of chains going over the top of the fruit and maintaining it in an immersed condition throughout a substantial portion of its travel through said bath.

2,822,843
TOMATO CORING MACHINE
Alfred A. Morici, San Jose, Calif., assignor to Hershel California Fruit Products Co., Inc., a corporation of California
Application October 9, 1956, Serial No. 614,989
1 Claim. (Cl. 146—52)

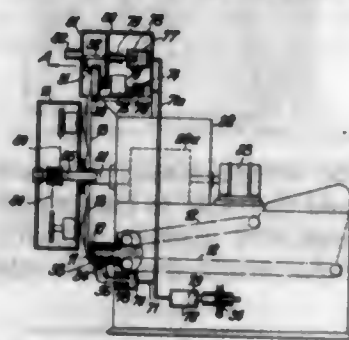


A machine for coring fruit and the like comprising: a frame having mounted thereon an endless flexible belt, said belt having on the exterior surface thereof a series of cups for receiving the fruit to be cored, said receiving cups having a series of radial ribs adapted to prevent said fruit from turning within said cup; a source of power for continuously advancing said belt; a coring head positioned over said belt, said coring head having a shaft and a downwardly directed coring knife mounted on the end thereof; means operatively connected therewith for rotating said shaft at a high rate of speed said means being independent of said source of power for advancing the belt; a resilient flexible member mounted on the end of said coring head normally extending at least the full length of said knife, said resilient flexible member having a central aperture therein of a circumference in excess of that of the circle described by the said knife when said knife is rotated; a first lever for supporting said coring head; a second lever supporting said first lever at one end thereof, said second lever being pivotally secured to the said frame of said machine at one end thereof, said first mentioned lever having a downwardly depending cam follower and said second mentioned lever having a forwardly extending cam following secured thereto; a pair of elliptical cams mounted for rotary motion in operative association with said aforementioned cam followers, said elliptical cams being fixedly secured relative to one another; a source of rotary power for said cams; biasing means for maintaining contact between each of said cams and its respective cam follower during rotation of said cams whereby on application of rotary power to said cams, said cutting head mounted on the end of said first lever describes an elliptical path in timed synchronous relationship to the passage of each fruit-receiving cup whereby said head moves downwardly to contact the fruit located in said cup, thereafter follows said fruit for a short distance as the belt moves in a forwardly direction and thereafter said head raises and returns to contact the next fruit on said belt.

2,822,844
TOBACCO CUTTER HAVING AUTOMATICALLY ADJUSTABLE MOUTHPIECE
Eduard Busch, Varel, Oldenburg, Germany, assignor to Maschinenfabrik und Eisengieserei A. Heinen G. m. b. H., Varel, Oldenburg, Germany
Application July 8, 1955, Serial No. 520,847
Claims priority, application Germany July 12, 1954
10 Claims. (Cl. 146—101)

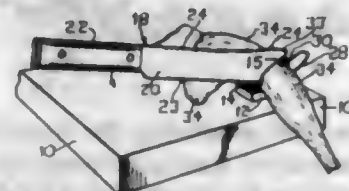
1. In a tobacco cutting machine comprising a knife support, means for rotating said support about its cen-

tral axis, a plurality of circular knives mounted on said support, means for rotating each of said knives about its own central axis, feeding means for supplying tobacco to said knives, said feeding means comprising a mouthpiece having an orifice through which said tobacco is adapted to be fed, said support being adapted to revolve said rotating knives successively past said orifice so as to cut said tobacco, the improvement of means for continuously adjusting the position of said mouthpiece in accordance with the wear upon said knives and in a direction parallel to the axis of said knife support and toward



said revolving knives while said knives are rotating on said support past said orifice, and wherein said mouthpiece comprises a slidable sleeve having a projection, and wherein said means for continuously adjusting the position of said mouthpiece comprise a movable slide having a groove, said movable slide engaging said projection of said slidable sleeve of said mouthpiece, a hydraulic cylinder and a piston within said cylinder, said movable slide being shifted by said piston in the direction toward said circular knife blades moved past said orifice of said mouthpiece.

2,822,845
DETACHABLE PIVOTED KNIFE
J. Wiley Medlin, Brookville, Ohio
Application November 1, 1956, Serial No. 619,757
1 Claim. (Cl. 146—146)



A cutter assembly comprising a cutter block, a pivot post rigidly supported adjacent the cutter block and extending angularly from the surface of the cutter block, the post having an elongate longitudinal slot therein, the post having a small upper end which does not have the slot therein, a blade member, the blade member having a straight cutter edge extending along a portion of the length thereof, the blade member having an end portion, the end portion having an arcuate cutter edge joining the straight cutter edge, the end portion of the blade member having a slot therein, the distance between the bottom of the slot of the end portion and a point on the arcuate cutter edge being equal to the length of the slot in the post extending from the cutter block, the end portion of the blade member being positioned within the slot of the post with the short upper end of the pivot post being in engagement with the bottom of the slot of the end portion of the blade member, the arcuate cutter edge and the straight cutter edge thus being engageable with the cutter block as the blade member is pivotally moved about the short upper end of the post.

2,822,846
LEAF COMMUNUTOR FOR MULCHING
Henry Gohlke Ward, San Antonio, Tex.
Application June 29, 1956, Serial No. 594,823
4 Claims. (Cl. 146—192)

1. A mulching apparatus comprising a support plate, a tubular standard, means securing said standard to said

support plate in upright relation thereon, a flat disc, means securing said flat disc to said standard in vertically spaced parallel relation to said support plate, said flat disc having an annular recess formed in the upper surface thereof extending to the peripheral edge thereof, a cylindrical screen supported on said flat disc and having the lower end thereof engaged in said annular recess, an annular ring, said ring having inner and outer annular recesses formed in the lower surface thereof, said ring having the upper end of said cylindrical screen engaged in said inner annular recess, means securing said annular ring to said flat disc clamping said screen therebetween, a cylindrical

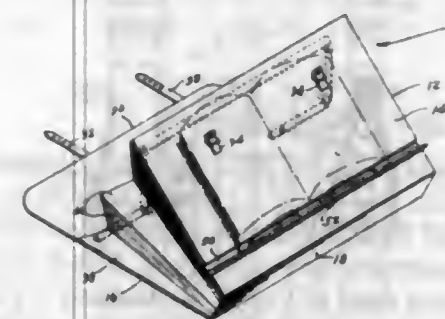
comprising an elongated plate element pivotally connected to the outer surface of the front panel below the upper edge thereof, said front panel including a transverse elongated recess portion conforming to the shape of the plate element for receiving the same therein when the device is utilized as a brief case.

2,822,848
POUCH FOR PRECISION TOOLS
Ernst E. Thoms, Dayton, Ohio
Application June 20, 1955, Serial No. 516,640
4 Claims. (Cl. 150—52)



1. A pouch made of a relatively soft, deformable material defining a unitary one piece envelope tending firmly to hold a shape with the walls thereof spaced from one another, said envelope defining a first interior volume substantially round in cross section and long in relation to dimensions transverse to the longitudinal axis of said first volume, and a second interior volume both long and deep in relation to the width thereof, said second volume being longitudinally off set from the longitudinal axis of said first volume and having its depth and length in a plane common to said longitudinal axis, said second volume communicating with said first volume and said envelope presenting a slit for access to the interior thereof, said envelope being self closing in relation to said slit and responding to applied pressure to open said slit, the portion of the pouch accommodating said second volume being adapted to be received within the hand for application of endwise squeezing pressure for opening of said slit.

2,822,847
COMBINED BRIEF CASE AND PORTABLE LECTERN
Anthony Cesaroni, Jr., Apalachicola, Fla.
Application February 1, 1957, Serial No. 637,764
2 Claims. (Cl. 150—1.6)



1. A brief case including front and rear panels and a transverse bottom, expansible side panels closing the ends of the brief case permitting the front and rear panels to be disposed in diverging angular relationship from the bottom of the brief case, collapsible brace means extending between opposed portions of the front and rear panels for maintaining the panels in their diverging angular relationship when the brief case is open and used as a portable lectern, and displaceable support means secured on the front panel in laterally extendible relationship from the outer surface thereof for receiving and supporting the lower edge of a book or the like when the back panel is used as a support base in juxtaposed relation on a horizontal support surface, said displaceable support means

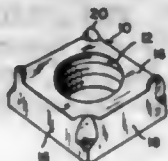
2,822,849
TIRE COVER STRUCTURE
George W. Schatzman, Detroit, Mich., assignor to Houdaille Industries, Inc., Detroit, Mich., a corporation of Michigan
Application February 16, 1956, Serial No. 565,904
7 Claims. (Cl. 150—54)



1. In a tire cover structure, a pair of side plate members adapted to overlie opposite sides of a tire, a peripheral ring member adapted to cover the tire tread and having edges overlying adjacent edges of said side plate members, a resilient spring clip means having provisions thereon engageable with the side plate members to maintain a pre-determined orientation of said side plate members against the tire sides and adjacent the tire tread, said clip means being provided from a strip of resilient stock and having a configuration such that it must be elastically distorted to effect engagement of said provisions over said side plate members, but permitting it to be elastically distorted to effect retaining engagement of said side plate members to maintain a pre-determined orientation thereof against the tire sides and adjacent the tire tread.

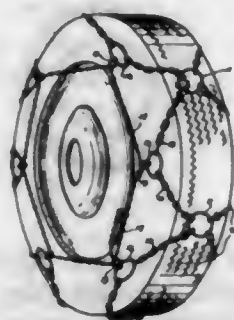
2,822,850
METHOD OF FORMING WELDING PROJECTIONS
ON A STANDARD NUT BLANK AND ARTICLE
SO FORMED

Frank L. McLaughlin, Farmington, Mich., assignor to Earl E. Howe, Chicago, Ill.
 Application September 17, 1952, Serial No. 310,063
 9 Claims. (Cl. 151—41.7)



1. The method of forming a discrete weld nut from a discrete blank consisting of a standard nut of standard nut stock, having only a pair of generally flat, generally parallel end surfaces of equal area and flat side surfaces meeting at corner edges intersecting the end surfaces to form sharp points with a central threaded opening extending into said nut perpendicularly from one end surface thereof, which includes positioning such a nut in a zone of treatment with said end surface unconfined axially outwardly thereof adjacent its corner areas, and there exerting lateral inward pressure of metal deforming intensity along inwardly converging radii extending through the nut corner edges against corner areas of the nut at corner pressure zones having a substantial axial extension, continuing such pressure inwardly along such radii against progressively increasing pressure surface areas of substantial axial extension and of substantial lateral extension transversely of such radii extending through such nut corner edges, directing said pressure to distort said sharp points axially bodily beyond said end surface while maintaining them solidly connected to the body of the nut at the periphery thereof, to form welding projections with indented surfaces extending diagonally between adjacent side surfaces, and discontinuing such lateral pressure with the axially distorted points of said welding projections more remote from the center of the nut than are the intermediate undistorted parts of the flat side surfaces, and with said nut being distorted only at corner portions.

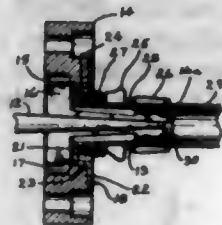
2,822,851
TIRE CHAIN
 Archibald Botting, Kingston, Ontario, Canada
 Application September 13, 1954, Serial No. 455,506
 5 Claims. (Cl. 152—244)



1. A traction device for a vehicle wheel comprising chains crossing the tread of said wheel and being joined together by connecting links spaced along said tread, road engaging means positioned between said connecting links and said chains, each of said road engaging means comprising a pair of members, one of said members having a V-shaped notch therein, the other of said members having a central point, said members co-operating to present three outwardly projecting points when placed in side by side relationship, pairs of co-operating holes passing through said members for the insertion of a chain link and a connecting link.

2,822,852
ADAPTER FOR HOSE COUPLING ATTACHING
MACHINE

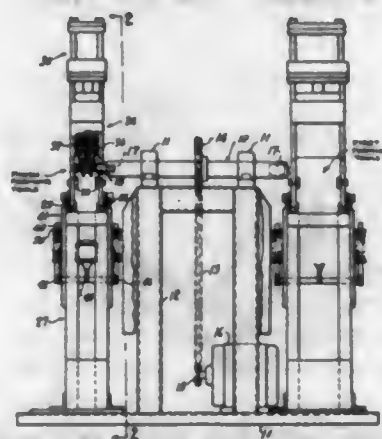
Robert G. Bailey, Cheshire, Conn., assignor to Scovill Manufacturing Company, Waterbury, Conn., a corporation of Connecticut
 Application August 5, 1955, Serial No. 526,693
 1 Claim. (Cl. 153—1)



An adapter for use with a coupling attaching machine for predetermining the position of the end of the hose in the coupling to which it is to be attached and which coupling includes a separate nipple insertable into the hose end, a surrounding ferrule and a male or female threaded fitting attached to the ferrule; said adapter comprising a double stepped flanged base having an inner flange and an outer flange joined by a connecting section, said double stepped flange base adapted to be received in a complementary recess provided in the attaching machine for holding and centralizing the adapter relative to the assembly tools, said inner flange acting as a stop to locate the male fitting and said outer flange acting as a stop to locate the female fitting, and a tubular neck extending outwardly from said stepped base and adapted to extend into the male or female fitting and being of such length as to serve as an abutment to properly locate the hose end when it is inserted into the coupling.

2,822,853
FLANGE FORMING APPARATUS WITH PROVI-
SION FOR READY INSERTION AND REMOVAL
OF THE WORK

Leo M. Weinandy, Columbus, Ohio, assignor to Surface Combustion Corporation, Toledo, Ohio, a corporation of Ohio
 Application November 18, 1953, Serial No. 392,969
 8 Claims. (Cl. 153—3)



1. Apparatus for roll forming an annular element comprising, in combination, a rotary shaft having a normally unsupported free end, an interior die mounted co-axially on the end of said shaft for rotation therewith, a carriage movable between an operating position and a clearing position, spaced rotary means mounted on said carriage in line for supporting engagement beneath said shaft when said carriage is in operating position, a complementary exterior die, means for urging said complementary die toward said rotary support means, and other means engaged with said carriage when said carriage is in operating position for moving said carriage to place said rotary support means in engagement with said shaft.

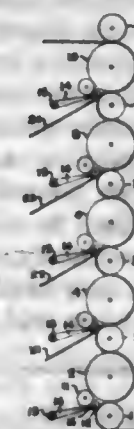
2,822,854
RECIPROCATING DIES FOR STRAIGHTENING
PARTS

Richard D. Berg, Westchester, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
 Application September 29, 1954, Serial No. 459,180
 4 Claims. (Cl. 153—48)



1. A device for straightening parts comprising a pair of dies having cooperating opposed straightening surfaces engageable with opposite sides of the parts and each die being provided with a plurality of parallel concave cylindrical grooves of substantially less depth than the thickness of the parts being straightened and with the junctures of the concave grooves forming ridges disposed in a plane and having substantially line contacts with the parts, and means for mounting said dies for relative reciprocation with the ridges of the dies in parallel planes and with the ridges of the movable die disposed for reciprocation in planes midway between the ridges of the other die.

2,822,855
METHOD FOR PRODUCING A HIGH DENSITY
PAPER
 Reavis C. Sproull, Savannah, Ga., and Duane L. Kenaga, Midland, Mich., assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
 Application June 19, 1952, Serial No. 294,312
 5 Claims. (Cl. 154—2.6)

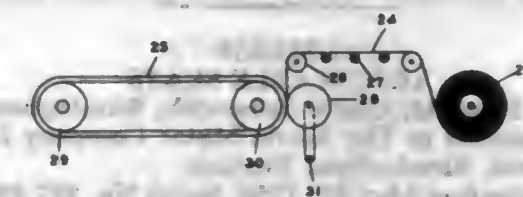


1. A method for producing a paper dielectric having a density of at least about 1.1 grams per cubic centimeter, said method comprising supplying a paper having a density of not more than 1 gram per cubic centimeter and supercalendering a plurality of layers of such paper together in a supercalender having rolls heated to at least about 100° C. while moistening said layers, as they enter the nips, to a moisture content of at least 10% based on the dry weight of the paper, to cause the rolling to dry and permanently unite the layers into a single sheet.

2,822,856
METHOD AND APPARATUS FOR MANUFACTURING COVERED BELTS
 Dale L. Waugh, Dayton, Ohio, assignor to The Dayton Rubber Company, a corporation of Ohio
 Application January 23, 1956, Serial No. 560,503
 11 Claims. (Cl. 154—3)

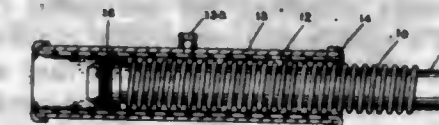
1. A method for the manufacture of belting comprising forming a belt core of reinforced elastomeric material,

flexing a portion of said core, and applying a cover layer of bias-cut fabric material to said core at the point of its flexure to the surface thereof which is opposite the direction of flexure.



7. An apparatus for the covering of elastomeric belt cores comprising a support for holding such core in a flexed condition and the means for pressing a strip of the cover material against that portion of said core which is so held.

2,822,857
METHOD OF MAKING FLEXIBLE CONDUITS
 Edward M. Rothermel and Russell B. Waddell, Jr., Waynesville, N. C., assignors to The Dayton Rubber Company, Dayton, Ohio, a corporation of Ohio
 Application September 20, 1956, Serial No. 611,007
 6 Claims. (Cl. 154—8)



1. A method for the manufacture of reinforced flexible conduits comprising forming a tube of elastomeric thermoplastic material having a substantially uniform inside diameter and wall thickness, forming a resilient reinforcing coil of axially spaced helices having an outside diameter greater than the inside diameter of the tube, expanding said tube within its elastic limit to an inside diameter greater than the outside diameter of said coil, inserting the coil within the expanded tube, releasing the tube from its expanded position upon said coil, and locally heating said coil until said tube becomes bonded to the surface thereof and the axial relationship of said tube and said coil becomes fixed.

2,822,858
SWIVELED FRONT SEAT FOR AUTOMOBILES
 Kurt Erich Mussler, Chicago, Ill.
 Application June 23, 1955, Serial No. 517,564
 7 Claims. (Cl. 155—5)



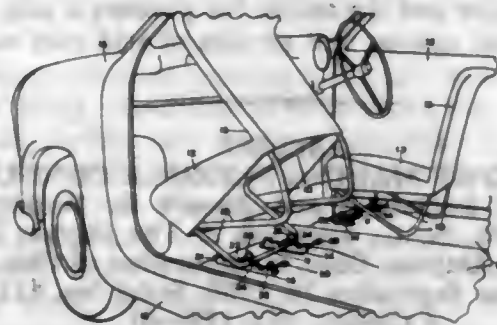
1. A swiveling mechanism for the front seat of an automobile having a front door, which comprises, a supporting plate carried in the passenger compartment of an automobile to support the front seat, a bar positioned beneath and substantially parallel to said plate, an immovable subplate carried in said passenger compartment and positioned beneath said bar, means connecting said bar to said subplate, a swivel shaft connecting a portion of said supporting plate to a portion of said bar whereby said supporting plate may be swung upon said bar, disengageable latching means a portion of which is carried by said supporting plate and a portion of which is carried by said bar in spaced relationship to said swivel shaft for removably engaging said supporting plate and said bar, and means for connecting that portion of the latch-

ing means carried by said supporting plate to the front door of an automobile to unlatch said latching means and swing the supporting plate relative to said bar when said door is opened.

2,822,859

ADJUSTABLE SEATS

James R. Stanfield, Castle Bromwich, Birmingham, England, assignor to The Austin Motor Company Limited, Northfield, Birmingham, England
Application May 29, 1956, Serial No. 587,996
Claims priority, application Great Britain July 11, 1955
2 Claims. (Cl. 155-14)

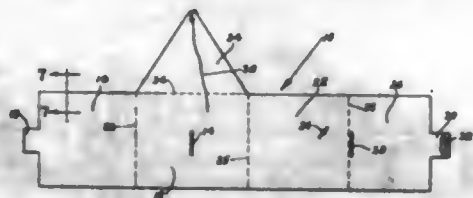


1. A mounting providing for horizontal fore-and-aft adjustment of a vehicle seat comprising brackets of angle section with horizontal flanges whereby they are fixed to the floor of the vehicle body and with upstanding flanges formed in the upper edges with open bearings, said brackets being fixed in laterally spaced parallel relationship with corresponding bearings transversely aligned to afford, in pairs, a longitudinal series of predetermined positions for a cross bar constituting the lower front part of the rigid underframe of the seat, spring clip means associated one with each of said brackets and each comprising a rod-like member of springy material and a plurality of longitudinally spaced laterally projecting abutments on the upstanding flanges of said brackets, under two of which adjacent abutments the opposite ends of said rod-like member can be engaged with its intermediate portion bearing down with some pressure upon said cross bar to retain it in pivotal engagement with the bearings in which it is located.

2,822,860

FOLDABLE SEAT

Thomas A. Calabrese, Cambridge, Mass.
Application April 16, 1956, Serial No. 578,221
5 Claims. (Cl. 155-149)

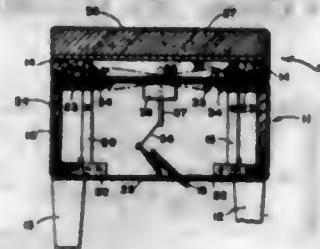


1. A foldable seat comprising, in position of use, a back support portion, a left side support portion movably connected to said back support, a right side support portion movably connected to said back support portion, a reinforcing support portion adjacent said back portion and movably connected to said right side portion, and a top portion movably connected to said back portion at the top of the latter, said top portion being adapted to rest on the top edges of said left and right side portions, and said reinforcing portion, said back portion having a slit therethrough, said reinforcing portion having a tab adapted to extend through said slit in position of use, said reinforcing portion having a slit therethrough at a point adjacent said right side portion, said left side portion having a tab adapted to extend through said reinforcing portion slit in position of use.

2,822,861

ROCKING STOOL

Adelard J. Parent, South Berwick, Maine
Application January 7, 1955, Serial No. 480,311
1 Claim. (Cl. 155-165)

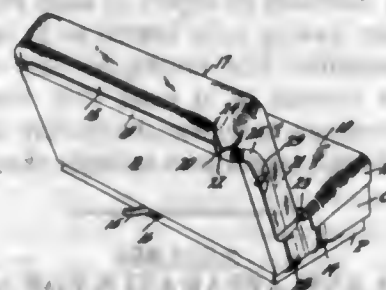


A rocking stool comprising a base portion formed in the shape of a substantially rectangular box having long and short pairs of sides; a leg at each corner of said base portion for the support thereof; a rest portion having substantially the same transverse dimensions as said base portion, said rest portion including an apertured member; a first pair of levers each being pivotally connected at one of its ends to said rest portion and at the other of its ends to said base portion, said first pair of levers being movable in planes parallel and closely adjacent to the short sides of said base portion; a second pair of levers each being pivotally connected at one of its ends to said rest portion and at the other of its ends to said base portion, said second pair of levers being movable in substantially the same planes as said first pair of levers, said levers in combination supporting said rest portion entirely above said base portion with its lower surface closely adjacent the upper surface of said base portion, and permitting said rest portion to move back and forth in a substantially horizontal plane with said base portion remaining stationary; a pair of springs connected between said rest portion and the long sides of said base portion to exert substantially equal and opposite forces on said rest portion thereby to return the latter to a centered position above said base portion absent external forces on said rest portion; a crank member held between the sides of said base portion with its axis substantially horizontal, said crank including a handle portion projecting below the bottom of said base portion; a crank arm attached to said crank; a locking pin pivotally connected to said crank arm; and means affixed to said base portion constraining said pin to move vertically, said pin being aligned with the aperture in said apertured member when said rest portion is centered above said base portion.

2,822,862

SEAT THROWS

Florence B. Zacks, Columbus, Ohio
Application August 13, 1956, Serial No. 603,614
11 Claims. (Cl. 155-182)



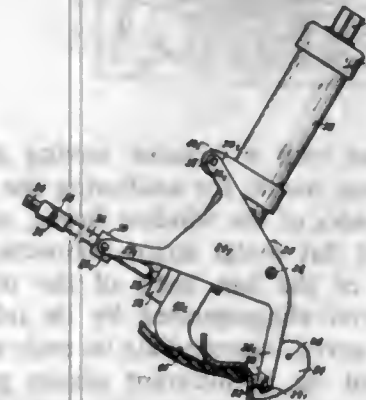
1. In combination with an automobile seat comprising a seat cushion having an upwardly presented supporting surface and a vertically extending back rest, a seat cover comprising a flexible cushion cover section overlying said surface, a back rest cover section including means defining a pocket receiving the upper portion of said back

rest, a flexible draw string in the form of a horizontal endless loop beneath said seat slidably associated with the marginal portions of said seat cover, and a second draw string connected to said back rest cover section and extending generally vertically downwardly therefrom, the downwardly extending portions of the draw string being slidably connected to said loop for tightening incident to tightening of the loop.

2,822,863

SUPPORT MOUNTED SCREW ACTUATED TIRE BEAD BREAKING DEVICE

Henri V. L. Regnault, Boulogne-sur-Seine, France, assignor of one-half to Paulette Chedal, Paris, France
Application December 14, 1954, Serial No. 475,179
Claims priority, application France October 22, 1954
3 Claims. (Cl. 157-1.17)



1. Apparatus for removing a tire from a vehicle wheel rim, comprising supporting means defining first, second and third substantially parallel pivot axes located, respectively, at the apexes of a substantially isosceles triangle having a base with said first and second axes defining the opposite ends of said base, jack means carried by said supporting means for pivotal movement about said first axis located at one end of said base of said triangle, said jack means being provided with rim-engaging means and with tire-engaging means actuatable for separating said tire from said rim, thrust means carried by said supporting means for pivotal movement about said second axis located at the other end of said base of said triangle, said thrust means being provided with means for engaging said jack means and arranged for reciprocal movement substantially at right angles to said pivot axes for effecting said pivotal movement of said jack means about said first axis, and pressure means carried by said supporting means for pivotal movement about said third axis and provided with eccentric contact surface means arranged to coast with said rim-engaging means to grip said rim and enable said tire to be removed from said rim upon actuation of said tire-engaging means, said contact surface means including a first arcuate surface portion having a predetermined eccentric curvature, and a second arcuate surface portion having a different predetermined eccentric curvature and constituting a continuation of said first surface portion, said second surface portion having a greater radius of curvature than said first surface portion.

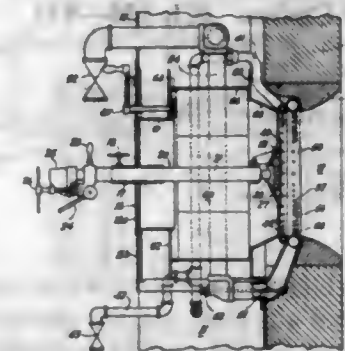
2,822,864

COMBINATION FLUID FUEL BURNER

John T. Black, Rumson, N. J., assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey
Application September 28, 1953, Serial No. 382,579
3 Claims. (Cl. 158-7)

1. In combination, a furnace wall having a circular burner port therein, a fuel burner assembly comprising a first gas burner ring positioned in said burner port, a first combustible gas supply means including a flow control supplying gas to said first burner ring, a second gas

burner ring arranged in said burner port axially adjacent and positioned to be shielded from the furnace radiation by said first burner ring, a second combustible gas supply means separate from said first combustible gas supply means and including a flow control supplying gas to said

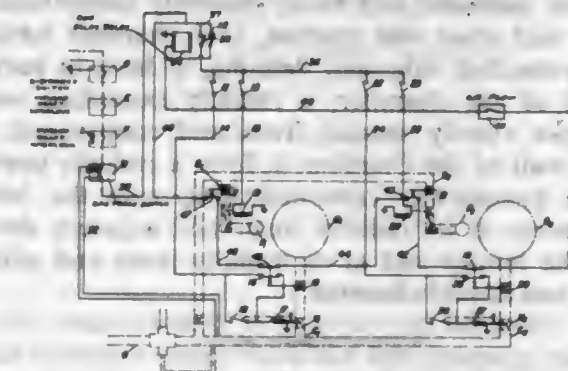


second burner ring of a different composition than the gas supplied to said first burner ring, a plurality of circumferentially spaced gas discharge nozzles in each of said rings, and common air supply means for both of said rings.

2,822,865

BURNER SAFETY CONTROL SYSTEM

Frank P. Hudson, Decatur, Ga.
Application August 16, 1954, Serial No. 449,969
4 Claims. (Cl. 158-28)

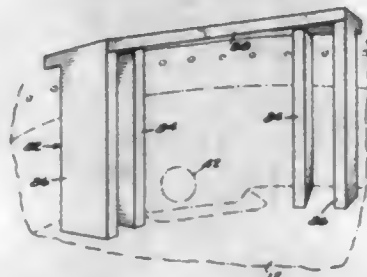


1. A control system for fuel burners having in combination, blower means, a source of current, a first circuit from said source of current, a switch actuatable by air from said blower means and connected to said circuit for supplying current from said source of current through said circuit upon actuation of said switch, a time delay switch connected to said circuit and actuatable upon the flow of current in said circuit, a second circuit connected to said time delay switch to receive current from said source of current upon the lapse of sufficient time after said actuation of said time delay switch, a solenoid connected to said second circuit and actuatable by current flowing therein, a fuel valve of a fuel burner connected to said solenoid, said solenoid permitting opening of said fuel valve upon actuation of said solenoid, a valve connected in series with said fuel valve, said last mentioned valve being constructed and arranged to prevent fuel from entering said fuel burner when closed, a pair of switches connected to said last mentioned valve and openable thereby, said switches being constructed and arranged to close upon closing of said last mentioned valve and to open upon opening of the same, a third circuit connected between one of said pairs of switches and said time delay switch, said time delay switch being constructed and arranged to remain open as long as said one of said pairs of switches is open, the other of said pairs of switches being interposed in said second circuit between said time delay switch and said solenoid, a normally open switch connected in parallel with said other of said switches, and means operably associated with said solenoid and operable to close said normally open switch upon energization of said solenoid.

2,822,866

VAPORIZING TYPE OIL BURNER

John W. Miller and Frederick T. Stoney, Lansing, Mich., assignors to Motor Wheel Corporation, Lansing, Mich., a corporation of Michigan
Application November 30, 1953, Serial No. 394,934
17 Claims. (Cl. 158-91)



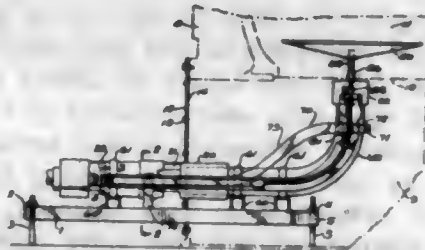
1. In a vaporizing pot type burner having a bottom wall, a tubular side wall provided with circumferentially spaced air inlet openings and a fuel inlet opening at one side of said burner adjacent said bottom wall, means for improving combustion in said burner at pilot fire stage of operation comprising, means within the burner and cooperating with the bottom wall thereof to define a relatively small chamber in the burner which extends radially inwardly from the side wall of the burner and is in open communication with the burner at its radially inner end, said chamber being located so that said fuel inlet opens thereinto and being generally imperforate except for said open end thereof, said chamber having a radially extending side wall defining, at least in part, the open end of the chamber, a radially extending wall in said burner closely spaced from and cooperating with said side wall of the chamber to form a radially inwardly extending passageway communicating with the interior of the burner at its radially outer end adjacent the side wall of the burner and at its radially inner end adjacent the open end of said chamber.

2,822,867

GAS BURNER FOR SPACE HEATING

Lee C. Sassmanhausen, Warren, Ohio
Original application June 8, 1949, Serial No. 97,836, now Patent No. 2,694,445, dated November 16, 1954. Divided and this application September 17, 1954, Serial No. 456,721

4 Claims. (Cl. 158-115)



1. In a gas burner for use with a heating device such as a furnace having a combustion chamber defined by a closure, a conduit like structure adapted for passing through such a closure for supplying a gaseous combustible mixture, a burner tube connected to the conduit like structure and having a portion positioned substantially horizontally and having an upturned open end and adapted to be disposed within the furnace chamber, a track member having one end mounted on the upturned end of the burner tube and having its opposite end disposed adjacent the tubular like structure and adapted to pass through such a closure, a pilot support, a pilot flame burner carried by the support and normally positioned adjacent the open end of the burner tube, said pilot support having an inner end and having an outer end adapted to extend through such a closure, the inner end of the pilot support freely slidably engaging the track to be carried thereby, interengaging means between the outer ends

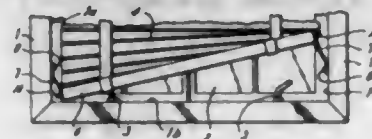
of the track and the support for holding the support in position, said interengaging means being releasable whereby said outer end of said pilot support may be manually shifted to slide said inner end along the track to bring the pilot burner to an exposed position relative to such a closure.

2,822,868

ATTACHMENT MEANS FOR VENETIAN BLINDS

William O. Roberts, Austin, Tex., assignor of ten percent to N. O. Roberts, Austin, ten percent to George Roberts, ten percent to Ed O'Neal Coleman, ten percent to James Coleman, and ten percent to Charles C. Roberts, Houston, Tex.

Application August 25, 1955, Serial No. 530,445
3 Claims. (Cl. 160-173)



1. In combination with a window having a venetian blind installed therein, means for anchoring the lower bar of the blind to the sides of the window frame, comprising a pair of elongated flat metal strips connected, respectively, to the ends of the bar, each of the strips being formed of a material characterized by its inherent resilience and being curved intermediate its ends so that the end portions thereof lie in different planes parallel to and spaced apart from each other, one end of the strip being pivotally connected to an end face of the bar and the opposite end of the strip being pivotally connected to the adjacent side face of the frame, the arrangement being such that the connected ends of the bar, or either end thereof, may be swung outwardly and upwardly to a selected position from a lowermost position in which the bar is disposed horizontally and is positioned immediately adjacent the window sill, the strips yieldably engaging the faces to which they are connected and being confined under compression therebetween for maintaining the bar in its selected position.

2,822,869

DRAPERY SUPPORTING DEVICE

Pearl Shayman, Chicago, Ill.
Application February 23, 1954, Serial No. 411,824
2 Claims. (Cl. 160-348)



1. A device of the character described comprising an upright oblong plate adapted to suspend drapery material in a fold over the front and around the edges thereof, a pair of integral fingers projecting from the lower end of the plate at opposite edges thereof and said plate having an intermediate finger between said pair of fingers, said fingers being spaced apart an appreciable distance for folding the material therearound and defining spaced ruffles therein, means at the inner ends of the fingers for securing the material in place thereon, a pair of arms formed integral with the plate and extending downwardly from the upper end thereof and folded back on the plate at the opposite side thereof from the fingers, said arms being spaced apart transversely of the plate for folding of

the material therearound, the rear faces of said plate and said arms provided with crimps to hold said material, and means connected with the plate for suspending the same from a pole.

2,822,870

CORE BLOCK DOOR CONSTRUCTION

John W. Haynes, Susanville, Calif.
Application October 5, 1954, Serial No. 460,327
1 Claim. (Cl. 160-380)



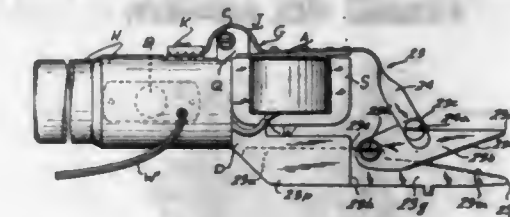
A door construction comprising a plurality of core blocks arranged to form stiles, top, bottom and lock rails, said stiles being provided with first notches for receiving portions of said top and bottom rails, said notches being arranged adjacent the ends of the door, there being a second notch for receiving said lock rail, said second notch being arranged between said first notches, said notches being shaped so that they snugly receive therein the coacting portions of the rails, finishing straps covering outer edges of the stiles, strips secured to the inner edges of said stiles, top, bottom and lock rails, a layer of wire mesh positioned between the stiles and top and lock rails with edges thereof extended over said strips and against the side surfaces of the core blocks, a panel positioned between the stiles and between the lock and bottom rails with edges thereof positioned between said strips on the inner edges of the stiles and lock and bottom rails, and spaced parallel veneer panels positioned to cover the side surfaces of the core blocks and strips and having openings therein positioned to register with openings for the wire mesh and first named panel, said core blocks, strips and veneer panels being secured together by means of an adhesive, said core blocks being of rectangular shape and being arranged in staggered formation, said core blocks being of irregular sizes, the core blocks forming said stiles having their longitudinal axes disposed in vertical relation to each other parallel to the side edges of the door and the core blocks of said top, bottom and lock rails being arranged in horizontal relation and arranged parallel to the top and bottom edges of the door.

2,822,871

HAND-GUIDED SHEARING APPARATUS AND METHOD

Morris S. Malek, New York, N. Y.
Application April 29, 1955, Serial No. 504,798
11 Claims. (Cl. 164-75)

1. A portable shearing device of the character described including a pair of blades mounted on a handle, each of said blades having a sharpened cutting edge, one of said blades being supported relatively rigid with respect to the handle, the other of said blades being movably mounted for cutting edge cooperative engagement with said rigidly supported blade, power means actuating said movably



extending from said device for guidingly and pivotally engaging a supporting surface, said pin having an axis intersecting said effective cutting length of the blade.

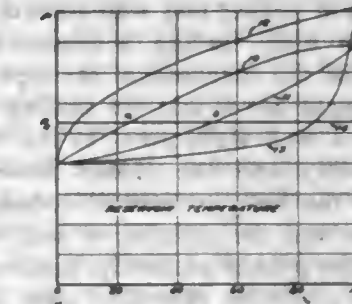
2,822,872

RECOVERY OF OIL FROM RESERVOIRS

Michael J. Rzasa and Paul L. Terwilliger, Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware

Application May 10, 1954, Serial No. 428,476

2 Claims. (Cl. 166-9)



1. An improvement in recovery of oil from a subterranean reservoir under relatively low pressure comprising forcing said oil to a producing well by a body of hydrocarbon liquid consisting essentially of at least one material selected from the group consisting of L. P. G., propane, butane, and pentane, maintaining sufficient pressure on said reservoir to keep said body above its bubble point but not substantially above 400 pounds per square inch, driving said body through said reservoir by a gas containing over 80 percent methane, and placing between said body and said gas a different material only which is characterized by the following: (1) it by itself is a gas at reservoir pressure and temperature, (2) it is soluble in said body, and (3) it has at reservoir temperature and pressure a narrow two-phase region when mixed in varying concentrations with material forming said body.

2,822,873

CEMENT COMPOSITION

Gerrit Jan Harmsen and Johan Gustaaf Stuve, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application November 8, 1955

Serial No. 545,804

Claims priority, application Netherlands

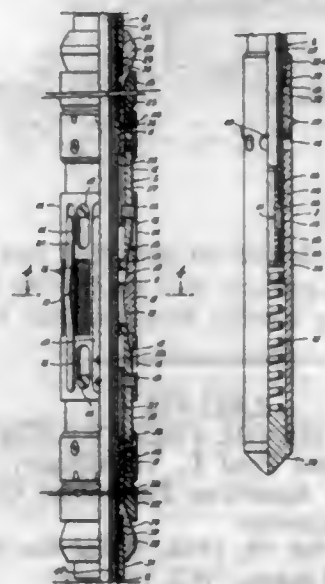
November 12, 1954

6 Claims. (Cl. 166-29)

1. A method of cementing a well borehole at a depth where the formation temperature is at least about 90° C., said method comprising pumping into said borehole a mixture comprising water and a predominant quantity of a finely-divided blast-furnace slag substantially free of activators, said mixture being devoid of setting properties at atmospheric temperatures, and subjecting said mixture to said temperature of the formation traversed by the borehole to effect a retarded setting action in said mixture.

2,822,874
COMBINATION PACKER AND WELL CONTROL DEVICE

Cicero C. Brown, Houston, Tex.
Application February 25, 1954, Serial No. 412,465
5 Claims. (Cl. 166—119)



1. A combination packer and well control device, comprising, a tubular body having a closed lower end, a packer assembly of the mechanical set type mounted on said body above said lower end for sealing and gripping engagement with a well wall, ports in the body between the packer assembly and the closed lower end, valve means carried by the body to control communication between the interior and the exterior of said body through said ports below the packer assembly, means to close said valve means, and a tubular operating stem longitudinally reciprocable in the bore of said body to control opening and closing of said valve means, said valve means being constructed and arranged to be unaffected by variations in fluid pressures interiorly of the body when the valve means is in the port-closing position.

2,822,875
PACKER WITH INTERNAL STEM HOLD-DOWN

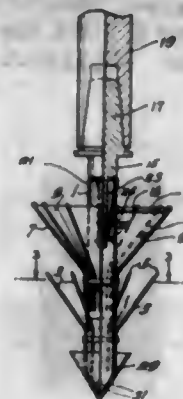
Cicero C. Brown, Houston, Tex.
Application March 31, 1954, Serial No. 420,112
14 Claims. (Cl. 166—129)



1. A well packer, comprising, a tubular body having a bore therethrough and a resilient sealing member expandable to seal with a well wall, a tubular operating stem slidably extending through the bore of said body, radially expandable external anchor means secured to the body for anchoring the same to the well wall, means operable by manipulation of said stem to seal said bore, and fluid pressure-actuated radially contractible internal anchor means mounted in the bore of said body for anchoring the stem to the body against upward movement relative to the body.

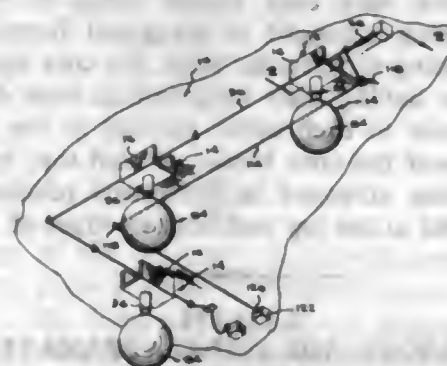
2,822,876
DEEP WELL BRIDGE

William R. Murrow, Independence, Kans., and Alpheus L. Connally, Effingham, Ill., assignors to The M & M Manufacturing Company, Independence, Kans., a corporation of Kansas
Application October 26, 1955, Serial No. 542,856
7 Claims. (Cl. 166—192)



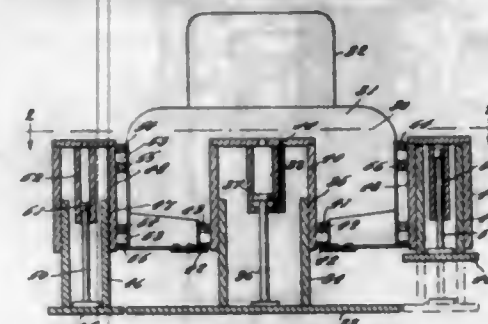
1. A deep well bridge structure adapted to be releasably attached to the lower end of an elongate rigid suspension member for lowering into a well borehole, said structure comprising a body, a circular series of spring-like fingers having their lower ends fixed to the exterior of the lower portion of said body and projecting upwardly and outwardly therefrom, a circular series of cantilever spring ribs axially spaced above said fingers, said ribs having their lower ends fixed to said body and the upper ends thereof projecting outwardly from the body, said ribs and fingers being of a length whereby in an unstressed condition the upper ends thereof describe peripheries of greater dimensions than that of said borehole, said fingers and ribs serving as lower and upper guides for said bridge structure and the lower end of said suspension member attached thereto as the structure is lowered into a well borehole, said ribs and fingers also providing the sole support for the structure in a well borehole by the frictional engagement of said ribs and fingers with the sides of the borehole after detachment of said structure from said suspension member, and quick-detachable means for maintaining said body and said suspension member in a rigid coaxial relationship before release of said structure by said suspension member.

2,822,877
FIRE-ACTUATED FIRE EXTINGUISHER
William Post, Grand Junction, Colo.
Application December 7, 1956, Serial No. 626,959
7 Claims. (Cl. 169—28)



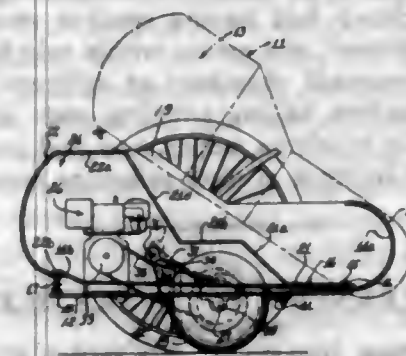
1. In a fire extinguishing system, a plurality of fire extinguishers each comprising a frangible fire extinguishing material container, spring-actuated explosive cartridge detonating means for fracturing the container, flammable means mounted to restrain actuation of the detonating means unless and until severed by a fire in the region of a fire extinguisher, each of said detonating means having a trigger, and a common triggering wire operatively connected to the triggers.

2,822,878
WALKING TRACTOR
Paul E. Corson, Williamsport, Pa.
Application January 7, 1954, Serial No. 402,731
7 Claims. (Cl. 180—8)



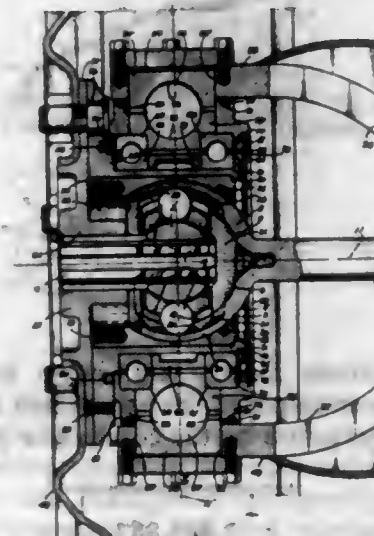
3. In a tractor, a cab, a main foot beneath the cab, vertical guide means between the main foot and the cab, fluid means for raising and lowering the main foot with respect to the cab, auxiliary feet on opposite sides of the cab, vertical guide means between the auxiliary feet and the cab, horizontal guide means between the auxiliary feet and the cab, fluid operated means for vertically raising and lowering the auxiliary feet with respect to the cab, fluid operated means for moving the auxiliary feet forwardly and rearwardly with respect to the cab, means operative while one auxiliary foot remains on the ground in a relatively invariable position with respect to the cab, while the main foot is on the ground, and the other auxiliary foot is in rear position on the ground, for raising the other auxiliary foot off the ground, moving it forward and again planting it on the ground, and means operative when the main foot is still in the invariable position with respect to the cab and planted on the ground and the other auxiliary foot is relatively forward with respect to the cab and planted on the ground for raising the main foot off the ground, moving the cab relatively forward with respect to the other auxiliary foot and planting the main foot again on the ground.

2,822,879
DETACHABLE MOTOR DRIVEN SIDE CAR
Glen Overton, Allegan, Mich., assignor to Overton Machine Company, Dowagiac, Mich., a corporation of Michigan
Application December 27, 1951, Serial No. 263,657
7 Claims. (Cl. 180—11)



1. A power driven attachment for a bicycle comprising a frame, means projecting from said frame, fasteners coacting with said means for attaching the frame rigidly to a bicycle, an engine carried by said frame, a wheel rotatably supported by said frame, means on said frame selectively connecting said engine with said wheel to drive the wheel from the engine, spring pads on one end of said frame, a body pivotally mounted on the other end of said frame, springs carried by said body for coacting with said pads, and said body defining a hood for said engine and a passenger compartment.

2,822,880
FRONT WHEEL HUB FOR FRONT WHEEL DRIVE AND UNIVERSAL JOINT THEREFOR
Benjamin F. Gregory, Kansas City, Mo.
Application April 29, 1955, Serial No. 504,754
4 Claims. (Cl. 180—48)

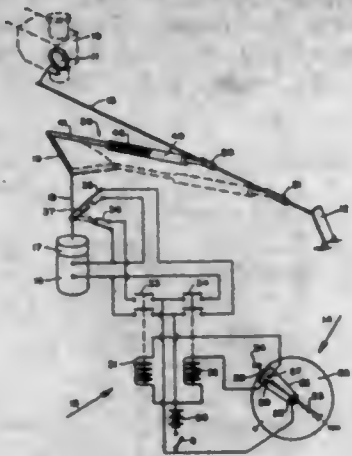


1. A wheel mounting for a forewheel of a motor vehicle including a supporting housing spaced apart upper and lower arms, a generally circular housing diametrically disposed between said arms, means pivotally connecting upper and lower diametrical sides of said housing with the arms to provide a turning axis for said wheel, a hub having a cylindrical spindle portion, antifriction bearings in said housing on the respective sides of said turning axis for journaling the cylindrical spindle portion to carry the wheel for rotation on an axis transversely of said turning axis, a stub shaft having a driving connection with said hub, a driving shaft, a universal joint in said cylindrical spindle portion and connecting the driving shaft with the stub shaft and having a spherical surface extending concentrically from one of said shafts on a radius from the intersecting point of said turning and transverse axes, bearing rings supported within said cylindrical spindle in encircling contact with said spherical surface on opposite sides of said turning axis to cooperate with said cylindrical spindle and said spherical surface of the universal joint to form a closed chamber adapted to contain a lubricant for said joint, means for anchoring one bearing ring within said cylindrical spindle at one side of the turning axis and means for resiliently urging the bearing ring at the opposite side of the turning axis toward the anchored ring to retain said center of the universal joint in coincidence with the crossing point of said axes.

2,822,881
SPEED SELECTOR
Roland L. Treharne, Hawthorne, Nev.
Application August 21, 1953, Serial No. 375,840
2 Claims. (Cl. 180—82.1)

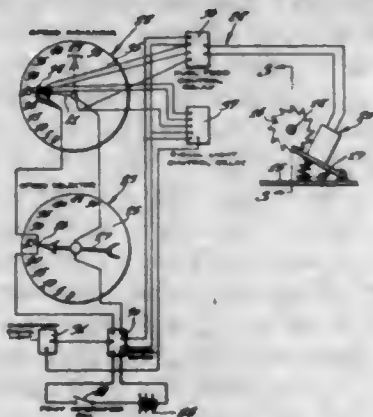
(Granted under Title 35, U. S. Code (1952), sec. 266)
1. In an automotive vehicle including a carburetor, an accelerator pedal, and a link connecting said carburetor and accelerator pedal whereby the speed of the vehicle may be controlled, the improvements comprising an abutment secured to said link, a stop slidably mounted on said link, a pivoted arm, a spring loaded member connecting said stop and arm, a motor for rotating said arm, means for effecting reversed rotation of said motor, and means responsive to the linear speed of the automobile for actuating said first mentioned means in a manner to cause movement of said stop into engagement with said abutment upon the vehicle exceeding a preselected maximum speed, whereby to move said link and accelerator pedal in a direction to cause slowing down of the vehicle, and to

cause movement of said stop out of engagement with said abutment upon the vehicle slowing down below the pre-



selected maximum speed, said spring loaded link permitting speeds in excess of the preselected maximum speed by additional pressure on the accelerator pedal.

2,822,882
MAXIMUM SPEED CONTROL MECHANISM FOR MOTOR VEHICLES OR OTHER EQUIPMENT
William C. Campbell, Chatham, N. J.
Application May 18, 1955, Serial No. 509,262
1 Claim. (Cl. 180—82.1)

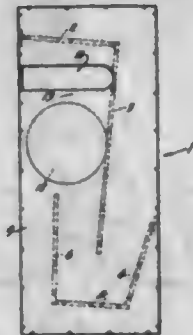


A maximum speed control mechanism for motor vehicles having a butterfly valve operated carburetor comprising, in combination, an extension on each end of the butterfly valve shaft of the carburetor, a foot pedal operatively connected to one of said extensions for actuating said butterfly valve shaft, a housing adjacent to and rotatably supporting the other said extension, a ratchet wheel keyed to said other extension, a pawl pivotally supported within said housing directly beneath said ratchet wheel and in operative engagement therewith to limit said actuation of said butterfly valve shaft, spring means acting between said housing and said pawl normally urging said pawl out of engagement with said ratchet wheel, solenoid means disposed within said housing between said pawl and a side wall thereof for drawing said pawl to the operative position against the action of said spring means whereby to limit the valve open position of the carburetor, control means for automatically energizing said solenoid means in response to movement of said vehicle beyond a predetermined speed, and adjustment means for regulating said predetermined speed setting.

2,822,883
DEVICE FOR USE IN REPRODUCING SOUNDS
Roy F. Allison, North Egremont, and Alan C. Macy and Marsh B. Giddings, Jr., Great Barrington, Mass.
Application May 7, 1954, Serial No. 428,208
14 Claims. (Cl. 181—31)

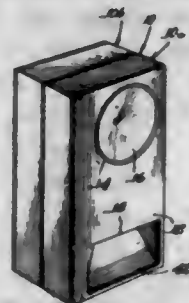
9. A device for use in reproducing sounds and comprising a cabinet enclosing an elongated air space; a plurality of partitions in said cabinet forming a plurality

of comparatively long, tapered, air columns having cross-sectional areas substantially less at one end thereof than at the other and merging with each other at their larger ends; said cabinet being provided with a first opening



therein adapted to receive a sound-radiating means, and a second opening forming a sound-emitting port; said openings being in opposite sides of said cabinet and communicating with said merged columns in longitudinally spaced zones thereof.

2,822,884
LOUDSPEAKER ENCLOSURE
Edgar H. Simpson, Chicago, Ill.
Application October 26, 1954, Serial No. 464,853
15 Claims. (Cl. 181—31)



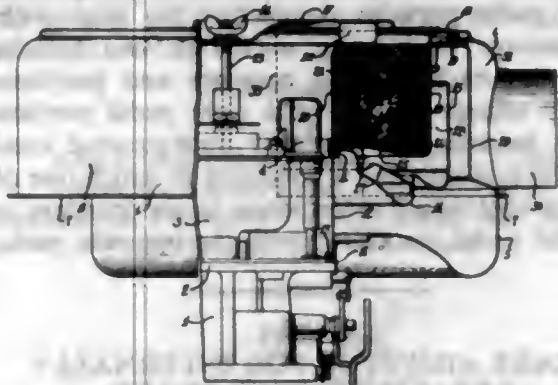
1. A loudspeaker enclosure comprising a front panel having means for mounting a loudspeaker, said panel having an opening therein displaced from said loudspeaker mounting means, means disposed internally of said enclosure forming a path in the interior of said enclosure between said speaker mounting means and the opening in said front panel, and means disposed adjacent said path defining means and positioned internally of said enclosure spaced from said opening for varying the area of said path to match a loudspeaker and said enclosure to the characteristics of a room.

11. A loudspeaker enclosure comprising a generally rectangular closed box having speaker receiving means in the front thereof, and means within said box defining a plurality of resonant chambers of different lengths, said resonant chambers having entering ends in the vicinity of said speaker receiving means, and said resonant chambers being co-incident at their reflecting terminal ends.

2,822,885
AIR CLEANER AND INTAKE SILENCER ASSEMBLY
Joseph B. Sebok, Dearborn, and Ralph E. Sendelbach, Detroit, Mich., assignors, by mesne assignments, to Purolator Products, Inc., Rahway, N. J., a corporation of Delaware
Application February 23, 1954, Serial No. 411,612
22 Claims. (Cl. 183—15)

5. An air cleaner and intake silencer assembly, comprising a casing enclosing a volume chamber sized for attenuating a relatively wide band of sound waves, said casing having an air inlet opening and an unimpeded air outlet opening, means defining a path of travel for air through the casing, filter means in said path, said path and said filter means communicating directly with and said path forming a part of said volume chamber

inside said casing, said path defining means including tuning tube means carried by said casing and communicating directly with said air inlet opening at an intermediate point and extending both ways therefrom with



the ends thereof opening freely into said chamber, said tuning tube means being sized to tune said chamber for the attenuation of a predetermined narrower band of sound waves.

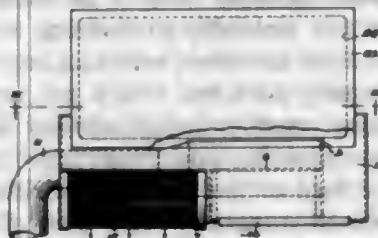
2,822,886

APPARATUS FOR EXTINGUISHING ENGINE EXHAUST GAS SPARKS

Paul H. Schweitzer, State College, and Albrecht W. Hussmann, Centre Hall, Pa., assignors, by mesne assignments, to the United States of America

Application July 30, 1954, Serial No. 446,774

5 Claims. (Cl. 183-32)



1. A device for extinguishing sparks entrained in exhaust gases from internal combustion engines comprising a container, a conduit within said container having an inlet end projecting externally beyond an end wall of said container, and an outlet end opening within said container, baffle means supporting said conduit internally of said container in spaced relation to the walls thereof, deflecting means mounted within said conduit adjacent the outlet end thereof, longitudinal openings in said conduit between said deflecting means and said outlet end and opening into said container, a first opening in said container adjacent the inlet end of said conduit, permeable filter means covering said first opening and a second opening in said container opposite said first opening for admitting external air into said container which exhausts through said permeable filter means and said first opening to cool said filter means whereby exhaust gases carrying incandescent particles are whirled by said deflecting means on passing through said conduit causing large incandescent particles to pass through said longitudinal openings into said container and small incandescent particles entrained in the exhaust gases issuing from said conduit to be directed by said baffle means to travel within said container and be cooled by said air cooled filter means permitting incandescent particles entrained in exhaust gas to be discharged to the atmosphere in an extinguished condition.

2,822,887

MOISTURE SEPARATOR FOR AIR PRESSURE LINES

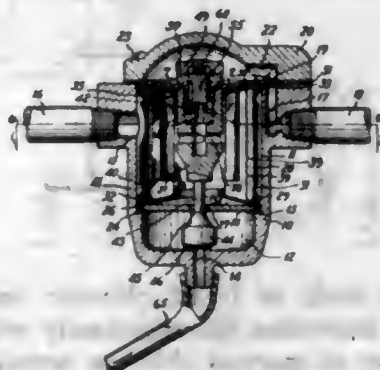
Gerald Engman, Des Moines, Iowa

Application December 1, 1955, Serial No. 550,393

9 Claims. (Cl. 183-41)

1. In a device of the class described, a housing having an air inlet opening, an air outlet opening and a water

outlet opening, a flexible wall inside said housing dividing said housing into two compartments one of which communicates with said air inlet opening and the other with said air outlet opening, a pressure differential operated valve for controlling flow through said water outlet opening, means for connecting said valve to said flexible wall



for movement therewith, said means having a passageway therein providing communication between said first and second compartments, a pressure responsive reciprocating valve in said passageway for opening said passage in response to pressure in said first compartment, and a spring means for yieldingly holding said reciprocating valve in a closed position.

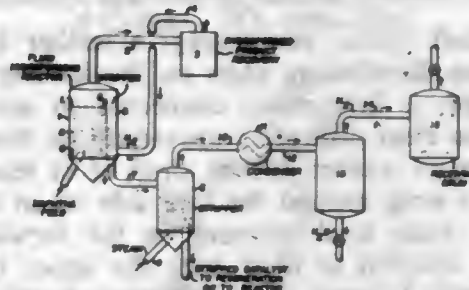
2,822,888

METHOD OF SEPARATING HYDROGEN FROM HYDROGEN-CONTAINING GASES

Donald D. MacLaren, Scotch Plains, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application April 15, 1955, Serial No. 501,502

9 Claims. (Cl. 183-114.2)



1. A method of recovering hydrogen from a gaseous mixture containing hydrogen and normally gaseous hydrocarbons which comprises charging the gaseous mixture to an adsorption zone containing an adsorbent material comprising a hydroforming catalyst carbonized to the extent that it contains from about 1.0 to 5 wt. percent of carbonaceous material, permitting the gaseous material to contact the carbonized adsorbent at elevated temperatures for a sufficient period of time to permit the adsorbent material to adsorb hydrogen, withdrawing the adsorbent material containing said hydrogen, charging it to a stripping zone, contacting the adsorbent material in said stripping zone with a condensable gas to dislodge the hydrogen from the said adsorbent material and recovering from the stripping zone a gasiform mixture containing hydrogen in greater concentration than the gas fed to the adsorption zone.

2,822,889

CHLORINE PURIFICATION

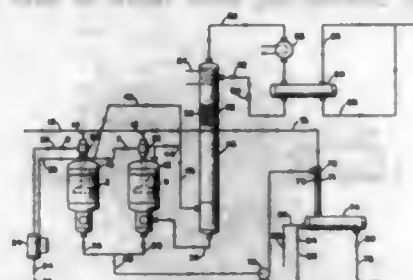
Robert C. Sutter, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

Application September 26, 1955, Serial No. 536,472

4 Claims. (Cl. 183-120)

1. In a process for purifying chlorine having organic impurities associated therewith, the improvement which includes introducing superheated gaseous chlorine into a body of liquid chlorine beneath the surface thereof,

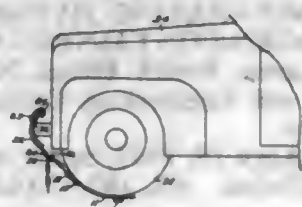
thereby to cool said superheated gaseous chlorine, condense organic impurities associated with said gaseous chlorine, and vaporize chlorine from said body, passing the vaporized chlorine from said body in countercurrent contact with a stream of liquid chlorine, removing a



portion of said body of liquid chlorine containing dissolved organic impurities simultaneously with the introduction thereto of gaseous chlorine containing organic impurities, and recovering purified chlorine from said gaseous stream passing in countercurrent contact with said stream of liquid chlorine.

2,822,890 CHOCK BRAKE

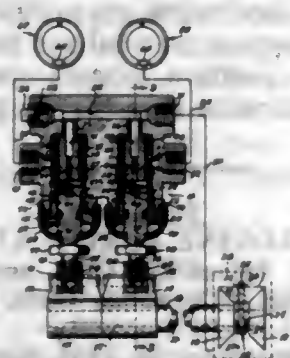
Alex A. Kriewaldt, Oconto, Wis.
Application November 18, 1955, Serial No. 547,691
2 Claims. (Cl. 188—32)



1. A chock brake, comprising: a leather brake shoe; a first stress distributing plate on the leading edge portion thereof; a link chain connected to said plate; a channel-iron cleat disposed transversely on the underside of said shoe; a leather anchor strap of at least a length sufficient to wrap around the face side of an automobile bumper; a plate hook element on the forward end of said strap, adapted to hook over the upper lip edge of an automobile bumper; a second stress distributing plate on the rearward end of said strap; and a key-hole slot in said second plate, adapted to receive said chain in interlocking engagement therewith.

2,822,891 APPLICATION VALVE

Eugene E. Wallace, Kirkwood, Mo., assignor to Wagner Electric Corporation, St. Louis, Mo., a corporation of Delaware
Application August 5, 1955, Serial No. 526,698
2 Claims. (Cl. 188—152)



1. An application valve for fluid brake systems on vehicles having left and right wheels, said valve adapted to be operated by a brake pedal having juxtaposed left and right portions capable of operation independently or

simultaneously, said valve comprising a valve housing having an inlet adapted to be connected to a master cylinder and two outlets adapted to be connected to left and right wheel brake motors in the respective wheels, two normally unobstructed passages in the housing associated with said pedal portions connecting the inlet with said outlets, passage obstructing means in said housing associated with each of said passages and positioned to operatively engage the left and right pedal portions for movement between the normally unobstructed condition of all of the passages and a condition in which one of said passages is obstructed in response to independent movement of the pedal associated with the opposite passage.

2,822,892 BRAKE ADJUSTOR FOR INTERNALLY EXPANDING SHOE BRAKE

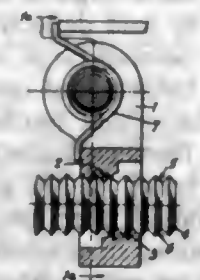
Warren G. Clark, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application November 20, 1953, Serial No. 393,360
3 Claims. (Cl. 188—196)



3. In combination with a rotatable member having a transverse circular member with a serrated periphery, a locking member for yieldably preventing accidental rotation of said rotatable member, said locking member comprising two clamping portions which are urged apart to mount the locking member independently of said rotatable member, means joining said clamping portions and lying flatly against the face of said transverse circular member, a projection formed integrally with one of said clamping portions, said projection being constructed to extend upwardly and then toward the circular member, a detent formed at the end of said projection which engages the serrated periphery of said circular member with a force determined by the cantilever support of said projection, and a U-shaped cross section extension formed on either side of the locking member to loosely bracket said circular member, said extensions being dimensioned to permit unrestricted rotation of the circular member and without interference with longitudinal movement of the circular member.

2,822,893 DEVICE FOR TAKING UP BACKLASH

Joseph Flueter, Lusanne, Switzerland
Application October 17, 1955, Serial No. 540,851
3 Claims. (Cl. 188—196)



1. A device for taking up slack between two members movable relative to each other such as a brake shoe and a brake drum, said device comprising a rod adapted to be connected to one of said members, a plurality of tooth-like projections on diametrically opposed sides of said rod, a hollow member adapted to be pivoted to the other of said members, two sets of internally directed teeth on opposed portions of said hollow member which are staggered with respect to each other in the longitudinal

direction of said hollow member, said rod extending through said hollow member with the ends of said sets of teeth engageable with the ends of said tooth-like projections, and spring means on said hollow member for urging said hollow member to a position where the ends of said sets of teeth are engaged with the ends of said tooth-like projections.

2,822,894 AIR COOLED WHEEL STRUCTURE

George Albert Lyon, Detroit, Mich.
Application February 1, 1952, Serial No. 269,396
4 Claims. (Cl. 188—264)



1. In a wheel structure including a wheel body and a tire rim having a generally radially inwardly facing annular flange, a cover for disposition at the outer side of the wheel including a circular cover body for overlying the tire rim and the wheel body, an annular flange portion within the tire rim overlying a portion of the cover body, said flange portion being arranged for substantially telescoping into the wheel and providing a generally radially outwardly facing face that is arranged for opposing said tire rim flange in radially inwardly spaced relation, said cover flange portion face having thereon a plurality of circumferentially spaced cover retaining and turn-preventing retaining element units each of which comprises a generally U-shaped metal element including a base secured with a generally radially inwardly facing back surface thereof in backed up relation to said cover flange face and having a pair of divergently related retaining legs disposed obliquely to said base and directed in substantially opposite circumferential directions with edges thereon that extend normally to a diameter such that upon pressing the same into camming contact with the rim flange the legs will tend to resiliently yieldably separate to effect accommodation of the edges to the diameter of the engaged face of the rim flange and effect resilient gripping engagement of said edges with the rim flange for not only holding the cover in axial position on the wheel but also holding the cover against turning due to the oppositely circumferentially directed disposition of said edges.

2,822,895 COLLAPSIBLE DERRICKS

Henry R. Poetker, Kerman, Calif.
Application February 13, 1953, Serial No. 336,790
3 Claims. (Cl. 189—15)

1. A collapsible derrick of the character shown and described including an elongate horizontally disposed supporting base structure having front and rear ends, an elongate horizontally disposed brace frame with one end pivotally mounted on the top of said base structure at a point intermediate its ends and projecting forwardly therefrom, said brace frame having a depending elbow portion formed on its under side at a point intermediate its ends and offset from the line of said brace frame, a derrick tower structure resting horizontally on said base structure to extend longitudinally thereof and pivotally connected with the forwardly projecting free end of said brace frame at a point intermediate its ends, the end

portion of said tower structure projecting forwardly from the base tapering to its end and projecting beyond the supporting base structure, means connected with said tapered end of the tower structure for pulling said end rearwardly relative to the base and the pivotal axis of the brace frame and thereby shift the tower structure



upwardly to a vertical operating position, the angle of said elbow portion on the brace frame and the end portion of said tower structure adjacent the beginning of the taper coming together when the tower structure is in a vertical position, and fastening means for connecting said elbow portion to said tower structure at a point below the pivotal connection therebetween.

2,822,896 COLLAPSIBLE DEVICE

Wilhelm Schuster, Vienna, Austria, assignor of one-half to Valentin Krause, Vienna, Austria
Application April 8, 1952, Serial No. 281,229
Claims priority, application Austria February 23, 1952
5 Claims. (Cl. 189—26)

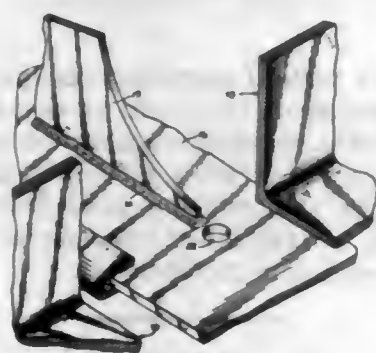


1. A supporting rod comprising, in combination, a tension-resistant flexible elongated carrier means; a plurality of body members attached to said tension-resistant flexible carrier means, at least two of said body members being arranged at and fixedly secured to the ends of said carrier means and constituting end members, each of said body members having opposite end faces adapted to abut against adjacent body members, the total length of said body members in direction of said tension-resistant flexible carrier means being shorter than the total length of said carrier means between said end members by a fixed distance; and manually operable spacing means mounted on said tension-resistant flexible carrier means between one of said end members and one of said body members thereon and having ends abutting against said last-mentioned two members, respectively, said spacing means including two end pieces and a pair of toggle levers pivotally connected to said end pieces, each pair of toggle levers including two pivotally connected toggle levers of different lengths, said two pairs of toggle levers being movable between an inoperative position in which said end pieces thereof are in direction of said flexible carrier means at a distance from each other which is shorter than said fixed distance and in which the two toggle

levers of each pair of toggle levers are folded upon each other and extend in direction of said flexible carrier means, and an operative position in which said end pieces are spaced at a distance equal to said fixed distance whereby in said operative position of said two pairs of toggle levers said carrier means is held in stretched position by said body members and said spacing means, while in said inoperative position of said spacing means said body members are spaced on said carrier means so that the same is unstretched and loose.

2,822,897 WELDED STRUCTURE

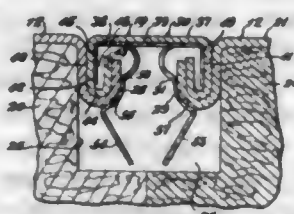
William H. Peterson, Homewood, Ill., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application December 9, 1954, Serial No. 474,109
18 Claims. (Cl. 189—36)



1. A mild steel welded structure comprising a first plate subject to tensile stresses, a second plate engaging said first plate extending generally parallel to the direction of said tensile stresses, a weld connection securing said plates together and terminating on said first plate at an end of said second plate, and a round smooth-surfaced opening through said first plate located closely adjacent said termination of said weld connection substantially in alignment with the center line of bond provided by the weld connection and having a diameter slightly greater than the lateral extent of said weld connection, whereby under tensile stress the first plate will undergo plastic deformation instead of brittle fracture immediately adjacent and beyond the termination of the weld.

2,822,898 JOINT CONNECTOR USED THEREIN

Archer W. Richards, Chagrin Falls, Ohio
Application January 7, 1955, Serial No. 480,503
8 Claims. (Cl. 189—36)

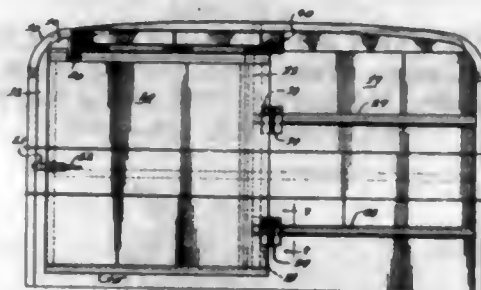


1. A joint of the character described comprising, a pair of spaced substantially coextending hook elements defining substantially parallel channel recesses facing in the same direction, a substantially channel-shaped connecting strip having a web portion spanning the space between said hook elements and substantially parallel flanges engaged in said recesses, and locking elements projecting into said space alternately from opposite sides of said strip and having holding engagement with said hook elements on the outside of the latter with adjacent locking elements engaging different ones of said hook elements.

2,822,899

DOOR STRUCTURE

Jay T. Modloff, De Kalb, Ill., assignor to De Kalb Commercial Body Corporation, De Kalb, Ill., a corporation of Illinois
Application November 3, 1955, Serial No. 544,750
4 Claims. (Cl. 189—46)

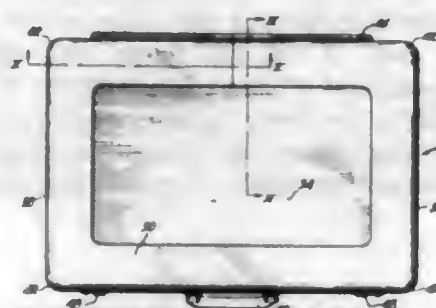


1. In a door structure having a doorway header, a pair of spaced jambs, a wall extending from one of said jambs and a door pressure sealed to said header and jambs: the combination therewith of a pair of vertically spaced, horizontal tracks on said wall, a sliding member on each of said tracks, a hinge connecting each sliding member with said door adjacent said one jamb, a door latch connecting said door with the other jamb to establish the pressure seal, a continuous guide track on said doorway header, said guide track leading away from said header adjacent said other jamb and then curving through substantially a right angle and extending in an inclined direction on a straight line toward said wall, and a support and guided member mounted on said door, said member having a load supporting anti-friction element engaging said guide track and a swivel guided element cooperating with said guide track whereby said door swings outwardly a limited distance to clear said jambs and then slides longitudinally to open the doorway.

2,822,900

SUITCASE STRUCTURE

Jerome S. Kivett, Kansas City, Mo., assignor to Regal Plastic Company, Kansas City, Mo., a corporation of Missouri
Application October 22, 1956, Serial No. 617,514
4 Claims. (Cl. 190—53)

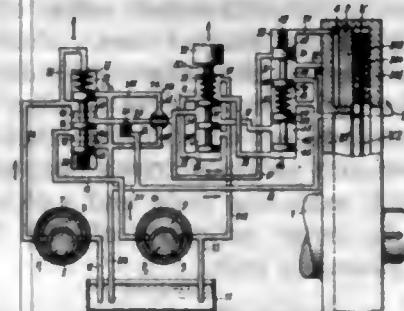


1. In suitcase structure, a top section and a bottom section, each including a hollow body provided with a continuous polygonal band having a polygonal planar portion defining a central polygonal opening, a continuous polygonal wall integral with the outermost peripheral margin of said planar portion and extending laterally therefrom in one direction and a continuous polygonal intumed flange integral with the peripheral margin of said wall remote from said planar portion, the body thereby being substantially U-shaped in transverse cross-section and a polygonal cover secured to each of said planar portions respectively in overlying, covering relationship to corresponding openings, the intumed flanges of said sections being in abutting relationship when the structure is closed.

2,822,901

APPARATUS FOR CONTROLLING THE STARTING AND OPERATION OF MOTOR VEHICLES OR OTHER MOTOR-DRIVEN MACHINES

Hans Joachim M. Förster, Stuttgart-Bad Cannstatt, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application March 15, 1951, Serial No. 215,847
Claims priority, application Germany March 16, 1950
35 Claims. (Cl. 192—096)

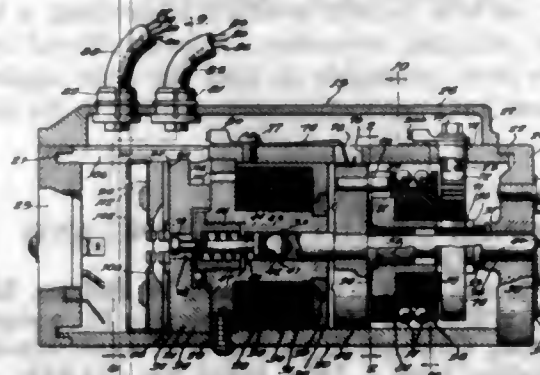


1. In a motor-driven vehicle, the combination with a speed transforming clutch adapted to operate with different degrees of slippage and having a driving member co-operatively connected with the engine of the vehicle and a driven member geared to the wheels of the vehicle, of an adjustable clutch-controlling element connected with said driving member for determining the engaging force between said driving clutch member and said driven clutch member, of detecting means co-operatively coordinated to said driving member and adapted to detect any departure of the R. P. M. thereof from a predetermined starting speed, and of means co-operatively connecting said detecting means with said clutch-controlling element and adapted, whenever the R. P. M. of said driving member drop below said starting speed, to adjust said clutch-controlling element for a reduction of the engaging force and, whenever the R. P. M. of said driving member surpass said starting speed, to adjust said clutch-controlling element for an increase of the engaging force, thus keeping the R. P. M. of said driving member substantially constant during the acceleration of said driven member, said last-mentioned means including feed back means for limiting said engaging forces during said acceleration by said driving member.

2,822,902

HOLDING MECHANISM FOR THE ACCELERATOR OF AN AUTOMOBILE

Edward G. Glick, Chicago, Ill., assignor of one-half to Rembe McCormick, Chicago, Ill.
Application August 10, 1953, Serial No. 373,248
6 Claims. (Cl. 192—3)



6. Holding mechanism for an automobile accelerator mechanism which includes a pedal and an accelerator spring normally urging said pedal toward idling position, comprising: an electromagnet; rotatable brake means adapted to be locked against rotation by energization of said electromagnet, said brake means including two rotatable members with a lost motion connection which forms an electric switch, one of said members being of

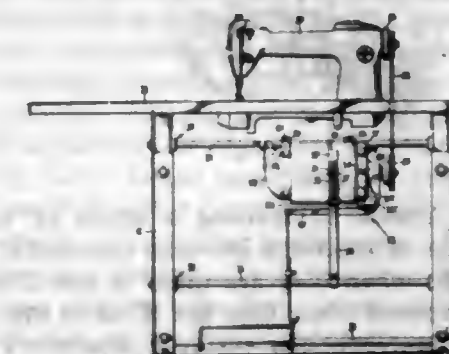
magnetic material and slidable toward said electromagnet, thereby to be locked against rotation; an electric circuit for energizing the electromagnet through said electric switch; spring means acting on the other rotatable member to urge the switch to closed position; a finger switch in said circuit for initially energizing said electromagnet; a holding circuit for the electromagnet; neutralizing electric means for rendering said electromagnet ineffective; an energizing circuit provided with switch means for activating said neutralizing electric means; and normally open switches in the holding circuit and in the energizing circuit both of which are closed through longitudinal movement of said magnetic member whereby said holding circuit is closed upon energization of the electromagnet and said energizing circuit is in electric communication with the neutralizing electric means only when the electromagnet is active.

2,822,903

ELECTRIC CLUTCH-BRAKE DRIVING DEVICES

Edgar P. Turner, Fanwood, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application May 1, 1952, Serial No. 285,504
12 Claims. (Cl. 192—18)

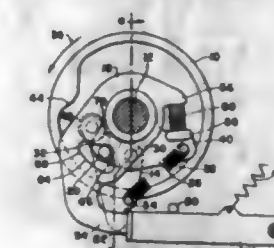


1. An electric clutch-brake driving device comprising a housing, supporting means for said housing, an end cap for said housing, a support bearing carried by said end cap, a control sleeve journaled in said support bearing, a driven shaft journaled in said sleeve, an actuating lever pivotally carried by said end cap, a control pin carried by said lever and engaging said sleeve, a brake pivotally supported on said end cap, brake adjusting means carried only by said end cap, and means for securing said end cap to said housing in a plurality of positions.

2,822,904

CLUTCH

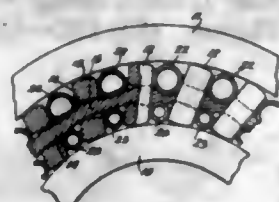
Leo G. Cheatum, Ottumwa, Iowa, assignor to Deere Manufacturing Co., Dubuque, Iowa, a corporation of Iowa
Application December 22, 1955, Serial No. 554,766
8 Claims. (Cl. 192—26)



1. A clutch, comprising: a rotatable driving member having a drive lug thereon in radially spaced relation to the axis of rotation of said member; a rotatable driven member journaled coaxially with the driving member; a pawl connected to the driven member for limited movement relative thereto in an advance direction as respects the direction of rotation of the driving member for engaging the drive lug to connect the members and pawl for rotation in unison, said pawl being oppositely movable in

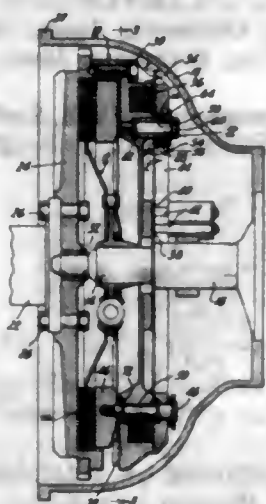
a retarded direction for disengagement from the drive lug, said pawl having biasing means urging it in said advance direction; a lock element connected to the driven member for limited movement relative thereto and relative to the pawl in said advance and retard directions; means biasing the element in said advance direction; lock means on the element operative upon advance of the element and pawl to releasably engage and interlock with the advanced pawl for opposing retarding of the pawl and thereby to prevent disengagement of the pawl from the drive lug; and trip means having a trip position clear of the pawl and element and movable into an element- and pawl-engaging position of direct engagement first with the element and then with the pawl for engaging and retarding the element and pawl in succession to first release the lock means from the pawl and to then disengage the pawl from the drive lug.

2,822,905
ONE WAY CLUTCH
Adiel Y. Dodge, Rockford, Ill.
Application June 1, 1954, Serial No. 433,530
7 Claims. (Cl. 192—45.1)



1. A one way clutch comprising a series of tiltable grippers adapted to be mounted between concentric races to engage the races when they are tilted in one direction and to release the races when they are tilted in the opposite direction, circumferentially resilient separators lying between and simultaneously engaging grippers on opposite sides of the radial center thereof spacing adjacent grippers, means securing the separators to the grippers, the grippers having openings therethrough, and a laterally flexible annular tension element threaded through the openings.

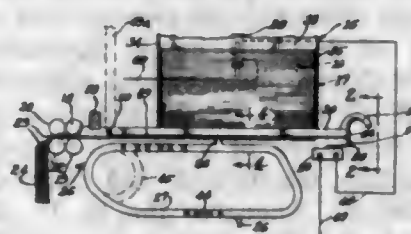
2,822,906
CLUTCH WITH LEAF SPRING KEY
Franklin O. Wisman, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application August 11, 1953, Serial No. 373,636
12 Claims. (Cl. 192—84)



1. A clutch comprising a flywheel connected to a driving shaft, an annular magnet core fastened at its outer periphery to said flywheel to form a substantially cylindrical chamber between the flywheel and magnet core, a driven member for the clutch comprising a friction disc carried within said chamber, a pressure pad within said chamber

arranged for frictional engagement with said friction disc, an annular armature operatively associated with said magnet core, means connecting the armature and pressure pad whereby said pressure pad will frictionally engage said driven disc upon energization of the magnet core to attract said armature, circumferentially disposed drive pins carried by the magnet core and extending through apertures in the armature to prevent relative rotation between the armature and magnet core, said apertures allowing for differential radial expansion between the armature and magnet core, radially extending, axially resilient elements circumferentially disposed on the pressure pad for preventing relative rotation between the pressure pad and magnet core during frictional engagement of the pressure pad and driven disc, said elements including radially extending ends, and a plurality of lugs positioned at the outer periphery of said flywheel for engaging said extending ends.

2,822,907
AUTOMATIC CONTROL MECHANISM
Gay M. Bonebrake, Chicago, Ill., assignor to Wm. Wrigley Jr. Company, Chicago, Ill., a corporation of Delaware
Application December 30, 1955, Serial No. 556,570
1 Claim. (Cl. 192—125)

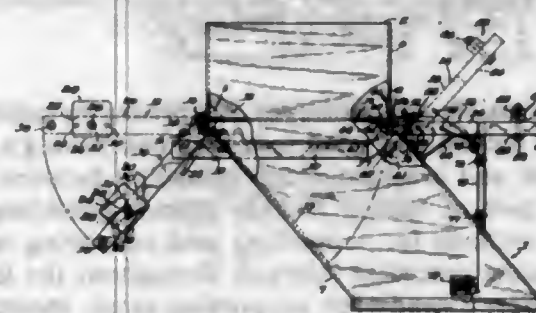


In a control mechanism for use on a machine in which workpieces are pushed along a supporting surface in a path, the combination comprising a member supported for swinging movements in a plane lateral to the supporting surface from and toward a normal position in which a portion of said member spans said path and is spaced from the supporting surface to provide a predetermined small clearance between the supporting surface and said portion of the member for the passage of normal workpieces along the path, said member being movable from said normal position by engagement with an abnormal workpiece as it is pushed along the path, means tending to hold the member in said normal position, means actuated by movement of the member from the normal position for effecting stoppage of movement of workpieces along the path, said means tending to hold the member in said normal position comprising a lever mounted for swinging movement, a spring biased roller engaging the lever releasably to hold the lever against a fixed stop, and links connecting said member to the lever.

2,822,908
COMBINED WEIGHT MEASURING AND DUMPING DEVICE
Thaddeus J. Glaza, Jack Kessler, Louis W. Soldan, Miles Milkes, and William J. Clark, Jr., Chicago, Ill., assignors to Crane Co., Chicago, Ill., a corporation of Illinois
Application April 5, 1954, Serial No. 421,088
4 Claims. (Cl. 193—18)

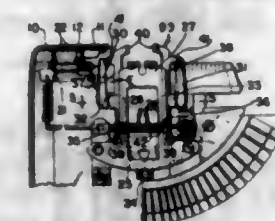
3. A weight measuring dumping device of the character described comprising in combination a housing adapted to permit the flow of articles and material therethrough, swinging means mounted on said housing including barrier means predeterminedly extending across the inside of an inclined surface of the said housing to permit flow therethrough, said housing having means engageable with said barrier means to normally retain the said

barrier means in flow obstructing position, said retaining means being adapted to release said barrier means for movement upon substantially a predetermined loading thereof by weight by the accumulated flow whereby the accumulation may pass on through said housing, counterweight means cooperating with said swinging means for automatically returning said barrier means thereof substantially to its normal flow obstructing position after discharge of said accumulation, said retaining means comprising lever means pivotally mounted on said housing and stop means on said housing limiting movement of said lever means in one direction, said lever means having counterweight means connected thereto normally keeping the said lever means in contact with said stop means, said lever means being provided with catch means for



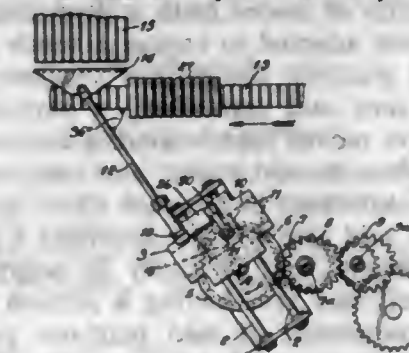
predetermined sliding engagement with said barrier means, said catch means being pivotally mounted on said lever means and rotatable to permit the passage of said barrier means therebeyond it in one direction as the same is being returned to its normal flow obstructing position, said catch means and lever means being adapted to be engageable with each other and having a stop therebetween so as to limit the return movement of said catch means beyond a given point upon movement of said barrier means in the opposite direction to prevent further movement of said means until released at full loading by unitary displacement of said catch and lever means under the action of said load and movement of said lever means away from said first named stop means in opposition to said second counterweight means.

2,822,909
APPARATUS FOR AUTOMATICALLY OPENING AND CLOSING THE EYES OF A RIBBON CARRIER FOR TYPEWRITERS AND LIKE PRINTING MACHINES
Earl A. Roy, Unionville, Conn., assignor to Royal McBee Corporation, New York, N. Y., a corporation of New York
Application October 30, 1956, Serial No. 619,262
10 Claims. (Cl. 197—170)



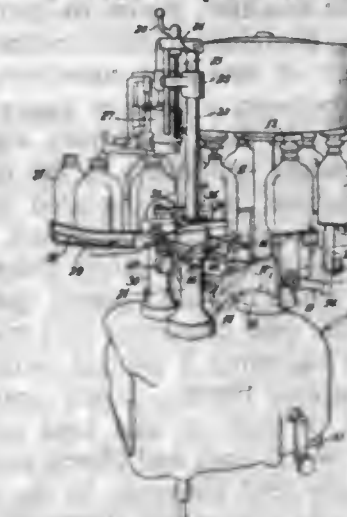
1. In a typewriting machine having a casing and a top cover, a ribbon-carrier comprising a pair of stationary arms, a pair of movable arms cooperating with said stationary arms to form guiding eyes for a ribbon, and means operatively connected with said top cover through which the movable arms can be automatically displaced upon opening of said top cover, whereby a ribbon may be inserted or removed, and thereafter automatically returned to ribbon retaining position upon closure of said top cover.

2,822,910
CIGARETTE TRANSFER MACHINE
Willi Wachsmuth, Hamburg-Bergedorf, Germany, assignor to Kurt Korber & Co. K. G., Hamburg-Bergedorf, Germany
Application May 16, 1955, Serial No. 508,545
Claims priority, application Germany May 14, 1954
4 Claims. (Cl. 198—24)



1. Means for transferring cigarettes from transverse grooves in a continuously moving horizontal conveyor onto an adjacent receiving band, comprising horizontal guide means mounted beside said conveyor and forming an acute adjustable angle with the trailing end portion thereof, a cross-head slidably mounted on said guide means, bearing means in said cross-head having its axis horizontal and perpendicular to said guide means, a shaft rotatably mounted in said bearing means, ejector means non-rotatably secured to said shaft and extending toward said conveyor in a position to simultaneously engage one end of a plurality of cigarettes disposed in said conveyor grooves, lever means non-rotatably secured to said shaft and provided with a cam surface, guide surface means on said cross-head extending transversely of said guide means, disc means mounted adjacent said guide means for rotation on a vertical axis, first means eccentrically mounted on said disc means for engagement with said guide surface means, and second means eccentrically mounted on said disc means for engagement with said cam surface, whereby rotation of said disc means causes reciprocation of said cross-head with said ejector means on said horizontal guide means during simultaneous sliding back and forth of said first eccentrically mounted means on said guide surface means and intermittent turning of said shaft to raise said ejector means through engagement of said second eccentrically mounted means with said cam surface.

2,822,911
ADJUSTABLE BOTTLE TRANSFER MEANS
Theodore H. Kummer and David D. Tibbets, Waukesha, and Herman E. Knappe, Milwaukee, Wis., assignors to Cherry-Burrell Corporation, Chicago, Ill., a corporation of Delaware
Application April 12, 1954, Serial No. 422,566
2 Claims. (Cl. 198—25)



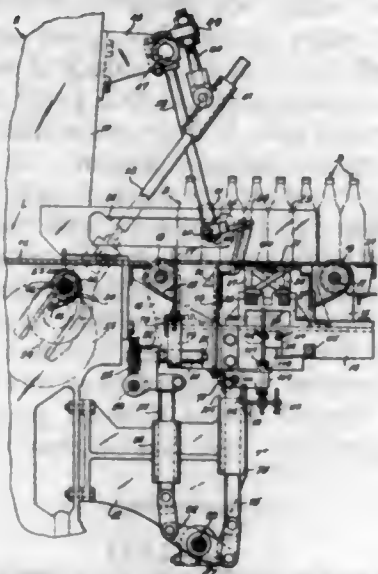
1. The combination with a receptacle filler having a receptacle collecting table and receptacle platform

adapted to move through a predetermined path into proximity with and at substantially the same level as said table of receptacle transfer means comprising a guide superposed over said table and extending over the path of said platform, a pusher spaced from and swingable in substantially the same horizontal plane as said guide, a cam wheel mounted coaxially with said pusher and having a plurality of spaced teeth, a depending projection on said platform adapted to engage a tooth of said cam wheel as said platform comes into proximity with said table and to turn said cam wheel a partial revolution as said platform moves therebeyond, a connector removably engageable with said pusher and said cam wheel to communicate movement of the cam wheel to the pusher, and a lock for said cam wheel comprising a pivoted arm with a lug thereon held yieldably in engagement with said cam wheel, said arm having a portion disposed in the path of movement of said platform projection to be pressed thereby out of engagement with said cam wheel when said projection comes into engagement with said teeth.

2,822,912

CONTAINER FEEDING MECHANISM FOR LABELING MACHINES

Frederick W. Wehmiller, Ladue, and William J. Nekola, Normandy, Mo., assignors to Barry-Wehmiller Machinery Company, St. Louis, Mo., a corporation of Missouri
Application September 17, 1953, Serial No. 392,923
9 Claims. (Cl. 198—30)
(Filed under Rule 47(a) and 35 U. S. C. 116)



1. In a container feeding mechanism for a labeling machine having an inlet side for a plurality of containers and a label applying station for simultaneously labeling a plurality of containers, the improvement of a plurality of container feed conveyors having outlet ends adjacent the inlet side of the machine, means to operate said feed conveyors together, container transfer means adjacent the outlet ends of each of said feed conveyors periodically movable together between a position engaging the leading containers on said feed conveyors and a position transferring the leading containers to the label applying station in the machine, power operated means in the machine connected to said feed conveyors and transfer means to operate the same, and safety means for cutting off the source of power for said power operated means, said safety means including a control switch connected to said power operated means, switch operating means operably disposed in each of said feed conveyors and movable between switch open and closed positions, finger means adjacent each feed conveyor in the path of container movement and engageable therewith, and actuating means connected between each of said finger means and said switch operating means, said actuating means

being resiliently urged in a direction to displace any of said finger means which is free of engagement with a container and actuate said switch operating means into switch open position to stop the machine, feed conveyors and transfer means.

2,822,913

EXTENSIBLE CONVEYOR

Joseph Craggs and Keith McCann, Taylorville, Ill., assignors to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application November 23, 1955, Serial No. 548,622
13 Claims. (Cl. 198—139)

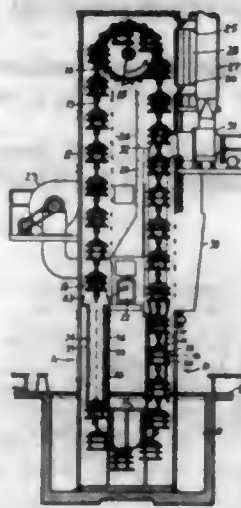


1. An extensible belt conveyor comprising in combination, a head section and a tail section, a belt having a conveying reach and a return reach extending between said sections, a pair of spaced flexible strands extending between said sections for supporting said conveying reach, standard means spaced at intervals throughout the length of said support strands for supporting same, means for paying out additional lengths of said belt in accordance with the increase in length of said conveyor including a movable idler assembly having the return reach of said belt reeved thereon, main support means for said idler assembly being selectively connectable to and disconnectable from one of said sections and itself being supported on said standard means, and supplemental supporting means for said idler assembly carried by and forming a part of said one section and disposed in contiguous proximity with said main supporting means when the latter is connected to said one section whereby said idler assembly can be moved back and forth between the two supporting means.

2,822,914

CONTROL FOR VERTICAL OVEN CONVEYORS

Charles H. Barnett, Shaker Heights, Ohio, assignor to The Foundry Equipment Company, Cleveland, Ohio, a corporation of Ohio
Application January 8, 1954, Serial No. 402,920
2 Claims. (Cl. 198—158)



1. In vertical oven construction, a continuous vertical conveyor, a plurality of work carriers having normally horizontal trays adapted to receive and support the work thereon, said carriers being suspended from said conveyor at spaced points therealong by means of horizontal pivotal connections, each such carrier being provided with two spaced vertical guide surfaces in planes generally parallel to the axis of its pivotal connection, a pair of stationary rails arranged respectively adjacent the paths of move-

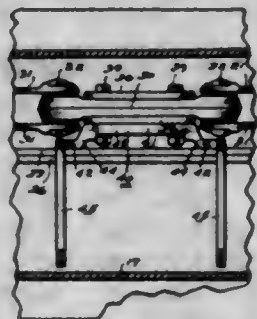
ment of the carrier guide surfaces in a vertical course of the conveyor, and a plurality of ball spring guides mounted on each rail adapted to engage the guide surfaces of the several carriers as the same move past said rails, the ball spring guides being spaced vertically relative to the extent of the guide surfaces such that at least two guides of each rail engage simultaneously with the respectively associated guide surfaces, thereby to restrain the carriers from rocking about their pivotal connections.

2,822,915

CONTINUOUS FLOW CONVEYOR

John H. Hampton, Oaklyn, N. J., assignor to Beaumont Birch Company, Philadelphia, Pa., a corporation of Pennsylvania

Application September 30, 1954, Serial No. 459,248
3 Claims. (Cl. 198-174)



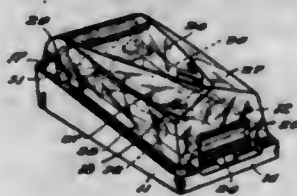
1. In a continuous flow conveyor for conveying flowable solid material, an endless conduit through which said material may be moved along a substantially horizontal plane, and chain means traversable through said conduit to move said material, said conduit being provided internally with means suspended from the top of said conduit and having an upwardly presenting surface for slidably supporting said chain means, the latter comprising an endless articulated chain including slotted links, and a pair of pins projected through the opposite end portions of each link and moveable in the slot lengthwise of the link, and flight attachments adapted to be connected respectively to said links, each of said flight attachments including an adapter disposed in overlying interlocked relation to the associated link, a second adapter disposed in underlying interlocked relation to the associated link, and a flight unit having a portion interposed between said second adapter and suspended means to protect said link chain against wear, and having other portions which depend from said interposed portion in overhanging relation to said suspended means and which are in the form of inverted T-shaped flight appendages each centrally disposed between the sidewalls of said conduit, said adapters and flight unit being secured against displacement by elements which removably project through the link slot, said adapters, when secured as aforesaid coacting to insure again movement of the associated pair of said pins as aforesaid in the slot lengthwise of the link.

2,822,916

SAFETY RAZOR CASE

John D. Wark, Freeport, and Peter Schladermundt, Bronxville, N. Y., assignors to The Gillette Company, Boston, Mass., a corporation of Delaware

Application November 20, 1953, Serial No. 393,434
6 Claims. (Cl. 206-16)



1. A safety razor case comprising a base having a hinged cover and an upwardly and rearwardly inclined rear wall,

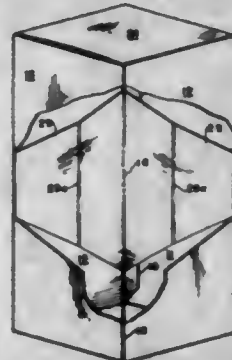
together with front and side walls forming a recess for a blade package, and an intermediate transverse wall carrying a forwardly extending and upwardly inclined razor-supporting trough draining thereover, the said base having a slot at its junction with said rear wall constituting an outlet opening for drainage and for the reception of an ear for supporting the case at an angle determined by the inclination of its rear wall.

2,822,917

DISPLAY CARTONS

Patrick A. Toensmeyer, Hamden, Conn., assignor to The New Haven Board & Carton Company, New Haven, Conn., a corporation of Connecticut

Application June 19, 1957, Serial No. 666,619
3 Claims. (Cl. 206-45.31)



1. A display carton, which comprises a pair of front and back walls, a pair of side walls, the walls being of the same height and width and hinged together along vertical crease lines, flaps for closing the top and bottom of the carton connected to the upper and lower ends of the walls, and a pair of panels cut from one pair of adjacent walls and having root ends hinged to the remote vertical edges of the remaining walls, the panels being of the same width as the walls and having their free ends hinged together, each panel lying against the inner surface of the wall, to which it is hinged, and one panel being secured to said inner surface over a narrow area extending across the panel adjacent its free end.

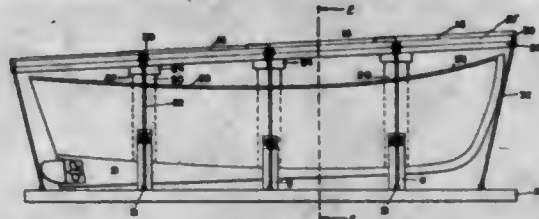
2,822,918

SECTIONAL BOAT COVER ASSEMBLY

John A. L. Shuron, Philadelphia, Pa.

Application May 25, 1956, Serial No. 587,440
3 Claims. (Cl. 206-46)

(Granted under Title 35, U. S. Code (1952), sec. 266)



1. In combination, an open boat having a longitudinal keel supporting the bow, stern, and boat sides to provide a boat enclosure having opposed gunwales or top rails and a cover assembly for the boat which comprises a plurality of stanchions supported at their lower ends by the keel and being spaced longitudinally thereof, a transverse brace supported by the upper ends of the stanchions, each brace having opposed end portions with one end portion positioned immediately above one gunwale or top rail and its other end portion positioned immediately above the other gunwale or top rail, the one end portions of the braces providing a first group and other end portions providing a second group, a first longitudinal stringer supported by the first group of end portions and a second longitudinal stringer supported by the second group of end portions, a plurality of cover

sections supported at their side edges by said stringers, said sections having adjacent end portions disposed in contacting relation and means for interlocking said sections together to provide a unitary cover for the boat.

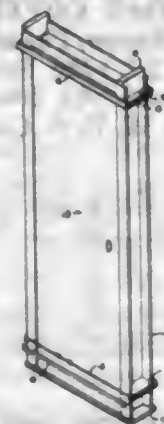
2,822,919
PROTECTIVE REEL BAND
Thomas S. Kulka, Cleveland, Ohio
Application March 5, 1951, Serial No. 213,819
7 Claims. (Cl. 206—52)



3. The combination of a reel and a snap-on, peel off protective cover, said reel having spaced parallel discs and said cover comprising a strip of resilient material, said strip having projections thereon and means on said discs interlocking said projections with said reel, said strip directly engaging and completely overlying the peripheral edges of said discs and having radially inwardly directed parallel flanges extending from such portions overlying the peripheral edges and abutting the outer surfaces of said discs.

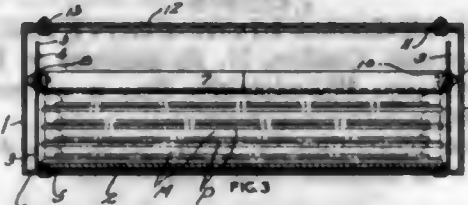
2,822,920
THRUST BLOCK METHOD OF CRATING PRE-FABRICATED OR SEMI-PREFABRICATED ASSEMBLIES

Philip Ben Lieber, Shreveport, La.
Application July 6, 1954, Serial No. 441,296
1 Claim. (Cl. 206—60)



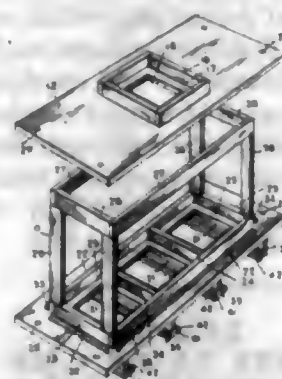
A packaging assembly for the protection of a pre-hung door complete with side trim comprising, a multiplicity of T-shaped spacer thrust blocks, a pair of said blocks having their foot portions joined at right angles to each other and being positioned at each upper corner of said assembly between the surrounding trim to maintain the same in a spaced parallel relationship, one of said blocks being positioned adjacent each lower corner of said assembly between the side trim elements, the heads of said T-shaped blocks overlying the outer edges of the trim elements and extending beyond their outwardly facing surfaces, a closing member across the bottom of said door and fastened to the lower ends of said side trim, bands encircling said assembly transversely and engaging said blocks in a man-

2,822,921
SHIPPING CONTAINER FOR MIRRORS AND THE LIKE
Malcom H. Wilson, St. Louis, Mo.
Application March 10, 1954, Serial No. 415,317
1 Claim. (Cl. 206—62)



A shipping container of the class described comprising a rigid box-like structure having a bottom wall and spaced apart upright walls, uprights secured to said bottom wall and spaced a short distance inwardly of the container from said upright walls and extending substantially throughout the length of said upright walls and each provided with vertically disposed continuous slots at intervals throughout its length extending downwardly from the upper edge of the upright, separate, spaced apart, narrow holddown members extending between said uprights and each having end elements movable vertically along the uprights abreast of a corresponding pair of slots, there being a bolt extending through each end element of each holddown member and through the corresponding upright slot with its head slidable along the outer face of the upright and having a nut engaging the inner face of the holddown element and accessible to the user's hand when inwardly of the box-like structure from the upright for clamping the corresponding end of the holddown member to the opposing upright at any selected height along the slot and independently of the other holddown members and their clamping bolts.

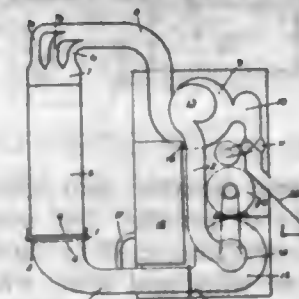
2,822,922
SEPARATOR FOR SAND AND GRAVEL
Grant W. Trundle, Fort Lauderdale, Fla.
Application September 23, 1955, Serial No. 536,112
11 Claims. (Cl. 209—97)



1. Separator apparatus comprising a trough to convey a liquid slurry embodying solid components to be separated and having an opening in its bottom, a boxlike structure secured to the bottom of the trough adjacent said opening and having top, bottom and side walls, said top wall having opening means communicating with the interior of said trough for conducting a quantity of the slurry into the boxlike structure, said bottom wall having a plurality of opening means, guide means dependently secured to said bottom wall, adjustable slide valve elements engaging said guide means and disposed below the opening means of the bottom wall for defining variable outlet passages for different sizes of solid components and

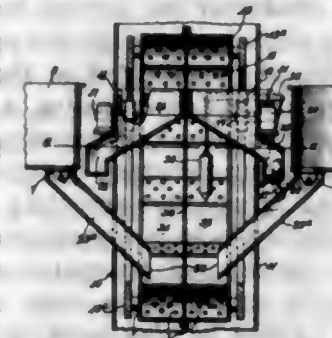
communicating with the opening means of the bottom wall, and means associated with the bottom of the box-like structure below the slide valve elements for conveying the sized separated components to separate points of storage.

2,822,923
SEPARATION OF MATERIALS
Laurie Edward Richard Umney, Guildford, England, assignor to Vokes Limited, Guildford, England
Application April 30, 1953, Serial No. 352,209
Claims priority, application Great Britain June 27, 1952
1 Claim. (Cl. 209—139)



An apparatus for separating one of several dissimilar materials from a mixture, comprising a conveyor for transporting a mixture of materials and having a perforated section, a continuous duct system that is closed throughout except for ends disposed immediately above and below the perforated section of said conveyor, a single fan in said duct system to induce airflow into the duct below the conveyor and up into the duct above the conveyor to draw certain of the materials into said duct system, a centrifugal separator for separating the material from the air stream in the duct system, and a bag type dust recovery filter connected to said duct system by an outlet between the outlet of said separator and the inlet of the fan and by an inlet on the outlet side of said fan to continuously by-pass a proportion of the airflow from the main flow to continuously remove a portion of the dust from the air stream.

2,822,924
MEANS FOR DISCHARGING CONCENTRATES FROM CONCENTRATING PANS
Edmond Harvenst, Moustier sur Sambre, Belgium, assignor to Link-Belt Company, Chicago, Ill., a corporation of Illinois
Application April 22, 1953, Serial No. 350,381
Claims priority, application Belgium May 19, 1952
6 Claims. (Cl. 209—496)



1. An arrangement for discharging concentrates from concentrating pans, comprising an external tank, a liquid body filling said tank up to a predetermined level therein, conveyor means in the tank, said conveyor means including a ring with side walls supported for rotation in the tank and dipping in part into the liquid body, driving means for said conveyor means, conduit means connected to the concentrate outlet of the pan and opening into the tank below said predetermined level and over the inner surface of the ring and between said side walls, a collecting hopper, an inlet for the hopper above the upper level of the liquid body for receiving the materials dis-

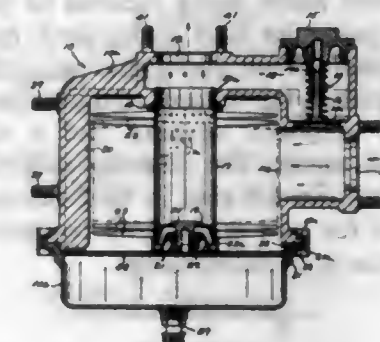
charged from the conveyor means, and conduit means for leading to the outside of the tank the materials collected in the hopper, means for measuring the consistency of the liquid of said body, means for supplying pressure fluid to the tank, and an operative connection between the said measuring means and fluid pressure supplying means for varying the amount of fluid supplied to the tank in response to variations in the consistency of the liquid determined by said measuring means.

2,822,925
FILTERS FOR AQUARIA
Robert A. Lamberton, Winston-Salem, N. C.
Application January 16, 1956, Serial No. 559,182
12 Claims. (Cl. 210—169)



1. A filter of the class described comprising a housing adapted to be arranged adjacent an aquarium, said housing having substantially vertical retaining walls and a bottom, a foraminant plate spaced above said bottom and adapted to support filter material, a vertical chamber within said housing and air-sealed at the upper end thereof, an air-lift for discharging water from the aquarium to said chamber, means for maintaining a uniform air pressure in said chamber, and means for delivering the filtered water to the aquarium.

2,822,926
CROSS WASHER FOR HOLLOW FILTER LEAVES
George M. Walton, Richard E. Brown, George E. Slater, and Harold R. Sobeck, Cleveland, Ohio, assignors to Air-Maze Corporation, Bedford Heights, Ohio, a corporation of Delaware
Application February 24, 1953, Serial No. 338,232
4 Claims. (Cl. 210—305)

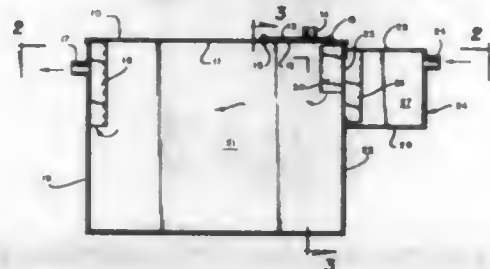


1. In a liquid filter for kerosene, gasoline and naphtha, a housing having a dirty liquid inlet at one side and having a clean liquid outlet at the top, a tube positioned vertically in said housing and spaced from said inlet, said tube being closed at the bottom and open at the top in communication with said outlet, a plurality of hollow generally flat and parallel filter leaves mounted on said tube with at least the peripheries of said leaves in vertically spaced relation, the generally horizontally extending surfaces of said leaves being smooth, said leaves closely embracing said tube, there being perforations in said tube communicating only with the hollows of said leaves where the latter embrace said tube, said leaves extending to a zone close to said inlet on one side, said tube being eccentrically positioned within said housing

providing a greater space between said leaves and said housing on the side opposite said inlet thereby providing a relatively quiescent zone, at least one vertical rib in said relatively quiescent zone extending from said housing inwardly to a zone near said leaves and from approximately the level of the uppermost of said leaves down to a point below the lowermost of said leaves, an elongated vertically extending nozzle in said inlet close to the edge of said leaves, a large portion of filter leaves lying horizontally opposite said nozzle, and there being at least two filter leaves above the level of the top of said nozzle and at least three filter leaves below the level of the bottom of said nozzle.

2,822,927 TRAP TANK

Douglas C. Burdette, Aberdeen, Md.
Application September 9, 1955, Serial No. 533,473
1 Claim. (Cl. 210—320)



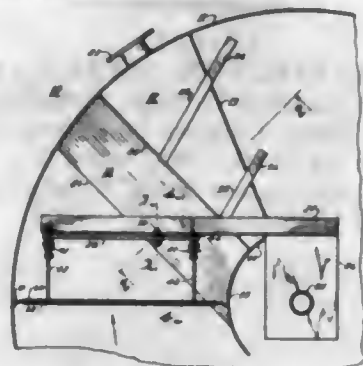
A device of the class described comprising a septic tank having an inlet at one end and an outlet at the other end, said septic tank at the end thereof having said inlet having an opening therethrough, a grease trap mounted on the end of said septic tank and communicating with said opening, said grease trap having an inlet, a baffle of substantially L-shaped cross section having one leg secured to one side wall of said grease trap and another leg secured to the end wall adjacent said septic tank, the upper end of said grease trap baffle extending from the top wall thereof and the lower end being freely spaced from the bottom wall thereof, an inlet baffle within said septic tank surrounding said opening therein, said septic tank inlet baffle comprising a plate of substantially L-shaped cross section open at top and bottom communicating with said opening, one end of said inlet baffle being secured to the end of said septic tank and the other end of said baffle being secured to one side panel of said septic tank, the said septic tank having an outlet baffle surrounding said outlet therein, said outlet baffle being of substantially U-shaped cross section, said septic tank having a manhole opening and a cleanout door thereabove, bolt means for securing said cleanout door to the septic tank, an air vent in said cleanout door, and a removable lid for said grease trap contacting the upper end of said grease trap outlet baffle.

2,822,928 SCUM SKIMMER

Arthur Wormser, Lawrence A. McKinney, Irvin W. Mahack, and Jack E. Haston, Tucson, Ariz., assignors to Inflico Incorporated, Tucson, Ariz., a corporation of Delaware
Application December 24, 1954, Serial No. 477,492
8 Claims. (Cl. 210—523)

1. In a device for removing scum from a basin having a scum trough including a sloping ramp member on its leading side, said ramp member having a leading edge and a trailing edge parallel to one another, said device comprising a skimmer arm adapted to be rotated in said basin, a skimmer blade rotatable with said arm, said ramp member and blade extending inwardly from the periphery of said basin for such a length that said blade approaches said leading edge at an angle and does not

conform to the surface of said ramp member, the combination with said blade of connecting means between said arm and said blade permitting said blade to swing about a horizontal axis and to move angularly with respect to said skimmer arm when said blade contacts and moves

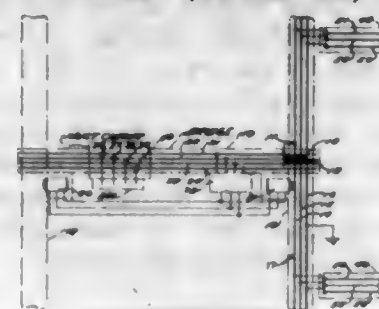


up said sloping ramp member, said connecting means including a plurality of parallel link members, each link member being rigidly connected to said blade and being pivotally connected with said arm, whereby said blade can adjust itself to the surface of said ramp member as it rises thereon.

2,822,929

ELECTRICAL CONTROL SYSTEMS

John F. Kruzic, North Riverside, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 29, 1955, Serial No. 497,505
5 Claims. (Cl. 212—21)



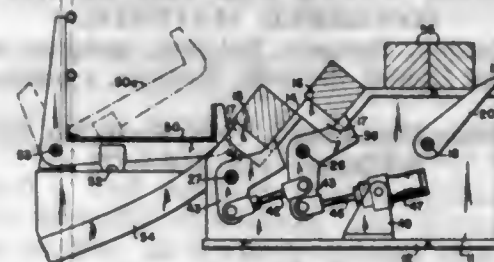
1. In a crane system including a crane, a main track, a reversible crane drive for moving the crane along the track, a hoist carrier, a reversible hoist carrier drive for moving the hoist carrier along the crane, main conductor bars extending along the main track, crane power conductor bars carried by and extending along the crane, collector shoes connecting the crane power conductor bars to the main conductor bars, the improvement comprising a control conductor bar carried by and extending along the crane, a circuit carried by the crane for actuating the crane drive and connected to the crane control conductor bar, circuit means including a control switch and collector shoes movable along one of said crane power conductor bars and along the crane control conductor bar for connecting the crane-drive-actuating circuit to the crane power conductor bars, a transformer-powered circuit on the hoist carrier and connected to the collector shoes for selectively actuating the hoist carrier drive, a forwarding relay carried by the crane, a reversing relay carried by the crane, a transformer carried by the crane having a primary winding connected to the crane power conductor bars and a center-tapped secondary winding having the ends thereof connected to one side of each winding of the forwarding and reversing relays, a control collector shoe carried by the carrier along the control conductor bar, circuit means connecting the other side of the forwarding and reversing relay windings to the center of the secondary winding and to the control conductor bar, and means for connecting opposite polarities of said transformer powered circuit selectively to the control collector shoe to selectively energize the forwarding relay and the reversing relay.

2,822,930

APPARATUS FOR HANDLING BILLETS

James MacGregor and Charles MacGregor, Pittsburgh, Pa., assignors to York Engineering & Construction Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application May 24, 1954, Serial No. 431,717
8 Claims. (Cl. 214—1)



1. Apparatus for handling billets or like articles including a pair of parallel, spaced-apart support walls, the top of each wall having a substantially flat back and a downwardly slanting front, the flat backs of the walls being adapted to support billets lying transversely thereof, at least two corresponding troughs in the front of each wall to receive and retain a billet, a rotatable shaft extending transversely of the walls and having a lever adapted to urge the billets from the flat backs of the tops of the walls down the slanting fronts whereby the first troughs receive a billet, an additional rotatable shaft extending transversely of the walls for each set of corresponding troughs and having a lever adapted to lift a billet from each set onto the slanting front of the wall below the troughs, another lever on each of said additional shafts having relative movement therewith and adapted to rotate a billet about its longitudinal axis within each set of corresponding troughs whereby all sides of the billet may be exposed for scarfing and similar treatments.

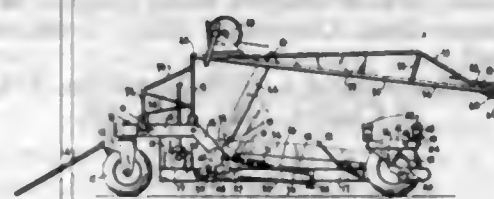
2,822,931

DEVICE FOR LOADING BOMBS AND THE LIKE

Wilber Stanley Sparrow, Ottawa, Ontario, Canada

Application May 20, 1955, Serial No. 509,770

Claims priority, application Canada April 19, 1955
4 Claims. (Cl. 214—1)



1. A device for loading bombs or the like comprising a wheeled carrier, and means mounted on said carrier for carrying and elevating a bomb including a platform, means on said platform for holding a bomb, a mounting base on said platform, a first lifting arm pivotally secured to said mounting base and to said wheeled carrier, a second lifting arm extending below the first lifting arm and being pivotally secured to said mounting base and to said wheeled carrier, the pivotal connections of said lifting arms with the carrier and the mounting base respectively being substantially in the form of a parallelogram to retain the platform at a substantially constant angle with respect to the horizontal at various angles of inclination of the lifting arms, and means acting between the carrier and at least one of the lifting arms to elevate and lower said platform, a lifting boom of constant length having a lifting means at its head pivotally mounted on said carrier for movement between a substantially horizontal position in which the head of the lifting boom extends to a position outside the end of the carrier and said platform, and a raised position in which the head of the lifting boom is inwardly disposed with respect to said platform,

means for raising and lowering the lifting means from the head of the boom, and means for elevating and lowering said lifting boom.

2,822,932

MATERIAL HANDLING APPARATUS

Rowland V. Patrick, Winchester, Mass., assignor, by mesne assignments, to J. W. Greer Company, Wilmington, Mass., a corporation of Massachusetts

Application July 18, 1955, Serial No. 522,453
18 Claims. (Cl. 214—6)



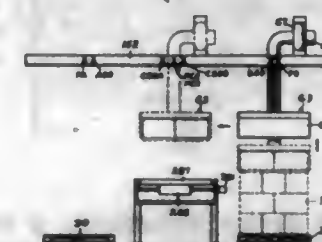
3. A loading machine for loading units into multi-tiered stacks of multi-unit layers on pallets and the like comprising two vertically spaced superposed conveyors, the underlying conveyor being adapted to support and advance a succession of pallets or the like to be loaded, and the overlying conveyor being inclined upwardly relative to the underlying conveyor in the direction of the advance of said pallets or the like on said underlying conveyor, said overlying conveyor being sectionalized with certain sections thereof being movable out of their normal common plane of inclination to lower the upper end of each section into a discharging position, the upper ends of the successive sections in discharging positions being at progressively different levels, means for feeding articles along said inclined conveyor from one end thereof to position separate spaced groups of unstacked articles on each of said sections and means for dropping said sections to discharging positions for simultaneous discharge of the groups of articles from all of said sections onto a plurality of pallets or the like spaced along said underlying conveyor and means for driving said underlying conveyor to advance a group of articles discharged from one of said sections at a lower level to a position to receive on top thereof further articles to be discharged from the next higher section at a higher level after re-loading of said sections.

2,822,933

APPARATUS FOR HANDLING MATERIALS

William G. Pagdin, Little Silver, N. J., assignor to P. Ballentine & Sons, Newark, N. Y., a corporation of New Jersey

Application December 9, 1953, Serial No. 397,075
5 Claims. (Cl. 214—8.5)



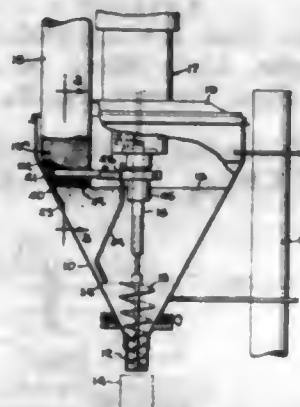
1. In apparatus for transferring a multiplicity of units from a portable platform to a discharge conveyor system, the units being in patterned relation of units in ranks forming a tier and the platform being provided with a plurality of superposed tiers; the combination with a table having an area thereof adapted to support successively a plurality of groups of said units, first conveyor means associated with said table for removing successive tiers from said area, second conveyor means forming a part of said system and being arranged in partially overlapping relation with said first conveyor means for re-

moving individual units therefrom, a hollow movable suction head having a depending flexible curtain adapted to engage in substantially air-tight manner the sides of the units forming the periphery of a tier, first motor means for moving said suction head in a vertical direction, and second motor means for moving said suction head together with an engaged tier of units laterally between said area and said portable platform; of an electrical control circuit comprising means responsive to the presence of a tier of units on the platform to energize said second motor means to cause said suction head to travel laterally from an initial position over said area to a position over said platform, means responsive to the arrival of said unit in said position over said selected platform to energize said first motor means in a sense to cause said suction head to descend and contact the uppermost tier on the platform, means responsive to such contact to apply suction to said suction head whereby said curtain engages the units of the contacted tier in said substantially air-tight manner and to energize said first motor means in an opposite sense thereby to move said suction head and the engaged tier upwardly to a predetermined level, means responsive to arrival of said suction head at said predetermined level to energize said second motor means to produce lateral movement of said suction head, means responsive to arrival of said suction head at a position over said area and operative only upon the absence of units from said table and the overlapping portion of said second conveyor means to energize said first motor means to cause said suction head to descend, means responsive to arrival of said suction head and the engaged tier at the bottom of their travel to de-energize said first motor means and to release said suction whereby the engaged tier is released, means operative after the release of said tier to energize said first motor means in a sense to cause said suction head to ascend to its initial position, and means operative upon the arrival of the suction head at said initial position thereof to energize said first conveyor means in a sense to carry the units of the released tier to the overlapping portion of the first conveyor means.

2,822,934

DISPENSING DEVICE

Harold L. Bartelt, Rockford, Ill., assignor of forty-five percent to Donald E. Bartelt, Rockford, Ill.
Application May 28, 1954, Serial No. 432,973
7 Claims. (Cl. 214-17)



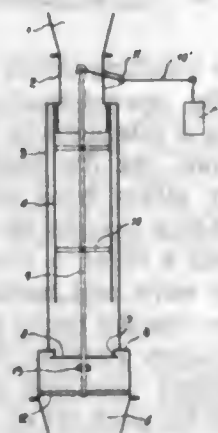
1. A dispensing device comprising a hopper adapted to receive a body of material to be dispensed and having an inlet adjacent the upper end thereof and an outlet adjacent the lower end, a dispensing device operable to dispense measured quantities of material through said outlet, a support disposed beneath and spaced below said inlet to support the material delivered to said hopper, an elongated paddle disposed in a horizontal plane, means supporting said paddle for movement through the space between said inlet and said support and for angular adjustment about the longitudinal axis of the paddle, and mechanism operable to move said paddle periodically through said space in synchronism with the operation of

said dispensing device to transfer material from said support to said body, the quantity of material transferred depending upon the adjusted angular position of said paddle and substantially replacing the material dispensed by said device.

2,822,935

AUTOMATIC VALVE FOR THE REMOVAL OF POWDERED MATERIAL

Leopold Roujob, Brussels, Belgium, assignor to Societe Belge Prat Daniel, Brussels, Belgium, a corporation of Belgium
Application December 2, 1955, Serial No. 550,700
3 Claims. (Cl. 214-17)

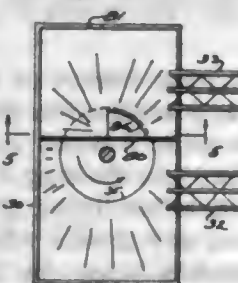


1. A discharge valve for finely divided material which comprises, a vertically fixed, vertical outer sleeve, a vertically movable sleeve within said outer sleeve, a valve seat at the lower end of said outer sleeve, a flap movable vertically to seat against said valve seat and operatively connected to, and moving with, said vertically movable sleeve, and a counterweight connected to said vertically movable sleeve and said flap to move said vertically movable sleeve and flap upwardly.

2,822,936

METHOD AND APPARATUS FOR CHARGING A BLAST FURNACE

John B. Hazle, Shaker Heights, Ohio, assignor to Interlake Iron Corporation, Cleveland, Ohio, a corporation of New York
Application August 4, 1953, Serial No. 372,368
12 Claims. (Cl. 214-19)



12. A receiving hopper for a blast furnace, said hopper having a partition dividing it into two material-receiving chambers, one of said chambers being adapted to receive material from one of a pair of skip cars, and the other of said chambers being adapted to receive materials from the other of said pair of skip cars, said partition extending substantially in the same generally direction as the path of movement of the skip cars each of said chambers having an opening in the bottom thereof, the opening in one of the chambers being substantially a quadrant, said last-mentioned chamber having sloping walls to guide the materials entering it in a direction which is reversed to the direction of flow of the materials entering such chamber from the skip car.

2,822,937

SHUTTLE CAR MECHANISM

Herbert Clyde Fox, Greensboro, N. C.
Application April 10, 1956, Serial No. 577,358
5 Claims. (Cl. 214-42)

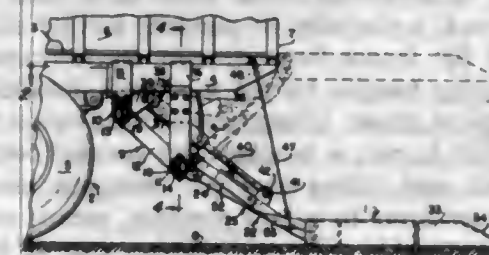


1. The combination comprising a pair of vehicles adapted for relative movement along a track to and from collision with each other, a load carrier supported on one said vehicle for movement between a load supporting position and a load dumping position, releasable latch mechanism normally maintaining said carrier in load supporting position, an upwardly opening load receiving body carried by the other said vehicle for movement beneath said carrier and into substantial vertical registry therewith at the time of a collision between said vehicles, latch release means carried by the said other vehicle for engaging and releasing said latch mechanism incident to collision between said vehicles, a reversible propelling means operatively associated with one of said vehicles, and normally propelling its associated vehicle toward the other vehicle, and a control mechanism for said propelling means operative to reverse said propelling means responsive to a collision between said vehicles.

2,822,938

LIFT TAIL GATE

Arwin E. Ormsby, Oakland, Calif.
Application January 9, 1956, Serial No. 557,963
6 Claims. (Cl. 214-77)



1. A lift tail gate for vehicles comprising a horizontally disposed bar adapted to be secured transversely of the frame of a vehicle under the rear of the bed thereof, a pair of spaced parallel-acting linkages connected at one end to said bar by pivots for swinging through generally vertical arcs, a horizontal platform extending between and connected at its forward edge by pivots to the other end of said pair of linkages for swinging by said pair from a position coplanar and adjacent the loading end of the bed of the vehicle to a grounded position spaced below said bed, means connected between said vehicle and said linkages for so swinging said platform, means for securing said bar to the frame of a vehicle including a pair of sleeves slidable on said bar, brackets attached to said sleeves and adapted to be secured to longitudinal frame members of said vehicle, and removable means for securing said sleeves to said bar whereby said sleeves and said brackets may be adjusted to fit varying spacings of said longitudinal frame members before securing said removable means.

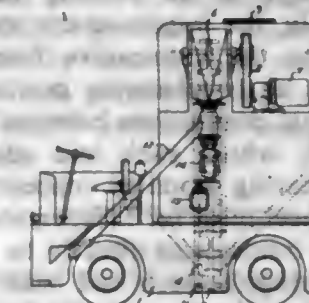
2,822,939

ALUMINA CHARGING HOPPER TRUCK

Koichi Watanabe and Kosuke Asano, Ibaragi-gun, Shizuoka-ken, Japan, assignors to Nippon Light Metal Co., Ltd., Tokyo, Japan, a company of Japan
Application November 14, 1955, Serial No. 546,704
Claims priority, application Japan April 25, 1955
6 Claims. (Cl. 214-83.36)

1. A vehicle for conveying bulk material comprising a mobile body having a normal unloaded center of gravity,

a hopper mounted on said body with its lower part below said unloaded center of gravity of said mobile body, an air mixing chamber having a material discharge at its lower end but above the lower part of said hopper and carried by said vehicle, a conveyor having a material moving surface, a conveyor loading station at the bottom

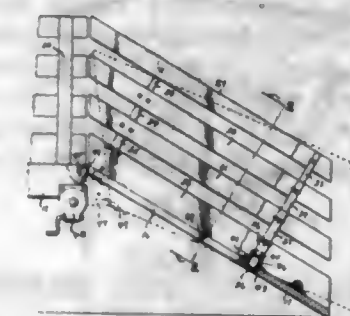


of said hopper, a housing of continuous uniform cross section surrounding said conveyor from the position of the loading station to said air mixing chamber, said conveyor material moving surface extending upwardly into said air mixing chamber so that the material may spill off and be aerated before falling to said discharge.

2,822,940

COLLAPSIBLE ANIMAL RAMP FOR USE WITH TRUCKS AND THE LIKE

George E. Kopaska, Guthrie Center, Iowa
Application February 20, 1956, Serial No. 566,544
4 Claims. (Cl. 214-85)

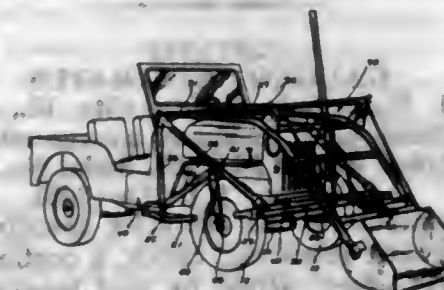


1. In a collapsible ramp, an inclined floor portion, a wing for each side of said floor portion, hinge means units for securing said two wings to the two side edge portions of said floor portion, a locking means incorporated in each hinge means unit for holding the wing to which it is operatively secured in a vertical condition at times, and a means for detachably securing the upper end of said floor portion to a vehicle bed.

2,822,941

LOAD CARRYING VEHICLE

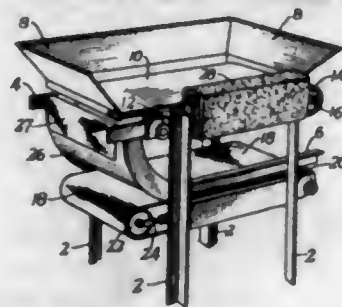
Glenn P. Harter, St. Louis Park, Minn., assignor to Minneapolis Freeman Mfg. Co., Minneapolis, Minn., a corporation of Minnesota
Application February 7, 1955, Serial No. 486,479
9 Claims. (Cl. 214-131)



1. In a steerable automotive vehicle adapted to carry a load on the steered end, said vehicle having a longitudinally extended automotive frame, wheels on the frame supporting it for movement, at least some of said wheels being connected to a source of power on the frame for

moving said frame, and having at least two transversely opposite wheels mounted on a cross axle at the steerable end of the frame, said cross axle having upright king pins at opposite ends thereof, having stub axles pivotally mounted thereon for steering movement and bearings on said stub axles and wheel hubs and wheels rotatably carried by said bearings, all for steering the frame as it is moved automotively, the improvement comprising a load frame connected to the automotive frame so as to be carried thereby in an overhanging position beyond said cross axle, additional connections between said load frame and each steerable wheel, each said additional connection including a bearing mounted concentrically with one of the steerable wheel hubs for independently transferring some of the load frame load directly to the hub, and a self-aligning mounting for each said bearing, said mounting being attached to the lower end of a strut extending upwardly from said self-aligning mounting for each said bearing, said mounting being attached to the lower end of a strut extending upwardly from said self-aligning bearing, said strut being pivotally attached at its upper end to said load carrying frame.

2,822,942
ROLL DUMP AND TURN OVER
William E. Lanham, Atlanta, Ga.
Application August 23, 1954, Serial No. 451,642
5 Claims. (Cl. 214-308)

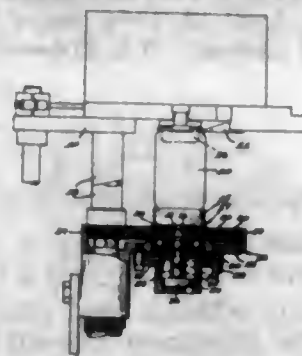


1. In an apparatus for bumping, dumping, and turning rolls, buns, and the like from a pan, the combination of a frame, an upper endless belt mounted upon said frame to move in one direction, a padded bumper block mounted on the frame at one side of the belt on which the pans may be bumped to loosen the product therein, side walls inclined downwardly and inwardly toward the belt and providing a support for the edges of the pan above the belt for dumping the product in inverted position thereon, a second endless belt mounted on said frame below the first belt to move in the opposite direction therefrom, and a chute having a wire mesh surface and spaced at its upper end from the end of the upper belt and extending downwardly and rearwardly toward the end of the second belt to provide a guiding surface for turning the product from inverted to upright position and deliver the product onto the lower belt.

2,822,943
GAUGING APPARATUS
William J. Fedorchak, Granite City, Ill., assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application August 26, 1955, Serial No. 530,821
4 Claims. (Cl. 214-340)

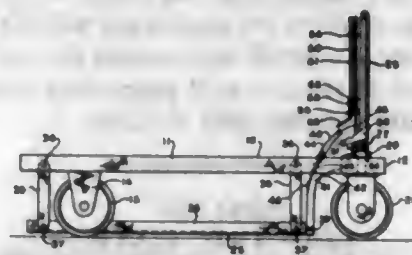
1. In apparatus of the character described, a chuck, a bracket spaced below said chuck, a continuously rotating ring-like driver carried by said bracket, an article supporting pad coaxial with the driver and chuck and normally spaced upwardly out of contact with the driver, a coil expansion spring normally holding the driver and pad spaced apart, said bracket, being movable vertically upward toward the chuck a distance slightly more than

is necessary to bring the upper end of an article resting upon the pad into contact with said chuck, whereby to



compress the spring and effect operative engagement between the pad and driver and thereby rotate the article.

2,822,944
LIFT TRUCK
Clarence A. Blomgren, Portland, Oreg.
Application September 8, 1955, Serial No. 533,156
5 Claims. (Cl. 214-390)



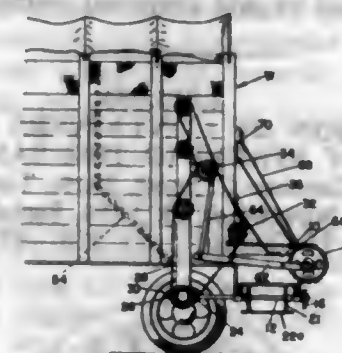
1. A lift truck comprising a U-shaped truck frame and a U-shaped lift frame, said truck and lift frames being adapted to surround three sides of a load to be lifted and carried, a plurality of pendent hanger arms suspending said lift frame beneath said truck frame, a pulling and steering tongue having a pivotal mounting to swing in a vertical plane, lifting and locking arms on the front of said lift frame, a bracket arm on said tongue engageable with said lifting arm for swinging said lift frame and hanger arms to raised position, means on said truck frame engageable with said locking arm to hold said lift frame in raised position, a first push rod on said tongue arranged to engage said lifting arm with said bracket arm, and a second push rod on said tongue arranged to disengage said locking arm from said truck frame.

2,822,945
TRACTOR-TRAILER DRAWBAR COUPLINGS
Edward F. Duffy, La Crosse, Wis., assignor to La Crosse Trailer Corporation, La Crosse, Wis., a corporation of Wisconsin
Application May 8, 1957, Serial No. 657,953
10 Claims. (Cl. 214-505)



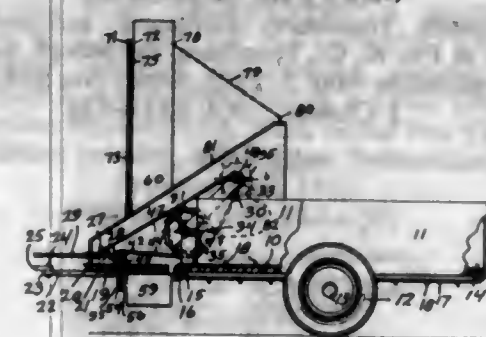
1. In a tractor-low bed trailer assemblage, connecting means interposed therebetween comprising, a detachable gooseneck drawbar for removable connection with complementary connecting means on the tractor, the front end portion of the low bed trailer being provided with a fifth wheel and a forwardly projecting horizontal dowel, the lower rear end portion of the gooseneck drawbar having pivotally mounted thereon for swinging movement in a vertical plane a hooking element to engage the trailer-carried dowel, said lower rear end portion of the gooseneck drawbar also having pivotally mounted thereon a bearing plate assemblage with a kingpin depending therefrom which is engageable with the trailer-carried fifth wheel.

2,822,946
FORAGE WAGONS
Gilbert J. Van Drise, Two Rivers, Wis.
Application February 13, 1956, Serial No. 565,180
3 Claims. (Cl. 214-519)



1. In combination with a storage chamber having a material discharge end, unloading apparatus for said material which comprises, a plurality of vertically spaced auger rollers rotatably secured to opposed walls of said chamber adjacent said discharge end for advancing and treating said material, a discharge conveyor carried by said chamber exteriorly of said discharge end for receiving treated material from said rollers and conveying the same transversely away from said chamber, a movable follower disposed normally adjacent the end of said chamber opposed to said discharge end, the lower portion of said follower being nearer the discharge end than the upper portion thereof, rotatable reel means carried by said chamber exteriorly of said discharge end, crank means operatively secured to one of said rollers for rotating said reel means, pull cable means connected between said follower and said reel to pull said follower toward said discharge end as said reel is rotated whereby to advance material from the interior of said chamber to said rollers at the discharge end of said chamber, driving means for said rollers and means for operatively connecting said driving means to the power take-off of a tractor.

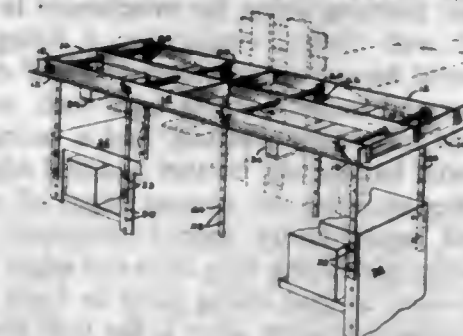
2,822,947
COMBINATION MANURE SPREADER, FEED MIXER AND ELEVATOR
Wayne V. Van Wyhe, Lester, Iowa
Application August 30, 1956, Serial No. 607,135
1 Claim. (Cl. 214-522)



A device of the character described comprising a box, a conveyor at the bottom of said box to convey material forwardly, an elevator unit comprising a horizontally positioned elevator portion communicating with the forward end of said box, a further elevator portion communicating with said elevator portion, said further elevator portion being normally inclined angularly upwardly and having an upper opening for discharging material therethrough, said further elevator portion being pivotally secured to said horizontal elevator portion, a forward open framework attached to said box, means for attaching a drawing tractor to said framework, said horizontal elevator portion being secured to said framework, a further vertical framework, transverse shafts in said vertical framework including paddles attached thereto for

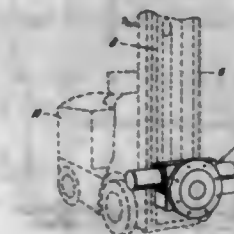
mixing material, means for driving said shafts, said shafts being detachably secured to said vertical frameworks whereby manure spreading attachments can be supported thereby and operated, said elevator portions having conveyor members, said conveyor members communicating with each other to transfer material, said open framework member providing means for discharging manure downwardly therethrough when said horizontal elevator portion has been removed, means for securing said further elevator portion in vertical position when pivoted upwardly.

2,822,948
BIN LIFTING DEVICE
James Harvey Carraway, Norfolk, Va.
Application April 5, 1957, Serial No. 651,114
1 Claim. (Cl. 214-621)
(Granted under Title 35, U. S. Code (1952), sec. 266)



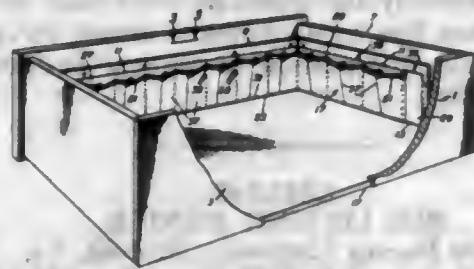
A bin lifting device comprising a rigid rectangular frame, a plurality of rods extending transversely across said frame and fastened thereto, a pair of straps connected to each of said rods, means associated with each strap for attaching same to a storage bin, and a pair of skids extending transversely across the bottom of said frame.

2,822,949
FLUID-PRESSURE ROTATING CARRIAGE FOR LIFT TRUCKS
Stuart W. Sinclair, Houston, Tex., assignor to Anderson, Clayton & Co., Houston, Tex., a corporation of Delaware
Application June 17, 1953, Serial No. 362,233
7 Claims. (Cl. 214-701)



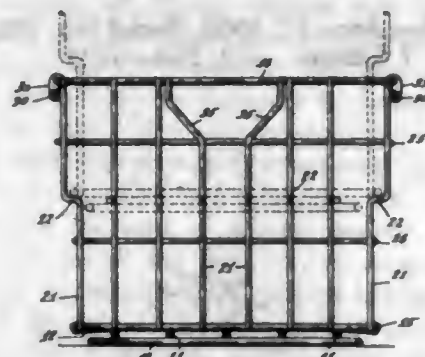
1. The combination with an industrial lift truck including an upright hoist assembly of a rotating load-engaging assembly, said rotating load-engaging assembly comprising, a housing fixed to the hoist assembly whereby the housing is adapted to be raised and lowered, a cylinder assembly carried by and extending completely through the housing, an elongated piston slidably disposed in the cylinder assembly, a rack on a side of the piston, a pinion chamber in the cylinder assembly within the housing, a pinion shaft journaled in the housing and extending proximate the rack, a pinion on the shaft meshing in the pinion chamber with the rack, means proximate each end of the cylinder assembly to provide hydraulic pressure to the piston for reciprocating the piston and thereby driving the pinion and pinion shaft, a rotary table connected to the pinion shaft and disposed exteriorly of the housing, and load-engaging means connected to the rotary table.

2,822,950
POCKET FORMING LINING FOR DRESSER
DRAWERS AND THE LIKE
 Taimi E. Hill, Fitchburg, Mass.
 Application June 14, 1954, Serial No. 436,657
 2 Claims. (Cl. 217-3)



1. A pocket forming lining for attachment in a drawer to a vertical wall thereof comprising a lining strip of flexible material having top, bottom and end edges, and adapted to extend endwise along said wall, and be attached thereto in upright position, and a facing strip of flexible material having top, bottom and end edges, longitudinal stitches securing the bottom edges of said strips together, and equidistantly spaced transverse lines of stitches securing said facing strip at its end edges and intermediate the same to said lining strip to form therewith side-by-side vertical pockets open at the tops thereof, said facing strip being pleated transversely midway between said transverse lines of stitching with the pleats stitched together at the bottoms of the pockets and forming loose reverse folds above said bottoms to provide for limited expansion of said pockets, said top and end edges of said strips having bindings attached thereto to reinforce the same.

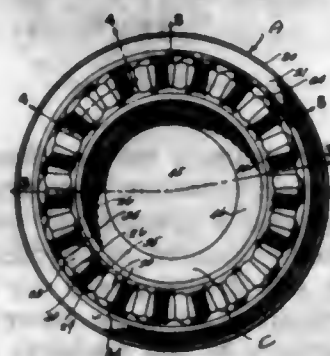
2,822,951
CASE
 Anthony S. Tartaglia, Seelyville, Ind.
 Application December 10, 1956, Serial No. 627,482
 4 Claims. (Cl. 220-19)



1. A case, comprising a rectangular bottom frame, cross members extending on and across said bottom frame and secured thereto, the ends of said cross-members projecting beyond opposite sides of said bottom frame, a lower peripheral frame on and secured to the projecting ends of said cross members, side members extending upwardly from said lower peripheral frame, said side members lying against and being secured to the inner side of such lower peripheral frame and being offset outwardly intermediate their height to provide a shoulder adapted to be engaged by and to support the lower peripheral frame of another similar case, an upper peripheral frame surrounding and secured to the upper ends of the side members, and a pair of abutment members pivotally mounted on opposite sides of said upper peripheral frame, each of said abutment members being swingable from a first position outside the case to a second position in which it lies against the inner faces of the side members, said abutment members extending along the sides of the frame

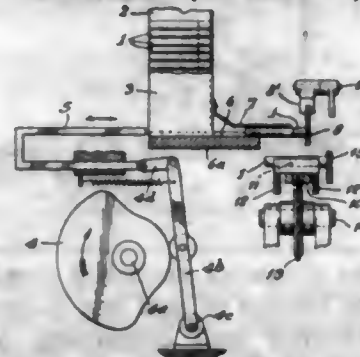
on which they are pivotally mounted and being of such diameter that when in their respective second positions the bottom frame of a superposed case can pass between them while the lower peripheral frame of such superposed case will not pass between them but will instead rest on and be supported by said abutment members.

2,822,952
CONSTRUCTION OF CONTAINERS AND SYSTEM
OF STACKING THE SAME
 Clarence C. Scott, Paris, Tenn.
 Application November 15, 1954, Serial No. 468,820
 10 Claims. (Cl. 220-97)



1. A container for receiving food stuffs and the like comprising a body wall having end walls arranged transverse thereto, each of the end walls being similarly formed and each including a rim portion sealed upon the margin of the body wall with an adjacent annular sloping inset wall portion and inwardly of said wall portion having an annular series of alternating protrusions and depressions with the protrusions projecting above the outermost edge of the rim, each end wall both radially inwardly and outwardly of the annular series of protrusions and depressions having narrow annular flat horizontal bands the outer surfaces of which lie flush with the top edging of the rim, the central portion of each end wall including an annular sloping wall portion joined to the innermost horizontal band and a central flat horizontal portion appreciably set inwardly from the outermost edging of the rim.

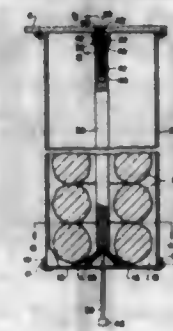
2,822,953
BRAKING DEVICE FOR A CIGARETTE
MAKING MACHINE
 Heinz Kunath, Hamburg, Germany, assignor to Kurt Körber & Co. K. G., Hamburg-Bergedorf, Germany
 Application May 3, 1955, Serial No. 505,816
 2 Claims. (Cl. 221-93)



1. In a cigarette machine, a storage container for cigarettes, a substantially horizontal bottom in said container, a plurality of parallel grooves in said bottom each adapted to receive a cigarette therein, a side wall in said container substantially perpendicular to said grooves and having its lower end at a distance above said bottom so as to leave an opening between the bottom and said side wall, an extension of said grooved bottom outside said side wall opening, conveyor means adjacent the outer edge of said extension and at a lower level than the same and adapted to move transversely of said grooves, elongated recesses in said conveyor transverse

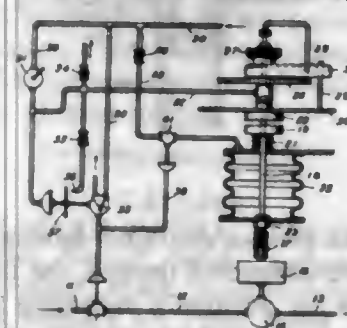
to the direction of movement thereof and each adapted to receive a cigarette, ejector means associated with said container and adapted to eject cigarettes therefrom in said grooves through said opening, and a soft felt disc supported only along its upper edge above said conveyor means in the path of movement of said ejected cigarettes whereby said ejected cigarettes are retarded in their movement and deflected downwards towards said conveyor means by said soft felt disc.

2,822,954
DOUGHNUT DISPENSER
 John B. Taylor, Vancouver, British Columbia, Canada
 Application June 21, 1954, Serial No. 438,159
 14 Claims. (Cl. 221-197)



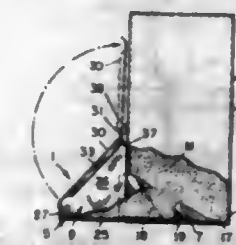
1. A dispenser for annular doughnuts comprising a vertical housing closed at its upper end, a vertical rod suspended within and extending longitudinally of the housing on which doughnuts may be stacked and extending through the holes thereof, said rod being hollow at its lower end, a plunger slidably mounted in the hollow end of the rod and extending outwardly therefrom, a plurality of gripping arms connected at one end to the plunger near the rod end at one time lying in a substantially horizontal plane with their free ends radiating from the plunger a considerable distance to prevent doughnuts from dropping off the rod, said plunger being movable longitudinally of the rod to draw the arms against the latter and move them longitudinally therein to release the doughnuts, said arms returning to the horizontal plane when the plunger moves in the opposite direction, a closure for the bottom of the housing, and means normally retaining the closure in its closed position.

2,822,955
APPARATUS FOR DELIVERING A PREDETERMINED QUANTITY OF A FLOWING LIQUID
 Viktor Wohler, Therwil, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm
 Application September 6, 1955, Serial No. 532,554
 Claims priority, application Switzerland September 3, 1954
 5 Claims. (Cl. 222-20)



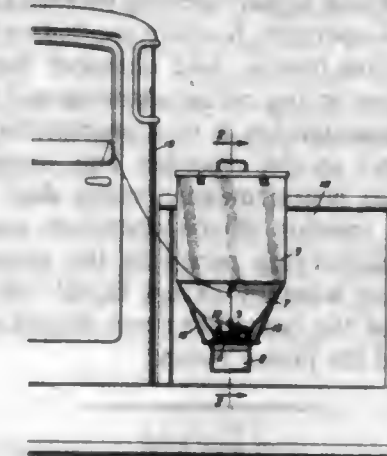
1. Apparatus for automatically delivering a predetermined quantity of a flowing liquid through a liquid supply circuit, comprising, a liquid supply valve in the supply circuit operable by fluid pressure from outside the supply circuit, a rotary liquid volume meter in the liquid supply circuit, a nozzle-valve mechanically coupled to said meter and operated thereby when a predetermined quantity has been delivered, a fluid operated relay valve

2,822,956
DEVICE FOR DISPENSING PULVERIZED
MATERIALS FROM CONTAINER
 Bernard Menchen and Walter Deen Finney,
 Los Angeles, Calif.
 Application March 6, 1956, Serial No. 569,906
 1 Claim. (Cl. 222-81)



In a dispensing device for piercing a side wall of an upright container of pulverized material, a hollow body having a front portion and a rear portion, said front portion having a horizontal bottom wall, upright side walls, an upright front wall and a top wall defining a diagonally upwardly opening material receptacle, the inner edge portion of said side and top walls having lateral flanges disposed to engage the outer surface of said container, and a receptacle cover hingedly connected to said top wall, and said rear portion comprising a horizontal bottom wall having a container-piercing pointed outer edge portion and parallel side walls having sloped relatively sharp container cutting top edge portions; said rear portion defining a horizontally disposed material passageway of a depth less than the major depth of said receptacle and communicating with said receptacle whereby when said rear portion is within said container the material will flow into said receptacle without the necessity of tilting said container.

2,822,957
STOCK FEED DISPENSING APPARATUS
 Lloyd L. Johnson, Elmore City, Okla.
 Application February 27, 1956, Serial No. 567,934
 3 Claims. (Cl. 222-176)



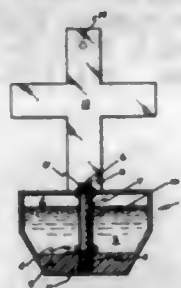
1. In combination, a vehicle, and a stock feed dispensing mechanism supported on the body of the vehicle and comprising a hopper, a delivery spout extending in an outwardly inclined position at the lower portion of the hopper, a channel-shaped chute at the delivery end of the spout, a door hingedly connected to the upper edge of the spout and having its free end swingable inwardly and outwardly in the chute against the delivery end of

the spout to close the latter, an arm extending upwardly at the hinged edge of the door, and remotely actuated cable and pulley means connected to the arm and to the spout for opening the door.

2,822,958

SELECTIVELY OPERABLE FOUNTAIN

Hilbert J. Merkley, Huntingburg, Ind., assignor of one-tenth to Gadget-Of-The-Month Club, Inc., Los Angeles, Calif., a corporation of California
Application March 7, 1955, Serial No. 492,503
4 Claims. (Cl. 222-205)



1. A selectively operable fountain comprising: a container having an interior cooperable for carrying a liquid therein; selectively manually operable pump means carried by the container and having an inlet end thereof in communication with the interior of the container and having an actuating and outlet end thereof provided with a finger-accessible liquid-carrying recess at the top thereof in a manually accessible position exterior of said container whereby selective manual actuation of said pump means will pump a selected quantity of liquid from the interior of said container into said finger-accessible liquid-carrying recess in said outlet end of said pump means exterior of said container means for use by the operator of said pump means, said pump means comprising a chamber provided with inlet port means communicating said chamber with the liquid in the interior of the container and additionally including selectively manually operable piston means slidably mounted for reciprocation with respect to the interior of said chamber and provided with an actuation end positioned exterior of said chamber and exterior of said container and having a finger-accessible liquid-carrying recess therein for convenient digital access, said piston means being provided with duct means communicating the interior of said chamber with said finger-accessible liquid-carrying recess in said actuation end of said piston means whereby actuation of said piston means into said chamber will effectively pump liquid through said duct means into said finger-accessible liquid-carrying recess against a digital extremity of the operator, forcibly applied to the actuation end of said piston means, said chamber being also provided with biasing spring means abutting said piston means and normally maintaining it in a predetermined relationship with respect to the chamber and opposing manual actuation of said piston means; return duct means communicating the interior of the container and the finger-accessible liquid-carrying recess in the actuation end of the piston means whereby excess liquid will be returned to the interior of the container upon digital release of the actuating end of the piston means.

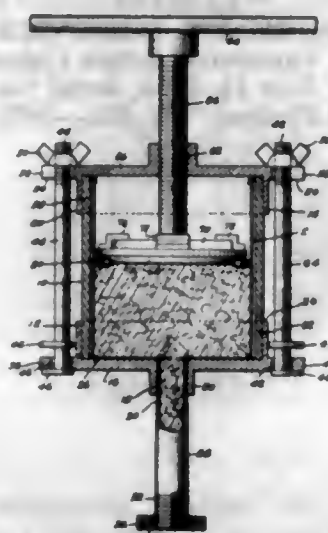
2,822,959

COMPOUND INJECTOR

Robert M. Soehnlen, Beloit, and Eugene Alters, Fond du Lac, Wis.
Application June 10, 1954, Serial No. 435,726
3 Claims. (Cl. 222-327)

1. A device for removing a plastic material from its container comprising a cylindrical housing having an outlet formed in one end wall thereof and a plunger operably mounted in the other end wall thereof, said other end wall being removably mounted, a gasket covering the in-

side surface of said one end wall, said gasket being perforated to provide communication through said outlet, said housing being formed to receive the container with the top thereof removed and the open end thereof positioned against said gasket, said plunger being formed with a flat working surface merging into a bevelled edge, a split ring adapted to be engaged by said bevelled edge of said plunger, said plunger and said ring being proportioned to fit inside the container side wall when the bottom thereof is separated from the container side wall and said one end

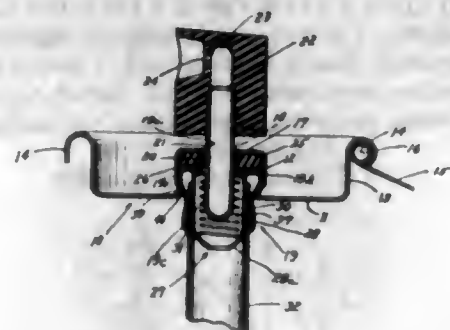


wall is secured in place over the container with said working surface of said plunger positioned adjacent the detached bottom, said ring being positioned between the detached container bottom and said plunger, and means for forcing said plunger against the detached container bottom to force the bottom toward said one end of said housing, said bevelled edge forcing said ring against the inside surface of the side wall of the container and over the space between the detached container bottom and the container side wall.

2,822,960

VALVE STRUCTURE

Michael C. Lengel, Bridgeport, Conn.
Application March 7, 1956, Serial No. 570,062
8 Claims. (Cl. 222-394)

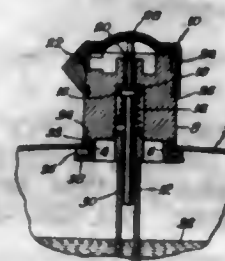


1. For use in an aerosol container having a valve means and a syphon tube connected thereto, the improvement of a securing means for positively mounting the tube to the valve means so as to prevent any possible separation of the tube therefrom, said securing means comprising an eyelet having inner and outer depending spaced wall portions, the outer wall portion being provided with a plurality of spaced, longitudinally extending slots, said inner depending wall portion adapted to be received in the end of said tube so that the tube is disposed between said inner and outer wall portions, and said outer wall portion being inwardly bent to securely grip said end of the tube between the depending walls of said eyelet.

2,822,961

AEROSOL BOMB

Nels W. Seaquist, Crystal Lake, Ill.
Application June 25, 1954, Serial No. 439,247
8 Claims. (Cl. 222-397)

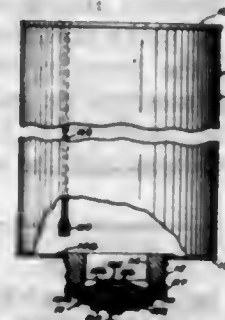


1. An aerosol bomb comprising a container member containing fluid to be dispensed under superatmospheric pressure, a valve body having a flange extending into an opening of said container member, a compressed resilient annular gasket tightly sleeved over said flange and sealing said opening at one side thereof, means for maintaining said gasket under compression comprising a fusible washer which fuses at a temperature below that at which said pressure causes said container member to explode, said flange having a crimped portion at its inner end maintaining said gasket and washer under compression, normally closed releasable valve means in said valve body, and a delivery tube encircled by said gasket and by said washer, said tube extending approximately to the bottom of the container and being connected to the valve means to deliver said fluid therethrough upon release of said valve means.

2,822,962

DISPENSER WITH VARIABLE RATE FLOW CONTROL

Edward J. Poltras, Holliston, Mass.
Application April 1, 1955, Serial No. 498,620
19 Claims. (Cl. 222-481)



1. A flow control assembly comprising a pair of plates assembled face-to-face one said plate having a passage for access and the other a passage for discharge of fluid supplied to said assembly, a capillary groove formed at and between the opposed faces of said plates, and means for releasably clamping said plates under spring tension whereby said groove is fluid sealed and whereby the plates are shiftable for communication of said passages with varying lengths of said groove.

2,822,963

CONTAINER PANEL STRUCTURE

Carroll R. Alden, Detroit, Mich., assignor to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan
Application January 15, 1952, Serial No. 266,572
10 Claims. (Cl. 222-530)

1. A panel structure for a container of paperboard or the like which is self-sustaining in shape, said panel structure comprising the combination of two adjacent planar panels defined at least in part by an inner ply and an outer ply common to both, said panels being separated by a common score line and their inside faces subtending an arc of at least 90 degrees, one said panel being a sidewall panel, the other said panel having at least a

portion located above the normal filling line of the container and a pouring opening incised in the inner ply of such portion, a pouring weir in said inner ply of said other panel and having a sill with a relieved portion, a resilient pouring lip fixed to said other panel in proximity to said weir so as to be traversed by the flow of fluid over said weir sill, said pouring lip being substantially coplanar with said outer ply and having a dimension measured laterally of said pouring opening at least equal

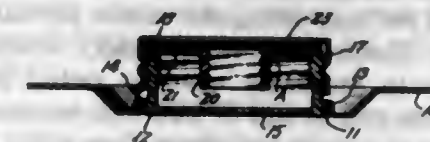


to the lateral dimension of said relieved portion, said pouring lip also having a free downstream edge portion extending across and beyond said common score line, and a lift tab hinged to said outer ply of said other panel and initially disposed in overlying sanitary protective relation with said pouring weir and said pouring opening, said resilient pouring lip being adapted upon elevation of said lift tab to flex so as to bring the free downstream edge on said pouring lip into spaced apart relation with both said side panel and said other panel.

2,822,964

CLOSURE FOR CONTAINERS

Roscoe W. Shore, Long Island City, N. Y.
Application February 14, 1956, Serial No. 565,361
6 Claims. (Cl. 222-541)



2. A closure and discharge device for use with a container wherein an outlet defining collar projects from a portion of a wall thereof, said device comprising a bushing having a transverse partition of readily frangible material, means including a clamping ring whereby said bushing is clamped in operative sealing position on said collar, said bushing having an open outer end portion exteriorly adapted to receive a cap and interiorly threaded to receive a power discharge fitting, a gravity discharge adapter comprising a laterally extending flange and a collar supported on said flange and interiorly threaded to receive a gravity discharge fitting, a cap having a peripheral flange portion adapted for operative engagement with an exterior portion of said bushing and an end wall portion cooperating with said bushing and said adapter to releasably retain said adapter in operative position across the open outer end portion of said bushing, when the container contents are to be drawn out through a gravity discharge fitting.

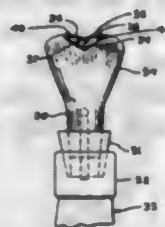
2,822,965

POURING SPOUTS FOR LIQUIDS

Parker S. Smith, Metamora, Ohio
Application June 23, 1954, Serial No. 438,648
5 Claims. (Cl. 222-571)

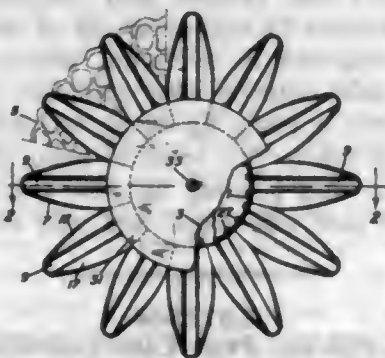
1. A dripless enclosed pouring spout for liquids including substantially flat upper and lower surfaces and side surfaces terminating in spaced apart substantially flat upper and lower lips which are connected at their lateral edges and forming a liquid pouring opening that is appreciably wider than it is high, at least one of said sub-

stantially flat upper and lower lips being centrally provided with a V-slot recess wherein the included angle of the V-slot recess does not exceed substantially a right angle, the liquid, upon cessation of pouring, withdrawing



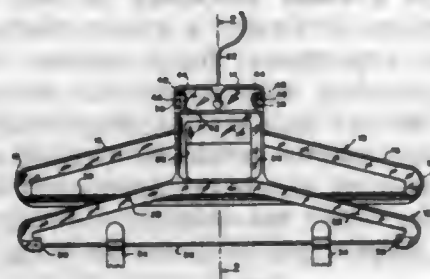
into the pouring opening and the surface thereof splitting along a plane generally bisecting the angle of the V-slot recess whereby the liquid is retracted into the spout without dripping.

2,822,966
DOILY SHAPING DEVICE
Lowell Burks, Louisville, Ky.
Application October 7, 1955, Serial No. 539,078
8 Claims. (Cl. 223—35)



1. A device for stretching and forming circular doilies to provide the same with radial folds and a scalloped edge comprising an elongated cylindrical hub member having an upper end for supporting the center portion of a doily, fold-forming channel members rigidly attached to said hub member in upwardly opening radial position and extending from end to end of said hub member to receive edge portions of a doily and form deep tucks therein, and stretching and manipulative tucking members for insertion in the forming members to tuck and stretch said edge portions into the fold-forming members.

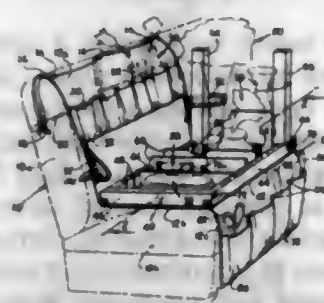
2,822,967
GARMENT SUPPORTING DEVICE
Henry Spitz, Great Neck, N. Y.
Application August 2, 1954, Serial No. 447,030
3 Claims. (Cl. 223—88)



1. A garment supporting device comprising a pair of molded synthetic plastic hanger members, one of said hanger members having a central neck portion and shoulder portions extending from each edge of said neck portion and having a pair of spaced integrally formed ears extending perpendicularly from the upper portion of a side face of its neck portion, the other of said hanger members having a central neck portion and shoulder portions extending from each edge of its neck portion and having a pair of spaced, integrally formed ears extending upwardly from the upper edge of its neck portion, the

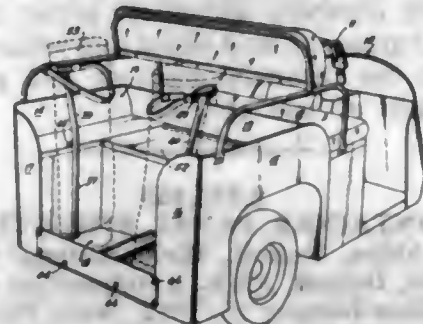
ears of each of said hanger members having horizontally aligned perforations formed therethrough and arranged to interfit closely with the ears of the other, and pivot pins connecting said ears by said perforations for pivotally supporting said hanger members in spaced parallel overlying relation to one another.

2,822,968
FLOWER ARRANGEMENT CARRIER
William L. Jackson, Greenville, S. C.
Application September 17, 1954, Serial No. 456,746
3 Claims. (Cl. 224—29)



1. A device for carrying flower arrangements and accessories for transportation on vehicle seats comprising a length of textile material having an upper portion adapted to cover a major portion of the front portion of a seat back, an intermediate portion adapted to cover the seat portion and a front portion overlying the front of the seat, adjustable means for securing the upper portion of the textile material to the seat back, a tray having a plurality of spaced vertical slots in the inside edges of opposite sides of the tray, a plurality of slats adapted to be removably positioned in said slots for confining vases and the like therebetween, a plurality of standards adapted to be removably positioned in the corners of the tray and adjustable means carried by said upper portion for securing vases and the like to said standards whereby, a large number of displays and accessories may be carried without danger of being disturbed, and whereby said tray is supported at the front by the front of the seat and at the rear and intermediate portions by the textile material, which textile material is held in frictional engagement between the tray and the seat at the front portion of the seat.

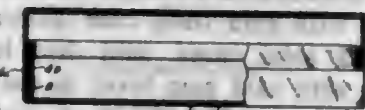
2,822,969
GOLF BAG LOCATING AND RETAINING CARRIER MEANS FOR VEHICLES
Wayne L. Cooper, Lincoln, Nebr., assignor to Cushman Motor Works, Inc., Lincoln, Nebr., a corporation of Nebraska
Application April 12, 1955, Serial No. 500,970
5 Claims. (Cl. 224—42.32)



1. For use with a vehicle adapted to travel about a golf course carrying both players and their golf bags, said vehicle having an open top receptacle for receiving golf bags therein, a golf bag locating and anchoring device comprising a base having two upwardly convergent flat walls, said base being adapted to seat upon the bottom of said receptacle, golf bag locating means upstanding from said base at opposed ends thereof, and golf bag

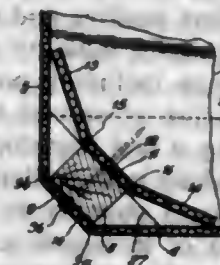
retaining means carried by each said locating means adapted to retain each golf bag firmly against its base wall and its locating means.

2,822,970
CONTAINER
William H. Froggatt, Hackensack, and Louis Tacke, Rutherford, N. J., and William J. Conniff, Valley Stream, N. Y., assignors to Shoup-Owens, Inc., Hoboken, N. J., a corporation of New Jersey
Application August 24, 1955, Serial No. 530,294
11 Claims. (Cl. 229—14)



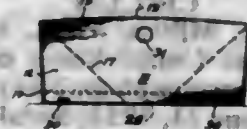
6. A container comprising a double wall including inner and outer layers of paperboard, the inner layer projecting beyond an edge of the outer layer, and a covering of sheet material for said wall, said covering comprising a first portion adhesively attached to the outer side of the innermost layer adjacent said edge of the outer layer and extending between said inner and outer layers, and a second portion forming a fold with said first portion and adhesively attached to the inner side of the outer layer adjacent said edge and to said edge, said portions cooperating to hold said layers firmly in a fixed relationship determined by the double thickness of the sheet material forming said fold.

2,822,971
SHIPPING CRATES
Armin Elmendorf, Winnetka, Ill.
Application November 12, 1954, Serial No. 468,183
4 Claims. (Cl. 229—23)



1. A shipping crate consisting of a wood base, a collapsible fibreboard tube and a flat fibreboard top fastened to flanges of the tube with its corners resting on flat sided wood corner columns, the lower ends of the columns resting in recesses in the wood base, each wood column being fastened to the inside of the tube on one flat side, the tube being scored along spaced lines aligned with the edges of the wood columns, and a similarly scored fibreboard strip fastened to the opposite side of each of the wood columns.

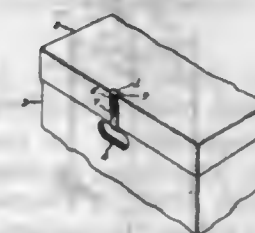
2,822,972
CARTON FOR FRUIT OR THE LIKE
Ralph S. Hartley, Concord, Calif., assignor to Fibreboard Paper Products Corporation, a corporation of Delaware
Application November 14, 1955, Serial No. 546,371
4 Claims. (Cl. 229—23)



1. A carton blank comprising a foldable sheet of paperboard, two pairs of opposite score lines defining a top forming portion in said sheet, each line of one of said opposite pairs of lines being inwardly bowed toward the other of said pair; two pairs of opposite body forming side panels hingedly secured to said top form-

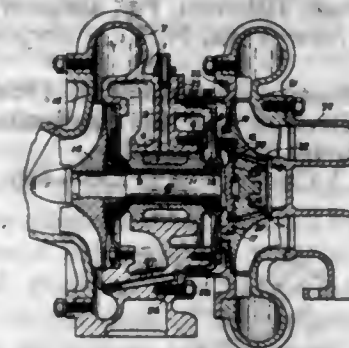
ing portion along said score lines; each panel of a first pair of said side panels including inwardly foldable end portions each defined by a score line running obliquely from an outer edge of said panel to a point adjacent the nearest end of said score line by which said panel is hingedly secured to said top forming portion; a second pair of said opposite panels each having a tab portion hingedly secured to each of its ends, each of said tab portions being such that upon one of said second pair of side panels being folded inwardly over said top forming portion an adjacent inwardly foldable portion of one of said first panels is overlappingly foldable upon said tab portion.

2,822,973
BOX LID ATTACHMENT CLIP
James E. Armstrong, Jacksonville, and Leon E. Van Zile, Atlantic Beach, Fla., assignors to St. Joe Paper Company, Jacksonville, Fla., a corporation of Florida
Application May 27, 1953, Serial No. 357,748
9 Claims. (Cl. 229—47)



1. A clip for attaching a box lid to a box body and comprising: a pliable sheet metal strap member reduced in width at one end to form a longitudinally extending tang portion and having a slot of slightly more than the width of said tang adjacent the other end, a tab pressed out of said member approximately midway between said tang and slot, said tab comprising a portion connecting with said member and an arm portion extending from said connecting portion toward said slotted end and in parallel spaced relation to the adjacent portion of said member.

2,822,974
TURBINE-DRIVEN SUPERCHARGER
Alfred Mueller, Penwortham, Preston, England, assignor to Leyland Motors Limited, London, England, a British company
Application April 5, 1954, Serial No. 420,827
Claims priority, application Great Britain April 7, 1953
1 Claim. (Cl. 230—116)



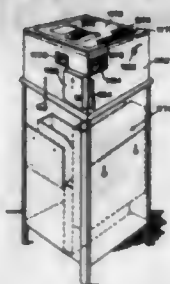
An exhaust-gas-turbine-driven-compressor comprising a compressor housing of light metal, bearings mounted therein, a shaft carried in said bearings, a compressor impeller within said housing upon one end of said shaft, a turbine housing of refractory metal, a thin shell of metal uniting said turbine housing to said compressor housing and closely surrounding a part of said compressor housing whereby an annular channel of small radial depth is formed between them, a thin perforated plate of metal upon the other end of said shaft, a turbine impeller screwing upon the periphery of said plate and having a hub elsewhere spaced from said plate with passages there-

through extending from the space between said hub and said plate, a heat shield extending radially from said channel to said shaft between said thin perforated plate and the compressor housing, said compressor housing having channels therein extending from the delivery side of the compressor to the channel between the housing and said shell, whereby air is caused to flow over the inner surface of said shell, over said heat shield, over and through said thin perforated plate and over and through the impeller hub.

2,822,975

TICKET ISSUING MACHINE

Reuben H. Helsel, Long Island City, N. Y., assignor to General Register Corporation, Long Island City, N. Y., a corporation of New York
Original application December 29, 1948, Serial No. 68,001. Divided and this application August 22, 1951, Serial No. 243,095
15 Claims. (Cl. 235—31)

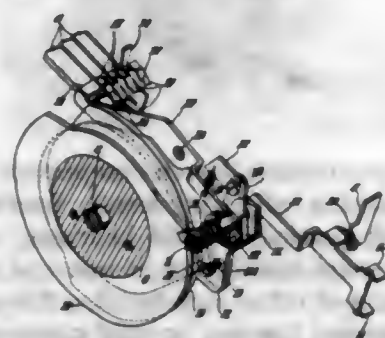


5. A ticket issuing machine comprising means for advancing a ticket supply strip, an accounting mechanism including a totalizer, means for receiving a slug having a plurality of printing means thereon and provided with elements occupying various positions to correspond with the printing means, means controlled by said elements for variably controlling said accounting mechanism, means for effecting an accounting cycle of operation of the machine including operation of said totalizer to accumulate a numerical quantity determined by said elements, means controlled in said accounting cycle to effect a second cycle of operation of the machine, means for effecting printing of successive areas of the ticket strip by the successive printing means on the slug, and means for severing the printed areas from the supply strip as a single ticket at the end of said second cycle.

2,822,976

REGISTER ENGAGING MECHANISM

Richard W. Pitman, Hillcrest, Pa., assignor to Underwood Corporation, New York, N. Y., a corporation of Delaware
Original application November 3, 1954, Serial No. 466,645. Divided and this application December 12, 1955, Serial No. 552,478
3 Claims. (Cl. 235—60)



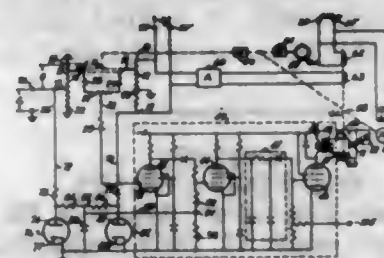
1. In an adding machine of the class described having a register, a plurality of rack bars with which said register is engageable to receive entries therefrom and to control the extent of movement of said racks in total taking operations, a cyclically operable mechanism to engage said register with said racks at different times during a machine cycle, said cyclic mechanism comprising resilient means to move said register into mesh with said racks, an oscillatable cam follower connected to said register, a first cam engaged by said cam follower to hold said register disengaged at the rest position of said cam, a cam lever oscillatable with said cam follower and axially slidable with respect thereto, an adding cam to control movement of said cam lever and cam follower when said first cam releases said follower during a machine cycle, thereby determining engagement of said register with said racks in item entry cycles, a total cam to control movement of said lever and follower during total taking cycles, a total control mechanism to move said cam lever axially into alignment with said total cam and a disc between said adding and total cams, said disc having a notch therein aligned with said cam lever in the home position of said cams to prevent movement of said cam lever between its axial positions during a machine cycle.

chine cycle, said cyclic mechanism comprising resilient means to move said register into mesh with said racks, an oscillatable cam follower connected to said register, a first cam engaged by said cam follower to hold said register disengaged at the rest position of said cam, a cam lever oscillatable with said cam follower and axially slidable with respect thereto, an adding cam to control movement of said cam lever and cam follower when said first cam releases said follower during a machine cycle, thereby determining engagement of said register with said racks in item entry cycles, a total cam to control movement of said lever and follower during total taking cycles, a total control mechanism to move said cam lever axially into alignment with said total cam and a disc between said adding and total cams, said disc having a notch therein aligned with said cam lever in the home position of said cams to prevent movement of said cam lever between its axial positions during a machine cycle.

2,822,977

COMPUTER FOR DIVIDING

John W. Gray, Chappaqua, N. Y., assignor to General Precision Laboratory Incorporated, a corporation of New York
Application February 9, 1953, Serial No. 335,809
12 Claims. (Cl. 235—61)



1. A computer for dividing a first electrical quantity having a range including positive and negative senses and representative of first input data by a second electrical quantity having a range including positive and negative senses and representative of second input data to form output data comprising, a first impedor having electrically common terminals and an intermediate fixed tap between which said first electrical quantity is supplied, a second impedor having a pair of terminals to which said second electrical quantity is supplied and an intermediate fixed tap electrically common with the terminals of said first impedor, two adjustable taps, one on each of said impedors, balancing means, circuit means for impressing an electrical "error signal" representative of the electrical difference of said two adjustable taps upon said balancing means, control means operated by said balancing means for simultaneously varying the positions of said two adjustable taps on said two impedors in opposite electrical directions to tend to nullify said "error signal," means for detecting the senses of said first and second input data and for exercising joint control of the direction of operation of said control means in accordance with said detected senses, and an indicator of output data operated by said control means.

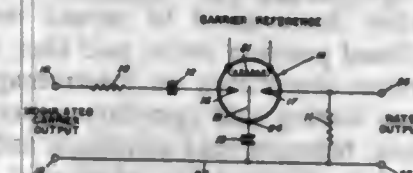
2,822,978

SIMPLIFIED ALTERNATING CURRENT RATE CIRCUIT

Arthur C. Donovan, Milton, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 11, 1953, Serial No. 360,934
6 Claims. (Cl. 235—61)

1. In an alternating current rate network, input and output terminals, a first voltage storage means connected to said input terminals, a second voltage storage means alternately connected to said first storage means and to said output terminals, and means for alternately making and breaking said second storage means from said first

storage means and from said output terminals, a modulated-carrier voltage being impressed on said input terminals, said making and breaking means being actuated

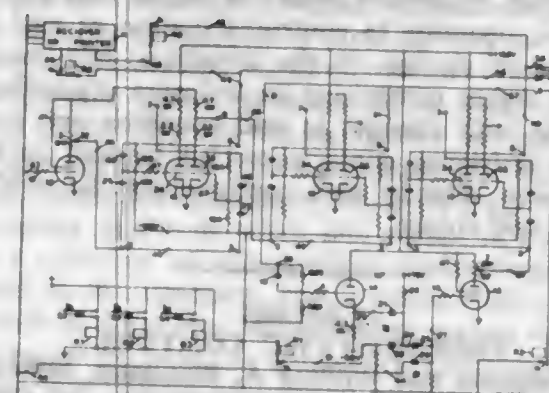


in accordance with the frequency of the carrier voltage whereby the output voltage of the network is proportional to the rate of change of input voltage.

2,822,979

COUNTING AND DIVIDING CIRCUIT

Carl D. Southard, Endicott, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application November 18, 1954, Serial No. 469,582
17 Claims. (Cl. 235—61)



1. A value counting circuit for dividing all digit values based on a predetermined modulus and storing the remainder after such division, comprising independent counting and dividing circuits, means for independently operating said circuits to accumulate and then divide values directed thereto on said predetermined modulus, each of said circuits being operative to cancel any carry based on said predetermined modulus, an output connection associated with one of said circuits to detect a predetermined value less than the predetermined modulus, and means associated with said output connection for selectively directing any undivided predetermined accumulated values in said one of said circuits through another of said circuits having like accumulatable values to divide the same on the predetermined modulus.

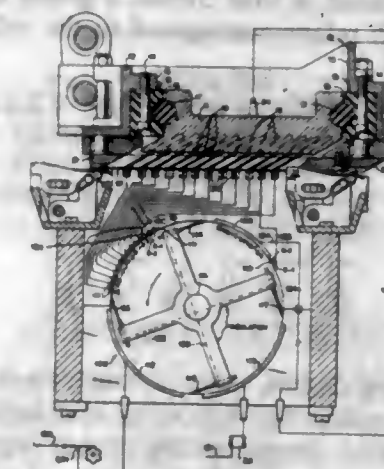
2,822,980

RECORD PERFORATION ANALYZING MECHANISM

Robert I. Roth, Briarcliff Manor, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application April 6, 1956, Serial No. 576,725
8 Claims. (Cl. 235—61.11)

2. A combined record perforation analyzing means and emitter comprising an electrical conducting plate carrying a plurality of analyzing elements, contact members engageable by said analyzing elements through the record perforations, a readout section of said emitter comprising a contactor successively engaging readout contacts electrically connected to each of said analyzing elements to transmit differentially timed impulses in accordance with the analyzing elements engaging the contact members through the perforations, said readout section having a supplemental readout contact engaged by said contactor, and means for applying a test impulse to one of said contact members for determination of its continuity through the related analyzing element encountering a record perforation.

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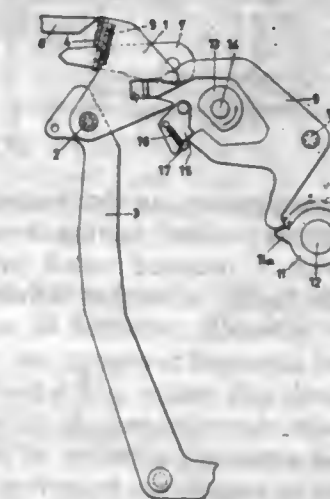


contact member through another perforation, and to said supplemental readout contact.

2,822,981

RECIPROCAL COMPUTING MECHANISM

Erik Konrad Grip and Lars Gustav Hellstrom, Atvidaberg, Sweden, assignors to Aktiebolaget Atvidaberg-Facit, Atvidaberg, Sweden, a joint-stock company of Sweden
Application February 27, 1956, Serial No. 568,082
Claims priority, application Sweden February 28, 1955
4 Claims. (Cl. 235—63)



1. In a calculating machine adapted to perform division by repeated subtraction and having a clearable accumulator, an accumulator actuator and means operated by the highest order tens transfer mechanism of the accumulator to step the actuator denominationally with respect to the accumulator upon occurrence of an overflow; means for calculating the reciprocal of a divisor entered into the actuator comprising, normally interposed means for transmitting movement of the tens transfer mechanism to the actuator stepping means, means operated by the accumulator clearing means for removing said interposed means from interposed position and means operated by said actuator at the termination of the following entry cycle of the actuator to restore said movement transmitting means to interposed position.

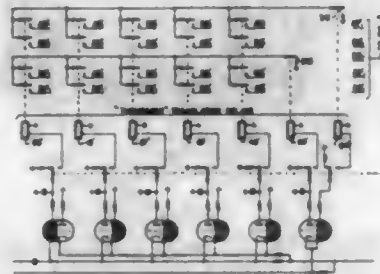
2,822,982

CODE TRANSLATING SYSTEM

Alfred H. Faulkner, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware
Application June 21, 1954, Serial No. 438,099
9 Claims. (Cl. 235—92)

1. A code translating system for operating an indicating means in accordance with a value registered in an electronic counting circuit having a plurality of electronic valves, comprising means individually associated with cer-

tain of said valves and operated by its associated valve if its associated valve is conditioned in accordance with the value registered in said circuit, a group of five relays, certain of which relays correspond to the value registered



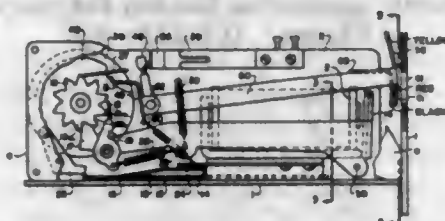
in said counting circuit, said certain relays operated by said operated means for operating said indicating means to indicate a value corresponding to that registered in said circuit.

2,822,983

STEPPING MECHANISM

Hans Sengebusch, Ingleside, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Original application November 5, 1952, Serial No. 318,852. Divided and this application January 19, 1956, Serial No. 560,139
7 Claims. (Cl. 235—92)

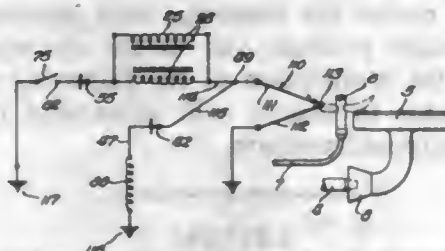


1. In a stepping mechanism, an electromagnet, an armature therefor, a ratchet wheel having a series of teeth formed thereon with a recessed notch provided in the front face of each tooth, a ratchet driving mechanism comprising a pawl pivotally mounted at one end of said armature, said pawl arranged to engage one of said notches of said series of teeth and rotate said wheel a partial step upon release of said electromagnet, a projection formed on the end of said armature adjacent to said pawl, said projection arranged to engage the front face of one of said teeth and complete the rotation of said wheel one step upon further release of said electromagnet.

2,822,984

CONTROL APPARATUS FOR FLUID FUEL BURNING APPARATUS AND THE LIKE

Gerald E. Dietz and Adolph J. Hilgert, Milwaukee, Wis., assignors to Baso Inc., a corporation of Wisconsin
Application June 9, 1952, Serial No. 292,488
11 Claims. (Cl. 236—9)



5. Apparatus for controlling flow of fuel to fluid fuel burning apparatus having a main burner and an ignition burner comprising, in combination, a self-actuating safety shut-off valve coacting with a valve seat for controlling flow of fuel to said main burner, means biasing said valve toward said seat to supply substantial sealing force to said valve independent of the fuel controlled thereby, a source of electric energy comprising a thermoelectric

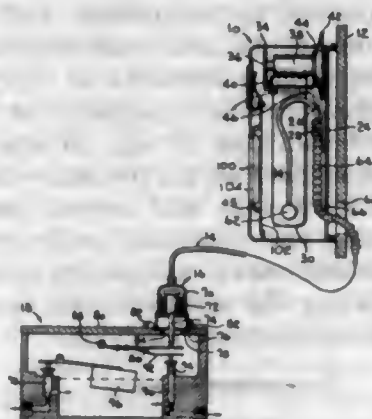
generator subject to the heat of said ignition burner, an electromagnetic operator for said valve energized solely by said electric energy and adapted when so energized to actuate said valve to open position against said biasing means and when deenergized to permit movement of said valve to closed position under said bias, said electromagnetic operator comprising an electromagnet and an armature, means biasing said armature to retracted position, connections between said armature and said valve affording actuation of the valve when said armature is attracted to said electromagnet, said connections including first means for storing energy imparted by initial movement of said armature to attracted position to delay transmission of said movement to said valve member until the armature air gap is reduced to a value approaching that which affords maximum magnetic attraction, second means in which energy is stored by final movement only of said armature to attracted position for release upon deenergization of said power unit to impart movement of said armature to retracted position in opposition to the residual magnetism of said power unit and independently of said first energy storing means, and condition responsive means in circuit with said electromagnetic operator to control actuation of said valve in response to changes in the condition, said condition responsive means comprising an enclosure expansible and contractible with changes in said condition and cooperating low resistance contacts carried by said enclosure and movable directly and continuously therewith for control of said circuit.

2,822,985

THERMOSTATIC CONTROL

Roy W. Johnson and William A. Biermann, Milwaukee, Wis., assignors, by mesne assignments, to Controls Company of America, Schiller Park, Ill., a corporation of Delaware

Application January 19, 1955, Serial No. 482,766
4 Claims. (Cl. 236—99)

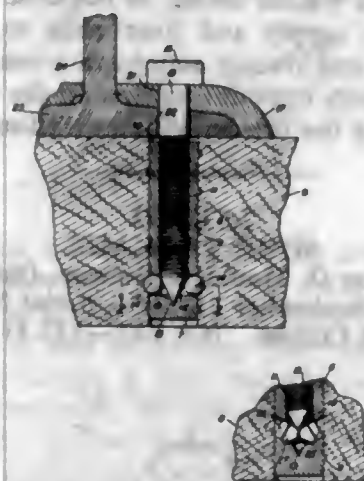


1. A mechanical thermostat comprising a base plate adapted to be mounted on a wall, a temperature sensing element mounted on the base plate and including a rigid shell having a flexible bellows mounted therein to define therewith a variable volume chamber, the chamber being charged to vary the pressure in the chamber with temperature variations, the inside of the bellows being exposed to atmospheric pressure, a shaft rotatably mounted on the base, a cam on the shaft, means for rotating the shaft and cam, a push pin having one end engageable with the bellows, adjustable means between the other end of the push pin and the cam for transmitting motion from the cam to the pin and to permit adjustment of the motion, a pressure responsive power element adapted to actuate a valve, and capillary tubing connecting the chamber to the element to transmit pressure variations within the chamber to the element, said adjustable means comprising a lever fulcrumed on the base, the cam acting on the lever, and an adjusting screw mounted on the lever and receiving said other end of the pin.

2,822,986

RAIL FASTENER

Frank J. Schreier, Chicago, Ill.
Application November 9, 1954, Serial No. 467,812
1 Claim. (Cl. 238—377)

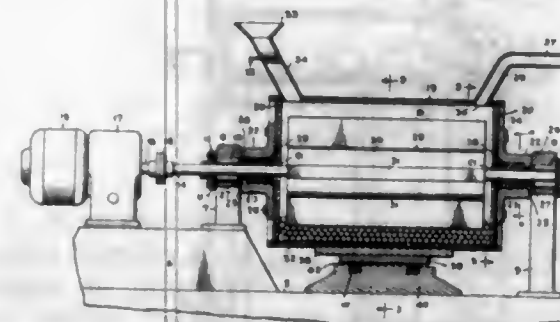


A rail fastener of the character described comprising: an elongated internally threaded, vertical metallic socket to be slidably driven into a cross-tie and having a plurality of upwardly and outwardly inclined openings in its lower portion, anchoring spurs on the socket to be embedded in the tie, said socket further having a kerf in the upper end thereof for the reception of a tool for turning the socket for disaligning the spurs from the grooves left thereby in the tie when said socket is driven thereinto, a plurality of substantially wedge-shaped detents slidably in the openings, and a headed bolt threadedly mounted in the socket and including a cone on its lower end engageable with the detents for embedding same in the tie, said detents comprising rounded inner ends engageable with said cone, said socket still further having a conical seat in its lower portion for the reception of the cone.

2,822,987

APPARATUS FOR GRINDING SOLID MATERIAL

David J. Uhle, Allentown, Pa.
Application June 28, 1955, Serial No. 518,437
6 Claims. (Cl. 241—172)



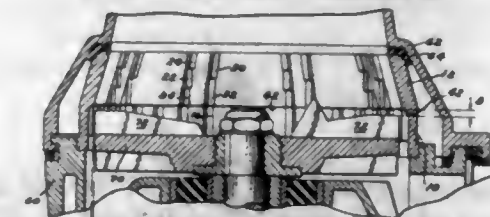
4. Apparatus for finely grinding divided solid material, comprising a pair of fixed spaced apart bearings, a substantially horizontal shaft extending between said bearings and journaled upon the same for rotation, means to turn said shaft, a shell surrounding said shaft between said bearings and having ends spaced from the bearings and substantially central openings receiving the shaft, the side walls of said openings being spaced from the shaft, resilient cushioning devices secured directly to the ends of the shell and between such ends and said bearings and engaging the shaft and suspendingly supporting the shell bodily from the shaft and serving to insulate the shaft from shock and vibration, means for imparting substantially vertical high frequency vibratory movement to the entire shell, said shell adapted to contain a multiplicity of small material grinding bodies, and a rotor structure smaller in diameter than said shell mounted upon

said shaft within the shell and adapted to contact and move said grinding bodies when the shell is vibrating and the shaft is turning.

2,822,988

STATIONARY SHREDDER RING FOR WASTE COMMUNUTING DEVICES

Ever J. Hammes, Racine, Wis.
Application October 7, 1954, Serial No. 460,839
3 Claims. (Cl. 241—298)



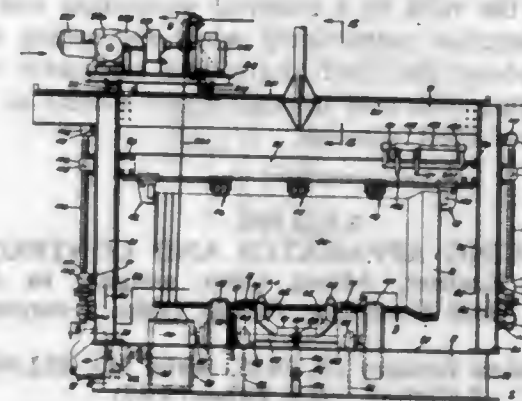
1. A stationary shredder ring for use as a comminuting cutter for waste disposal units which comprises a frusto-conical section superimposed integrally on a cylindrical section, each section having a series of internal teeth disposed axially thereof, the teeth in said upper section being approximately one-half in number to the teeth in the lower section and in which the teeth in both sections are axially disposed and provided with circumferentially spaced cutting edges, said upper section having two series of teeth, one with three stepped tooth portions spaced substantially equally throughout the upper section and the other with two spaced tooth sections spaced substantially equally of the upper section.

2,822,989

MEANS FOR PRESTRESSING CONCRETE PIPE

Stephen R. Hubbard and Carl W. Chanlund, Nampa, Idaho, assignors, by mesne assignments, to Cen-Vi-Ro Pipe Corporation, South Gate, Calif., a corporation of Delaware

Application February 15, 1954, Serial No. 410,401
12 Claims. (Cl. 242—7)



1. A machine for applying wire under tension to a pipe comprising: spaced wheels for supporting and rotating the pipe, rotating means for driving said wheels; a first electrically actuated adjustable control means connected to the rotating means adapted to set the speed thereof at a selected rate, means for supplying a wire under tension to said pipe to be wound thereon, wire moving means for moving said wire axially with respect to said pipe so as to impart a pitch to said wire as it is wound on said pipe, a second electrically actuated adjustable control means connected to said wire moving means adapted to set the speed thereof at a selected rate, a source of electric power common to the controls for both said rotating means and said wire moving means whereby to maintain a preselected ratio between said driving means and said wire moving means determined by the settings of said control means, and adjustable power dividing means having an inlet end connected to said source of power and an outlet end connected to the controls respectively for said

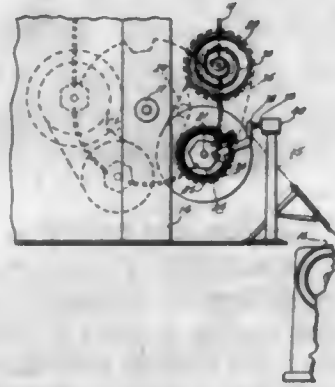
rotating means and the wire moving means, said power dividing means being thereby adapted to controllably alter the speed of operation without altering said ratio.

2,822,990

TIRE BUILDING APPARATUS

Edward C. Kastner, Akron, Ohio, assignor to Akron Standard Mold Company, Akron, Ohio, a corporation of Ohio

Application October 21, 1954, Serial No. 463,777
2 Claims. (Cl. 242-67.3)



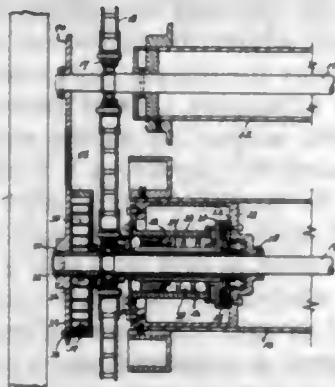
1. In a tire-building apparatus having a supply roll of tire building material interleaved with a liner sheet and a liner receiving and storage roll, each mounted on a shaft which is rotatably supported in parallel spaced relation from the other and wherein the rolls are interconnected through the medium of the liner, the combination comprising, a first wheel fixed on the supply roll shaft and another wheel mounted for free rotation on the liner roll shaft adjacent said first wheel, flexible means drivingly inter-connecting said wheels, a spiral spring motor encircling the liner roll shaft and having one end connected to the liner roll shaft and the other end connected to the freely rotatable wheel on said liner roll shaft for driving coaction therebetween, the diameter of each of said wheels having a pre-determined relationship to the diameter of the other and to the diameter of each of said rolls to provide a gear ratio therebetween that will cause rotation of the rolls in a material unwinding and liner receiving direction respectively when the spring motor is wound about the liner shaft, and releasable brake means coacting with said interconnected wheels to selectively prevent their rotation.

2,822,991

SERVICING APPARATUS AND CONTROL

Edward C. Kastner, Akron, Ohio, assignor to Akron Standard Mold Company, Akron, Ohio, a corporation of Ohio

Application January 19, 1955, Serial No. 482,901
5 Claims. (Cl. 242-75.47)



1. In a tire building apparatus having a support carrying a supply roll of sheet material interleaved with a liner sheet and a liner receiving and storing roll each mounted respectively on spaced parallel shafts rotatably journaled in the support, friction means carried by one of said rolls for coaction between the support and the

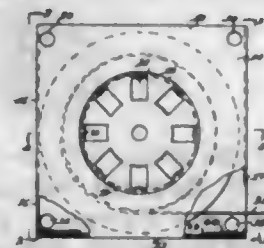
supply roll to place a tension on the sheet material as it is withdrawn from the roll, tractor means coacting with said friction means between the supply and liner rolls to place a tension on the liner as it is wound onto the liner roll, and compensating means automatically coacting between said friction and tractor means in response to the changing size of the supply and liner rolls to progressively vary the brake and tractor actions in a manner to maintain a substantially constant tension on the sheet material and liner during the tire building operation.

2,822,992

WIRE PACKAGE

Oscar O. Moulden, Duncan, Okla.

Application September 21, 1955, Serial No. 535,627
4 Claims. (Cl. 242-137.1)



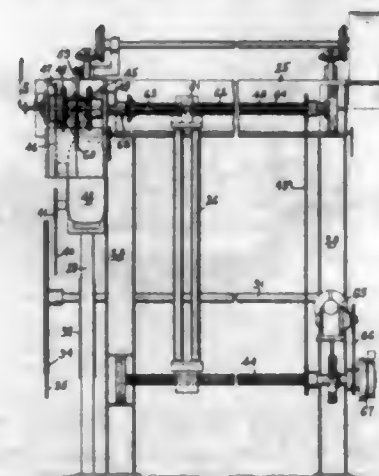
1. A wire package comprising a square paper box having a base with upwardly extended side and end walls and having a circular opening in one of said side walls and openings in the end walls and positioned at the corners of the box, and a paper spool having a drum with flanges at the ends freely mounted in said box and having finger receiving openings positioned in registered relation with the circular opening in the side of the box whereby the fingers of a hand may be inserted through the circular opening in the side wall of the box for rotating the spool.

2,822,993

TRAVERSING MECHANISM FOR REELS

Victor T. Swanson, New Haven, Conn., assignor to Wire Machinery Corporation of America, Incorporated, New Haven, Conn., a corporation of Connecticut

Application December 31, 1954, Serial No. 479,090
8 Claims. (Cl. 242-158.2)



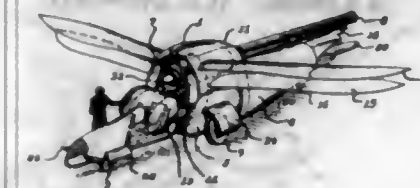
1. An override control mechanism for reeling machinery having a traversing guide for directing cable onto the winding reel, a rotatable threaded traverse rod and reversing clutch for moving the traversing guide back and forth over the reel to lay convolutions of cable onto a reel, a main drive connected through the reversing clutch with the threaded traverse rod, a friction clutch between the reversing clutch and the traverse rod, an auxiliary drive connected to the traverse rod at the opposite end thereof from the friction clutch, the friction clutch functioning to render the main drive temporarily inoperable while the auxiliary drive alters the normal movement of the traverse rod and disposition of the cable onto the winding reel.

2,822,994

AIRCRAFT WITH PIVOTALLY MOUNTED FUSELAGE

Aristides Wario, Cruzelro, Brazil

Application August 27, 1953, Serial No. 376,850
8 Claims. (Cl. 244-13)



1. An airplane comprising a leading section including an annular supporting cover in the form of a ring, retractable landing wheels carried by the supporting cover, wings carried by and projecting from the periphery of said supporting cover, a nose section provided with a pilot's cabin attached to the forward end of said annular cover, a trailing section comprising a floating fuselage carried by the supporting cover and extending to the rear thereof generally in line with the nose section, the forward portion of the floating fuselage extending into said supporting cover from the rear and positioned in spaced relation to the interior of the supporting cover, a universal joint structure pivotally supporting the floating fuselage in the annular supporting cover, said universal joint structure being located rearwardly of the forward end of the floating fuselage and said forward end of the floating fuselage being movable relative to the interior of the annular supporting cover with the universal joint structure as a fulcrum, whereby the relative angular relationships between the floating fuselage and the leading section of the airplane including the annular supporting cover and nose section may be adjusted, and means carried by the airplane for propelling the same.

2,822,995

ADJUSTABLE WING AIRCRAFT

Max Bowen, Dayton, Ohio

Application January 27, 1954, Serial No. 406,466
6 Claims. (Cl. 244-43)



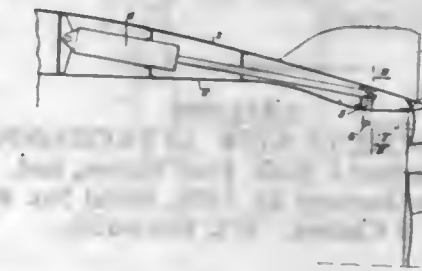
1. In an aircraft; a fuselage, primary wing portions projecting laterally from said fuselage, vertical pivot means joining the inner ends of the primary wing portions to the fuselage for movement of the primary wing portions in a horizontal plane between retracted and extended positions on the fuselage, power means in the fuselage connected with said primary wing portions for moving them between their extended and retracted positions, said fuselage having slots in the sides to receive portions of said primary wing portions as they are moved toward their retracted position, secondary wing portions, each of said secondary wing portions having a first pivot connection at one point to the fuselage and having a second pivot connection at a point spaced from said first point to a respective one of said primary wing portions, whereby each said secondary wing portion is arranged to rotate about said pivots and to move into the fuselage when the respective primary wing portion is extended and rotate about said pivots and to move out of the fuselage and form an extension at the root of the primary wing portion on the leading edge thereof when the primary wing portion is retracted.

2,822,996

AIRCRAFT PROVIDED WITH SPOILERS

Helmut P. G. A. R. von Zborowski, Brunoy, France

Application August 1, 1955, Serial No. 525,726
Claims priority, application France August 6, 1954
4 Claims. (Cl. 244-52)



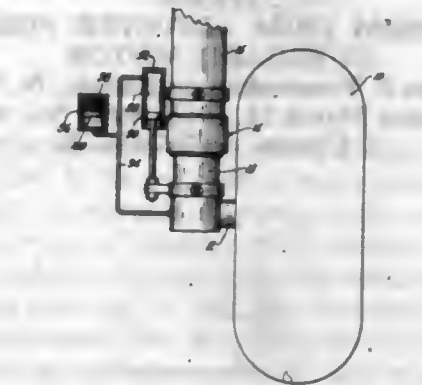
1. In an aircraft including a tunnel-shaped aerodynamic component of substantial thickness having two walls, to wit an internal one and an external one, along which two distinct gaseous streams flow respectively, the combination of a plurality of spoilers distributed along a transverse section of said component, means located inside said component for holding each of said spoilers adjustably with respect to said component, an arcuate member in the form substantially of a circular arc housed in said component concentrically therewith; the ends of said member being pivoted to said component about a common axis transverse to the axis of said tunnel-shaped component, said member being rigid with said spoiler holding means, and control means operatively connected with the central portion of said member for pivoting said member about said common axis.

2,822,997

FAIRING SCOOP FOR AIRCRAFT WHEEL

William H. Du Bols, St. Joseph, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware

Application December 17, 1953, Serial No. 398,675
10 Claims. (Cl. 244-111)



1. An aircraft landing gear assembly comprising a shock strut of the type having a pair of telescoping elements which contract in length when the aircraft alights on the ground, a hollow axle laterally extending from one of said elements, a wheel rotatably supported on said axle, and a fairing scoop assembly for directing an air stream laterally across the interior of the wheel upon movement of the aircraft over the ground, said fairing scoop assembly comprising a fluid motor inserted into one end of said axle, a conduit extending through said axle for connection to said motor, means for holding said motor against axial movement, a radially outwardly extending support member carried at said one end of the axle, a side cover plate for the wheel vertically hinged on said support member, a linkage connecting said motor and side plate whereby actuation of the motor will force the side plate to rotate axially outwardly about its hinge, and fluid pressure producing means for actuating said motor, said latter mentioned means comprising a cylinder.

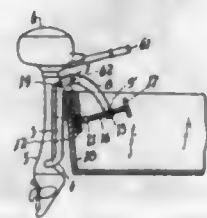
chamber connected to one of said elements, a piston member connected to the other of said elements and reciprocable within said cylinder chamber, and a port in one end of the cylinder chamber for connection to said conduit, said piston member being forced toward said one end of the cylinder chamber upon contraction of said telescoping elements to thereby pressurize said conduit and actuate said motor.

2,822,998
PARACHUTE-KITE ATTACHMENT
Lambert J. Toth, Fort Wayne, Ind.
Application January 22, 1954, Serial No. 405,532
2 Claims. (Cl. 244-155)



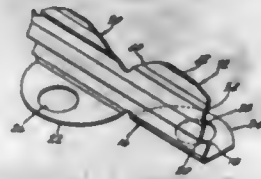
1. In a toy of the class described, in combination, a kite including a support, an arm pivotally connected to said support, said arm including a portion on which a parachute may be suspended, a suction cup member mounted on said arm, a part including a surface to which the cup will adhere by suction on said support for engagement by said cup and an element comprising a spring carried by the cup and adapted to engage said part for automatically effecting disengagement of said member and part by overcoming the suction a pre-determined period of time after being engaged to effect release of a parachute suspended from said portion.

2,822,999
TRANSOM TRIM ADJUSTER FOR AN OUTBOARD MOTOR
Jesse J. Tromanhauser, Buffalo, N. Y.
Application March 21, 1955, Serial No. 495,604
2 Claims. (Cl. 248-4)



1. A transom trim adjuster for an outboard motor of the tiltable type, comprising a generally U-shaped cantilever having a pair of co-extensive outboard arms and a pair of co-extensive inboard arms, the said two pairs of arms diverging from the right portion of said cantilever, an attachment plate adapted to be secured to the inner face of a boat-transom in a general vertical position, means pivotally connecting the said right portion of said cantilever to said attachment plate with said outboard and inboard arms straddling said attachment plate and swingable on said pivotal connection to and away from said attachment plate, a saddle carried by the distal ends of said outboard arms, a nut swivelly carried by the distal ends of said inboard arms, a handled screw threadedly engaged in said nut and having an inner end, and means slidably securing said inner end of the screw to said attachment plate.

2,823,000
BRACKET
Edward J. Clovis, Fullerton, Calif., assignor to McClintock Manufacturing Co., Los Angeles, Calif., a corporation of California
Application April 10, 1953, Serial No. 348,006
2 Claims. (Cl. 248-33)



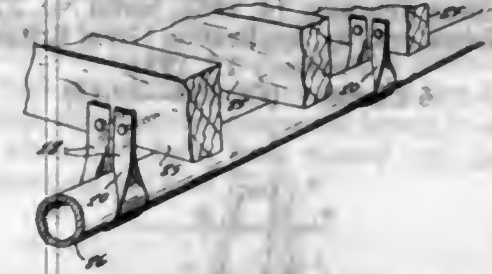
1. A bracket for supporting a rubber green in a refrigerated show case comprising an elongated upright body portion having a base at its lower extremity and an upwardly open pocket at its upper extremity, said base being defined by a series of coplanar ears extending from opposite sides of the body portion in spaced apart relation lengthwise of said body portion with the space between each neighboring pair of ears on one side of the body portion in transverse alignment with an ear on the opposite side of the body portion, each of said ears having an open area centrally of its periphery, and said pocket being defined by a second series of ears extending from opposite sides of said body portion in spaced apart relation lengthwise of said body portion with the space between each neighboring pair of ears in said second series in transverse alignment with an ear of said series on the opposite side of said body portion, and each of said ears of said second series presenting an upright portion substantially parallel to a plane perpendicular to and containing the longitudinal median of said base.

2,823,001
ELECTRICAL CABLE SUPPORT FOR MINES
Edward C. Whitfield, Kitts, Ky.
Application June 30, 1955, Serial No. 519,177
4 Claims. (Cl. 248-49)



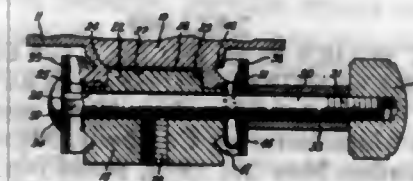
1. A bridge for supporting electrical supply cables and the like in an unobstructing position across traffic paths in mine tunnels comprising an elongated tubular cross-bar, a supporting leg composed of telescopic sections for each end of the cross-bar, pointed bearing members fixed on the lower ends of each of the lowermost telescopic sections of said supporting legs to be driven into the mine floor to restrain lateral shifting of the lower ends of said legs, hinge joints interconnecting the upper ends of the uppermost telescopic sections of said legs with the ends of said cross-bar, means for elongating and contracting said legs to jam the ends of said cross-bar against the mine roof and align the cross-bar with the slope of the mine roof, and a plurality of laterally oppositely projecting fingers extending from said cross-bar in the longitudinal transverse plane thereof throughout its length and extending from the major portions of said legs in the longitudinal transverse planes thereof providing parallel supports extending transversely of the direction of said cables about which said cables may be woven to restrain the cables within the planes of said cross-bar and legs.

2,823,002
PIPE HANGER
Harold Savitz, Easton, Pa.
Application March 22, 1954, Serial No. 417,660
1 Claim. (Cl. 248-65)



A pipe hanger comprising a resilient strip of material folded longitudinally along the ends thereof to form a pair of end portions of double thickness and half the width of said strip, both of said portions lying in a common plane, the intermediate portion of said strips merging into said end portions and having upper and lower surfaces extending perpendicularly relative to said end portions, said intermediate portion defining an arcuate base for supporting a pipe, said merging of said intermediate portion of said strip with said end portions defining a pair of outwardly and oppositely facing pockets, whereby said hanger is flexible in the directions of said plane and substantially rigid in a direction transversely thereof.

2,823,003
CONNECTING MEANS FOR TRIPOD-SUPPORTED DEVICES
Louis A. Puggard, Detroit, Mich.
Application January 25, 1954, Serial No. 405,782
3 Claims. (Cl. 248-186)

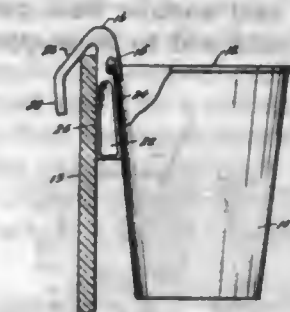


1. A coupling for connecting a camera to a tripod head, said coupling comprising a lower clutch member adapted to be secured to a tripod head, an upper clutch member complementary to said lower clutch member and adapted to be in operative engagement therewith, said upper clutch member being adapted to be secured to the camera, means on said clutch members to keep them in axial alignment, a circumferential groove on each of said clutch members, two cam members each spanning the joint between the clutch members and having two cams, one of the two cams of each cam member engaging in the groove of one clutch member and the other cam of each cam member engaging in the groove of the other clutch member to draw said clutch members together into a locking engagement, a bolt passing diametrically through one of said members and supporting said cam members on said clutch member, and a nut for said bolt adapted when operated to push the cams of said cam members into said grooves and thus to draw said members into a locking engagement.

2,823,004
CUP HOLDER
Bernard R. Melloh, Middletown, Ohio
Application June 7, 1952, Serial No. 292,224
3 Claims. (Cl. 248-215)

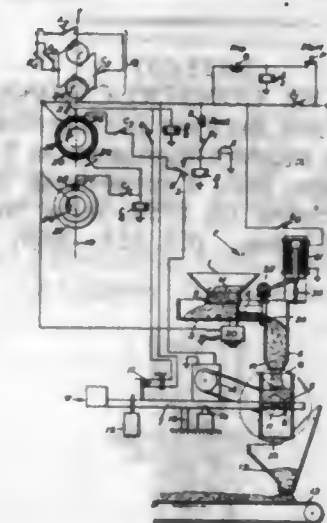
1. An attachable cup holder for a cup having a beaded edge portion, comprising a main body portion having a flexible lip, a tongue positioned inwardly of said lip and terminating therewith to form an opening for receiving the beaded edge portion of the cup, said main body por-

tion having a window engaging surface on the side opposite said tongue, said body portion having a cup engaging surface extending from said tongue at an acute angle with said window engaging surface, and a hook-



like arm extending downwardly from the top of the main body portion and at an acute angle to said window engaging surface, said arm being adapted to seat on a window and maintain the cup in a substantially vertical position.

2,823,005
AUTOMATIC WEIGHING APPARATUS
Herman Lindars, Sheffield, England
Application March 27, 1951, Serial No. 217,769
Claims priority, application Great Britain March 28, 1950
4 Claims. (Cl. 249-20)

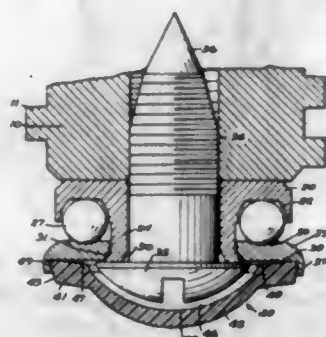


2. In combination: a weighbeam; means for predetermining the load to be weighed at each automatic weighing operation; a material hopper on the weighbeam; a material reservoir; a rotatable table located beneath said reservoir; a strickle movable over the surface of the table for displacing some of the material therefrom; electrically operated mechanism for moving said strickle from an inoperative to an operative position, and vice versa; contacts operated by the weighbeam for controlling the strickle moving mechanism; a material chute for feeding material diverted from the table to the material hopper of the weighbeam; a motor for discharging the hopper after each weighing; a variable period timer; contacts in the motor circuit operated by the timer; a conveyor, and means for guiding discharged material onto the conveyor.

2,823,006
VALVE STRUCTURE
Terence G. Hare, Detroit, Mich.
Application March 23, 1955, Serial No. 496,163
6 Claims. (Cl. 251-88)

1. A bearing and seal assembly for a valve comprising, an upper race member, a lower race member, an annulus of balls between the race members, a headed screw passing through the race members and adapted to fixedly secure the upper race member to a valve member, the lower race member having an annular rim defining a shallow

recess, the rim being formed so that the diameter of the recess at its entrance is less than the diameter inwardly of the recess, a seal member having an annular base portion with a diameter greater than that at the opening of the recess and a central portion of concavo-convex form surrounded by said annular base portion, the seal member adapted to yield and to be snapped into the re-

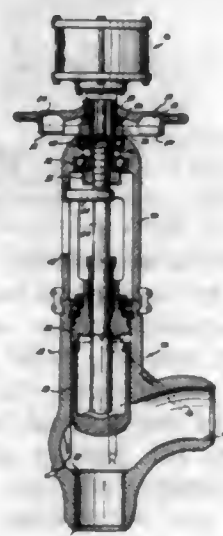


cess with the concavo-convex central portion enclosing the head of the screw with clearance, the upper face of the annular base portion being inclined so that it seats on the lower race member substantially at its upper annular edge, and the upper surface thereof diverges from the surface of the lower race member in a radially inward direction to said central portion, whereby the seal member may flex when urged against a valve seat.

2,823,007

VALVE CONSTRUCTIONS

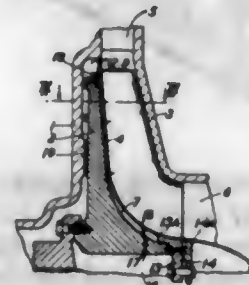
Laurence H. Carr and Bertram J. Milleville, Homewood, Ill., assignors, by mesne assignments, to Edward Valves, Inc., East Chicago, Ind., a corporation of Delaware
Application October 18, 1954, Serial No. 462,652
11 Claims. (Cl. 251-269)



9. In a valve having a body through which fluid flows under pressure, a valve stem having a threaded section, a yoke attached to said valve body, cooperating means on said yoke and said stem for preventing rotation of said stem with respect to said yoke, a stem operator having internal threads adapted to engage the threaded section of said stem, thrust bearings rotatably mounting said stem operator in axially fixed position in said yoke, means for rotating said stem operator to thereby axially move said stem, a cylinder secured to said stem operator, a piston within said cylinder having a piston rod engageable with the free end of said stem, and means for introducing fluid under pressure into said cylinder for urging said piston rod and said stem inwardly of said body to reduce the frictional load on the threads of said stem and said stem operator.

2,823,008 ROTORS FOR FLUID FLOW MACHINES SUCH AS TURBINES

John Constantine Grey, Isleworth, England, assignor to Power Jets (Research & Development) Limited, London, England, a British company
Application February 14, 1952, Serial No. 271,583
Claims priority, application Great Britain
February 15, 1951
6 Claims. (Cl. 253-39.15)

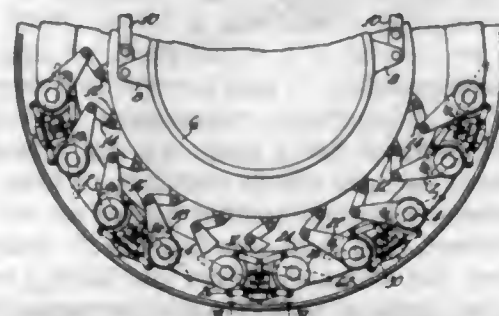


1. A bladed rotor for a radial-flow turbo-machine comprising a rotor body, an annular shroud member axially spaced from one side of the said rotor body and hollow blades carried by the shroud member on the side remote from the rotor body, the shroud member having inner and outer peripheral regions at which the shroud member is attached to the said rotor body around the whole circumference of the said peripheral regions only, thereby forming an uninterrupted annular space between the said rotor body and the said shroud member, the rotor body having openings therein communicating with the said space for the flow of coolant therethrough, the shroud member having apertures communicating with the said hollow blades and the blades having outlet openings, flow of coolant through the blades thereby being permitted.

2,823,009

DAMPING SHOES FOR WICKET GATES USED ON REVERSIBLE PUMP-TURBINE

Charles F. Ambroz, Milwaukee, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis.
Application May 28, 1956, Serial No. 587,820
7 Claims. (Cl. 253-122)



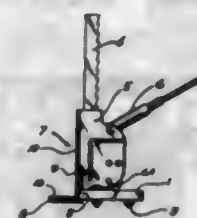
1. An arrangement in a pump-turbine when operating as a pump, for preventing vibration of adjoining wicket gate shafts having damping surfaces, comprising: a support between said adjoining wicket gate shafts, two movable damping shoes, one of said damping shoes for each of said wicket gate shafts, an individual first link for each damping shoe, means pivotally connecting one end of one of said first links to an end of one of said damping shoes, means pivotally connecting one end of the other of said first links to an end of the other of said damping shoes, individual means pivotally connecting the other end of each of said first links to the support, an individual second link for each damping shoe, means pivotally connecting one end of one of said second links to the other end of one of said damping shoes, means pivotally connecting one end of the other second link to the other end of the other damping shoe, means pivotally connecting the free end of each of said second links together to form a common pivotal connection, said second links extending out of alignment from their common pivotal connection when

said damping shoes are out of engagement with said damping surfaces, means connected to said common pivotal connection movable in a first direction, said means moving said links toward alignment to move said damping shoes into engagement with said damping surfaces, means to move said moving means in a direction opposite said first direction to move said damping shoes out of engagement with said damping surfaces, said first and second links applying substantially tangential forces to said damping shoes when they have been moved into engagement with said damping surfaces.

2,823,010

LIFTING AND TRANSPORTING APPARATUS

Thomas E. Baxendell, Clairton, Pa.
Application June 10, 1955, Serial No. 514,459
2 Claims. (Cl. 254-2)



1. Lifting and transporting apparatus cooperable for engaging perpendicularly related contiguous side and bottom portions of an object to be transported and selectively operable to lift and transport said object, comprising: a horizontal base provided with multiple spaced spherical caster means rotatable in any direction for rolling cooperation with respect to a flat underlying supporting surface; said base being provided with a stationary upwardly extending member positioned adjacent one edge thereof; movable carriage means vertically reciprocally mounted on and around the upwardly extending member for relative vertical movement with respect thereto; selectively operable linear actuator means effectively cooperable with respect to the movable carriage means and with respect to the stationary upwardly extending member for selectively vertically reciprocating said movable carriage means with respect to said upwardly extending member in an upward direction and in a downward direction; and an object engaging member carried by the movable carriage means and laterally offset therefrom on the opposite side of said upwardly extending member from said base, said object engaging member including a flat horizontal portion at the bottom thereof positioned adjacent the bottom of the movable carriage means and extending horizontally therefrom in a direction opposite from but laterally adjacent to said base, and said object engaging member including a flat vertical portion extending vertically along the opposite side of the carriage means from said base, said horizontal and vertical portions of the object engaging member being provided with upper and outer surfaces, respectively, of resilient elastomeric material for non-marring engagement with the bottom and side portions, respectively, of the object to be transported, said upper surface of said horizontal portion of the object engaging member and the lower surface of said base lying in substantially the same horizontal plane when said object engaging member is in its extreme lowermost position.

2,823,011

SIDING TOOL

Francis A. Jones, Fort Dodge, Iowa
Application January 10, 1955, Serial No. 480,837
1 Claim. (Cl. 254-15)

A tool of the character described comprising; a lever including a flat metallic bar, a handle on one end of said bar, a substantially U-shaped hook on the other end of the bar engageable with a stud from therebehind, selec-

727 O. G.-24

tively usable prongs projecting in opposite directions from the side edges of the bight portion of the hook and forwardly curved toward said handle portion to be engaged in the stud, and a foot rotatably and slidably mounted on the bar and engageable with a board to be tightened, said foot embodying a substantially flat plate portion which is generally triangular in marginal outline and which is provided at its apical end with a circular hole of a diameter slightly greater than the cross section of said flat metallic bar and said bar extending through said hole, the work-engaging edge of said plate having a lateral flange constituting a jaw which is flat and coextensive in length with



the cooperating portion of the plate and being adapted to rest firmly upon a flat edge of a board, said jaw being provided with a right angularly depending flange which forms an apron and is adapted to engage a surface portion of the board at right angles to said edge, and a second jaw integral with the depending flange and projecting at right angles beyond said flange and being adapted for engagement in a groove in an edge portion of a board, both of said jaws being disposed in a plane beyond one vertical surface of the plate portion and said jaws being coextensive in length and commensurate in length with the length of said flange.

2,823,012

WHIP STOCK LOCKING AND RELEASING APPARATUS

Robert P. Hanna, Oakview, Calif., assignor, by mesne assignments, of forty-nine percent to C. J. Wilkinson, Bakersfield, Calif.
Application February 6, 1956, Serial No. 563,532
12 Claims. (Cl. 255-1.6)



1. A whip stock locking and releasing apparatus comprising, in combination: a collar on said whip stock having at least one longitudinal channel formed in its inner wall; a shoulder portion in said channel; a pipe section adapted to pass longitudinally through said collar; longitudinal flange means on said section receivable in said channel whereby said collar is held against rotation with respect to said section; a lever element positioned on said pipe section adjacent said flange means for swinging movement laterally away from said pipe section, the lower end of said lever element engaging said shoulder when in a first position and free of said shoulder when in a second position, said pipe section including a slot opening adjacent said lever element; and means in said pipe section operable through said slot opening for moving said lever from said first to said second position.

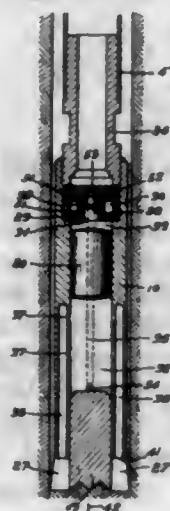
2,823,013

APPARATUS FOR DRY DRILLING OF BORE HOLES

André Pierre Camille Stenuick, Eveque, Belgium
Application September 19, 1952, Serial No. 310,508
Claims priority, application Belgium September 26, 1951
3 Claims. (Cl. 255-3)

1. A drilling machine comprising an air pump, tubing adapted to be lowered into a bore hole and intercom-

municating with said pump, and a drill bit projecting from said tubing, said tubing including a tubular end portion receiving the inner part of said bit and defining on its interior a cylinder chamber, said end portion having a series of bores parallel to the axis of said chamber and offset from said axis open at the bottom adjacent the cutting part of the bit, each bore having a passage for intercommunicating interiorly with said chamber above said inner part of said bit, a piston reciprocable in said chamber between a lower position, wherein it covers said passages and makes impact with said inner part of said bit, and

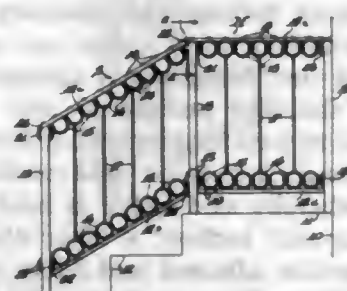


an upper position wherein it clears said passages, and means including an upper conduit delivering air above said piston, a lower conduit delivering air below said piston at a point near the lower position thereof and valve means between said conduits for reciprocating said piston, whereby between each two succeeding impacts of said piston with said bit air will be driven twice from said chamber into said bores, the first time during the descent of the piston before it covers said passages, and the second time during the ascent of the piston after it clears said passages.

2,823,014

ORNAMENTAL METAL RAILING, FENCE, ETC.
Frederick S. Schrage, Rock Island, Ill., assignor to Harley E. Bergren, Bettendorf, and Lloyd J. Adkins, Washington, Iowa

Application November 10, 1955, Serial No. 546,044
17 Claims. (Cl. 256-21)

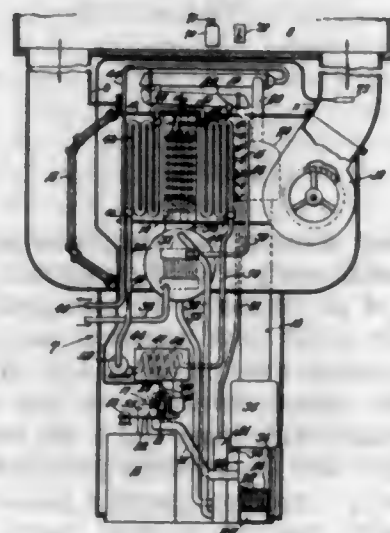


1. A railing assembly, comprising: front and rear spaced apart posts, each having a terminal upper end and front and rear upright faces; front and rear rail-mounting elements respectively on said front and rear posts, each element being a part ring having circumferentially spaced apart lower terminal ends affording a gap through which the upper end of the associated post extends diametrically as respects said part ring, the terminal ends of each part ring being rigidly secured respectively to the front and rear faces of the associated post with said part ring curving upwardly ahead of, rearwardly over and downwardly behind the upper end of said post to respectively provide integral front, top and rear portions, each part ring having a continuous circumferential slot in part in its forward portion and in part in its top portion; a top rail extending between the posts and having front and rear ends respec-

tively supported on the part rings and respectively tangent thereto at the portions thereof including said slots, each end of the rail having an aperture therein in register with the respective slot; and a pair of releasable fastener means, one passed through each slot and its registering aperture, said fastener means being releasable to slide in their respective slots to enable adjustment of the top rail and posts circumferentially about the part rings, and said fastener means being securable to fix said adjustment.

2,823,015 HEAT EXCHANGE SYSTEM FOR AIR CONDITIONER

Engene P. Whitlow, Evansville, Ind., assignor, by mesne assignments, to Arkla Air Conditioning Corporation, a corporation of Delaware
Application October 8, 1951, Serial No. 250,369
4 Claims. (Cl. 257-3)

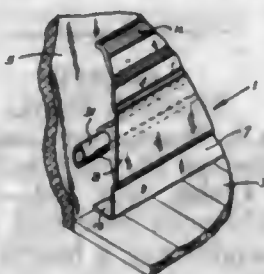


3. In an air conditioner, an air conditioning chamber, means for circulating air through the chamber, a heat operated refrigeration system having a cooling element in the chamber, a heating system providing a closed circuit for a heat exchange fluid and having a heat exchange section in the chamber at the front of the cooling element in the direction of air flow, a heat exchange section in the chamber at the rear of the cooling element in the direction of air flow and a heat exchange section outside the chamber, means for circulating the heat exchange fluid through the heating system, a source of heat, selective valve means for delivering heat from said source to the heat operated refrigeration system or heat exchange section of the heating system outside the chamber, a by-pass around the valve means for supplying heat from said source to the heating system simultaneously with its supply to the refrigeration system, a throttling valve in said by-pass, and means responsive to the temperature of the circulating air for controlling the throttling valve in the by-pass to regulate the amount of heat supplied to the heating system.

2,823,016

BASEBOARD HEATER

Carl S. Greer, Jr., Albion, Mich.
Application December 31, 1954, Serial No. 479,160
2 Claims. (Cl. 257-133)



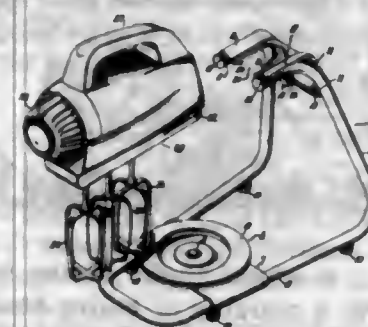
1. A panel radiator comprising in combination a generally channel-shaped member having a web and a first

pair of flanges disposed laterally of said web and having terminal edges lying in a plane parallel to said web, a second pair of flanges outstanding from and integral with and extending longitudinally of said web and disposed between said first pair, said second pair of flanges terminating short of said plane, said web in cross section tapering from points adjacent said second pair of flanges laterally in opposite directions toward said first pair of flanges, and a tube between and in contact with said second pair of flanges.

2,823,017

SUPPORT FOR ELECTRIC MIXER

Carl F. Schaus, Hagsman, N. Y., assignor to General Electric Company, a corporation of New York
Application December 27, 1955, Serial No. 555,347
1 Claim. (Cl. 259-108)



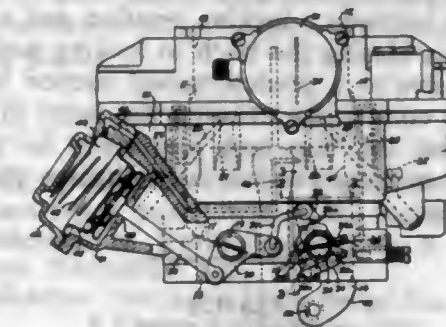
In combination, a household electric mixer, a support for said household electric mixer comprising a single bar bent about substantially its midpoint to form two equal integral legs, said legs substantially forming a V in the horizontal plane, said legs extending upwardly and inwardly from the wide portion of said V to form an inverted V, and thence backwardly parallel to said plane and to each other, said inverted V formed by said legs being open at its apex sufficiently to receive the body of said mixer between said backwardly extending portions of said legs, a carrier adapted to carry a receptacle in which food is to be mixed bridged across said horizontal V nearer the apex thereof, a bar bridging said legs near but below the horizontal backwardly extending portions of said legs, and a hinge mounted to rotate about said last bar and comprising a bifurcated member having mixer holder legs shaped to rest on said backwardly projecting horizontal portions of said first bar, and having flanges projecting inwardly from said legs and adapted to mate with grooves in the opposite sides of the body of said mixer during normal operation of the mixer to support the mixer in position to mix food in said receptacle whereby said bifurcated hinge member may be rotated about said rod to lift the mixer from said receptacle and the mixer body may be slid off from said flanges and removed from said support.

2,823,018

SECONDARY THROTTLE OPERATOR FOR TWO-STAGE CARBURETORS

William J. Glynn, Grosse Pointe Woods, Mich., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application July 15, 1954, Serial No. 443,521
2 Claims. (Cl. 261-23)

1. A two-stage carburetion system comprising primary and secondary mixture conduits having primary and secondary throttles, respectively, therein, a manual control for fully opening said primary throttle, a yielding operative connection between said throttles for partially opening said secondary throttle to initiate second-stage operation of the system responsive to final opening movement of said primary throttle, and an independent automatic control directly connected to said secondary throttle and responsive to variations of pressure in one of said conduits

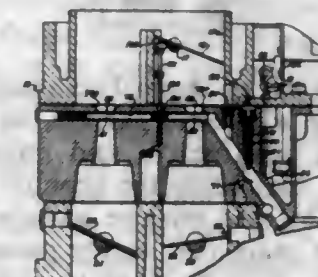


movement of the secondary throttle after initial opening movement by said yielding operative connection.

2,823,019

MULTI-STAGE CARBURETOR

Harold A. Carlson, Brentwood, and Olin J. Eickmann, Normandy, Mo., assignors, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application May 13, 1955, Serial No. 508,039
7 Claims. (Cl. 261-23)

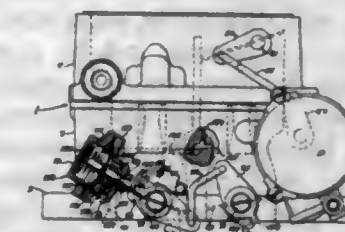


1. In a multi-stage carburetor, primary and secondary mixture conduits, primary and secondary throttles, respectively, controlling said conduits, a fuel bowl, a float-operated valve for controlling the fuel supply to said bowl, a fuel metering orifice adjacent one side of said bowl, a main fuel passage from said orifice, to a control point above the fuel level and adjacent the center of said fuel bowl, a fuel tube connecting with said passage at said control point and extending transversely through said primary and secondary mixture conduits, and a fuel nozzle in said tube for each mixture conduit, whereby a substantially constant relation is maintained between the fuel level and said control point to supply each said nozzle uniformly on inclination of said carburetor, and valve means provided in said tube between said nozzles to control the flow of fuel to said secondary conduit.

2,823,020

SECONDARY-STAGE THROTTLE CONTROL FOR A MULTI-STAGE CARBURETOR

Robert J. Smith, Overland, Mo., assignor, by mesne assignments, to ACF Industries, Incorporated, New York, N. Y., a corporation of New Jersey
Application April 27, 1956, Serial No. 581,133
13 Claims. (Cl. 261-23)



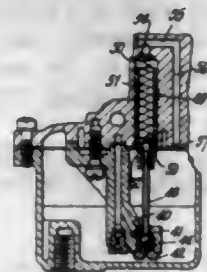
1. In a carburetor having a primary mixture conduit, a secondary mixture conduit, a primary throttle in the primary mixture conduit, and a secondary throttle in the secondary mixture conduit, means for maintaining the

secondary throttle in closed position when the primary throttle is closed and throughout part of the range of opening movement of the primary throttle comprising a latch movable between a locking position and a retracted position, means biasing the latch to locking position, and means responsive to a predetermined suction in the primary mixture conduit for moving the latch to retracted position against the bias and responsive to suction in the secondary mixture conduit for returning the latch to locking position.

2,823,021 CARBURETOR

Robert H. Sternaman, Romeo, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 13, 1952, Serial No. 325,780
12 Claims. (Cl. 261—59)

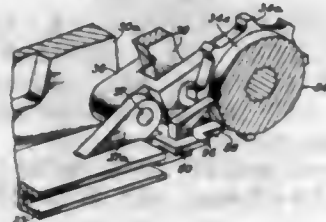


1. A carburetor for an internal combustion engine having in combination a mixture passage, air and fuel inlets for supplying air and fuel to said mixture passage, a throttle valve for controlling the quantity of combustible mixture supplied by said mixture passage to the engine, a fuel chamber, a main fuel supply passage for conveying fuel from the fuel chamber to said fuel inlet, an auxiliary fuel passage for also conveying fuel from said fuel chamber to said fuel inlet under certain operating conditions, means for automatically rendering said auxiliary fuel passage effective as the throttle is moved to relatively wide open position, and means for introducing air into the auxiliary fuel passage to control the flow of fuel therethrough, said last named means being rendered effective whenever the fuel passage is rendered effective.

2,823,022 PIVOTED CHAIN GUIDE AND CORNER SPROCKET STRIPPER FOR BORING TYPE MINING MACHINE

Herman E. Smith, Park Forest, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application November 29, 1955, Serial No. 549,631
4 Claims. (Cl. 262—7)



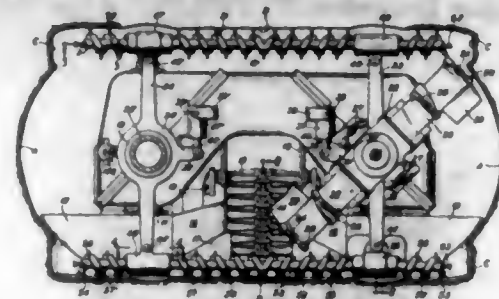
2. In cutting and dislodging apparatus for modifying the cross-section of a passage cut by a mining machine, a frame, a cutter bearing chain, a main guide on said frame along which said cutter chain is movable, direction changing means for said cutter chain on said frame spaced from one end of said main guide, linkage means supporting said direction changing means for movement between an extended position and a collapsed position relative to said main guide, and an auxiliary chain guide mounted on said linkage means between said main guide and direction changing means and movable with said linkage means said auxiliary guide being open along its

outer side to provide auxiliary support for the inner and rear sides of said chain in alignment with said main guide when said direction changing means is in extended position, but permitting freedom of outward movement of said chain in intermediate positions of movement of said linkage means.

2,823,023 BORING TYPE MINING MACHINE HAVING HORIZONTALLY EXTENDING TRIMMER BAR

Emil J. Hlinsky, La Grange Park, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application November 1, 1956, Serial No. 619,812
6 Claims. (Cl. 262—7)

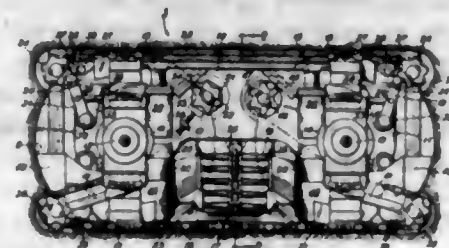


1. In a mining machine of the boring type having a mobile frame with a plurality of boring heads journaled on parallel axes for cutting a plurality of contiguous bores in advance of the frame, a horizontally extending trimmer bar disposed generally tangential to but rearwardly of an adjacent pair of boring heads to cut off the cusp left between said adjacent boring heads, said trimmer bar including a cutter-bit-carrying bar rotatable on a horizontal axis, means including a pair of laterally spaced parallel arms rockably mounted on said frame for oscillating said trimmer bar generally longitudinally of its axis and in a substantially fixed vertical plane, and power connections from said frame for rotating said bar on its axis.

2,823,024 BORING TYPE MINER PROVIDED WITH PERCUSSIVE TOOL

Loy D. Hagenbook, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application December 14, 1956, Serial No. 628,414
4 Claims. (Cl. 262—7)



1. In a boring type miner, a main frame having means for advancing same along a mine floor, a boring head mounted on said main frame and having a pair of boring arms extending therefrom arranged to cut bores in a seam of coal or the like, upper and lower cutting means for cutting upper and lower kerfs in the material remaining from the action of said boring arms, a material receiving throat in said boring head disposed between said boring arms and below the turning centers thereof, a cuttings conveyor arranged to remove fragmented material from said material receiving throat, a percussive tool disposed in said throat above said cuttings conveyor for fragmenting solid material lodged in said throat, and means operable by contact of said percussive tool with the material lodged in said material receiving throat for causing operation of said percussive tool.

2,823,025 BREAKER ROLLER FOR BORING HEADS

Anthony R. Bledess, Chicago, Ill., assignor to Goodman Manufacturing Company, Chicago, Ill., a corporation of Illinois

Application March 5, 1957, Serial No. 644,105
3 Claims. (Cl. 262—33)

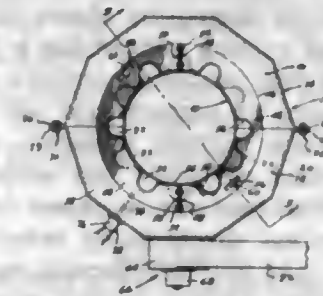


1. A breaker roller for boring heads comprising a disc having opposed outwardly converging side faces defining a generally circular wedging periphery, said side faces having radially extending concave flutes alternately disposed therealong terminating in concavely scalloped cutting wedge portions curved alternately in opposite directions and connected with arcuate centrally disposed wedge portions of the periphery.

2,823,026 HEATER ASSEMBLY FOR SALVAGING HEAT LOST WITH PRODUCTS OF COMBUSTION

Salvatore J. D'Amico, Stafford Springs, Edward J. Mollitoris, Staffordville, and Edwin F. Hosey, Stafford Springs, Conn.

Application September 21, 1956, Serial No. 611,097
4 Claims. (Cl. 263—20)

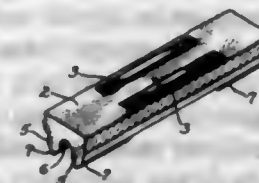


1. A heater assembly for salvaging heat from exhaust conduits for products of combustion comprising a jacket member including spaced tubular inner and outer walls and a transverse bottom and top wall, means on the jacket member for retaining the jacket member circumposed about an intermediate portion of an exhaust conduit, the inner and outer walls defining a hot-air compartment therebetween, the inner wall including an undulated cross section providing a plurality of elongated, uninterrupted, open-ended grooves opening away from the hot-air compartment, means on the inner wall providing communication with the hot-air compartment through said grooves, means on the jacket member controlling air movement into the grooves, and a fan assembly on the jacket member including an ingress portion in communication with the hot-air compartment and an egress portion for distributing heated air drawn from said compartment.

2,823,027 CERAMIC CHECKER MASS

Clarence J. Coberly, San Marino, Calif., assignor to Wulf Process Company, Huntington Park, Calif., a corporation of California

Application November 21, 1955, Serial No. 547,955
6 Claims. (Cl. 263—51)



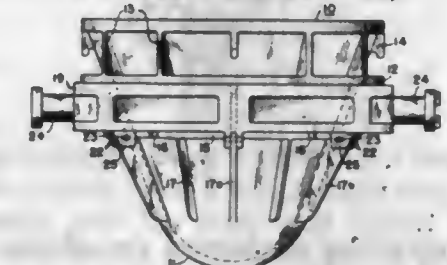
3. In a tile, the combination of: a tongue projecting upwardly from the upper surface of said tile; and a cap

formed on the upper surface of said tongue, said tile having a dent on the lower surface centrally located with reference to said tongue and of such size and shape as to receive a tongue of an underlying tile, said tongue and dent being parallel.

2,823,028 LADLE AND TRUNNION RING THEREFOR

James MacGregor and Michael W. Zoltun, Pittsburgh, Pa., assignors to York Engineering & Construction Company, Pittsburgh, Pa.

Application March 23, 1954, Serial No. 418,086
4 Claims. (Cl. 266—39)

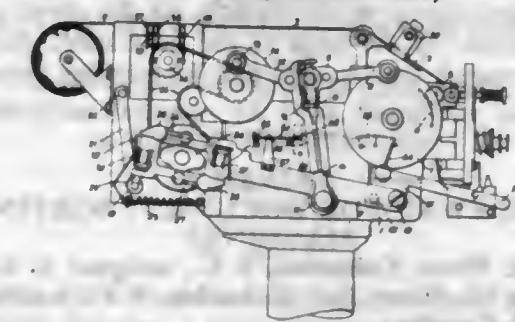


2. A ladle and trunnion ring therefor, including a cone-shaped container, a first flange affixed in outwardly extending relationship from the container to form a seat, a second flange integral with and encircling the container below the first flange, said second flange having vertically extending slots in its outer periphery, fins attached to and extending down the sides of the container below the second flange, at least some of the fins having openings, an annulus adapted to engage the first flange, integral stationary keys on the annulus adapted to pass through the slots and space the container from the annulus, lugs projecting from the annulus adjacent the fins, some of said lugs having openings which are in alignment with the openings in the fins when the ladle is properly positioned in the annulus, means to detachably fasten the lugs to said fins through the openings, and trunnions mounted on the annulus.

2,823,029 STRIP FEEDING ARRANGEMENT

Geoffrey Ewart Ford and Philip Sidney Waite, Bedford, England, assignors to Fords (Finsbury) Limited, Bedford, England, a British company

Application September 26, 1955, Serial No. 536,706
Claims priority, application Great Britain September 29, 1954
15 Claims. (Cl. 271—2.6)



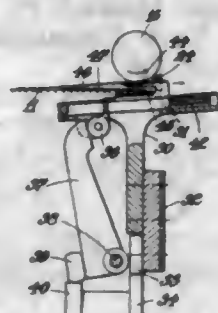
1. Apparatus for forming bottle caps from metal foil bearing a repeating printed pattern representing areas of the caps to be formed, comprising a strip-feed-controlling lever arm, means for driving said lever arm to cause it to oscillate about a pivot, a strip-driving means, a connecting rod for actuation of said strip-driving means, a detecting device for detecting any discrepancy in register in the forming of caps from the printed cap areas on the foil, a slide member slidable back and forth along said lever arm and connected to said connecting rod, and control means under control of said detecting device to effect adjustment of said slide member on said lever arm to vary the strip feed produced by a stroke of the arm.

2,823,030

SHEET REGISTERING MECHANISM

Headley Townsend Backhouse, Fort Charlotte Heights, Nassau, Bahamas, British West Indies, and George William Tebbs, Walthamstow, England; said Tebbs assignor to said Backhouse

Application March 30, 1955, Serial No. 497,976
Claims priority, application Great Britain April 9, 1954
17 Claims. (Cl. 271—59)



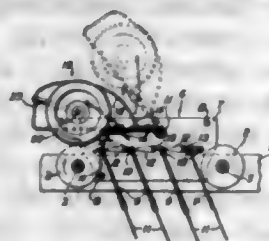
17. Side registering mechanism for effecting side registration of each leading sheet in turn of an advancing stream of partly underlapping sheets which mechanism comprises a feed table for supporting the stream of advancing sheets and having a slot therein beneath an edge of the stream and transverse to the direction of advance, a side lay above the feed table adjacent the slot and outside the width of the stream, a roller held above the slot for rotation about an axis parallel to the direction of advance of the stream, a tongue beneath the roller with its length transverse to the direction of advance of the stream, means for supporting the tongue for up and down movement transverse to its length between a position in which the tongue is within the slot and a position in which the tongue is spaced above the table and is operative to grip a sheet against the under surface of the roller and for lengthwise movement of the tongue, cam means for effecting such up and down movements and cam means for effecting the lengthwise movements, the two cam means being arranged to operate in timed relation to the advance of each leading sheet and in a cycle in which the tongue is first raised to engage the underside of the leading sheet ahead of the next sheet in the stream to lift the leading sheet and to grip it against the roller, the tongue then being spaced above the table to permit the passage of the next sheet over the table beneath the tongue, the tongue is then moved lengthwise outwardly of the stream to carry the leading sheet laterally to bring the side edge thereof up to the side lay and thereafter continue its movement while slipping on the sheet until the tongue is clear of the edge of the next sheet, the tongue is then lowered and is returned lengthwise beneath the next sheet.

2,823,031

GUIDEWAY FOR DOCUMENT SORTING MACHINES

William H. Rives, Columbia, S. C., assignor to Universal Business Machines, Inc., Columbia, S. C., a corporation of South Carolina

Application July 25, 1955, Serial No. 524,007
10 Claims. (Cl. 271—64)



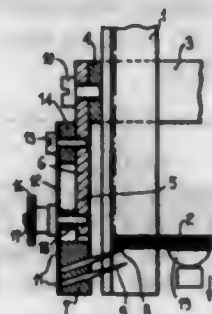
1. A guideway construction for a document sorting machine comprising a pair of parallel rails, a plurality of

driving rollers journaled between said rails at regular intervals along the length thereof, and a plurality of unitary guideway sections removably mounted on said rails between said driving rollers, each unitary section comprising a pair of side walls and a floor joined together in a unitary structure independently of said rails, and a presser roll mounted in each guideway section in a position to have rolling engagement with one of said driving rollers.

2,823,032

PAPER HOLDER FOR SHEETS ARRANGED IN A PILE

Michel Klster, Geneva, Switzerland
Application March 15, 1955, Serial No. 494,511
Claims priority, application Switzerland March 17, 1954
1 Claim. (Cl. 271—61)



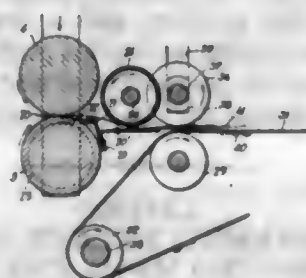
A paper holder for dispensing sheets one by one from a pile by means of suction comprising a housing, a plurality of first marginal pointed members carried by said housing and adapted to support said pile of sheets, and a plurality of second pointed members disposed below the said first pointed members and adapted to support sheets removed from said pile in excess of one, the lowermost of said excess sheets being removed only upon receiving a tear, said first and second marginal pointed members comprising needles having turned points engaging the lowermost of said sheets perpendicularly to the plane of the latter.

2,823,033

DELIVERY CONTRIVANCE FOR PAPER SHEETS AND THE LIKE

Nils Gustaf Allanson Strömberg, Stockholm, Sweden, assignor to Aktiebolaget Dux, Stockholm, Sweden, a corporation of Sweden

Application July 27, 1953, Serial No. 370,509
Claims priority, application Sweden May 19, 1953
1 Claim. (Cl. 271—76)

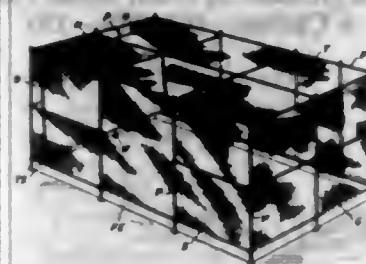


An apparatus for delivering sheets, comprising feed means for said sheets, a bridge receiving sheets from said feed means successively on its upper surface, a sheet conveying roller to move the sheets from said bridge, the lower periphery of said sheet conveying roller being lower than said bridge upper surface, spring means secured to said bridge in a cantilever manner and adapted to press said sheets against the lower periphery of said sheet conveying roller, and a second conveyor receiving said sheets from said spring means, said second conveyor having a lower feeding rate than that of said feed rollers.

2,823,034

RECREATION ENCLOSURE

Hiram Bingham, Jr., Salem, Conn.
Application August 29, 1956, Serial No. 606,879
4 Claims. (Cl. 273—95)



1. A recreational enclosure comprising: (a) at least four sides and a top portion consisting at least partly of wire mesh; (b) a substantially flat floor portion within said enclosure; (c) a separate resilient deflecting means disposed across a substantial portion of the enclosure adjacent one end thereof; (d) said resilient means comprising netting material which is bounded on its periphery by non-netting material which permits the netting material to be more easily and securely joined by fastening means to adjoining portions of said enclosure; (e) said resilient means being joined at its upper portions by means of resilient springs to upper portions of the adjacent enclosure; (f) said resilient means having weighting means located adjacent the lower portion thereof which affect the resiliency of said resilient means; (g) said resilient means containing attachment means for attaching the lower portions thereof to adjacent parts of the enclosure; and (h) said attachment means being adapted to move the bottom of said resilient means so as to vary the angle of said resilient means with respect to said flat floor portion.

2,823,035

TARGET TOWING AND EXCHANGE APPARATUS

Ronald E. Crandall, Los Angeles, Calif., assignor to Northrop Aircraft, Inc., Hawthorne, Calif., a corporation of California

Application April 3, 1956, Serial No. 575,870
4 Claims. (Cl. 273—105.3)



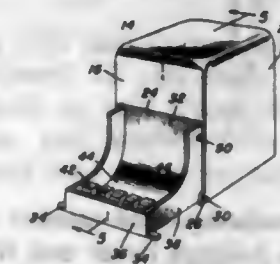
1. Target towing and exchange apparatus comprising: major and minor cylinder-like housings each having an open end and a partially closed end; said housings being secured together at their open ends in slideable overlapping relation to allow relative movement therebetween and to maintain said housings in axial alignment to define a continuous fitting; the partially closed ends of said housings define respective bores the axis of which coincide with the axis of said fitting and through which a cable may be threaded; a pair of grab members each having eccentric serrated surfaces; one of said grab members being pivotally mounted on each side of the axis of said fitting at a position adjacent the closed end of said major housing; a pair of cutter members each including a cutting blade; one of said cutter members being pivotally mounted on each side of the axis of said fitting at a position adjacent the open end of said major housing; said grab and cutter members being pivotally mounted for pivotal movement between respective initial and cable gripping positions; and rod and lever means attached to said grab and cutter members and abutting the end wall of said minor housing and which are responsive to said

relative movement to move said grab and cutter members from their respective initial to their cable gripping positions.

2,823,036

DICE AGITATING AMUSEMENT DEVICE

William E. Worth, Kodiak, Territory of Alaska
Application May 10, 1956, Serial No. 584,002
3 Claims. (Cl. 273—145)



1. An amusement device comprising a receptacle having an open bottom area, a top, a front wall, a rear wall and side walls with the front wall having an enlarged opening in the bottom portion thereof, a pivotal closure member for said opening with the closure member being hingedly attached to the side walls adjacent the bottom edge thereof, detent means releasably retaining said closure member in closed position, and a plurality of cubes disposed in said receptacle with each cube having indicia on each side thereof, said closure member being provided with a laterally extending platform overlying the open bottom of the receptacle when the closure member is in closed position, and a curved ramp between the platform and the closure member for directing the cubes downwardly onto the upper surface of said closure member when it swung to a horizontal position thereby raising the platform and the cubes whereby the cubes will slide down and forwardly on the ramp, and an inwardly extending free edge on the upper end of the closure member for stopping the cubes in alignment thereby permitting comparison of the indicia on the upper surface of each cube after the cubes come to rest, the shifting weight of the cubes being sufficient to maintain the closure member in closed or open position until manually manipulated, said platform being substantially equivalent in size to the bottom area of the receptacle and having a length greater than the height of said opening for limiting the downward pivotal movement of the closure member by engaging the top edge of the opening.

2,823,037

VIBRATORY IMPULSE GENERATOR FOR GOLF CLUB

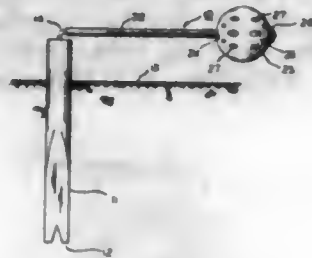
Louis G. La Ferte, Santa Cruz, Calif.
Application February 16, 1956, Serial No. 565,874
6 Claims. (Cl. 273—186)



4. In combination with a golf club comprising a shaft and a head thereon, a vibrator mechanism mounted on the head and comprising a body, an inertia element slidably mounted in the body for a movement in the direction of club head movement during a swing of the club, a shaft rotatably mounted in the body, helical threads interconnecting the inertia element and the shaft, a toothed wheel driven by the shaft, a pivotal mounting fixed to the body, an anvil fixed to the body, and a vibrator reed operably engaging the mounting and having one portion engaging the toothed portion of the toothed wheel and another portion striking the anvil, thereby to transmit sensibly perceptible vibrations along the club shaft to the hands of a person gripping the shaft during a predetermined accelerative swing of the club.

2,823,038

DEVICE FOR PRACTICING GOLF STROKES
James P. White, Chicago, Ill.
Application January 30, 1957, Serial No. 637,225
1 Claim. (Cl. 273—197)

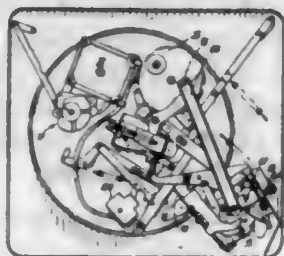


A device for practicing golf strokes comprising an elongated support, a pointed lower end thereon whereby said support may readily be inserted in the turf, an axial bore in said support, a swivel arm extending substantially at right angles to said support and having a journal at right angles to said arm arranged to freely rotate in said axial bore, and a bent over portion on said journal at the lower end thereof to limit the axial movement upward of said journal, a hollow lightweight practice ball supported on said swivel arm, said swivel arm passing through aligned apertures in said practice ball, perforations therein to provide resistance to movement of said practice ball when swiveling with said swivel arm, and a stop at the end of said swivel arm to hold the practice ball on said swivel arm.

2,823,039

AUTOMATIC OR MAGAZINE PHONOGRAPH APPARATUS

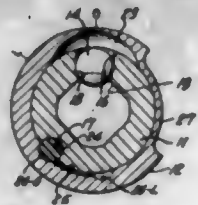
Christopher Collaro and Edward Thomas Humby, Barking, England, assignors to Collaro Limited, Barking, England, a British company
Application April 6, 1955, Serial No. 499,740
Claims priority, application Great Britain April 6, 1954
4 Claims. (Cl. 274—10)



1. In an automatic phonograph, a turntable, means to support a plurality of disc records above said turntable, means to feed said records singly on to said turntable, a pick-up and means for locating said pick-up in dependence on the size of the record last fed on to said turntable, said locating means comprising a pivoted trigger including an arm projecting into the path of records of above a predetermined size as said records are fed on to said turntable, a movable stop member, means operatively connecting said stop member to said trigger, biasing means operative, in response to an initial displacement of said trigger arm by said record, to move said stop member from a first position into a further position, said biasing means also being operative to swing said trigger arm away from said record and out of the path of said record after said initial displacement, and a member movable with said pick-up engageable with said stop member in said first position to locate said pick-up in a first position corresponding to one size of record and engageable with said stop member in said further position to locate said pick-up in a further position corresponding to another size of record.

2,823,040

TOOL RETAINER FOR PNEUMATIC HAMMER
Howard Raymond Fischer, Utica, N. Y., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey
Application October 3, 1955, Serial No. 538,023
6 Claims. (Cl. 279—19)

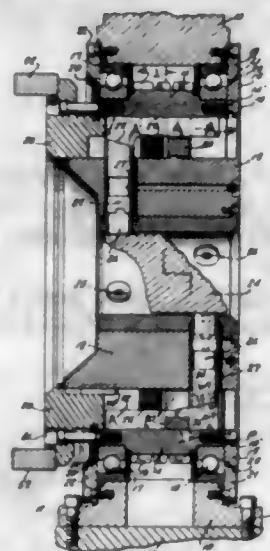


1. A tool retainer comprising in combination a sleeve having a bore for reception of the shank of a tool and a radially disposed hole which is of reduced cross section at its inner end, a ball arranged for movement in said hole and projectable from the inner end of the hole, a lock ring mounted for rotary movement upon the sleeve and having an inner recess which may be brought into alignment with said ball, and a resilient means arranged between the sleeve and the lock ring which is adapted to maintain the lock ring in set rotary position upon the sleeve.

2,823,041

CHUCKING MEANS

William B. Retz, Plainville, Conn., assignor to The New Britain Machine Company, New Britain, Conn., a corporation of Connecticut
Application October 3, 1955, Serial No. 538,099
21 Claims. (Cl. 279—66)



1. Chucking means, comprising a body having a plurality of generally radially directed bores, separate chucking jaws guided for generally radial movement in said bores, first axially shiftable actuating means including cam means coacting with one of said jaws, second axially shiftable actuating means including cam means coacting with another of said jaws, both said cam means being inclined in the same sense with respect to the axis of said chucking means, means including a differential connection to both of said actuating means for actuating both said jaws with equalized force application, and spring means contained within said body and acting against said differential connection in the direction causing actuation of both said jaws.

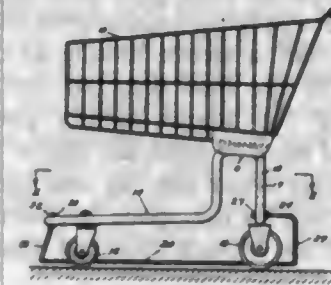
2,823,042

SHOPPING CART GUARD

Seymour H. Gelbond, Fresh Meadows, N. Y.
Application July 20, 1955, Serial No. 523,197
3 Claims. (Cl. 280—33.99)

1. A shopping cart of the nesting type including a wheeled frame and a basket supported by said frame, a

guard member secured to the said frame and having a portion thereof extending forwardly between the wheels of the cart from a point behind and below the axis of rotation of a rear wheel thereof to a point forward of

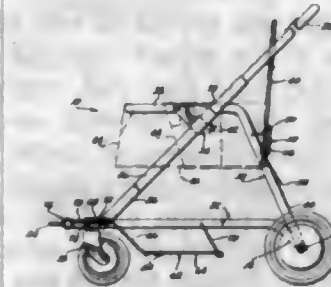


and below the axis of rotation of a front wheel thereof; said guard member being non-parallel with respect to a longitudinal line taken through said shopping cart in the normal direction of travel of said shopping cart.

2,823,043

VERTICALLY ADJUSTABLE FOOTREST FOR FOLDING BABY STROLLER

Samuel M. Shone, Los Angeles, Calif., assignor to A. E. Peterson Mfg. Co., Glendale, Calif., a corporation of California
Application October 6, 1954, Serial No. 460,685
2 Claims. (Cl. 280—36)



1. A foldable stroller, which comprises: a base frame having a front and a rear end; wheels mounted upon said base frame at said front and said rear ends; front braces pivotally mounted upon said base frame; a seat support pivotally mounted upon said base frame at points remote from the points of attachment of said front braces to said base frame; a seat attached to said seat support, said seat being capable of being collapsed when said seat support is located in a folded position adjacent said base frame; pivot members slidably disposed upon said front braces and pivotally attached to said seat support; a footrest having a front edge; arms pivotally attached to said base frame and to said footrest; means defining edge slots adjacent an end of said footrest; means defining second slots at right angles to said edge slots adjacent an extremity of said footrest; a brace pivotally secured to said base frame, said brace including sides capable of being passed through said second slots; and a base portion passing through said edge slots whereby said foot support is capable of being located in either a lower position or an elevated position.

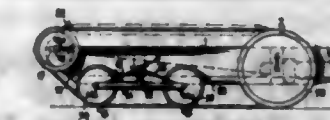
2,823,044

TRACKED VEHICLE SUSPENSION

Victor Albert Bouffort, Paris, France, assignor to Mecatec S. A., Tangiers, a limited liability stock company of Tangiers
Application January 29, 1954, Serial No. 407,097
Claims priority, application France February 2, 1953
4 Claims. (Cl. 280—106.5)

1. In an engine driven vehicle having endless tracks and comprising a frame and bogie wheels, the combination with said frame of a transverse hollow frame member rigidly connected to said frame, a bogie-carrying shaft in said hollow frame member, the ends of said shaft ex-

tending outwardly of said frame, a carrier member pivoted on each end of said shaft, said bogie wheels being journaled to said carrier member, spaced flanges adjacent each end of said shaft, said frame comprising guide means permitting limited vertical movement of said shaft

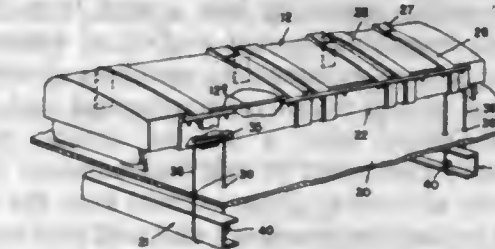


and cooperating with said flanges to substantially prevent transverse movement of said shaft, spaced anchor bars adjacent said shaft on said frame, and elastic bands extending between said anchor bars and said shaft to yieldingly suspend said frame on said shaft.

2,823,045

PASSENGER SAFETY BELT KIT FOR ATTACHMENT TO VEHICLES

Edward R. Dye, Orchard Park, N. Y., assignor to Hickok Manufacturing Co. Inc., Rochester, N. Y., a corporation of New York
Application February 10, 1955, Serial No. 487,271
24 Claims. (Cl. 280—150)



6. For use in a vehicle having a seat, a floor therebeneath and rigid frame members beneath the floor, a safety device comprising an angle bar adapted to be secured lengthwise of the back portion of the seat with one flange disposed vertically and the other flange disposed horizontally under the seat, means securing the bar to the seat, a safety strap secured to the bar and having end portions adapted to be connected together around an occupant of the seat, flexible anchor cables secured to the bar and each having ends adapted to pass through said floor for connection around a frame member, and means for securing together the ends of each cable.

2,823,046

SAFETY BELT SYSTEM FOR VEHICLES

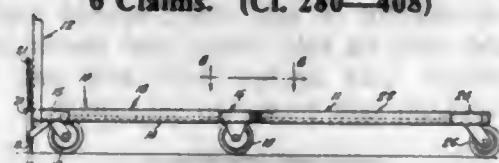
Larry W. Banta, La Porte, Tex.
Application October 18, 1955, Serial No. 541,122
5 Claims. (Cl. 280—150)



1. In a vehicle, a seat comprising a substantially horizontal support portion, an upstanding back rest portion at the rear margin of said support portion, an anchoring member secured transversely to the floor of the vehicle beneath and parallel to the rear margin of said support portion and being substantially coextensive therewith, a first flexible strap member secured at its ends to said transversely extending anchoring member and extending between the bottom edge of said back rest portion and the rear margin of said support portion, said first strap member being adapted to engage around the body of a person on the seat, and a pair of additional flexible strap mem-

bers secured at their ends to said transversely extending anchoring member and extending around and over the top edge of said back rest portion, said last-named strap members being adapted to engage over the person's shoulders.

2,823,047
FREIGHT VEHICLES AND CONNECTING MEANS THEREFOR
Jesse B. Hutchinson, Dallas, Tex.
Application July 2, 1953. Serial No. 365,665
6 Claims. (Cl. 280-408)



3. A trailer connectable to a cart having a pair of laterally spaced open topped sockets adjacent its rear end and a pair of ground engaging wheels mounted adjacent said rear end, said trailer comprising: a rectangular bed; a pair of connecting members secured to the front end of said bed and each having a forwardly extending portion substantially flush with the upper surface of the bed and having downwardly extending legs spaced from the said front end and insertable in said sockets to connect said trailer to said cart, said connecting members allowing pivotal movement of said trailer relative to said cart about a transverse horizontal axis; a pair of ground engaging wheels pivotally connected to said bed adjacent the rear end thereof for movement about vertical axes, the engagement of said connecting members with said cart providing the sole support for the front end of said trailer, an inverted channel member extending transversely across the rear end of said rectangular bed and having a horizontal web and downwardly extending front and rear side flanges, said web being provided with a pair of apertures spaced transversely of the trailer and located adjacent the rear side flange, said apertures being adapted to receive the connecting members of another trailer.

2,823,048
VALVE UNIT
Howard J. Hansen, Bay Village, Ohio, assignor to The Hansen Manufacturing Company, Cleveland, Ohio, a corporation of Ohio
Application April 17, 1957. Serial No. 653,389
9 Claims. (Cl. 284-18)



1. A valve unit comprising a stem having a head, a removable gasket surrounding said stem behind said head, a removable backstop having a central opening slidably receiving said stem, a helical spring surrounding the stem, pressing said gasket forward against said head, and at its other end bearing against said backstop, and a projection on said stem behind said backstop, the backstop being disposed between said projection and said spring and being held at right angles to said stem by the rear end of said spring.

2,823,049
BELL AND SPIGOT INSERTED SECTION PIPE COUPLING AND METHOD OF INSTALLATION
Carl J. Hombach, Little Falls, N. J.
Application March 3, 1954. Serial No. 413,811
2 Claims. (Cl. 285-31)

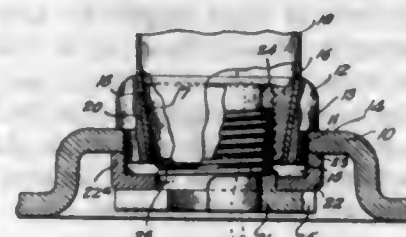
1. Method of coupling a unitary hub and spigot branch fitting into an existing line of joint-sealed conventional

hub and spigot connected pipe sections, which comprises, cutting out and removing a portion of one section intermediate the end portions thereof of a length equal to the length of the branch minus its hub, whereby to leave a pair of axially spaced bald pipe ends rigidly connected in the existing line, applying axially over the down stream one of said bald ends a sleeve having at one end a conventional hub with the hub directed towards the other bald end, moving the sleeve axially inward along its mounting pipe end portion until the sleeve hub is disposed appreciably inwardly from the cut end thereof, positioning the branch fitting in the space between said cut ends with the spigot of the branch engaged against the sleeve-



mounting bald pipe end in end to end abutting relation and with the hub of the branch engaged over the spigot comprising the other bald pipe end, applying a covering band entirely over the joint between said abutting ends to seal the joint against ingress of matter to the interior of the pipe line, moving the sleeve axially outward along its mounting pipe end portion until the sleeve hub completely encompasses and houses the covering band with the band spaced from the hub bottom and from its mouth, anchoring the sleeve at that point, and filling both the sleeve hub and the branch fitting hub with joint-sealing material in the conventional manner of sealing hub and spigot connected pipe sections.

2,823,050
ADAPTOR-RING ASSEMBLY FOR PIPE-TO-PLATE JOINT
Otto L. Lagervall, Yakima, Wash.
Original application March 31, 1950. Serial No. 153,215, now Patent No. 2,710,761, dated June 14, 1955. Divided and this application January 25, 1955. Serial No. 484,021
1 Claim. (Cl. 285-159)



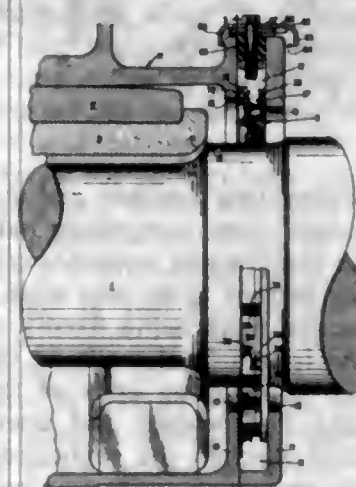
A device of the class described comprising a flat support having an inset face defining a socket, said inset face having an aperture; an adaptor ring having a portion thereof fitting in said aperture, said ring having a flat abutment shoulder abutting said support adjacent said aperture, a thin-walled tube having a tapered end fitting in said ring; a tapering and internally threaded filler plug fitting in said tapered end of the tube for firmly holding said tapered end of said tube in engagement with said ring, said ring encircling said tapered end of said tube and filler plug; a hard-metal cup-washer having a flat support-contacting periphery contacting the opposite face of said support with respect to said ring, said contacting

periphery surrounding said aperture, the cup-washer comprising a flat body spaced from said ring and filler plug and having an inwardly turned right-angular flange which provides said flat support-contacting periphery; and a threaded bolt engaging said filler plug and having a head abutting said body of said washer and overhanging said inwardly turned flange to apply pressure directly over said flange and for clamping the flange directly against said support and fastening said ring and washer in clamping engagement with said inset face, said head of said threaded bolt being wholly inset within said socket to thereby shield said threaded bolt against injury from foreign objects.

2,823,051
SEALS

Lloyd A. Johnson, Woodside, Dan A. Christensen, Palo Alto, and Antone D. Martin, Menlo Park, Calif., assignors, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan

Application January 31, 1955. Serial No. 485,009
10 Claims. (Cl. 286-6)

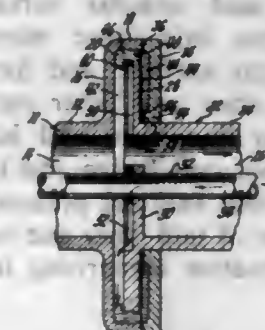


1. An oil seal assembly for use in sealing the radial gap between a rotating journal and a housing therefor comprising, a rigid outer frame for anchoring the seal assembly against a housing wall adjacent the edge of a journal opening therethrough, a cupped ring of rigid material spaced radially inwardly of said frame, a readily flexible ring bellows having its outer rim sealed to said frame and its inner rim sealed to said cupped ring, a plurality of rings nested within said cupped ring including a flexible sealing lip and a follower ring closely adjacent said sealing lip having an inner diameter slightly greater than the journal diameter for which said sealing lip is designed whereby said follower ring will normally operate out of contact with a true operating journal but will move the sealing lip ring bodily with the journal upon the lateral displacement of the journal.

2,823,052
FLUID SEAL DEVICE
John S. Collman, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application April 12, 1954. Serial No. 422,455
3 Claims. (Cl. 286-10)

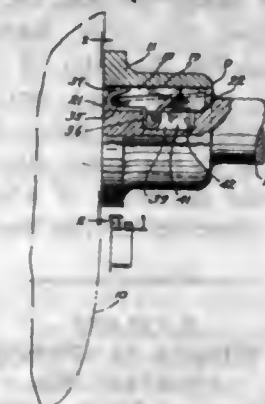
1. The combination of a hollow outer member having walls at one end thereof said walls comprising a pair of axially spaced radially extending walls peripherally connected by a circumferentially extending wall and defining a radially extending annular recess, a relatively rotatable hollow inner member being provided with a radially outwardly extending flange at one end thereof, said flange being received within said recess and substantially surrounded on both sides and at the outer peripheral edge thereof by said walls defining said recess, said hollow

members having axial passages in alignment and adapted to carry fluid, said recess being adapted to receive a sealing fluid between said walls and said flange during the rotation of at least one of said hollow members, a conduit extending through said aligned axial passages also adapted to carry fluid, sealing fluid inlet and outlet passages oppositely disposed on the same side of one of said members, said inlet passage providing communication



between said conduit and said recess, said outlet passage communicating between said recess and said aligned axial passages, said outlet passage being located on said one member at a point radially outwardly disposed from said aligned axial passages, said point determining the desired sealing fluid level in said recess, whereby said sealing fluid may be added in excess to circulate said fluid while maintaining the desired fluid level in said recess.

2,823,053
FASTENING ASSEMBLY AND CLIP
John Strange, Whitchurch, Cardiff, Wales, assignor to Tinnerman Products Inc., Cleveland, Ohio, a corporation of Ohio
Application February 7, 1955. Serial No. 486,459
Claims priority, application Great Britain April 28, 1954
2 Claims. (Cl. 287-53)

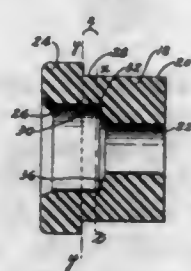


1. A fastening assembly comprising a plug member and a socket member adapted to be fastened together against axial movement with respect to one another, said members having registering grooves therein, said plug member having a recess extending from the bottom wall of the groove therein, and a key carried by said plug member, said key comprising a shouldered portion projecting into said recess and being in abutting engagement with an end wall of said recess and yieldable arms projecting through the groove in said plug member and engaging in biting contact a confronting wall of the groove in said socket member, said engagements of said key with said walls operating to lock the members together against axial movement tending to withdraw one member from the other.

2,823,054
FLANGED RESILIENT JOINT
Leon F. Thiry, Chagrin Falls, Ohio
Application February 17, 1954. Serial No. 410,875
4 Claims. (Cl. 287-85)

1. A flexible mounting comprising an outer member providing an outer surface of revolution; an inner mem-

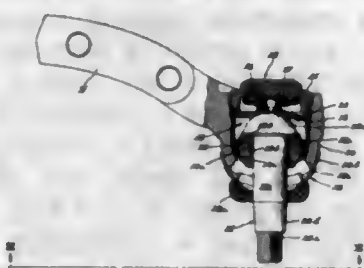
ber within the outer member providing an inner surface of revolution coaxial with but spaced radially inwardly from the outer surface; an annular surface around the outer member at one end of the outer surface extending in a plane transverse to the axis of the surfaces, said annular surface being spaced axially inwardly of the corresponding end of said inner member; an insert bushing of rubberlike material having a radial flange portion engaging said annular surface and exerting radial pressure upon said inner member axially outward of said annular surface, and having a body portion between said inner and outer surfaces in pressure friction engagement therewith, and having an integral neck portion between said flange and body portions and with said neck portion exerting pressure radially against confronting portions of said inner and outer surfaces; said insert before deformation comprising in portions thereof



corresponding to the aforementioned portions of the assembled insert, a body portion, the inner and outer diameters of which are respectively smaller and greater than the diameters of the said inner and outer surfaces of revolution, whereby after assembly the inner surface of the body portion of the bushing is materially stressed and radially expanded and the outer surface of the body portion of the bushing is radially reduced and whereby after assembly the body portion is compensatorily axially elongated; a flange portion, the inner diameter of which is greater than the inner diameter of the body portion but less than the diameter of the said inner surface of revolution; and a neck portion between said flange and body portions, the inner diameter of which is substantially equal to the inner diameter of the flange portion and the outer diameter of which is substantially equal to the outer diameter of the body portion.

2,823,055 BALL JOINT WHEEL SUSPENSION SOCKET ASSEMBLIES

James H. Booth, Corunna, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application July 6, 1954, Serial No. 441,600
4 Claims. (Cl. 287-90)

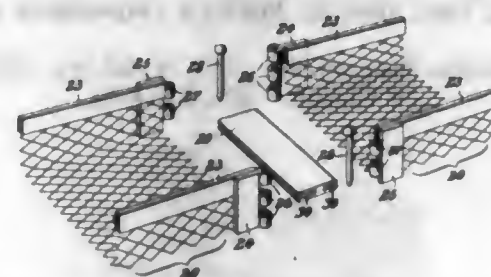


1. In a wheel suspension, a ball and socket joint which comprises a housing assembly having an internal fragmental spherical bearing wall converging to an aperture, a porous sintered powdered ferrous metal ball member tiltably mounted on said bearing wall, said ball member having an end face in said housing, a stud having a cylindrical shank rotatably mounted in the ball member and projecting through the aperture of the housing, said stud having a head overlying the end face of the ball member, means urging the stud head toward said end face of the ball member and thereby urging the ball member toward

the fragmental spherical bearing wall of the housing assembly, said ball member having an integral case-hardened porous outer bearing surface cushioned on a softer main porous body of the ball member and in bearing engagement with said bearing wall of the housing and said stud head, and lubricant in the pores of the ball member adapted to be released therefrom through the porous outer case-hardened surface in operation of the joint for eliminating dry spots on the bearing surfaces of the joint.

2,823,056 CONNECTING MEANS FOR CABLE-SUPPORTING TROUGH SYSTEMS AND THE LIKE

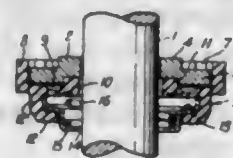
Unico Di Meo and Thomas C. Reeves, Philadelphia, Pa., assignors to T. J. Cope, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application October 20, 1954, Serial No. 463,420
2 Claims. (Cl. 287-103)



1. Means for connecting together, end to end, prefabricated channel trough units, comprising pairs of complementary plate-like components respectively having spaced ears in the planes thereof along one edge, the components of the respective pairs being fixedly secured to the outer sides of the longitudinal walls of the trough sections adjacent the confronting ends of the latter, with the ears projecting therebeyond and interengaged; and locking pins passed through the registering ears on the components of the respective connecting pairs.

2,823,057 SEALING DEVICE FOR RELATIVELY ROTATABLE PARTS

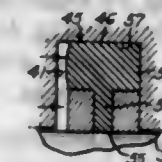
George Mure Slight, London, England, and Reginald John Perry, Long Island City, N. Y., assignors to The Morgan Crucible Company Limited, London, England, a company of Great Britain
Application April 27, 1954, Serial No. 426,016
Claims priority, application Great Britain May 1, 1953
14 Claims. (Cl. 288-3)



1. A sealing device for relatively rotatable coaxial parts comprising a sealing ring having a front face to bear against a counterface on one of said parts, and a cup-like holder for said sealing ring adapted to be carried by the other of said parts, said holder being made of resiliently deformable material and having a portion surrounding the periphery of said sealing ring, said portion and said sealing ring having generally radially overlapping faces extending generally in the direction of extent of the axis of said ring to prevent relative rotation of said portion and said ring whilst permitting relative coaxial movement, and said holder having at an intermediate point along its length a radially inwardly extending diaphragm portion comprising a web, out of contact with the sealing ring, terminating in an inner rim which is in sealing relationship with the rear face of said sealing ring.

2,823,058 MULTIPLE ELEMENT SEALING RING

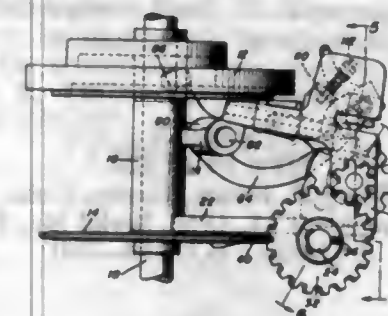
Murry F. Ecker, Downey, and Doran B. Harney, Compton, Calif., assignors, by mesne assignments, to Dresser Industries, Inc., Dallas, Tex., a corporation of Delaware
Application November 17, 1952, Serial No. 320,906
6 Claims. (Cl. 288-16)



1. A multiple element sealing ring for a high pressure sealing assembly around a shaft to seal the annular space between a nonrotating sleeve member surrounding the shaft and a nonrotating follower member surrounding the sleeve, said multiple element sealing ring being adapted for mounting in an inner annular groove in said follower member and being characterized by axial slidability to permit said follower to move freely axially against a co-operating rotary sealing member on said shaft in response to fluid pressure even after the follower has been stationary for a long period of time, said multiple element sealing ring comprising: an elastomer T-ring having an annular backing portion to seat against the cylindrical bottom surface of said groove and a central relatively thin radial web portion for contact with said sleeve, said two portions forming two annular recesses on opposite sides of the T-ring; and two side rings of a fluid-impervious material having a low coefficient of friction lying against the opposite faces of said web portion and against said backing portion in said two annular recesses, respectively, to prevent extrusion of the elastomer and to limit the area of the elastomer in contact with said sleeve, said T-ring and side rings being in continuous engagement with each other to shift in said groove as a unit, the unrestrained inside diameter of said backing portion of said T-ring being less than the unrestrained outside diameters of said two side rings.

2,823,059 KNOTTER FOR HAY BALERS

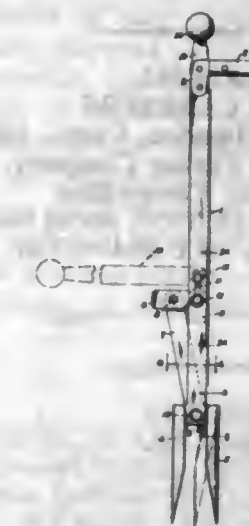
C M Smith, Yadkinville, N. C., assignor of fifty percent to Sidney W. Hutchens, Yadkinville, N. C.
Application May 11, 1956, Serial No. 584,271
9 Claims. (Cl. 289-10)



1. A twine knotted including a supporting frame and an actuating shaft operatively associated therewith, a bill hook and a twine holder for holding strands of twine to be tied by said bill hook, said bill hook and twine holder being journaled on said frame, a drive member on said shaft operatively connected to said bill hook for intermittently rotating the latter, a cam disk on said shaft, gearing operatively connecting said cam disk to said twine holder for intermittently rotating the latter in timed relation to rotation of said bill hook, a resilient abutment on said frame operatively engaging said bill hook during rotation of the latter whereby to resiliently close the bill hook during a predetermined portion of its rotation.

2,823,060 GARDEN DIGGING TOOL

Mollie Sullivan and Carl T. McCally, Portland, Oreg.
Application November 16, 1953, Serial No. 392,148
3 Claims. (Cl. 294-50.9)



1. A digging tool comprising in combination an elongated vertical handle having a lower end, a fixed blade secured to the lower end and extending downwardly and parallel to the handle, an arm pivoted to the lower end of the handle and normally extending upwardly and slightly outwardly therefrom, a movable blade carried by the arm and movable thereby from a normal position opposed and parallel to the fixed blade to an angular position inclined toward the fixed blade, said handle having an axial slot, transverse pivot means slidable in the slot, a vertical lever disposed alongside the handle and having a lower end pivotally carried by the pivot means and terminating in an integral right angular portion pivotally connected intermediate its ends to the top end of said arm and adapted to serve as a foot rest for applying downward pressure to the tool whereby upon release of foot pressure and tilting of said lever relative to the handle said movable blade will be moved toward the fixed blade upon upward movement of the pivot means in said slot and the resultant swing of said arm and said right angular portion of the lever toward said handle.

2,823,061 SELF-DUMPING BUCKET

Ian Dale Pottorf, Gary, Ind., assignor to United States Steel Corporation, a corporation of New Jersey
Application April 20, 1954, Serial No. 424,379
2 Claims. (Cl. 294-73)



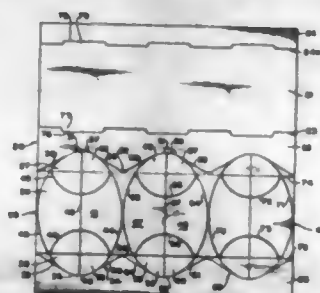
1. Material-handling apparatus comprising a bucket having parallel side walls, end walls and a bottom, and a bail for lifting said bucket, said bail including spaced parallel side arms pivoted to said side walls by pin-and-slot connections on an axis offset to one side of a vertical plane extending transversely through the center of gravity of the bucket from one side wall to the other and below a horizontal plane extending transversely through the center of gravity of the bucket from one side wall to the other, the slots of said connections being at an angle to the vertical such as to cause the lower ends of the arms to move toward and from one of said end walls when the bail is raised and lowered, aligned pins extending laterally from said side walls above said axis,

said arms having notches to receive said pins when the bail is raised in one angular position relative to the bucket thereby locking the bucket in carrying position and to clear said pins when raised in a different angular position thereby freeing the bucket for tilting to dump the contents.

2,823,062

CAN CARRIERS

Patrick A. Toensmeyer, Hamden, Conn., assignor to The New Haven Board & Carton Company, New Haven, Conn., a corporation of Connecticut
Application October 24, 1955, Serial No. 542,258
14 Claims. (Cl. 294—87.2)

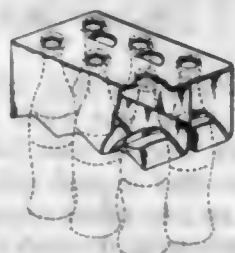


1. A carrier for a row of cans having chimes at their ends and at least one end flat, which comprises a longitudinal wall, side walls connected to the side edges of the longitudinal wall and extending at an angle thereto, the longitudinal wall being adapted to extend from end to end of the row of cans, and a plurality of partition strips in pairs extending between the side walls and having end sections connected to the side walls along fold lines at the edges of the side walls at the side thereof opposite the longitudinal wall and mid-sections integral with the end sections, the fold lines of the end sections of each pair of strips extending convergently along the face of said side walls toward the longitudinal wall to define an angle substantially in excess of 100°, the end sections of the strips being folded back along their fold lines toward the inner faces of the respective side walls to lie at an oblique angle thereto and the mid-sections of the strips of each pair extending convergently toward the longitudinal wall and providing a compartment for a can, the distance between the free inner edges of the mid-sections of the strips of a pair being less than the diameter of a can and the strips being distortable to permit insertion of the ends of cans into the compartments with the chimes passing beyond the inner edges of the strips.

2,823,063

CARRIER CARTONS

Patrick A. Toensmeyer, Hamden, Conn., assignor to The New Haven Board & Carton Company, New Haven, Conn., a corporation of Connecticut
Application February 24, 1956, Serial No. 567,672
5 Claims. (Cl. 294—87.2)



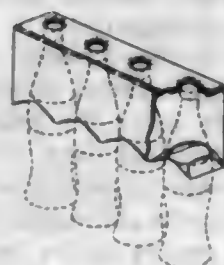
1. A carrier for a row of containers each having a body and a neck with a circumferential enlargement, which comprises a top wall having a row of openings for the ends of the necks of respective containers, the openings being of less diameter than the enlargement and defined by deformable edges adapted to permit passage of the enlargements through the openings and to engage the

enlargements from beneath to support the containers, a pair of side walls extending downward from the edges of the top wall, and pairs of partition members attached at their ends to the lower ends of respective side walls along fold lines lying at an angle to the vertical, the fold lines at like ends of the members of a pair extending along the respective faces of the side walls, converging toward one another and defining an angle substantially in excess of 100°, and the members being foldable on such lines into the space between the side walls to form compartments for receiving the containers.

2,823,064

CARRIER CARTONS

Patrick A. Toensmeyer, Hamden, Conn., assignor to The New Haven Board & Carton Company, New Haven, Conn., a corporation of Connecticut
Application December 20, 1956, Serial No. 629,647
2 Claims. (Cl. 294—87.2)

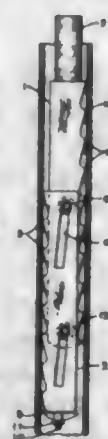


1. A carrier for a row of containers each having a body and a neck with a circumferential enlargement, which comprises an inner and an outer top wall each having a row of openings for the ends of the necks of respective containers, the openings through the inner top wall permitting the enlargements to pass freely and the openings through the outer top wall being defined by deformable edges of less diameter than the enlargements and adapted to permit passage of the enlargements through the openings and to engage the enlargements from beneath to support the containers, a pair of side walls extending downward from the remote edges of the inner and outer top walls, respectively, and pairs of partition members attached at their ends to the lower ends of respective side walls along fold lines lying at an angle to the vertical, the fold lines at like ends of the members of a pair extending along the respective faces of the side walls, converging toward one another and defining an angle substantially in excess of 100° and the members being foldable on such lines into the space between the side walls to form compartments for receiving the upper ends of the container.

2,823,065

PIPE PULLER

William F. Henry, Derby, Colo.
Application April 11, 1955, Serial No. 500,581
5 Claims. (Cl. 294—94)



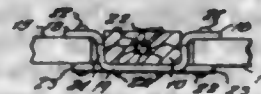
1. A pipe puller comprising an elongated pulling member, a first elongated dog secured to one end of said

elongated pulling member, a second movable elongated dog in face-to-face relationship to said first elongated dog, teeth in one longitudinal edge of said first dog, teeth in the opposite longitudinal edge of said movable dog, the face of the teeth in said dogs pointing toward said elongated pulling member, a plurality of slots in said movable dog wherein the ends of said slots the farthest removed from said pulling member are the closest to said tooth edge of said movable dog, fastening means extending through said slots to hold the dogs in slidable face-to-face relationship and an arcuate spring clip rigidly fastened to the terminal portion of said movable dog urging said pair of elongated dogs together when said pipe puller moves within a pipe in a direction which tends to reduce the radius of curvature of said arcuate spring clip and urging said pair of elongated dogs apart when said pipe puller moves within a pipe in a direction which tends to increase the radius of curvature of said arcuate spring clip.

2,823,066

TRAILER AND TRUCK BODY CONSTRUCTION

Elvin E. Maxson, Fort Worth, Tex., assignor to Hyde Corporation, Fort Worth, Tex., a corporation of Texas
Application April 22, 1955, Serial No. 503,279
2 Claims. (Cl. 296—29)



1. In a trailer and truck body construction, in combination, a series of spaced vertical standards, horizontal vertically spaced slats supported on said standards, the said slats being arranged in independent series between said standards and the said slats of each series being in horizontal alignment with those of the other series, coupler members on each of said standards aligned with the said vertically spaced slats of each series, each of the said coupler members being substantially U-shaped and generally embracing the outer surface and each edge of each of said standards, integral flanges formed on the legs of said U-shaped coupler and integral cut-out portions on said members extending from each side thereof in alignment with and spaced from said flanges and securable to the ends of said slats in each series thereof.

2,823,067

DETACHABLE BABY CARRIAGE BODY

Louis Gottfried, New York, N. Y., assignor of one-half to Jacob Berger, New York, N. Y.
Substituted for abandoned application Serial No. 409,094, February 9, 1954. This application July 20, 1956, Serial No. 599,152
7 Claims. (Cl. 296—35)



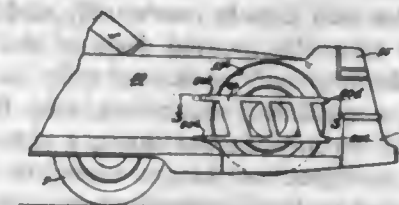
1. A detachable baby carriage body or the like comprising a main carriage body, a supporting member, and a running gear having four wheels, the said supporting

member being removably secured in said running gear and upon removal from said running gear placed on the ground, the said supporting member comprising a base portion and a top portion, the latter being connected with said base portion, the said top portion as well as said base portion of said supporting member including two horizontally disposed parallel portions, means for detachably connecting the said supporting member to the said main body of the baby carriage, and means for detachably connecting said running gear to said supporting member, and said base portion being adapted to be secured to said running gear at about the level of the axis of said wheels, and said horizontal portions of said base portion and of said top portion, respectively, being spaced apart at a distance to raise said top portion above said running gear.

2,823,068

VEHICLE SPARE TIRE MOUNTING

Brooks Walker, Piedmont, Calif.
Application October 5, 1954, Serial No. 460,405
6 Claims. (Cl. 296—37.2)

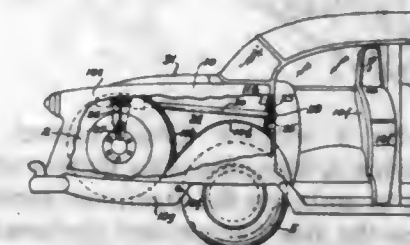


1. In an automotive vehicle having ground-engaging rear wheels and a body having a generally vertical side wall including a front portion, an indented generally vertical portion and a rear extension portion extending back beyond said rear wheels with the side wall extension portion lying in substantially the same plane as said front portion, the combination therewith of a generally disc-shaped vertical recess defined by the indented generally vertical portion, said recess extending in from the outside of said side wall and means for holding a spare tire substantially within the recess and substantially flush with said side wall.

2,823,069

VEHICLE SPARE TIRE MOUNTING

Brooks Walker, Piedmont, Calif.
Application November 1, 1954, Serial No. 465,786
9 Claims. (Cl. 296—37.2)



8. A vehicle body having a rear wheel housing and a spare wheel housing, said spare wheel housing being disposed rearwardly of said rear wheel housing and in substantial alignment therewith, said spare wheel housing being open at the bottom thereof with access thereto being from below through the opening therein, said spare wheel housing further being of sufficient size to receive a spare wheel in a substantially vertical position, said body having a portion thereof extending over the space wheel housing, that part of the body portion nearest a roadway being a movable skirt, means permitting said skirt to be moved to a position permitting access to a spare wheel in the spare wheel housing to facilitate removal of a spare wheel therefrom by lowering same to ground contact.

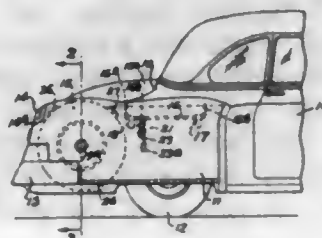
2,823,070

REAR FENDER COMPARTMENT FOR SPARE TIRE

Brooks Walker, Piedmont, Calif.

Original application October 11, 1952, Serial No. 314,265, now Patent No. 2,773,719, dated December 11, 1956. Divided and this application December 19, 1955, Serial No. 557,818

6 Claims. (Cl. 296—37.2)



1. A vehicle having a body, rear wheels, a portion of said body covering said rear wheels and forming a first compartment in back of said rear wheels, means in said first compartment for supporting therein an inflated spare tire and rim assembly substantially vertically and substantially in line with one of said rear wheels, a second compartment located largely rearwardly and between said rear wheels, a centrally located door at the rear of said vehicle, said door providing access only to said second compartment, a partition separating said first compartment from said second compartment, a side wall portion of said body mounted on hinges along its lower edges generally parallel to the longitudinal axis of said vehicle and serving as a sole door to said first compartment, and locking means for said first compartment door, said locking means extending into and being operable only from said second compartment.

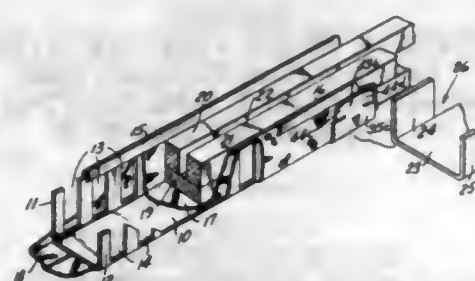
2,823,071

AUTOMOBILE DOOR CLIP FOR MOUNTING WINDOW GUIDES

Burnice Edward Malpass, Pink Hill, N. C., assignor of one-fourth to William F. Simpson, one-eighth to Fitzhugh E. Wallace, Sr., and one-eighth to Fitzhugh E. Wallace, Jr., all of Kinston, N. C.

Application July 12, 1955, Serial No. 521,502

2 Claims. (Cl. 296—44.5)



1. For use with a window glass channel strip, an attaching clip having a base and side flanges of resilient material adapted to embrace the strip, and spring loaded clamps formed on the side flanges and comprising spring leaves incised from the upper portions of the flanges and bent from central panel portions of the flanges in relatively divergent relation.

2,823,072

AIR DEFLECTOR FOR VEHICLE WINDSHIELD

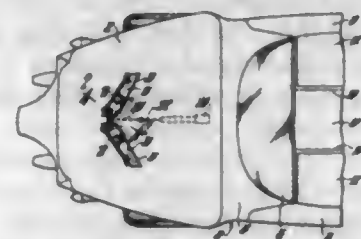
Edward G. Podolan, St. Clair Shores, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application January 16, 1956, Serial No. 559,407

8 Claims. (Cl. 296—91)

1. In combination with a vehicle body having an opening therein, a closure for said opening, means mounting said closure on said body for swinging movement thereof between open and closed positions with respect to said opening, and means for moving said closure be-

tween said open and closed positions, said moving means including a pair of guide members having angularly related transverse guide slots, means mounting said members on said body for movement relative to each other to thereby move said slots transversely relative to each other in fixed angular relationship, a slidable member



operatively connected to each of said guide slots for movement along one of said slots upon movement of said slots transversely relative to each other, and means operatively connecting said slidable member to said closure for movement of said closure between said open and closed positions thereof upon movement of said slidable member.

2,823,073

CONVERTIBLE AUTOMOBILE TOP

Hans Mersheimer and Philipp Orth, Russelsheim (Main), Germany, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 20, 1954, Serial No. 476,440

Claims priority, application Germany January 7, 1954

6 Claims. (Cl. 296—116)



2. In a vehicle body, a folding top frame comprising, a pair of spaced foldable side rails, each of said side rails including a plurality of lazy tong linkage arrangements movable between folded and unfolded positions to raise and lower said top frame with respect to said body, each said arrangement including a pair of members, first pivot means pivotally interconnecting said members intermediate the ends thereof, second pivot means interconnecting the free ends of each of said members with the free ends of respective members of adjacent linkage arrangements whereby said second pivot means between each said arrangement and the adjacent arrangements thereto define upper and lower pairs of toggle joints in the unfolded position of said arrangements, the spacing between said upper pair of toggle joints being greater than the spacing between the lower pair of toggle joints, with said first pivot means lying to the upper side of the intersection of lines through diagonally opposite second pivot means, and transverse bow means interconnecting said spaced foldable side rails.

2,823,074

OXY-ACETYLENE HOSE REEL

John E. Bernard, Jr., Salem, Va.

Application December 11, 1956, Serial No. 627,589

1 Claim. (Cl. 299—78)

Oxy-acetylene hose reel comprising a spindle and an integral housing therefor in bearing-journal relationship, said spindle having the portion journaled in said housing of uniform diameter throughout its length and extending beyond said housing, terminating in an end portion of larger diameter than said journaled portion, a shoulder being defined at the juncture between said portions of two diameters, a reel having a hub fixedly mounted

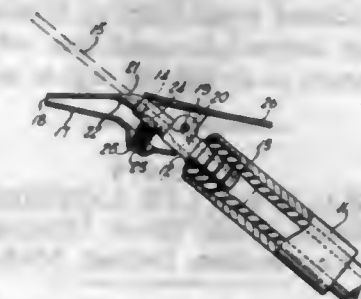
2,823,076

COMBINATION NOZZLE

Ignatius Nurkiewicz, Colt's Neck, N. J., assignor to Stop-Fire, Inc., Brooklyn, N. Y., a corporation of New York

Application May 4, 1956, Serial No. 582,815

1 Claim. (Cl. 299—129)



A semi-automatic outlet nozzle for discharging either a round or a flat spray, comprising a short cylindrical nozzle member and a flat spray member pivoted to said cylindrical nozzle member and substantially completely enclosing the mouth thereof, said flat spray member having an opening in one wall thereof terminating in a cut-off edge, said edge being in alignment with the end of such cylindrical nozzle, the pivot of said flat nozzle member being situated to permit said cut-off edge to be moved to bring said cut-off edge either above or below a jet issuing from said cylindrical nozzle member, said flat spray member having its top wall in the form of a deflector plate in position to intercept and deflect a jet impinging upon it from said cylindrical nozzle into an elongated opening at its end, and simultaneously spreading that jet to the full width of the elongated opening.

2,823,077

WITHDRAWN

2,823,078

SAWHORSE

Alexander W. Keema, Wickford, R. I.

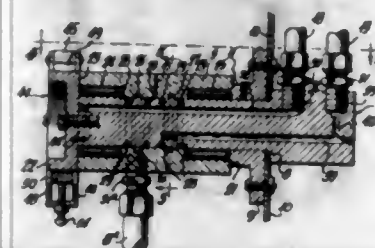
Application April 23, 1956, Serial No. 579,871

1 Claim. (Cl. 304—5)



A sawhorse comprising an elongated work supporting body of generally channel shape in cross section providing a top wall and divergent side walls depending therefrom and of the same piece of material as the top wall, four legs of L shape cross section supporting said body with one leg at each of the opposite ends of the side walls, each leg having one side of its L cross section parallel and contacting the inner surface of a side wall and a pivot extending through said contacting portions and serving as the only pivotal support of such leg, the other side of the L cross section of each leg extending inwardly from the side wall and substantially closing the space between side walls when the leg is in a position about its pivot parallel to the top wall, the two of the legs on the same side wall being of a combined length when at right angles to the top wall greater than the distance between their pivots and both being adjustable in length so that when shortened their combined lengths will be less than the distance between their pivotal connection to

upon said spindle between said shoulder and the adjacent end of said housing, bearings for said spindle mounted in annular recesses in opposite end zones of said housing, said housing between said bearings slidably fitting said spindle and being formed with a pair of spaced channels opening in the interface between said housing and spindle, said spindle being formed with spaced pairs of ring grooves also opening in said interface, each channel being between the ring grooves of a corresponding pair, O-rings mounted in said grooves sealingly contacting said housing for sealing each channel against leakage, a pair of nipples mounted on said housing adapted to be connected to hoses from the respective



supply tanks of oxygen and acetylene gas, bores in said housing connecting said nipples to the respective channels, a second pair of nipples mounted on the enlarged end portion of said spindle adapted to be connected to hoses serving a torch, bores through said spindle connecting said second pair of nipples to the respective channels, whereby access of the two gases to the torch is continuous throughout the unreeling and torch operating phases of the hose reel, said housing being provided with a bore open at one end to atmosphere and having its other end opening in said interface at a point between adjacent O-rings of said pairs for reducing the pressure of gas leaking from either channel into said interface, thereby preventing it forcing itself into the other channel.

2,823,075

DISTRIBUTORS FOR FLUIDS

Walter Shirley, Luton, England, assignor to D. Napier & Son Limited, London, England, a company of Great Britain

Application February 23, 1954, Serial No. 412,040

Claims priority, application Great Britain

February 27, 1953

6 Claims. (Cl. 299—121)



1. A distributor for distributing a fluid stream comprising a substantially flat integral distributor plate having an upstream face and a downstream face, the said plate having formed on its downstream face a plurality of approximately concentric coplanar circular grooves, each groove having an inner side and an outer side, and a plurality of rectilinear passages leading from said upstream face of said plate into the respective grooves, the major rectilinear axis of each passage intersecting the said outer side of its respective groove at an acute angle in substantially an axial plane of the grooves, each said passage opening through the inner side of its respective groove at a location spaced from and opposed to the outer side thereof to direct a stream of fluid at an acute angle against the said outer side.

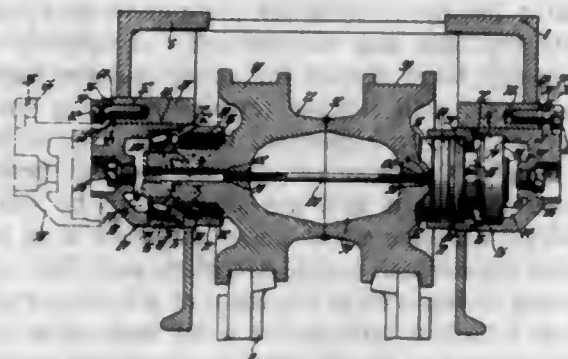
the same side wall, said four legs when in position parallel to the top wall of the body closing the space between side wall sufficiently to contain and assist in preventing loss of parts contained therein, and brackets secured to the under side of the top wall adjacent the pivot of the legs to the side walls and extending downwardly from the top wall and inclined away from each other and engaged in face to face contact by said legs when in working position and means to secure the legs to said brackets.

2,823,079

TRACK ROLLER ASSEMBLY

Russell C. Williams, Rocky River, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 14, 1954, Serial No. 456,000
8 Claims. (Cl. 305-9)



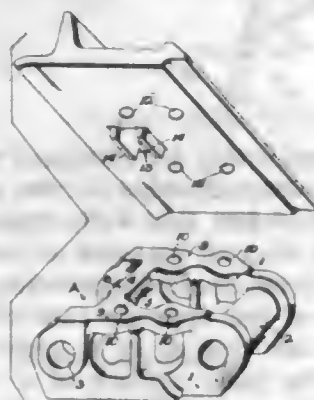
1. In a crawler tractor having endless ground engaging tracks, a supporting structure for said tracks comprising a pair of spaced apart longitudinally extending frames rigidly connected together, a plurality of track engaging rollers disposed between said frames, bearing means for said rollers, supporting means for said bearings, means forming recesses in said frames, said supporting means being disposed in interfitting recessed relation in said recesses and means for positively adjusting each of said supporting means transversely of said frames.

2,823,080

TRACTOR RAIL AND GROUSER PLATE ASSEMBLY

Eugene C. Bauer, Jr., Park Ridge, Ill., assignor, by mesne assignments, to Poor & Company, Chicago, Ill., a corporation of Delaware

Application June 22, 1955, Serial No. 517,320
2 Claims. (Cl. 305-10)



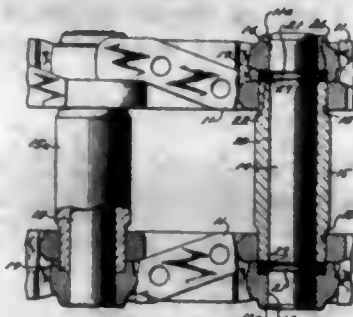
1. A track and grouser plate assembly for endless track rails, including, a link unit having side members each provided in one edge with a pair of openings, a tie bar disposed transversely between and connecting the side members, a grouser plate also having openings for registering with the openings in the side members, bolts connecting the side members and the grouser plate through said registering openings, and spaced parallel transverse projections on the grouser plate to straddle the tie bar

at a point between the side members to resist relative horizontal movement between the link and grouser plate and also relieve shearing stress on the bolts.

2,823,081

MASTER TRACK PIN

Roy E. Mayo, Peoria, Ill., assignor to Caterpillar Tractor Co., Peoria, Ill., a corporation of California
Application June 29, 1956, Serial No. 594,835
6 Claims. (Cl. 305-10)

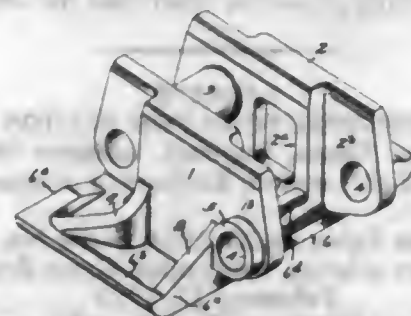


1. A hinge connection comprising two parts connected for relative swinging movement by a pin, a spacing element embracing the pin to space said parts axially along the pin, a counterbore in one of said parts, an annular recess in said pin and retaining means disposed within said counterbore and registering with said annular recess to retain said pin in assembly.

2,823,082

TREAD UNIT TRACTOR RAILS

Eugene C. Bauer, Jr., Park Ridge, Ill., assignor to Poor & Company, Chicago, Ill., a corporation of Delaware
Application September 28, 1956, Serial No. 612,661
1 Claim. (Cl. 305-10)



An integral tread and link unit for endless track rails, comprising, a bottom grouser plate portion forming a ground engaging tread, spaced upstanding walls located inwardly of and parallel to the outer side edges of the tread, said walls each having front pin receiving eyes disposed within one edge of the tread and connected by a pin barrel and a rear pair of pin receiving eyes disposed in the rearwardly projecting portions of said walls to be disposed outwardly of the rear edge of the grouser plate portion, a pair of transversely disposed aligned struts connecting the outer rear corners of the grouser plate portion with the outer faces of said walls inwardly of said rear pair of eyes, a reinforcing rib substantially in line with said struts and disposed between said walls to provide strength to the rear portions of said walls comparable to that furnished by the pin barrel to the front portions of said walls and also to relieve stress on a pin passing through said rear eyes, and a pair of curved struts extending obliquely inwardly from the front corners of the grouser plate portion toward the front portions of said walls in clearing relation to the pin barrel, all of said struts being of progressively increasing vertical thickness from a corner toward a related wall, and a V-shaped ground engaging bar on the underside of the grouser plate portion with the apex of said V disposed at the front of the plate to provide a ground engaging tread face which avoids transmission of shock to the track.

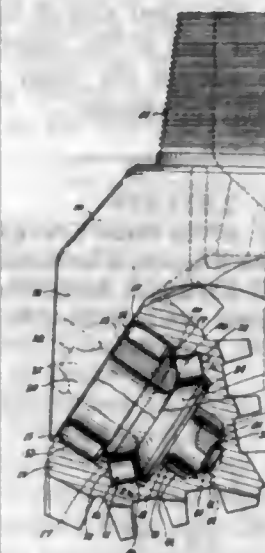
2,823,083

ROLLER BEARING FOR ROCK BIT CUTTER

Russell L. Welton, Compton, Calif., and James B. Steen, Fort Worth, Tex., assignors to Chicago Pneumatic Tool Company, New York, N. Y., a corporation of New Jersey

Continuation of application Serial No. 235,162, July 5, 1951. This application November 5, 1954, Serial No. 466,974

2 Claims. (Cl. 308-8.2)



1. An earth boring drill comprising in combination a head portion having an integral sleeve section one end of which has a roller raceway formed thereon, a spindle affixed to the head portion and having a flange with a roller raceway formed thereon, said raceways in combination forming a V-shaped roller raceway, a conical roller cutter surrounding the spindle and sleeve section and having a V-shaped roller raceway disposed opposite to the V-shaped roller raceway of the sleeve section and spindle, roller bearing means disposed between the sleeve section and the roller cutter the axis of each roller being parallel to the axis of the spindle, a criss-cross roller bearing arrangement disposed in the V-shaped roller raceways, said criss-cross roller bearing arrangement adapted to maintain the roller cutter in position about the spindle and sleeve section and having a first set of rollers with their axis converging in a point rearwardly in the axis of the spindle and a second set of rollers alternately disposed in contacting relationship with said first set of rollers and having their axis converging in a point forwardly in the axis of the spindle, the rollers of both sets being identical, the body of each roller being characterized by a uniform and greater diameter than length and as having flat ends at right angles to the body, the flat ends of the first set of rollers being in close proximity to an opposed wall of each raceway and the peripheral surfaces of the said first set of rollers bearing on the remaining opposed walls of the raceways, and the second set of rollers having an arrangement in the raceways reverse to that of the first set of rollers.

2,823,084

BEARING FOR ARMATURE SHAFTS OF ELECTRIC MOTORS

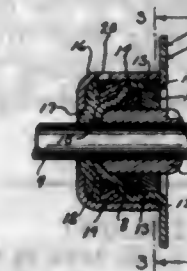
Everett K. Hansen, Racine, Wis., assignor to Rae Motor Corporation, Racine, Wis., a corporation

Application November 7, 1955, Serial No. 545,199

3 Claims. (Cl. 308-22)

1. In an electric motor having a casing provided with end walls, bearing bosses projecting outwardly from the end walls having struck in ribs, bearings fitted in the

bosses, rings on said bearings having flattened portions receiving the ribs, and an armature shaft rotatably mount-



ed in the bearings and extending outwardly through the bosses.

2,823,085

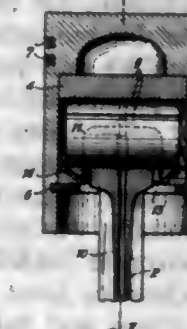
PISTON FOR INTERNAL COMBUSTION ENGINES

Johann Keylwert, Köln-Kalk, Germany, assignor to Klöckner-Humboldt-Deutz Aktiengesellschaft, Köln, Germany

Application January 24, 1955, Serial No. 483,564

Claims priority, application Germany February 6, 1954

3 Claims. (Cl. 309-19)



1. In combination with a piston for internal combustion engines, a wrist pin, a single piece wrist pin bed arranged within said piston and made of light metal, said wrist pin bed comprising an unbroken bearing section engaging a first peripheral surface portion of said wrist pin along the entire length of said wrist pin for journaling the same, and a connecting rod having one end thereof detachably connected to a second peripheral surface portion of said wrist pin opposite said first peripheral surface portion, said connecting rod being provided with lubricant conveying conduit means extending there-through, said first peripheral surface portion of said wrist pin being provided with lubricating grooves communicating through conduit means in said wrist pin with said lubricant conveying conduit means in said connecting rod.

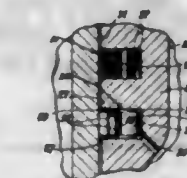
2,823,086

PISTON RINGS

Victor F. Zahodlak, Summit, N. J.

Original application December 23, 1952, Serial No. 327,470, now Patent No. 2,707,661, dated May 3, 1955. Divided and this application February 2, 1955, Serial No. 485,724

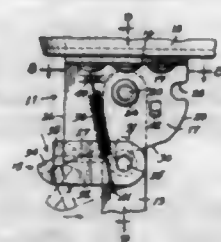
5 Claims. (Cl. 309-44)



1. A piston compression ring comprising two annular members one on top of the other, each of said members having apertures therein spaced one from another along said members on a circle concentric with said member, each said member having notches running to the inner periphery thereof, one notch being between each pair of adjacent apertures, a scallop joining adjacent notches and

concentric with the aperture embraced by said scallop, said members having slits running from each of said apertures to the outer periphery of the member, the slits of one of said members being offset from the slits of the other of said members, and biasing means in part projecting into said notches and bearing against said scallops to bias said members outwardly.

2,823,087
FOLDING LEG MECHANISM
Abraham I. Zimmer, Fairfield, Conn.
Application August 17, 1955, Serial No. 528,910
10 Claims. (Cl. 311-99)

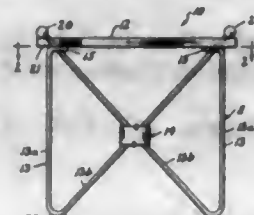


1. A folding leg mechanism for trays, tables and the like, comprising a bracket for mounting on the underside of the tray, table or the like and including a vertically disposed depending plate portion having a lower edge, an outer edge and an inner edge, a leg pivotally connected at its upper end to said plate portion at one side thereof between said inner and outer edges for swinging movement between a substantially vertical unfolded position and a substantially horizontal folded position, said leg having a slot spaced below its pivot axis and extending substantially vertically above and below the lower edge of said plate portion in the unfolded position of said leg, an actuating member including an arm portion disposed at the other side of said plate portion from said leg, and a transverse portion extending substantially at a right angle from the outer end of said arm portion, a pin carried by the inner end portion of said arm portion engaged in said slot for pivotal and sliding movement therein, said arm being substantially horizontal in the unfolded position of said leg with said pin engaged with said lower edge of said plate portion and with said transverse portion disposed outwardly of its said outer edge, a spring connected at one end to said bracket and at its other end to said arm at a point between said pin and said transverse portion, abutment means at the outer side of said leg against which said leg engages in its unfolded position, abutment means engageable by said transverse portion of said actuating member under the pull of said spring in said horizontal portion of said arm to restrain inward horizontal movement of said arm and inward pivotal movement of said leg, said transverse portion of said actuating member being disengageable from said last mentioned abutment means through downward swinging movement of said arm about said pivot pin, said plate portion having a locking recess in its inner edge which in the folded position of said leg is in substantial register with the upper end of said slot, and engageable by said pin of said actuating member under the pull of said spring through movement of said pin in said slot toward the pivot axis of said leg.

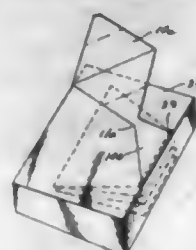
2,823,088
LEG STRUCTURE FOR COLLAPSIBLE TABLES
William Herrschaft, New York, N. Y.
Application April 26, 1955, Serial No. 503,885
3 Claims. (Cl. 311-109)

1. In a collapsible table and the like, the combination of a plurality of substantially V-shaped legs each having a substantially vertical outer portion and a diagonal inner portion extending from the lower end of said outer por-

tion, the diagonal inner portions of said legs being crossed and having free upper ends, resiliently yieldable means connecting said diagonal inner portions at their point of crossing whereby the same are urged radially inwardly,



2,823,089
TISSUE AND DISPENSER
Nicholas B. De Franco, Cleveland, Ohio
Application April 23, 1956, Serial No. 580,094
6 Claims. (Cl. 312-39)

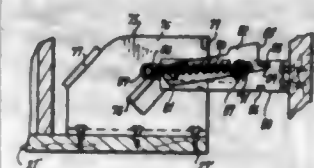


6. In combination, a box having an elongated opening therein, and a continuous strip of tissue sheets in the box, said strip being made up of successive adjacent tissue sheets, each sheet having its maximum width at its middle portion and at both sides of its middle portion having its opposite edges converging toward each other to provide reduced ends which are substantially narrower than said middle portion and narrower than said opening in the box, the successive adjacent sheets being attached to each other at their adjacent reduced ends, said strip being folded to provide a package of folded sheets consecutively contiguous to each other in the box, each sheet being folded at its middle portion and having the fold at its middle portion positioned remote from said opening in the box, each sheet extending on both sides of the fold in its middle portion toward said opening in the box, and each sheet at its middle portion being substantially wider than said opening in the box so that a sheet being withdrawn from the box through said opening is restrained at the opening to cause the sheet to tear at its connection at its reduced end to the preceding sheet in the strip.

2,823,090
DENTAL INSTRUMENT CABINETS
Edgar W. Roehm, Indianapolis, Ind., assignor to W. D. Allison Company, Indianapolis, Ind., a corporation of Indiana
Application August 17, 1953, Serial No. 374,513
8 Claims. (Cl. 312-333)

6. A touch latch for use with two relatively shiftable members comprising a bracket mounted rigidly upon one such relatively shiftable member, a latching link pivotally mounted on and projecting outwardly from the bracket and being swingable between upper and lower stops, over-center spring means operatively associated with said link for optionally holding it against either one or the other of said stops and also for shifting the link forcibly into engagement with one stop after the link is moved away from the other stop past a position midway between the two stops, a detent rigidly mounted on the other of said relatively shiftable members for lock engagement

with the latching link when the latter is in one of its two alternative positions, camming means also mounted on

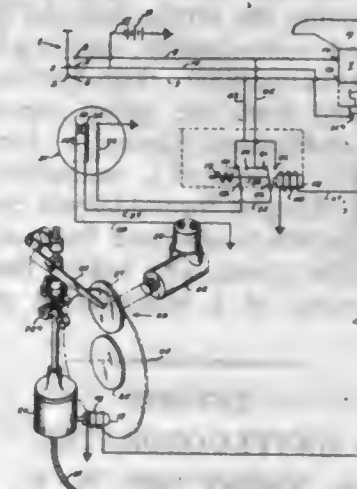


the other of said relatively shiftable members for shifting the latching link out of locking position as the two relatively shiftable members are pushed together and moving it past its center position so that the spring means will finally shift the latching link into its alternate position, and auxiliary camming means spaced from the first named camming means for returning the latch link to its initial position as the relatively shiftable members move apart.

2,823,091
CONTROLLED INTERRUPTOR FOR VARIABLE-SPEED TACHOMETER
Arthur N. Milster, Richmond Heights, Mo., assignor to Wagner Electric Corporation, St. Louis County, Mo., a corporation of Delaware
Application December 13, 1954, Serial No. 474,875
9 Claims. (Cl. 346-18)

1. In combination, a manually operable pre-selector switch movable between a first position and a second position; a gear ratio changer movable between a low position and a high position dependent on the position of

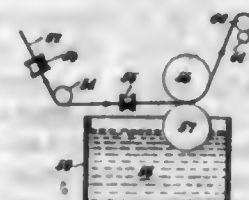
said pre-selector switch, responsive to a change in external physical conditions; a recording tachometer assembly including a marking device and means for supporting a chart adjacent the marking device, said marking device and chart supporting means being movable between an operative position and an inoperative position,



tion, said tachometer assembly also including speed ratio changing means movable between a high position and a low position responsive to the movement of the gear ratio changer; and control means for moving the marking device and the chart supporting means to the inoperative position upon movement of the gear ratio changer between the low position and the high position.

CHEMICAL

2,823,092
VARI-TONE CLOTH DYEING METHOD
Gordon F. Spencer, Glasgow, Conn., assignor to United Merchants and Manufacturers, Inc., New York, N. Y., a corporation of Delaware
Application December 13, 1954, Serial No. 474,718
1 Claim. (Cl. 8-14)



Method of continuously producing special dyeing effects on open width cloth in the piece, which includes the steps of compressing the cloth widthwise into rope form, passing the compressed cloth in rope form lengthwise through a padding zone whereby the surface of the cloth acquires a random localized application of multi-tone color only in spaced isolated portions thereof, and subsequently returning the cloth thus treated in rope form to open width form.

2,823,093
PROCESS OF PREVENTING DISCOLORATION OF NYLON TEXTILES WITH UREA, BIURET, DICYANDIAMIDE OR AMMONIUM CYANATE AND A CREASE PROOFING RESIN AND PRODUCTS PRODUCED THEREFROM
Fred Harold Steiger, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application January 21, 1955
Serial No. 483,437
15 Claims. (Cl. 8-115.6)

6. A process for treating a textile material of a water-insoluble long-chain synthetic polymeric amide having recurring carbonamide groups as an integral part of the

main polymer chain to reduce discoloration thereof on ageing and heating comprising impregnating said polyamide with an aqueous solution containing 5% to 50% by weight of a solute consisting exclusively of at least one compound selected from the group consisting of urea, biuret, dicyandiamide, and ammonium cyanate, drying the impregnated textile to leave thereon a deposit of at least about 5%, based on the weight of said polyamide, of said solute, and then heating said polyamide carrying said deposit at a temperature between 240° F. and about 450° F. for a period of time between about two seconds and four hours, the time and temperature being generally inversely related, and subsequently applying to the textile material a heat-convertible resin-forming aminoplast condensate selected from the group consisting of urea-formaldehyde condensates having a formaldehyde to urea molar ratio of at least 2:1, melamine-formaldehyde condensates, and thiourea-formaldehyde condensates, as well as the alkylation products obtained from said condensates obtained from alcohols having from 1 to 4 carbon atoms, and baking the textile carrying such condensate at a temperature of 240° F. to 450° F. to cure the condensate.

2,823,094
PROCESS OF SIMULTANEOUSLY HEAT SETTING AND PREVENTING DISCOLORATION OF NYLON TEXTILES WITH UREA, BIURET, DICYANDIAMIDE OR AMMONIUM CYANATE OPTIONALLY FOLLOWED BY TREATMENT WITH A CREASE PROOFING RESIN
Fred H. Steiger, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application March 27, 1956
Serial No. 574,066
8 Claims. (Cl. 8-115.6)

3. A process for treating a textile material of a water-insoluble long-chain synthetic polymeric amide having recurring carbonamide groups as an integral part of the

main polymer chain to reduce discoloration thereof on ageing and heating comprising heating the material for a period of at least one-half hour in an aqueous solution containing dissolved therein at least 15% of a solute consisting exclusively of at least one compound selected from the group consisting of urea, biuret, dicyandiamide, and ammonium cyanate at a temperature of about 90° to 150° C., removing the textile material from the aqueous solution, and subsequently applying to the textile material a heat-convertible resin-forming aminoplast condensate selected from the group consisting of urea-formaldehyde condensates having a formaldehyde to urea molar ratio of at least 2:1, melamine-formaldehyde condensates, and thiourea-formaldehyde condensates and their alkylation products obtained from alcohols having from 1 to 4 carbon atoms, and baking the textile carrying such condensate at a temperature of 240° F. to 450° F.

2,823,095

OXYFLUOROBORATES

Norval D. Clare, Niagara Falls, N. Y., and Alden J. Deyrup, West Chester, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 16, 1956
Serial No. 585,153

8 Claims. (Cl. 23-14)

3. The method of preparing the compound $4\text{NaF} \cdot 5\text{B}_2\text{O}_3$ which comprises reacting sodium fluoride and a member of the group consisting of boric acid and boric anhydride, dissolving at least part of the product of the reaction in water and separating a hydrate of said compound, and removing water from the hydrate.

5. The non-crystalline, solid, hygroscopic, and extremely and reversibly water-soluble compound having the formula $4\text{MF} \cdot 5\text{B}_2\text{O}_3$, where M is an ion of the group consisting of sodium and potassium ions.

2,823,096

PROCESS FOR RECOVERING GALLIUM FROM ITS ORES

Ludo K. Frevel and Joseph T. Kummer, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 15, 1956
Serial No. 571,604

3 Claims. (Cl. 23-16)

1. In a method for separating gallium from ores containing it, the step which comprises treating the subdivided ore with a current of a hydrogen halide of the group consisting of hydrogen chloride and hydrogen bromide under substantially anhydrous conditions at a temperature ranging from about 700° C. to about 950° C. in amount sufficient to volatilize the gallium as gallium trihalide.

2,823,097

PRODUCTION OF SILICATES

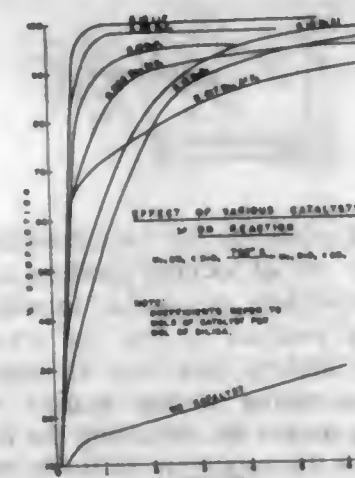
Isadore Mockrin, Philadelphia, Pa., assignor to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

Application May 28, 1954, Serial No. 433,031

16 Claims. (Cl. 23-110)

1. In the preparation of alkali metal silicates, the process which comprises preparing a mixture of an alkali metal carbonate and silicon dioxide to which an inorganic halogen compound has been added, said inorganic halogen compound being added in amount at least sufficient to produce a substantial increase in the rate of reaction of

said alkali metal carbonate with said silicon dioxide, and heating said mixture in a substantially dry state to a tem-



perature of from 600° C. to a temperature below that at which any appreciable melt occurs.

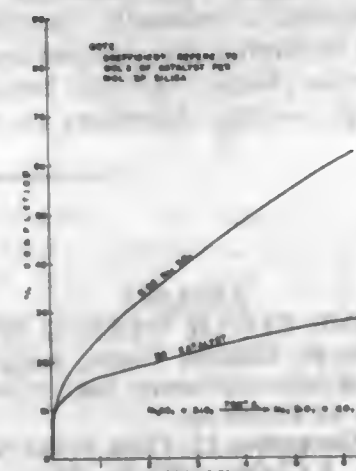
2,823,098

PRODUCTION OF SILICATES

Isadore Mockrin, Philadelphia, Pa., assignor to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

Application May 28, 1954, Serial No. 433,032

10 Claims. (Cl. 23-110)



1. In the preparation of alkali metal silicates, the process comprising heating, in a substantially dry state, a mixture containing an alkali metal carbonate, silicon dioxide and an inorganic sulfate to a temperature of from 600° C. to a temperature below that at which any appreciable melt occurs, the said ratio of silicon dioxide to alkali metal carbonate in said mixture being within the range of from 1:2 to 3:1.

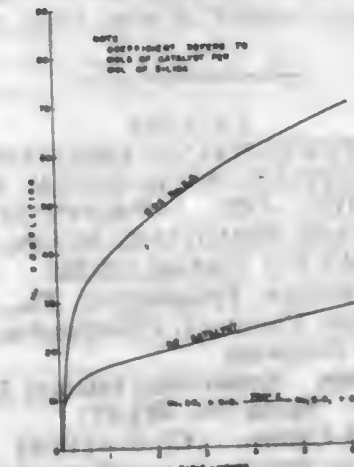
2,823,099

PRODUCTION OF SILICATES

Isadore Mockrin, Philadelphia, Pa., assignor to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

Application May 28, 1954, Serial No. 433,033

10 Claims. (Cl. 23-110)



1. In the preparation of alkali metal silicates, the process comprising heating, in a substantially dry state, a

mixture containing an alkali metal carbonate, silicon dioxide and an inorganic tetraborate to a temperature of from 600° C. to a temperature below that of which any appreciable melt occurs, the mol ratio of silicon dioxide to alkali metal carbonate in said mixture being within the range of from 1:2 to 3:1.

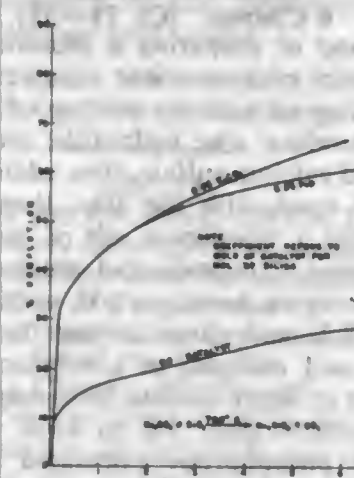
2,823,100

PRODUCTION OF SILICATES

Isadore Mockrin, Philadelphia, Pa., assignor to Pennsalt Chemicals Corporation, a corporation of Pennsylvania

Application May 28, 1954, Serial No. 433,034

5 Claims. (Cl. 23-110)



1. In the preparation of alkali metal silicates, the process comprising heating, in a substantially dry state, a mixture containing an alkali metal carbonate, silicon dioxide and an inorganic compound the cation of which is lead, said heating being at a temperature of from 600° C. to a temperature just below that at which any appreciable melt occurs.

2,823,101

PRODUCTION OF HYDROXYLAMINE SALTS BY REDUCTION OF NITRIC OXIDE

Kurt Jockers, Hermann Meier, and Karl Wintersberger, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

No Drawing. Application March 29, 1955

Serial No. 497,803

Claims priority, application Germany March 31, 1954

8 Claims. (Cl. 23-117)

3. In the production of hydroxylamine salts, forming said salts by reduction of nitric oxide with hydrogen in an acid medium in the presence of a catalyst prepared by adding to a catalyst containing platinum metal at least one compound of at least one of the elements selected from the group consisting of arsenic, antimony, bismuth, sulfur, selenium and tellurium, the said compound being reduced under the conditions of the hydroxylamine production in the reaction medium to the respective element in the aforementioned group.

2,823,102

METHOD FOR PRODUCING SINGLE CRYSTALS OF SILICON

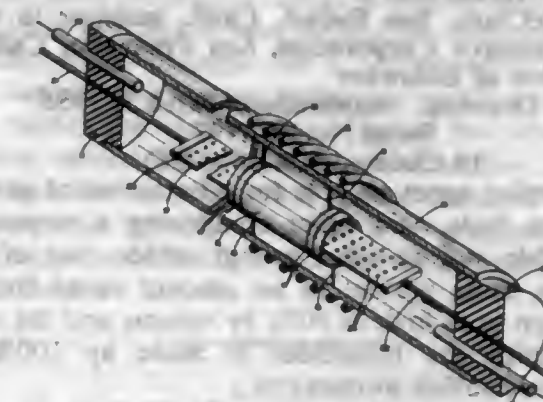
Milton L. Selker, Shaker Heights, and Joseph F. Cerness, East Cleveland, Ohio, assignors to Clevite Corporation, Cleveland, Ohio, a corporation of Ohio

Application February 10, 1954, Serial No. 409,382

5 Claims. (Cl. 23-300)

1. A method of producing single crystal silicon which comprises the steps of heating to molten condition and thereafter cooling silicon in a non-reactive atmosphere,

and during said heating and cooling steps supporting the silicon on substantially pure boron nitride powder for



nucleation of a single crystal in response to the heating and cooling steps.

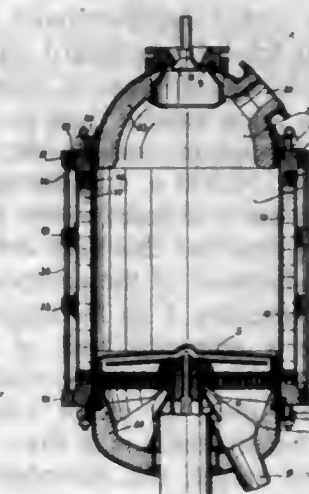
2,823,103

HIGH PRESSURE GAS PRODUCERS

Herbert Gruber, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware

Application April 2, 1952, Serial No. 280,108

2 Claims. (Cl. 48-63)



1. A high pressure gas producer comprising, a gasification shaft formed of metal to prevent the fuel caking thereon, having an inner metal casing wall which seals the gasification chamber and an outer surrounding shaft wall in abutting relation with all outer surface parts of the inner wall and constituted of vertical cooling pipes of greater wall thickness than the thickness of the inner wall said vertical pipes being interconnected with each other in side by side annularly abutting relation to withstand the highest internal pressure that may be encountered in the contemplated operation of the inner gasification chamber, said inner casing wall being of a material which withstands very high internal temperatures but of a thickness sufficient to withstand only the heating stresses to which it will be subjected in use, and said inner casing forming the inner sealing face in surface contact with the inner gasification chamber throughout the entire height of said outer wall of vertical pipes and said inner casing being supported in radially abutting relation on all of its outer circumferential surfaces by the inner side of the outer wall to resist said high internal pressure.

2,823,104

WARNING AGENT AND PROCESS FOR THE ODORIZATION OF A HYDROCARBON FUEL GAS THEREWITH

John S. McClure, San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application March 7, 1955

Serial No. 492,797

10 Claims. (Cl. 48—195)

1. A warning agent suitable for odorization of gaseous hydrocarbon fuels, said agent comprising a mixture of diethyl sulfide and an ethyl propyl sulfide, one of said two sulfides being present in an amount equal from at least 10% up to as high as 90% by volume and the other sulfide forming the remainder to make up 100% by volume of said sulfide mixture.

6. Process for the odorization of a hydrocarbon fuel gas which comprises incorporating in said gas from about 0.5 to 2.0 pounds per one million cubic feet of said gas of a warning agent mixture comprising diethyl sulfide and an ethyl propyl sulfide, from about 10 to 90% by volume of this mixture being diethyl sulfide and the remainder being the ethyl propyl sulfide.

2,823,105

SMOKE TRACER COMPOSITION

Thomas Stevenson, Huntingdon Valley, and Winston W. Cavell, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of the Army

No Drawing. Application January 27, 1955

Serial No. 484,599

5 Claims. (Cl. 52—24)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A smoke tracer chlorate-free composition which will be readily ignitable within one-hundredth of a second by a propellant used to drive any standard projectile forward and which will withstand compression when placed inside of a projectile by a force greater than that developed by the thrust of the propellant and which has been compressed under about 110,000 p. s. i. during loading without undergoing ignition to a point where the composition has a density of 2 grms./cc., this high compression serving to prevent dislodgement of the composition when the projectile is fired, whereby 5 to 80 grains of this composition will cause a rearward trail of colored smoke which is sufficiently voluminous to be visible to a gunner firing said projectile over an entire range of at least 1,000 yards when the projectile is in flight from the muzzle of a gun to the target, the composition having the further property of rapid ignition without rapid burning, the combination therewith of a composition consisting of 50% to 80% of a peroxide of an alkaline earth metal selected from the group consisting of barium, strontium and calcium, 5% to 20% of calcium resinate, and 5% to 25% of at least one sublimable dye material selected from the group consisting of 1-methylamino-anthraquinone, 1,4-dimethylaminoanthraquinone, ortho dihydroxy benzene known in the trade as pyrocatechol; bis (p-dimethylaminophenyl)-methylenimine hydrochloride known in the trade as auramine dye.

2,823,106

PROCESS OF FERMENTING MUNICIPAL REFUSE DISPOSAL

Norman A. Pierson, Norman, Okla., assignor to Naturizer Co., Norman, Okla., a corporation of Oklahoma

Application September 1, 1954, Serial No. 453,669

3 Claims. (Cl. 71—9)



1. In a process of composting municipal refuse, the steps of driving a bull dozer or the like over a pile of the

refuse until the top of the refuse becomes solid, wetting the refuse to a sixty to eighty percent moisture content for inducing and promoting an anaerobic bacterial action in the refuse, continuing the anaerobic action until the temperature of the refuse attains approximately 55° C., and then aerating the refuse for inducing an aerobic bacterial action in the refuse.

2,823,107

INORGANIC MICRO-NUTRIENT COMPLEXES

John R. Allison, Whittier, Calif., assignor to Leffingwell Chemical Company, Whittier, Calif., a corporation of California

No Drawing. Application June 13, 1955

Serial No. 515,227

6 Claims. (Cl. 71—32)

1. The method of preparing a substantially water insoluble inorganic micro-nutrient complex material that comprises reacting an aqueous mixture of zinc sulfate and quicklime to produce zinc hydroxide, zinc basic sulfate and precipitated calcium sulfate, then adding thereto phosphoric acid to react with the zinc, then adding to the resulting mixture a manganese salt of the group consisting of manganese carbonate and manganese sulfate to form a salt complex having a pH within the range of about 6.9 to 8.2, and spray drying the resulting complex to form said material as a substantially water insoluble product in finely divided form containing between about 10% to 20% zinc, 5% to 16% manganese, and 5.5% to 20% phosphorous calculated as P₂O₅.

2,823,108

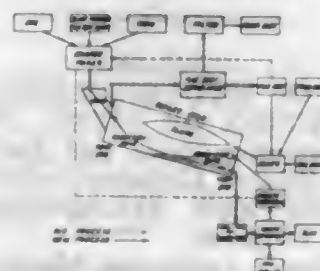
PROCESS FOR REDUCING ORES AND OXIDIC RESIDUES IN ROTARY KILN

Rudolph H. Gerlach, Bottrop, Germany, assignor to Aktiengesellschaft für Unternehmungen der Eisen- und Stahlindustrie, Essen, Germany

Application June 12, 1956, Serial No. 590,982

Claims priority, application Germany June 16, 1955

9 Claims. (Cl. 75—33)



1. In the Krupp Direct Smelting Process of reducing a charge of ores and metals oxide containing residues of metallurgical processes in a rotary kiln, the step of reintroducing the metal-containing by-products discharged from a work cycle of the rotary kiln in said Krupp Direct Smelting Process into a following work cycle by introducing them into the kiln countercurrently to the charge.

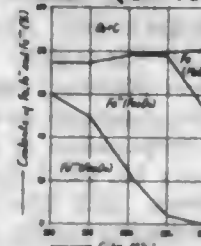
2,823,109

PROCESS FOR MANUFACTURING HIGH GRADE PIG IRON

Koji Sudo, Tokyo, Japan

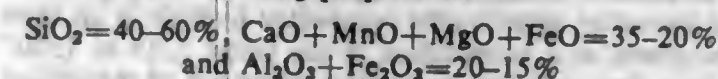
Application October 7, 1954, Serial No. 460,909

1 Claim. (Cl. 75—41)



A process for manufacturing high grade pig iron, which comprises the steps of shaping briquettes of desired size,

in which powdered carbonaceous material and finely-divided ore have been brought into contact with each other intimately, said iron ore being of a fineness below approximately 10 mm. and said carbonaceous material being of a fineness below approximately 7 mm., by using quick lime as a binding agent, such that the reduction of powdered carbonaceous material is accelerated by increasing thereby the contact surface or reactional surface of both constituents; drying the briquettes thus obtained; sintering said briquettes first in the top of a melting furnace, and then reducing the iron ore in the furnace by means of said carbonaceous material in the aforesaid briquettes, while converting the reduced iron under a special low alumina, high acid slag in a state wherein the equilibrium of slag compositions is represented by the following proportions:



2,823,110

METHOD OF PRODUCING METALLIC ZINC

William H. Schechter, Zellenople, Pa., assignor, by mesne assignments, to Callery Chemical Company, Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application September 19, 1955

Serial No. 535,281

11 Claims. (Cl. 75—86)

1. A method for producing metallic zinc which comprises heating a mixture of zinc oxide and an alkali metal salt selected from the class consisting of alkali metal carbonates, alkali metal hydroxides, and mixtures thereof, to produce an alkali metal zincate, then reducing said alkali metal zincate with a gas selected from the class consisting of hydrogen, carbon monoxide, and mixtures thereof, at a temperature sufficient to distill zinc vapors from the reaction zone, condensing said vapors and recycling the by-product alkali metal salt for further reaction with zinc oxide.

2,823,111

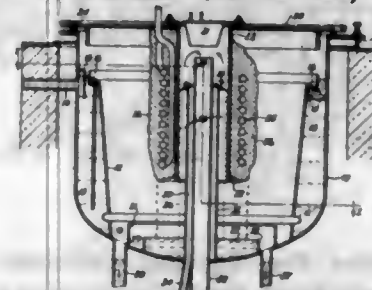
CONTINUOUS VACUUM DISTILLATION

Thomas Ronald Albert Davey, Port Pirie, South Australia, and Archibald Philip Newall, Moonah, Tasmania, Australia, assignors to The Broken Hill Associated Smelters Proprietary Limited, Melbourne, Victoria, Australia, an Australian company

Application July 12, 1954, Serial No. 442,852

Claims priority, application Great Britain July 16, 1953

14 Claims. (Cl. 75—88)



2. The method of refining a liquid complex containing a relatively volatile constituent comprising continuously passing the liquid in an attenuated condition into and through an evaporating zone within an evacuated space whereby the said constituent is continuously evaporated, continuously passing a second liquid at a lower temperature into and through the evacuated space in a path spaced from and disposed approximately parallel and approximately in opposition to the evaporating zone, whereby the said second liquid serves as a condenser, continuously condensing the evaporated constituent and continuously dissolving the condensate in the said second liquid.

9. Apparatus for refining a liquid complex containing a relatively volatile constituent comprising a chamber

727 O. G.—25

provided with spaced inlet and outlet passages for the said liquid, means for maintaining the interior of said chamber at sub-atmospheric pressure, means within the chamber for directing the liquid to and causing it to pass in the form of a thin stream through an evaporating zone, inlet and outlet passages for a second liquid having a lower temperature, means defining a pool for the second liquid within the chamber and means for directing the incoming second liquid through the chamber in a path which includes the pool and is spaced from the evaporating zone, and wherein the pool is so disposed that the evaporated constituent is condensed on the surface thereof and dissolved therein.

2,823,112

FLUX COMPOUND

Jay Joseph Miller, Bedford, Pa.

No Drawing. Application April 8, 1955

Serial No. 500,265

11 Claims. (Cl. 75—94)

4. A metallurgical flux composed of potassium permanganate and asbestos, the ratio of potassium permanganate to asbestos being about 5:3 by weight, and a minor amount not exceeding about 1% by weight of the flux of a composition of matter consisting essentially of the reaction product of one part by weight camphor, eight parts potassium bitartrate, two parts willow charcoal and two parts zinc chloride, said reaction being carried out at high temperature and a pressure within the range of from about 1,500 to about 2,000 pounds per square inch.

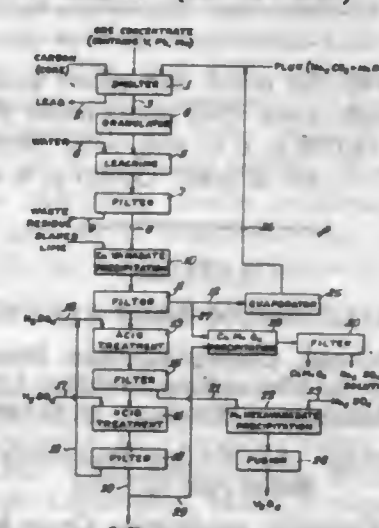
2,823,113

PROCESS OF TREATING VANADIUM AND MOLYBDENUM ORES

Emo D. Porro, Menlo Park, Harold J. Eding, Palo Alto, and Arthur G. Wilder, Menlo Park, Calif., assignors to Manila Mine Development Corporation, Chicago, Ill., a corporation of Illinois

Application February 3, 1954, Serial No. 407,904

6 Claims. (Cl. 75—121)



1. A process for treating an ore material containing oxides of vanadium and molybdenum which comprises smelting the ore material with a caustic flux, separating a slag containing water soluble compounds of vanadium and molybdenum, leaching said slag with water and separating an alkaline leach solution rich in vanadium and molybdenum, reacting said leach solution with lime to precipitate calcium vanadate therefrom while leaving the molybdenum substantially entirely in the residual leach solution, extracting the precipitated calcium vanadate with sulfuric acid to obtain an acidic vanadium-rich liquor from which vanadium can be recovered and leaving a calcium sulfate residue, concentrating a major portion of said residual alkaline leach solution and recycling the resultant concentrate as flux in the smelting step, withdrawing at

least a portion of said residual leach solution without recycling the same, and reacting the withdrawn portion of residual leach solution with said calcium sulfate residue and precipitating calcium molybdate whereby to permit recovery of molybdenum and at the same time preventing excessive accumulation of molybdenum in the system as a result of recycling said concentrate.

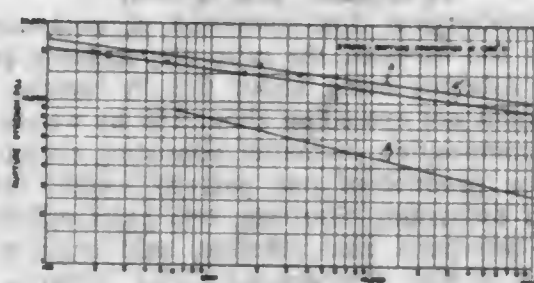
2,823,114

FORGEABLE HIGH STRENGTH AUSTENITIC ALLOY WITH COLUMBIUM-TANTALUM ADDITION

Fritz T. Eberle, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 30, 1954, Serial No. 446,874

4 Claims. (Cl. 75-128)



1. A forgeable austenitic steel alloy having superior stress resistance and corrosion resistance properties, and freedom from impact embrittlement, in extended service under stress at temperatures of the order of 1300° F.; said alloy having the following compositions:

	Percent
Cr	15.00-20.00
Ni	12.00-18.00
C	0.02-0.15
Mn	0.25-2.50
Si	0.10-1.00
Cb-Ta	1.50-3.50

balance iron with the usual impurities; said alloy having a rupture-strength, after 1000 hours under stress at 1350° F., of at least 16,000 p. s. i., and, after 5000 hours under stress at 1350° F., of at least 13,000 p. s. i.

2,823,115

MAGNESIUM BASE ALLOYS

Derek J. Whitehead, Clifton Junction, Manchester, England, assignor to Magnesium Elektron Limited, Clifton Junction, Manchester, England, a British company

No Drawing. Application September 9, 1955
Serial No. 533,494

Claims priority, application Great Britain
October 25, 1954

2 Claims. (Cl. 75-168)

1. An alloy consisting of the following:

	Percent by weight
Thorium	1.0 to 6.0
Zirconium	0.2 to 0.9
Indium	0.1 to 1.0
Zinc	0.5 to 5.0
Magnesium	Remainder

the percentage of thorium being between nine-tenths and three times the percentage of zinc but not exceeding nine-tenths of the zinc content by more than two and three quarters the thorium and zinc together not exceeding 10 percent.

2,823,116

METHOD OF PREPARING SINTERED ZIRCONIUM METAL FROM ITS HYDRIDES

Roswell P. Angier, New York, N. Y., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application December 27, 1950
Serial No. 203,042

1 Claim. (Cl. 75-213)

The process of producing zirconium metal of theoretical density which comprises heating zirconium metal in purified hydrogen to form zirconium hydride, comminuting the hydride to a powder having a particle size in the range 2 to 10 microns, compacting the powdered hydride at room temperature to a density approaching that of zirconium metal, relieving the compacting pressure and thereafter sintering the compacted hydride in an inert atmosphere at a temperature in the range 1215 to 1230° C. for a time sufficient to produce zirconium of theoretical density.

2,823,117

GLASS PAPER-CALCIUM SILICATE

Dominick Labino, Toledo, Ohio, assignor, by mesne assignments, to L. O. F. Glass Fibers, Inc., a corporation of Ohio

No Drawing. Application November 23, 1953
Serial No. 393,967

15 Claims. (Cl. 92-3)

7. A soft, sleazy filter paper having the fibers thereof consisting essentially of silica and an oxide of an alkaline earth metal, the diameters of the fibers of the paper being not greater than about 1 micron and the paper having ion exchange properties.

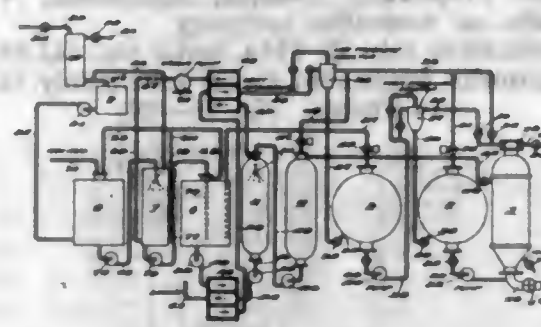
2,823,118

METHOD AND APPARATUS FOR DIGESTING FIBROUS MATERIAL

Albert D. Merrill, Watertown, N. Y., assignor to Chemipulp Process, Inc., Watertown, N. Y.

Application October 27, 1950, Serial No. 192,547

8 Claims. (Cl. 92-11)



1. In apparatus for digesting cellulosic material, a digester, an accumulator, means for moving cooking liquor from the accumulator into the digester, a side relief storage tank, a conduit line extending from the digester from a point below the top and above the bottom thereof into communication with the side relief storage tank, a closed degassing tower, a spray head in a top portion of said degassing tower, means for pumping liquid and the contained gases from the side relief storage tank to said spray head, a supply of acid, means for moving acid from said supply to the accumulator, means for transferring heat units from the gas released in the degassing tower to the acid moving towards the accumulator, means for absorbing substantially all of the cooled gases in the acid supply, means for transferring heat units of the side relief liquid to the acid supply, and means for delivering the cooled and degassed side relief liquor to waste.

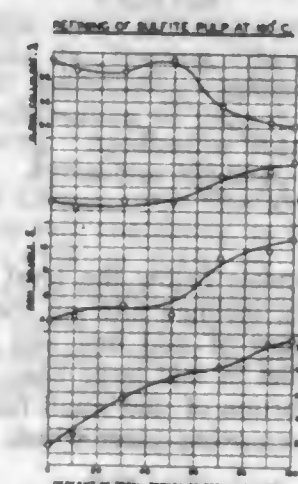
2,823,119

PULP PURIFICATION

Arthur N. Parrett, Shelton, Wash., assignor to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

Application February 2, 1952, Serial No. 269,659

6 Claims. (Cl. 92-11)



1. The method of producing bright high-alpha cellulose which comprises subjecting chlorinated and washed pulp from the acid sulfite digestion of wood to digestion in an aqueous liquor consisting principally of a mixture of sodium carbonate, sodium sulfite and sodium hydroxide, the sodium chemicals varying from 6% to 20% expressed as Na₂O based on the pulp, the sodium sulfite in the mixture representing from 10% to 70% of the total sodium, the sodium hydroxide representing not over 15% of the total sodium and the sodium carbonate representing from 35% to 80% of the total sodium, at a temperature in the range of from 150° C. to 175° C. and for a digestion time of about 45 minutes and at a pulp consistency of from 10% to 20% to accomplish the effective diminution of hemicellulose and colored material.

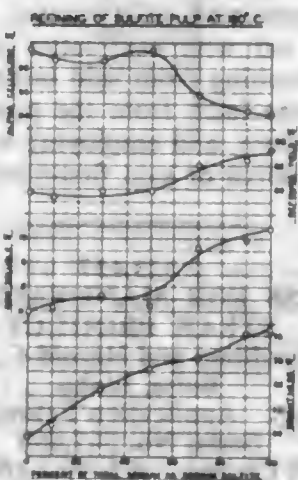
2,823,120

PULP PURIFICATION AND CHEMICAL RECOVERY

Arthur N. Parrett, Shelton, Wash., assignor to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

Application February 14, 1952, Serial No. 271,621

18 Claims. (Cl. 92-11)



1. The improvement in the production of high-alpha cellulose pulp which comprises subjecting wood chips to an acid sulfite digestion with calcium-base liquor, removing a substantial portion of the sulfite digestion effluent, replacing the calcium content substantially by sodium through contacting the removed liquor with a cation exchange resin of the sulfonic acid type in substantially calcium-free form and at least partially in the sodium form; subjecting the resulting pulp to an alkaline refining digestion with a liquor consisting principally of a

mixture of sodium carbonate and sodium sulfite, said sodium sulfite varying from 20% to 50% and said sodium carbonate varying from 35% to 80% of said mixture, said solution containing a total of from 6% to 20% of said chemicals (all said percentages expressed as Na₂O) at a temperature above 140° C., but not above about 185° C., removing a portion of the alkaline refining liquor for makeup to digestion strength and reuse in a subsequent similar alkaline refining digestion, removing another portion of the alkaline refining liquor and combining it with the acid sulfite digestion liquor, evaporating the combined liquors and burning the same to recover a smelt.

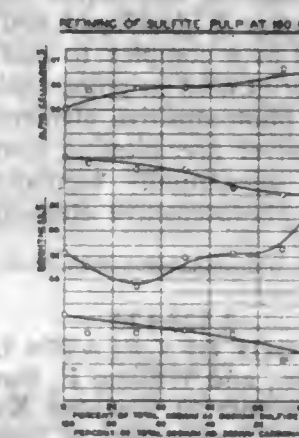
2,823,121

WOOD PULP PREPARATION

Arthur N. Parrett, Shelton, Wash., assignor to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

Application May 27, 1952, Serial No. 290,209

7 Claims. (Cl. 92-13)



1. The method of producing high-alpha cellulose which comprises subjecting chlorinated and washed pulp from the acid sulfite digestion of wood to an alkaline refining digestion in an aqueous alkaline liquor consisting of a mixture of sodium compounds consisting principally of sodium sulfide up to 70%, and the remainder substantially all sodium carbonate, said solution containing from 6% to 20% of sodium compounds (all said percentages expressed as Na₂O), and said refining digestion being carried out with a pulp consistency of from 10% to 20% and at a temperature of from 140° to about 185° C., and carrying out the alkaline refining digestion for a sufficient time to effectively remove pentosans, lignin and an appreciable amount of contaminating colored material, thereby producing high-alpha cellulose in good yield.

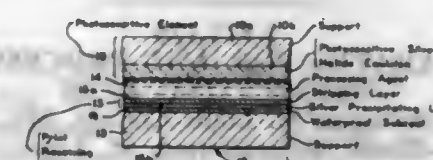
2,823,122

PHOTOGRAPHIC SILVER HALIDE TRANSFER PROCESS AND THE PRINT-RECEIVING PRODUCTS USEFUL IN CONNECTION THEREWITH

Edwin H. Land, Cambridge, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware

Application June 30, 1951, Serial No. 234,622

16 Claims. (Cl. 96-29)



1. A photographic process for forming, by transfer, a print of a latent image contained in the silver halide layer of a photosensitive element, which process comprises the steps of bringing a liquid processing composition into contact with said photosensitive element so that said layer is permeated with the liquid of said composition, providing a print-receiving element in superposed relation with

said photosensitive element, said print-receiving element consisting of a support and a thin silver precipitating stratum coated on said support, the surface of said support in contact with said stratum being formed of an organic plastic impervious to the liquid of said processing composition, said stratum not exceeding 6 microns in thickness and comprising a matrix of siliceous particles containing a nonsiliceous silver precipitating agent, said print-receiving element being superposed on said photosensitive element with said silver precipitating stratum adjacent said photosensitive element and with the liquid of said processing composition confined to said photosensitive element and to said silver precipitating stratum, the surface of said support providing a barrier to the penetration of said liquid into said print-receiving element beyond said silver precipitating stratum, said liquid containing, after permeation of the silver halide layer, reagents for developing exposed silver halide and for forming soluble complexes with undeveloped silver halide, maintaining said elements in their superposed relation without any appreciable penetration of said liquid into said support while said latent image is developed and until sufficient silver is transferred as a complex to said print-receiving element to form a print, and stripping said print-receiving element from said photosensitive element subsequent to said transfer, said silver precipitating stratum because of its thinness being substantially tactually dry as it is stripped from said photosensitive element.

2,823,123

COATING OUT OF GELATIN LAYERS

William J. Knox, Jr., and William F. Fowler, Jr., Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application December 29, 1955
Serial No. 556,044

11 Claims. (Cl. 96-94)

1. In a method of coating in which gelatin coating compositions are applied to a support, the step which comprises adding to the gelatin coating composition a water-soluble maleopimarate salt in the proportion of 0.1 to 1 gram per pound of coating composition.

2,823,124

PROCESS FOR PREPARATION OF CHOCOLATE EXTRACT OR CHOCOLATE SYRUP FROM COCOA

Folke Heden, Vineland, N. J., assignor to Limpert Bros., Inc., Vineland, N. J., a corporation of New York
No Drawing. Application February 14, 1955
Serial No. 483,131

8 Claims. (Cl. 99-26)

1. In a method of producing chocolate extract, the steps of extracting color and flavor values from cocoa by agitating an aqueous slurry of the cocoa in an inert atmosphere at a temperature of about 20-30° C. and in the presence of calcium hydroxide in the slurry being agitated, and separating the resultant aqueous extract containing the said color and flavor values from the cocoa residue.

2,823,125

APPARATUS FOR AND PROCESS OF FERMENTING BEER

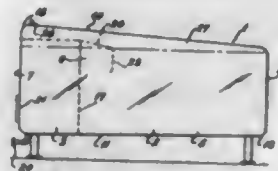
Frank H. Schwaiger, St. Louis County, Mo., assignor to Anheuser-Busch, Incorporated, St. Louis, Mo., a corporation of Missouri

Application March 9, 1956, Serial No. 570,483

10 Claims. (Cl. 99-31)

1. A fermenting tank for making beer comprising a plurality of side walls, a bottom and an inclined roof, a baffle angularly mounted within said tank between two adjacent side walls, said baffle dividing said tank into two chambers of unequal size, the large chamber being

a beer chamber and the small chamber being a foam chamber, said baffle having a top edge which is spaced below said roof but above the level of beer within said tank after fermentation, a second baffle mounted in said large chamber between said two adjacent side walls, said second baffle having a top edge positioned substantially at the normal level of the incoming beer and a bottom

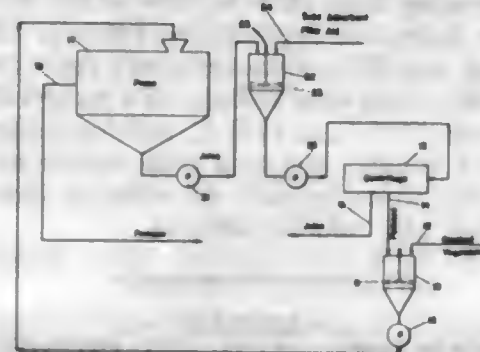


edge which terminates below the level of the beer and above said bottom, inclined filtering means mounted between the top edges of said first and second baffles, a beer inlet and outlet in said large beer chamber, an outlet in the lower portion of said small foam chamber, and a gas outlet for removing gases which form during fermentation.

2,823,126

METHOD OF PRODUCING JUICES FROM VEGETABLES INCLUDING FRUITS

Thomas H. Little, Strafford, Pa., assignor to The Sharples Corporation, a corporation of Delaware
Application January 3, 1956, Serial No. 557,085
7 Claims. (Cl. 99-105)



1. A process for the production of juice from a vegetable that contains juice which is comprised predominantly of an aqueous solution of vegetable solubles which comprises admixing said vegetable with pomace produced in a succeeding step in said process, pressing the resulting admixture to expel juice from said vegetable, said expelled juice containing solid matter, admixing a solid adsorbent filter aid with said latter juice, centrifuging the admixture resulting from said last-mentioned admixing to separate the juice from the pomace of said last-mentioned admixture, and employing said last-mentioned pomace as the source of said first-mentioned pomace.

2,823,127

PROCESS FOR MANUFACTURING STEAK PRODUCT

Glenn B. Gwilliam and Harold C. Howell, Jr., Boise, Idaho
No Drawing. Application February 24, 1956
Serial No. 567,480

4 Claims. (Cl. 99-107)

1. The process of making a tender steak product from natural raw beef which comprises grinding a quantity of said natural raw beef and forming the ground beef by extrusion to provide a loose mass of small fragments of said beef, working the mass gently and without exerting substantial pressure thereupon until series of said fragments combine with each other to form tendrils and a stringy more coherent structure results, dividing the worked mass into individual substantially flat portions, subjecting each said portion to repeated localized compression operations at a large number of spaced relatively

small areas to effectively bind together said tendrils at said areas while folding the portion between each such compression operation, and maintaining the resultant steak product sufficiently cold to prevent subsequent separation of the tendrils.

2,823,128

STABILIZED AND BODIED ICE CREAM

Harry A. Toulmin, Jr., Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
No Drawing. Application May 29, 1953
Serial No. 358,551

8 Claims. (Cl. 99-136)

1. An ice cream mix containing, as the stabilizing and bodying agent, 0.01% to 0.5% by weight of water-soluble NRRL dextran having a molecular weight between 5000 and that of native, microbiologically produced, unhydrolyzed water-soluble, NRRL dextran, determined by light scattering measurements.

2,823,129

STABILIZER FOR FROZEN SWEET AQUEOUS-BASE COMESTIBLES, AND PRODUCT AND METHOD UTILIZING THE SAME

Willis S. Steinitz, Oceanside, N. Y., assignor to American Food Laboratories, Inc., Brooklyn, N. Y., a corporation of New York
No Drawing. Application September 4, 1956
Serial No. 607,584

16 Claims. (Cl. 99-136)

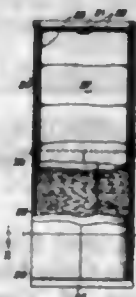
1. A stabilizer for frozen, sweet, aqueous-base comestibles, said stabilizer essentially comprising a gum suspended in a water-free organic liquid.

2,823,130

BISCUIT PACKAGE AND LINER

Kenneth A. Wempe and Roten E. Smith, Dallas, Tex., assignors to Gladiola Biscuit Company, Dallas, Tex., a corporation of Texas
Application January 25, 1955, Serial No. 483,974

16 Claims. (Cl. 99-172)



7. A biscuit package comprising a tubular container body composed of two telescoping sections, and a liner in said container, said liner comprising an outer sheet of paper creped transversely of the container axis and a smooth sheet of inert material adhered to the projections on the inside of said paper sheet.

9. A biscuit package comprising a tubular container body composed of two telescoping sections, and a liner in said container filled with and enclosing the biscuit dough, said liner comprising an outer sheet of parchment paper creped transversely of the container axis, a first sheet of aluminum foil adhered only to an end section of the inside of said paper sheet extending parallel to the creped foldings therein, said inert material sheet extending over the central portion of said paper sheet, and a second sheet of aluminum foil adhered only to the opposite end section of the inside of said paper sheet and extending over the central portion thereof in overlapping relationship to said first foil sheet.

2,823,131

FOOD SPOILAGE INDICATOR

Bruce W. Power, San Isidro, Lima, Peru
Application June 17, 1954, Serial No. 437,399
3 Claims. (Cl. 99-192)



1. A food spoilage detecting device including an element adapted to change its color upon contact with a given re-agent, a breakable capsule containing an aqueous solution of such re-agent and associated with said element, means attaching said element and said capsule to a food package, whereby, upon freezing of said food package, said aqueous solution will also freeze and break said capsule and whereby, subjecting said package to temperature sufficient to thaw out its contents will also liquify said re-agent and allow to come into contact with, and to change the color, of said element, and a water soluble coating enclosing said capsule for delaying the contact of said re-agent for the period of time necessary to dissolve said coating after the liquefaction of said re-agent, the composition and thickness of said coating being such that the time needed for liquefaction of said coating is less than the time needed for spoilage of the food to set in.

2,823,132

STABLE PICKLE LIQUORS FOR CURING MEAT

Louis Sahr, Evergreen Park, Ill., assignor to The Griffith Laboratories, Inc., Chicago, Ill., a corporation of Illinois
No Drawing. Application April 26, 1954
Serial No. 425,724

12 Claims. (Cl. 99-222)

1. An aqueous pickle liquor for use in curing meats containing essentially (1) sodium chloride, (2) alkali metal nitrite, (3) material providing an ascorbate radical, and (4) pH regulating material providing alkali metal ions in part at least forming alkali-metal ascorbate and present in kind and quantity to impart to the liquor a pH of at least 6.4, whereby said liquor remains substantially stable in nitrite value for a period up to eighteen days under conditions of storage at about 40° F.

2,823,133

PARTING AGENT FOR MOLDS

Antonio J. Salvador, Dallas, Tex.
No Drawing. Application March 21, 1955
Serial No. 495,826

1 Claim. (Cl. 106-38.25)

The hereindescribed process for producing a plaster mold parting agent which comprises heating a mixture of amber wax, stearic acid and kerosene to a temperature of 212° F., maintaining said temperature approximately three hours while adding to the mixture starch as a sealing agent.

2,823,134

DENSIFYING MAGNESIA

Leon M. Atlas, Chicago, Ill., assignor to Armour Research Foundation of Illinois Institute of Technology, Chicago, Ill., a corporation of Illinois
No Drawing. Application February 18, 1955
Serial No. 489,260

18 Claims. (Cl. 106-58)

1. A process for densifying magnesia, which comprises intimately admixing a finely divided magnesium compound which yields periclase upon firing and a lithium compound, said lithium compound being added in an amount sufficient to provide 0.01 to 5 equivalent per-

cent of the lithium compound in the mixture on a dry basis, and firing said mixture at a temperature of at least 1000° C. to form high-purity periclase.

2,823,135
LOW WATER LOSS CEMENT SLURRY
COMPRISING DEXTRAN

Harry A. Toulmin, Jr., Dayton, Ohio
No Drawing. Application January 6, 1956
Serial No. 557,659

13 Claims. (Cl. 106—92)

1. A cement adapted to form a fluid, pumpable slurry on the addition of water thereto consisting essentially of a mixture of hydraulic cement and a small amount, sufficient to prevent loss of water from the slurry, of a substance selected from the group consisting of (1) water-dispersible dextran having a molecular weight between 5000 and that of native, unhydrolyzed, microbiologically produced dextran and (2) mixtures of native water-dispersible dextran and fructose produced by the action of dextran-synthesizing strains of *Leuconostoc* on sucrose.

2,823,136
PREPARATION OF GELATIN COATINGS
HAVING A ROUGHENED SURFACE

William J. Knox, Jr., and John F. Wright, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application December 29, 1955
Serial No. 556,055

5 Claims. (Cl. 106—131)

1. A method of preparing gelatin coatings having a matte surface which comprises supplying to an aqueous solution of gelatin a small proportion of an alkaline earth metal maleopimarate, applying the composition to a support therefor in the form of a thin layer and drying the thus formed layer.

2,823,137
TINCTORIALLY STRONG, NON-FLOCCULATING
PHTHALOCYANINE PIGMENTS

André Pugin, Basel, Switzerland, assignor to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm
No Drawing. Application December 15, 1955
Serial No. 553,213

Claims priority, application Switzerland December 23, 1954

3 Claims. (Cl. 106—288)

1. A coloring composition being characterized by stability against flocculation when incorporated in a liquid pigmenting composition containing aromatic hydrocarbon lacquer solvent, consisting essentially of a copper phthalocyanine in admixture with a quantity of tin phthalocyanine corresponding to 0.5 to 5% by weight of said composition and with 1 to 10% by weight of said composition of a member selected from the group consisting of aluminium phthalocyanine and a mixture of aluminium phthalocyanine and titanium phthalocyanine, the quantity of phthalocyanine containing tin, aluminium and titanium being at least 2% by weight of said composition.

2,823,138
THERMOFLUID VEHICLE

Lewis C. Hoffman, Scotch Plains, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 29, 1956

Serial No. 587,918

4 Claims. (Cl. 106—311)

1. A thermofluid vehicle for a vitreous enamel color composition at least 90% of which consists of 2% to 25% of a polyethylene glycol having an average molecular weight of 15,000 to 20,000, 2% to 40% of a polyethylene glycol having an average molecular weight of 1000 to

6000, and 36% to 70% of a saturated straight chain aliphatic monohydroxy alcohol having 12 to 20 carbon atoms in the molecule.

2,823,139
METHOD OF INCREASING THE SCALING
RESISTANCE OF METALLIC OBJECTS

Herbert Schulze and Hans Schriewer, Altena, Germany, assignors to Vereinigte Deutsche Metallwerke Aktiengesellschaft, Frankfurt am Main, Germany
No Drawing. Application May 18, 1953
Serial No. 355,869

Claims priority, application Germany May 23, 1952
11 Claims. (Cl. 117—71)

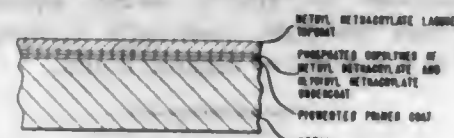
1. A method of improving the scaling resistance at temperatures above 800° C. in the presence of corrosive gases of a metal article coated with a scaling resistant chromium-and-nickel containing alloy which comprises applying to said coated metal article a coating consisting essentially of a material selected from the group consisting of chromium oxide, aluminum oxide, lithium oxide, lithium hydroxide and lithium carbonate.

2,823,140
PROCESS OF COATING METAL WITH METHYL METHACRYLATE RESIN AND PRODUCT FORMED THEREBY

John H. Lowell, Brookline, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application December 30, 1954, Serial No. 478,905

12 Claims. (Cl. 117—75)



1. A metal article having a hard, adherent, multiple-layer coating consisting of a layer of pigmented primer in adherent contact with said metal, a layer of undercoat in adherent contact with said primer, and a topcoat layer of methyl methacrylate lacquer in adherent contact with said undercoat, said undercoat comprising organic film-forming material consisting essentially of a polymeric phosphate reaction product of phosphoric acid with a copolymer of methyl methacrylate and glycidyl methacrylate.

2,823,141
PROCESS FOR COATING REGENERATED CELLULOSE FILM WITH RESIN AND RESULTING PRODUCT

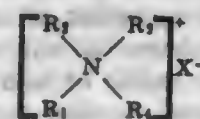
Lamont Hagan, Guilford, and George R. Mitchell, Branford, Conn., assignors to Olin Mathieson Chemical Corporation, a corporation of Virginia

Application May 8, 1953, Serial No. 353,898

9 Claims. (Cl. 117—76)



1. In a process of producing a moistureproof, heat-sealable regenerated cellulose film containing a top coat that imparts these properties to the film, the improvement of avoiding any blocking of the film, as described herein, by first treating the film with an aqueous solution containing as the sole anchoring material a quaternary ammonium compound of the following formula:



wherein R_1 , R_2 , R_3 and R_4 are radicals selected from the

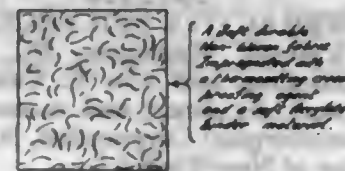
group consisting of alkyl radicals having 1 to 6 carbon atoms, phenyl and benzyl radicals, and X^- is a halide ion, drying the coated film and then top-coating the thus treated film with an anionic aqueous dispersion of a moistureproof, heat-sealable top-coating composition.

2,823,142
SOFT DURABLE NONWOVEN FABRIC

John K. Sumner, Plainfield, Philip Sarowitz, Somerville, and Elmer J. Yedlick, Westfield, N. J., assignors to Chicopee Manufacturing Corporation, a corporation of Massachusetts

Application October 20, 1954, Serial No. 463,591

16 Claims. (Cl. 117—76)



1. A soft, durable non-woven fabric having soft drape and handle and resistant to serious wrinkling and shrinkage from washing and dry cleaning as well as discoloration due to light and heat comprising a web of overlapping intersecting fibers impregnated substantially uniformly with (1) at least about 5% and up to around 40% by weight of the dry web of a thermosetting crease-proofing agent selected from the group consisting of melamine-formaldehyde, urea-formaldehyde, phenol-formaldehyde, and dicyandiamide-formaldehyde, and (2) a binder material selected from the group consisting of soft acrylate polymers and soft acrylate copolymers, said acrylate being a lower alkyl ester of acrylic acid wherein said alkyl radical contains up to and including eight carbon atoms, the combined weight of said thermosetting resin and said acrylate being from about 25% to about 75% of the weight of the non-woven fabric.

2,823,143
SPRAYING METHOD FOR APPLYING CATALYZED COATING COMPOSITIONS

Francis R. Upperman, Pennside, Pa., assignor to The Glidden Company, Cleveland, Ohio, a corporation of Ohio

Application March 5, 1953, Serial No. 340,620

4 Claims. (Cl. 117—104)



1. The method of curing and rapidly developing film-forming properties in an organic liquid coating composition of the type which exhibits substantially no film-forming properties until mixed with liquid catalyst of appropriate kind and critical small amount, said method comprising the step of projecting said liquid coating composition in atomized form from the nozzle of a single-nozzle spray gun solely by means of compressed gas carrying the needed liquid catalyst homogeneously dispersed therein in amounts sufficient to supply all of the catalyst required to cure the entire quantity of coating composition which is atomized per unit of time from said nozzle by the compressed gas which issues from said nozzle in the same unit of time.

2,823,144
ALUMINUM COMPLEXES AND PROCESS FOR PREPARING THE SAME

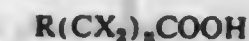
Richard L. Dalton, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 7, 1956

Serial No. 589,865

14 Claims. (Cl. 117—121)

3. A water-soluble, colorless composition comprising a complex compound of the Werner type in which trivalent nuclear aluminum atoms are coordinated with the acid group of a halogenated monocarboxylic acid, said acid having a solubility in water at 20° C. of less than 1%, and having the formula



wherein R is a member of the group consisting of hydrogen, trifluoromethyl and chlorodifluoromethyl, X is a halogen of the class consisting of fluorine and chlorine, and n is a positive integer of at least 4, with the proviso that (a) all of the halogen atoms must be fluorine when R is trifluoromethyl, (b) at least two-thirds of the halogen atoms must be fluorine when R is chlorodifluoromethyl, and (c) when R is hydrogen at least half of the halogen atoms must be fluorine and n must be divisible by two, the ratio of aluminum atoms to carboxylic acid groups being from about 1:1 to about 10:1.

14. An article having hydrophobic and organophilic properties and characterized by the presence on its surface of an adsorbed coating of a composition of claim 3.

2,823,145
FLAMEPROOFING WITH ALKALI METAL FLUORIDE AND A MEMBER OF THE GROUP CONSISTING OF BORIC ACID AND ANHYDRIDE

Norval D. Clare, Niagara Falls, N. Y., and Alden J. Deyrup, West Chester, Pa., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application March 21, 1956

Serial No. 572,794

22 Claims. (Cl. 117—138)

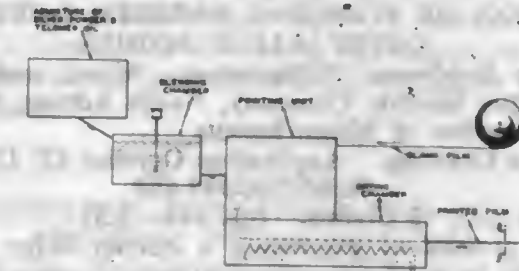
1. An article of manufacture comprising an initially inflammable base rendered flameproof by treatment with the water-soluble product of the reaction between the fluoride of an alkali metal and a member of the group consisting of boric acid and anhydride.

2,823,146
PROCESS OF PRINTING AN ELECTRICAL CIRCUIT ON A CHLORINATED POLYMER, RESULTANT ARTICLE AND PRINTING INK

Frederick N. Roberts, New York, N. Y., and Fred W. West, Ridgefield, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

Application March 5, 1954, Serial No. 414,492

19 Claims. (Cl. 117—212)



9. A process for printing an electrical circuit on a chlorinated polymer which comprises applying to the surface of the chlorinated polymer an ink which comprises an admixture of a conductor having a particle size below 50 microns and a polymer of trifluorochloroethylene hav-

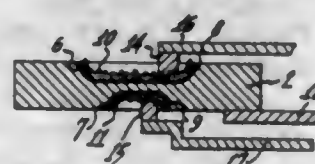
ing a softening point below 150° C. and maintaining the printed surface at a temperature between about 100° C. and about 375° C. for a period of time between about 1 second and about 30 minutes.

2,823,147
METHOD OF PRODUCING ELECTRICAL CONDUCTING ELEMENTS
Richard H. Ward, Jr., Copiague, N. Y.
Application December 7, 1953, Serial No. 396,731
2 Claims. (Cl. 117-228)



1. A method of making electrical conducting elements comprising forming a porous block of carbonaceous material, submerging the block in an aqueous solution of ethyl alcohol containing a suspension of colloidal molybdenum disulphide in a closed vessel under subatmospheric pressure, increasing the pressure in the vessel to force the dispersion into the pores of the block, releasing the pressure and then evaporating the suspension medium.

2,823,148
METHOD FOR REMOVING PORTIONS OF SEMI-CONDUCTOR DEVICE ELECTRODES
Jacques I. Pankove, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application March 2, 1953, Serial No. 339,683
8 Claims. (Cl. 148-1.5)



1. A method for making a semi-conductor device comprising intimately joining a metal selected from the group consisting of indium, gallium, bismuth, silver, gold, zinc, and copper to a surface of a semi-conducting body selected from the group consisting of germanium and silicon to form a P-N rectifying junction in said body by alloying of a portion of said metal into said body, and removing substantially all other portions of said metal from said body by dissolving said metal in mercury.

2,823,149
PROCESS OF FORMING BARRIER LAYERS IN CRYSTALLINE BODIES
Preston Robinson, Williamstown, Mass., assignor to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
No Drawing. Application October 27, 1953
Serial No. 388,690
2 Claims. (Cl. 148-1.5)

1. A process of producing a barrier layer within a crystalline body of a semiconductive material which comprises oxidizing a surface layer of said semiconductive material to an oxide, depositing an element capable of changing the conductivity of said semiconductive material upon said oxide layer, and thermally causing said element to diffuse through said oxide layer into said body of semiconductive material.

2,823,150
METHOD OF DESCALING METALS WITH MOLTEN ALKALI METAL HYDROXIDE BATHS AND COMPOSITIONS THEREFOR

John A. Henricks, Logansport, Ind., assignor to Devex Corporation, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application December 7, 1956
Serial No. 626,844
6 Claims. (Cl. 148-6.11)

1. A method of descaling ferrous metal by holding the scaled metal in a bath of fused sodium hydroxide activated by 1% to 5% elemental sulfur and then quenching the work in water and subsequently pickling off the scale residues in an acid bath.

2,823,151
HIGHLY REFRACTIVE MOLYBDENUM BODIES
Leonard F. Yntema, Waukegan, Ill., and Edward A. Beldler, Columbus, and Ivor E. Campbell, Gahanna, Ohio, assignors, by direct and mesne assignments, to Fansteel Metallurgical Corporation, North Chicago, Ill., a corporation of New York
No Drawing. Application October 14, 1953
Serial No. 386,134
7 Claims. (Cl. 148-31.5)

1. As an article of manufacture, a refractory metal body resistant to oxidation at elevated temperatures comprising a molybdenum base having an exterior layer consisting essentially of an alloy or intermetallic compound of molybdenum, silicon and boron, the boron being present in the exterior layer in amounts of from about 2% to about 10%.

2,823,152
MANUFACTURE OF AIR SPACED ELECTRIC CABLES
Raymond Charles Mildner, Shirley, Oxehey, and Clive Edward Christopher Lovelace, Blackheath, London, England, assignors to Telegraph Construction & Maintenance Company Limited, London, England, a company of Great Britain
Application May 4, 1951, Serial No. 224,555
Claims priority, application Great Britain May 16, 1950
4 Claims. (Cl. 154-2.26)

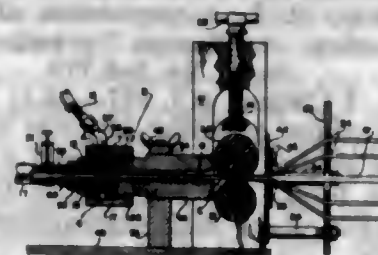


4. Procedure in manufacturing an electric conductor having an air space insulation including a helical membrane initially in the form of a closely wound helix having its turns substantially in contact and with a bore of a diameter less than the diameter of the conductor, consisting in advancing the conductor and in simultaneously longitudinally stretching said helix substantially in a path at an angle to the conductor to such an extent that the inner edge will be of a size and so disposed to tightly contact the conductor, in advancing the helix, and in lapping the helix while advancing and so stretched onto the conductor at the zone of intersection of said path with the advancing conductor.

2,823,153
MEANS FOR THREADING WIRES THROUGH FLEXIBLE TUBING
Donald A. Bunnell and Roby G. L. Peak, Los Angeles, Calif., assignors to Lockheed Aircraft Service, Inc., Burbank, Calif.
Application October 7, 1953, Serial No. 384,686
5 Claims. (Cl. 154-2.26)

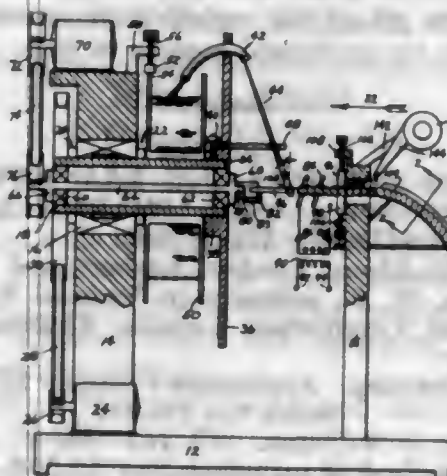
1. A machine for threading a bunched group of wires through flexible and stretchable tubing, comprising a wire

guide for aligning the wires in substantially parallel spaced relationship, a pair of cooperating rollers engaging the wires after their passage through the guide for advancing the spaced parallel wires, means for driving



said rollers, means for gathering said advancing wires into a compact bunch after passing the rollers and guiding said compact bunch into the tubing, and means for introducing pneumatic pressure into the tubing for expanding the same about the advancing wires.

2,823,154
SPIRAL WINDING PROCESS AND APPARATUS THEREFOR
Hugh M. Archer, Dearborn, Mich.
Application December 12, 1955, Serial No. 552,413
15 Claims. (Cl. 154-2.26)



2. A machine for winding plastic spirals comprising a threaded mandrel; means for rotating said mandrel in one direction; plastic strip winding means adjacent said mandrel for winding the strip onto the mandrel at an angle to the mandrel axis; means for rotating said winding means in the opposite direction from said mandrel; plastic spiral heater means downstream from the winding means for relieving stress in the strip due to rotational influences from the winding means; and radially acting pressure means engageable with the spiral strip downstream from the heater means.

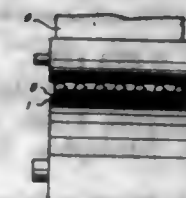
2,823,155
ELASTIC STRAP WITH REINFORCED BIFURCATED ENDS
Maurice H. Brown and Howard R. Brown, North Baltimore, Ohio, assignors to The D. S. Brown Company, North Baltimore, Ohio, a corporation of Ohio
Application May 8, 1956, Serial No. 583,423
4 Claims. (Cl. 154-43)



1. A reinforced elastic strap comprising a continuous elastomer strip including an elongated cylindrical elastic thong and enlarged open opposed flat bifurcations at opposite ends, and woven fabric embedded in the bifurcations of each of said ends.

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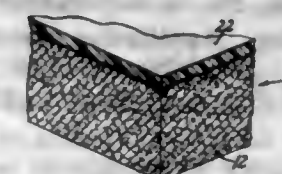
2,823,156
VINYL COATED KNIT FABRIC
William D. Hedges, Columbus, Ohio, assignor to Columbus Coated Fabrics Corporation, Columbus, Ohio, a corporation of Ohio
Application May 3, 1955, Serial No. 505,657
2 Claims. (Cl. 154-46)



1. In an article of manufacture a preformed vinyl resin sheet, said sheet having a coating of polymerized vinyl chloride resin, plasticizer, and color pigment, in which is imbedded and fused a sheet of knitted fabric, the vinyl sheet and fabric being united to form an integral sheet of material, said vinyl resin coating consisting of the following ingredients:

	Parts by weight
Polymerized vinyl chloride resin	10.0
Clay	8.0
Di-octyl-phthalate (plasticizer)	6.0
Cadmium octoate	0.15
Barium laurate	0.15
Color pigment	1.0
Mineral spirits	1.5

2,823,157
PROTECTIVE COVERING OF LEATHER
Raymond P. Hofferbert, Beverly, John P. Szumski, Salem, and William L. D. McKay, Marblehead, Mass., assignors to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application January 21, 1953, Serial No. 332,162
6 Claims. (Cl. 154-131)



1. The method of protecting leather which comprises the three step process of first disposing a thin sheet of high molecular weight polyethylene on a surface of a leather sheet and heating the polyethylene sheet and substantially said surface only of the leather sheet to a temperature near but below the melting point of the polyethylene, secondly pressing a heated surface simultaneously against all areas of the sheet of polyethylene to be joined to said leather surface to melt the polyethylene to fluid condition and to force the hot fluid polyethylene into the surface of the leather, said heated surface having a temperature substantially above the melting point of the polyethylene, and thirdly cooling the heated surface promptly after establishing pressure to reduce the temperature of the surface to a point well below the melting temperature of the polyethylene and thereafter releasing said pressure.

2,823,158
N-CYANOETHYL CARBAZOLE FOR TREATING SYSTEMIC PLANT DISEASES
Chien-pen Lo, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application August 23, 1954
Serial No. 451,716
5 Claims. (Cl. 167-33)

1. A chemoprophylactic and chemotherapeutic process for immunizing plants against systemic diseases and for

curing plants already subjected to such diseases, said process comprising administration of N-cyanoethylcarbazole systemically to a plant through application of the compound to at least one element of the immediate plant environment which is comprised of the plant's leaves, roots and the soil adjacent the plant's roots.

2,823,159

WOOD TREATMENT

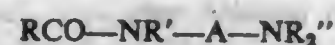
James L. A. Webb, Memphis, Tenn., assignor to Chapman Chemical Company, Memphis, Tenn., a corporation of Illinois

No Drawing. Application December 22, 1955

Serial No. 554,641

8 Claims. (Cl. 167—38.7)

1. A composition comprising pentachlorophenol and an amido compound, dissolved in a common solvent, the concentration of the pentachlorophenol being 1% to 30% and the concentration of the amido compound being $\frac{1}{2}$ to 10 times the pentachlorophenol concentration, said amido compound being selected from the group consisting of compounds having the formulae



and



wherein RCO is an acyl group derived from a carboxylic acid selected from C_{12} - C_{20} fatty acids and rosin acids, A is a C_2 - C_6 alkylene group, R' is a radical selected from the group consisting of H and C_1 - C_4 alkyl radicals, and R'' is a C_1 - C_4 alkyl radical.

2,823,160

SUBSTITUTED PYRIMIDINES COMPOSITIONS FOR CHEMOTHERAPY OF COCCIDIOSIS

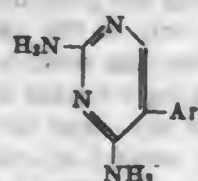
Russell E. Lux, Myerstown, and Ammon M. Brubaker, Sheridan, Pa., assignors to Whitmoyer Laboratories, Inc., Myerstown, Pa., a corporation of Delaware

No Drawing. Application March 29, 1955

Serial No. 497,816

15 Claims. (Cl. 167—53.1)

1. A ration for ad libitum feeding to a flock of poultry to combat the disease of coccidiosis in the poultry flock without intolerable toxic effect upon the poultry which comprises a feed vehicle in which is incorporated not less than .001 percent and not more than .05 percent by weight of a diamino-pyrimidine having the formula:



in which Ar is 3',4' dialkoxybenzyl.

2,823,161

SUBSTITUTED TRIAZINE COMPOSITIONS FOR CHEMOTHERAPY OF COCCIDIOSIS

Russell E. Lux, Myerstown, and Ammon M. Brubaker, Sheridan, Pa., assignors to Whitmoyer Laboratories, Inc., Myerstown, Pa., a corporation of Delaware

No Drawing. Application March 30, 1955

Serial No. 498,102

6 Claims. (Cl. 167—53.1)

1. A composition for combatting the disease of coccidiosis in a flock of poultry which comprises a mixture of a feed vehicle and 2,4-diamino-1-p-chlorophenyl-1,6-dihydro-6,6-dimethyl-1,3,5-triazine said dihydrotriazine being present within the range of .0025% to .05%.

2,823,162

4,4'-DINITROCARBANILIDE COMPOSITION USEFUL AGAINST COCCIDIOSIS

Robert C. O'Neill, New York, N. Y., and Arthur J. Basso, Rahway (Colonie), N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application November 23, 1955

Serial No. 548,778

3 Claims. (Cl. 167—53.1)

1. A composition of matter effective in the control of coccidiosis in poultry which comprises a poultry feed in solid particle form, and from about 0.02% to about 0.5% by weight of 4,4'-dinitrocarbanilide intimately dispersed therein.

2,823,163

ANTIVAGINITIS PROCESS AND CATION EXCHANGE RESIN COMPOSITION

Richard K. Thoms, Storrs, Conn.

No Drawing. Application October 11, 1956

Serial No. 615,242

10 Claims. (Cl. 167—58)

1. The process of establishing and maintaining a controlled pH of the vaginal mucosa in the treatment of vaginal infections which comprises introducing into the vagina a carboxylic acid cationic ion exchange resin having a pH from about 2.8 to about 3.5 in a dosage amount between about 0.12 and 5.0 grams sufficient to maintain the pH of the vaginal mucosa between about 3.5 and 5.0 for prolonged periods of time.

2,823,164

METHOD OF PREPARING 3,5,3'-L-TRI-iodo-THYRONINE AND PHARMACEUTICAL COMPOSITIONS THEREOF

Rosalind Pitt-Rivers, London, England, and Jack Gross, Brooklyn, N. Y., assignors to National Research Development Corporation, London, England, a British company

No Drawing. Application February 25, 1953

Serial No. 338,914

9 Claims. (Cl. 167—65)

1. The method of manufacturing 3,5,3'-L-tri-iodo-thyronine substantially free from D-form which comprises the steps of iodinating 3,5-L-di-iodo-thyronine in an alkaline medium to form 3,5,3'-L-tri-iodo-thyronine contaminated with thyroxine, acidifying said mixture to bring the pH thereof to about 4 to form a precipitate, recovering the precipitate, redissolving the precipitate in boiling hydrochloric acid of approximately 2N concentration, filtering the solution to remove therefrom insoluble thyroxine hydrochloride, adjusting the filtrate to the pH of about 4 to precipitate the 3,5,3'-L-tri-iodo-thyronine, and separating the precipitate from the solution.

2,823,165

METHODS AND COMPOSITIONS FOR CONTROLLING ANIMAL PARASITES

Konrad Bernhauer and Wilhelm Friedrich, Aschaffenburg, Germany, assignors to Firma Aschaffener Zellstoffwerke Aktiengesellschaft, Redenfelden, Upper Bavaria, Germany

No Drawing. Application December 17, 1953

Serial No. 398,854

Claims priority, application Germany December 20, 1952

3 Claims. (Cl. 167—81)

3. In a process of producing vitamins of the B₁₂ group, the steps of treating a concentrate containing vitamins of the B₁₂ group with an organic solvent mixture comprising a mono-halogenated phenol selected from the group consisting of mono-halogenated phenols having the halogen group in the position meta and mono-halogenated phenols having the halogen group in the position para to the hydroxyl group of said phenol, dissolved in a liquid organic substance in which said vitamins of the B₁₂ group are

insoluble and being selected from the group consisting of hydrocarbons, halogenated hydrocarbons and carbon disulfide, thereby forming an extract solution of said vitamins of the B₁₂ group dissolved in said solvent mixture; treating the thus-formed organic extract solution containing the vitamins of the B₁₂ group with water and with a water soluble alcohol, thereby causing due to said alcohol substantially quantitative transfer of said vitamins of the B₁₂ group into the aqueous phase; saturating the thus-obtained aqueous solution containing said vitamins of the B₁₂ group dissolved therein with a phenol selected from the group consisting of meta and para chlorophenol in the presence of an inert solid porous absorbent material, thereby forming a precipitate containing the oily water-insoluble complex of said vitamins of the B₁₂ group and said phenol absorbed by said inert solid porous absorbent material filtering said precipitate; washing the thus obtained filtered precipitate with a low molecular weight ketone so as to free said vitamins of the B₁₂ group from said phenol; and recovering the thus freed vitamins of the B₁₂ group.

2,823,166

CHOLINE ASCORBATE, METHODS FOR PRODUCING SAME, AND COMPOSITIONS THEREOF

Walter H. Hoffman, Springfield, Mo.

No Drawing. Application November 17, 1954

Serial No. 469,560

12 Claims. (Cl. 167—81)

1. A method for preparing choline ascorbate comprising reacting ascorbic acid in the presence of an inert solvent, medium with a substantially equimolar quantity of a member selected from the group consisting of (I) choline and (II) the choline-forming reagents trimethylamine and ethylene oxide, and separating the solvent from the reaction product.

6. A method for the preparation of choline ascorbate comprising dissolving choline in methanol, adding a suspension of ascorbic acid in methanol to said solution the amount of ascorbic acid being substantially equimolar with respect to the choline, treating the resulting reaction mass with carbon, filtering the treated solution, and distilling methanol from said solution to recover choline ascorbate.

2,823,167

STABLE VITAMIN B₁₂-CONTAINING SOLUTION

Harold L. Newmark, Lynbrook, N. Y., assignor to The Vitamine Co. Inc., New York, N. Y., a corporation of New York

No Drawing. Application March 29, 1955

Serial No. 497,811

3 Claims. (Cl. 167—81)

1. An aqueous solution which includes dissolved cyanocobalamin and dissolved ascorbic acid, the original concentration of said ascorbic acid being greater than the original concentration of said cyanocobalamin, said dissolved ascorbic acid being in sufficient original concentration to induce decomposition of said dissolved cyanocobalamin in a cyanocobalamin-destroying reaction, in the absence of a stabilizing agent; said solution having an added stabilizing agent dissolved therein, said stabilizing agent being an iron compound, said iron compound being soluble and substantially non-toxic in the concentration present in said solution, the elemental iron content in said stabilizing iron compound being in the range of substantially seventeen micrograms to seventeen-hundred micrograms per cubic centimeter, said selected concentration of said iron compound being below a daily dosage of ten milligrams of elemental iron.

2,823,168

DEPILATORY OF THIOGLYCOLLATE SALT IN GEL SOLUTION WITH COLLOIDAL EXCESS AND METHOD OF PREPARING SAME

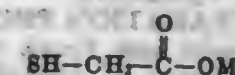
Albert A. Stonehill, Plainfield, N. J., assignor to Ethicon, Inc., a corporation of New Jersey

No Drawing. Application June 6, 1952

Serial No. 292,183

6 Claims. (Cl. 167—89)

1. A depilatory formulation comprising a nonacid aqueous gel stable at high alkalinities, a compound of the formula



in which M is a metal selected from the class consisting of sodium, potassium and calcium, the compound being in excess of that in solution in the gel, the excess being colloiddally dispersed therein, said formulation having a pH of from about 12 to about 12.6.

2,823,169

SUBSTITUTED ALUMINUM ALCOHOLATES AND METHODS OF MAKING SAME

Peter M. Brown, Jr., Livingston, and Thomas Govett, Springfield, N. J., assignors to Reheis Company, Inc., a corporation of New York

No Drawing. Application May 23, 1955

Serial No. 510,555

8 Claims. (Cl. 167—90)

5. In making an aluminum chlorhydroxyalcoholate complex, the process which comprises forming a mixture of aluminum in finely divided form, aluminum chloride, water, and an alcohol, in the proportions of 4-12 atoms of the finely divided aluminum and 1-2.9 moles of the alcohol for each mole of the aluminum chloride (Al_2Cl_6) and 2%-6% of water on the weight of the alcohol, maintaining contact between the four reactants until a substantial part of the chlorine of the aluminum chloride is replaced by hydroxy and alcoholate groups, and then discontinuing the reaction before all of the chlorine is so replaced, the water increasing the speed of the reaction and causing the resulting complex to have a substantial hydroxy content.

2,823,170

PROCESS FOR THE OXYGENATION OF STEROIDS WITH NIGROSPORA

Robert D. Muir, Deerfield, and Raymond M. Dodson, Park Ridge, Ill., assignors to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application May 11, 1955

Serial No. 507,737

9 Claims. (Cl. 195—51)

1. A process for the manufacture of a member of the group consisting of steroids oxygenated at position 11 and steroids oxygenated at position 15 which comprises: subjecting a steroid compound having a carbon skeleton of fewer than 22 carbon atoms and a methylene group in at least one of positions 11 and 15 to the oxygenating activity of a fungus of the genus *Nigrospora*, and isolating the resulting fermented steroid.

2,823,171

SYNTHESIS OF STEROIDS OF THE 1-DEHYDRO-TESTOLACTONE SERIES

Josef Fried, New Brunswick, and Richard W. Thoma, Somerville, N. J., assignors to Olin Mathieson Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application November 18, 1955

Serial No. 547,836

8 Claims. (Cl. 195—51)

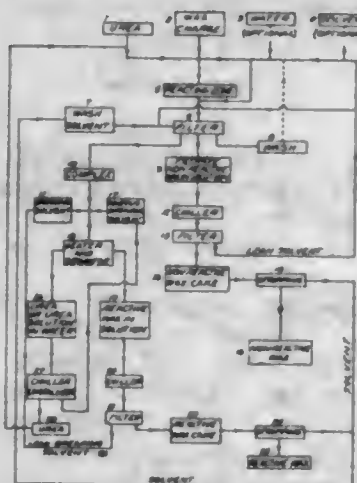
1. The process for preparing a steroid of the 1-dehydro-testolactone series, which comprises subjecting a steroid

selected from the group consisting of a member of the 21-unsubstituted-3,20-diketo- Δ^4 -pregnene series and a member of the androstane series to the action of the enzymes of fungi of the genera selected from the group consisting of *Cylindrocarpus* and *Fusarium* in an aqueous medium containing assimilable sources of carbon and nitrogen, and recovering from the medium the 1-dehydrotestolactone produced.

2,823,172

UREA SEPARATION PROCESS

George Glen Rumberger and Frank Stanton Charlton, Neenah, Wis., assignors to Marathon Corporation, Menasha, Wis., a corporation of Wisconsin
Application January 12, 1953, Serial No. 330,862
1 Claim. (Cl. 196—18)



In a continuous process for treating waxes having a melting point of from 120° F. to about 220° F., said wax containing from 10% to 90% urea reactive wax and urea non-reactive oil not in excess of 20% by contacting said wax with urea in a reaction zone in the presence of methyl ethyl ketone at a temperature of from about 115° F. to about 220° F. to form a urea-wax complex and separating said complex from the resulting solution of oil and non-reactive wax, the improvement which comprises cooling said solution of oil and of non-reactive wax to a temperature sufficient to separate a solid phase consisting of non-reactive wax, separating said non-reactive wax, further cooling the solution remaining until a substantial amount of the urea non-reactive oil contained therein and methyl ethyl ketone separate as liquid phases, separating the methyl ethyl ketone from the oil and returning the methyl ethyl ketone to said reaction zone.

2,823,173

METHODS OF REFINING PETROLEUM PRODUCTS
Andre Glalon, Paris, and Joseph Marie Quiquerez, Gonfreville l'Orcher, France, assignors to Societe Anonyme dite: Compagnie Francaise de Raffinage, Paris, France, a corporation of the French Republic

No Drawing. Application March 6, 1953

Serial No. 340,918

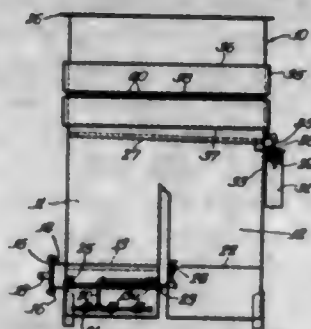
15 Claims. (Cl. 196—29)

1. The process of sweetening a liquid petroleum product which comprises adding to said product in the presence of oxygen a minor quantity of an iminophenol and a minor quantity of a group VIII metal compound in a form miscible with said petroleum product to thereby form in situ in said product an organic compound of said group VIII metal having at least one chelate bond.

4. The process of sweetening a liquid petroleum product which comprises oxidizing mercaptans therein in the presence of oxygen while there is present in the petroleum product itself a small quantity of a cobalt compound in a form miscible with said petroleum product and a small quantity of a Schiff base.

2,823,174

DEGREASING MACHINE WITH COOLING JACKET
Montgomery B. Pickett, Glen Ellyn, Ill., assignor to G. S. Blakeslee & Co., Cicero, Ill., a corporation of Illinois
Application September 9, 1953, Serial No. 379,132
4 Claims. (Cl. 202—170)

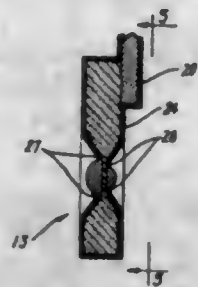


1. In degreasing apparatus, a tank having an enclosing wall and adapted to contain a degreasing solvent and vapors thereof, cooling jacket means extending about said tank exteriorly and remote from the bottom thereof, said jacket means comprising upper and lower channel elements and an intermediate channel element fixed to said upper and lower elements and to the tank wall, said upper and lower channel elements being closed at the inner sides thereof by the corresponding portions of the tank wall and defining therewith upper and lower passages extending substantially completely about said tank and having an inner wall of substantial area exposed interiorly of said tank, said channel elements being rigidly connected together and to said tank wall effective for reinforcing the latter, a duct bridging said intermediate channel element and establishing communication between said passages, each of the latter having a coolant connection at the area thereof adjacent said duct, and baffle means in said passages effective for causing coolant entering one of said passages to flow therethrough in one direction around said tank to said duct and through the latter to the other passage and then through said other passage in the opposite direction around the tank to said coolant connection of said other passage, whereby the coolant flowing through said one passage is preheated by heat absorbed from the solvent vapors within the tank before it enters said other passage.

2,823,175

SEMICONDUCTIVE DEVICES

John Roschen, Hatboro, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application November 14, 1956, Serial No. 622,209
3 Claims. (Cl. 204—15)



1. In a method for fabricating a semiconductive structure including a semiconductive body having a body-contacting metallic electrode, the steps comprising: plating said semiconductive body and said electrode with a layer of metal which adheres firmly to said body but is loosely adherent to said electrode and porous in the region thereof; and etching the porous loosely adherent part of said plated layer, together with portions of the underlying electrode, to remove the stated porous part of said plated layer and a surface layer of the electrode, exposing an unplated zone of said semiconductive body between said electrode and remaining portions of said plated layer.

2,823,176

ANTIMONY PLATING BATH AND PROCESS

Elmer R. Breining, Warren, Cleveland F. Nixon, Detroit, and William R. Vincent, Birmingham, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

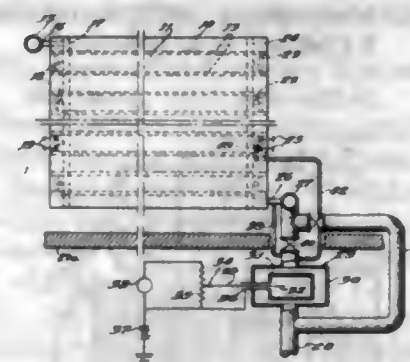
No Drawing. Application November 30, 1953

Serial No. 395,292

8 Claims. (Cl. 204—45)

1. An electroplating bath comprising approximately 20 to 300 grams per liter of solution of antimony, a metallic cation in addition to antimony in a small amount effective to provide a smooth, adherent, non-brittle antimony plate up to the maximum amount soluble in the plating bath, and a complexing agent capable of complexing dissolved antimony to form a five-membered ring, wherein said ring-forming complexing agent is sulfonated catechol present in approximately 20 to 300 grams per liter of solution.

neutronic reactor, a tube extending through the reactor adapted to contain the body to be tested, a source of water connected to one end of the tube, a pipe exterior



to the reactor connected to the other end of the tube of the reactor, a neutron counting means mounted in said pipe, and neutron shielding means disposed between the neutron counting means and the reactor.

2,823,177

METHOD AND APPARATUS FOR LOWERING THE CHLORATE CONTENT OF ALKALI METAL HYDROXIDES

Sidney G. Osborne, Saint Davids, Ontario, Canada, assignor to Hooker Electrochemical Company, Niagara Falls, N. Y., a corporation of New York

No Drawing. Application January 13, 1954

Serial No. 403,923

9 Claims. (Cl. 204—98)

1. In the method of decomposing alkali metal chlorides in electrolytic alkali chlorine cells of the diaphragm type, the improvement which comprises effecting said electrolysis in the presence of a finely divided catalytic material selected from the group consisting of nickel, cobalt, their hydroxides and mixtures thereof dispersed in said diaphragm wherein said finely divided material dispersed in the diaphragm is between about 0.25 percent and about 10 percent by weight of the diaphragm.

2,823,178

PROCESS OF TREATING SULPHITE WASTE

John J. Ritter, Seattle, Wash.

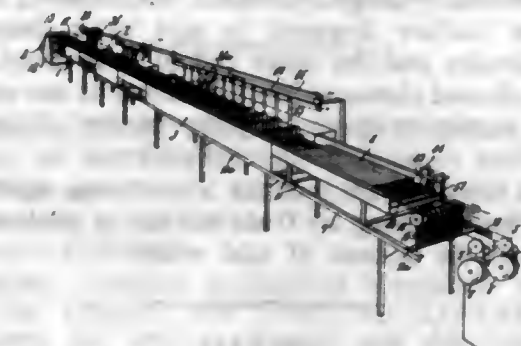
No Drawing. Application March 5, 1956

Serial No. 569,259

4 Claims. (Cl. 204—131)

1. The process of treating lignin and its associated products which have resulted from the reactions undergone in the sulphite method of paper pulp manufacture for the purpose of deoxidizing such products, which comprises adding an alkali in sufficient quantity to the sulphite waste solution to cause a visible discolored suspension and a slight precipitate; and then subjecting the alkalized sulphite waste to electrolysis at not less than two volts between a positive electrode of high electromotive force and a hydrogen evolving negative electrode in a single compartment in which both electrodes are in direct and intimate contact with the sulphite waste products, whereby the oxygen concentrated at the positive electrode under electrolytic pressure is neutralized by the ionic products of the dissolving positive electrode and the nascent hydrogen ionic products emanating from the negative electrode thereby effecting a reduction in the condition of the lignin and its associated products.

1. In a plant for electro-plating a plurality of wires which are disposed to move in spaced apart and parallel relation to each other along straight paths from respective supply reels to corresponding take-up reels; elongated tank means having opposite ends and adapted to contain an electrolyte forming treatment liquid, a plurality of electrically insulated, upright guide bar means successively arranged to and spaced apart from each other, said guide bar means extending across and within said tank means, each of said guide bar means having first notches for normally locating said wires therein during their movement along their paths within said tank means for contact with said treatment liquid when supplied to said tank means and having second notches on the top of said guide bar means for positioning predetermined wires during their movement to keep the latter out of contact with said treatment liquid, treatment liquid circulating means for said tank means, said guide bar means including end guide bar means provided with respective end walls sloping toward the ends of said tank means gradually orient overflow of said treatment liquid beyond said first notches to end compartments defined by spaces between said end tank means and said opposite ends of said tanks, and by-pass means level with the bottom of and interconnecting said end compartments and operatively connected to said circulating means, said tank means being provided with anode constituting tray means located below said guide bar means, said wires constituting cathodes in said tank means.



2,823,179

DETECTION OF COATING FAILURES IN A NEUTRONIC REACTOR

Arthur H. Snell, Oak Ridge, Tenn., and Samuel K. Allison, Chicago, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

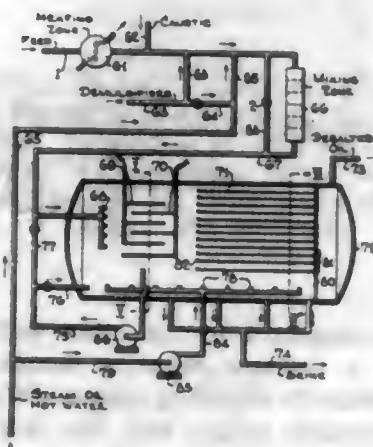
Application October 16, 1945, Serial No. 622,632

2 Claims. (Cl. 204—193.2)

1. A device for detecting leaks in the jackets of jacketed bodies of fissionable material comprising a

2,823,181

APPARATUS FOR BREAKING EMULSIONS
John W. Packie, Maplewood, William H. Hesketh, Summit, and Reid F. Stearns, Scotch Plains, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Application November 1, 1951, Serial No. 254,256
5 Claims. (Cl. 204—302)



1. Apparatus for breaking emulsions which comprises an emulsion breaking cylindrical horizontal vessel, an emulsion feed conduit disposed at one end of said vessel, a plurality of electrodes disposed in said vessel and adjacent said feed conduit, a plurality of superimposed elongated inverted V-shaped elements each having an upper coalescent surface disposed in said vessel intermediate said electrodes and the other end of said vessel, said inverted V-shaped elements being attached at one end thereof to a vertically disposed plate header element, said header plate element being characterized by containing apertures between said inverted V-elements, separate conduits for withdrawing oil from the top of said vessel and water from the bottom of said vessel.

2,823,182

GREASE COMPOSITIONS
Gordon D. McLeod, Hammond, Ind., and William L. Rittschof, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana
No Drawing. Application October 28, 1950
Serial No. 192,824
10 Claims. (Cl. 252—33)

8. A grease composition comprising a normally liquid hydrocarbon oil, from about 0.5% to about 20% of a guanidine salt of alkanesulfonic acids having from 1 to 6 carbon atoms, and from 0.4% to about 50% of a metal salt of preferentially oil-soluble petroleum sulfonic acids.

2,823,183

AIR FILTER OIL
Thorild F. Lonstrup, Sarnia, Ontario, Canada, assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application July 22, 1955
Serial No. 523,860
2 Claims. (Cl. 252—57)

1. An air filter oil comprising a blend of mineral oil having a viscosity at 210° F. between about 50 and 60 SUS, and containing from about 1.5 to about 2.5% by weight of polyethylene having a molecular weight within the range of from about 11,000 to about 35,000 Staudinger, and from about 0.05 to about 0.2% of polyoxyethylene sorbitan mono-oleate having a viscosity between about 350 to about 550 cp. at 25° C., a specific gravity of from about 1.0 to about 1.15, a flash point of from about 400 to about 650° F. and a fire point of from about 480 to about 675° F.

2,823,184

COMPOSITION AND PROCESS FOR METAL PICKLING

Ralph E. Plump, Pittsfield, Mass., and James W. Carroll, Lafayette Hill, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania
No Drawing. Original application February 11, 1950, Serial No. 143,822, now Patent No. 2,664,408, dated December 29, 1953. Divided and this application March 23, 1953, Serial No. 349,952
15 Claims. (Cl. 252—149)

9. A pickling bath comprising an aqueous solution of a non-oxidizing inorganic pickling acid, said solution containing 0.001 to 7% by weight of the condensation product resulting from an acidified reaction mixture of sulfite pulp waste liquor, water-soluble aldehyde, urea and thiourea in which reaction mixture 0.1 to 5 mols of aldehyde are present per mol of combined urea and thiourea and said sulfite pulp waste liquor contains not more than 1 gram of sulfite pulp waste liquor solids per gram of combined urea and thiourea.

2,823,185

LAUNDRY AIDS

Theodore A. Seegrist, McLean, Va.
No Drawing. Original application January 26, 1951, Serial No. 208,051. Divided and this application May 13, 1955, Serial No. 514,411
2 Claims. (Cl. 252—303)

(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A process comprising forming an emulsion of a water-immiscible liquid, which is inert toward sodium carboxymethyl cellulose, in water in the presence of an emulsifying agent, and mixing sodium carboxymethyl cellulose therewith to form a curd having at least 20% sodium carboxymethyl cellulose, by weight, with the water and emulsifying agent contained therein and with the water-immiscible liquid separated.

2,823,186

SILICA AQUASOL CONTAINING A POLYHYDRIC ALCOHOL

Ralph F. Nickerson, Marblehead, Mass., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware
No Drawing. Application September 14, 1955
Serial No. 534,402
10 Claims. (Cl. 252—313)

1. A composition of matter consisting essentially of a stable, alkaline silica aquasol having dissolved therein from about 3 to 30% by weight of a water-soluble polyhydric alcohol, based on said aquasol, and from 0.005 to 1% by weight of sodium pentachlorophenate, based on said aquasol and polyhydric alcohol.

2,823,187

SOAP MANUFACTURE

Edward B. Coyle, Philadelphia, Pa., assignor to Fels & Company, Philadelphia, Pa., a corporation of Pennsylvania
Application January 16, 1953, Serial No. 331,659
4 Claims. (Cl. 252—370)

1. In a method of making soap, the step of forming a saponification mixture by heating at a temperature to maintain fluidity but not above about 250° F., fat acid components, caustic soda, and water, in soap making proportions including in percentages by weight 35 to 85% of fat acid components, 5 to 15% of caustic soda, and rosin up to 15%, the total amount of water present at any time including any water formed by saponification being of from about 3 to 10% by weight, and spraying

the resulting saponification mixture as it comes hot and fluid from the saponification step at a pump pressure of from 1000 to 5000 p. s. i. to produce a soap product of particulate free-flowing character without substantial change in the water content.

2,823,188

PLASTIC MATERIALS COMPRISING DEXTRAN AND METHOD OF PREPARATION

Leo J. Novak, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio
No Drawing. Application June 7, 1954
Serial No. 435,097
18 Claims. (Cl. 260—9)

9. A plastic material settable by cooling and formed by the interaction of from 30% to 75% by weight of a substance selected from the group consisting of alpha-unsaturated alpha, beta-polycarboxylic acids and anhydrides thereof, and from 15% to 60% by weight of a polyhydric alcohol selected from the group consisting of ethylene glycol, diethylene glycol, triethylene glycol, tetraethylene glycol, trimethylene glycol, glycerol and pentaerythritol in the presence of from 5% to 25% by weight of dextran.

2,823,189

POLYAMIDE-EPOXY RESIN REACTION PRODUCT

Don E. Floyd, Robbinsdale, Minn., assignor to General Mills, Inc., a corporation of Delaware
No Drawing. Application July 15, 1953
Serial No. 368,217
6 Claims. (Cl. 260—18)

1. Composition of matter comprising an epoxy resinous material containing terminal epoxy groups derived from a polyhydric phenol and epichlorohydrin and having an epoxide equivalency in the range of 190 to 2000, and a polymeric polyamide derived from a mixture of polymeric fat acids and dimerized rosin and a polyalkylene polyamine said polyamide containing free amine groups.

2,823,190

HAMMER METAL FINISH AND RESINOUS FILM-FORMING MATERIAL THEREFOR

Andrew Marcis, Cleveland, and Paul D. Haas, Lakewood, Ohio, assignors to The Glidden Company, Cleveland, Ohio, a corporation of Ohio
No Drawing. Application July 12, 1954
Serial No. 442,884
12 Claims. (Cl. 260—22)

1. As a novel composition of matter, a resinous film-forming material particularly adapted for use as the film-forming component of a hammer finish for metals, said resinous material being the homogeneous, single-phase reaction product resulting from heating together the following kinds and amounts of materials as the principal solids-engendering ingredients thereof: (A) vinyl toluene in amounts between about 10 and 60% by weight; (B) divinyl-benzene in amounts between about .1% and 2% by weight; and (C) as the remainder, oil-modified alkyd resin containing ethylenic unsaturation, said oil-modified alkyd resin being a reaction product (a) in which the combined oil acids thereof are monocarboxylic acids of 6 to 24 carbons and are present in amounts equivalent to from about 25% to about 45%, by weight on said resinous film-forming material, of triglyceride oil selected from the group consisting of drying oils, semi-drying oils, and mixtures thereof; and (b) in which the remaining components thereof amount to between about 13% and 65%, by weight on said resinous film-forming material.

2,823,191

STABILIZED CHLORO-ETHYLENE POLYMER-CONTAINING LACQUER

Werner Gysin, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany
No Drawing. Application November 30, 1954
Serial No. 472,203
Claims priority, application Germany December 2, 1953
8 Claims. (Cl. 260—30.4)

1. An improved lacquer composition comprising a solution in an organic lacquer solvent of (A) an imino compound from the group consisting of ethyleneimine and polyethyleneimine, and (B) a copolymer of (1) a chlorine-containing monomer from the group consisting of vinyl chloride and vinylidene chloride, and (2) at least one polymerizable monomeric monoethylenic compound capable of copolymerizing with said chlorine-containing monomer.

2,823,192

POLYVINYL CHLORIDE RESIN PLASTICIZED WITH TRIETHYLENE GLYCOL DI-META-TOLUATE

William E. Elwell, Huntington, N. Y., and Judson C. Butler, El Cerrito, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware
No Drawing. Application April 26, 1954
Serial No. 425,740
1 Claim. (Cl. 260—31.4)

Polyvinyl chloride resin plasticized with a plasticizer consisting essentially of triethylene glycol di-meta-toluate.

2,823,193

POLYMER COMPOSITIONS PLASTICIZED WITH FLUID AMIDES

John P. Buckmann, Yorba Linda, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Original application November 10, 1950, Serial No. 195,127, now Patent No. 2,695,303, dated November 23, 1954. Divided and this application March 12, 1954, Serial No. 415,959
6 Claims. (Cl. 260—32.6)

1. A modified polymer composition comprising a polymer of the class consisting of vinyl acetate-chloride-alcohol copolymers and elastomers of the class consisting of butadiene-styrene copolymers, butadiene-acrylonitrile copolymers, polychloroprene, and natural rubber, to which is added 1 to 60% of a fluid amide prepared by oxidizing paraffin wax with a gas containing free oxygen at a temperature between 100° C. and 140° C. to produce an oxidized wax having an acid number between about 200 and about 350 mg. KOH/g., separating from the oxidized wax a fraction insoluble in water and in petroleum naphtha, which fraction has an acid number-saponification number ratio between 1.6 and 2.2 to 1 and a total oxygen-carboxyl oxygen ratio between 1.2 and 1.8 to 1 and amidating said water-insoluble, naphtha-insoluble fraction.

2,823,194

FLOOR TILE COMPOSITIONS FROM PETROLEUM RESINS

John F. McKay, Jr., Cranford, and Anthony H. Gleason, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application December 22, 1952
Serial No. 327,410
3 Claims. (Cl. 260—41)

1. A floor tile composition which consists essentially of the milled admixture of 15 parts by weight of a petro-

leum resin prepared by polymerizing in the presence of a Friedel-Crafts catalyst a steam-cracked distillate boiling in the range of 20° to 280° C. and consisting essentially of 10 to 35% diolefins, 30 to 65% olefins, and 0 to 60% aromatics, paraffins, and naphthenes; 2 to 7 parts by weight of an uncured rubbery polymer having a molecular weight between 7,000 and 200,000 and selected from the group consisting of polyisobutylene and the copolymer of a major proportion of isobutylene and a minor proportion of isoprene; and 78 to 83 parts by weight of inert inorganic filler of the class consisting of titanium dioxide, asbestos, marble dust, and mixtures thereof.

2,823,195

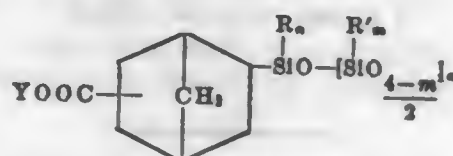
ORGANOSILICON POLYAMIDE COMPOSITIONS AND METHOD OF MAKING SAME

Leonard M. Shorr and Mary P. David, Pittsburgh, Pa., assignors to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application February 21, 1955
Serial No. 489,778

5 Claims. (Cl. 260-42)

1. A composition of matter comprising an organosiloxane-polyamide copolymer which is the condensation product obtained from the reaction of an intimate mixture of from .1 to 34% by weight of a siloxane of the average general formula



in which Y is selected from the group consisting of hydrogen and alkyl radicals, R is of the group consisting of monocyclic aryl hydrocarbon and lower alkyl radicals, n has an average value from 1 to 2 inclusive, R' is of the group consisting of monovalent hydrocarbon and halogenated monovalent hydrocarbon radicals, m has an average value from 1 to 3 inclusive and a has a value from 0 to 5.66 inclusive, and from 66 to 99.1% by weight of the condensation product of an aliphatic diamine and an aliphatic dibasic acid containing only carbon, hydrogen and oxygen atoms.

2,823,196

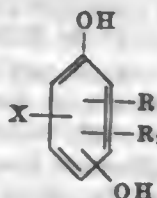
THERMOPLASTIC COMPOSITIONS HAVING IMPROVED LIGHT STABILITY

Carl B. Havens, Hope, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application November 3, 1955
Serial No. 544,820

3 Claims. (Cl. 260-45.95)

1. A light stable composition of matter comprising a haloethylene polymer normally subject to discoloration on exposure to light and from 0.5 to 5 percent of the weight of said thermoplastic material of a diacyl dihydroxy benzene derivative as a stabilizer having the general formula:



wherein the hydroxyl groups are in non-vicinal positions, R₁ and R₂ are aliphatic acyl groups derived from car-

boxylic acids having from 2 to 12 carbon atoms, and X is selected from the group consisting of hydrogen, halogen, aryl, alkyl and substituted alkyl.

2,823,197

POLYESTERS AND THEIR PREPARATION

Rupert C. Morris, Berkeley, Vernon W. Buls, Walnut Creek, and George W. Conklin, Oakland, Calif., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

No Drawing. Application July 1, 1954
Serial No. 440,864

15 Claims. (Cl. 260-75)

1. A resinous polyester of a polycarboxylic acid having a linear chain containing at least three six-membered carbocyclic rings which are joined together in series by bivalent aliphatic hydrocarbon radicals which contain only carbon-to-carbon linkages and having at least two carboxyl groups attached to separate carbocyclic rings, and a polyhydric alcohol.

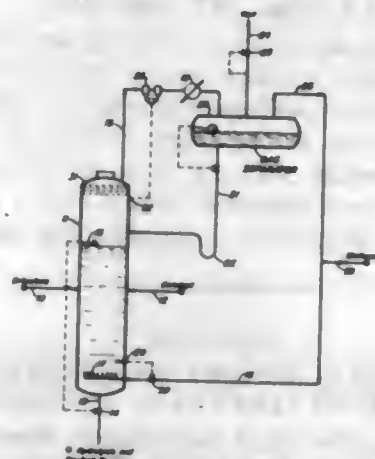
2,823,198

GAS STRIPPING TYPE AUTO-REFRIGERATION SYSTEM

John A. Ridgway, Jr., Texas City, Tex., assignor to The American Oil Company

Application May 21, 1954, Serial No. 431,385

8 Claims. (Cl. 260-82)



1. The method of producing a synthetic resin by polymerization of polymerizable components in a normally liquid hydrocarbon produced by high temperature hydrocarbon pyrolysis and containing substantial amounts of butadiene and pentadienes and larger amounts of benzene which method comprises continuously introducing such charging stock and a polymerization catalyst into a reaction zone operated under a positive pressure above atmospheric and withdrawing liquid reactor effluent at a rate to maintain a substantially constant liquid level in the reaction zone, maintaining said reaction zone at a substantially constant polymerization temperature in the range of about 150 to 220° F. and maintaining intimate admixture between catalyst and charging stock by introducing an inert gas at the base of said reaction zone at a rate to strip substantial amounts of benzene from the liquid, cooling the gas stream leaving the liquid to effect condensation of most of the benzene and returning said condensate to the liquid in the reaction zone, compressing uncondensed gas for recycle to the base of the reaction zone, increasing said rate of gas introduction at the base of the reaction zone when said temperature tends to rise and decreasing said rate of inert gas introduction when said temperature tends to fall.

2,823,199

COPOLYMERS OF ACRYLONITRILE AND 4,4-DICHLOROHEXAFLUOROBUTENE-1 AND METHOD FOR PREPARING SAME

Elizabeth S. Lo, Elizabeth, N. J., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware

No Drawing. Application February 20, 1956
Serial No. 566,370

7 Claims. (Cl. 260-85.5)

1. A process for preparing a polymeric composition which comprises polymerizing a monomeric mixture of 4,4-dichlorohexafluorobutene-1 and acrylonitrile, said mixture containing between about 50 mole percent and about 75 mole percent 4,4-dichlorohexafluorobutene-1 and correspondingly between about 50 mole percent and about 25 mole percent acrylonitrile, at a temperature between about -25° C. and about 150° C.

2,823,200

PREPARATION OF VINYL HALIDE POLYMERIZATION PRODUCTS IN GRANULAR FORM

Raymond I. Longley, Jr., and Richard H. Martin, Jr., Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 25, 1955
Serial No. 530,612

9 Claims. (Cl. 260-92.8)

1. In a process for preparing polymerization products in granular form, the step which comprises polymerizing an aqueous dispersion of a polymerizable material containing a vinyl halide from the group consisting of vinyl fluoride, vinyl chloride and vinyl bromide in the presence of, as a dispersing agent, an interpolmer of a monomeric mixture consisting of essentially equimolar portions of ethylene and a compound selected from the group consisting of maleic acid and maleic anhydride dissolved in the aqueous phase, said interpolmer being free from salt groups and, when in the anhydride form, having a specific viscosity of at least 1.1 as determined in a 1% solution in dimethylformamide at 25° C.

2,823,201

HALOGENATED POLYMERS OF NUCLEAR METHYLATED AROMATIC HYDROCARBONS, THEIR QUATERNARY AMMONIUM SALTS AND METHOD OF MAKING THE SAME

Robert M. Wheaton, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application March 10, 1952
Serial No. 275,862

11 Claims. (Cl. 260-93.5)

1. A method which comprises reacting a halogen selected from the group consisting of chlorine and bromine, with a benzene-soluble polymer comprised essentially of a polymerized ar-methyl-monovinyl aromatic hydrocarbon of the benzene series having the vinyl radical and from one to three methyl radicals directly attached to carbon atoms of the aromatic nucleus, in the presence of a halogenation catalyst promoting the substitution of halogen in the methyl radicals, while the polymer is dissolved in an inert organic liquid at a temperature between 0° and 150° C., until the polymer contains an average of from 0.3 to 1.4 side chain halogen atoms per methyl radical in the polymer whereby a toluene-soluble polymeric product containing at least to some extent nuclear halogenation is obtained and reacting the halogenated polymer with a tertiary amine to obtain a water-soluble resinous composition containing quaternary ammonium groups.

2,823,202

PREPARATION OF MONOCHLOROAZOBENZENES

Jack H. Thelin, Somerville, and Herman Cherlow, North Plainfield, N. J., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 18, 1954
Serial No. 437,851

4 Claims. (Cl. 260-205)

1. The process of producing monochloroazobenzene which comprises reacting monochloronitrobenzene with aniline in the presence of an alkali metal hydroxide under anhydrous conditions at a temperature of about 160 to 185° C., the aniline and alkali metal hydroxide being present in at least stoichiometric quantities.

2,823,203

METHOD OF PRODUCING SUBSTANTIALLY PURE ERYTHROMYCIN A

Robert K. Clark, Jr., Waukegan, Ill., assignor to Abbott Laboratories, North Chicago, Ill., a corporation of Illinois

No Drawing. Application June 24, 1954
Serial No. 439,166

4 Claims. (Cl. 260-210)

1. A method of obtaining substantially pure erythromycin A normally contaminated by erythromycin B products which comprises dissolving erythromycin A contaminated with erythromycin B in a solvent medium comprised essentially of nitromethane, and recovering therefrom by crystallizing substantially pure erythromycin A substantially uncontaminated by erythromycin B.

2,823,204

ALKALOIDS OF VOACANGA

Maurice-Marie Janot and Robert Goutarel, Paris, France, assignors to Les Laboratoires Gobey, Paris, France, a corporation of France

No Drawing. Application June 30, 1956
Serial No. 574,977

8 Claims. (Cl. 260-236)

5. The alkaloids selected from the group consisting of voacangine, voacamine, voacaminine, vobtusine, and their acid addition salts, obtained by extracting parts of plants of the genus Voacanga with ethanol containing acetic acid, removing the ethanol, treating the residue with benzene, passing the benzene solution through a chromatographic adsorbing agent, and fractionally eluting said alkaloid from said adsorbing agent.

2,823,205

OIL AND SPIRIT-SOLUBLE DERIVATIVES OF PHTHALOCYANINES

Harold T. Lacey, Westfield, N. J., and George R. Watkins, Kirkwood, Mo., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 4, 1953
Serial No. 352,998

19 Claims. (Cl. 260-270)

1. Coloring matters of the phthalocyanine series being the salt formed from an ion selected from the group consisting of the anions of unmetallized and metallized phthalocyanines having one atom of a metal having a coordination number of 4 to 6 in the center of the molecule and, as substituents, a total of not exceeding 8 from the group consisting of halogen groups, sulfonic acid groups, and orthocarboxybenzamidomethyl groups, at least one such orthocarboxybenzamidomethyl group being present, and a quaternary ammonium ion selected from the group consisting of alkyl pyridinium ions, dialkyl morpholinium ions and quaternary nitrogen ions in which the four substituents are selected from the group consisting of phenyl, naphthyl, diphenyl, alkyl groups having not more than 18 carbon atoms, unsaturated hydrocarbon groups, acylamidoalkyl groups, aralkyl, alkaryl and hydroxy alkyl.

2,823,206

METHOD FOR THE PREPARATION OF TRIMETHYLCOLCHICINIC ACID

Glenn E. Ulyot, Philadelphia, Pa., assignor to Smith, Kline & French Laboratories, Philadelphia, Pa., a corporation of Pennsylvania

No Drawing. Application July 20, 1953

Serial No. 369,247

4 Claims. (Cl. 260—284)

1. The method of preparing trimethylcolchicinic acid which comprises dissolving colchicine in an acid selected from the group consisting of sulfuric acid, and phosphoric acid, maintaining the solution at a temperature within the range of about 80 to 110° C. to effect the hydrolysis of colchicine to trimethylcolchicinic acid, said acid having a concentration of from about 10 to 75% by weight of acid.

2,823,207

4-HYDROXYMETHYL- AND 4-ACETOXYMETHYL-2-METHYL-Δ²-THIAZOLINES AND PREPARATION THEREOF

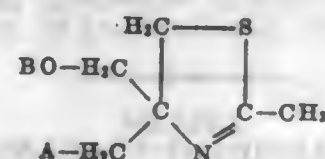
Jean Marie Nys and Marcel Jan Libeer, Morsel-Antwerp, Belgium, assignors to Gevaert Photo-Producten N. V., Morsel, Belgium, a Belgian company

No Drawing. Application July 20, 1956

Serial No. 598,996

7 Claims. (Cl. 260—306.7)

1. A compound selected from those represented by the following general formula:



wherein B represents a member selected from the group consisting of an acetyl radical and hydrogen and A represents a member selected from the group consisting of acetoxy and hydroxyl radicals and hydrogen.

2,823,208

PRODUCTION OF 2-ACYLAMINO-5-MERCAPTO-THIAZIAZOLE

John Song, North Plainfield, N. J., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application October 27, 1955

Serial No. 543,279

9 Claims. (Cl. 260—306.8)

1. A process for preparing acylamino-thiaziazales which comprises heating an amino-thiaziazales with at least about an equivalent of an aliphatic acid in the presence of at least about 0.25 part by weight of polyphosphoric acid per part of amino-thiaziazales.

2,823,209

AMINOALKANOYL-HALO-TOLUIDIDES

Henry Martin, Zurich, Switzerland, assignor to Cilag Limited, Schaffhausen, Switzerland, a Swiss company

No Drawing. Application February 24, 1953

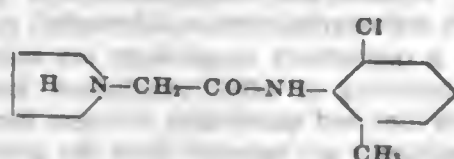
Serial No. 338,601

Claims priority, application Switzerland

February 25, 1952

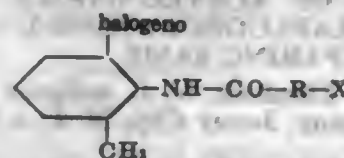
4 Claims. (Cl. 260—326.3)

3. The new chemical compound of the formula

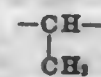


4. New chemical compound selected from the group consisting of amino fatty acid-2-halogeno-6-methyl-anilides and hydrochloric acid addition salts thereof, said

amino fatty acid-2-halogeno-6-methyl anilides having the formula



wherein halogeno is an atom selected from the group consisting of chlorine and bromine, R is a member selected from the group consisting of —CH₂—, —CH₂—CH₂— and



and X is a member selected from the group consisting of a (di-lower alkyl)-amino group and a pyrrolidino group.

2,823,210

3-(1-ARYL-2-NITROALKYL)-2-CHLORO-THIOPHENES

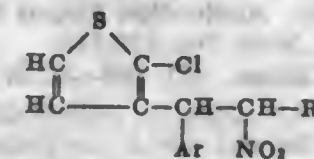
Arnold N. Johnson, Wayne Township, Passaic County, N. J., assignor to Commercial Solvents Corporation, Terre Haute, Ind., a corporation of Maryland

No Drawing. Application November 9, 1955

Serial No. 546,009

6 Claims. (Cl. 260—332.5)

1. The compounds represented by the formula



wherein R is a radical selected from the group consisting of methyl and ethyl and Ar is an aryl radical.

2,823,211

SUBSTITUTED CAPROLACTONE AND METHOD FOR THE PRODUCTION THEREOF

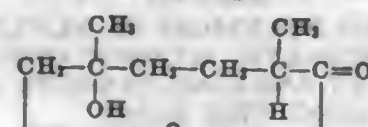
Howard R. Guest, Charleston, and Ben W. Kiff, Ona, W. Va., assignors to Union Carbide Corporation, a corporation of New York

No Drawing. Application June 28, 1954

Serial No. 439,883

6 Claims. (Cl. 260—343)

1. As a new compound, alpha, delta-dimethyl, delta, epsilon-dihydroxycaproic acid epsilon lactone,



2,823,212

DYESTUFFS OF THE ANTHRAQUINONE SERIES

Ernst Anton and Karl Saftien, Ludwigshafen (Rhine), Germany, assignors to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

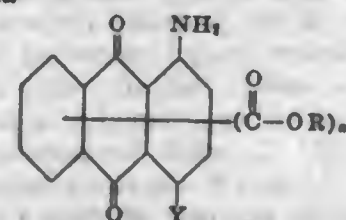
No Drawing. Application March 23, 1956

Serial No. 573,344

Claims priority, application Germany March 24, 1955

6 Claims. (Cl. 260—376)

1. A dyestuff of the anthraquinone series having the general formula



wherein Y is a member of the group consisting of amino, phenylamino, and hydroxyl radicals, R is a member of the group consisting of saturated alkyl and cycloalkyl radicals containing not more than 8 carbon atoms, and n is an integer of 1 to 2.

2,823,213

ORGANIC COMPOUNDS

David Neville Kirk, Vladimir Petrow, Isobel Ann Stuart-Webb, and Dady Kawashaw Patel, London, England, assignors to The British Drug Houses Limited, London, England, a British company

No Drawing. Application December 11, 1956

Serial No. 627,568

Claims priority, application Great Britain January 3, 1956

9 Claims. (Cl. 260—397.4)

8. 6-hydroxy-3:5-cyclopregn-16-en-20-one.

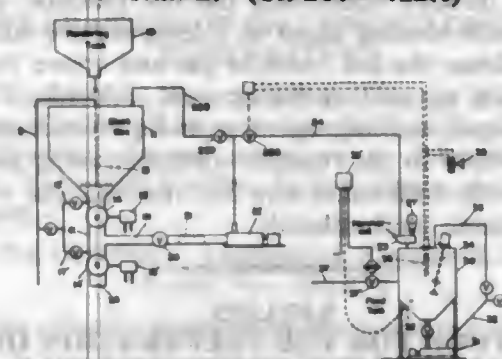
2,823,214

PROCESS FOR RECOVERING SOLIDS, FATS, AND TANKWATER

Philip P. Sharples, Bryn Mawr, Pa., assignor to The Sharples Corporation, a corporation of Delaware

Application July 27, 1950, Serial No. 176,163

3 Claims. (Cl. 260—412.6)



1. The process of continuously treating slaughterhouse tankage and tankwater resulting from wet rendering in which fats are initially removed; to separate same into solids, fats and tankwater which comprises first separating any refuse, iron and unusually large bones from said tankage and tankwater, subjecting a slurry of said tankage and tankwater to the impact of surfaces moving at a high velocity to reduce the solids contained therein preponderantly to below a predetermined particle size, heating the disintegrated tankage solids in the form of said slurry in tankwater to at least 180° F., separating solids from said slurry by continuous centrifugation, recovering the tankwater, then continuously removing any remaining particles larger than .015" mean diameter from the separated tankwater, then heating the liquor to at least about 205° F., and then continuously separating fats from said liquor by centrifugation.

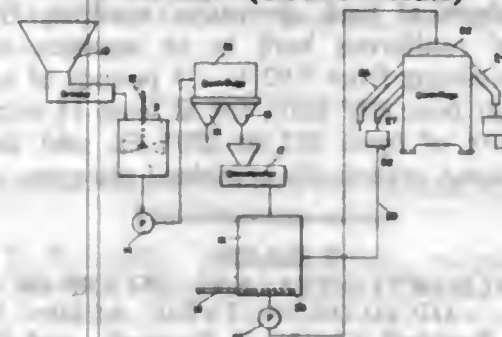
2,823,215

PROCESS FOR RENDERING ANIMAL FAT

Francis P. Downing, Philadelphia, Pa., assignor to The Sharples Corporation, a corporation of Delaware

Application October 4, 1956, Serial No. 613,980

2 Claims. (Cl. 260—412.6)



1. A process for the rendering of animal fat which comprises reducing said fat to particle sizes ranging between 1/4" and 3/4", thereafter heating the mass to a temperature sufficiently high to melt the fat but not in excess of 160° F., subjecting the heated mass to centrifuging to remove between 70 and 80% of the solids, subjecting the solids in the rest of the mass to comminution to reduce the largest dimension of said last-mentioned solids to less

than 0.035", thereafter subjecting said last-mentioned mass to treatment with live steam to raise its temperature to between 180° F. and 210° F. and to partially hydrolyze collagen contained therein, and subsequently subjecting said last-mentioned mass to centrifuging within said last-mentioned temperature range under conditions such that the clarified fat is discharged from the zone of centrifugation adjacent the axis thereof whereas the solids, water and emulsion contained therein are discharged peripherally from said last-mentioned zone of centrifugation.

2,823,216

PROCESS FOR PREPARATION OF CARBOXYLIC ACIDS

Truman P. Moote, Jr., and Alfred Steitz, Jr., Tulsa, Okla., assignors to Pan American Petroleum Corporation, a corporation of Delaware

Application December 8, 1955, Serial No. 551,912

14 Claims. (Cl. 260—413)

1. In a process for the preparation of organic acids from a primary olefin and an aliphatic carboxylic acid, the improvement which comprises producing at least about 70 mole percent of a carboxylic acid product in which the molar ratio of olefin to the reacting acid is 1:1 by reacting in the liquid phase a primary olefin having from 5 to 18 carbon atoms with an aliphatic carboxylic acid under free radical forming conditions, said acid and olefin being present in the reaction mixture in a molar ratio of at least about 10:1 and at a temperature ranging from about 15° to about 25° C. below the boiling point of the olefin up to about the reflux temperature of said reaction mixture at about atmospheric pressure.

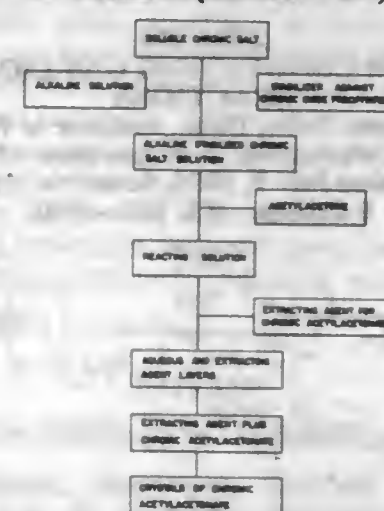
2,823,217

PRODUCTION OF CHROMIC ACETYLACETONATE

Jack J. Bulloff, Dayton, Ohio, assignor to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application April 8, 1954, Serial No. 421,748

11 Claims. (Cl. 260—438)



1. The method of producing chromic acetylacetonate which comprises reacting a solution of a soluble chromic salt with acetylacetone in an alkali medium stabilized with a carboxy methyl dextran of an alkali metal against hydrous chromic oxide precipitation.

2,823,218

PROCESS FOR THE PRODUCTION OF ORGANO-SILICON COMPOUNDS

John L. Speier, Pittsburgh, Pa., and Donald E. Hook, Midland, Mich., assignors to Dow Corning Corporation, Midland, Mich., a corporation of Michigan

No Drawing. Application December 5, 1955

Serial No. 550,831

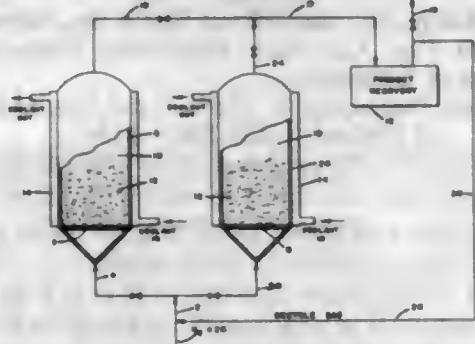
9 Claims. (Cl. 260—448.2)

6. In a process for the production of organosilicon compounds containing the carbon to silicon bond by the

reaction of a silicon compound containing at least one H atom linked to Si per molecule, there being not more than two H atoms on any one Si atom, with a compound containing aliphatic carbon atoms linked by multiple bonds, the improvement which comprises contacting the reactants in the presence of chloroplatinic acid.

2,823,219
PROCESS FOR CONDUCTING FLUIDIZED REACTIONS

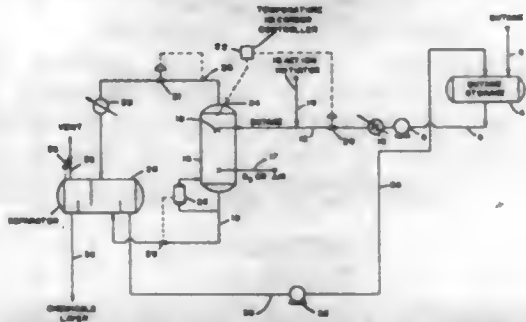
Richard Mungen, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
Application May 31, 1955, Serial No. 512,253
7 Claims. (Cl. 260-449.6)



1. In a process for effecting a reaction between gaseous or vaporous reactants which reaction is carried out in the presence of a bed of fluidized finely divided solids which are a catalyst for said reaction in a reaction zone, the improvement which comprises supplying said reactants to said zone, under reaction conditions, upwardly through said finely divided solids at a slowly increasing linear velocity until the minimum fluidization velocity of said solids is reached, thereafter discontinuing the introduction of said reactants to said zone so as to permit said bed to settle in said zone and thereafter repeating the above cycle, said cycle covering a period of from about two seconds to about one minute.

2,823,220
METHOD FOR CONDUCTING GAS-LIQUID-PHASE REACTIONS

Dwight B. Mapes, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware
Application July 7, 1955, Serial No. 520,480
6 Claims. (Cl. 260-451)



1. In a process for conducting gas-liquid-phase exothermic reactions between a gaseous reactant and an organic vaporizable liquid in a reaction zone, the improvement which comprises injecting said liquid into said zone in the form of a mist or droplets, said zone being at a reaction temperature ranging from the normal boiling point of said liquid up to a temperature below the critical temperature thereof, maintaining a pressure within said zone such that said liquid is at its boiling point at the reaction temperature, injecting said gaseous reactant into said zone to produce turbulence within said zone whereby said gaseous reactant is thoroughly mixed with said mist or liquid droplets, and controlling the temperature of said reaction zone by regulating both the rate of evaporation of liquid from said droplets and the rate at which said vaporizable liquid is fed to said reaction zone.

2,823,221
PRODUCTION OF AROMATIC MONOISOCYANATES IN THE GASEOUS PHASE

Johannes Pfirschke, Leverkusen-Bayerwerk, Wilhelm Altner, Opladen, and Hans Roos, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

Application November 10, 1953, Serial No. 391,352
Claims priority, application Germany November 11, 1952
3 Claims. (Cl. 260-453)

1. In the process for the production of aromatic monoisocyanates by contacting an aromatic amine with phosgene in the gaseous phase at an elevated temperature and cooling the hot isocyanate and hydrogen chloride containing reaction gas produced to form the corresponding carbamic acid chloride capable of being decomposed into an aromatic isocyanate and hydrogen chloride, the improvement which comprises initially effecting said cooling by directly contacting the hot reaction gas with an inert liquid cooling agent at a temperature sufficiently low to condense the hot reaction gas and above the solidification point of said carbamic acid chloride, replacing said inert liquid cooling agent with liquid carbamic acid chloride formed in the reaction and continuing said cooling by directly contacting any hot reaction gas with said liquid carbamic acid chloride.

2,823,222
METHOD FOR THE PREPARATION OF N-METHYLENE-GLYCINONITRILE
Arthur R. Sexton and Edgar C. Britton, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application June 22, 1956
Serial No. 593,020
9 Claims. (Cl. 260-465.5)

1. Improved method for the preparation of N-methyleneglycinonitrile which comprises simultaneously adding about 2 moles of formaldehyde and about 1 mole of an alkali metal cyanide to an excess proportionate quantity of from more than 1 to about 2 moles of an ammonium halide in aqueous solution at a temperature from about -20° C. to about 10° C. while maintaining the reaction mass at a pH beneath about 6 and subsequently recovering N-methyleneglycinonitrile from the reaction mass.

2,823,223
CHEMICAL PRODUCTS FROM BARK DIGESTED IN AMMONIA

John Charles Steinberg and Kenneth Russell Gray, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

No Drawing. Application September 19, 1955
Serial No. 535,300
6 Claims. (Cl. 260-473.5)

1. The chemical bark derivative resulting from the digestion of coniferous bark in an aqueous ammonia solution containing from 0.02 to 1.5 pounds of ammonia per pound of bone dry bark, for at least 15 minutes, at a temperature of from 17° to 170° C., said derivative containing some organically combined nitrogen.

2,823,224
HALOARYLOXYALKYL ESTERS OF α,α -DICHLOROBUTYRIC ACID
Herman O. Senkbell, Charles T. Pumpelly, and Harry F. Brust, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 2, 1956
Serial No. 595,070
6 Claims. (Cl. 260-487)

1. An α,α -dichlorobutyrate of a haloaryloxyloweralkanol selected from the group consisting of bromophenoxyloweralkanols, bromotolyloxyloweralkanols, chlorophenoxyloweralkanols and chlorotolyloxyloweralkanols.

2,823,225

HALOARYLOXYALKYL ESTERS OF α,α,β -TRICHLOROPROPIONIC ACID

Herman O. Senkbell and Harry F. Brust, Midland, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application July 2, 1956
Serial No. 595,072

7 Claims. (Cl. 260—487)

1. An α,α,β -trichloropropionate of a haloaryloxyloweralkanol selected from the group consisting of bromophenoxyloweralkanols, bromotolyloxyloweralkanols, chlorophenoxyloweralkanols and chlorotolyloxyloweralkanols.

2,823,226

PREPARATION OF MALONDIALDEHYDE DERIVATIVES

Tadashi Tsukamoto, Tetsuya Suzuki, Kazuo Heljo, Saburo Takebe, Goichi Sudo, and Yusuke Tanaka, Yahata-shi, Fukuoka-ken, Japan, assignors to Mitsubishi Kasei Kogyo Kabushiki Kaisha, Tokyo, Japan, a corporation of Japan

No Drawing. Application August 16, 1954
Serial No. 450,272

Claims priority, application Japan August 28, 1953

6 Claims. (Cl. 260—488)

1. The method for preparing a mixture of malondialdehyde derivatives having, as main component, 1.1.3-trialkoxy-3-acetoxyp propane, and having, as other components, 1.3-dialkoxy-1.3-diacetoxyp propane and 1.1.3.3-tetraalkoxypropane, all the alkoxy groups of said compounds being lower alkoxy, which comprises reacting vinylacetate with esters of orthoformic acid in the molar ratio of 0.5–1.5 to said vinylacetate, in the presence of a catalyst selected from the group consisting of mercury fluoride and combination catalyst of mercury catalyst and acidic fluoride catalyst, the said esters of orthoformic acid being selected from the group consisting of methyl orthoformate, ethyl orthoformate, propyl orthoformate, butyl orthoformate, dimethylethyl orthoformate and dimethylpropyl orthoformate, the said mercury catalyst, one component of the combination catalyst, being selected from the group consisting of mercurous oxide, mercuric oxide, mercurous nitrate, mercuric nitrate, mercurous phosphate, mercuric phosphate, mercurous acetate and mercuric acetate, and the said acidic fluorine catalyst, the other component of said combination catalyst, being selected from the group consisting of boron trifluoride, boron trifluoride complexes, hydrogen fluoride and dioxyluoboric acid.

5. 1.1.3-trialkoxy-3-acetoxyp propane, the alkoxy groups being lower alkoxy.

2,823,227

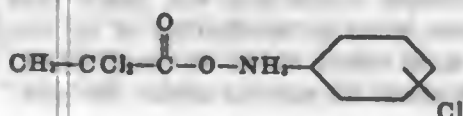
CHLOROANILINE SALTS OF α,α -DICHLOROPROPIONIC ACID

Charles T. Pumpelly, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 29, 1955
Serial No. 556,081

3 Claims. (Cl. 260—501)

1. A monochloroaniline salt of α,α -dichloropropionic acid of the formula



2,823,228

PROCESS FOR THE TRANSFORMATION OF DIPHENIC ACID INTO OTHER DIPHENYL CARBOXYLIC ACIDS

Bernhard Raecke and Hubert Schirp, Dusseldorf, Germany, assignors to Henkel & Cie. G. m. b. H., Dusseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application April 11, 1955
Serial No. 500,671

Claims priority, application Germany April 12, 1954

7 Claims. (Cl. 260—515)

2. The process of producing 4,4'-diphenyl-dicarboxylic acid which comprises heating an alkali metal salt of diphenic acid to a temperature above about 340° C. and below the temperature at which substantial decomposition of the starting material takes place in a substantially oxygen-free atmosphere of an inert gas selected from the group consisting of carbon dioxide and nitrogen and in the presence of a catalyst containing a metal from the group consisting of cadmium, zinc, iron and lead until an alkali metal salt of 4,4'-diphenyl-dicarboxylic acid is formed, transforming the 4,4'-diphenyl-dicarboxylic acid salt into 4,4'-diphenyl-dicarboxylic acid, and separating the 4,4'-diphenyl-dicarboxylic acid from the reaction mixture.

2,823,229

PRODUCTION OF TEREPHTHALIC ACID

Bernhard Raecke, Dusseldorf, Germany, assignor to Henkel & Cie. G. m. b. H., Dusseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application June 20, 1956
Serial No. 592,505

Claims priority, application Germany December 5, 1952

17 Claims. (Cl. 260—515)

1. In a process of producing aromatic monocyclic dicarboxylic acids from aromatic monocyclic monocarboxylic acids, the steps comprising converting said monocyclic monocarboxylic acids into potassium salts thereof, and heating said potassium salts in a substantially oxygen-free inert atmosphere to a temperature above about 340° C. and below the temperature at which substantial decomposition of the starting materials takes place to introduce a second potassium carboxyl group into said potassium monocyclic monocarboxylic acid salts.

2,823,230

PROCESS FOR PREPARING TEREPHTHALIC ACID

Bernhard Raecke, Dusseldorf, Germany, assignor to Henkel & Cie. G. m. b. H., Dusseldorf-Holthausen, Germany, a corporation of Germany

No Drawing. Application August 23, 1956
Serial No. 605,702

Claims priority, application Germany December 5, 1952

21 Claims. (Cl. 260—515)

1. In a process of producing aromatic monocyclic dicarboxylic acids from aromatic monocyclic monocarboxylic acids, the steps comprising converting said monocyclic monocarboxylic acids into salts of the group consisting of the alkali metal salts thereof, and heating said salts in a substantially oxygen-free inert atmosphere to a temperature above about 340° C. and below the temperature at which substantial decomposition of the starting materials and reaction products takes place to introduce a second carboxyl salt group into said monocyclic monocarboxylic acid salts.

2,823,231

PROCESS FOR THE PRODUCTION OF NAPHTHALENE-2,6-DICARBOXYLIC ACID AND ITS DERIVATIVES

Bernhard Raecke and Hubert Schirp, Dusseldorf, Germany, assignors to Henkel & Cie. G. m. b. H., Dusseldorf-Holthausen, Germany

No Drawing. Application January 10, 1956

Serial No. 558,221

Claims priority, application Germany January 15, 1955
12 Claims. (Cl. 260—515)

1. The method of producing naphthalene-2,6-dicarboxylic acid from a naphthalene-monocarboxylic acid selected from the group consisting of α -naphthoic acid and β -naphthoic acid, which comprises converting said naphthalene-monocarboxylic acid into a corresponding mono-alkali metal salt, heating said mono-salt to a temperature above about 360° C. and below the temperature at which substantial decomposition of the starting material and reaction products takes place, in an inert atmosphere of an inert gas selected from the group consisting of carbon dioxide and nitrogen, and converting the di-alkali metal salt of naphthalene-2,6-dicarboxylic acid formed thereby into free naphthalene-2,6-dicarboxylic acid by acidification of said di-alkali metal salt with a strong mineral acid.

2,823,232

PREPARATION OF 2,3-DICHLOROISOBUTYRATES

Harold F. Wilson, Moorestown, N. J., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

No Drawing. Application January 25, 1957

Serial No. 636,239

5 Claims. (Cl. 260—539)

1. A process for preparing an alkali metal salt of 2,3-dichloroisobutyric acid which comprises reacting a mixture of a lower alkyl ester of 2,3-dichloroisobutyric acid, water, and an alkali metal hydroxide between about 20° and 50° C. for a time from about three hours to about twenty minutes, the hydroxide being about equivalent to the said ester and forming about 8% to 20% of the said mixture and isolating the resulting salt below its decomposition temperature.

2,823,233

QUATERNARY SALTS OF SUBSTITUTED DIPHENYLALKANOIC ACID AMIDES

Merrill Eugene Speeter, Kalamazoo, Mich., assignor to Bristol Laboratories Inc., Syracuse, N. Y., a corporation of New York

No Drawing. Application March 8, 1954

Serial No. 414,871

6 Claims. (Cl. 260—558)

1. A compound selected from the group consisting of γ -carbamyl- γ,γ -diphenylpropyl-trimethylammonium halides, γ -carbamyl- γ,γ -diphenylpropyl-dimethylethylammonium halides, γ -carbamyl- γ,γ -diphenylpropyl-methyldiethylammonium halides, γ -carbamyl- γ,γ -diphenylpropyl-triethylammonium halides and γ -carbamyl- γ,γ -diphenylpropyl-methyldiisopropylammonium halides, said halides being selected from the group consisting of chloride, bromide and iodide.

2,823,234

NITROGENOUS CONDENSATION PRODUCT

William F. Tousignant, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 19, 1955

Serial No. 553,745

4 Claims. (Cl. 260—566)

1. A composition comprising a condensation product obtainable by the reaction of 1.5 to 3.0 molar propor-

tions of formaldehyde with 1.0 molar proportion of 1,3-diamino-2-propanol while the reaction mixture is maintained at a temperature no greater than 60° C.

2,823,235

HYDROGENATION OF NITRO COMPOUNDS TO AMINES AND CATALYST THEREFOR

Donald Penrose Graham, Lindamere, Wilmington, Del., and Louis Spiegler, Woodbury, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application May 10, 1955

Serial No. 507,476

14 Claims. (Cl. 260—580)

1. A hydrogenation catalyst comprising an oleophilic carbon black support having an oil absorption factor of at least about 200, said carbon black having a surface area within the range of 20 to 100 m.²/g., and a noble metal taken from the group consisting of palladium and platinum deposited on its surface at a loading within the range of about 0.1 to 10% by weight of said support.

6. A process for the reduction of organic nitro compounds wherein an organic nitro compound is mixed with a noble metal catalyst taken from the group consisting of palladium and platinum deposited on an oleophilic carbon black support at a loading within the range of about 0.1 to 10% by weight of said support which has an oil absorption factor of at least about 200, the resulting mixture being reduced with hydrogen.

2,823,236

MANUFACTURE OF ALKANOLAMINES

Arnold John Lowe, Manchester, and Donald Butler, Moston, Manchester, England, and Edwin Marshall Meade, Nobleton, Ontario, Canada

Application August 27, 1952, Serial No. 306,651

Claims priority, application Great Britain August 30, 1951

4 Claims. (Cl. 260—584)

1. A process for the production of alkanolamines, primarily monoalkanolamines, which comprises continuously passing a mixture of an alkylene oxide containing 2-3 carbon atoms in the molecule and aqueous ammonia containing from 4-15 mols of ammonia per mol of said alkylene oxide and from 20-60% by weight of water under superatmospheric pressure of at least 60 atmospheres which maintains the mixture in a liquid state through a reaction zone initially heated to at least 80° C., and maintained within the temperature range of about 80-200° C., for a period of time of about 30-1800 seconds whereby the reaction of the alkylene oxide with ammonia is substantially complete.

2,823,237

PREPARATION OF HIGHLY SOLUBLE PARA-FORMALDEHYDE

James F. McCants, Tulsa, Okla., assignor to Pan American Petroleum Corporation, a corporation of Delaware

No Drawing. Application May 18, 1954

Serial No. 430,719

4 Claims. (Cl. 260—615.5)

1. In a process for the preparation of paraformaldehyde possessing a substantially increased tendency to dissolve in water and other common solvents therefor, the step which comprises subjecting a solution of formaldehyde in methanol containing not more than about 10 weight percent water to distillation at an overhead temperature of from about 10° C. to about 35° C. at a pressure of from about 50 mm. to about 200 mm.

2,823,238

PROCESS OF PREPARING 2-PHENYLETHANOL-1
 Moos Gerrit Jan Beetz, Hilversum, Netherlands, and
 Emanuel Alexander Drukker, Milwaukee, Wis., assign-
 ors to N. V. Polak & Schwarz's Essencefabrieken,
 Hilversum, Netherlands, a corporation of the Neth-
 erlands

No Drawing. Application March 23, 1954

Serial No. 418,217

Claims priority, application Netherlands

December 14, 1950

6 Claims. (Cl. 260-618)

1. The process of preparing 2-phenylethanol-1, comprising treating styrene halogenhydrin, the halogen being selected from the group consisting of chlorine and bromine, at a hydrogen pressure sufficient to maintain hydrogen in the liquid phase with hydrogen under the influence of a catalyst selected from the group consisting of Raney nickel, palladium oxide and platinum on carbon, and in the presence of an aqueous strongly alkaline reacting substance in an amount at least stoichiometrically equivalent to the halogen, without external heating.

2,823,239

PROCESS FOR THE PREPARATION OF AZULENES

Karl Friedrich Lang, Frankfurt am Main, and
 Max Froitzheim, Castrop-Rauxel, Germany

No Drawing. Application September 17, 1954

Serial No. 456,870

Claims priority, application Germany September 19, 1953

20 Claims. (Cl. 260-666)

1. A process for converting polycyclic hydrocarbons having no azulene structure in the molecule and being rich in hydrogen into compounds containing azulene structure in the molecule, comprising bringing in contact said hydrocarbons, in the presence of a diluent which is inert under the conditions of the process, with a dehydrogenation catalyst, in the temperature range of 550°-650° C.

2,823,240

ALKYLATION OF ALKYL AROMATIC HYDROCARBONS TO PRODUCE INDANES

Edmund Field and Morris Feller, Chicago, Ill., assignors
 to Standard Oil Company, Chicago, Ill., a corporation
 of Indiana

No Drawing. Application September 26, 1952

Serial No. 311,806

7 Claims. (Cl. 260-668)

1. A process for the alkylation of an alkylaromatic hydrocarbon having at least one allylic hydrogen atom, which process comprises contacting a substantial molar excess of said alkylaromatic hydrocarbon, based on ethylene, with ethylene in the presence of an alkali metal hydride and an alkali metal aluminum hydride at a temperature between about 160° C. and about 350° C. and a pressure of at least about 200 p. s. i. g., and recovering an alkylation product comprising an indane hydrocarbon thus produced.

2,823,241

METHOD FOR WASHING A FILTER CAKE

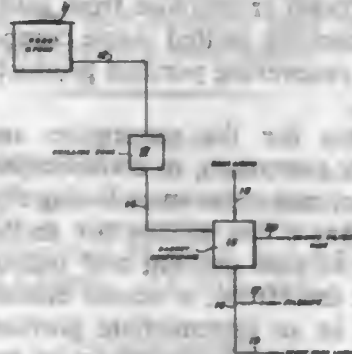
Rufus B. Bennett, William T. Hunt, and Raymond A.
 Speed, Baytown, Tex., assignors, by mesne assignments,
 to Esso Research and Engineering Company, Elizabeth,
 N. J., a corporation of Delaware

Application March 22, 1954, Serial No. 417,882

3 Claims. (Cl. 260-674)

1. A method for recovering crystals of a selected cyclic hydrocarbon including the steps of forming a slurry consisting of crystals of said selected hydrocarbon in a mother liquor at a selected temperature to establish an equilibrium between said crystals and passing said slurry to a basket centrifuge and there separating it into a filtrate fraction and a filter cake fraction consisting of crystals of said selected hydrocarbon and said mother liquor, forming a body of a wash liquid miscible with said mother liquor, said wash liquid hav-

ing a boiling point above the said selected temperature and a vapor pressure of at least one-fifth atmosphere at the temperature of the said filter cake, passing 0.1 to 0.6 part by weight of said wash liquid per part of said filter



cake through said filter cake in said centrifuge at the boiling point of said wash liquid to displace said mother liquor and to substantially purify said crystals of said selected hydrocarbon and recovering said purified crystals from said centrifuge in dry, fluffy form.

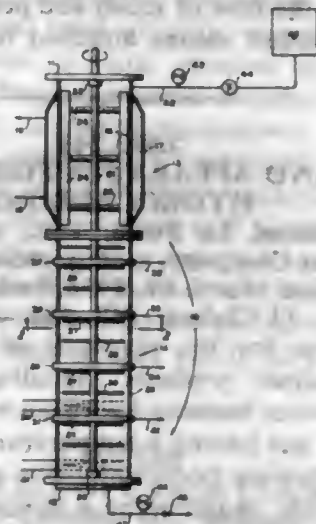
2,823,242

PROCESS AND APPARATUS FOR CRYSTAL PURIFICATION AND SEPARATION

Dwight L. McKay, Bartlesville, Okla., assignor to Phillips
 Petroleum Company, a corporation of Delaware

Application September 8, 1953, Serial No. 378,859

3 Claims. (Cl. 260-676)



1. A continuous process for the separation of a liquid multi-component mixture containing components which form a eutectic which comprises cooling said mixture to at least the eutectic forming temperature of said eutectic so as to form a slurry of single component crystals, solid phases of eutectic composition and mother liquor; passing said slurry into an elongated purification zone; separating mother liquor from said crystals in a first filter zone so as to form a mass of crystals within said purification zone; moving said mass of crystals into a first melting zone and maintained at a temperature between the eutectic temperature and the melting point of said single component crystals; melting said solid phases in said first melting zone; passing the resulting melt toward the upstream end crystalwise of said purification zone as a reflux stream through said moving mass of crystals; withdrawing from said purification zone through a second filter zone disposed downstream crystalwise from said first filter zone a stream comprising mother liquor and eutectic; withdrawing from said purification zone through a third filter zone disposed downstream crystalwise from said second filter zone a eutectic stream as a product of intermediate purity; moving the remaining single component crystals into a second melting zone disposed in the downstream end crystalwise of said purification zone and maintained at a temperature at least as high as the melting point of said single component crystals; melting at least a portion of the single

component crystals in said second melting zone; passing a portion of the resulting melt toward the upstream end crystalwise of said purification zone; withdrawing from said purification zone through a fourth filter zone disposed downstream crystalwise from said first melting zone a stream comprising melted single component crystals and eutectic; and recovering purified product from said second melting zone.

2. Apparatus for the separation and purification of crystals which comprises, in combination, a crystal purification column; means for introducing crystals into one end of said column; a first means for melting crystals in the opposite end of said column and outlet means for withdrawing melt therefrom; a second means for melting crystals disposed in an intermediate portion of said column; a first filtering means in the upstream end portion crystalwise of said column; a second filtering means positioned downstream crystalwise from said first filtering means and between said first filtering means and said second crystal melting means; and a fourth filtering means positioned between said first and second crystal melting means, each said filtering means comprising an annular header member, a plurality of hollow radial arms extending inwardly from said header member, a hollow hub member centrally positioned within said annular header member and attached to the inner ends of said radial arms, one side of said hub member and said radial arms being provided with openings impervious to the flow of solids and pervious to the flow of liquid, and conduit means attached to said header member.

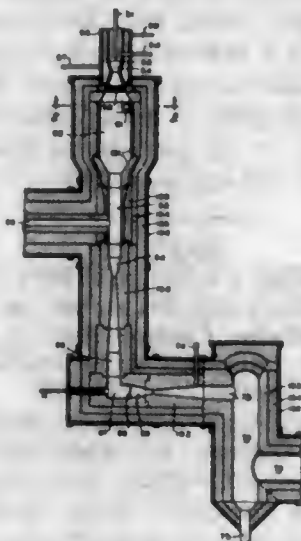
2,823,243

PROCESS AND APPARATUS FOR PYROLYSIS OF HYDROCARBONS

Sam P. Robinson, La Porte, Tex., assignor to Phillips Petroleum Company, a corporation of Delaware
Application March 19, 1956, Serial No. 572,309
11 Claims. (Cl. 260-679)

1. A process for the pyrolysis of a hydrocarbon to produce pyrolysis products including acetylene which process comprises burning hydrogen with oxygen to form a combustion gas having a temperature in the range 4500 to 5300° F., passing said combustion gas in a longitudinal direction of flow, maintaining a helically moving blanket of tempering gas annularly disposed about the said longitudinally flowing combustion gas in sufficient amount to cool said combustion gas to a temperature not higher than 4200° F., preheating a gaseous hydrocarbon to a temperature in the range 1800 to 2400° F., introducing thus preheated gaseous hydrocarbon into admixture with said combustion gas in a generally transverse direction thereto, whereby mixing of combustion gas and gaseous hydro-

carbon is effected and said hydrocarbon is heated to a pyrolysis temperature in the range 2400 to 3500° F., increasing the linear velocity of the resulting mixture to a value in the range 200 to 500 feet per second, substantially decreasing said velocity and maintaining said mixture in a high state of turbulence for a time in the range 0.001 to 0.05 second, introducing a quenching fluid into said mixture to quench said mixture below pyrolysis temperature and simultaneously abruptly and sharply changing the direction of flow of said mixture, increasing the linear velocity of the quenched mixture while maintaining the quenched mixture in a high state of turbulence, and recovering pyrolysis products from the quenched mixture.



8. Hydrocarbon conversion apparatus comprising, in combination: a generally cylindrical combustion chamber; burner means positioned in one end of said combustion chamber and in open communication therewith; inlet means in open communication with said combustion chamber and positioned substantially tangentially with respect to the inner surface of said combustion chamber and adjacent said burner means; conduit means in open communication with said combustion chamber at the end thereof opposite said burner means; inlet means in open communication with said conduit means at an intermediate part thereof; a Venturi tube in open communication with said conduit means at the end thereof opposite said chamber, said Venturi tube being substantially coaxial with said conduit; another Venturi tube in open communication with the first-mentioned Venturi tube, the axes of the two Venturi tubes being noncoaxially and angularly disposed with respect to each other; inlet means intermediate the two Venturi tubes and generally coaxially positioned with respect to the second-mentioned Venturi tube; and outlet means in open communication with the second-mentioned Venturi tube.

ELECTRICAL

2,823,244

ELECTRIC ACCUMULATORS

Francis Leonard Robert Brown, Stelling, near Canterbury, England
Application August 2, 1955, Serial No. 525,909
Claims priority, application Great Britain August 6, 1954
9 Claims. (Cl. 136-55)

1. An electric storage cell comprising in combination, a positive element including an inner base core of a material not acted on by the acid electrolyte, lead on said core, positive active material overlying said lead on said core, a wrapping of flexible pervious material surrounding said positive active material, and an outer cord wound around said flexible pervious material; a negative element including a cylindrical perforate metallic plate concentric with and surrounding said positive element, a

layer of active negative material coated on the outside of

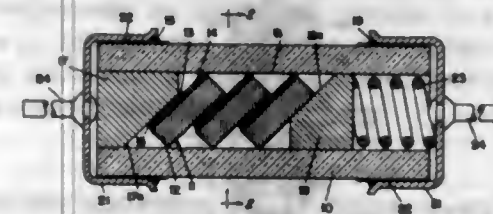


said metallic plate, and a wrapping of flexible material around the outside of said active negative material.

2,823,245

PHOTOCELL

Benjamin Solow, Philadelphia, Pa., assignor to International Resistance Company, Philadelphia, Pa., a corporation of Delaware
Application February 5, 1953, Serial No. 335,247
6 Claims. (Cl. 136-89)

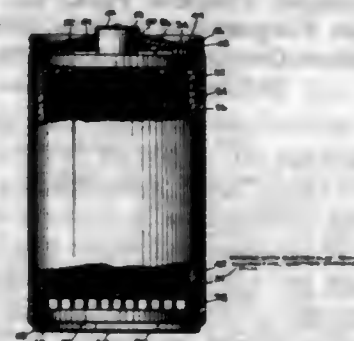


6. A series photocell construction comprising the combination of a translucent tube, a plurality of photocells in the tube, each cell being tilted at an angle with respect to the longitudinal axis of the tube and contacting the surface of the bore of the tube at at least one point on the periphery of each surface of the cell which points are on the diagonal of the transverse cross-section of the cell, each cell also in partial overlapping relation with the adjacent cells so that a portion of the surface of each cell is exposed directly to the light passing through the wall of the tube, a metal spacer member in the tube at each end of the series of cells, the surfaces of the spacer members facing the cells slanting to partially overlap the adjacent cell, a cap attached to and extending across each end of the tube, a spring compressed between one cap and the adjacent spacer member to hold the spacer members and the cells in contact with each other so that the cells are connected in series, and means forming connections with each of said spacer members.

2,823,246

DRY CELLS AND METHOD OF MAKING THE SAME

Maurice Lang, Long Beach, N. Y., assignor to United States Electric Mfg. Corp., New York, N. Y., a corporation of New York
Application October 25, 1954, Serial No. 464,420
5 Claims. (Cl. 136-107)



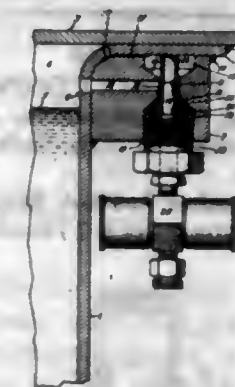
1. A dry cell comprising a plastic depolarizing single bobbin having spaced parallel end surfaces and a pair of electrodes, each electrode having many elongated thin parallel fingers which are mutually spaced apart from one another throughout their lengths, the number of fingers on both said electrodes being substantially the same, all of said fingers being of substantially uniform transverse cross section throughout their lengths, the fingers of one electrode being parallel to the fingers of the other electrode, the fingers of both electrodes being arranged in the same regular tessellated pattern, the fingers of one electrode being uniformly interspaced between the fingers of the other electrode to form a second tessellated pattern of the same but finer design than the first-named tessellated patterns in which the distances between the fingers in the second tessellated pattern are half that of the distances between the fingers of the first tessellated patterns whereby the finger nearest any other finger is of a polarity opposite to that of such other finger, the fingers

of one of said electrodes extending into said bobbin through one of said end surfaces and the fingers of the other electrode extending into said bobbin through the other of said end surfaces, each of said fingers extending almost all of the way through said bobbin so that said fingers are substantially overlapped.

2,823,247

GAS PIPING CONNECTION FOR TRANSFORMERS

John C. Dutton, Rome, Ga., assignor to General Electric Company, a corporation of New York
Application September 28, 1954, Serial No. 458,923
4 Claims. (Cl. 174-14)

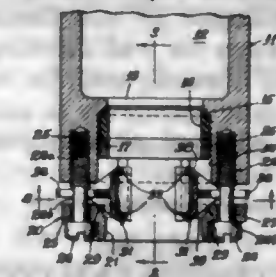


1. In combination, a transformer tank having an outwardly flanged rim, a cover for said tank attached to said flanged rim, a quantity of insulating liquid in said tank having a normal level which is separated from said cover by a gas space, a metal member attached to the underside of said flange rim, said member containing a liquid sump cavity, a lateral passageway between said gas space and said sump cavity connected so that liquid in said cavity flows through said passageway into said tank, a gas conduit from outside said tank extending upwardly into said sump cavity and having an open end within said cavity closely adjacent the bottom side of said flanged rim, and sealing means for preventing leakage of liquid from the bottom of said cavity along the outside of said conduit.

2,823,248

SELF-SEALING CABLE CLAMP

James H. Schaefer, Lemont, Ill., assignor to Amphenol Electronics Corporation, a corporation of Illinois
Application September 29, 1953, Serial No. 383,089
4 Claims. (Cl. 174-77)



1. A self-sealing cable clamp comprising, in combination, a shell having a bore extending into an interior cavity, and an enlarged counterbore extending from the exterior of the shell to an inclined annular bottom shoulder; a sealing gasket consisting of a pliable plastic ring disposed within said counterbore and adapted to bear against the inclined bottom shoulder, a relatively rigid metallic backing ring adjacent said sealing gasket and also disposed within said counterbore, with clamping devices comprising a cap extending across the top of the counterbore in a position exterior of the shell and secured to said shell by a plurality of cap screws disposed parallel with the counterbore and threaded into said shell, said cap including a cable aperture in substantial alignment with the counterbore of the shell and having a pair of inwardly extending follower portions of arcuate configuration fitting within the counterbore and adapted to bear on the

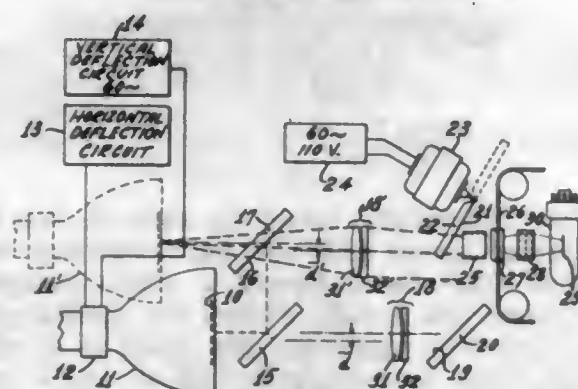
distributing means coupled to said second sampling signal generator and to said sharp pulse sampling means for applying said signals from said second sampling signal generator distributively to said sharp pulse sampling means, and combining means coupled to said sharp pulse sampling means.

2,823,256

FILM SCANNING FOR TELEVISION

Lawrence T. Sachtleben, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application October 15, 1952, Serial No. 314,764
The terminal fifteen years of the term of the patent to be granted has been disclaimed
15 Claims. (Cl. 178-7.2)



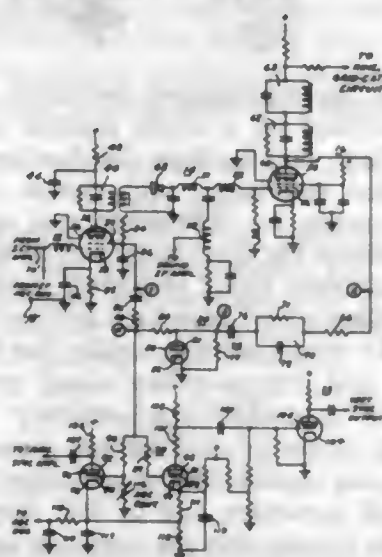
1. A cathode ray tube scanning system for continuously moving motion picture film which comprises: a cathode ray tube adapted to produce a beam of light; means for dividing said beam of light into a plurality of paths; a common objective lens; means for directing light from each of said paths to said common objective lens to produce an image of said light on said objective equal in size to the image produced by another of said paths; and individual optical lens means in each of said paths for translating the axis of said image a predetermined distance laterally from the axis of said objective lens.

2,823,257

NOISE IMMUNIZING CIRCUITRY FOR PULSE TRANSLATING SYSTEMS

Richard Wolfgang Sonnenfeldt, Haddonfield, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application August 25, 1954, Serial No. 452,028
6 Claims. (Cl. 178-7.3)



3. A television receiving circuit arrangement including, a high frequency wave signal amplifying circuit comprising an electron discharge structure having at least cathode, control, screen and anode electrodes, means to apply a high frequency video signal modulated wave signal between said control and cathode electrodes, means to bias

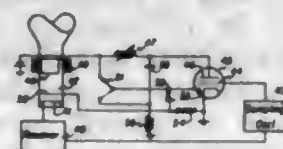
said high frequency amplifying structure to derive the video signal components including noise pulses at the screen electrode thereof, an output load device coupled between said anode and cathode electrodes, means coupled to said output load device to derive the video signal components including noise pulses, a video signal amplifying circuit comprising an electron discharge system having at least cathode, grid and anode electrodes, said cathode and grid electrodes being connected to said video signal component deriving means, said video signal component deriving means being poled to produce said video signal components and noise pulses at the anode electrode of said electron discharge system in opposite polarity from the components and pulses as derived at said screen electrode of said electron discharge structure, a noise pulse discriminating network connected to the anode electrode of said electron discharge system, said discriminating network comprising a resistance element and a capacitive element connected in parallel in one arm of said network, a resistance component substantially ten times as large as said resistance element shunted across the arms of said network, a capacitive component substantially three hundred times as large as said capacitive element connected in series in one arm, a unilateral impedance device shunted across said resistance component and comprising a cathode element connected to one arm terminal of said resistance component and another element connected to the other terminal, means including resistive and capacitive components connected in series between said screen electrode of said electron discharge structure and the other element of said unilateral impedance device to cancel noise pulses thereat, and means coupled to said noise pulse discriminating circuit to separate the synchronizing pulses from said video signal components.

2,823,258

TELEVISION DOT SCANNING SYSTEM

Kurt Schlesinger, Maywood, and Victor Graziano, Oak Park, Ill., assignors to Motorola, Inc., Chicago, Ill., a corporation of Illinois

Application March 7, 1951, Serial No. 214,314
6 Claims. (Cl. 178-7.5)



6. In a television system including a cathode ray tube having means for producing an electron beam which impinges a screen with electrode means for controlling the intensity of the beam, the combination, including, means for receiving a video signal including a sampling component, means for applying said video signal to said electrode means, means for deflecting said beam across said screen including a first portion for producing a field having sawtooth variations at a first fixed frequency and a second portion for producing an arresting field having alternating variations at a second fixed frequency much greater than said first frequency, with said first and second portions causing movement of said beam at alternately fast and slow rates, said second portion including a coil and means for producing an alternating current in said coil, means for synchronizing said alternating current producing means with said sampling component, a circuit connected to said coil for continuously applying the voltage wave thereacross to said electrode means as a first voltage wave of said second fixed frequency which is of such phase to decrease the intensity of said beam during movement thereof at said slow rate to counteract the effect of said alternating component of said deflecting wave, and generator means connected to said electrode means for providing a second voltage wave of said

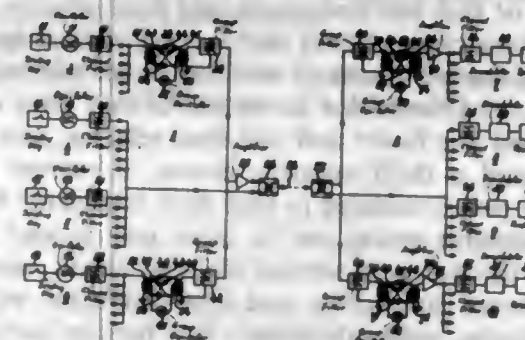
second fixed frequency and of opposite phase to said first voltage wave to increase the intensity of said beam during movement thereof at said slow rate whereby substantially stationary dots are produced on said screen, said generator means being controlled by said sampling component and said second voltage wave produced thereby having the same frequency as said alternating component and having an amplitude at least twice that of said first voltage wave whereby simultaneous application of said waves causes said second wave to override said first wave, said generator means including sensing means responsive to high frequency components of said video signal for applying said second voltage wave to said electrode means only when said video signal includes high frequency components.

2,823,259

DEVICE FOR CARRIER WAVE TELEGRAPHY

IJsbrand Boers, Hilversum, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application April 19, 1954, Serial No. 424,216
Claims priority, application Netherlands May 30, 1953
9 Claims. (Cl. 178-51)



1. A carrier-wave telegraphy system comprising a plurality of frequency channels lying in a speech-frequency band, said channels being arranged in four frequency groups lying in four successive group-frequency bands thereby to form a low-frequency band, a lower central-frequency band, a higher central-frequency band, and a high-frequency band, transmitter apparatus having an output circuit and comprising a plurality of channel oscillators associated respectively with each of said frequency channels, the channel oscillators associated with the channels in said low-frequency and higher central-frequency bands having frequencies lying in the channels of said higher central-frequency band, and the channel oscillators associated with the channels in said high-frequency and lower central-frequency bands having frequencies lying in the channels of said lower central-frequency band, a plurality of channel filters connected respectively between the channel oscillators of said central-frequency bands and said output circuit and tuned respectively to the frequencies of the last-named channel oscillators, a low-band group modulator comprising a signal-mixing circuit and a group oscillator for producing oscillations having a frequency higher than the frequency range of said central-frequency bands, a plurality of channel filters connected respectively between the channel oscillators associated with said low-frequency band and said mixing circuit and tuned respectively to the frequencies of the last-named channel oscillators, means for feeding oscillations from said group oscillator to said mixing circuit whereby said group modulator converts the oscillations of the channel oscillators associated with said low-frequency band into oscillations falling respectively in the frequency channels of said low-frequency band, a group filter having a passband for said low-frequency band and connected between the output of said group modulator and said output circuit, a high-band group modulator comprising a signal-mixing circuit and a group oscillator for producing

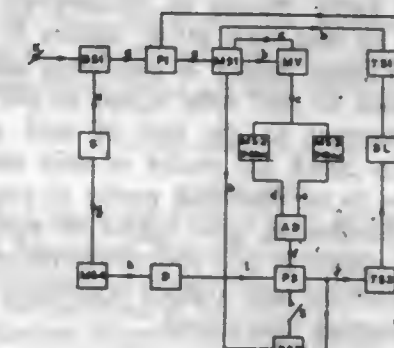
oscillations having a frequency higher than the frequency range of said central-frequency bands, a plurality of channel filters connected respectively between the channel oscillators associated with said high-frequency band and the last-named mixing circuit and tuned respectively to the frequencies of the last-named channel oscillators, means for feeding oscillations from the last-named group oscillator to said mixing circuit whereby the last-named group modulator converts the oscillations of the channel oscillators associated with said high-frequency band into oscillations falling respectively in the frequency channels of said high-frequency band, and a group filter having a passband for said high-frequency band and connected between the output of said last-named group modulator and said output circuit.

2,823,260

ARRANGEMENT FOR MEASURING THE ARITHMETICAL DISTORTION OF START-STOP CODE TELEGRAPHIC SIGNALS

Maurice Karlin and Stéphane Jean De Vleminck, Brussels, Belgium, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 24, 1955, Serial No. 542,213
Claims priority, application Netherlands October 23, 1954
6 Claims. (Cl. 178-69)



1. A circuit arrangement for measuring the arithmetical distortion of start-stop coded telegraph signals in which each signal contains mark elements, comprising a gate circuit, means connected to apply an input pulse to said gate circuit at each change in polarity of said telegraph signals, a first pulse counting circuit connected to the output of said gate circuit, a second pulse counting circuit connected to count the number of telegraph signals, and a time base circuit connected to be rendered operative by the occurrence of the first of said mark elements in a telegraph signal and adapted to periodically render said gate circuit operative for a number of times equal to the total number of elements in said telegraph signal, the individual time durations during which said gate circuit is operative being equal to the duration of an element of an undistorted telegraph signal, whereby the relative number of counts counted by said first and second counting circuits is a measure of the arithmetical distortion of said telegraph signals.

2,823,261

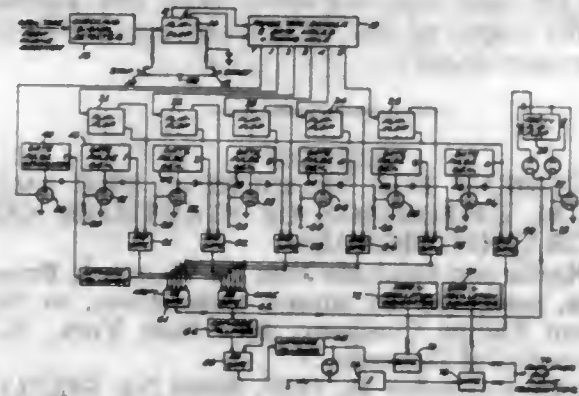
CODE COMMUNICATION SYSTEM

Alfred R. Ziplf, San Carlos, Calif., assignor to Bank of America National Trust and Savings Association, San Francisco, Calif., a national banking association

Application May 7, 1956, Serial No. 583,145
6 Claims. (Cl. 179-3)

1. Apparatus for communicating coded data between separate stations of a telephone network, each station having a telephone receiver and transmitter, said data having been recorded as a series of characters, each character consisting of a plurality of binary digits, said apparatus comprising a code transmitter at one of said separate stations including means responsive to said record-

ing to generate successive tone signals representative of a start signal, the binary digits in a character and a parity digit, and means to apply said successive tone signals to the telephone transmitter; a code receiver at a receiving one of said separate stations including means coupled to the telephone receiver to detect said tone signals, means to convert said detected tone signals to pulse signals representative of said start signal, said signals representative of said binary digits in a character and said parity digit, means to generate a monitoring tone signal, means to apply said monitoring tone signal to the telephone transmitter, means responsive to said start signal to prevent



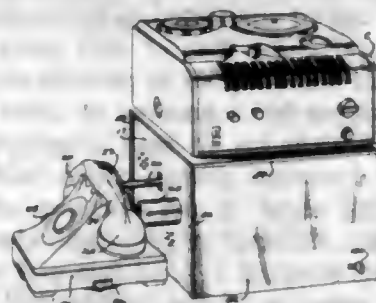
application of said tone signal to said telephone transmitter, a plurality of gates, means to apply said pulse signals to all said gates, means to successively open said gates responsive to said start pulse, means to record the output from said gates, means to inactivate said means to prevent application of said tone signal to said telephone transmitter subsequent to the last of said gates being opened, means to check the parity of said pulse signals, means responsive to an incorrect parity to prevent application of said monitoring tone signal to said telephone transmitter, and means at said code transmitter to operate said means to generate tone signals responsive only when receiving a monitoring tone signal.

2,823,262

TELEPHONE ANSWERING DEVICE

Jack S. Kilby and Karl W. Youngbeck, Milwaukee, Wis., assignors to H. A. Milhaupt, Inc., a corporation of Wisconsin

Application October 21, 1953, Serial No. 387,379
15 Claims. (Cl. 179-6)

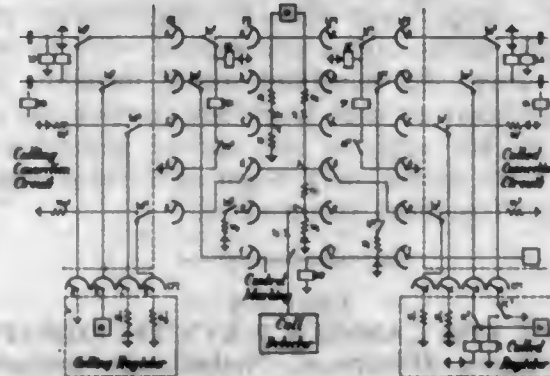


1. A telephone answering device comprising the combination with a control set comprising a trigger tube, switching means, telephone hand set lifting means, bell and voice pickups, and a speaker, of a phonograph comprising a record and a pickup, case means enclosing the control set and the phonograph and speaker, a unitary and independently operable recorder including an amplifier and a power source, detachable electrical connections from the power source to the control set, detachable electrical connections between the amplifier and the recorder and the control set, said connections including connections to said switching means for connecting the telephone bell pickup, the phonograph and the voice pickup successively to the recorder amplifier and for connecting the amplifier successively to said trigger tube and said speaker and said recorder.

2,823,263

LINE CIRCUIT IN A SIGNALLING SYSTEM

Roelof M. M. Oberman, Voorburg, Netherlands, assignor to De Staat der Nederlanden, Ten Deze Verteenwoordigd Door de Directeur-Generaal der Posterijen, Telegrafie en Telefonie, The Hague, Netherlands
Application March 30, 1953, Serial No. 345,548
8 Claims. (Cl. 179-18)



1. In a signalling system; a line finder and a final selector, each having a first, a second and a third contact bank and a first, a second and a third brush adapted to engage said contact banks, respectively; a subscriber's line comprising a first conductor connected to said first contact banks of said line finder and said final selector, a second conductor connected to said second contact banks of said second contact banks of said line finder and said final selector, a third conductor connected to said third contact banks of said line finder and said final selector, and a first, a second and a third resistive means, a current source having one pole connected to said third conductor through said first resistive means and its other pole to said second conductor through said second resistive means, said third resistive means connecting said first conductor with said third conductor, said subscriber's line further including a subscriber's set for electrically connecting said first conductor to said second conductor and closing a circuit from said one pole of said current source connected to said first resistive means to said other pole of said current source connected to said second resistive means; said third resistive means including a non-linear resistance; means connected to one of said first brushes and to one of said third brushes for connecting simultaneously said one pole of said current source to said first conductor and for connecting said other pole of said current source to said third conductor, whereby said non-linear resistance is rendered non-conductive when said means connect simultaneously said one and other pole of said current source to said first and third conductor, respectively, so as to in effect disconnect said first conductor from said third conductor, said means connected to said first and said third brush including a fourth resistive means connected to said one pole and a fifth resistive means and said one pole of said current source; said first, second, third, fourth and fifth resistive means having such ohmic values that said first and fifth resistive means and said second and fourth resistive means respectively, constitute upon connecting independent potentiometers, thereby interrupting the circuit from said one pole of said current source connected to said first resistive means to said other pole of said current source connected to said second resistive means.

2,823,264

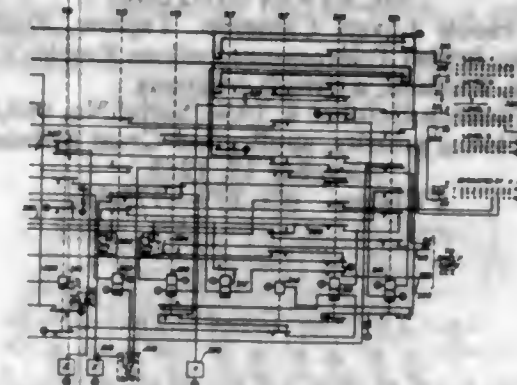
STEP-BY-STEP SYSTEM

William W. Pharis, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application March 31, 1953, Serial No. 345,823
7 Claims. (Cl. 179-18)

3. In a telephone system, calling and called lines, a connector for extending connections from calling to called lines, means in said connector for testing the idle or busy

condition of called lines, means in said connector for barring connections to busy called lines, means in said



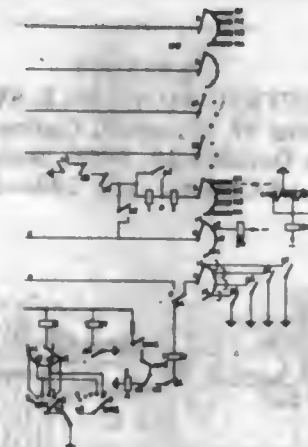
connector for disabling said last means, and means permanently associated with said calling and said called lines for controlling said disabling means.

2,823,265

APPARATUS FOR CONTROLLING THE OPERATION OF DIRECTIONAL SWITCHES IN SIGNALLING SYSTEMS

Heinz Merel, Munich, Germany, assignor to Siemens & Halske Aktiengesellschaft, Munich and Berlin, Germany, a German corporation

Application January 28, 1955, Serial No. 484,719
Claims priority, application Germany February 23, 1954
15 Claims. (Cl. 179-18)



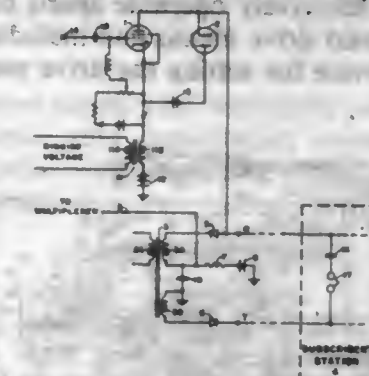
1. In a telephone system having a directional switch for building up calls over trunk lines which are arranged in groups extending respectively in different traffic directions, said trunk lines of said groups being accessible to said switch over bank contacts respectively connected therewith and arranged in corresponding groups and over wipers which are operable by said switch in a hunting operation relative to such groups of bank contacts, apparatus for controlling the hunting operation of said directional switch, said apparatus comprising a marker switch cooperating with said directional switch, circuit means for transmitting to said marker switch impulse series indicating a desired traffic direction over which a call is to be extended thereby, means in said marker switch responsive to the receipt of said impulse series for marking the start and the end positions of bank contacts allotted to the group of trunk lines extending in the traffic direction indicated by said impulse series, circuit means for causing said directional switch to move its wipers for hunting for an idle line in the marked group of trunk lines, and circuit means effective if all trunk lines are busy in such group for causing said directional switch to move its wipers over the bank contacts connected with trunk lines of all other groups extending in other traffic directions to position said wipers again in start position of the bank contacts of the group marked by said marker switch for the purpose of repeating the hunting operation for an idle trunk line in such marked group.

2,823,266

SUBSCRIBER LINE RINGING IN AN ELECTRONIC TELEPHONE SYSTEM

Robert B. Trousdale, Webster, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application May 10, 1955, Serial No. 507,317
5 Claims. (Cl. 179-84)



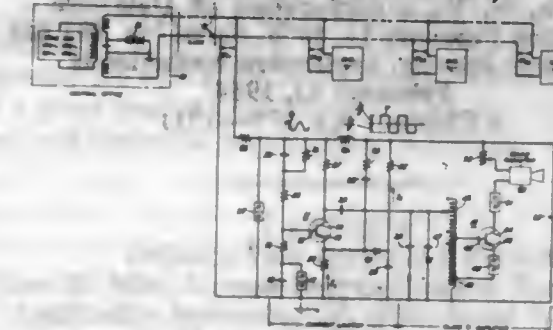
1. In a telephone system, a subscriber station including a capacitor and a ringer connected in series, a source of cyclic ringing current, an electron discharge device for connecting said source of ringing current to said series connected capacitor and ringer when conductive, said electron discharge device having an anode, a cathode, and a control electrode, means for applying an operating signal to said control electrode for rendering said electron discharge device conductive during a portion of each ringing cycle, and unidirectional conducting means connected between said anode and said cathode for discharging said capacitor during another portion of each ringing cycle.

2,823,267

DELAY CIRCUIT FOR AMPLIFYING DEVICE

Larned A. Meacham, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application March 29, 1956, Serial No. 574,715
7 Claims. (Cl. 179-84)



1. In combination: an amplifier, a biasing circuit for said amplifier including an impedance element, across which an amplifier biasing voltage is developed, means for applying signals to said amplifying device, a source of voltage which may vary between a first and a second value, and means for effectively disabling said amplifier for a predetermined period following a change in said voltage from said first value to said second value comprising a capacitor and means connecting said capacitor in a charging circuit including said source and said impedance element, the charging current for said capacitor being sufficient to bias said amplifier cut-off.

2,823,268

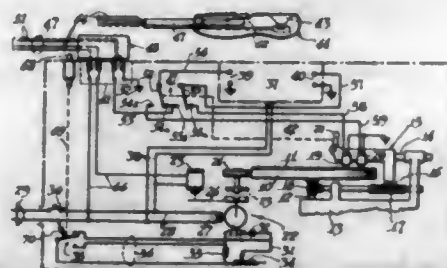
COMBINATION DICTATION-TRANSCRIBING MACHINE

Richard M. Somers, West Orange, N. J., assignor, by mesne assignments, to McGraw-Edison Company, Elgin, Ill., a corporation of Delaware

Application September 23, 1954, Serial No. 457,851
6 Claims. (Cl. 179-100.1)

1. In a dictating and transcribing machine including a first device for supporting a record for revolving move-

ment, a second device including record-cooperable record-reproduce means, one of said devices being mounted for traveling movement, and variable speed drive means for revolving said first device and concurrently imparting traveling movement to said one device: the combination of means for selectively conditioning said machine either for use as a dictating instrument or for use as a transcribing instrument; selectively operable speed control means associated with said drive means and including a variable speed control device for setting the drive means to oper-

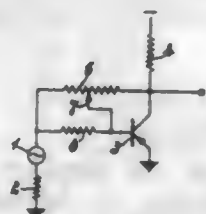


ate at a normal speed for recording dictation or for placing said drive means for variable speed operation under influence of said variable speed control device; and means for controlling said speed control means by said conditioning means to cause said drive means to operate at said normal speed when said machine is conditioned for use as a dictating instrument and to cause said drive means to operate at a speed according to the setting of said variable speed control device when said machine is conditioned for use as a transcribing instrument.

2,823,269

TRANSISTOR AMPLIFIER HAVING A VARIABLE AMPLIFICATION

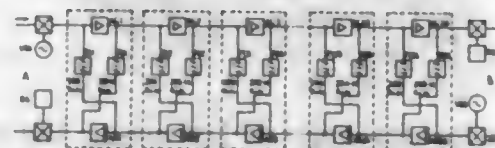
Henri Herman van Abbe and Ludolf Jentje Cock, Emmasingel, Eindhoven, Netherlands, assignors, by means assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 14, 1955, Serial No. 487,808
Claims priority, application Netherlands
February 23, 1954
3 Claims. (Cl. 179—171)



2. An amplifying arrangement comprising a transistor having base, emitter and collector electrodes, said emitter electrode being connected to a point of ground potential, a signal source having one terminal connected to said point of ground potential, a negative feedback resistor connected between said collector electrode and the other terminal of said signal source, said feedback resistor having a variable tap thereon connected to said base electrode, a circuit including a second resistor connecting the other terminal of said signal source to said base electrode, said second resistor having a value which is small with respect to the value of said feedback resistor, a source of negative potential, a third resistor connecting said source of negative potential to said collector electrode, and means for deriving an output voltage from said collector electrode whereby the amplification of said amplifying arrangement is controlled without an excessive drop in the value of the input impedance of said transistor when viewed from said signal source.

2,823,270 TESTING ARRANGEMENTS FOR TELECOMMUNICATION SYSTEMS

Hector Francis Lovett Cameron, Taplow, England, assignor to British Telecommunications Research Limited, Taplow, England, a British company
Application October 6, 1954, Serial No. 460,681
Claims priority, application Great Britain
October 15, 1953
6 Claims. (Cl. 179—175.31)

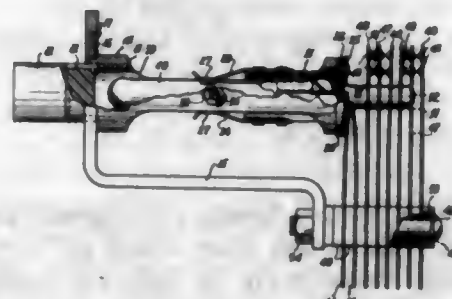


1. An arrangement for testing amplifiers in a plurality of intermediate stations located on a signalling line comprising separate "go" and "return" paths extending between two end stations in which at each intermediate station a band pass filter is arranged to be connected between the inputs of the "go" and "return" amplifiers and a second band-pass filter between the outputs of the said amplifiers, the pass bands for the filters in any one station being different from each other and different from those in any other station on the same portion of line between the two end stations.

2,823,271

ELECTRIC MULTIPLE SWITCH

Edwin M. Waestaff, Gallon, Ohio
Application October 20, 1955, Serial No. 541,705
4 Claims. (Cl. 200—1)

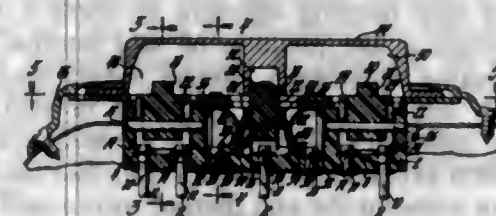


1. An electrical switch comprising an S-shaped bracket, a tubular sleeve connected to one leg of said S-shaped bracket and substantially parallel to the center bar of said S-shaped bracket, a plunger mounted in said sleeve for reciprocation therein, a lamp and socket mounted in said plunger, means for limiting the travel of said plunger, a bolt connected to the other leg of said S-shaped bracket and having its axis substantially parallel to the center bar of said S-shaped bracket, stationary contact members and movable contact members alternately spaced and mounted upon said bolt and extending in a plane substantially perpendicular to the axis of said bolt and intersecting the axis of said plunger, insulators on said bolt separating said members, a spacer mounted on the inside of each of said movable members, said stationary members having clearance for said spacers, said spacer on said movable members extending through the plane of intervening stationary members and normally abutting another movable member, and a first spacer abutting said plunger, whereby operation of said plunger shifts said movable contact members linearly to break contact with one stationary member and make contact with another stationary member.

2,823,272

SWITCH MECHANISM

Daniel M. Adams, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application September 7, 1956, Serial No. 608,485
6 Claims. (Cl. 200—6)



1. In combination with a plurality of toggle switches mounted in a single housing and having the toggles thereof biased to extend in the same general direction, a unitary switch actuator having slots therein receiving the toggles of said switches, said slots being arranged to selectively actuate the toggles of said switches against the bias thereof upon predetermined movements of said actuator in a plane generally normal to the direction of extension of said toggles.

2,823,273

TOTALIZER SWITCH

Arthur R. Gross, St. Paul, Minn.
Application July 14, 1954, Serial No. 443,192
4 Claims. (Cl. 200—16)



1. In a switch of the class described, a composite main body having a smooth uninterrupted cylindrical bore, said main body comprising a stack of discs having aligned central bores defining sections of the first-said bore, each disc comprising a body of insulating material and a pair of spaced fixed electrically conductive contacts having segmental inner contact surfaces defining circumferentially-spaced portions of its central bore, the thickness of each disc being greater than the thickness of the contact surfaces of the fixed contacts associated therewith and said insulating material defining segments of the cylindrical bore between fixed contacts of the same disc and between fixed contacts of an adjacent disc, and a conductor head mounted for longitudinal reciprocation in the cylindrical bore and engaging the wall of the bore to progressively span and close the cooperating fixed contacts of each disc when moved longitudinally through the bore.

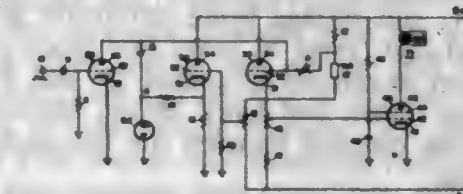
2,823,274

ADJUSTABLE SWEEP CIRCUIT

Robert F. Casey, Pompton Plains, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application August 4, 1954, Serial No. 447,742
11 Claims. (Cl. 250—27)

1. A waveform generator comprising: means to produce a pulse waveform and a sawtooth waveform, said

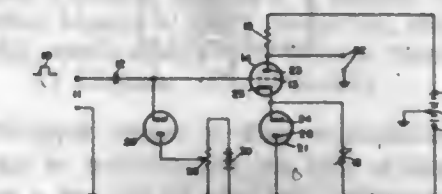
means comprising a series-connected capacitance and resistance and means for charging said series-connected elements whereby the charging current produces said



pulse waveform across said resistance and said sawtooth waveform across said capacitance; means to produce a quasi-exponential waveform; and means to combine said three waveforms.

2,823,275

CLIPPING AND CURRENT LIMITING CIRCUIT
Cyrus Frank Ault, Clifton, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application December 30, 1954, Serial No. 478,820
1 Claim. (Cl. 250—27)

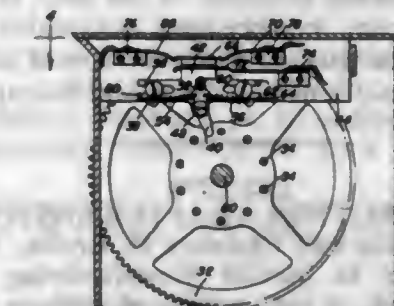


The combination comprising: an electronic amplifier having a cathode, an anode, and a control grid, said amplifier adapted to act either as a cathode follower or a plate loaded amplifier; means causing said amplifier to act as a plate loaded amplifier, said means comprising a substantially direct connection between said cathode and ground; means to apply an input signal to said grid; means causing said amplifier to act as a cathode follower, said means comprising a resistance connected between said cathode and ground; means causing said resistance to be substituted for said substantially direct connection when said input signal exceeds a predetermined value whereby the operation of said amplifier changes from that of a plate loaded amplifier to a cathode follower amplifier, and limits the current flowing through said amplifier.

2,823,276

INDICATOR FOR GAS PUMPS

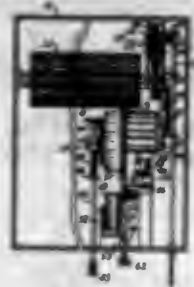
John W. Bibb, Jr., and Earl L. Howard, Hammond, La.
Application September 16, 1954, Serial No. 456,453
1 Claim. (Cl. 200—30)



In a remote indicator for sales at a fuel pump, a housing having a window therein, an actuation device in said housing, said actuation device comprising a drum having a plurality of annularly spaced pins thereon, said drum further having reset teeth disposed about the periphery thereof, said drum being in alignment with said window with said teeth extending outwardly of said housing, a frame adjacent said drum, a contact block mounted for linear movement on said frame, a switch contact mounted on said block, a pair of spaced switch members successively engaged by said switch contact, a pawl pivotally and

slidably attached to said block, springs resiliently holding said pawl in an initial position, said pawl being pivotally mounted on said frame, said pawl being engaged by said pins upon rotation of said drum to move said contact block linearly, said springs being terminally attached to said pawl and said frame to move said block in the opposite direction to movement caused by said pins, studs carried by said frame, said block having bifurcated ends, said studs being received between the furcations of said bifurcated ends.

2,823,277
SERVICE INDICATOR
Henry F. Niedzielski, San Antonio, Tex.
Application April 10, 1956, Serial No. 577,281
3 Claims. (Cl. 200-56)

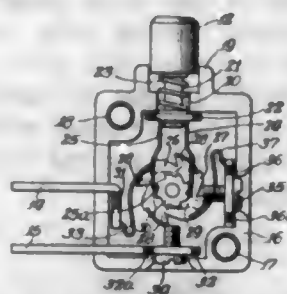


1. The combination with a casing supported on the dash of a vehicle and an end portion of an odometer drive shaft extending into said casing, of a service indicator comprising a first horizontally disposed driven shaft positioned within said casing adjacent said odometer drive shaft end portion, means connecting said first shaft to said odometer drive shaft end portion for rotation by the latter, a drum gear carried by said first shaft, a second driven shaft positioned within said casing in parallel spaced relation with respect to said first shaft, a gear carried by said second driven shaft and in meshing engagement with said drum gear, an indicator wheel positioned on one side of said last-named gear and circumposed about the adjacent portion of said second shaft and attached to said last-named gear for rotation therewith, a cam member carried by the portion of said second shaft on the other side of said last-named gear and connected to the latter for rotation therewith, a switch positioned within said casing and having a fixed contact and a movable contact arranged in cooperating relation with respect to said fixed shaft, a contact arm arranged in an upwardly sloping direction positioned within said casing and having the lower end pivotally connected to said switch, the upper end of said arm being provided with means arranged in the path of rotational travel of said cam member and engageable with said cam member upon execution of a portion of its rotational travel to cause said arm to actuate said movable contact.

2,823,278
PUSH BUTTON ADAPTER SWITCH
Marvin C. Carlson and Clarence H. Brown, Valparaiso, Ind., assignors to McGHI Manufacturing Company, Valparaiso, Ind., a corporation of Indiana
Continuation of application Serial No. 349,028, April 15, 1953. This application February 25, 1957, Serial No. 642,299

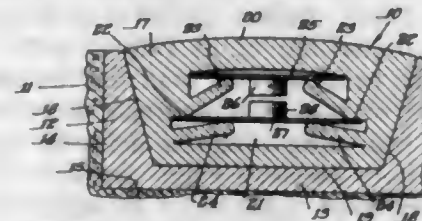
6 Claims. (Cl. 200-65)
1. A switch device including in combination a housing having side walls and an end wall with a housing aperture of selected diameter therein, a toothed wheel rotatably mounted between said side walls and having alternately conducting and insulating teeth thereon, oppositely mounted fixed resilient contact means simultaneously engageable with teeth of the same type on said wheel, a ratchet wheel coaxially positioned and rotatable with said toothed

wheel and adapted to be revolved to cause rotation of said toothed wheel for alternately completing and opening a circuit between said fixed contact means and through said switch device, an external neck flange portion of selected width formed around said housing aperture and having an internal opening communicating with said housing aperture and of a diameter greater than the diameter of said housing aperture to form a restricted housing portion at the juncture of said internal opening and said housing aperture, a plunger longer than said selected width and reciprocally disposed in said internal opening in said neck flange portion, said plunger including a stem extending therefrom into said housing and having a slot adjacent the end thereof within said housing, a retaining plate disposed between said side walls and having a retainer aperture therein in alignment with said



housing aperture and through which said stem extends, a coil spring surrounding said stem and in compressive relation between said retaining plate and said plunger, and a pawl member comprising spaced substantially parallel arms disposed on opposite sides of said ratchet wheel and a cross-portion joining said spaced arms having a keyway therein fitted into said slot of said stem so that said spring biases said cross-portion into engagement with said retaining plate, whereby pressing movement of said plunger by an operator toward said restricted housing portion moves said pawl member against said spring and the release of said plunger by the operator causes said spring to move said pawl member across said ratchet wheel, said pawl member having a portion engageable behind a tooth of said ratchet wheel as the same moves thereacross to cause revolution of the same and operation of the switch device.

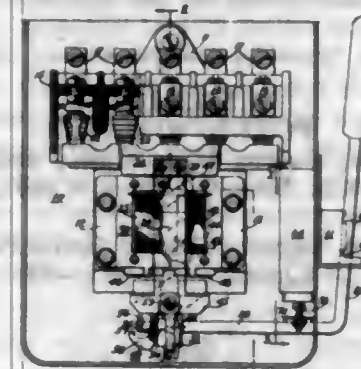
2,823,279
DETECTOR FOR HIGHWAY VEHICLE TRAFFIC
Edward J. Schulenburg, Danville, Ill.
Application September 13, 1954, Serial No. 455,643
10 Claims. (Cl. 200-86)



1. A detector for highway vehicle traffic comprising an upwardly facing channel member imbedded in a transverse groove in the highway, a hollow tube of flexible resilient electrical insulating material located in the channel member and having side and bottom walls corresponding to the configuration of the channel member and a top wall protruding above the channel member to be contacted and depressed by the wheels of the vehicles passing thereover, said hollow tube of flexible resilient insulating material having integrally formed inwardly thereof a pair of opposed downwardly facing shoulders, a pair of opposed inwardly and upwardly extending fingers above the shoulders and a pair of opposed inwardly and upwardly extending fingers below the shoulders, an upper metallic contact strip interposed between the top

wall and the upper fingers and maintained adjacent the top wall by the upper fingers, a lower metallic contact strip interposed between the shoulders and the lower fingers and normally maintained against the shoulders by the lower fingers, said contact strips being normally spaced apart, said upper contact strip being moved downwardly into engagement with the lower contact strip when the top wall of the tube is depressed by the wheels of the vehicles passing thereover to establish an electrical contact between the contact strips, and the lower contact strip being moved downwardly by the upper contact strip when engaged thereby to prevent damage to the contact strips.

2,823,280
ELECTRIC SWITCH DEVICE
Howard Davies, Yeadon, Pa.
Application September 15, 1954, Serial No. 456,146
5 Claims. (Cl. 200-87)



1. In an electric switch device, stationary contacts, other contacts movable upwardly and downwardly into and out of engagement with said stationary contacts, a stationary electromagnet below said contacts, a magnetic armature movable upwardly and downwardly upon energization and de-energization of said electromagnet, said armature having a slot extending vertically there-through, an arm extending through said slot and having its upper end connected to said movable contacts, releasable means effecting an operating connection between the lower end of said arm and the lower part of said armature, whereby energization of said electromagnet effects engagement of said contacts and normally maintains them engaged until such time as said electromagnet is de-energized, and manually-operable means for actuating said releasable means to interrupt the operating connection between said arm and said armature, whereby to effect disengagement of said contacts independently of said electromagnet.

2,823,281
HIGH SPEED RELAY
Anthony E. Sprando, Portland, Oreg., assignor to Iron Fireman Manufacturing Company, Portland, Oreg.
Application September 27, 1956, Serial No. 612,495
8 Claims. (Cl. 200-87)



1. A mechanically stable high speed relay comprising an inorganic electrically insulating mechanically rigid base disk, a pair of spaced parallel magnetic pole pieces hermetically sealed in said base to extend from both sides thereof, a magnetic yoke connecting the ends of said pole pieces on one side of said disk, a magnetic resilient reed

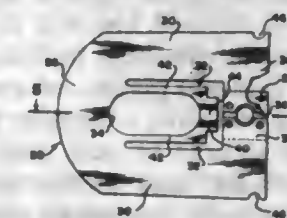
having one end fixed to the other end of one of said pole pieces on the other side of said disk, the free end of said reed, extending towards the other end of the other of said pole pieces on said other side of said disk to terminate there-alongside, a second resilient reed having one end fixed to said other end of said one of said pole pieces laterally spaced from said one end of said magnetic reed, the free end of said second resilient reed being biased against said free end of said magnetic reed to bias the free end of said magnetic reed away from said other end of said other of said pole pieces, and an electromagnetic coil surrounding part of the series magnetic circuit formed by said yoke, said pole pieces and said magnetic reed, said coil being adapted when energized to energize said series magnetic circuit to cause the free end of said magnetic reed to move against the bias of said second reed towards said other end of said other of said pole pieces.

2,823,282
ELECTROMAGNETIC RELAYS
Frederick Emil Rommel and Malcolm Simons, London, England, assignors to Telephone Manufacturing Company Limited, London, England, a British company
Application March 4, 1955, Serial No. 492,155
Claims priority, application Great Britain March 5, 1954
11 Claims. (Cl. 200-93)



1. A polarized electromagnetic relay comprising a complete driving structure including a framework and a contact structure complete in itself and detachably affixed as a unit to the framework of said driving structure, said contact structure including a second framework, a yieldable support secured to said second framework, a moving contact mounted on said support, a static contact capable of being relatively adjusted independently of said driving structure, a fixed buffer member rigid with said second framework and located to serve as a backstop for said moving contact, means for stressing said moving contact against said fixed buffer member when the relay is not actuated and a vibratory armature which extends beyond the framework of said driving structure and which abuts against the yieldable support of said moving contact when said contact structure is in position affixed to said driving structure so as to actuate said moving contact directly.

2,823,283
SNAP-ACTING THERMOSTAT AND BIMETAL BLADE THEREFOR
Homer F. Malone, Millburn, N. J., assignor to The Willcolater Company, Elizabeth, N. J., a corporation of Delaware
Application April 11, 1956, Serial No. 577,607
18 Claims. (Cl. 200-138)



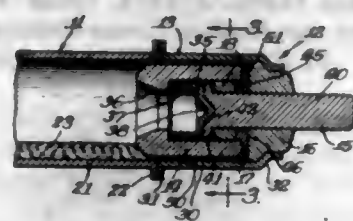
1. A snap-acting thermostat element comprising a sheet of bimetallic material having high- and low-expanding faces and provided with a U-shaped slot spaced inwardly of the edge of the sheet and defining a tongue and a surrounding border, the end border portion of the sheet adjacent the free end of the tongue being com-

pressed in the plane of the sheet and at right angles to the sides of the U-shaped slot, the border area of the sheet alongside the tongue and adjacent the root end thereof being generally concave on the high-expanding face of said sheet at temperatures below an operating temperature, said border area of the sheet being generally concave on the low-expanding face of the sheet at temperatures above said operating temperature, said tongue being integral with and generally in the plane of the border area of the sheet to which it is connected at its root, whereby the free end of the tongue and the border portion directly adjacent thereto move through a substantial distance relative to each other in a direction generally normal to the sheet when the temperature of the sheet changes from one side to the other of said operating temperature.

2,823,284

ELECTRODE ASSEMBLY

Joseph K. Lentz, Elkhart, Ind., and Arthur A. Grunwald, Edwardsburg, Mich., assignors to Durakool, Inc., Elkhart, Ind., a corporation of Indiana
Application October 3, 1956, Serial No. 613,783
15 Claims. (Cl. 200—152)

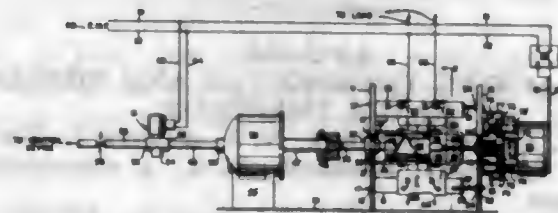


1. In an electrode assembly, the combination of a first ceramic member having an opening extending through, a second ceramic member at one end of the opening of said first ceramic member and extending transversely of the axis of said opening, an electrode having a portion projecting into said opening and extending through said second ceramic member with there being a space between the outer surface of said portion of said electrode and the wall defining the opening in said first ceramic member, and fused insulating material in said space fusing said first and second ceramic members to said electrode.

2,823,285

CONTROL APPARATUS

Albert E. Stone, La Grange, Ill., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application June 7, 1954, Serial No. 435,023
12 Claims. (Cl. 200—153)

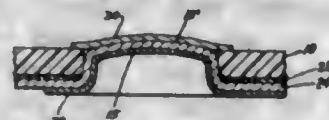


1. Apparatus of the class described comprising a support having a pair of end plates spaced apart; a plurality of U-shaped brackets on said housing arranged parallel to one another and in a cylindrical fashion about an axis; a shaft journaled in said end plates and extending parallel to said brackets along said axis; a member having a helical cam surface thereon secured to said shaft; switch means secured to said brackets; said switch means including switch operating pins each extending radially inwardly from said brackets and terminating concentrically with said shaft; means for displacing said shaft and said cam member along said axis so that said pins are successively engaged by said cam surface; and means for rotating said shaft and said cam member about said axis an amount proportional to the number of said brackets.

2,823,286

CONTACTS FOR ELECTRICAL CIRCUITS AND METHODS FOR MAKING SAME

John T. Beck, White Bear Lake, Minn.
Application July 12, 1954, Serial No. 442,802
9 Claims. (Cl. 200—166)

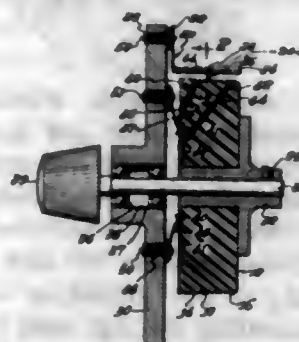


4. An electrical circuit component having improved contact surfaces which comprises a layer of electrically insulating thermoset resinous material, apertures through said layer throughout areas where wiping action contact is to be made, thin conductive metal in the form of circuit elements bonded to one surface of the resinous layer, said metal in the areas overlying the apertures in said layer being displaced through said apertures forming projecting contact points on the opposite surface of said layer.

2,823,287

POTENTIOMETER

Alfred J. Klose, Rolling Hills, Calif., assignor to G. M. Giannini & Co. Inc., Pasadena, Calif., a corporation of New York
Application August 10, 1953, Serial No. 373,411
4 Claims. (Cl. 201—59)

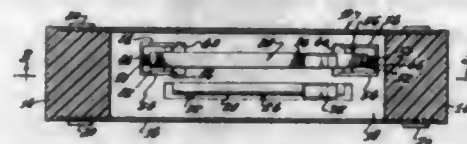


1. A potentiometer comprising support means defining a generally helical channel, an electrically conductive brush near the channel and longitudinally movable with respect to the channel, and a resistance element normally lying freely in the channel, a limited portion of the resistance element adjacent the brush passing over the outer face of the brush in spaced relation to the channel, said outer face being curved with an effective radius of curvature between about one-fifth and about one-half the radius of the helical channel, both edges of the brush in contact with said element being more sharply curved and providing increased contact pressure between the brush and the element.

2,823,288

POTENTIOMETER

Marian E. Bourns, Marvin E. Harrison, Robert M. Whitehorn, Wilbur T. Hardison, and Donald L. Gaa, Riverside, Calif.; said Harrison, Whitehorn, Hardison, and Gaa assignors to Bourns Laboratories, Inc.
Application May 16, 1955, Serial No. 508,403
4 Claims. (Cl. 201—62)



1. A new and improved potentiometer which includes, a non-conductive base member having upstanding ends; a cover fitting over said base member and said ends so as to form a cavity; means defining an elongated slot within said base member adjacent to said cavity; means

defining a slot in said base member leading from said elongated slot to the exterior of said cavity; a shorting strip including a generally U-shaped top having projections formed on one side thereof, and a dependent lug attached to the other side thereof positioned within said elongated slot with said lug projecting through said slot leading to the exterior of said cavity, said shorting strip being held in position by said projections engaging one side of said elongated slot so as to hold said other side of said U-shaped top against the other side of said elongated slot; means defining a second elongated slot within said base member adjacent to said cavity; means defining enlarged openings in said base member communicating with the ends of said second slot; means defining slots in said base member leading from said enlarged openings to the outside of said cavity; an electrical resistance element having ends positioned within said second slot with said ends projecting into said enlarged openings; spring contact clips, each including a center section having formed thereon a curved tongue having a projection formed thereon attached to said center section, side arms formed on said center section adjacent to said tongue, and projections formed on the adjacent sides of said side arms, said spring contact clips being positioned within said enlarged openings with part of said center sections projecting through said slots leading from said enlarged openings to the exterior of said cavity, said spring contact clips resiliently engaging the ends of said electrical resistance element; a shaft positioned so as to project through said cavity, the extremities of said shaft being supported by the ends of said base member; means for moving said shaft; a non-conductive block having an opening formed therein located within said cavity with said shaft projecting through said opening; a metallic coating on one surface of said block; and contact means attached to said metallic coating, said contact means including resilient fingers engaging said shorting strip and said resistance element.

2,823,289

INDUCTION HEATING METHOD AND APPARATUS

Theodore A. Beck, Salem, Ohio, assignor, by mesne assignments, to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware
Application February 14, 1955, Serial No. 487,940
20 Claims. (Cl. 219—10.41)



19. The method of heating metallic objects which comprises moving said objects in succession through an induction coil having a generally tubular structural liner, restraining the lateral movement of said objects during the movement through said induction coil, and controlling the inclination of the path of movement of said objects in such a manner that said objects are acted upon solely by magnetic and gravitational forces to cause the successive movement of the objects through the induction coil and the desired heating of the objects.

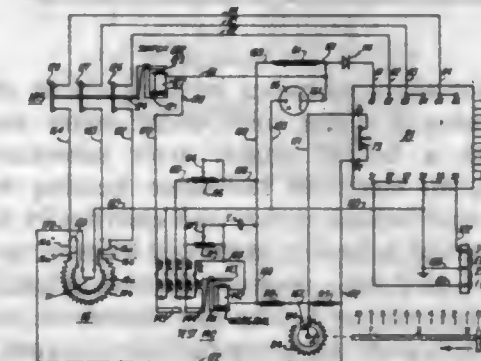
2,823,290

ELECTRIC HEATING APPARATUS

Roland O. Warner, Evergreen Park, Ill., assignor to General Electric Company, a corporation of New York
Application October 14, 1955, Serial No. 540,411
12 Claims. (Cl. 219—20)

1. In electric heating apparatus including an electric hotplate adapted to support a vessel to be heated, and a source of electric power: the combination comprising a unitary manually operable control switch connected to said source and having an automatic temperature control

position and a heat-setting position and an off position, a set of supply conductors connected between said control switch and said hotplate, a power switch serially included in said supply conductors between said control switch and said hotplate, said power switch having a normal closed position, and automatic temperature control equipment, said control switch being operative into its automatic temperature control position to enable said equipment and to connect said source to said supply conductors so that the heating of said hotplate is established upon a temperature control basis, said control switch being operative into its heat-setting position to connect said source to said supply conductors so that the heating of said hotplate is established upon a fixed heating rate basis, said control switch being operative into its off position to disconnect said source from said supply

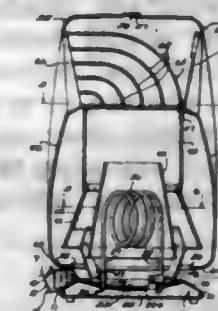


conductors and to disable said equipment; said equipment including a temperature sensing element operatively associated with a vessel supported by said hotplate, a temperature setting device having a control temperature range, means including a manually operable member operatively associated with said control switch for selectively governing said temperature setting device to set a desired control temperature in the control temperature range thereof, and means controlled in response to enabling of said equipment and selectively governed jointly by said temperature sensing element and by said temperature setting device for selectively operating said power switch between its closed and open positions in order selectively to effect heating of said hotplate so that the temperature of a vessel supported thereby is maintained substantially at the desired control temperature set by said temperature setting device.

2,823,291

SPACE HEATER OF THE CONVECTION CIRCULATION TYPE

Ronald M. Flandt, Milwaukee, Wis., assignor, by mesne assignments, to Preway Inc., Wisconsin Rapids, Wis.
Application July 21, 1954, Serial No. 444,679
17 Claims. (Cl. 219—34)



1. A space heater comprising in unitary connection a heating element, an inner stack encircling the heating element and open near its bottom to receive air to be heated, an outer stack encircling the heater stack and open near its bottom to receive air, and a series of spaced flow deflecting baffles inclined to the path of air flow and extending laterally at both sides of the outer stack and having laterally unobstructed spaces extending across the normal

path of flow at both sides of the outer stack, whereby to intercept rising air both inside and outside said stack and to intermix said air within said baffles.

2,823,292

DEVICE FOR THE CONTINUOUS HEAT TREATMENT OF TEXTILE YARNS

August Kunze, Wattwil, Switzerland, assignor to Heberlein Patent Corporation, New York, N. Y., a corporation of New York

Application July 31, 1956, Serial No. 601,202

1 Claim. (Cl. 219—36)



A device for the continuous heat treatment of textile yarns comprising a metal tube whose outer surface is provided with a helical groove over substantially its entire length, an electrical resistance heating wire disposed within said helical groove and electrically insulated therefrom, coaxial tube-like members secured to the opposite ends of said tube respectively and extending outwardly therebeyond, said tube-like members consisting of material with poor heat conductivity, a coaxial tube made of metal with good heat conductivity such as copper, said metal tube carrying said heating coil being disposed within said coaxial tube, and a layer of heat insulating material surrounding said metal tube, helical resistance wire, tubular extensions and coaxial tube.

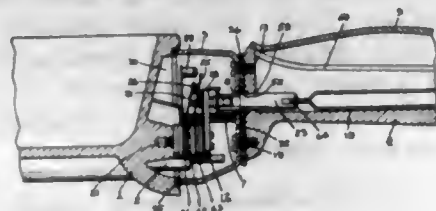
2,823,293

ELECTRIC SKILLET HANDLE STRUCTURE

Harvey Levine, Fairfield, Conn., assignor to General Electric Company, a corporation of New York

Application December 12, 1955, Serial No. 552,579

6 Claims. (Cl. 219—44)



1. A cooking vessel having wall means for mounting a handle comprising a thermostat fixed to said wall means, a cover surrounding and housing said thermostat, a first washer interposed between said wall means and said thermostat cover for providing a water-tight seal between said cover and said wall means, a hollow handle having an inner end and an outer end, means for mounting the inner end of said handle on said thermostat cover including a second washer interposed between said thermostat cover and said handle whereby to provide a water-tight seal between said thermostat cover and said handle, and a rotatable control shaft extending through said handle and said thermostat cover for setting said thermostat.

2,823,294

SQUEEZE ROLL ASSEMBLY

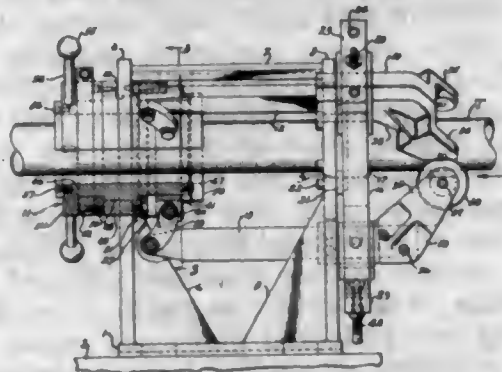
Thomas J. Crawford, Berkley, Mich.

Application March 9, 1955, Serial No. 493,267

14 Claims. (Cl. 219—59)

1. A squeeze roll assembly for use in induction tube-welding apparatus, comprising a plurality of non-magnetic rolls so constructed and arranged as collectively to engage and bear against substantially the entire periphery of the work, a support for each roll extending therefrom outwardly and then in the direction of advance of the

work through the assembly, a base adapted to be moved adjustably parallel to the path of work travel, means mounting the several supports and associated rolls on said base for movement as a unit therewith, a portion of such mounting means being rotatably supported for vari-



ably orienting the rolls and supports therefor rotatively with respect to the centerline of the assembly, adjusting means for individually radially positioning the rolls, and common adjusting means operative upon actuation to cause all rolls to move radially simultaneously and to equal extent.

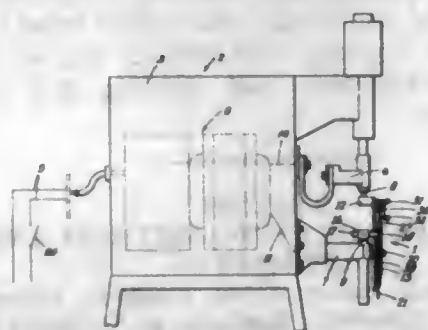
2,823,295

METHOD OF, AND APPARATUS FOR, ATTACHING INSERTS TO CIRCULAR SAW TEETH

William H. Wilcox, Stockton, Calif., assignor to California Cedar Products Company, Stockton, Calif., a corporation of California

Application January 11, 1957, Serial No. 633,559

11 Claims. (Cl. 219—78)



1. Apparatus for resistance welding of an initially separate insert to the tooth of a saw, comprising with a pair of electrode elements mounted in spaced dielectric relation and adapted to be connected to a source of welding current, a conductive support mounted on one of the elements, means to secure the saw on the support in electrical connection and with the tooth in a predetermined position, a conductive anvil mounted on the other electrode element, said anvil being disposed to support the insert for engagement by the tooth when the latter is in said predetermined position, and a contact member mounted on the support adapted to engage the tooth adjacent but clear of the insert and to establish direct electrical connection between said support and tooth.

2,823,296

APPARATUS FOR WELDING CONTACTS ONTO A PART

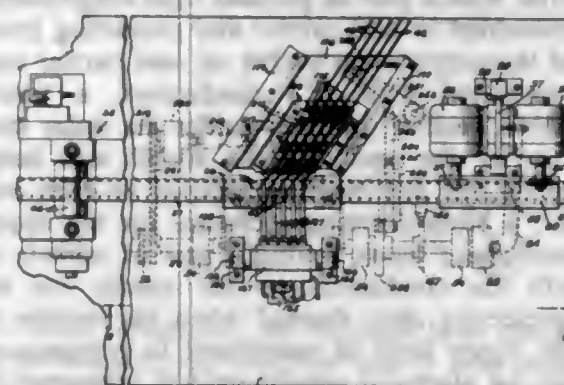
Robert C. Clough, Lombard, and Howard A. Dvorak, Brookfield, Ill., John S. Gellatly, Westfield, N. J., and Hubert A. Myers, Los Angeles, Calif., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application May 16, 1955, Serial No. 508,664

14 Claims. (Cl. 219—79)

1. In an apparatus for selectively welding contact tapes to either side of a metal strip, the combination of means for supporting a metal strip, means for feeding a tape of contact material in a plane toward the strip

supporting means and into overlapping relation to said strip, means for selectively moving said strip supporting means to one position to support the strip on one side of said plane and said tape and for moving said strip



supporting means to another position to support the strip on the other side of said plane and said tape, and means for welding together the overlapping portions of the tape and the strip.

2,823,297

METAL STUD PROVIDED WITH AN OPEN RECESS FOR A FLUX AT AN END THEREOF

Karl J. Avesten, Lidings, Sweden, assignor to Svenska Aktiebolaget Gasaccumulator, Lidings (near Stockholm), Sweden, a corporation of Sweden

Application December 28, 1953, Serial No. 400,823

Claims priority, application Sweden January 10, 1953

1 Claim. (Cl. 219—99)



A soldering stud for connection to a metallic surface by the use of electric arc techniques comprising a main part and an end contact part joined thereto and completely covering one end face of the main part, said end part having a lower melting point than that of the main part and having an end face of convex formation and being provided with a plurality of open recesses for accommodating flux, said recesses being substantially evenly distributed over said face and being of comparatively small cross section so as to be capable of retaining flux in the form of loose powder, the midportion of said face being free of said recesses to provide an arc-striking area.

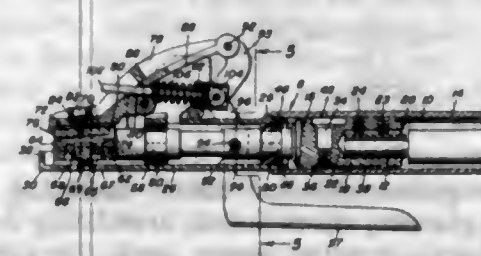
2,823,298

ELECTRODE HOLDER

Edmund T. Carrier, Highland Park, Mich.

Application November 28, 1955, Serial No. 549,246

6 Claims. (Cl. 219—138)



1. An electrode holder comprising a handle, a pair of jaws, a first of said jaws carried by said handle, an electrical conductor in said handle and connected with said first jaw, a lever pivoted to said handle, a rocker pivoted between its ends to said handle, the second of said jaws carried by one end of said rocker, a link pivoted to the opposite end of said rocker and to said lever, means including a spring reacting on said rocker in a direction tending to rotate said rocker about its pivot in a direc-

tion to move said jaws together in order to clamp the electrode therebetween, said rocker having an aperture, and a rod extending through said spring and said aperture and pivotally connected at one end at the junction of said link with said lever.

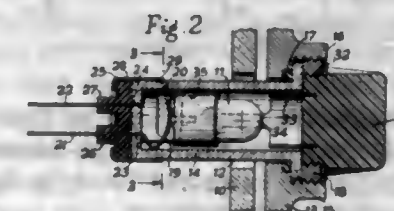
2,823,299

INSTRUMENT PANEL ILLUMINATOR

Major Squire, Friars Cliff, Christchurch, Charles Winton Turner, Bournemouth, and Bertram Stevens, North End, Durham, England, assignors to Thorn Electrical Industries Limited, London, England

Application January 16, 1956, Serial No. 559,358

7 Claims. (Cl. 240—8.16)



1. An electric lamp fitting for panel mounting comprising a hollow light-pervious cylindrical casing for insertion into an aperture in the panel, said casing having an end through which a lamp can be completely inserted, an outwardly projecting flange on said casing, a sealing washer upon said flange, clamping means for said casing whereby said washer can be compressed between said flange and the panel, a contact within and insulated from said casing for making electrical contact with said lamp, a sealing member of compressible insulating material sealing the other end of said casing and having an aperture, and a connection from said contact and passing in a gas-tight manner through last mentioned aperture.

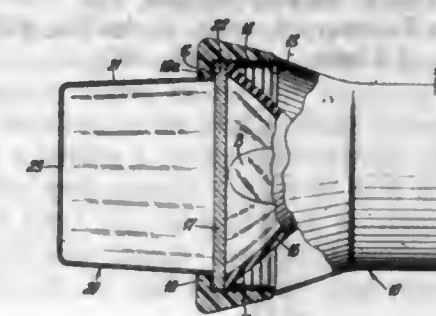
2,823,300

LIGHT MODIFYING ATTACHMENT FOR FLASHLIGHTS

Herman G. Graubner, New York, N. Y., assignor to Union Carbide Corporation, a corporation of New York

Application July 1, 1954, Serial No. 440,781

2 Claims. (Cl. 240—10.6)



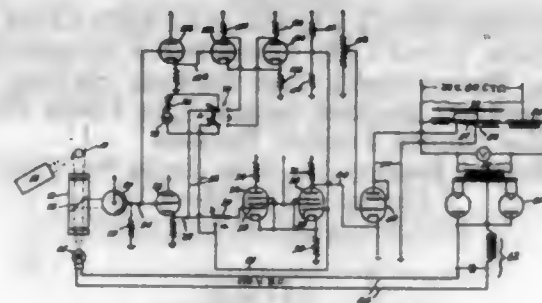
1. In combination, a flashlight and a quick detachable floodlight-signal flashlight attachment therefor, said flashlight comprising a casing, a bulb, a lens and an L-shape lens ring overlying the outer margin of said lens, said lens and lens ring defining an annular clearance space therebetween, said attachment comprising a flexibly bendable translucent polyethylene sleeve having an opening at one end thereof, an outwardly projecting annular retaining flange integral with said sleeve and adjacent said open end, said flange being wedge shaped and adapted for removable insertion in said clearance space without requiring disassembly of said flashlight, said sleeve being convergent away from said one end, whereby the light beam emitted from said flashlight is transmitted through said polyethylene sleeve to provide indirect illumination for floodlight or signalling purposes.

2,823,301

INSPECTION APPARATUS WITH CONSTANT HIGH INTENSITY LIGHT

Samuel N. Stevens, West Lafayette, Ind., assignor to The Timken Roller Bearing Company, Canton, Ohio, a corporation of Ohio

Application July 1, 1952, Serial No. 296,697
4 Claims. (Cl. 240-41)



1. In inspection apparatus responsive to light-reaction characteristics of inspected work, a high-intensity light source for illuminating the inspected work, a light-sensitive element responsive to intensity of light output from said light source for generating a voltage potential varying with the intensity of light from said light source, voltage amplifying means responsive to said varying voltage potential, an alternating current power line, a transformer and variable impedance device in series across said power line, said impedance device having a control winding in which varying direct current varies the impedance of the device, a direct-current supply circuit for said winding controlled by a control tube which itself is controlled by said voltage amplifying means, and a transformer output circuit connected to energize said light source, said voltage amplifying means comprising a pair of electron tubes connected in a bridge-type amplifying circuit between said light-sensitive element and a source of predetermined potential, a bridge circuit interposed in parallel therewith between said light sensitive element and said source of predetermined voltage potential, said bridge circuit containing an indicating device to indicate variations of the output potential of said light sensitive element with respect to said predetermined potential.

2,823,302

MOVABLE LAMP CARRIER

Ona J. Moyer, Stinnett, Tex.

Application February 4, 1954, Serial No. 408,164
1 Claim. (Cl. 240-65)



A signal light comprising a generally vertically disposed support member, an elongated channel-shaped track, means for attaching the track to the support member, said track having intumed flanges on the free edges of the legs thereof, said attaching means mounting one leg of the track against the side of said support member

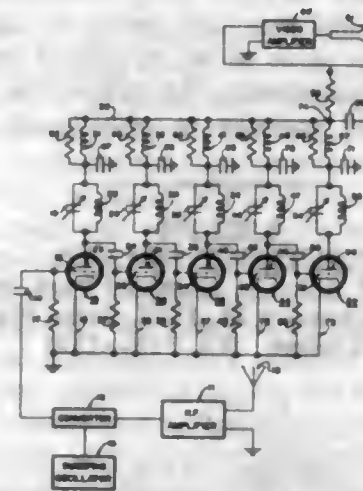
with the front and rear of the track being free, a carrier slidably mounted in said track with portions of the longitudinal edges of the carrier underlying the intumed flanges on the track, said carrier being constructed of insulating material with a pair of parallel rigid longitudinal conductors embedded in said carrier and projecting from the upper end thereof, a lamp socket on said carrier and electrically connected with said conductors, a transparent removable weather proof cover for the outer surface of the carrier for enclosing the socket and lamp positioned therein, an eye member secured to each end of said carrier, a block forming a closure for the upper end of the track, said block having a pair of sockets in alignment with the conductors on the carrier for receiving the projecting ends thereof when the carrier is disposed at its upper limit of movement in engagement with the block, an electrical supply conduit connected to the block and electrically connected to the pair of sockets for supplying electrical energy to the lamp socket when the projecting ends of the conductors are received in the pair of sockets in the block, said block having a longitudinal bore in alignment with the eye members on the carrier, a pulley mounted at each end of the track, a flexible line entrained over said pulleys with one end being terminally secured to the eye member on the lower end of the carrier, the other end portion of the line being terminally secured to the eye member on the upper end of the carrier and passing through said bore with the bore acting as a guide for the line, handle means on the lower pulley for rotation thereof and movement of the carrier in the track, and guide members disposed rearwardly of the track for guiding the flexible line between the upper and lower pulleys.

2,823,303

COMPRESSOR CIRCUITS FOR PANORAMIC RECEIVERS

Marcus A. McCoy, Los Angeles, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application October 29, 1953, Serial No. 389,052
3 Claims. (Cl. 250-20)



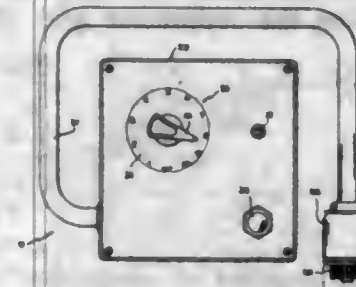
1. A compressor-detector circuit including, in combination a plurality of cascaded, translating device provided, grid-leak detector means each for progressively reducing the gain of a respective succeeding one of said means for increases in input signal strength to preclude the occurrence of current saturation of the said succeeding ones of said means for excessive signal strengths, each of said grid-leak detector means having an input circuit and also an output circuit coupled, except for the last means, to the said input circuit of a respective succeeding one of said means; and a common output load impedance coupled to said output circuits of said means for presenting a common current path therefor.

2,823,304

VACUUM TUBE SOCKET VOLTAGE TEST DEVICE

Merrill J. Shiels, Syracuse, N. Y.

Application August 2, 1955, Serial No. 525,980
6 Claims. (Cl. 250-20)



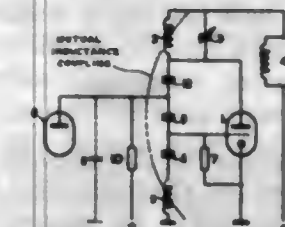
1. Test equipment for vacuum tube circuits comprising an adapter for insertion into a tube socket with the tube therefor inserted in the adapter, a selector switch having a plurality of taps and located at a point remote from said adapter, a plurality of terminals on said adapter corresponding to the pins of the tube inserted therein, a cable having a plurality of electrical conductors each of which is permanently secured at one end to one of the terminals of said adapter and at its other end to a corresponding tap on said switch, said cable having a separable pin and socket connection therein between said adapter and switch, and an electrical measuring instrument electrically connected to the movable arm of said selector switch.

2,823,305

NON-RADIATING FREQUENCY CONVERTER FOR A RADIO RECEIVER

Wilfried Aschermann, Hamburg-Harburg, Germany, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application February 20, 1956, Serial No. 566,440
Claims priority, application Germany March 10, 1955
5 Claims. (Cl. 250-20)



1. An additive mixing circuit comprising an electron-discharge device having an input electrode and an output electrode, a two-terminal source of operating voltage, a first coil and a first capacitor connected in series between said input electrode and one of said terminals, a resonant circuit comprising a second coil connected between said output electrode and the other one of said terminals, capacitor means connected for tuning said second coil to a desired oscillation frequency, means providing an inductive feedback coupling between said coils thereby producing an oscillation, a second capacitor and a third capacitor connected in series between said input electrode and said output electrode and having relative values of capacitance whereby substantially no energy from said oscillation occurs at the junction thereof, and a source of input signals connected to said junction.

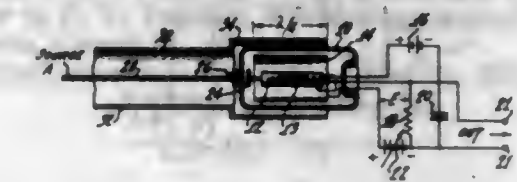
2,823,306

DETECTOR CIRCUIT

Louis Malter, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 13, 1953, Serial No. 348,395
5 Claims. (Cl. 250-27)

1. A detector comprising a gas diode having a sealed envelope, a gas within said envelope, an anode within

said envelope, and an equipotential cathode within said envelope, means to heat said cathode, a load impedance, means to apply a voltage in series with said impedance between said anode and cathode to operate the tube in a mode having the major portion of the space between cathode and anode filled with a dark plasma, and means to couple a radio frequency electromagnetic energy field

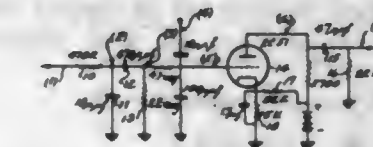


2,823,307

COINCIDENCE CIRCUIT

Robert R. Freas, Jr., Collingswood, and Jenness P. Engley, Runnemede, N. J., assignors to the United States of America as represented by the Secretary of the Air Force

Application November 6, 1953, Serial No. 390,769
6 Claims. (Cl. 250-27)



1. A coincidence circuit comprising an electron tube having a grid, an anode and a cathode, a filter network comprising a low-pass filter section and a high pass filter section connected in cascade, means for applying a comparatively low frequency square wave to the input of said filter network, said low-pass filter section being designed to block the high frequency components of said square wave and said high-pass filter section being designed to block the low frequency components of said square wave whereby the output of said filter is a series of alternately positive and negative pedestals occurring at the positive-going and negative-going edges, respectively, of said square wave, means for applying the output of said filter network to the grid-cathode circuit of said tube, means for applying a comparatively high frequency pulse wave to the grid-cathode circuit of said tube, means for applying a fixed bias to said grid, an output circuit, and a differentiating circuit connected between the anode-cathode circuit of said tube and said output circuit.

2,823,308

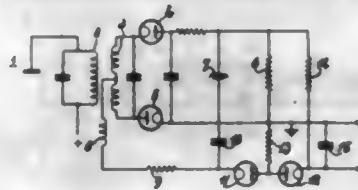
FM RECEIVER ARRANGEMENT

Peter Johannes Hubertus Janssen and Wouter Smeulders, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application June 3, 1954, Serial No. 434,224
Claims priority, application Belgium June 5, 1953
4 Claims. (Cl. 250-27)

1. A frequency-modulation receiver comprising a ratio detector circuit having an input impedance, means for producing frequency-modulated signals in said input impedance, a first rectifier having an anode connected to an end of said input impedance, a second rectifier having a cathode connected to the other end of said input impedance, a parallel combination of a resistor and a capacitor connected between the remaining electrodes of said

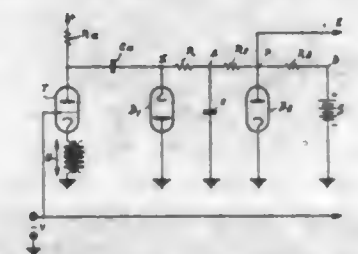
rectifiers, said parallel combination having a relatively large time constant so as to cause rejection of any amplitude modulation of said signals, a pair of rectifiers, means connecting an electrode of one of said pair of rectifiers to the corresponding electrode of the other of said pair of rectifiers, a low-pass filter connected between the re-



maining electrode of one of said pair of rectifiers and a point on said input impedance, a resistor connected between said corresponding electrodes and one end of said parallel combination, and a resistor connected between the remaining electrode of the other one of said pair of rectifiers and the other end of said parallel combination.

2,823,309

GAIN CONTROL FOR WIRELESS RECEIVER
Bernard Pouzols, Saint Cloud, France, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 6, 1954, Serial No. 473,321
Claims priority, application France December 24, 1953
4 Claims. (Cl. 250-27)



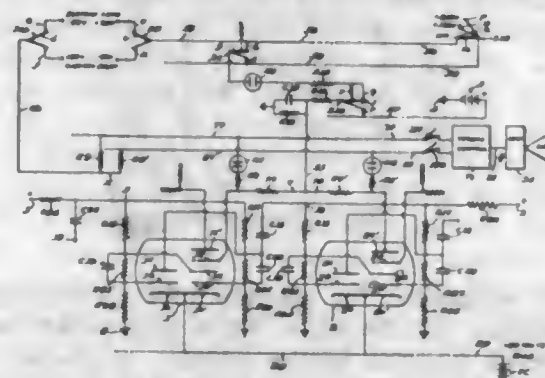
1. In an automatic volume control system, a circuit arrangement comprising an electron discharge device having a plurality of electrodes, means for applying an automatic volume control voltage to one of said plurality of electrodes thereby to vary the gain of said device, means for applying an alternating voltage to a second of said plurality of electrodes, means for deriving an alternating voltage from a third of said plurality of electrodes, means for rectifying the derived alternating voltage thereby to produce a first direct voltage, means for producing a second direct voltage, means for combining said first direct voltage with said second direct voltage to produce a resultant voltage, and means coupled to said combining means for limiting the magnitude of said resultant voltage to a relatively low absolute value when the magnitude of said automatic volume control voltage is below a predetermined absolute value.

2,823,310

ELECTRICAL MUSICAL INSTRUMENT
Walter J. Anderson, Elgin, Ill., assignor, by mesne assignments, to Chicago Musical Instrument Company, Chicago, Ill., a corporation of Illinois
Application October 28, 1955, Serial No. 543,293
13 Claims. (Cl. 250-27)

1. In an electric organ, a plurality of thermionic tubes respectively producing output signals at octavely related frequencies, each of said tubes comprising a cathode, control grid, screen grid, suppressor grid and a plate; a timbre control system; collectors; each collector including switch means for connecting same to said timbre control system for conduction to said system of signal voltage impressed on said collector; a source of B+ voltage; a path connecting one of said collectors to the suppressor

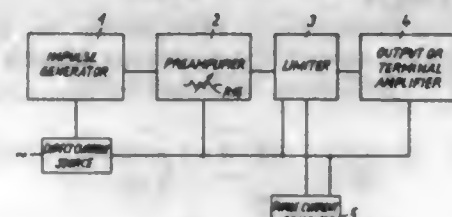
grid of one of said thermionic tubes, said path having therein a gas contained tube which is nonconductive when the gas therein is extinguished; a second path including a gas contained tube connecting the plate of the other thermionic tube to the other collector; and a keying circuit for connecting the suppressor grid of one of said



thermionic tubes and the plate of the other thermionic tube in closed circuit with said source of B+ potential for applying positive potential thereto and to ionize the gas in said gas contained tubes to thereby render said gas contained tubes conductive for impressing the outputs of the respective thermionic tubes on the respective collectors.

2,823,311

APPARATUS FOR APPLYING PULSES TO MUSCLES AND NERVES FOR ELECTROMEDICAL STIMULATION
Robert Bastir, Erlangen, Germany, assignor to Siemens-Reiniger-Werke Aktiengesellschaft, Erlangen, Germany, a German corporation
Application August 16, 1952, Serial No. 304,699
Claims priority, application Germany August 27, 1951
27 Claims. (Cl. 250-36)



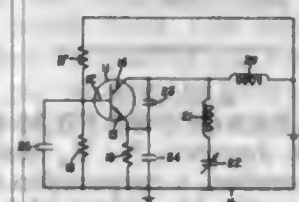
1. Apparatus for generating impulses and for applying said generated impulses for electromedical stimulation of muscles and nerves comprising an impulse generator for producing successive series of impulses of triangular shape, two independently adjustable time constant determining switching means in said generator for independently respectively regulating the duration of said impulses and the duration of the pauses therebetween, an amplifier connected with the output of said generator for receiving said triangular impulses therefrom and for amplifying said impulses, and an impulse limiter for receiving said amplified triangular impulses, said amplifier amplifying said triangular impulses to a magnitude such that said limiter can extract therefrom impulse components constituting impulses of practically rectangular shape.

2,823,312

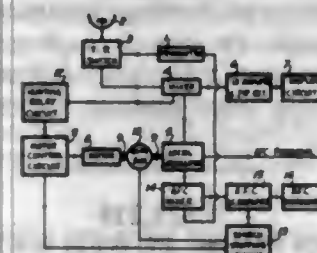
SEMICONDUCTOR NETWORK
Edward Keonjian, Syracuse, N. Y., assignor to General Electric Company, a corporation of New York
Application January 26, 1955, Serial No. 484,237
6 Claims. (Cl. 250-36)

1. A semiconductor network tuned to a predetermined frequency comprising a junction semiconductor device whose impedances are affected by ambient temperature and the energization thereof, said semiconductor device having base, emitter and collector electrodes, a tuned circuit coupled between two of said electrodes, a source of energizing potentials and a frequency stabilization cir-

cuit comprising an ambient temperature sensitive voltage divider having end terminals connected to the respective terminals of said source and an intermediate terminal connected to said base electrode, at least one leg of said



ELECTRIC OSCILLATION GENERATOR SYSTEMS
Wilfred Percy Robins, Greenford, England, assignor to The General Electric Company Limited, London, England
Application July 27, 1955, Serial No. 524,724
Claims priority, application Great Britain July 28, 1954
3 Claims. (Cl. 250-36)

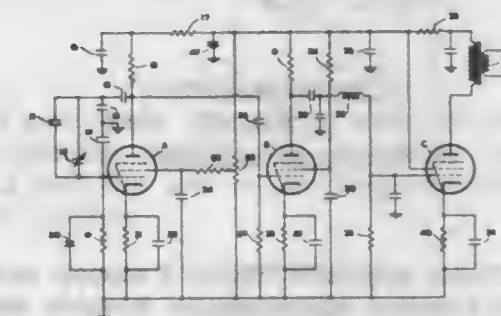


1. An electric oscillation generator system comprising an electric oscillator which has both a mechanical frequency control and a control path over which an electric signal can be supplied to effect electrical frequency control and which is of the kind having one or more modes of operation in each of which, for a given setting of the mechanical frequency control, a change through a range of values of the amplitude of the electric signal supplied over the control path causes the power output to rise from a relatively low value, pass through a maximum, and fall to a low value again as the frequency varies, an input path, an electronic automatic frequency control circuit which supplies to the said control path an electric signal having an amplitude that is within limits a measure of the divergence of the difference between the frequency of operation of the oscillator and a control oscillation supplied over the input path from a predetermined value and which operates within the said limits to control the oscillator to reduce the said frequency difference, a search operation system which is operated when the frequency on a predetermined side of the frequency of the control oscillation and separated therefrom by the said difference is outside the said limits and which causes the mechanical frequency control of the oscillator to be driven at a first speed so that the center frequency of the selected mode of oscillation is swept continuously over a range of frequencies, a search stopping circuit to stop the operation of the search operation system when the frequency on the predetermined side of the frequency of the control oscillation and separated therefrom by the said difference falls within the said limits so that the electronic automatic frequency control circuit then operates to reduce the said difference, and a hunting operation system which is operated when the search stopping circuit is actuated as aforesaid and which causes the mechanical frequency control of the oscillation to be driven backwards and forwards at a second speed, which is different from the first speed, between limits at

which the power output from the oscillator does not fall by more than a predetermined amount from its maximum value.

2,823,314

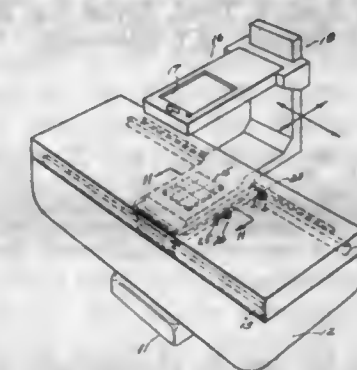
OSCILLATOR CIRCUIT
Frederick Victor Topping, Toronto, Ontario, Canada, assignor to F. V. Topping, Electronics Limited, Toronto, Ontario, Canada
Application June 26, 1956, Serial No. 593,966
1 Claim. (Cl. 250-36)



In an oscillator including a resonator having a pair of terminals coupled to a vacuum tube of the class wherein the magnitude of the oscillations is limited by the voltage between control grid and cathode: a cathode bias resistor, a grid leak resistor connecting said control grid to ground, a crystal diode rectifier in parallel with said resistor, with its polarity arranged to conduct when the control grid is positive with respect to the ground, and a condenser connected between each of said resonator terminals and ground.

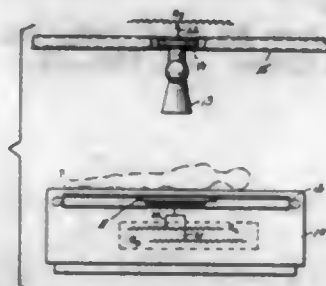
2,823,315

X-RAY APPARATUS AND CONTROL
Robert J. Stava, University Heights, and Walter G. Reininger, Cleveland, Ohio, assignors to Picker X-Ray Corporation, Cleveland, Ohio, a corporation of Ohio
Original application June 3, 1950, Serial No. 166,016, now Patent No. 2,673,627, dated March 30, 1954. Divided and this application January 9, 1951, Serial No. 205,088
4 Claims. (Cl. 250-58)



1. An X-ray apparatus comprising in combination, a table, a movable member carried by said table and adapted for longitudinal and crosswise motion relative to said table, a pair of electro-magnetic locks associated therewith and each including a magnet and energizing coil, one of said electro-magnetic locks being arranged to arrest longitudinal movement of said movable member, and the other electro-magnetic lock being arranged to arrest crosswise movement of said member, a source of electrical energy for said coils, a circuit including a line switch and a centering switch, said line switch connecting said coils to said source of energy when the switch is in one position and when in another position connecting said coils to said source through said centering switch, whereby neither of said electro-magnetic locks can be energized until said movable member is centrally positioned crosswise of said table.

2,823,316
CENTERING DEVICE FOR X-RAY APPARATUS
 John A. Reynolds, White Plains, N. Y., assignor to Picker X-Ray Corporation, Waite Mfg. Div. Inc., Cleveland, Ohio, a corporation of Ohio
 Application August 17, 1953, Serial No. 374,540
 6 Claims. (Cl. 250-58)



1. In an X-ray apparatus having a support and a pair of operative members independently movable relative to the support and each other, an electrical bridge circuit having a plurality of branches adapted to be adjusted to an electrically balanced condition consequent upon the members occupying a predetermined position relative to each other, means actuated by movement of one of said members to adjust one of said branches to establish a reference condition in the bridge circuit corresponding to an attained position of said one member with respect to the support, means actuated by a movement of the other member for automatically adjusting another of said branches in accordance with said position of the other member with respect to the support, and means for visually indicating the electrical condition of the bridge circuit to determine the relative position of the members with respect to each other.

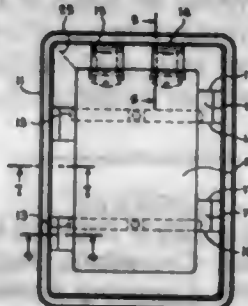
2,823,317
PHOTOGRAPHIC APPARATUS
 Murry N. Fairbank, Belmont, Mass., assignor to Polaroid Corporation, Cambridge, Mass., a corporation of Delaware
 Application April 5, 1952, Serial No. 280,716
 16 Claims. (Cl. 250-68)



1. A magazine for use in photography comprising a casing having a plurality of edge portions and a pair of opposed face portions, at least one of said face portions having an opening, a resilient diaphragm secured to said one of said face portions along the edges of said opening, at least one of said face portions providing a path for actinic radiation, said edge portions being rigid, said casing defining a chamber within which a photosensitive sheet may be exposed and thereafter processed by spreading a processing composition between said photosensitive sheet and another sheet, a slide at least substantially coextensive with said path, one of a pair of opposed edge portions of said plurality having a passage through which said sheets may be inserted into and removed from said chamber, the other of said pair of opposed edge portions of said plurality providing a passage through which said slide may be inserted into and removed from said chamber, means for rendering said passages lighttight, said diaphragm maintaining said chamber lighttight in illuminated surroundings while transmitting

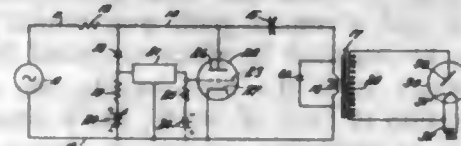
opposed compressional forces into said chamber from pressure-applying means on opposite sides of said casing, whereby a layer of processing composition from said supply may be spread between adjacent surfaces of said photosensitive and other sheets.

2,823,318
EXPANSIBLE BRACE FOR FILM CASSETTE
 Leonard W. Gacki, Jamaica, N. Y., assignor to X-Ray Instrument Corporation, a corporation of New York
 Application December 16, 1954, Serial No. 475,805
 6 Claims. (Cl. 250-68)



1. A compressible, molded liner for the frame of an X-ray film cassette comprising a molded form insertable within said frame and having portions of its structure removed to provide for the free movement of clamps restrainably associated with said frame; projections of said form providing stops limiting the movement of said clamps.

2,823,319
PRECISION PULSE POWER GENERATOR
 Carl A. Vossberg, Umatilla, Fla.
 Application August 16, 1956, Serial No. 604,510
 19 Claims. (Cl. 250-98)



1. A pulse regulator of the class described, comprising in combination, an input circuit adapted for energization from an alternating current source, an output circuit adapted for connection to utilization means, energy storage means, circuit control means for connecting said storage means to said output circuit to produce a discharge of energy therefrom, circuit means connecting said storage means to said input circuit to be energized therefrom, and a threshold circuit connected to said storage means and to said circuit means, said threshold circuit being further connected to said circuit control means, said threshold circuit actuating said circuit control means for terminating said energizing of said storage means when it has become energized to a predetermined fixed energy level determined by said threshold circuit, whereby operation of said circuit control means after said termination of said energizing will produce a pulse of predetermined precisely fixed magnitude in said output circuit notwithstanding voltage fluctuations in said alternating current source.

2,823,320
POWER PRODUCING UNIT
 Carl Folke Larsson, Finspong, Gustav Axel Themer, Trollhattan, and Frans Eric Ossian Östmar, Finspong, Sweden
 Application November 16, 1954, Serial No. 469,258
 Claims priority, application Sweden November 23, 1953
 1 Claim. (Cl. 290-4)

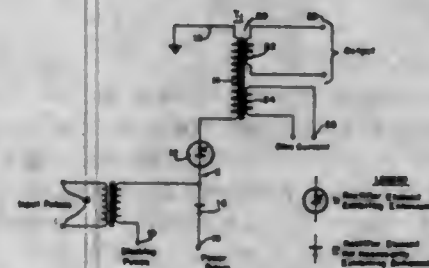
A power-producing unit comprising in combination, an electric generator, a gas turbine for mechanically

driving said generator, a gas producing unit for delivering driving gas to said gas turbine, said unit including a compressor, a combustion chamber and another gas turbine in series arrangement, a common shaft supporting said compressor and said other gas turbine for transferring driving power from said other turbine to said compressor, a duct for passing gas from said unit to the first-mentioned gas turbine, a friction clutch for connecting said generator to the first-mentioned gas turbine, a



spring device for throwing said clutch out of gear, a compressed air receptacle, a conduit for passing compressed air from said receptacle to said clutch for throwing same into gear against the action of said spring device, a valve mechanism in said conduit controlling the flow of compressed air therethrough, and an impulse conduit leading from behind the compressor of the gas producing unit to said valve mechanism for opening the valve upon the attainment of a predetermined air pressure as generated by said compressor.

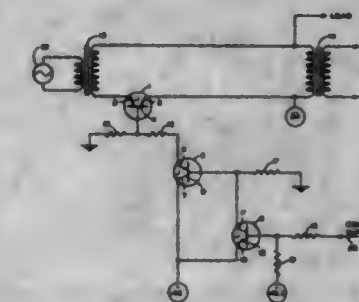
2,823,321
GATE AND BUFFER CIRCUITS
 John C. Sims, Jr., Springhouse, Pa., assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
 Application May 3, 1955, Serial No. 505,709
 19 Claims. (Cl. 307-88)



1. A control circuit comprising a core of saturable magnetic material, means for saturating said core in a predetermined direction, a winding on said core, a plurality of semiconductor rectifiers each of which has a terminal thereof coupled to said winding, control means for effecting forward current flow through selected ones of said rectifiers thereby to condition said selected rectifiers for reverse current flow therethrough, and drive means for thereafter driving current in a reverse direction through said conditioned rectifiers and thence through said winding thereby to drive said core through an unsaturated region of its hysteresis loop.

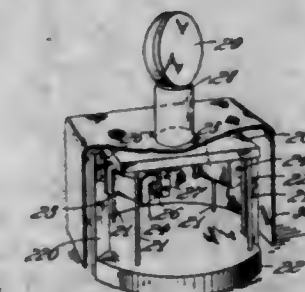
2,823,322
ELECTRONIC SWITCH
 Robert B. Trousdale, Webster, N. Y., assignor to General Dynamics Corporation, a corporation of Delaware
 Application August 23, 1955, Serial No. 530,155
 2 Claims. (Cl. 307-88.5)

1. In combination, an electronic switch comprising a semi-conductive device having first and second electrodes, a control electrode, a first emitter-collector junction between said first and control electrodes, and a second emitter-collector junction between said second and control electrodes, a source of signals, a source of potential, a load impedance having first and second terminals, means for connecting said source of signals between said first electrode and said first terminal of said load impedance, means for connecting both said second electrode and said second terminal of said load impedance to said source of potential.



value of said signals determining which of said first and second junctions functions as an emitter junction and which of said first and second junctions functions as a collector junction.

2,823,323
MAGNETICALLY ACTUATED MECHANISM FOR ARTICLE DISPLAY
 Ake Magnus Lamm, Harpenden, England
 Application June 25, 1952, Serial No. 295,579
 Claims priority, application Great Britain July 26, 1951
 6 Claims. (Cl. 310-20)

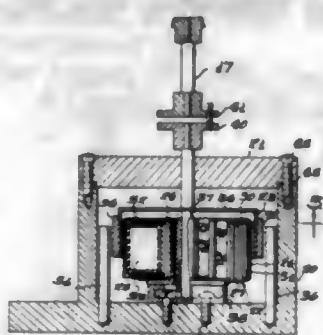


1. Display mechanism for rotating an exhibit, said mechanism comprising an exhibit-supporting member on which the exhibit freely rests, means for imparting oscillations to the supporting member around substantially the same axis as that around which the exhibit is to rotate and solely in planes normal to said axis, said oscillations being of such small amplitude and high frequency as to be invisible to the naked eye and having a greater angular speed in one direction of the oscillatory movement than in the other so that during the slower of the two movements of the supporting member the exhibit is caused to follow the movement of said member at least in part, whereas during the faster of the two movements, the inertia of the exhibit prevents it from following the movement of the supporting member to the same angular extent as during the slower movement, the oscillation-imparting means including an electro-magnet for moving the supporting member in one direction at relatively low speed, means for intermittently energizing said magnet, and resilient means opposing the magnet-generated movements of the said member and operative to effect the reverse movements of the member at a relatively high speed when the magnet is de-energized.

2,823,324
STEP-BY-STEP MOTOR
 William L. Davis, Denver, Colo., assignor, by mesne assignments, to Hamilton Watch Company, Lancaster, Pa., a corporation of Pennsylvania
 Application October 19, 1954, Serial No. 463,277
 5 Claims. (Cl. 310-49)

1. A pulse motor comprising a coil surrounded by a plurality of field casing members for producing a multipolar field formation, a plurality of magnetic members spaced from said field casing members to shade the poles of said field formation, and a rotor having two arms each

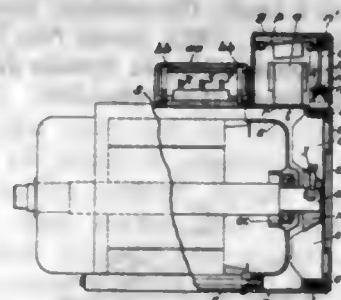
provided with a permanent magnet providing leading and trailing pole tips of opposite polarity and arranged to



move between said field casing members and said magnetic pole shading members.

2,823,325 COMBINATION MOTOR AND MAGNETIC BAND TYPE BRAKE

Alfred Stephan, Hameln (Weser), Germany, assignor to A. Stephan u. Söhne, Hameln, Germany
Application November 7, 1955, Serial No. 545,486
11 Claims. (Cl. 310-77)



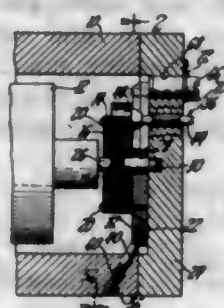
1. In a brake mechanism, a brake drum, a split ring comprising a brake band substantially surrounding the brake drum and including a pair of stop faces fixed at opposite ends of the ring, the brake band having the characteristic of being resilient and the ends being free to move toward one another and in either direction of rotation of the drum, a pair of movably mounted spaced abutments each positioned to selectively engage a co-operating stop face on the brake band, the abutments being spaced a selected initial distance, means for selectively moving the abutments closer together and for reducing the diameter of the brake band when the drum is to be braked and means for moving them apart for permitting the brake band to form a substantially concentric gap between it and the brake drum and releasing the drum, whereby when the abutments are moved closer together said abutments engage the stop faces and move the ends of the brake closer together so that the brake band engages the brake band and the stop face leading in the direction of rotation is kept from rotating by its cooperating abutment and the opposite end is permitted to move in the direction of rotation so that the brake band automatically wraps around the drum and brakes it regardless of the direction of rotation.

2,823,326 MICROSYN MOUNTING AND ADJUSTING MECHANISM

John M. Gerty, Menomonee Falls, Wis., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 25, 1955, Serial No. 548,812
7 Claims. (Cl. 310-90)

1. Means for mounting and positively concentrically positioning the stator of an electromagnetic device with respect to its rotor comprising a housing having an end wall, a circular mounting plate adapted to have said stator mounted on a face thereof and having a conical tapered portion extending about its periphery, a pair of angularly spaced adjustment shafts adapted to effect trans-

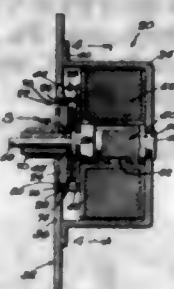
lational adjusting movement of said mounting plate, each of said shafts extending through said housing end wall and having a complementary conical end portion contacting said conical portion of said mounting plate, and



a spring urged element seated in said housing and contacting said conical portion of said plate and holding the plate against said conical portions of said adjustment shafts.

2,823,327 REACTION-TYPE SYNCHRONOUS MOTOR WITH LIFELONG PERMANENT MAGNET ROTOR

Walter Kohlhausen, Elgin, Ill., assignor to The E. Ingraham Company, Bristol, Conn., a corporation of Connecticut
Application July 22, 1955, Serial No. 523,733
16 Claims. (Cl. 310-162)



1. In a synchronous reaction-type motor, the combination of a permanent magnet rotor having poles of opposite signs; and a field structure comprising a stator of non-permanent magnetic material having sets of circularly arranged field poles in cooperating relation with said rotor poles with successive poles of said sets alternating with and spaced from each other, and a field coil in flux-inducing relation with said stator, said rotor having such a minimum cross-sectional area as permanently to lose magnetic strength on subjection to abnormal flux surges induced by current surges above a normal maximum current flow in said coil, and said stator being over a sufficient length of its flux path therein of such minimum cross-sectional area that its maximum flux density at the normal minimum voltage is below substantial saturation, but at said normal maximum voltage has reached such saturation as to prevent permanent demagnetization of said rotor under transient conditions.

2,823,328 MOUNTING FOR COLOR-CONTROL ELEMENTS IN CATHODE-RAY TUBES

Harvard B. Vincent, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application April 20, 1956, Serial No. 579,549
11 Claims. (Cl. 313-64)



1. A hollow glass face plate for a cathode-ray tube comprising a curved viewing portion and an annular flange portion extending around the periphery of said

viewing portion, support members positioned along the inner surface of said flange, at least one opening in each support member, and vitreous material extending through said opening fusedly attaching said support member to said flange.

2,823,329 CHAMBER SPARK-PLUGS WITH MULTIPLE IGNITION AND CENTER ELECTRODE

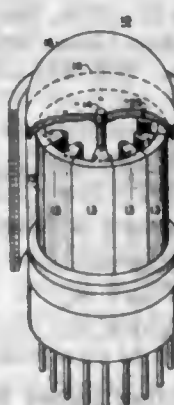
Franz Saul, Göttingen, Germany, assignor to Walther Hein, Halger-Dillkreise, Germany
Application August 28, 1953, Serial No. 377,121
Claims priority, application Germany September 12, 1952
3 Claims. (Cl. 313-141)



1. A sparking plug for internal combustion engines, comprising a sparking chamber having a wall forming part of the wall of the combustion chamber of the engine, said wall being formed with a central opening therein in the form of a nozzle which is of diminishing cross-sectional area from the terminus of said chamber towards the interior of said sparking chamber to form an inwardly tapered central opening having a length restricted to the thickness of the end wall of said sparking chamber, a central electrode passing through said sparking chamber and into said central opening, said central electrode having an ignition end of conical form which tapers in the opposite direction with respect to said inwardly tapered central opening, whereby ignition occurs simultaneously in said sparking chamber and in the combustion chamber of the engine, said wall of said sparking chamber being formed with a series of openings circumferentially disposed about said central opening and directed inwardly of said sparking chamber and towards the tapered end portion of said central electrode.

2,823,330 ELECTRON TUBE STRUCTURE AND MANUFACTURE

Leo R. Landrey, Wayne, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application April 20, 1955, Serial No. 502,558
18 Claims. (Cl. 313-157)



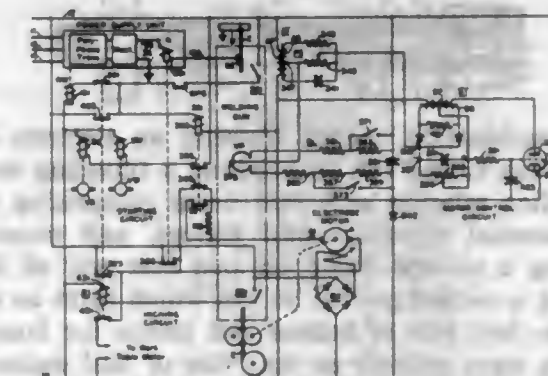
5. In an electron discharge device, a plurality of insulator segments, a plurality of electrodes on each of said segments, and means for retaining said segments in successively abutting arrangement to hold said electrodes in a precise relative spatial arrangement.

2,823,331

ARC WELDING APPARATUS

Harry J. Bichsel, East Aurora, and Alfred J. Baeslack, Buffalo, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application October 29, 1954, Serial No. 465,600
13 Claims. (Cl. 314-70)

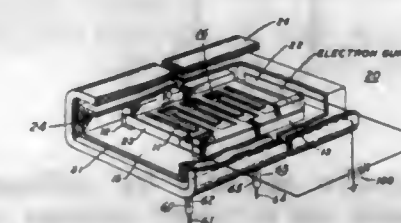


1. Apparatus for arc welding work with a consumable electrode including a motor for driving said electrode, a motor control circuit connected to said motor, a braking circuit for said motor connected to said motor, said braking circuit being closed in the stand-by condition of said apparatus, a starting switch for said apparatus; said apparatus being characterized by the fact that said motor control circuit is open in the stand-by condition of said apparatus and by means responsive to actuation of said starting switch for first opening said braking circuit and thereafter closing said motor control circuit when starting to weld, said responsive means including means preventing the closing of said motor control circuit through said braking circuit.

2,823,332

MICROWAVE AMPLIFIER DEVICE

Robert C. Fletcher, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 8, 1951, Serial No. 230,569
9 Claims. (Cl. 315-3.5)

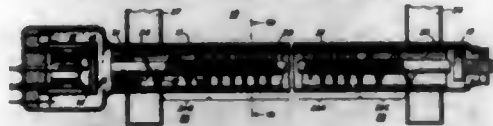


1. In a device which utilizes the interaction between an electron beam and a traveling electromagnetic wave, an electron source and a target electrode spaced apart for defining therebetween a path of electron flow; a wave transmission circuit positioned along said path of flow for propagating a traveling electromagnetic wave in coupling relation with said electron flow, said wave transmission circuit comprising a conductive base plate, two conductive supports spaced apart along their lengths and extending parallel to the path of electron flow, each support being conductively connected for high frequency current flow to said base plate, and a plurality of conductive elements spaced apart in an array parallel to the path of flow, adjacent elements of said array being conductively connected for high frequency current flow to an opposite one of said conductive supports and alternate elements being conductively connected for high frequency current flow to the same conductive support, said wave transmission circuit being characterized in that the spacing between the base plate and the array of elements along a major portion of the length of the elements is less than the mean separation between adjacent elements of the array; and signal coupling means in energy coupling relation with said wave transmission circuit.

2,823,333

TRAVELING WAVE TUBE

Calvin F. Quate, Berkeley Heights, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 29, 1954, Serial No. 465,580
9 Claims. (Cl. 315—3.6)

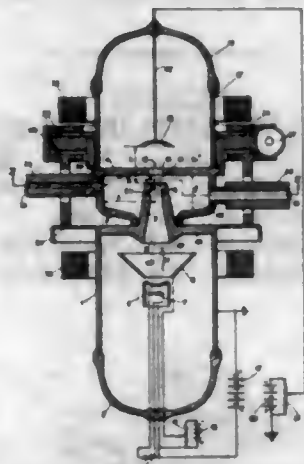


1. In combination, means forming an electron beam, an interaction circuit for propagating a traveling wave in field coupling relation with said beam comprising a first pair of coaxial counterwound helices, and means for establishing a normal mode on said first pair of helices comprising a second pair of helices which form an extension of the first pair of helices and means for launching a traveling wave entirely on only one of said second pair of helices for subsequent division of the wave energy between said first pair of helices.

2,823,334

MILLIMETER WAVE GENERATING REFLEX KLYSTRON

Hubert Leboutet, Paris, France, assignor to Compagnie Generale de Telegraphie Sans Fil, a corporation of France
Application May 13, 1955, Serial No. 508,090
Claims priority, application France May 18, 1954
7 Claims. (Cl. 315—5.22)



1. A reflex klystron oscillator for millimeter waves having an evacuated and elongated envelope comprising a first cylindrical portion having a first and a second end, a first plate perpendicular to its cylindrical axis, closing said first end, extended at its center by a hollow conical axially positioned member and terminated by a first aperture and a second aperture at its two respective ends; a second cylindrical portion coaxial with said first cylindrical portion, having a first end and a second end, a second plate perpendicular to its cylindrical axis closing its first end and having a third axially positioned aperture; a third portion constituting a cavity resonator bounded by said first plate, said hollow conical member and deformable walls; said cavity resonator being dimensioned for resonating at a fundamental frequency and at least at one predetermined higher frequency, in the millimeter range, and having a gap bounded by said second aperture and said third aperture; said oscillator further comprising: means for deforming said deformable walls to tune said cavity resonator to a fundamental frequency which is a subharmonic of said predetermined higher frequency of an order at least equal to ten; said first cylindrical portion including a source of electrons mounted adjacent said first aperture for projecting a beam of electrons through said hollow conical member, said gap and said third aperture; said gap being dimensioned for cou-

pling said beam and ultra-high frequency wave at said higher frequency; said second cylindrical portion including a reflector electrode for reflecting electrons back through said third aperture, said gap, and said conical member; at least a first output for energy at said fundamental frequency and at least a second output for energy at said higher frequency.

2,823,335

VANE TYPE NETWORK ATTENUATION MEANS

Edward C. Dench, Needham, and Richard A. Handy, Belmont, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application October 21, 1955, Serial No. 542,111
1 Claim. (Cl. 315—39.3)

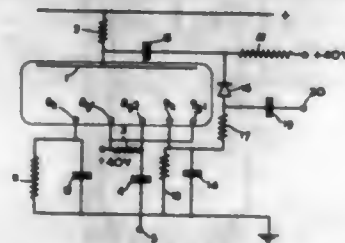


In a traveling wave amplifier, a cylindrical anode, a series of flat similarly shaped conductive vanes secured to the inner surface of said anode, parallel to the axis of said anode, and at regularly spaced intervals about a sector of the circumference of said anode whereby the remaining sector of the circumference has an arcuate extent which is substantially greater than the interval between vanes and whereby said vanes extend radially part way toward the axis of said anode to define a series of similarly configured resonant cavities, a cathode disposed coaxially within said anode and spaced from the ends of said vanes, means secured to said anode at one end of said series and adapted for the application of an input signal into the resonant cavity at the one end of said series, means secured to said anode at the other end of said series and adapted for the extraction of an output signal from the resonant cavity at the other end of said series, an arcuate flat attenuating means of the same radius as the inner surface of said anode and of arcuate length equal to the sector occupied by said vanes, one flat surface of said attenuating means engaging one edge of each of said vanes, and means having good heat conductivity connecting the peripheral surface of said attenuating means with the inner surface of said anode.

2,823,336

COLD-CATHODE COUNTER TUBE CIRCUIT ARRANGEMENT

Gerald Offley Crowther, New Malden, England, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 21, 1956, Serial No. 573,008
Claims priority, application Great Britain March 31, 1955
8 Claims. (Cl. 315—84.6)

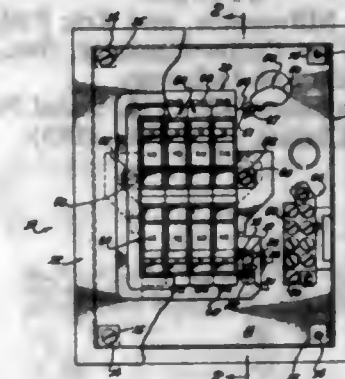


1. A device for counting pulses by means of at least two glow discharge counting tubes connected in cascade, each tube comprising a number of electrode groups and a common anode and each group of electrodes comprising a main cathode, an auxiliary cathode and a control electrode, the discharge being transferred from one group to the next by means of a negative pulse at the

2,823,339

CIRCUIT BREAKER PANEL BOARD

Ross E. Locher, San Marino, Calif., assignor to Zinsco Electrical Products, Los Angeles, Calif., a corporation of California
Application August 23, 1954, Serial No. 451,501
10 Claims. (Cl. 317—119)

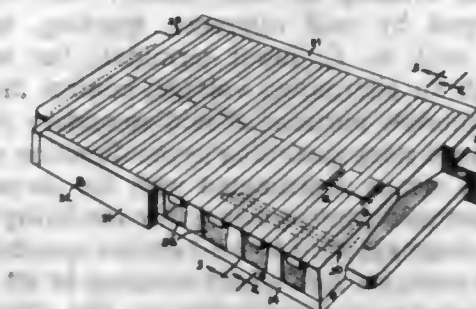


1. A circuit breaker base comprising: a body member formed of dielectric material, said body member having a plurality of openings therein, said openings being disposed in two rows; a first path formed on one side of said body member, said path connecting the odd-numbered openings in one row to the even-numbered openings in the other row; a second path formed on the opposite side of said body member connecting the remaining openings; and an electrically conducting bus bar disposed in each of said paths, said bus bars being each of single construction and electrically insulated from each other, and being adapted to be connected to two wires of a source of electrical supply, said body member being adapted to receive and hold a plurality of circuit breakers, each of said circuit breakers having a terminal adapted to be inserted in one of said openings for engagement with one of said bus bars.

2,823,340

MAGNETIC WORK HOLDER

William C. Pierce, Beloit, Wis., assignor to Warner Electric Brake & Clutch Company, South Beloit, Ill., a corporation of Illinois
Application February 16, 1956, Serial No. 565,931
7 Claims. (Cl. 317—163)



1. A work holder, having, in combination, a base of magnetic material providing a flat supporting surface, a multiple turn winding of generally rectangular shape having spaced parallel straight sections lying flat against said surface, a plurality of pole pieces of the same construction and generally L-shape arranged in pairs spaced apart longitudinally of said winding sections, each of said pole pieces of each pair having a first leg abutting and rigidly secured to said base surface on one side of one of said winding sections and another leg extending transversely across the winding section and aligned with the other leg of the other pole piece of the pair, and inserts of nonmagnetic material secured to and separating adjacent pairs of said pole pieces magnetically from each other, the pole pieces of alternating ones of said pairs abutting said base surface between said winding sections and the pole pieces of the intervening pairs abutting

control electrodes connected together, characterized in that only during the transfer of the discharge from the last group of electrodes to the first a negative pulse is transferred from the common anode, without further amplification, to the control electrodes of the next counting tube and causes the discharge in this tube to transfer to a next group of electrodes.

2,823,337

APPARATUS FOR STARTING AND OPERATING ELECTRIC DISCHARGE LAMP

Maurice G. Clarke and Herbert L. Privett, Rugby, England, assignors, by mesne assignments, to General Electric Company, a corporation of New York
Application October 2, 1952, Serial No. 312,786
4 Claims. (Cl. 315—98)

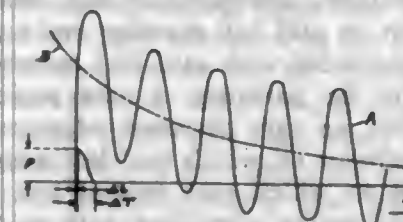


1. Apparatus for starting and operating an electric discharge lamp of the type having a pair of filamentary electrodes comprising, a filament supply transformer having a primary winding and two secondary windings, output leads respectively connected to said secondary windings, supply leads connected to said primary winding, a choke having three terminals one of which is in intermediate tap electrically nearer one end terminal than the other end terminal thereby dividing said choke into unequal turn sections, a capacitor connected between one of said supply leads and the end terminal of the smaller of said choke sections, said one supply lead also being connected to one of said secondary windings, the end terminal of the larger of said choke sections being connected to the other of said secondary windings, the other of said supply leads being connected to said intermediate tap terminal.

2,823,338

COORDINATED COMBINATIONS OF CURRENT-LIMITING FUSES AND CIRCUIT INTERRUPTERS

William S. Edsall, Boston, Mass., assignor to The Chase-Shawmut Company, Newburyport, Mass.
Application July 29, 1953, Serial No. 371,075
7 Claims. (Cl. 317—37)

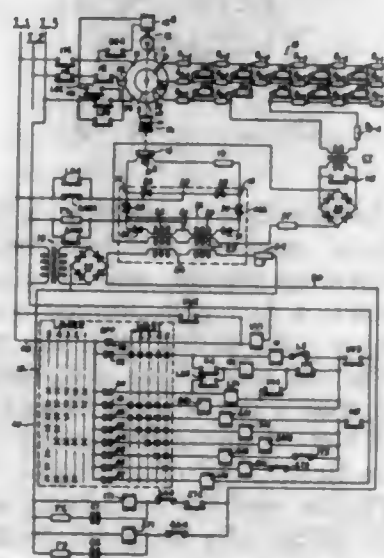


1. In combination an electric multiphase circuit, a plurality of current-limiting fuses one in each phase of said circuit, an automatic multipolar circuit interrupter comprising a plurality of pairs of separable contacts each in one pole thereof and each arranged in series with one of said plurality of current-limiting fuses, said circuit interrupter including a latching mechanism common to all poles thereof, said circuit interrupter further including a plurality of instantaneous electromagnetic tripping relays operatively related to said latching mechanism for causing separation of said plurality of pairs of separable contacts upon occurrence of a fault current of overload current proportions in one of the phases of said circuit, and a plurality of resistors each shunting one of said plurality of current-limiting fuses to reduce any fault current causing blowing of any of said plurality of current-limiting fuses to a current of overload current proportions.

the base surface outside of the winding sections whereby the pole pieces of adjacent pairs become magnetic poles of opposite polarity when said winding is energized.

2,823,341 ELECTRIC MOTOR-BRAKE HOIST CONTROL SYSTEM

Charles E. Smith, Milwaukee, and Eric Pell, Wauwatosa, Wis., assignors to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application September 12, 1955, Serial No. 533,844
6 Claims. (Cl. 318-203)



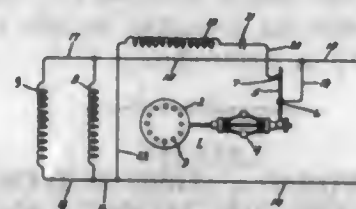
1. In combination, a polyphase A. C. motor having a secondary resistance network, a self-saturating magnetic amplifier having A. C. input terminals, output terminals, and D. C. reference and signal windings, a torque resisting device mechanically connected to the shaft of said motor, an electroresponsive control winding in circuit with the output terminals of said amplifier, means supplying said reference winding with a constant unidirectional voltage which develops ampere turns in the latter sufficient to turn said amplifier on, means responsive to motor current to subject said signal winding to a unidirectional voltage proportional to motor current and of such a sense that the ampere turns developed by said signal winding act differentially with respect to those developed by said reference winding, means in circuit with said A. C. input terminals for supplying the same with an alternating voltage, control means operable to commutate portions of said secondary resistance in predetermined steps according to the direction of motor operation and means coordinated with the second specified means and said control means for rendering the unidirectional voltage supplied by said second specified means ineffective to energize said signal winding in all steps of said control means corresponding to one direction of motor operation.

2,823,342 DUAL-VOLTAGE ALTERNATING-CURRENT MOTOR

Fred W. Suhr, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York
Application April 19, 1956, Serial No. 579,201
3 Claims. (Cl. 318-221)

1. A dual-voltage single-phase alternating-current induction-type motor having a stator including a main winding consisting of two sections arranged to provide poles of alternately opposite polarity on said stator, said sections being connected in parallel for operation at a first lower voltage and being connected in series at a second higher voltage, a starting winding displaced from said main winding, and a capacitor connected in series with

said starting winding, said starting winding and said capacitor being connected in parallel with both said sections during starting at the lower voltage and being con-

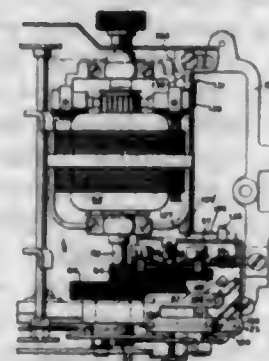


nected to one of said sections intermediate its ends and across the other of said sections during starting at the higher voltage.

2,823,343 MOTOR CONTROL FOR ADDING AND COMPUTING MACHINES

Walter W. Landsiedel, deceased, late of Elmira, N. Y., by Florence E. Landsiedel, executrix, Cincinnati, Ohio, assignor, by mesne assignments, to Sperry Rand Corporation, New York, N. Y., a corporation of Delaware
Original application December 2, 1948, Serial No. 63,614.
Divided and this application January 11, 1954, Serial No. 403,372

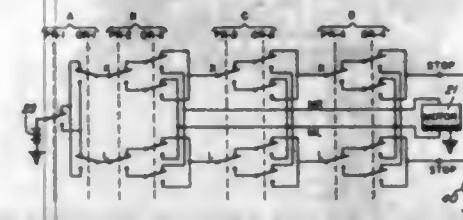
3 Claims. (Cl. 318-325)



1. In a calculating machine of character described wherein certain operations such as multiplication and division are to be performed, the combination of a high speed universal motor, a motor control switch, said switch comprising a pair of superposed contacts, one of said contacts having an extended spring member, a push rod movable to engage said extended spring member to open said contacts, a speed governor operated by said motor, a bail member connected to and rocked by said governor, an arm on said bail member and engaging said rod, a spring associated with said bail member to resist its movement by the governor, a stud projecting from said bail member, an arm disposed adjacent said stud, a second bail member on which said last mentioned arm is fixed, a shaft to which said second bail member is pivoted, a second spring associated with said shaft and engaging said second bail member to urge the arm fixed thereon into contact with the stud, an element actuated when multiplication or division is to be performed, said element having an operative and inoperative position, an ear on said element, a finger on said second bail member adapted to be engaged by said ear when said element is in its inoperative position to hold the second bail member, against the action of its spring, in a position whereby its arm is held out of contact with the stud, said ear being disengaged from the finger when the element is moved to its operative position to allow the spring on said second bail member to effect the movement of its arm to engage the stud and add the resistance of the second spring to that of the first spring in opposing the movement of the first bail member whereby the motor may attain a higher speed before the switch contacts are opened.

2,823,344 DIRECTION-SENSING CODE MATCHING SYSTEM FOR BINARY CODES

Earl Albert Ragland, Van Nuys, Calif., assignor to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application October 2, 1953, Serial No. 383,863
2 Claims. (Cl. 318-467)



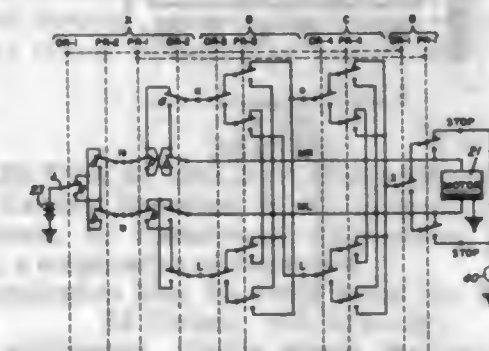
1. In a digital control system, a controlled member movable in either direction in a closed path through a plurality of positions corresponding to successive multidigit binary code numbers; a reversible driving mechanism coupled to said member and having MR and ML busses and responsive to potential on its MR bus to move said member in direction of increasing numbers and responsive to potential on its ML bus to move said member in direction of decreasing numbers; means responsive to movement of said member for developing present binary code signals corresponding to the position of said member at any instant; means for receiving order binary code signals corresponding to ordered positions of said member; and selective energizing means directly responsive to different present and order signals for energizing that one of said MR and ML busses to move said member in the direction of shortest path to the order position from the present position, said energizing means comprising a plurality of tandem digit-comparing circuit sections, each section responsive to corresponding digits of the present and order signals, including a first section responsive to the first digits and having first and second output lines and a plurality of main sections successively associated with and responsive to successive single digits following the first digit, each main section having first input and output lines and second input and output lines, and the input lines of each section being connected to the corresponding output lines of the preceding section; said first section comprising means for comparing said first present and order digits and energizing its first output line when said digits match, and energizing its second output line when they mismatch; each main section containing means for comparing its associated present and order digits and connecting its first input line to said MR bus and its second input line to the ML bus when its associated digits mismatch in one sense, and connecting its first input line to the ML bus and its second input line to the MR bus when its associated digits mismatch in the other sense; and each main section except the last comprising means for connecting each of its input lines to its corresponding output line when said digits match.

2,823,345 DIRECTION-SENSITIVE BINARY CODE POSITION CONTROL SYSTEM

Earl Albert Ragland, Van Nuys, and Harry B. Schultheis, Jr., Reseda, Calif., assignors to Bendix Aviation Corporation, North Hollywood, Calif., a corporation of Delaware
Application October 16, 1953, Serial No. 386,524
7 Claims. (Cl. 318-467)

1. In a digital control system: a controlled member movable in either direction from any position in a closed path through a plurality of positions corresponding to successive multidigit reflected binary code members; a reversible motor coupled to said member having first and second busses and responsive to potential on its first bus to move said member in direction of increasing numbers

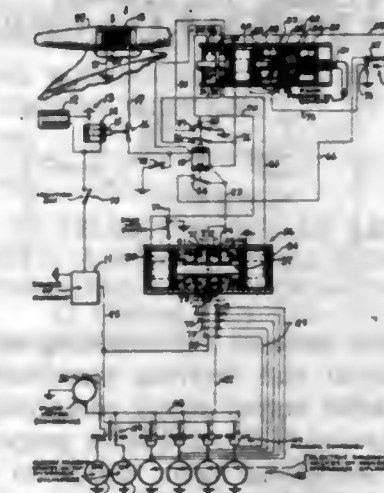
and responsive to potential on its second bus to move said member in direction of decreasing numbers; means responsive to movement of said member for developing present binary code signals corresponding to the position number of said member at any instant; means for receiving order binary code signals corresponding to the num-



bers of ordered positions of said member; and selective energizing means directly responsive to different present and order signals for energizing that one of said first and second busses to move said member in the direction of that one of the two paths between the present and the order positions which is at least as short as the other path.

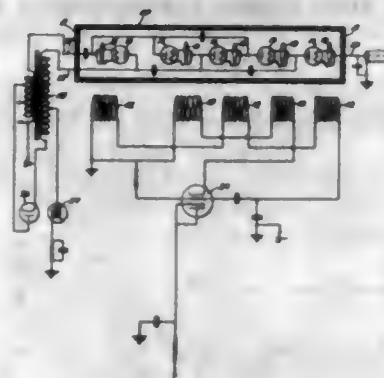
2,823,346 CONTROL APPARATUS RESPONSIVE TO RAINFALL

Alex C. Weber, Fort Lauderdale, Fla., assignor of one-half to Carl R. Brown, Boynton Beach, Fla.
Application July 14, 1954, Serial No. 443,208
4 Claims. (Cl. 318-483)



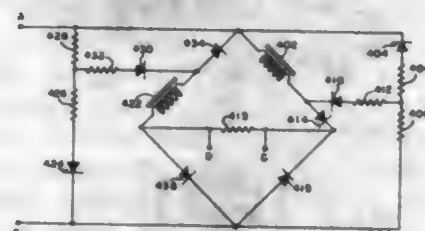
1. A control apparatus for power driven window and top raising mechanisms having independent individual electrical switches for each mechanism for manual control of closing and opening of said window and top, said control apparatus comprising, a main switch and circuits controlled thereby in one position for energizing all of said mechanisms simultaneously for closing said top and windows and in a second position for opening at least said window mechanisms, two-position means for establishing switch actuation circuits, a relay for alternately establishing a circuit through said two-position means for each position of said switch, rainfall responsive means for actuating said relay to establish said circuit for the "close" position of said switch, power surge means responsive to the arrival of said top and window mechanisms at the limit of their travel for shifting said two-position means to de-activate said mechanisms and pre-set circuits for the "open" position of said switch and means actuated by said relay for establishing the last mentioned circuits upon opening of said rainfall responsive circuit closer.

2,823,347
HIGH-VOLTAGE POWER SUPPLY
 Samuel A. Procter, Chicago, Ill.
 Application October 13, 1953, Serial No. 385,733
 5 Claims. (Cl. 321-15)



1. A high-voltage power supply, comprising an enclosed insulating housing, a plurality of capacitors and rectifier tubes enclosed therewithin and connected in a voltage-multiplying circuit, said rectifier tubes having thermionic filaments, a pick-up coil carried within said housing for each of said filament-type rectifier tubes, each of said coils being connected across one of said filaments, a driving coil mounted externally of said housing inductively coupled to each of said pick-up coils, and oscillator means for driving radio-frequency current through said driving coils for inducing currents of like frequency in each of said pick-up coils.

2,823,348
PHASE LEAD NETWORK
 Donald G. Scorgie, Upper Marlboro, Md.
 Application December 29, 1952, Serial No. 328,538
 8 Claims. (Cl. 323-89)
 (Granted under Title 35, U. S. Code (1952), sec. 266)

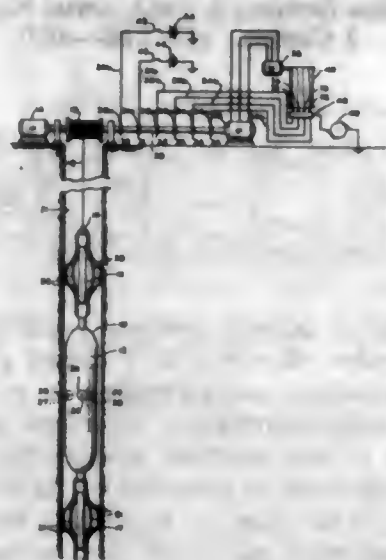


1. A phase lead network for receiving an alternating input voltage signal and deriving therefrom a proportional-plus-derivative output signal comprising, saturable reactor means having high remanence properties, means connecting the alternating input voltage to said reactor means, unilateral conductor means connected in series with said reactor means so that said reactor means proceeds to saturation only on first polarity half cycles of input voltage, and means including a voltage divider circuit coupled to the input of the network and to said reactor means to impose a predetermined proportion of said input voltage across said reactor means only on second polarity half cycles of input voltage for resetting said reactor means to a level of magnetization dependent on said predetermined portion.

2,823,349
ELECTRICAL WELL LOGGING
 Louis N. French, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware
 Application August 10, 1953, Serial No. 373,211
 8 Claims. (Cl. 324-10)

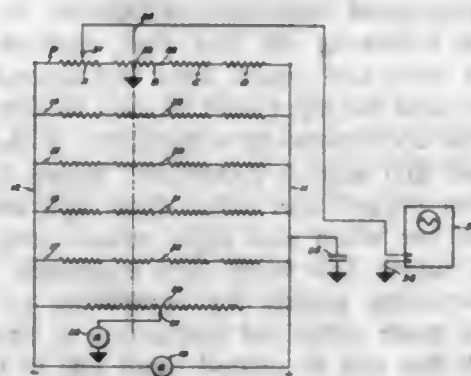
1. Well logging apparatus comprising, in combination, an elongated generally cylindrical member of electrically conductive material adapted to be suspended in a bore hole whereby the axis of said member is substantially coaxial with the axis of the bore hole, said member having a plurality of openings in the surface thereof, said open-

ings being spaced from one another and lying in a common plane which is at a predetermined angle with the axis of said cylindrical member, said plane being spaced from both ends of said member, a plurality of electrodes, and



means mounting said electrodes in respective ones of said openings so that said electrodes are electrically insulated from said member but in electrical contact with any fluid in the bore hole into which said member is suspended.

2,823,350
METHOD OF LOCATING GROUNDS
 Kenneth Macleish, Oak Ridge, Tenn., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
 Application November 30, 1944, Serial No. 566,005
 10 Claims. (Cl. 324-52)

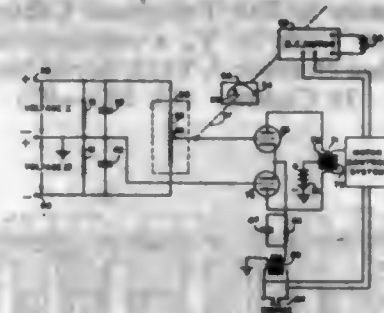


1. A method of locating a ground in a D. C. circuit energized from a D. C. generator which develops a ripple voltage at the commutator thereof comprising grounding one side of the circuit through a condenser and measuring the distribution of the ripple voltage in the circuit to find the point in the circuit where the ripple voltage drops substantially to zero due to the existence of a ground.

2,823,351
VOLTAGE RATIO INDICATOR
 Robert M. Page, Washington, D. C.
 Application November 14, 1945, Serial No. 628,623
 13 Claims. (Cl. 324-99)
 (Granted under Title 35, U. S. Code (1952), sec. 266)

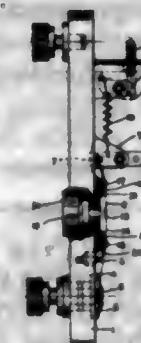
1. In combination, a pair of voltage sources connected in series and having a terminal in common, a pair of impedance elements of which at least one is variable, connected in series and having a terminal in common; means connecting the voltage sources and the impedance elements in series to form a closed circuit; and means for sensing the potential difference between a point intermediate said voltage sources and a point intermediate said impedance elements, and means responsive to the poten-

tial difference between the points intermediate the voltage sources and the impedance elements to vary one of the



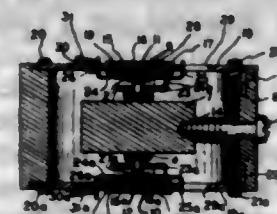
impedance elements to make the ratio of the impedance elements substantially equal to the ratio of the voltages.

2,823,352
ADJUSTABLE GALVANOMETER SUSPENSION
 John Koza, Lynnfield Center, Mass., assignor to General Electric Company, a corporation of New York
 Application December 30, 1954, Serial No. 478,620
 3 Claims. (Cl. 324-154)



3. In a bifilar galvanometer having a mirror deflectably suspended adjacent a lens on a pair of spaced apart substantially parallel portions of an elongated wire loop, means for angularly adjusting said mirror relative to said lens comprising a guide spindle having a pair of spaced apart grooves therein engageable with said spaced apart wire portions to form supporting and guide means therefor, said grooves being formed eccentrically with respect to each other such that rotation of said spindle causes movement of said wire portions relative to each other in a direction substantially perpendicular to the plane defined by said wire portions, whereby said spindle may be rotated to angularly adjust the position of said mirror with respect to said lens.

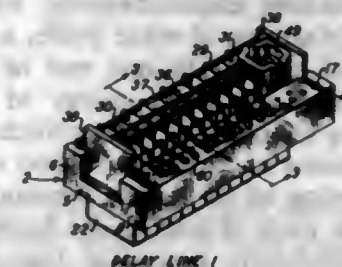
2,823,353
INSTRUMENT BEARING SUSPENSION
 Hans A. Bekke, Swampscott, Mass., assignor to General Electric Company, a corporation of New York
 Application December 1, 1954, Serial No. 472,298
 4 Claims. (Cl. 324-155)



1. A bearing suspension for an electrical instrument of the type having a pivotally mounted coil assembly deflectable against a spring with said spring being electrically connected to one end of said coil through a mounting spindle on said coil, said suspension comprising a bearing mounting member supported on the struc-

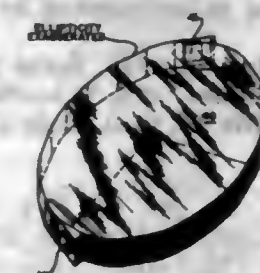
ture of said instrument, a substantially flat disk-like bearing support formed of a resilient, electrically insulating material attached to said mounting member, a bearing mounted in said resilient insulating support and engageable with one end of said spindle, and means supported on said bearing support for securing the end of said control spring and thereby provide an electrically insulated connection to said spring and one end of said coil, said bearing support functioning to absorb both axial and lateral vibrations of said spindle.

2,823,354
ELECTRICAL DELAY LINE ASSEMBLY
 Samuel Lubkin, Brooklyn, N. Y., assignor, by mesne assignments, to Underwood Corporation, New York, N. Y., a corporation of Delaware
 Application May 22, 1952, Serial No. 289,236
 22 Claims. (Cl. 333-29)



1. An electrical delay line of the lumped parameter type comprising an elongated mounting member having a base and two legs, said member having a plurality of holes extending through the length of each leg, a plurality of capacitors arranged beneath the base of said member, the leads of each of said capacitors extending through corresponding holes in each leg of said member, a plurality of inductors arranged adjacent to each other and mounted between said legs of said member, and means for connecting said inductors to said capacitors together to form an electrical delay line.

2,823,355
ULTRASONIC DELAY LINE
 David L. Arenberg, Jamaica Plain, Mass.
 Application May 17, 1950, Serial No. 162,573
 13 Claims. (Cl. 333-30)
 (Granted under Title 35, U. S. Code (1952), sec. 266)

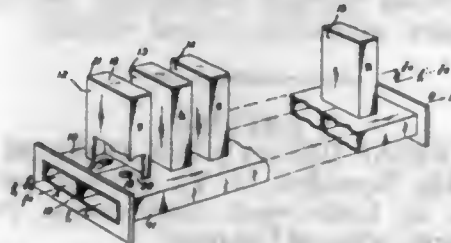


2. An ultrasonic delay line comprising, a solid propagation medium having an elliptical periphery, first and second electrical transducers, said transducers being mounted in contact with the periphery of said medium, means for electrically energizing said first transducer whereby a beam of acoustical energy is directed through said medium, a plurality of means for successively reflecting said beam from the periphery of said medium until said beam impinges on said second transducer, said last-mentioned means being so spaced that the path lengths between successive reflecting points differ by a fraction of a wave length of said acoustical energy, and means for extracting electrical energy from said second transducer upon the excitation of said second transducer by said beam.

2,823,356

FREQUENCY SELECTIVE HIGH FREQUENCY POWER DIVIDING NETWORKS

Stewart E. Miller, Middletown, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 11, 1952, Serial No. 325,488
6 Claims. (Cl. 333-73)



1. In a multichannel electromagnetic wave transmission system, a main section of wave guide, a multichannel wave energy signal applied to one end of said section, means for branching the wave energy of one channel from the remaining channels of said multichannel energy, said means comprising an auxiliary section of wave guide running for a portion of its length substantially parallel to said main guide, each of said guides having a plurality of openings longitudinally spaced at less than one-half wavelength of the wave energy in said one channel, a plurality of substantially identical connecting wave-guide sections connecting each opening in said main guide to a corresponding opening in said auxiliary guide, means included in each of said connecting guides for passing similar frequency components exclusively from said one channel, each of said connecting guides adapted to couple a given fraction C of the frequency components of said one channel in said main guide into said auxiliary guide, the number of said connecting guides being equal to

$$\frac{m\pi}{2 \sin^{-1}C}$$

wherein m is any odd integer, whereby substantially all the wave energy of said one channel is coupled into said auxiliary guide.

2,823,357

STABILIZED IMPEDANCE CONVERTER

William W. Hall, Jr., La Salle, Ill., assignor to the United States of America as represented by the Secretary of the Army
Application May 31, 1955, Serial No. 512,345
5 Claims. (Cl. 333-80)
(Granted under Title 35, U. S. Code (1952), sec. 266)

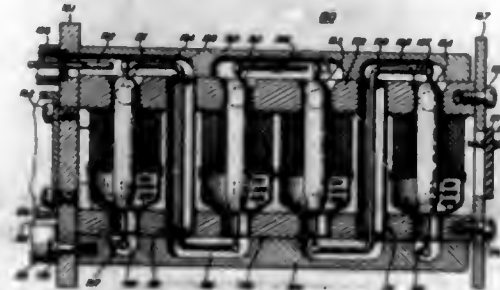


1. In a two-terminal pair network having a positive impedance connected across one pair of terminals, a circuit for converting said positive impedance to a negative impedance at the other pair of terminals comprising, a junction type transistor having a base electrode, a collector electrode and an emitter electrode, a first means in coupling relationship with said collector electrode for producing a negative feedback path between said collector electrode and said emitter electrode, a second means in coupling relationship with said collector electrode for producing a positive feedback path between said collector electrode and said emitter electrode, said other pair of terminals and said positive impedance being in series arrangement and in circuit with said second means.

2,823,358

COAXIAL SWITCHES

Winthrop J. Means and Thaddens Slonczewski, Summit, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application October 7, 1953, Serial No. 384,742
18 Claims. (Cl. 333-97)



1. A switch for selectively connecting one coaxial cable to another electrically similar coaxial cable, comprising a plurality of mercury contact relay elements which form part of the inner conduction system of said switch; coaxial conductor means for interconnecting said relay elements; operating means for simultaneously actuating said relay elements; electromagnetic shielding means separating said relay elements and said operating means; and impedance compensating means to reduce the mismatch caused by the mercury in said relay elements.

2,823,359

MINIATURE INTERMEDIATE-FREQUENCY TRANSFORMER

Chandler Wentworth, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application June 1, 1954, Serial No. 433,362
2 Claims. (Cl. 336-30)

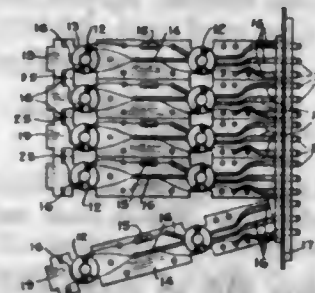


1. An intermediate-frequency transformer comprising in combination; a pair of ferrite cup-like core members each having a central core element therein, integral with and extending from the bottom of the cup-like core member and having a bevelled end face at the free end of said central core element, one of said pair of core members having an annular recess around the inner periphery of the open end thereof, and the other of said core members having an annular shoulder and a cylindrical portion of reduced diameter around the outer periphery of the open end thereof; means including a cylindrical metal case having inwardly projecting flanges at either end thereof for positioning said cups in axial abutment with the inner surface of the recess on the one of said core members fitting around the outer surface of the cylindrical portion of reduced diameter on the other of said core members; a cylindrical coil form surrounding said cores; a compressive member interposed between one end of said coil form and the inside of the closed end of the cup member adjacent thereto; transformer windings disposed on said coil form; means for securing one of said core members to said case; and means for turning the other of said core members with respect to said secured cup.

2,823,360

MAGNETIC CORE ASSEMBLY

John Paul Jones, Pottstown, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application May 20, 1955, Serial No. 509,855
9 Claims. (Cl. 336-65)

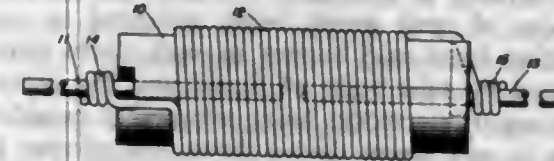


1. A supporting structure for package mounting of toroidal magnetic cores comprising a board of dielectric material, having parallel opposite side portions, each of said side portions being provided with an indentation, said indentations being oppositely aligned and together form a spaced apart pair between which said board is provided with an aperture, a toroidal magnetic core disposed on said board between said pair of indentations, with the bore of the core in axial alignment with said aperture and windings threaded through said core, said aperture, and around said indentations so as to bind said core to said board.

2,823,361

INDUCTANCE UNIT

John J. Hopkins, Silver Spring, Md., and Phillip Rudnick, Nashville, Tenn., assignors to the United States of America as represented by the Secretary of the Navy
Application July 31, 1946, Serial No. 687,436
3 Claims. (Cl. 336-69)

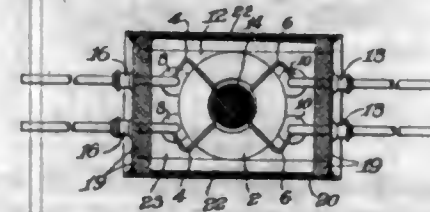


1. In an inductance unit, a dielectric core comprising by weight a major proportion of barium titanate and a minor proportion of binder resin, a conductive winding mounted thereon, conductive terminals connected to the leads of said winding and at least partially embedded in said core with their inner ends spaced apart a distance merely sufficient to prevent accidental contact with each other whereby the capacitance between the embedded portions augments the distributed capacitance of the unit.

2,823,362

PULSE TRANSFORMERS

Michael J. Geroulo and David B. Peck, Williamstown, Mass., assignors to Sprague Electric Company, North Adams, Mass., a corporation of Massachusetts
Application February 19, 1954, Serial No. 411,537
5 Claims. (Cl. 336-96)

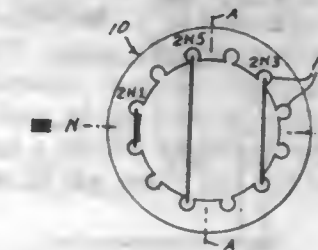


1. A pulse transformer comprising an insulated toroid of non-metallic ferromagnetic material, a plurality of insulated conductors wound about said toroid, hermetically sealed container means enclosing said toroid, said conductors having terminals sealed through the wall por-

tions of the container means, and a high resistance hydrophobic dielectric impregnant no more than slightly magnetostrictive confined within said container means, said impregnant having a dielectric constant lower than said toroid insulation and a melting point at least as high as 90° C.

WINDINGS IN TWO POLE ELECTRICAL MACHINERY

Henry F. McKenney, Valley Stream, and George F. Schroeder, West Hempstead, N. Y., and Klmon C. Demetriou, Malibu, Calif., assignors to Sperry Rand Corporation, a corporation of Delaware
Application February 26, 1954, Serial No. 412,749
5 Claims. (Cl. 336-120)

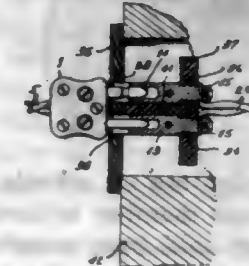


1. A rotary inductive electric device having an element with an even number of slots and with a distributed winding per phase per pair of poles, electrically equivalent to a basic winding of the type comprising two similar groups of parallel coils on opposite sides of the axis normal to the polar axis, each coil of one group having a counterpart coil with the same number of turns in the other group, the coils in the equivalent winding being arranged and distributed substantially as in the basic winding, except that one or more of the coils of said basic winding are eliminated in said equivalent winding, while the counterparts of the eliminated coils have their turns doubled in number in the equivalent winding.

2,823,364

THERMOCOUPLE CONNECTOR PANEL

Fred S. Walter, Allendale, N. J., assignor to Thermo Electric Co., Inc., a corporation of New Jersey
Application December 16, 1950, Serial No. 201,110
2 Claims. (Cl. 339-191)



1. In connecting means for employment in thermocouple leads, a plug provided with a pair of spaced contact prongs adapted to be connected to a pair of lead wires, respectively, a plurality of spaced jacks each provided with a pair of spaced contact socket members having front end sections provided with apertures for receiving said prongs and formed with rear end sections adapted to be connected to a pair of lead wires, respectively, for completing a circuit between said pairs of wires, said socket members being provided with resilient elements for engaging said prongs to secure electrical connection between said prongs and said socket members, a pair of spaced front and rear panel members of insulating material provided with openings receiving said front and rear sections, respectively, for mounting said jacks in fixed relation with and between said panel members, an insulating partition disposed between said panel members and extending between the socket members of each jack for isolating the socket members of each pair from

each other, said front and rear end sections of said socket members extending entirely through said openings in said panel members to permit insertion of said prongs within said socket members through said apertures and to facilitate attachment of wires to said end sections.

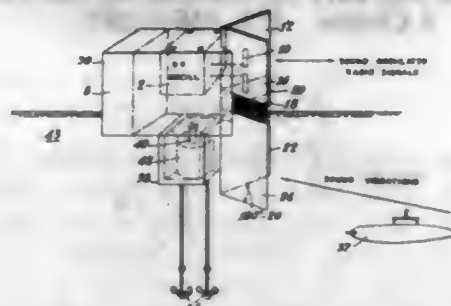
2,823,365

ELECTRO-ACOUSTIC SYSTEM AND METHOD

Robert Harvey Rines, Newton, Mass.

Original application July 18, 1945, Serial No. 605,722, now Patent No. 2,539,593, dated January 30, 1951. Divided and this application January 22, 1951, Serial No. 207,200

21 Claims. (Cl. 340-6)



14. An electro-acoustic system having, in combination, a plurality of electromagnetic wave reflectors forming diverging reflecting surfaces for directionally transmitting electromagnetic waves, the surfaces being vibratory in response to acoustic vibrations, and means for periodically rotating the reflectors as a unit.

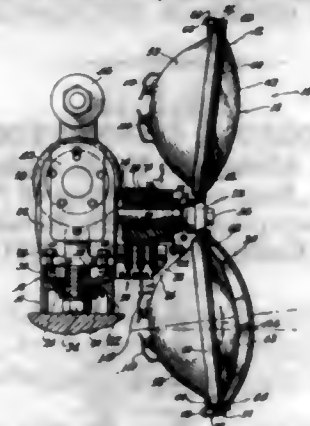
2,823,366

ROTATING SIGNAL LIGHT

Michael F. Schmitz, Jr., Lamont, Ill.

Application February 7, 1956, Serial No. 563,936

3 Claims. (Cl. 340-49)



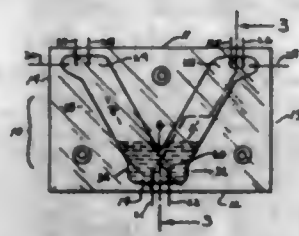
1. A signal light for use on wheeled vehicles and the like comprising a base member secured to the vehicle, a carrier supported on said base member, releasable ball and socket clamping means securing said carrier to said base member, a gear reduction unit secured to said carrier, a motor secured to said gear reduction unit for driving same, a generally horizontally disposed shaft carried by said reduction unit and rotated by said motor through said reduction unit, a head member disposed in a substantially vertical plane and keyed to said shaft, said head member including a plurality of portions projecting outwardly of said shaft and angled at least at their ends substantially the same amount in a direction forwardly of the vehicle, a sealed beam lamp secured to each of said ends for projecting a light ray in a path that is generally perpendicular to the plane of the respective ends, whereby the light rays emitted by the respective lamps are directed to and intersect the axis of rotation of said shaft and then diverge from said axis of rotation in a forward direction, and electrical connector means including slip ring means rotatable with said shaft for electrically connecting said lamps to a source of electrical energy.

2,823,367
GRAVITY-SENSITIVE MULTIPLE CONTACT SWITCHES

James W. Huron, Los Angeles, Calif.

Application June 25, 1956, Serial No. 593,593

5 Claims. (Cl. 340-52)



5. In combination with an automotive ignition system including an ignition unit and a battery and electric current generator connected in series to said ignition unit for alternatively energizing the same, a switch comprising a solid, generally rectangular block of electrically non-conductive material having therein a V-shaped cavity including two oppositely disposed diagonal channels having their upper ends spaced apart adjacent the top of said block and converging to an intersection in the lower central area of the block, said cavity further including a well constituting an enlargement of said intersection, and including enlarged recesses at the upper ends of said channels; a quantity of electrically conductive liquid disposed in said cavity and normally filling said well; an alarm device; a pair of electrodes extending through the bottom of said block into said cavity and normally connected by said liquid to close a circuit between said battery and said ignition unit; groups of electrodes extending through each of the upper corners of said block and into the respective upper ends of said respective channels, each of said groups of electrodes consisting in three electrodes arranged in two pairs with one of the electrodes being common to both pairs for each group; one pair of electrodes of each group being arranged to establish a connection from said battery to said alarm device when connected by said body of liquid and the other pair of each group of electrodes being adapted to establish a connection to said alarm device from said current generator upon being connected by said liquid.

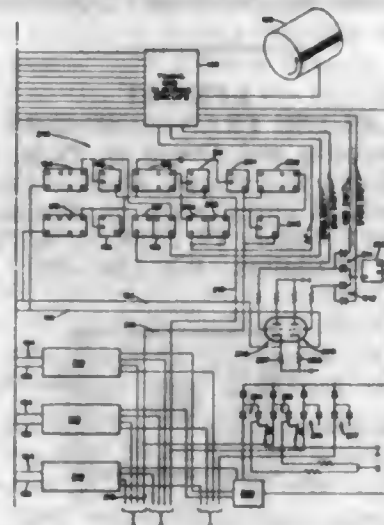
2,823,368

DATA STORAGE MATRIX

Robert W. Avery, Vestal, N. Y., assignor to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application July 14, 1954, Serial No. 443,215

11 Claims. (Cl. 340-173)



1. In a data storage device having an input, the combination of a first data storage element, a second data storage element, a time delay element, a first data transfer link for transferring data from said first storage

element to said delay element during a first increment of time, a second data transfer link for transferring data from said second storage element to said delay element during a second increment of time, and a third data transfer link for transferring data from said delay element to said first storage element simultaneously with the transfer of different data from said second storage element to said delay element.

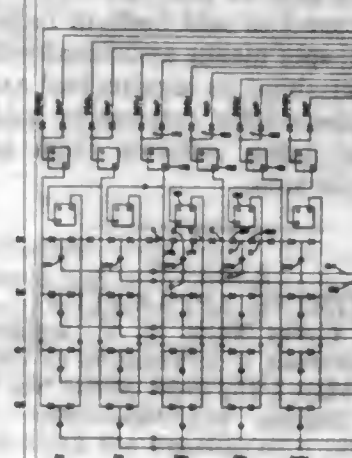
2,823,369

CONDENSER STORAGE REGENERATION SYSTEM

Roy L. Haug, San Jose, Calif., and Charles W. Allen, Endicott, N. Y., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York

Application July 23, 1954, Serial No. 445,221

4 Claims. (Cl. 340-173)



1. In a storage device, the combination of a condenser, a resistor, first circuit means including a first rectifier for charging said condenser through said resistor to a predetermined level during a first increment of time so that a signal is generated across said resistor in the absence of an initial charge on said condenser, second circuit means including a second rectifier and adapted to discharge said condenser during a second increment of time, and means responsive to a generated signal for causing a current to pass through said resistor during said second increment of time to condition said condenser to be discharged by said second circuit.

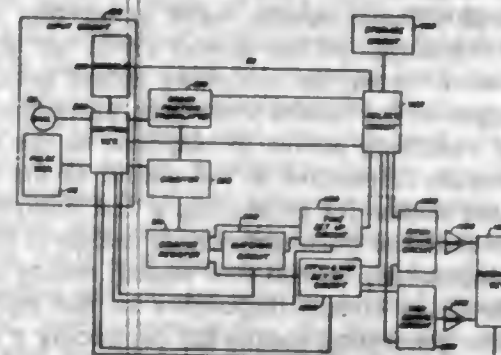
2,823,370

PROGRAMMER

John J. Oestreicher, Roselle Park, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application July 22, 1955, Serial No. 523,739

17 Claims. (Cl. 340-173)



16. A system for the electromagnetic storage of data respectively relating to orders in an information program, comprising a group of storage elements for each of said orders in said information program, a pulse source, means controlled by said pulse source for selecting any one of said groups and for storing information in said selected group, and means for successively reading said groups but not disturbing the information storage therein.

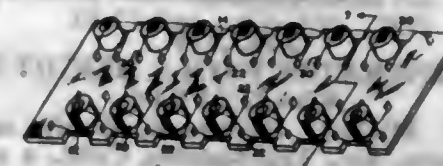
2,823,371

MAGNETIC CORE MOUNTING ASSEMBLY

John Paul Jones, Pottstown, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application November 30, 1954, Serial No. 472,135

15 Claims. (Cl. 340-174)



4. A magnetic core mounting assembly comprising an electrically insulating, non-magnetizable panel having a row of notches along one side thereof, the area immediately adjacent each one of said notches having a recess therein and each recess being provided with a central aperture, an annular magnetic core disposed in each recess with the bore of the core in registry with the central aperture, and a zig-zag winding threaded through the central apertures of the panel and the bores of the magnetic cores.

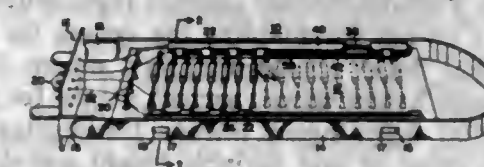
2,823,372

MAGNETIC CORE MOUNTING ASSEMBLY

John Paul Jones, Pottstown, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Application December 31, 1954, Serial No. 479,018

12 Claims. (Cl. 340-174)



1. A magnetic core assembly including, in combination, a relatively rigid panel of electrically non-conductive material, a metallic frame enclosing at least three sides of the panel and connected to the panel to support the same within the plane of the frame, the frame having a width greater than the thickness of the panel and rising to a height above one surface of the panel, a plurality of similarly formed axially aligned ring-shaped magnetic cores, means mounting the cores on said surface of the panel with the axes of the cores extending parallel thereto and in substantially axial alignment with one another, individual windings on said cores, and a common winding for the cores extending through the cores in general parallel relation to said surface of the panel, the raised relation of the frame to said surface of the panel serving to protect the magnetic cores and windings carried thereon.

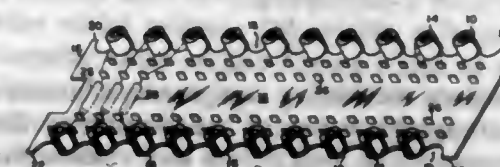
2,823,373

TOROIDAL CORE ASSEMBLY

Anthony L. Consalvi, Havertown, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan

Continuation of application Serial No. 472,037, November 30, 1954. This application October 16, 1956, Serial No. 616,322

8 Claims. (Cl. 340-174)



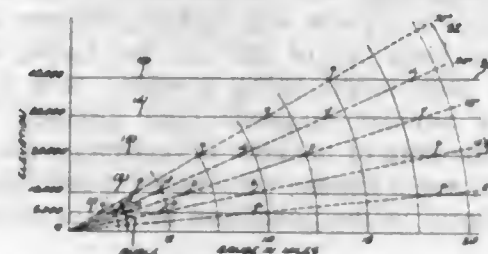
1. A magnetic core package assembly comprising, in combination, a mounting panel of electrically insulating non-magnetizable material having a scalloped edge each scallop of which has a central aperture, a plurality of toroidal magnetic cores placed upon the scallops with the

apertures of the cores and the scallops in registry, and a plurality of separate windings about each core extending through the registered apertures and around the scallop with which the core is associated with the windings dispersed in different sectors of the scallop.

2,823,374 CURSOR GENERATOR WITH A HEIGHT FINDING ADAPTATION

Lawrence S. Michels, Inglewood, Calif., assignor to Gilfillan Bros. Inc., Los Angeles, Calif., a corporation of California

Application February 21, 1955, Serial No. 489,359
8 Claims. (Cl. 343-11)

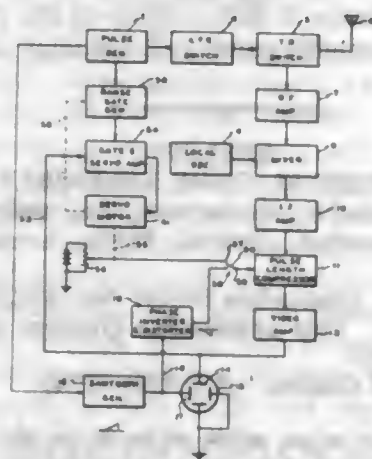


1. In a system wherein a cursor generator is utilized to produce pulses representing a cursor line, each pulse corresponding to the intersection in time between a first signal representing the cursor angle and a second variable amplitude signal representing a scan angle position, the origin of the scan angle position being offset from the cursor line by a predetermined amount represented by an offset signal; a circuit for adapting the system for utilization as a height finder comprising: first means for providing a variable height signal; second means for providing a horizontal flight signal; means for displaying the instantaneous value of said variable height signal; means for adjusting said second signal by a constant factor in accordance with the difference between the height finding range desired and the offset range possible; and means for offsetting said horizontal flight signal from said adjusted second signal by an amount proportional to said variable height signal.

2,823,375 DISTANCE MEASURING SYSTEMS WITH COMPRESSED RETURNED PULSES

Glen D. Camp, Chevy Chase, Md., assignor to Melpar, Inc., Alexandria, Va., a corporation of New York

Application December 11, 1951, Serial No. 261,121
11 Claims. (Cl. 343-13)



1. In a distance measuring equipment, a source of substantially rectangular pulses of predetermined durations, means for transmitting said pulses to a remote target for return therefrom, a receiver for the returned pulses, said receiver comprising means responsive to each of said pulses for generating a pulse of further duration less than said predetermined duration, and means for controlling said further durations as a function of distance of said target.

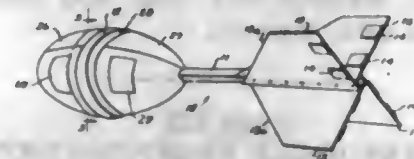
2,823,376 STRINGER RADAR REFLECTIVE TOW TARGET

Robert P. Baldwin and Raymond H. Eckert, Yuma, Ariz.

Application May 28, 1956, Serial No. 587,912

8 Claims. (Cl. 343-18)

(Granted under Title 35, U. S. Code (1952), sec. 266)



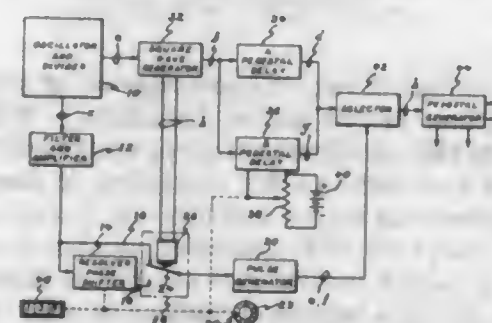
8. A radar reflective tow target adapted to be towed at high speeds behind an aircraft in flight, comprising a main support member for attachment to a towline extending from the aircraft, a radar reflective body associated with said support, a plurality of stabilizer members displaced rearwardly with respect to said body in radial disposition about said support, spin means associated with said target to rotate said target about its longitudinal axis, and radar reflective strips disposed for rotation by said spin means whereby the radar beam reflected from said target is scattered over a wide area.

2,823,377 TIMING APPARATUS

Robert L. Frank, Great Neck, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application March 28, 1956, Serial No. 574,398

7 Claims. (Cl. 343-103)



1. In a loran receiver, apparatus for generating A and B pulses at a predetermined repetition frequency with an accurately controllable time delay between the A and B pulses, said apparatus comprising a local oscillator, a divider chain, means for deriving a first signal from said divider chain, a variable phase shifter responsive to said first signal for generating a second signal at the same frequency as the first signal but shifted in phase relative thereto, pulse generating means, switching means for selectively coupling said first and second signals to the pulse generating means for synchronizing the output pulses thereof respectively with the selected one of said first and second signals, square wave generating means responsive to the output of the divider chain for generating a square wave signal, the switching means being coupled to the output of the square wave generating means for actuating said switching means in response to the square wave signal, means responsive to the output of the square wave generating means for producing a first delayed trigger during the time the pulse generating means is coupled by the switching means to said first signal, means including a variable delay circuit responsive to the output of the square wave generating means for producing a second delay trigger during the time the pulse generating means is coupled by the switching means to said second signal, means for simultaneously actuating the variable phase shifter and variable delay circuit, whereby the change in delay time introduced by the delay circuit is maintained substantially equal to the time corresponding to the total cycles and fractions thereof of phase shift introduced by the phase shifter, and a selector circuit triggered by said first and second delayed triggers for selecting particular

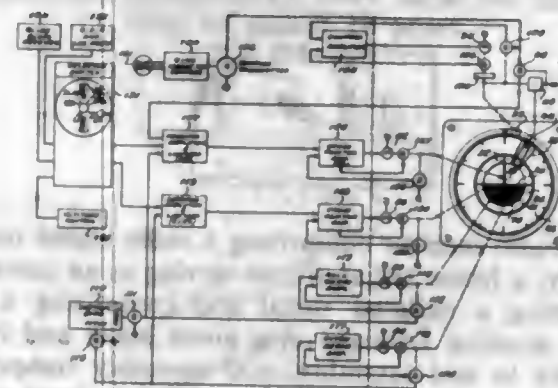
pulses from said pulse generating means and producing output pulses in time coincidence with the selected pulses from said pulse generating means.

2,823,378 AIRCRAFT NAVIGATION INSTRUMENT

Eugene F. Reedy, Merrick, and Reginald V. Craddock, New Hyde Park, N. Y., assignors to Sperry Rand Corporation, a corporation of Delaware

Application April 7, 1954, Serial No. 421,580

17 Claims. (Cl. 343-107)



1. A navigation instrument for aircraft comprising a craft-guidance indicator for indicating to a pilot whether to fly the craft toward the right or the left, a stabilized annular compass card disposed to rotate about said guidance indicator, a heading selector member settable relative to said compass card but otherwise movable therewith for indicating the bearing of a selected course relative to the heading of said craft, means for setting said member relative to said compass card, and a fixed index representing the fore and aft axis of said craft and forming a reference for said card and said craft-guidance indicator, whereby when said craft is proceeding along a selected course said member and said craft-guidance indicator will be in alignment with said reference index.

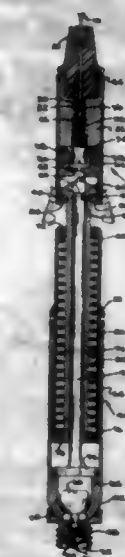
9. A navigation instrument for aircraft comprising a maneuver command indicator member for indicating to a pilot the sense and amount of craft attitude control required to cause the craft to approach and maintain a pre-selected radio course defined by a directional radio beam, means for providing signals corresponding to the lateral displacement of said craft from said radio beam, the heading of said craft relative to the bearing of said beam, and the bank attitude of said craft, means responsive to said signals for positioning said command member in accordance with the algebraic sum thereof, said sum being zero not only when the craft is on said course but also when it is off said course but in an attitude which will return the same asymptotically to said course, a bank indicator disposed behind said member for indicating the bank attitude of said craft, means for positioning said bank indicator in response to said bank signal, an annular compass card surrounding said member and said bank indicator for indicating the heading of said craft, means for stabilizing said compass card relative to a fixed direction in space, a selector cursor settable relative to said compass card but otherwise movable therewith for indicating the angular relationship between the heading of said craft and the bearing of said radio beam, means for setting said cursor relative to said compass card, and a fixed index representing the fore and aft axis of said craft and forming a reference for said compass card and said cursor and a zero reference for said member, whereby when said craft is proceeding along said radio beam said command member, said cursor, and said bank indicator, will lie in substantial alignment with said reference index and when off said beam said bank indicator and said cursor will indicate the amount of attitude control applied to maintain said guidance member aligned with said index.

2,823,379 AERIAL TENSIONING AND AUTOMATIC DISCONNECT UNIT

Philip F. Novak, Wichita, Kans., assignor to Boeing Airplane Company, Wichita, Kans., a corporation of Delaware

Application June 15, 1955, Serial No. 515,578

10 Claims. (Cl. 343-707)



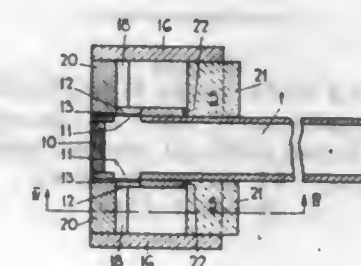
1. In an aerial fastening device for aircraft, first separable means for attachment to one end of an aerial wire including a pair of pivotal dog elements, second separable means for attachment to a portion of an aircraft including a shell, a housing extending into said shell, a sleeve slidable within said housing provided with an enlarged end engageable by said dog elements, spring means urging said sleeve in a direction to move said enlarged end toward said housing, a probe member one end of which projects beyond said enlarged end when said sleeve is retracted, and cam means on said dog elements engageable by said probe member when said sleeve is retracted, whereby said probe member is instrumental in disengaging said dog elements from the enlarged sleeve end to separate said first and second means.

2,823,380 DIRECTIVE RADIO AERIAL SYSTEMS

Sidney Cornbleet, Edgware, England, assignor to The General Electric Company Limited, London, England

Application July 20, 1954, Serial No. 444,621

Claims priority, application Great Britain July 29, 1953
6 Claims. (Cl. 343-776)

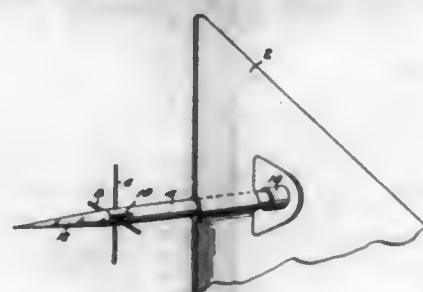


1. A reverse feed arrangement for a reverse feed directive radio aerial system, comprising a feeder waveguide of rectangular cross-section having a pair of resonant coupling slots opposite to one another in each of the longer dimension walls of the feeder waveguide, means to provide a short-circuited termination to the waveguide at one end thereof, a pair of short lengths of rectangular cross-section waveguide which lie substantially parallel to the feeder waveguide one on either side of the feeder waveguide and into which the said coupling slots open, and means to provide a short-circuited termination to each of the two short lengths of waveguide at the ends thereof

nearest to the end of the feeder waveguide that has the short-circuited termination, the other end of each of the two short lengths of waveguide being terminated in an aperture.

2,823,381 ANTENNA

John F. P. Martin, Mendham, and Louis H. Kellogg, Far Hills, N. J., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application January 18, 1952, Serial No. 267,213
6 Claims. (Cl. 343—797)

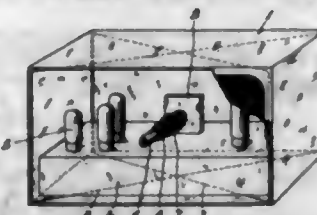


5. A turnstile antenna to be carried by a high velocity missile and for use at high frequency, said antenna comprising four half dipole radiator elements extending outwardly at 90 degree intervals from a common center structure, each pair of oppositely disposed radiator elements comprising a dipole element, the elements of one of said pairs having a length less than $\frac{1}{2}$ wavelength at the said frequency and the elements of the other of said pairs having a length greater than $\frac{1}{2}$ wavelength at the said frequency whereby the said elements have im-

pedances in phase quadrature and a substantially 90 degree phase shift is effected between the currents in said dipoles.

2,823,382 RADIO-RECEIVER

Henri Blok, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 12, 1954, Serial No. 415,923
Claims priority, application Netherlands March 17, 1953
2 Claims. (Cl. 343—867)



1. A radio receiver comprising a radio signal receiving assembly, a frame aerial system serving as an antenna for intercepting a radiated signal and comprising a signal pick-up winding arranged in a given plane and in close proximity to said assembly, said assembly comprising a high frequency transformer comprising a signal processing coil having a core of magnetic material and a longitudinal axis therethrough, said coil being arranged on said assembly with its said axis substantially perpendicular to the said given plane and being positioned to intercept said radiated signal, said coil being coupled to said signal pick-up winding in the same sense thereby producing addition of the signals of said pick-up winding and said coil.

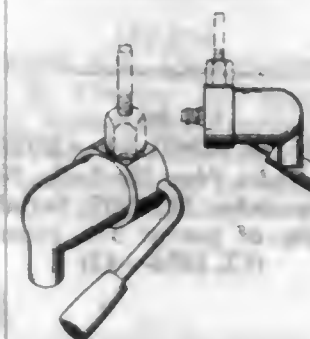
DESIGNS

FEBRUARY 11, 1958

182,056

BEVERAGE DISPENSER FAUCET

Irwin J. Albert, Philadelphia, Pa., assignor to Soda Dispenser Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application September 12, 1956, Serial No. 42,906
Term of patent 14 years
(Cl. D2—3)



182,057

HOSIERY HANGER

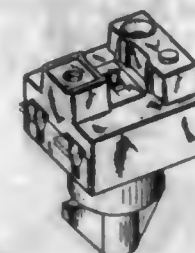
Valentine Samuel Bauman, Des Plaines, Ill.
Application December 17, 1956, Serial No. 44,216
Term of patent 14 years
(Cl. D80—8)



182,058

ELECTROMAGNETIC RELAY OR SIMILAR ARTICLE

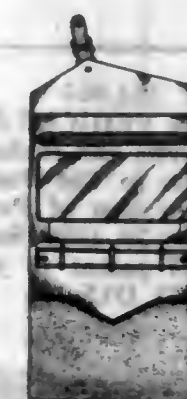
Louis C. Beggs, Attleboro, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts
Application March 5, 1957, Serial No. 45,122
Term of patent 14 years
(Cl. D26—13)



182,059

COMBINED HANDBAG AND LOOSE LEAF RING BINDER

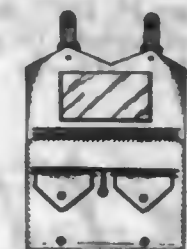
Herbert S. Chase, Woodmere, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
Application June 19, 1957, Serial No. 46,641
Term of patent 7 years
(Cl. D87—5)



182,060

LOOSE LEAF RING BINDER

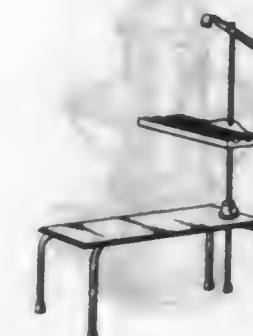
Herbert S. Chase, Woodmere, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
Application June 19, 1957, Serial No. 46,642
Term of patent 7 years
(Cl. D87—5)



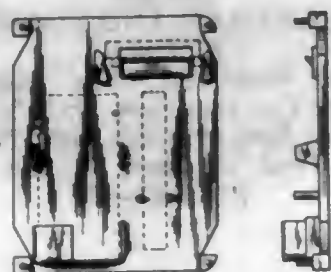
182,061

COMBINED SEAT AND EASEL

Raymond E. Cote, Menomonee, Wis.
Application January 16, 1956, Serial No. 39,770
Term of patent 14 years
(Cl. D15—8)



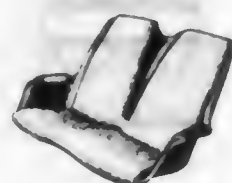
182,062
COMBINED WALL TYPE SAFETY RAZOR AND
BLADES HOLDER
 Joseph D. Cudd, Boise, Idaho
 Application April 3, 1957, Serial No. 45,571
 Term of patent 14 years
 (Cl. D4—3)



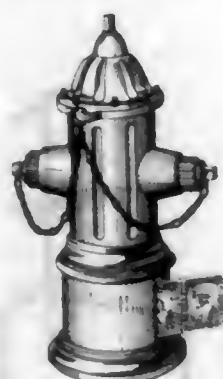
182,063
DUPLEX VEHICLE SEAT
 Walter B. Dean, Narberth, and Richard M. Irwin, Philadelphia, Pa., assignors to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
 Application January 29, 1957, Serial No. 44,652
 Term of patent 14 years
 (Cl. D15—8)



182,064
COVERED DUPLEX VEHICLE SEAT
 Walter B. Dean, Narberth, and Richard M. Irwin, Philadelphia, Pa., assignors to The Budd Company, Philadelphia, Pa., a corporation of Pennsylvania
 Application January 29, 1957, Serial No. 44,653
 Term of patent 14 years
 (Cl. D15—8)



182,065
STRIP MATERIAL DISPENSER
 Frank G. Ellerman, Evanston, Ill.
 Application July 8, 1955, Serial No. 36,878
 Term of patent 3½ years
 (Cl. D52—2)



182,066
PISTOL
 Warren N. Fetty, Altadena, and Arthur K. Mellin, Pasadena, Calif.
 Application November 28, 1955, Serial No. 39,058
 Term of patent 7 years
 (Cl. D30—1)



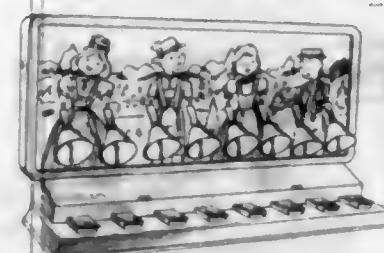
182,067
SPOON OR SIMILAR ARTICLE
 Irving Fiske, New Rochelle, N. Y.
 Application September 11, 1957, Serial No. 47,700
 Term of patent 3½ years
 (Cl. D54—12)



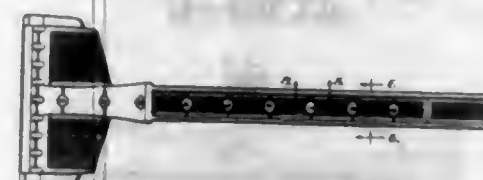
182,068
BANK BOTTLE
 Daniel Goldstein, New York, N. Y., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
 Application April 5, 1957, Serial No. 45,602
 Term of patent 14 years
 (Cl. D34—11)



182,069
SWISS BELL RINGING TOY
 Joseph Green, Woodmere, N. Y.
 Application April 5, 1957, Serial No. 45,600
 Term of patent 3½ years
 (Cl. D34—15)



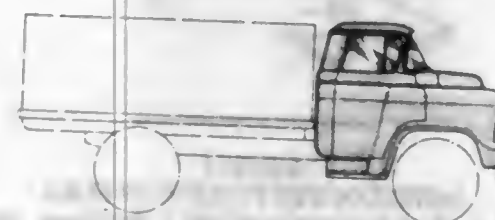
182,070
COMBINATION ICE AND SNOW SCRAPER
 Jon W. Hauser, St. Charles, Ill., assignor to National Brush Company, Aurora, Ill., a corporation of Illinois
 Application July 30, 1957, Serial No. 47,151
 Term of patent 14 years
 (Cl. D9—6)



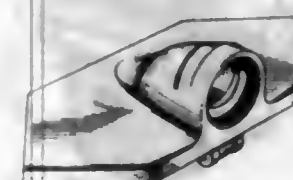
182,071
SHOE LACE FASTENER
 Eldon C. Henderson, Paso Robles, Calif.
 Application November 1, 1956, Serial No. 43,620
 Term of patent 14 years
 (Cl. D17—1)



182,072
TRUCK
 Charles M. Jordan, Birmingham, and Luther W. Stier, Rochester, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application December 29, 1955, Serial No. 39,513
 Term of patent 7 years
 (Cl. D14—3)



182,073
SPRINKLER HEAD
 Camille F. Le Delt, San Jose, Calif.
 Application September 4, 1956, Serial No. 42,829
 Term of patent 14 years
 (Cl. D91—1)



182,074
DRAWER PULL OR THE LIKE
 John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
 Application March 8, 1957, Serial No. 45,156
 Term of patent 14 years
 (Cl. D10—8)



182,075
DRAWER PULL OR THE LIKE
 John J. Lubberts and Lambert J. Mulder, Grand Rapids, Mich., assignors to Tomlinson of High Point, High Point, N. C., a corporation of North Carolina
 Application March 8, 1957, Serial No. 45,157
 Term of patent 14 years
 (Cl. D10—8)



182,076
SOFT FACED HAMMER
 Strother C. MacMinn, Los Angeles, Calif., assignor to New Plastic Corporation, Los Angeles, Calif., a corporation of Delaware
 Application August 16, 1956, Serial No. 42,634
 Term of patent 14 years
 (Cl. D93—4)



182,077

SOFT FACED HAMMER

Strother C. MacMinn, Los Angeles, Calif., assignor to New Plastic Corporation, Los Angeles, Calif., a corporation of Delaware

Application August 16, 1956, Serial No. 42,635
Term of patent 14 years
(Cl. D93—4)

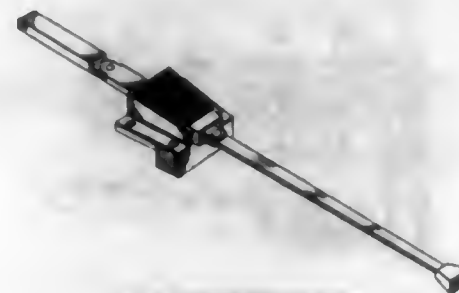


182,080

WINDOW OPERATOR

John R. Morgan, Northbrook, Ill., assignor to Amerock Corporation, Rockford, Ill., a corporation of Illinois

Application April 4, 1957, Serial No. 45,594
Term of patent 14 years
(Cl. D10—10)

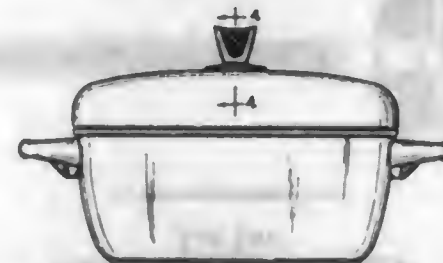


182,081

DUTCH OVEN OR SIMILAR ARTICLE

David L. Painter, Evanston, Ill., assignor to West Bend Aluminum Co., West Bend, Wis., a corporation of Wisconsin

Application April 8, 1957, Serial No. 45,625
Term of patent 14 years
(Cl. D44—1)



182,078

MOTION PICTURE CAMERA

Clark C. Macomber, Evanston, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

Application October 11, 1957, Serial No. 48,069
Term of patent 14 years
(Cl. D61—1)



182,082

COLLAPSIBLE SWING SEAT

Carroll L. Pierce, Cleveland, Ohio

Application September 21, 1955, Serial No. 38,025
Term of patent 3½ years
(Cl. D15—11)

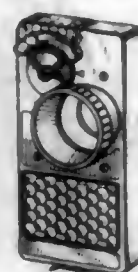


182,079

PHOTOGRAPHIC LENS AND EXPOSURE CONTROL UNIT

Clark C. Macomber, Evanston, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

Application October 11, 1957, Serial No. 48,070
Term of patent 14 years
(Cl. D61—1)

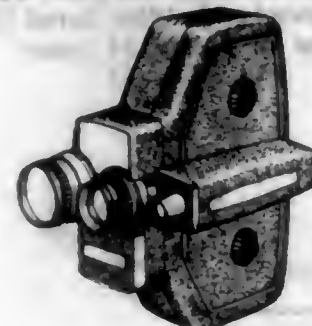


182,083

MOTION PICTURE CAMERA

Paul Richartz, Lincolnwood, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

Application November 7, 1957, Serial No. 48,370
Term of patent 14 years
(Cl. D61—1)

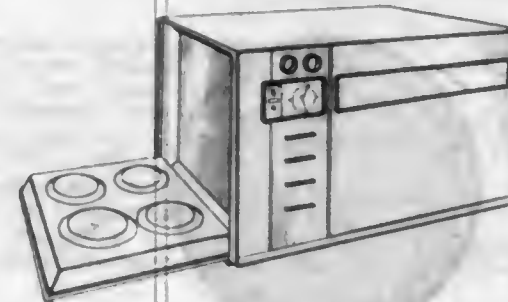


182,084

ELECTRIC OVEN AND STOVE COMBINATION

Ray C. Sandin, Northbrook, Ill., assignor to General Electric Company, a corporation of New York

Application October 19, 1956, Serial No. 43,416
Term of patent 14 years
(Cl. D81—4)

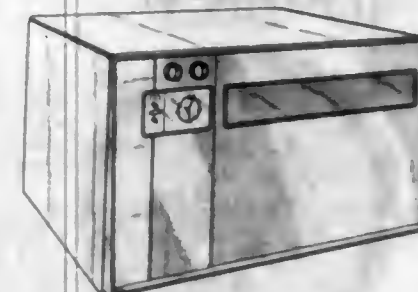


182,085

ELECTRIC COOKING OVEN

Ray C. Sandin, Northbrook, Ill., assignor to General Electric Company, a corporation of New York

Application October 19, 1956, Serial No. 43,420
Term of patent 14 years
(Cl. D81—26)

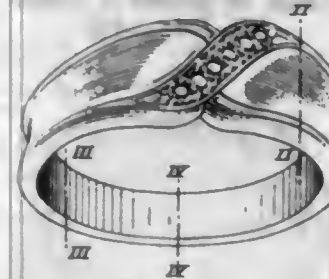


182,086

RING

Harry Sloss, San Francisco, Calif., assignor to Albert S. Samuels Co., San Francisco, Calif., a corporation of Delaware

Application May 6, 1957, Serial No. 46,017
Term of patent 14 years
(Cl. D45—10)

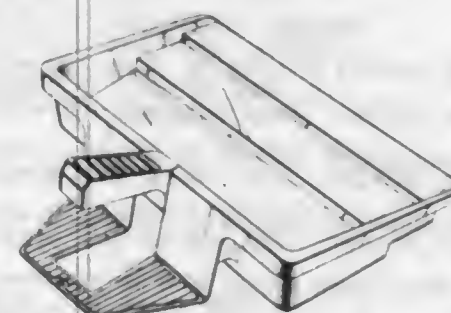


182,087

STEP-ON DUST PAN

Louis J. Sofro, Pawtucket, R. I.

Application February 23, 1956, Serial No. 40,280
Term of patent 7 years
(Cl. D44—18)



182,088

DIAL TYPE AIR THERMOMETER

Robert B. Stiens, Cincinnati, Ohio, assignor to Palmer Thermometers, Inc., Norwood, Ohio, a corporation of Ohio

Application July 10, 1956, Serial No. 42,191
Term of patent 14 years
(Cl. D52—7)

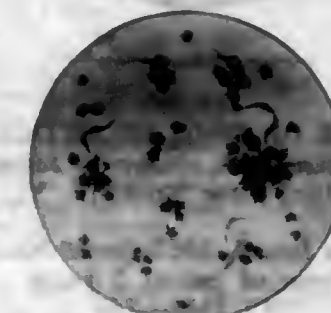


182,089

PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application May 23, 1957, Serial No. 46,314
Term of patent 7 years
(Cl. D44—15)

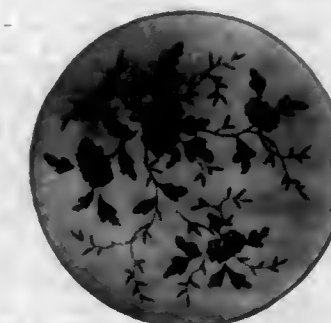


182,090

PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application May 23, 1957, Serial No. 46,316
Term of patent 7 years
(Cl. D44—15)



182,091

PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application May 24, 1957, Serial No. 46,330

Term of patent 7 years

(Cl. D44-15)



182,092

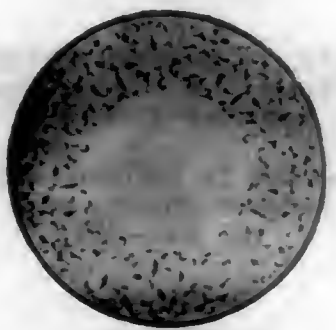
PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application June 3, 1957, Serial No. 46,444

Term of patent 7 years

(Cl. D44-15)



182,093

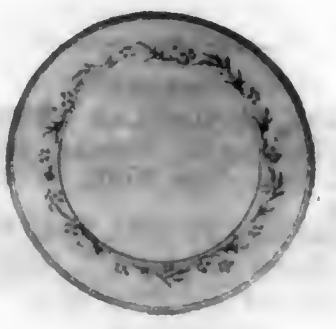
PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application June 3, 1957, Serial No. 46,454

Term of patent 7 years

(Cl. D44-15)



182,094

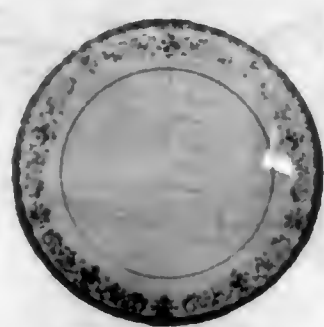
PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application June 3, 1957, Serial No. 46,455

Term of patent 7 years

(Cl. D44-15)



182,095

PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application September 20, 1957, Serial No. 47,799

Term of patent 14 years

(Cl. D44-15)



182,096

PLATE OR SIMILAR ARTICLE

Shuzo Terano, Mizuho-ku, Nagoya, Japan, assignor to Noritake Co., Inc., New York, N. Y., a corporation of New York

Application September 20, 1957, Serial No. 47,800

Term of patent 7 years

(Cl. D44-15)



LIST OF REISSUE PATENTEEES

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Hornbostel, Rogers: See—

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Cl. D34-15.

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Henderson, Eldon C. Shoe lace fastener. 182,071, 2-11-58,

Cl. D17-1.

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Dean, Walter B., and Irwin. 182,064.

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D10-8.

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Macomber, Clark C., to Bell & Howell Co. Photographic lens

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Lubberts, John J., and Mulder. 182,075.

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MacMinn, Strother C. 182,077.

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182,090, 2-11-58, Cl. D44-15.

Terano, Shuzo, to Noritake Co., Inc. Plate or similar article.

182,091, 2-11-58, Cl. D44-15.

Terano, Shuzo, to Noritake Co., Inc. Plate or similar article.

182,092, 2-11-58, Cl. D44-15.

Terano, Shuzo, to Noritake Co., Inc. Plate or similar article.

182,093, 2-11-58, Cl. D44-15.

Terano, Shuzo, to Noritake Co., Inc. Plate or similar article.

182,094, 2-11-58, Cl. D44-15.

Terano, Shuzo, to Noritake Co., Inc. Plate or similar article.

182,095, 2-11-58, Cl. D44-15.

Terano, Shuzo, to Noritake Co., Inc. Plate or similar article.

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Lubberts, John J., and Mulder. 182,075.

West Bend Aluminum Co.: See—

Painter, David L. 182,081.

LIST OF PATENTEEES

TO WHOM

PATENTS WERE ISSUED ON THE 11TH DAY OF FEBRUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

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Barkley, Charles J., to United States Steel Corp. Metallic
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Bartelt, Harold L. 2,822,934.
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410: 2,822,566	49- 47: 2,822,645	24: 2,822,723	46.5: 2,822,783	182: 2,822,862	30: 2,822,912
85: 2,822,567	79: 2,822,646	2,822,724	31: 2,822,784	157- 1.17: 2,822,863	139: 2,822,913
190: 2,822,568	51- 133: 2,822,647	27: 2,822,725	235: 2,822,785	7: 2,822,864	158: 2,822,914
4: 2,822,569	168: 2,822,648	40: 2,822,726	240: 2,822,786	25: 2,822,865	174: 2,822,915
32: 2,822,570	234: 2,822,649	57: 2,822,727	379: 2,822,787	91: 2,822,866	200- 1: 2,822,917
39: 2,822,571	241: 2,822,650	52- 24: 2,823,105	468: 2,822,788	115: 2,822,867	6: 2,822,922
1- 2,822,572	53- 24: 2,823,106	111: 2,822,729	123- 32: 2,822,789	32: 2,822,789	16: 2,823,272
4: 2,822,573	53- 24: 2,823,106	111: 2,822,729	41.11: 2,822,790	48: 2,822,791	160- 173: 2,822,868
8: 2,822,574	225: 2,822,652	37: 2,822,731	48: 2,822,792	52: 2,822,792	348: 2,822,869
10: 2,822,575	373: 2,822,653	133: 2,822,732	52: 2,822,793	380: 2,822,870	56: 2,823,277
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42: 2,822,578	295: 2,822,657	2,822,735	188: 2,822,796	20: 2,822,873	87: 2,823,280
47.3: 2,822,579	328: 2,822,658	13: 2,823,121	11: 2,822,797	119: 2,822,874	93: 2,823,282
48: 2,822,580	475: 2,822,659	8: 2,822,733	125- 11: 2,822,797	129: 2,822,875	128: 2,823,283
57: 2,822,581	34: 2,822,660	36.3: 2,822,734	92: 2,822,799	192: 2,822,876	152: 2,823,285
1.6: 2,822,583	2,822,661	75: 2,822,735	110: 2,822,800	33: 2,823,158	153: 2,823,286
4: 2,822,584	2,822,662	77: 2,822,736	229: 2,822,801	39.7: 2,823,159	166: 2,823,287
6: 2,822,585	59- 90: 2,822,663	29: 2,823,122	20: 2,822,802	53.1: 2,823,160	191- 59: 2,822,937
57.5: 2,822,586	1: 2,822,664	94: 2,823,123	30: 2,822,803	2,823,161	62: 2,822,938
62: 2,822,587	39.14: 2,822,665	46.07: 2,822,737	33: 2,822,804	58: 2,823,162	170: 2,823,174
92: 2,822,588	39.28: 2,822,666	46.93: 2,822,738	71: 2,822,805	68: 2,823,163	202- 15: 2,823,175
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110: 2,822,590	227: 2,822,668	2,822,740	159: 2,822,807	81: 2,823,165	98: 2,823,177
147: 2,822,591	97: 2,822,669	40: 2,822,741	276: 2,822,808	2,823,166	131: 2,823,178
200: 2,822,592	46.5: 2,822,670	53: 2,822,742	348: 2,822,809	89: 2,823,169	193.2: 2,823,179
14: 2,823,095	74: 2,822,671	84: 2,822,743	16: 2,822,810	90: 2,823,180	207: 2,823,180
16: 2,823,096	89.5: 2,822,672	84: 2,822,744	5: 2,822,811	28: 2,822,877	302: 2,823,181
110: 2,823,097	119: 2,822,673	94: 2,822,745	27: 2,822,812	14: 2,823,247	16: 2,822,916
2,823,098	140: 2,822,674	26: 2,822,746	4: 2,822,813	77: 2,823,248	45.31: 2,822,917
2,823,099	175.5: 2,822,675	81: 2,822,125	134- 135: 2,822,814	87: 2,823,249	52: 2,822,919
2,823,100	11: 2,822,676	105: 2,822,126	39: 2,822,815	2,823,250	60: 2,822,920
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68: 2,822,593	86: 2,822,679	2,822,129	276: 2,822,808	2,823,253	139: 2,822,923
158: 2,822,594	68- 213: 2,822,680	172: 2,823,130	348: 2,822,809	5.4: 2,823,254	468: 2,822,924
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252: 2,822,596	168: 2,822,682	222: 2,823,132	5: 2,822,811	7.2: 2,823,256	109: 2,822,926
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105: 2,822,599	9: 2,822,106	23: 2,822,748	622.5: 2,822,822	51: 2,823,259	523: 2,822,928
156: 2,822,600	32: 2,823,107	2,822,749	624: 2,822,821	69: 2,823,260	211- 165: Re.24,427
62: 2,822,601	7: 2,822,685	220: 2,822,750	625.21: 2,822,823	3: 2,823,261	212- 21: 2,822,929
28: 2,822,602	12: 2,822,686	101- 66: 2,822,751	625.42: 2,822,824	6: 2,823,262	214- 1: 2,822,930
36: 2,822,604	155: 2,822,688	350: 2,822,753	138- 64: 2,822,825	18: 2,823,263	6: 2,822,932
72: 2,822,605	405: 2,822,689	415.1: 2,822,754	139- 149: 2,822,827	2,823,264	8.5: 2,822,933
25.3: 2,822,606	431: 2,822,690	102- 49: 2,822,755	404: 2,822,829	84: 2,823,265	17: 2,822,934
108: 2,822,607	1: 2,822,691	50: 2,822,756	159: 2,822,830	2,823,267	2,822,935
416: 2,822,608	1.5: 2,822,692	108- 46: 2,822,757	209: 2,822,831	100.1: 2,823,268	19: 2,822,936
494: 2,822,609	2: 2,822,693	126: 2,822,759	360: 2,822,832	171: 2,823,269	42: 2,822,937
41: 2,822,610	5: 2,822,694	50: 2,822,760	143- 6: 2,822,833	175.31: 2,823,270	77: 2,822,938
196: 2,822,611	5.6: 2,822,695	2,822,760	124: 2,822,834	8: 2,822,878	53.36: 2,822,939
14: 2,822,612	44: 2,822,696	106-38.25: 2,823,133	132: 2,822,836	11: 2,822,879	85: 2,822,940
3: 2,822,613	63: 2,822,697	55: 2,823,134	206: 2,822,837	48: 2,822,880	131: 2,822,941
46: 2,822,614	101: 2,822,698	92: 2,823,135	144- 208: 2,822,837	82.1: 2,822,882	305: 2,822,942
52: 2,822,615	250: 2,822,699	131: 2,823,136	231: 2,822,838	2,822,882	340: 2,822,943
70: 2,822,617	411: 2,822,700	288: 2,823,137	230: 2,822,839	181- 31: 2,822,883	390: 2,822,944
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143: 2,822,620	504.4: 2,822,703	2,822,762	47: 2,822,842	41: 2,822,886	522: 2,822,947
165: 2,822,621	665: 2,822,704	33: 2,822,764	52: 2,822,843	82.1: 2,822,887	621: 2,822,948
178: 2,822,622	695: 2,822,705	100- 1: 2,822,765	101: 2,822,844	114.2: 2,822,888	701: 2,822,949
	763: 2,822,706		146: 2,822,845	120: 2,822,889	3: 2,822,950

CLASSIFICATION OF PATENTS

219-10. 41: 2,823,289	241- 172: 2,823,987	255- 1.8: 2,823,012	269- 539: 2,823,232	287- 90: 2,823,055	315- 5.22: 2,823,334
20: 2,823,290	296: 2,823,988	3: 2,823,013	558: 2,823,233	103: 2,823,056	39.3: 2,823,335
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50: 2,823,294	137.1: 2,823,992	259- 108: 2,823,017	618.5: 2,823,237	299- 4: 2,823,060	119: 2,823,339
78: 2,823,295	158.2: 2,823,993	260- 9: 2,823,188	618: 2,823,238	294- 50.9: 2,823,061	163: 2,823,340
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90: 2,823,297	43: 2,823,995	22: 2,823,190	698: 2,823,240	87.2: 2,823,063	221: 2,823,342
133: 2,823,298	52: 2,823,996	30.4: 2,823,191	674: 2,823,241	2: 2,823,064	325: 2,823,343
19: 2,823,299	111: 2,823,997	31.4: 2,823,192	676: 2,823,242	94: 2,823,065	467: 2,823,344
97: 2,823,300	155: 2,823,998	32.6: 2,823,193	679: 2,823,243	20: 2,823,066	483: 2,823,345
93: 2,823,301	4: 2,823,999	41: 2,823,194	261- 23: 2,823,018	35: 2,823,067	321- 15: 2,823,347
197: 2,823,302	33: 2,823,000	42: 2,823,195	2: 2,823,019	37.2: 2,823,068	323- 89: 2,823,348
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81: 2,823,304	65: 2,823,002	75: 2,823,197	262- 7: 2,823,022	44.5: 2,823,071	52: 2,823,350
178: 2,823,305	196: 2,823,003	82: 2,823,198	2: 2,823,023	91: 2,823,072	99: 2,823,351
205: 2,823,306	216: 2,823,004	85.5: 2,823,199	2: 2,823,024	116: 2,823,073	154: 2,823,352
327: 2,823,307	240- 30: 2,823,005	92.8: 2,823,200	33: 2,823,025	78: 2,823,074	155: 2,823,353
394: 2,823,308	250- 30: 2,823,006	93.8: 2,823,201	263- 20: 2,823,026	121: 2,823,075	20: 2,823,354
397: 2,823,309	2: 2,823,007	205: 2,823,202	51: 2,823,027	129: 2,823,076	30: 2,823,355
481: 2,823,310	27: 2,823,008	210: 2,823,203	39: 2,823,028	304- 5: 2,823,078	73: 2,823,356
530: 2,823,311	2: 2,823,009	236: 2,823,204	267- 61: Re.24,429	305- 9: 2,823,079	80: 2,823,357
541: 2,823,312	2: 2,823,010	270: 2,823,205	271- 2.6: 2,823,029	10: 2,823,080	97: 2,823,358
571: 2,823,313	2: 2,823,011	284: 2,823,206	59: 2,823,030	2: 2,823,081	336- 30: 2,823,359
223- 35: 2,823,314	2: 2,823,012	306.7: 2,823,207	61: 2,823,032	88: 2,823,082	65: 2,823,360
38: 2,823,315	2: 2,823,013	306.8: 2,823,208	94: 2,823,031	88.5: 2,823,322	96: 2,823,361
26: 2,823,316	2: 2,823,014	326.3: 2,823,209	76: 2,823,033	8.2: 2,823,063	120: 2,823,363
42.32: 2,823,317	2: 2,823,015	332.5: 2,823,210	105.3: 2,823,035	22: 2,823,064	191: 2,823,364
14: 2,823,318	2: 2,823,016	343: 2,823,211	145: 2,823,036	19: 2,823,065	49: 2,823,365
23: 2,823,319	2: 2,823,017	376: 2,823,212	186: 2,823,037	44: 2,823,066	52: 2,823,367
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47: 2,823,321	2: 2,823,019	412.6: 2,823,214	274- 10: 2,823,039	49: 2,823,324	2: 2,823,369
116: 2,823,322	2: 2,823,020	418: 2,823,215	279- 19: 2,823,040	77: 2,823,325	2: 2,823,370
235- 31: 2,823,323	2: 2,823,021	438: 2,823,216	280- 33.99: 2,823,042	90: 2,823,326	174: 2,823,371
31: 2,823,324	2: 2,823,022	448.2: 2,823,217	36: 2,823,043	162: 2,823,327	2: 2,823,372
60: 2,823,325	2: 2,823,023	449.6: 2,823,218	106.5: 2,823,044	99: 2,823,087	343- 11: 2,823,374
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61.11: 2,823,328	2: 2,823,026	465.5: 2,823,222	408: 2,823,047	333: 2,823,090	103: 2,823,377
68: 2,823,329	2: 2,823,027	473.5: 2,823,223	284- 18: 2,823,048	7: Re.24,428	107: 2,823,378
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236- 9: 2,823,331	2: 2,823,029	488: 2,823,225	159: 2,823,050	141: 2,823,329	776: 2,823,380
90: 2,823,332	2: 2,823,030	501: 2,823,227	286- 6: 2,823,051	167: 2,823,330	797: 2,823,381
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10.6: 2,823,335	2: 2,823,033	2: 2,823,230		3: 6: 2,823,333	
41: 2,823,336	2: 2,823,034	2: 2,823,231			
65: 2,823,337	2: 2,823,035				

CLASSIFICATION OF DESIGNS

D 2- 3: Des. 182,066	D15- 8: Des. 182,061	D34- 11: Des. 182,068	D44- 15: Des. 182,063	D52- 7: Des. 182,068	D61- 26: Des. 182,065
D 4- 3: Des. 182,062	Des. 182,063	15: Des. 182,069	Des. 182,064	D54- 12: Des. 182,067	D67- 5: Des. 182,066
D 9- 6: Des. 182,070	Des. 182,064	D44- 1: Des. 182,061	Des. 182,065	D61- 1: Des. 182,078	Des. 182,060
D10- 8: Des. 182,074	11: Des. 182,062	15: Des. 182,068	Des. 182,066	Des. 182,079	D91- 1: Des. 182,073
Des. 182,075	D17- 1: Des. 182,071	Des. 182,090	18: Des. 182,067	Des. 182,083	D93- 4: Des. 182,076
10: Des. 182,080	D26- 13: Des. 182,068	Des. 182,091	D45- 10: Des. 182,066	D80- 8: Des. 182,057	Des. 182,077
D14- 3: Des. 182,072	D30- 1: Des. 182,066	Des. 182,092	D52- 2: Des. 182,065	D81- 4: Des. 182,064	

TRADEMARKS NOTICES

Trademark Suits

Notices under 15 U. S. C. 1114; Trademark Act of July 5, 1946

TM 121,927 (NOPCO), National Oil Products Co., Soluble oils, soluble-oil bases, sulfonated oils, cutting-oils, and drawing oils for lubricating purposes; TM 539,978 (NOPCO), Chemical Co., Sulfated fatty oils, sulfated fatty acids, fatty amides etc.; TM 554,194 (NOPCO), Nopco Chemical Co., same, filed Dec. 24, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c2135, *Nopco Chemical Co. v. Oil Products & Chemical Co., Inc.*

TM 303,122 (ATRAUMATIC), Davis & Geck, Inc., Surgical and dental needles and combined needles and sutures, filed Jan. 2, 1958, D. C., N. D. Calif. (San Francisco), Doc. 36949, *American Cyanamid Co. v. Lionhaven, Ltd.*

TM 288,284 (THE CANTEN), Automatic Canteen Co. of America, Vending machines; TM 579,300 (CANTEN), same, Vending machines on a contract basis, filed Jan. 2, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18351, *Automatic Canteen Co. of America v. Staten Island Canteen Service Co., Inc.*

TM 217,219 (ZIPPO), Zippo Manufacturing Co., Pocket lighter of the pyrophoric type, filed Nov. 13, 1957, D. C., S. D. N. Y., Doc. 126/372, *Zippo Mfg. Co. v. Digby Unipac Corp.* Consent decree Dec. 30, 1957.

TM 300,924 (DANIEL BOONE AND DESIGN), United Sheplined Clothing Co., Leather and fabric coats and jackets, and coats and jackets of leather and fabric combinations, etc., filed Aug. 29, 1955, D. C., S. D. N. Y., Doc. 103/92, *United*

Sheplined Clothing Co. v. Arctic Fur Cap Corp. Consent order of dismissal Dec. 31, 1957.

TM 539,978. (See TM 121,927.)

TM 554,194. (See TM 121,927.)

TM 554,300 (SEASON-ALL), Aluminum Fabricating Co. of Pittsburgh, Storm sash for permanent mounting and sealing on windows, filed Nov. 30, 1955, D. C., S. D. N. Y., Doc. 105/186, *Aluminum Fabricating Co. of Pittsburgh et al. v. Season-All Window Corp.* Final order and judgment; defendant enjoined Dec. 30, 1957.

TM 579,300. (See TM 288,284.)

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

J. F. Kerns Company, Chicago, Ill., Reg. No. 591,796, Canc. No. 6980.

G. Sommers & Co., St. Paul, Minn., Reg. No. 129,785, Canc. No. 6988.

DAPHNE LEEDS,
Assistant Commissioner of Patents.

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1957

Total number of applications awaiting action (excluding renewals and Sec. 12 (c))..... 11, 274
Date of oldest new application..... May 8, 1957
Date of oldest amended application..... May 14, 1957

J. H. MERCHANT, Director, Trademark Examining Operation		Oldest Application	
TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION		New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation			
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50		5-8-57	6-14-57
(II) R. F. SHRYOCK, Classes 4, 18, 44, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200		7-17-57	9-5-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 44, 47, 48, 49, 52; and Certification Marks		6-18-57	6-17-57
Renewals (All Classes)		11-18-57	12-16-57
Sec. 12 (c) Publications (All Classes)		10-2-57	

Applications Filed During the Month of December 1957—1,703

Registrations Issued..... 197—No. 658,173 to No. 658,369
Renewals Issued..... 22

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5. As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 25,113. Orefraction Incorporated, Pittsburgh, Pa. Filed Feb. 26, 1957.

OREFRACTION

For Zircon (Milled or Granular), Rutile (Milled or Granular), Ceramic Washes, Porcelain Body Mixes, and Milled Magnetite.

First use on or about May 14, 1940.

SN 31,226. J. Oliver Johnson Seed Company, Chicago, Ill. Filed June 3, 1957.

Rolling Green

For Grass Seeds.
First use Mar. 26, 1957.

SN 31,681. Northrup, King & Co., Minneapolis, Minn. Filed June 10, 1957.

PAR

For Grass Seed.
First use in October 1956.

Class 2—Receptacles

SN 21,715. Nappe-Smith Manufacturing Co., Farmingdale, N. J. Filed Dec. 27, 1956.



For Portable, Reusable, Temperature Insulated Carriers and Bags.
First use Sept. 3, 1955.

SN 27,663. Bemis Bro. Bag Company, Minneapolis, Minn. Filed Apr. 8, 1957.

TEKPAK

For Molded Pulp Containers for Growing Plants and the Like.
First use Dec. 15, 1956.

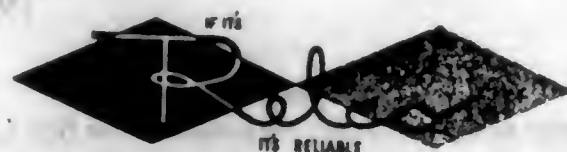
SN 30,408. Convoy, Incorporated, Canton, Ohio. Filed May 21, 1957.



For Receptacles, viz., Trays, Stacking Boxes, Tote Boxes, Shipping Boxes, and Storage Boxes.
First use Apr. 17, 1957.

TM 34

SN 32,124. Reliable Luggage, Inc., West Pittsburg, Pa. Filed June 17, 1957.



Owner of Reg. No. 646,688.
For Suitcases, Valises, Travelling Bags, and Trunks.
First use Apr. 22, 1957.

Class 4—Abrasives and Polishing Materials

SN 32,347. Tyler P. Stewart, Mason City, Iowa. Filed June 20, 1957.

Permanize

For Shoe Shine Lotion and Leather Conditioner.
First use Jan. 20, 1957.

SN 32,463. Bond Street Ltd., New York, N. Y. Filed June 24, 1957.

Bond Street

For Leather Polish.
First use Sept. 10, 1956.

SN 32,592. The Flexan Corporation, Chicago, Ill. Filed June 25, 1957.



For Sanding and Polishing Kits Consisting of Rubber Back-Up Pads, Polishing Bonnets, Abrasive Discs, and Screw Machine Parts.
First use June 14, 1957.

SN 32,915. Columbia Wax Company, Glendale, Calif. Filed July 1, 1957.

SuperPOL

For Floor Polish for All Types of Flooring.
First use June 5, 1957.

FEBRUARY 11, 1958

U. S. PATENT OFFICE

TM 35

SN 32,916. Columbia Wax Company, Glendale, Calif. Filed July 1, 1957. SN 2,438. McConnon & Company, Winona, Minn. Filed Feb. 10, 1956.

POLYFIN

For Floor Emulsion in the Nature of Wax.
First use Jan. 16, 1957.

G-20

For Granular Insecticide for Corn Borer Control.
First use June 17, 1955.

Class 5—Adhesives

SN 27,045. Norton Company, Troy, N. Y. Filed Mar. 27, 1957.

BEAR

Owner of Reg. Nos. 548,718, 570,426, and others.
For Pressure Sensitive Adhesive Tapes.
First use on or about Mar. 7, 1957.

SN 27,047. Norton Company, Troy, N. Y. Filed Mar. 27, 1957.



Owner of Reg. Nos. 548,718, 570,426, and others.
For Pressure Sensitive Adhesive Tapes.
First use on or about Mar. 7, 1957.

SN 27,325. Lexsuko, Incorporated, Cleveland, Ohio. Filed Apr. 1, 1957.

LEXSUCO

For Adhesives in Liquid, Semi-Liquid, Paste, or Dry Form.
First use in June 1955.

Class 6—Chemicals and Chemical Compositions

SN 700,448. Gud-Bi-Fil Company, Norfolk, Va. Filed Dec. 22, 1955.



For Insect Destroying Device—Namely, a Cardboard With Cotton, Treated With Insecticide, Attached Thereto.
First use July 1, 1955.

SN 700,807. The Millville Manufacturing Company, Philadelphia, Pa. Filed Dec. 29, 1956.

WOOD-SETTE

For Chemical Composition Incorporated Into Fabrics To Render the Same Crease or Wrinkle Resistant.
First use June 1953.

SN 13,630. Zivney Products, Rockfalls, Ill. Filed Aug. 8, 1956.

FORMULA B70

Applicant disclaims "Formula."
For Enzyme Product for Septic Tanks, Cesspools, and Outdoor Disposal Units.
First use Feb. 11, 1956.

SN 20,970. Soft 'N' White, Incorporated, Akron, Ohio, to General Electric Company, Hotpoint Co. Division, Chicago, Ill. Filed Dec. 12, 1956.

WONDER

For Rinse-Water Additive for Clothes Washing Machines.
First use May 24, 1955.

SN 22,475. Speed-D-Burr Corporation, Glendale, Calif. Filed Jan. 11, 1957.

SPEED-D-BURR

Owner of Reg. No. 626,509.
For Rust-Preventing Compounds and Coloring Compounds.
First use Sept. 10, 1953.

SN 27,711. Monsanto Chemical Company, St. Louis, Mo. Filed Apr. 8, 1957.

PEAK-O'-RIPENESS

For Preservative Preparation for Citrus and Other Fruits Which Functions Primarily as a Fungicide.
First use Mar. 29, 1957.

SN 30,467. American Alcolac Corporation, Baltimore, Md. Filed May 22, 1957.

SIPOSAN

Owner of Reg. No. 553,565.
For Cationic Surface Active Agents, as Germicides and Wetting, Dispersing, and Emulsifying Agents.
First use on or about Mar. 4, 1957.

SN 33,452. Ansul Chemical Company, Marinette, Wis. Filed July 10, 1957.

PLUS FIFTY B.

Owner of Reg. No. 409,942.
For Dry Powdered Chemical Fire Extinguishing Compositions.
First use Mar. 23, 1957.

Class 10—Fertilizers

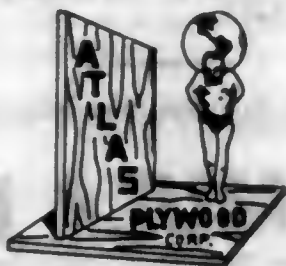
SN 34,981. The Nitragin Company, Inc., Milwaukee, Wis. Filed Aug. 5, 1957.

NITRA-TONE

For Gibberellic Acid Plant Growth Stimulant.
First use May 24, 1957.

Class 12—Construction Materials

SN 699,279. Atlas Plywood Corporation, Boston, Mass. Filed Dec. 2, 1955.



Owner of Reg. Nos. 208,762, 209,886, and others.
For Plywood Panels, Sheets, and Veneer.
First use in March 1950.

SN 23,918. Roger Hansen, Wiesbaden, Germany. Filed Feb. 6, 1957.

GREGAN

Owner of German Reg. No. 698,832, dated Jan. 9, 1957.
For Concrete Building Blocks.

SN 27,254. AA Wire Products Company, Chicago, Ill. Filed Apr. 1, 1957.

PARTITION-LOK

For Masonry Reinforcing Wall Bonds.
First use Oct. 26, 1955.

SN 27,562. Atomized Materials Company, Inc., Pittsburgh, Pa. Filed Apr. 5, 1957.

SPEED BOND

For Plastic Filler.
First use Feb. 8, 1957.

SN 27,993. Southern Pine Lumber Company, Diboll, Tex. Filed Apr. 11, 1957.

SP SUPREME

For Oak Wood Flooring.
First use Dec. 1, 1935.

SN 33,385. United States Steel Corporation, Pittsburgh, Pa. Filed July 8, 1957.

STEELAIRE

For Prefabricated Homes.
First use Sept. 10, 1956.

SN 35,343. Gateway Engineering Company, Chicago, Ill. Filed Aug. 12, 1957.



No claim is made to the exclusive use of the representation of an anchor slot channel apart from the mark as shown.

For Anchor Slot Channels Adapted To Be Embedded in Concrete Building Structures and Supporting Anchor Devices for Insertion Into Said Channels To Support Side Wall Facings, Overhead and Wall Fittings and Appliances.

First use July 13, 1957.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 7,082. Elco Tool and Screw Corporation, Rockford, Ill. Filed Apr. 25, 1956.

stock_{your}shop

For Transparent Plastic Boxed Screws, Bolts, and Nuts.
First use Feb. 24, 1956.

SN 28,468. John J. Tipton, Johnson County, Kans. Filed Apr. 18, 1957.

"No-Tack"

For Pipe Aligning Clamps.
First use Mar. 15, 1957.

SN 31,003. Grinnell Corporation, Providence, R. I. Filed May 29, 1957.

PROTECTOSPRAY

Owner of Reg. Nos. 594,752 and 594,753.
For Stationary Fire Extinguishing Sprinkler System, and Pipe, Pipe Fittings, Valves, Cocks, Nozzles, and Sprinkler Heads for Use in Such a System.
First use May 15, 1957.

SN 31,087. George W. Dahl Company, Inc., Bristol, R. I. Filed May 31, 1957.

BANTAM

For Motor Operated Control Valves.
First use in December 1948.

SN 31,122. The Hollaender Manufacturing Co., Cincinnati, Ohio. Filed May 31, 1957.

RACKMASTER

For Fittings Used To Join Pipe Sections in the Construction of Fences, Railings, Frames, Partitions, and the Like.
First use Apr. 1, 1957.

SN 31,169. West Bend Aluminum Co., West Bend, Wis. Filed May 31, 1957. Sec. 2(f).

SERV-IT

For Cooking Platters With Attachable Handles.
First use Nov. 29, 1946.

SN 32,006. H. K. Porter Company, Inc., Pittsburgh, Pa. Filed June 14, 1957.

HKP

For Steel Pipe Fittings Including Unions, Screw End Fittings, Plugs, Bushings and Special Fittings; Washers, Couplings, Sprinkler Systems and Parts and Accessories Therefor, Plastic Pipe and Tubing; Wire Rope Clips, Thimbles, Hooks and Other Fittings, and Wire Rope Slings; and Roof Bolts and Accessories.

First use November 1956 on sprinkler system kits.

FEBRUARY 11, 1958

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Class 15—Oils and Greases

SN 14,310. American Cyanamid Company, New York, N. Y.
Filed Oct. 23, 1957.

ACCOLUBE

For Lubricating Oil Additive.
First use March 1953.

SN 33,131. Continental Oil Company, Ponca City, Okla.
Filed July 3, 1957.

PACOL

For White Mineral Oil.
First use June 19, 1941.

SN 41,059. The Globe Oil & Refining Company, Wichita,
Kans. Filed Oct. 21, 1957. Sec. 2(f).



Owner of Reg. No. 546,485.
For Petroleum Products—Namely, Lubricating Oils and
Greases, Gasoline, Tractor Fuel Oil, Kerosene, Range Oil, Gas
Oil, and Fuel Oils.
First use at least as early as 1901.

Class 16—Protective and Decorative Coatings

SN 26,080. Finishine Laboratories, Inc., Syracuse, N. Y.
Filed Mar. 13, 1957.

PLASTIK-PAD

For Liquid Preparation Used in Repairing Surface Damage
on Plastic Coating or Covering Materials.
First use Apr. 19, 1956.

SN 33,099. Reeves & Sons, Limited, Enfield, England. Filed
July 2, 1957. Sec. 2(f).

REEVES

For Water Colors, Poster Colors, and Brushes for Artists',
Designers', and Students' Use.
First use 1766; in commerce in 1923.

SN 33,409. The Foy Paint Company, Inc., d. b. a. The Cin-
cinnati Varnish Company, Inc., Cincinnati, Ohio. Filed
July 9, 1957.



For Floor Finish for Wood or Linoleum Floors.
First use June 10, 1957.

SN 37,714. American Cyanamid Company, New York, N. Y.
Filed Sept. 24, 1957.

CYAQUA

For Surface Coatings, Including Paints.
First use June 12, 1957.

TM 727 O. G.—4

SN 37,808. Petroleum Engineering Associates, Inc., Passa-
dena, Calif. Filed Sept. 25, 1957.

PEACO CORESEAL

For Core Sample Coating Material and the Like.
First use Oct. 15, 1956.

SN 37,926. Marshall-Wells Company, Duluth, Minn. Filed
Sept. 26, 1957.

VALU-BILT

For Paints—Namely, House Paint and Barn Paint.
First use Mar. 16, 1953.

SN 37,934. Bake Oven Supply Co. Inc., Fort Worth, Tex.
Filed Sept. 27, 1957.



For Auto Baking Enamel.
First use July 10, 1957.

SN 37,978. Sillers Paint & Varnish Co., Los Angeles, Calif.
Filed Sept. 27, 1957.

WOOD-CLEER

For Varnishes.
First use May 21, 1957.

SN 38,152. Maas & Waldstein Co., Newark, N. J. Filed Oct.
1, 1957.

PLEXPRIME

For Coating Compositions in the Nature of Primers and
Undercoats.
First use Apr. 17, 1957.

Class 18—Medicines and Pharmaceutical Preparations

SN 698,882. Kneipp-Mittel-Zentrale Hermann Oberhauser,
d. b. a. Kneipp-Heilmittel-Werk, Wursburg, Germany.
Filed Nov. 25, 1955.

Kneipp



For Quintessences and Liquid Extracts of Fruits and Herbs,
Dietetic Syrups, Pills, Tablets, Powders, and Teas All for Use
as Carminatives and Prophylactics.
First use June 1, 1891, on pills, tablets, powders, and teas;
in commerce Sept. 26, 1891.

SN 12,562. American Cyanamid Company, New York, N. Y.
Filed Nov. 15, 1957.

KINETOSIN

For Anti-Motion Sickness Compound.
First use Apr. 18, 1956.

SN 13,570. Carter Products, Inc., New York, N. Y. Filed Aug. 8, 1956. SN 27,620. Olympia Brewing Company, Olympia, Wash. Filed Apr. 5, 1957. Sec. 2(f).

GALINEX

For Medicinal Preparation—Namely, Sedative To Relieve Tension, Nervousness, Headaches, Fatigue, Depression, and Sleeplessness.
First use Mar. 7, 1956.

SN 14,462. Alfred B. McIntyre, d. b. a. The Cutisene Company, Santa Cruz, Calif. Filed Aug. 23, 1956.

Tummytones

For Preparation for Sour Stomach, Nausea, Heartburn, and Other Causes of Stomach Distress.
First use Mar. 1, 1952.

SN 17,193. Societe Anonyme Etablissements Clin-Byla, Paris, France. Filed Oct. 9, 1956.

CLIN

For Pharmaceutical Preparations—Namely, Antibiotics, Anesthetics, Analgesics, Medicaments for Respiratory and Circulatory Ailments, Anti-Infectious Medicaments, and Anti-Toxic Preparations.
First use 1876; in commerce 1931.

SN 20,608. Paul B. Elder Company, Bryan, Ohio. Filed Dec. 7, 1956.

MAGNOCYL

For Pharmaceutical Preparation for Use as a Stool-Softening and in the Management of Constipation.
First use Sept. 28, 1956.

SN 23,826. Revlon, Inc., New York, N. Y. Filed Feb. 5, 1957.

EYE-FRESH

For Medicated Eye Drops.
First use Dec. 20, 1956.

SN 24,717. Nopco Chemical Company, Harrison, N. J. Filed Feb. 19, 1957.

NOPTRACIN

Owner of Reg. Nos. 572,106, 596,276, and others.
For Antibiotic Products, Particularly Products Containing Bacitracin, for Use in Animal and Poultry Feeds.
First use Mar. 6, 1956.

SN 24,880. The Upjohn Company, Kalamazoo, Mich. Filed Feb. 21, 1957.

TRIBIOCIN

For Antibiotic Preparation in Combination With Steroids for the Treatment of Infectious Diseases and the Associated Inflammation.
First use June 25, 1956.

SN 26,171. Glenwood Laboratories Inc., Bergenfield, N. J. Filed Mar. 14, 1957.

PASKALIUM

For Medicinal Preparation Comprising Potassium Para-Aminosalicylate for Treating Tuberculosis.
First use on or about Dec. 15, 1953.

OLYMPIA

Owner of Reg. No. 554,110.
For Yeast Vitamin Food Supplement for Animals.
First use June 28, 1949.

SN 28,069. Sprayway, Inc., Chicago, Ill. Filed Apr. 12, 1957.

SPRAYWAY

Owner of Reg. Nos. 553,067 and 573,409.
For Germicidal and Fungicidal Foot Spray Preparation for Refreshing and Deodorizing the Feet and Decontaminating Shoes; an Antiseptic First Aid Spray Preparation for Minor Skin Injuries, for Preventing Infection and Aiding in Healing; and a Spray Preparation for the Relief of Upper Respiratory Congestion Caused by Colds and Hayfever.
First use in July 1949.

SN 29,254. Armour and Company, Chicago, Ill. Filed May 2, 1957.

ZYPANAR

For Enzyme Preparations for Biochemical Use.
First use Apr. 12, 1957.

SN 29,255. Armour and Company, Chicago, Ill. Filed May 2, 1957.

DELTAZYME

For Enzyme Preparations for Biochemical Use.
First use Apr. 12, 1957.

SN 29,258. Armour and Company, Chicago, Ill. Filed May 2, 1957.

ZYMAR

Owner of Reg. No. 632,558.
For Enzyme Preparations for Biochemical Use.
First use Apr. 12, 1957.

SN 29,261. Armour and Company, Chicago, Ill. Filed May 2, 1957.

MIXASE

For Enzyme Preparations for Biochemical Use.
First use Apr. 12, 1957.

SN 30,561. Bristol Laboratories Inc., Syracuse, N. Y. Filed May 23, 1957.

UROPOL

For Urinary Antiseptic Pharmaceutical Preparation.
First use Apr. 1, 1956.

SN 31,046. Sterling Drug Inc., New York, N. Y. Filed May 29, 1957.

NIAGRA

For Diuretic.
First use Apr. 26, 1957.

SN 31,618. Abbott Laboratories, North Chicago, Ill. Filed June 10, 1957.

GRADUMET

For Tablet Dosage Form Providing Slow Release of Medicinal Preparations.
First use Apr. 29, 1957.

SN 32,409. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed June 21, 1957. SN 6,121. Edwin Robert Lindberg, d. b. a. Champion Boats, Chico, Calif. Filed Apr. 10, 1956.

VISINE

For Therapeutic Ophthalmic Preparation.
First use Mar. 28, 1937.

SN 33,094. Nyco Laboratories, Inc., Long Island City, N. Y. Filed July 2, 1957.

NYSCOSEAL

Owner of Reg. No. 598,395.
For Preparations in Capsule Form for Use in the Treatment of Anaemia, Constipation, Obesity, Ulcers, Colds, Allergies, Fevers, Hypertension, Heart Diseases; Encapsulated Antihistamines, Vitamins, Minerals, Dietary Supplements, Hypnotics, Hormones, Sedatives, Analgesics, Sympathomimetics, Antipyretics, and Narcotics.
First use May 7, 1957.

SN 33,271. Model-Etta Corp., New York, N. Y. Filed July 5, 1957.

DU-DOL

Owner of Reg. No. 607,206.
For Appetite Satiating Composition.
First use June 21, 1957.

SN 33,895. The National Drug Company, Philadelphia, Pa. Filed July 17, 1957.

AQUADIOL

For Aqueous Estrogenic.
First use July 1, 1947.

SN 33,896. The National Drug Company, Philadelphia, Pa. Filed July 17, 1957.

NATOLONE

For Steroid Hormone for Arthritis.
First use Feb. 17, 1950.

SN 34,723. R. J. Moran Co., Boston, Mass. Filed July 31, 1957.

ALBAPLEX

For Medicinal Preparation and Dietary Supplement Containing Vitamins.
First use on or about June 12, 1957.
Subj. to Int'l. with SN 35,140.

SN 35,140. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 7, 1957.

ALBAPLEX

Owner of Reg. Nos. 575,558 and 637,945.
For Antibiotic Preparation for Veterinary Use.
First use Mar. 18, 1957.
Subj. to Int'l. with SN 34,723.

Class 19—Vehicles

SN 1,105. Nelson-Thomson-Wiedeman Co., Kansas City, Mo. Filed Jan. 19, 1956.

MOBILADS

For Support Frames for Advertising Media, Said Frames Constructed for Mounting on Automobiles, Trucks, and the Like.
First use Oct. 22, 1955.

Champion

For Boats.
First use Feb. 15, 1950.

SN 17,093. International Harvester Company, Chicago, Ill. Filed Oct. 8, 1956.

NECESSORIES

For Motor Vehicle Parts and Accessories, Particularly Chassis-Mounted Road Sanders, Hydraulic and Pneumatic Wheel-Brake Hose Supports, Saddle-Type Fuel Tanks, Radiator Grille Guards, Radiator Cold Shields, Bug Screens, and Power Brake Attachments.
First use Sept. 25, 1956.

SN 22,373. Magneet Rijnwielen- en Motorenfabriek N. V., Weesp, Netherlands. Filed Jan. 10, 1957.



The term "Magneet" means a magnet.
For Bicycles, Motor Assisted Bicycles, Motorcycles, Scooters, and Structural Parts Thereof.
First use 1921; in commerce 1950.

SN 25,814. American Machine and Foundry Company, New York, N. Y. Filed Mar. 11, 1957.

LUXURY LINER

For Bicycles.
First use during the latter part of 1948.

SN 25,815. American Machine and Foundry Co., New York, N. Y. Filed Mar. 11, 1957.

PLEASURE LINER

For Bicycles.
First use during the latter part of 1948.

SN 31,547. Dairy Equipment Company, Madison, Wis. Filed June 7, 1957.

KARI-KOOL

For Insulated Tank Trucks and Truck Tanks.
First use Apr. 13, 1957.

SN 31,643. Douglas Aircraft Company, Inc., Santa Monica, Calif. Filed June 10, 1957.

SEVEN SEAS

For Airplanes and Parts Thereof.
First use on or about Dec. 20, 1955.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 22,091. Casco Products Corporation, Bridgeport, Conn. Filed Jan. 4, 1957.

CASCO

Owner of Reg. No. 393,859.
For Electrically Operated Griddles and Electric Blankets.
First use June 15, 1956.

SN 22,092. Casco Products Corporation, Bridgeport, Conn. Filed Jan. 4, 1957.



For Electric Fans, Electric Spot Lights, Electric Cooking Utensils, Electric Controls for Cooking Devices, Electric Controls for Electric Blankets, Electric Blankets.
First use June 15, 1956.

SN 24,729. Quaker State Barbecue Mfg. Co. Inc., Brooklyn, N. Y. Filed Feb. 19, 1957.



For Barbecue Machines.
First use November 1951.

SN 31,203. Electric Machinery Mfg. Company, Los Angeles, Calif. Filed June 3, 1957.

CAPADYNE

For Electro-Mechanical Transducer.
First use Feb. 24, 1955.

SN 31,471. Day-Brite Lighting, Inc., St. Louis, Mo. Filed June 6, 1957.

WAFFLETEX

For Fluorescent Lighting Fixtures and Parts Thereof.
First use Mar. 18, 1957.

SN 31,472. Day-Brite Lighting, Inc., St. Louis, Mo. Filed June 6, 1957.

CLEARTEX

For Fluorescent Lighting Fixtures and Parts Thereof.
First use Mar. 6, 1957.

SN 31,473. Day-Brite Lighting, Inc., St. Louis, Mo. Filed June 6, 1957.

DAY-TEX

For Fluorescent Lighting Fixtures and Parts Thereof.
First use Mar. 13, 1957.

SN 31,716. The Edwin L. Wiegand Company, Pittsburgh, Pa. Filed June 10, 1957.

MICROFIN

For Electrical Heating Units and Parts Thereof.
First use on or about January 1955.

SN 31,812. Burgess Vibrocrafters, Inc., Grayslake, Ill. Filed June 12, 1957.



Owner of Reg. Nos. 533,162, 551,702, and 645,077.
For Electric Apparatus Including Unitary Portable Electric Hand Manipulable Sprayers for Paints, Insecticides, Etc., and Electrically Driven Beverage Mixers and/or Aerators.
First use Jan. 24, 1957.

SN 32,214. Sprague Electric Company, North Adams, Mass. Filed June 18, 1957.

CERA-MITE

For Ceramic Capacitors.
First use in June 1950.

SN 32,532. The Radion Corporation, Chicago, Ill. Filed June 24, 1957.

"METROPOLITAN"

For Antennas for Television Sets.
First use on or about Mar. 1, 1950.

SN 32,533. The Radion Corporation, Chicago, Ill. Filed June 24, 1957.

THE SUBURBAN

For Antennas for Television Sets.
First use Mar. 1, 1950.

SN 32,637. Sprague Electric Company, North Adams, Mass. Filed June 25, 1957.

KOOLPAK

For Capacitor Assemblies.
First use Sept. 24, 1956.

SN 32,648. Dictaphone Corporation, Bridgeport, Conn. Filed June 12, 1957.

CHAIRMAN

For Electrically Operated Sound Recording and Reproducing Machines—Namely, Dictating Machines.
First use March 1957.

SN 32,737. Clinton Supply Co., Chicago, Ill. Filed June 27, 1957.



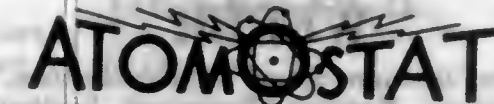
For Rectifiers for Heavy Duty Selenium Platers.
First use Oct. 30, 1953.

SN 33,000. Stanthony Corporation, Los Angeles, Calif. Filed July 1, 1957.

ELECTRAMIC

For Electric Food Barbecuing Unit.
First use Feb. 15, 1957.

SN 33,049. Campbell X-Ray Corporation, Boston, Mass. Filed July 2, 1957.



For Electrostatic Precipitators.
First use Feb. 1, 1957.

SN 33,163. Markt & Hammacher Company, New York, N. Y. Filed July 3, 1957.

HERO

Owner of Reg. Nos. 83,503, 559,073, and others.
For Automotive Parts—Namely, Automobile Horns; Ignition Wires and Cables; Battery Parts; Terminals and Clips; Voltage Regulators; Cut Outs; Starter and Dimmer Switches; Horn and Headlight Relays; Solenoid Switches; Contact Point Sets; Distributor Caps and Rotors.
First use Aug. 1, 1954.

SN 33,180. Telefonaktiebolaget LM Ericsson, Stockholm, Sweden. Filed July 3, 1957.

STANFON

Owner of Swedish Reg. No. 81,720, dated Dec. 21, 1956.
For Telephone Instruments.

SN 34,143. K-P-F Electric Co., Stockton, Calif. Filed July 22, 1957.

KPF

For Pole Top Switches.
First use on or about Jan. 1, 1912.

SN 34,762. Argonne Electronics Mfg. Corp., New York, N. Y. Filed Aug. 1, 1957.



For Variable Condensers.
First use February 1956.

Class 22—Games, Toys, and Sporting Goods

SN 25,274. Donnovin C. Sigerson, d. b. a. Allwork Manufacturing and Engineering Co., Oakland, Calif. Filed Feb. 28, 1957.

TUMBLE TUB

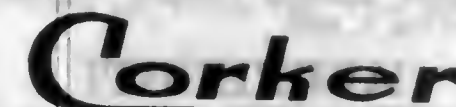
The word "Tub" is disclaimed apart from the mark.
For Play Thing, Comprising a Large Bowl-Shaped Object in and on Which Children May Play.
First use November 1950.

SN 33,383. Uneeda Doll Company, Inc., Brooklyn, N. Y. Filed July 8, 1957.

DOLLIKIN

For Dolls.
First use on or about Mar. 14, 1957.

SN 33,603. J. deBeer & Son, Albany, N. Y. Filed July 12, 1957.



For Softballs.
First use June 22, 1957.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 18,407. Base-Lock Rubber Type Co., Nanuet, N. Y. Filed Oct. 30, 1956.

BASE-LOCK

For Rubber Type and Printing Dies.
First use November 1945.

SN 19,094. Brady Manufacturing Corporation, Des Moines, Iowa. Filed Nov. 13, 1956. Sec. 2(f).



For Farm Implements Such as Crop Stalk Macerators, Cultivators, and Mowing Machines.
First use Apr. 1, 1950.

SN 19,180. Wilbur J. Louters and Herman Louters, d. b. a. Raymond Mfg. Co., Raymond, Minn. Filed Nov. 13, 1956.

RE-TRAK-LUG

For Traction Attachment Device for Tractor Wheels.
First use Apr. 5, 1954.

SN 19,312. The Joyce-Cridland Company, Dayton, Ohio. Filed Nov. 15, 1956.

VARI-RAMP

For Ramps That Are Hydraulically Raised and Lowered to Various Elevations.
First use Sept. 16, 1953.

SN 21,149. Willard Le Blond Greene, Scottsdale, Ariz. Filed Dec. 17, 1956.



For Machine Tools.
First use Aug. 17, 1956.

SN 24,074. Phillips Drill Company, Michigan City, Ind. Filed Feb. 8, 1957.

RED HEAD

For Self Drilling Expansion Shells for Concrete and Masonry, Self Drilling Expansion Shell Holders, Hammer Chucks, Hand Setting Tools, and Manually and Power Operated Spring Hammers.
First use Dec. 14, 1956.

SN 24,564. Center Master Corporation, Milwaukee, Wis. Filed Feb. 18, 1957.



For Drill Press Attachment To Facilitate Centering of the Drill and Work.
First use Aug. 31, 1956.

SN 24,791. Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Germany. Filed Feb. 20, 1957.

WHISPER-DIESEL

Priority claimed under Sec. 44(d) on German application filed on Aug. 22, 1956; Reg. No. 704,998, dated Aug. 1, 1957.
For Tractors for Agriculture and Logging Purposes; Railway Locomotives Driven by Internal Combustion Engines; and Heavy Duty Internal Combustion Engines, Injectors, and Injection Pumps.

SN 24,794. Maschinenfabrik Augsburg-Nurnberg A. G., Nurnberg, Germany. Filed Feb. 20, 1957.

WHISPER-ENGINE

Priority claimed under Sec. 44(d) on German application filed Aug. 22, 1956; Reg. No. 704,999, dated Aug. 1, 1957.
For Tractors for Agriculture and Logging Purposes; Railway Locomotives Driven by Internal Combustion Engines; and Heavy Duty Internal Combustion Engines, Injectors, and Injection Pumps.

SN 25,168. Ekco Products Company, Chicago, Ill. Filed Feb. 27, 1957.

OUTDOOR CHEF

For Culinary Tools, Including Spoons, Forks, Broiling Implements, Turners, Knives, Skewers, Tonga, Spears, Ladles, Basting Brushes, Salt and Pepper Shakers.
First use May 1, 1951.

SN 25,877. Propulsion Engine Corporation, South Milwaukee, Wis. Filed Mar. 11, 1957.

Touch Control

For Power Lawnmowers.
First use Dec. 20, 1956.

SN 25,885. Propulsion Engine Corporation, South Milwaukee, Wis. Filed Mar. 11, 1957.

Step-N-Start

For Power Lawnmowers.
First use Sept. 24, 1956.

SN 25,925. General Metals Corporation, San Francisco, Calif. Filed Mar. 12, 1957.



Owner of Reg. Nos. 383,606, 383,607, and 384,577.
For Pumps, Cylinders, Actuators, Fuel Filters, and Other Engine Parts and Accessories, Especially Designed for Use on Aircraft.
First use Dec. 13, 1956.

SN 25,993. Jet Tool Company, Milford, Conn. Filed Mar. 12, 1957.

ATOM-LUBE

Owner of Reg. No. 621,646.
For Lubricant Sprayers.
First use June 23, 1949.

SN 26,218. Weber Addressing Machine Co., Inc., Mount Prospect, Ill. Filed Mar. 14, 1957.

WEBER

For Printing Machines, Stencil Printing Machines, Addressing and Marking Machines, Hectograph Duplicating Machines, Hand Printers, and Parts Thereof.
First use on or about Jan. 1, 1932, on printing machines.

SN 28,138. Gardner-Denver Company, Denver, Colo. Filed Apr. 15, 1957.



For Rock Drill Units.
First use Apr. 4, 1957.

SN 28,568. The Bauer Bros. Company, Springfield, Ohio. Filed Apr. 22, 1957.



Owner of Reg. Nos. 591,619, 596,413, and others.
For Machinery for the Pulp and Paper Industry—Namely, Digestors, Rotary Presses, Refiners, and Centrifugal Cleaners.
First use May-31, 1956.

SN 31,136. Multicore Solders Limited, London, England. Filed May 31, 1957.

BIB

Owner of British Reg. No. 723,027, dated Oct. 23, 1953.
For Tape Splicers.

SN 31,200. Cycledyne Incorporated, Detroit, Mich. Filed June 3, 1957.

CYCLEDYNE

For Power Transmission and Control Devices.
First use Oct. 8, 1956.

SN 31,577. Midas, Inc., Chicago, Ill. Filed June 7, 1957.

MIDAS

Owner of Reg. Nos. 620,322 and 641,711.
For Automotive Replacement Parts and Accessories, viz., Fuel Pumps; Water Pumps; Dual Muffler Kits; Exhaust Extensions and Hollywood Type Mufflers; Car Jacks; and Automatic Transmissions and Parts Thereof.
First use Oct. 4, 1956.

SN 34,631. Pioneer Industries, Inc., Sioux City, Iowa. Filed July 30, 1957.

HYDRATOL

For Sand and Gravel Screening and Grading Plant.
First use Feb. 17, 1956.

SN 34,757. Arthur Albrecht and Siegfried Albrecht, d. b. a. Joseph Albrecht, Esslingen (Neckar), Wurttemberg, Germany. Filed Aug. 1, 1957.

ALBRECHT

For Drill-Chucks.
First use June 1950; in commerce June 1950.

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TM 43

SN 35,315. H. R. Basford Co., San Francisco, Calif. Filed Aug. 12, 1957. SN 38,213. Ideco, Inc., Dallas, Tex. Filed Oct. 2, 1957.

GEAR-LOCK

For Pliers.

First use Jan. 21, 1957.

SN 37,938. Borg-Warner Corporation, Chicago, Ill. Filed Sept. 27, 1957.



Owner of Reg. Nos. 574,225, 646,073, and others.
For Vehicles and Industrial Clutches; Power Take-Off Assemblies and Parts Thereof for Replacement and Repair.
First use May 9, 1957, on vehicle clutches.

SN 37,968. C. W. Mott-Research Engineers, Brookfield, Ill. Filed Sept. 27, 1957. Sec. 2(f).

MOTT

For Lawnmowers.

First use May 28, 1949.

SN 38,008. Allied Stores Corporation, New York, N. Y. Filed Sept. 30, 1957.

FLEETWING

For Power Lawn Mowers.

First use Jan. 31, 1956.

SN 38,034. Electric Vendors, Inc., Minneapolis, Minn. Filed Sept. 30, 1957.

STAMPMaster CREDIT PLAN

Owner of Reg. No. 611,009.
For Stamp Vending Machines.
First use Aug. 12, 1957.

SN 38,058. Earl N. Lunde, d. b. a. E. N. Lunde Company, Park Rapids, Minn. Filed Sept. 30, 1957.

EAGLE CLAW

For Hand Tool for Picking Up Rubbish and the Like.
First use Sept. 2, 1957.

SN 38,168. Side-O-Matic Unloader Corporation, York, Pa. Filed Oct. 1, 1957.

SIDE-O-MATIC

For Industrial Hoists Attachable to Automobile Truck Bodies for Loading and Unloading Cement Blocks.
First use Mar. 26, 1955.

SN 38,212. Ideco, Inc., Dallas, Tex. Filed Oct. 2, 1957.

FABRIFORM

For Sheaves.
First use at least as early as May 1956.

Rambler

For Rigs for Drilling and Servicing Wells and for Other Uses.

First use at least as early as December 1948.

SN 38,404. U. S. Industries, Inc., Los Angeles, Calif. Filed Oct. 4, 1957.

HYDRAX

For Hydraulic Pumping Units and Parts Thereof—Namely, Surface Hydraulic Units for Actuating the Sucker Rods of Deep Well Pumps.

First use Oct. 29, 1956.

Class 26—Measuring and Scientific Appliances

SN 28,952. Macalaster Bicknell Company, Cambridge, Mass. Filed Apr. 26, 1957.

COENZOMETER

For Instruments, Specifically Photometers, for Testing the Amount of Enzyme or Coenzyme in Blood Serum or Other Fluid.

First use Feb. 15, 1957.

Class 27—Horological Instruments

SN 697,364. Fabrique d'Horlogerie Rayville, S. A. (Rayville Watch Manufacturing Co. Limited), Villeret, Berne, Switzerland. Filed Oct. 31, 1955.

Fifty Fathoms

Owner of Swiss Reg. No. 151,378, dated June 11, 1954.
For Mechanical Watches.
First use Aug. 30, 1954; in commerce Aug. 30, 1954.

SN 39,802. Joseph Kronhelm, New York, N. Y. Filed Oct. 30, 1957. Sec. 2(f).

EMERSON

Owner of Reg. No. 412,758.
For Watches, Watch Movements, Watchcases, Clocks, Clock Movements and Parts Thereof.
First use May 23, 1938.

Class 31—Filters and Refrigerators

SN 37,941. Capital Air Filter Corporation, Washington, D. C. Filed Sept. 27, 1957.

CAPITAL

For Filters.
First use Jan. 2, 1957.

SN 38,049. Ion Exchange (Canada) Limited, Toronto, Ontario, Canada. Filed Sept. 30, 1957.

ZEROLIT

Owner of Canadian Reg. No. N. S. 160/40,788, dated Oct. 9, 1951.

For Water Treating Equipment and Apparatus for Use in Carrying Out Ion Exchange Processes.

SN 38,249. American Air Filter Company, Inc., Louisville, Ky. Filed Oct. 3, 1957.

ROLLOTRON

For Ventilating Air Filters Composed of Two Filtering Sections Arranged in Series, One of Said Sections Being an Automatic, Viscous Impingement, Disposable Medium Type Air Filter.

First use June 4, 1957.

Class 32—Furniture and Upholstery

SN 14,537. Crest, Incorporated, Asheville, N. C. Filed Aug. 24, 1956.



The drawing is lined for the color red.
For Upholstered Living Room Furniture.
First use July 23, 1956.

SN 24,769. Farrington Manufacturing Company, Needham Heights, Mass. Filed Feb. 20, 1957.

CLASSIC

For Metal Picture Frames.
First use Apr. 16, 1956.

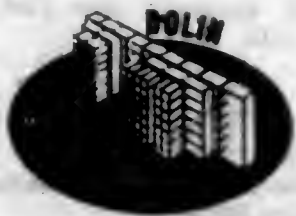
SN 25,517. Arthur F. Breglia, New York, N. Y. Filed Mar. 5, 1957.

DO-IT-YOUR-SHELF

For Wood Shelving and Wood Furniture Units With or Without Metal Hardware, Comprising More Specifically Hanging Book Shelves, Hanging Magazine Racks, Hanging Drawer Chests, and Hanging Cabinets.

First use Nov. 15, 1956.

SN 26,790. Dolin Metal Products, Incorporated, Brooklyn, N. Y. Filed Mar. 25, 1957.



Applicant does not claim exclusive use of the words "Mobile Storage Systems" except in conjunction with other features of the mark.

For Storage Racks and Cabinets.
First use Feb. 6, 1957.

SN 33,081. Jack Jones, d. b. a. Jack Jones Associates, Bronx, N. Y. Filed July 2, 1957.

CONCEPT

For Living Room Furniture, Bed Room Furniture, Dining Room Furniture, Occasional Furniture, Office Furniture, and Antique Pieces.

First use June 27, 1957.

SN 36,259. Tigrett Industries, Inc., Jackson, Tenn. Filed Aug. 26, 1957.

CHERUB CRIB

Applicant disclaims the term "Crib" apart from the mark as shown.

For Bassinets and Baby Cribs.

First use on or before June 15, 1957.

SN 37,046. Sel-O-Rak Corporation, Miami, Fla. Filed Sept. 11, 1957.



Applicant makes no claim to the representation of the goods or the numerals "28," "32," and "38," apart from the mark as shown.

For Garment Size Indicator for Garment Racks.
First use May 16, 1957.

SN 37,818. Sealy, Incorporated, Chicago, Ill. Filed Sept. 23, 1957.

EXECUTIVE

For Mattresses and Box Springs.
First use Aug. 13, 1957.

SN 37,844. Allen Industries, Inc., Detroit, Mich. Filed Sept. 26, 1957.



For Furniture—Namely, Stools, and the Like, and Cushions.
First use Aug. 30, 1957.

SN 38,123. Brammer Manufacturing Co., Davenport, Iowa. Filed Oct. 1, 1957. Sec. 2(f).

BRAMMER

For Kitchen Cabinets.
First use Sept. 1, 1952.

Class 33—Glassware

SN 17,374. Jenaer Glaswerk Schott & Gen., Mainz, Germany. Filed Oct. 12, 1956.

DUROBAX

For Raw Glass for Optical Manufacture, Glass Tubes, Glass Rods, Glass Plates, Glass Vessels.
First use 1912; in commerce Feb. 28, 1935.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 30,362. Geo. D. Roper Corporation, Rockford, Ill. Filed May 20, 1957.

SUPERMATIC

For Gas Stoves and Ranges.
First use Jan. 31, 1957.

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SN 30,692. Sims Pump Valve Company, Inc., Hoboken, N. J.
Filed May 24, 1957.

HUSHEATER

For Immersion Steam Heaters—Namely, Devices Immersed
in a Liquid To Be Heated and Mixing Steam Into the Liquid
To Heat the Same.

First use in the year 1933.

SN 30,723. Calcinator Corporation, Bay City, Mich. Filed
May 27, 1957.

IMPERIAL

For Refuse Incinerators.

First use November 1955.

SN 30,913. Linville's, Inc., Wilson, N. C. Filed May 28, 1957.

LINCON

For Outdoor Fireplace.

First use Apr. 28, 1956.

SN 31,106. Gendler Equipment Co., Omaha, Nebr. Filed
May 31, 1957.

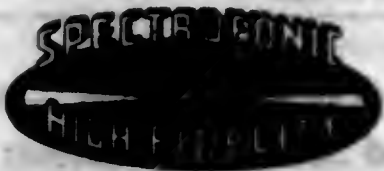
FIRE CHIEF

For Natural Gas Furnaces, Conversion Burners, and Auto-
matic Hot Water Heaters.

First use June 4, 1956.

Class 36—Musical Instruments and Supplies

SN 18,888. Recorded Publications Manufacturing Company,
Inc., Camden, N. J. Filed Nov. 6, 1956.

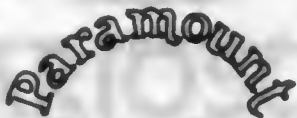


The words "High Fidelity" are disclaimed apart from the
mark as shown. The drawing is lined for shading, and no
particular color is claimed.

For Sound Records Including Grooved Phonograph Disc
Records.

First use March 1956.

SN 33,307. U. S. Musical Merchandise Corp., New York, N. Y.
Filed July 5, 1957.



Owner of Reg. No. 350,173.

For Drums and Their Accessories—Namely, Drum Sticks,
and Tympani.

First use Apr. 19, 1957.

SN 33,672. Art Records, Inc., Miami, Fla. Filed July 18,
1957.



For Grooved Phonograph Records.

First use in January 1945.

TM 727 O. G. - 5

Class 38—Prints and Publications

SN 13,528. Fairchild Publications, Inc., New York, N. Y.
Filed Aug. 7, 1956. Sec. 2(f).

ELECTRONIC NEWS

For Newspaper.

First use Aug. 6, 1956.

SN 22,234. Will Corporation, Rochester, N. Y. Filed Jan.
7, 1957.

LABLOG

For Catalogs Describing Chemical and Laboratory Equip-
ment, Published Four Times a Year.

First use Mar. 6, 1956.

SN 31,299. American Aviation Publications, Inc., Washing-
ton, D. C. Filed June 4, 1957. Sec. 2(f).

MISSILES AND ROCKETS

For Magazine.

First use Oct. 4, 1956.

SN 33,691. H. S. Crocker Co., Inc., d. b. a. California Artists,
San Francisco, Calif. Filed July 15, 1957.

Christmas Accents

Owner of Reg. No. 539,685.

For Christmas Cards.

First use January 1956.

SN 33,692. H. S. Crocker Co., Inc., d. b. a. California Artists,
San Francisco, Calif. Filed July 15, 1957.

Christmas Starlets

For Christmas Cards.

First use January 1955.

SN 33,797. Edward C. Carter, d. b. a. Snips Magazine, Chi-
cago, Ill. Filed July 16, 1957.

SNIPS

For Magazines Published From Time to Time.

First use in March 1932.

SN 34,050. General Features Corporation, New York, N. Y.
Filed July 19, 1957.

POWER & SAIL

For Newspaper Feature Column.

First use Apr. 29, 1956.

SN 34,094. Eleanore Maria Van Swearingen, d. b. a. Babs
Van Swearingen, Alexandria, Va. Filed July 19, 1957.

ART CORNER

For Newspaper Column.

First use Aug. 5, 1955.

SN 34,229. Fairchild Engine and Airplane Corporation, Deer Park, N. Y. Filed July 23, 1957.

Thrust

For Quarterly Periodical.
First use June 15, 1957.

SN 34,546. Leipziger Messeamt, Leipzig, Germany. Filed July 29, 1957.



For Printed Matter—Namely, Brochures Leaflets, Circulars, Displays, Advertising Matter, Periodicals Including Magazines, Technical Information Booklets, and Catalogues.
First use in 1927; in commerce in 1927.

SN 34,886. Buttenheim-Dlx Publishing Corporation, New York, N. Y. Filed July 15, 1957.

MART

For Monthly Periodical.
First use 1925.

SN 34,888. Texas Instruments Incorporated, Dallas, Tex. Filed July 1, 1957.

TEXINS

For Company Published Industrial Magazine for Employees.
First use on or about June 15, 1953.

SN 35,157. American Home Products Corporation, d. b. a. Wyeth Laboratories, New York, N. Y. Filed Aug. 8, 1957.

CLINIGRAM

For Bulletins Published From Time to Time With Information of Interest to Veterinarians.
First use June 1, 1957.

SN 35,533. Schering Corporation, Bloomfield, N. J. Filed Aug. 14, 1957.

MEDICAL AMERICA

For Pictorial Maps Portraying Highlights in Medical History.
First use July 15, 1957.

Class 39—Clothing

SN 690,127. Brioni Armando Calcani Societa a Responsabilita Limitata, Rome, Italy. Filed June 24, 1955.

Brioni

Owner of Italian Reg. No. 74,092, dated May 5, 1947.
For Men's Clothing—Namely, Shoes, Shirts, Pullover Sweaters, Cravats, Sport Coats, Dinner Suits, Dinner Jackets, Smoking Jackets, Vests, Waist Coats, Reversible Coats.
Use in commerce 1952.
Subj. to Intf. with Reg. No. 612,228.

SN 11,148. Cluett, Peabody & Co., Inc., Troy, N. Y. Filed June 28, 1956.

SAND 'N SEA

For Outer Shirts and Swimwear.
First use Mar. 6, 1956.

SN 16,582. Beau Brummell Ties, Inc., Cincinnati, Ohio. Filed Sept. 28, 1956. Sec. 2(f).

4FOLD

Owner of Reg. No. 546,185.
For Neckties.
First use January 1935.

SN 20,472. Nick Minnecl, Brooklyn, N. Y. Filed Dec. 5, 1956.

Beleganti

For Ladies' Shoes and Slippers.
First use Mar. 5, 1946.
Subj. to Intf. with SN 23,676.

SN 31,168. Wembley, Inc., New Orleans, La. Filed May 31, 1957.

PINALENO

For Neckties.
First use May 7, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 699,448. Well-Kalter Manufacturing Co., St. Louis, Mo. Filed Dec. 5, 1955.

miricale

For Cotton Cloth.
First use Oct. 24, 1955.

SN 15,628. Palm Beach Company, Portland, Maine. Filed Sept. 13, 1956.

TRANS-WEAVE

For Fabrics for Making Men's and Boys' Suits, Sport Jackets, and Slacks.
First use Mar. 1, 1956.

SN 20,013. Carpet Fashions Inc., New York, N. Y. Filed Nov. 28, 1956.



For Tufted Carpets.
First use August 1956.

SN 23,604. Beaunit Mills, Inc., New York, N. Y. Filed Feb. 1, 1957.



"Trés Beau" is a French expression which may be translated "very lovely," "very beautiful," etc. Owner of Reg. No. 597,665.

For Woven Fabrics Having a Blended Cotton-Polyester Fiber Filling and a Nylon Warp.
First use on or about July 31, 1956.

SN 24,915. Brandvein & Co., Inc., New York, N. Y. Filed Feb. 25, 1957.



For Window Curtains and Curtain Fabrics Made of Synthetic Fibers.
First use May 4, 1956.

SN 25,189. N. V. Wollenstofffabrieken L. E. van den Bergh, Tilburg, Netherlands. Filed Feb. 27, 1957.



The exclusive use of the words "Camel Fleece" is disclaimed apart from the mark shown. Owner of Dutch Reg. No. 125,156, dated June 15, 1956.

For Blankets, Automobile Robes, and Fabrics, All Made of Camel Fleece.

SN 28,756. Central Felt & Fabrics Corporation, New York, N. Y. Filed Apr. 24, 1957.

Fleece Ora

For Rayon, Wool, and Cotton Fabrics.
First use in or about January 1957.

SN 29,168. Pomezia Textiles, Inc., New York, N. Y. Filed Apr. 30, 1957.

ARIOSO

"Arioso," when translated into English, means pertaining to an air or aria; songlike.

For Textile Fabrics Especially for Making Dresses, Blouses, Suits, and Men's and Ladies' Outer Apparels.
First use Feb. 19, 1957.

SN 31,796. J. P. Stevens & Co., Inc., New York, N. Y. Filed June 11, 1957.

GOLD BANNER

For Khaki Twills and Bleached Twills in the Piece.
First use Oct. 25, 1956.

SN 31,891. Artel Textile Co., Inc., New York, N. Y. Filed June 13, 1957.

Super Weave

For Curtains.
First use Apr. 30, 1957.

SN 31,988. Long Island Awning Co., Inc., Valley Stream, N. Y. Filed June 14, 1957.

FIESTALITE

For Plastic Material Used in the Construction of Awnings.
First use January 1956.

SN 32,076. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 17, 1957.

SAVONA

For Textile Fabrics in the Piece of Rayon, Synthetic Fibres, and Mixtures Thereof.
First use July 10, 1956.

SN 32,077. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 17, 1957.

CORTONA

For Textile Fabrics in the Piece of Rayon, Synthetic Fibres, and Mixtures Thereof.
First use Aug. 1, 1956.

SN 32,209. Raeford Worsted Corporation, New York, N. Y. Filed June 18, 1957.

RAEFORD

For Piece Goods Consisting of Natural and Synthetic Fibers.
First use Mar. 22, 1957.

SN 32,241. Ex-Cell Plastics, New York, N. Y. Filed June 19, 1957.

LUXUR*EZE

For Pinch Pleated Plastic Draperies.
First use May 16, 1957.

SN 32,388. Hayward-Schuster Woolen Mills, Inc., East Douglas, Mass. Filed June 21, 1957.

Velvalura

For Outer-Wear Fabrics.
First use Mar. 27, 1957.

SN 32,484. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 24, 1957.

MINORCA

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibers, and Mixtures Thereof.
First use July 17, 1956.

SN 32,485. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 24, 1957.

TOPOLINO

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibers, and Mixtures Thereof.
First use Sept. 3, 1956.

SN 32,486. D. B. Fuller & Co., Inc., New York, N. Y. Filed June 24, 1957.

CONDOTTI

For Textile Fabrics in the Piece of Cotton, Rayon, Synthetic Fibers, and Mixtures Thereof.
First use Sept. 10, 1956.

SN 32,547. James Scott & Sons Langholm Ltd., Langholm, Scotland. Filed June 24, 1957.

SCOTEX

Owner of British Reg. No. 757,504, dated Sept. 12, 1956.
For Suiting, Being Woven Piece Goods Wholly or Substantially Wholly of Wool.

Class 43—Thread and Yarn

SN 28,450. Lily Mills Company, Shelby, N. C. Filed Apr. 18, 1957.

SPARTA

For Sewing Thread.
First use June 1930.

SN 31,851. Lastex Yarn & Lactron Thread Limited, Birmingham, England. Filed June 12, 1957.

CUTFIL

Owner of British Reg. No. 740,122, dated Mar. 8, 1955.
For Rubber Thread.

SN 31,852. Lastex Yarn & Lactron Thread Limited, Birmingham, England. Filed June 12, 1957.

RONEX

Owner of British Reg. No. 743,626, dated June 22, 1955.
For Rubber Thread and Yarns.

SN 31,853. Lastex Yarn & Lactron Thread Limited, Birmingham, England. Filed June 12, 1957.

COVOC

Owner of British Reg. No. 752,277, dated Mar. 24, 1956.
For Rubber Thread and Yarns.

SN 31,854. Lastex Yarn & Lactron Thread Limited, Birmingham, England. Filed June 12, 1957.

RONFIL

Owner of British Reg. No. 740,123, dated Mar. 8, 1955.
For Rubber Thread.

SN 31,905. Delaware Mills, Inc., New Castle, Del. Filed June 13, 1957.

DELPAC

For Thread and Yarn.
First use on or about Feb. 1, 1957.

Class 44—Dental, Medical, and Surgical Appliances

SN 26,264. Gibbs & Company, Chicago, Ill. Filed Mar. 15, 1957.

NORMANDIE

For Electrical Hair Dryers.
First use Feb. 1, 1935.

Class 46—Foods and Ingredients of Foods

SN 695,234. Minute Maid Corporation, New York, N. Y. Filed Sept. 23, 1955.



The drawing is lined for blue and red. Owner of Reg. No. 577,170.

For Frozen Fruit Juices and Frozen Vegetables and Partially Prepared Frozen Foods—Namely, Potato Patties, French Fried Potatoes and Fish Sticks, Frozen Fish Fillets and Frozen Meats.

First use Apr. 22, 1947.

SN 660. E. Cherry Sons & Co., Inc., Philadelphia, Pa. Filed Jan. 13, 1956.

FRUITASIA

For Fruit Confection Composed of Candies, Nuts, and Fruits.

First use Feb. 1, 1955.

SN 7,630. Reedville Oil & Guano Company, Inc., Reedville, Va. Filed May 3, 1956.

HI-SEAS

For Edible Fish Oil; Fish Meal, and Fish Solubles for Use as Ingredients of Poultry and Swine Feeds.
First use Apr. 10, 1956.

SN 7,631. Reedville Oil & Guano Company, Inc., Reedville, Va. Filed May 3, 1956.

NAUTILUS

For Edible Fish Oil; Fish Meal, and Fish Solubles for Use as Ingredients of Poultry and Swine Feeds.
First use Apr. 10, 1956.

SN 10,252. Pangburn Company, Inc., Fort Worth, Tex. Filed June 14, 1956.

COUNTRY COUSIN

For Candy Flavored Component of Ice Cream.
First use Mar. 16, 1956.

SN 11,891. The Rath Packing Company, Waterloo, Iowa. Filed July 25, 1956. Sec. 2(f).

CHOP-ETTES

For Chopped, Shaped, Breaded Beef, Pork, and Veal for Human Consumption.
First use on or about Apr. 22, 1954.

SN 12,380. The Quaker Oats Company, Chicago, Ill. Filed July 18, 1956.

KEN-L BURGER

"Burger" is disclaimed apart from the mark as shown, with reservation of all statutory and common law rights in the trademark as a whole. Owner of Reg. Nos. 188,326, 541,343, and others.
For Dog Food.
First use June 6, 1956.

SN 16,617. The New Era Milling Company, Arkansas City, Kans. Filed Sept. 28, 1956.



POLAR BEAR

Owner of Reg. Nos. 64,812 and 182,130.
For Wheat Flour.

First use Nov. 17, 1950; on or about Nov. 1, 1899, as to "Polar Bear," alone and in association with the representation of a polar bear standing on an ice floe against background of aurora borealis.

SN 18,966. Realemon-Puritan Co., Chicago, Ill. Filed Nov. 8, 1956. Sec. 2(f).

REALFIG

Owner of Reg. Nos. 408,150, 609,752, and others.
For Bottled Water Extract of Dried Figs With Concentrated Lemon Juice Added.
First use May 15, 1951.

SN 19,342. Wilson & Co., Inc., Chicago, Ill. Filed Nov. 15, 1956.



The drawing is lined for orange.
For Food for Dogs, Cats, Mink, Foxes, and Other Meat Eating Animals.
First use Oct. 5, 1956.

SN 20,075. Aleuron S. p. A., Milan, Italy. Filed Nov. 29, 1956.



Owner of Italian Reg. No. 123,511, dated May 14, 1955.
For Aleurone and Its Derivatives and Other Flour Improvers, Flours, Bread, Alimentary Paste, Crisp Bread Sticks, Milan Cakes, Biscuits, Pastry, Candies and Chocolate, Marmalades and Jams, Jellies.

SN 20,137. Vories Baking Company, New Orleans, La. Filed Nov. 29, 1956. Sec. 2(f).

VORIES

For Cookies, Crackers, Cakes, and Pies.
First use 1913.

SN 20,413. Stocker-Hausmann Co., St. Louis, Mo. Filed Dec. 4, 1956.

TRABON

For Vinegar, Catsup, Cocoa, Pickles, Jellies, Jams, Fruit Preserves, Chocolate, Gelatine, Gelatine Dessert Powder, Olives, Sandwich Spread; Barbecue Sauce and Worcestershire Sauces; Maraschino Cherries, Apple Butter, Mince Meat, Peanut Butter, Wheat Flour, Canned Vegetables, Vanilla and Lemon Extracts for Food Flavoring Purposes, Mustard, Canned Salmon, Canned Fruits, Rolled Oats, Canned Wet Pack Shrimp, Evaporated Milk, Cake Flour, Macaroni, Spaghetti, Noodles, Tapioca, Vacuum Packed Coffee, Corn Flakes, Spices, Tea, Corn Starch, Dried Fruit, and Cooking Oil.
First use Sept. 10, 1956, on canned sliced beets.

SN 20,807. Top-Wip, Inc., Los Angeles, Calif. Filed Dec. 10, 1956. Sec. 2(f).

top
wip

Owner of Reg. No. 580,121.
For Fluffed Cream for Use as a Food Topping.
First use on or before Nov. 16, 1951.

SN 21,221. Wesley E. Taylor, d. b. a. Home Port Farm, Hickman Mills, Mo. Filed Dec. 17, 1956.



The word "Eggs" and the words "The Freshest Egg in Town" are disclaimed apart from the mark shown.
For Fresh Eggs.
First use Nov. 27, 1956.

SN 21,648. Standard Banana Company, San Francisco, Calif. Filed Dec. 26, 1956.



No claim is made to the phrase "Consistently the Best" apart from the mark as shown.
For Fresh Bananas.
First use Dec. 4, 1956.

SN 22,049. Delmar Products Company, Cincinnati, Ohio. Filed Jan. 3, 1957.



Top Value

The lining constitutes lining forming part of the mark and does not represent color.
For Oleomargarine.
First use Dec. 14, 1955.

SN 24,050. Louis Miglioretti, d. b. a. Moondale Products, Sonoma, Calif. Filed Feb. 8, 1957.

GRANDMOTHER NINA'S

For Salad Dressing.
First use Feb. 2, 1954.

SN 24,758. The O. A. Cooper Company, Humboldt, Nebr. Filed Feb. 20, 1957.



The drawing is lined for red.
For Dry Type Feeds and Feed Supplements for Farm Animals, in Either Meal or Pelleted Form.
First use Oct. 9, 1950.

SN 24,818. Pedro W. Guerrero, d. b. a. Tia Maria Mexican Kitchen, Mesa, Ariz. Filed Feb. 21, 1957.



For Frozen Chicken Enchiladas, Chicken Tacos, and Refried Pinto Beans.
First use May 13, 1953.

SN 25,178. Keller's Creamery, Inc., Franconia Township, Montgomery County, Pa. Filed Feb. 27, 1957.



For Butter.
First use Jan. 3, 1957.

SN 28,007. Faibish Corporation, New York, N. Y. Filed Apr. 23, 1957.



For Hard Wheat Flour.
First use Jan. 1, 1947.

SN 30,160. Golden Triangle Packing Company, Pittsburgh, Pa. Filed May 16, 1957.



The word "Potatoes" is disclaimed.
For Fresh Potatoes.
First use Aug. 1, 1955.

SN 31,091. H. Winston Day, d. b. a. High Chemical Company, Philadelphia, Pa. Filed May 31, 1957.

PEPO-WAFERS

For Chocolate-Coated High Protein Wafers.
First use Apr. 22, 1957.

SN 31,368. Antony Worham Limited, London, England. Filed June 4, 1957.

"TUDOR QUEEN"

Owner of British Reg. No. 720,528, dated Aug. 4, 1953; and U. S. Reg. No. 634,450.
For Canned Meats—Namely, Ox Tongue, Pigs Tongue, Luncheon Meat, Gammons, and Pork Shoulders.

SN 34,461. Frank Ryser Co., Chicago, Ill. Filed July 26, 1957.

FREELAND

Owner of Reg. No. 419,874.
For Cheese.
First use May 21, 1936.

SN 34,462. Frank Ryser Co., Chicago, Ill. Filed July 26, 1957.

MILLTOWN

Owner of Reg. No. 406,893.
For Cheese.
First use Oct. 3, 1941.

SN 34,560. Schutter Candy Company, Chicago, Ill. Filed July 29, 1957.



For Chocolate Covered Nuts.
First use Jan. 30, 1957.

SN 35,066. Sebastopol Apple Growers' Union, Sebastopol, Calif. Filed Aug. 6, 1957.

APPLE LAND

Owner of Reg. No. 549,270.
For Apple Cider.
First use August 1952.

Class 47—Wines

SN 20,679. Alta Vineyards Company, d. b. a. Cameo Vineyards Co., Fresno, Calif. Filed Dec. 10, 1956.

CROIX ROYALE

The translation of "Croix Royale" means "royal cross."
Owner of Reg. Nos. 391,841, 408,517, and others.
For Wines.
First use June 9, 1941.

Class 49—Distilled Alcoholic Liquors

SN 7,193. K and S Company, Cicero, Ill. Filed Apr. 26, 1956.



The word "Cert," when translated into English, means "devil."
For Beverage Bitters, a Spirit Flavored With Bitter Herbs.
First use June 14, 1934.

Class 50—Merchandise Not Otherwise Classified

SN 30,020. Harold James Godber, d. b. a. H. J. Godber Sales Co., Montreal, Quebec, Canada. Filed May 14, 1957.

MONSOON

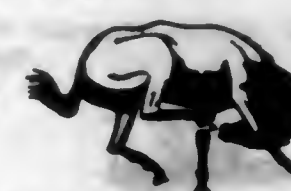
Priority claimed under Sec. 44(d) on Canadian application, filed Nov. 22, 1956; Reg. No. 108,174, dated Sept. 27, 1957.
Owner of Canadian S. N. 238,355, filed Nov. 22, 1956.
For Tents, Tarpaulins, Ground Sheets, Canopies, and Awnings.

SN 31,655. Wesley A. Gibbons, d. b. a. Gibbons Supply Co., Birmingham, Mich. Filed June 10, 1957.

TOUR-A-TENT

For Tents.
First use Mar. 1, 1956.

SN 33,345. The General Tire and Rubber Company, Akron, Ohio. Filed July 8, 1957.



Owner of Reg. Nos. 262,498 and 639,819.
For Pliable Supported Plastic Sheet Material in the Nature of a Simulated or Artificial Leather.
First use Mar. 4, 1953.

Class 51—Cosmetics and Toilet Preparations

SN 20,672. Vapon, Inc., Montclair, N. J. Filed Dec. 7, 1956.

VAPON SPEED WAVE

No claim is made by Vapon, Inc. to the use of the words "Speed Wave" apart from the mark as shown.
For Preparation for Use as a Hair Waving Lotion.
First use Dec. 19, 1930.

SN 25,963. Chesebrough-Pond's Inc., New York, N. Y. Filed Mar. 12, 1957.

MINUTE FOR BEAUTY

For Cologne, Cosmetic Facial and Body Cream, Cosmetic Facial and Body Lotion, Lipstick, Rouge, Facial and Body Powders, Facial Lotion and Liquid Used as Foundation Base and Also as Powder Substitute, Personal Deodorant, Hair Conditioning Creams and Lotions, Hair Dressing Creams and Lotions, and Hair Tonic.
First use Jan. 15, 1937.

Class 52—Detergents and Soaps

SN 10,290. The Champion Company, Springfield, Ohio. Filed June 15, 1956.

CHAMPION

Owner of Reg. No. 528,431.
For Medicated Soaps and Cleaners.
First use on or about June 12, 1936.

SN 25,665. H. A. Sparke, d. b. a. H. A. Sparke Company, Shreveport, La. Filed Mar. 7, 1957.

LENS-BRITE

For Impregnated Glass Cleaner Pad and Container.
First use June 6, 1956.

SN 32,135. R. Schafer & Co., Muhlacker, Wurttemberg, Germany. Filed June 17, 1957.

CRAMOLIN

For Cleaning Composition for Electrical Collectors, Commutators, Sliding Contacts, and Electrical Slip Rings.
First use in or about November 1926.

SN 34,233. Fels and Company, Philadelphia, Pa. Filed July 23, 1957.

FELSOL

Owner of Reg. Nos. 55,478, 555,461, and others.
For All Purpose Detergents.
First use July 15, 1957.

SERVICE MARKS

Class 100—Miscellaneous

SN 692,097. Store Detailing, Inc., McKeesport, Pa. Filed July 28, 1955.

Store Detailing, Inc.



For Services to Food Stores Owned by Others—Namely, Check Shelf and Store Room Stock; Report Low Inventories; Distribute, Install, and Explain Promotional Material, Displays and Premium Deals to Clients.
First use Feb. 1, 1955.

SN 697,634. Modern Packagings, Dallas, Tex. Filed Nov. 3, 1955.

Thru Arden

For Designing of Gift Wrappings and Advisory and Consultation Services in Gift Wrappings.
First use Aug. 5, 1955.

SN 700,129. Scientific Associates, Inc., St. Louis, Mo. Filed Dec. 16, 1955.

SCIENTIFIC ASSOCIATES

For Consulting, Research and Development, Analytical and General Laboratory Services in Chemistry, Chemical Engineering, Bacteriology, Biochemistry, Pharmacology, Toxicology, Nutrition, and Related Fields.
First use August 1946.

Class 101—Advertising and Business

SN 696,967. The First National Bureau of Credits, Port Huron, Mich. Filed Oct. 24, 1955.



For Collecting Debts Owed to Clients of Applicant.
First use Sept. 19, 1955.

SN 11,376. Label Bank, Inc., d. b. a. Label Bank, Los Angeles, Calif. Filed July 2, 1956.

LABEL BANK

The word "Label" is disclaimed apart from the mark.
For Promoting the Sale of Goods of Others by Means of a Coupon Redemption Plan Wherein Labels From Merchandise Are Redeemable in Premiums.
First use in the year 1945.

TM 52

SN 29,871. Carter Advertising Agency, Inc., d. b. a. Stimu-Sales Co., Kansas City, Mo. Filed May 13, 1957.

BILLBOARD BINGO

For Promoting the Sale of Goods and Services of Others by Means of Program Carried Out Through Signboards, Newspapers, and Other Appropriate Advertising Media.
First use May 2, 1957.

Class 102—Insurance and Financial

SN 689,210. The Connecticut Mutual Life Insurance Company, Hartford, Conn. Filed June 9, 1955.



For Underwriting of Life Insurance.
First use May 27, 1955.

SN 769. Frank A. Filicetto, Thornwood, N. Y. Filed Jan. 16, 1956.



The words "Bookkeeping Systems—Accounting Procedures—Controls" are disclaimed apart from the mark as shown.

For Planning, Installation, Operation of Accounting Systems and the Preparation of Financial Reports in Connection Therewith.

First use Apr. 9, 1954.

SN 3,288. Fare Plan, Inc., Columbus, Ohio. Filed Feb. 24, 1956.



For Promotion of the Businesses of Others, i. e., Engine Reconditioners, Auto Repair Garages, and Finance Agencies, by Furnishing Advertising Displays and Provides the Names of Associated Finance Agencies to Associated Engine Reconditioners and Garages in Order To Facilitate the Financing of Reconditioned Engines and Auto Repairs and Parts by the Public.

First use Aug. 27, 1955.

SN 16,141. Percy A. Peyser, New York, N. Y. Filed Sept. 21, 1956.

"ASK PEYSER ABOUT IT!"

For Advisory Insurance Services Rendered to Insurance Brokers.

First use in 1940.

FEBRUARY 11, 1958

U. S. PATENT OFFICE

TM 53

SN 16,931. Associated Credit Bureaus of America Inc., St. Louis, Mo. Filed Oct. 4, 1956. COLLECTIVE MARK.

Class 104—Communication

FACTBILT

For Identifying the Credit Reporting Services—Namely, Reporting on the Rating of Individuals and Business Firms to Subscribing Commercial and Industrial Establishments, by Local Credit Bureaus That Are Members of the Applicant Trade Association.

First use Dec. 10, 1940.

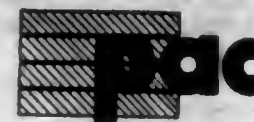
SN 17,331. Associated Credit Bureaus of America Inc., St. Louis, Mo. Filed Oct. 12, 1956. COLLECTIVE MARK.

COLLECTRITE

For Collection Agency Services—Namely, the Collecting of Accounts for Subscribing Commercial and Industrial Establishments, by Local Credit Bureaus That Are Members of the Applicant Trade Association.

First use June 1946.

SN 22,705. Policy Advancing Corp., Binghamton, N. Y. Filed Jan. 16, 1957.



The drawing is lined for green.
For Loan Services—Namely, Discounting Paper for General Insurance Premiums.
First use Dec. 1, 1953.

Class 103—Construction and Repair

SN 680,047. Trico Products Corporation, Buffalo, N. Y. Filed Jan. 17, 1955.



Owner of Reg. Nos. 165,754, 442,991, and 507,812.
For Windshield Wiper and Washer Maintenance and Repair.
First use Apr. 27, 1947.

SN 24,661. Central Linen Service Incorporated, d. b. a. University Linen Service, Washington, D. C. Filed Feb. 19, 1957.



For Furnishing of Linens Including Sheets, Pillow Slips, Bath Towels, Face Towels, and Laundering Same.
First use July 1, 1956.

SN 27,345. RKO Teleradio Pictures, Inc., Boston, Mass. Filed Apr. 1, 1957.



For Television Broadcasting.
First use Jan. 18, 1957.

SN 34,993. Public Service Television, Inc., Miami, Fla. Filed Aug. 5, 1957.

STATION OF THE STARS

For Television Broadcasting Services.
First use Aug. 2, 1957.

Class 105—Transportation and Storage

SN 2,856. Chicago, Rock Island and Pacific Railroad Company, Chicago, Ill. Filed Feb. 17, 1956.



For Transportation of Passengers and Freight of Others by Railroad, Truck, and Motor Vehicle.
First use 1902.

SN 11,737. Applied Research and Development Company, Houston, Tex. Filed July 9, 1956.

ARDCO

For Amphibious Transportation of Goods and Personnel of Others.
First use Jan. 1, 1955.

SN 17,259. Brotherhood Tours, El Paso, Tex. Filed Oct. 11, 1956.

BROTHERHOOD TOURS

The word "Tours" is disclaimed apart from the mark.
For Conducting Annual Vacation Tours for Railway Employees, Their Families and Friends.
First use July 15, 1956.

SN 30,225. Milford Boersma, d. b. a. Executive Travel, Ann Arbor, Mich. Filed May 17, 1957.

Executive Travel

For Travel Ticket Agency Services.
First use August 1956.

SN 31,178. American Bus Association, Inc., Cleveland, Ohio.
Filed June 3, 1957.



For Services Rendered to the Bus Transportation Industry, to wit, Gathering and Disseminating Information of Interest to Said Industry.
First use on or about May 6, 1957.

SN 31,805. World Inclusive Tour Service, Inc., New York, N. Y. Filed June 11, 1957.



For Supplying Tour Information and Making Tour Arrangements.
First use on or about Apr. 16, 1957.

SN 33,604. Delta Air Lines, Inc., Atlanta, Ga. Filed July 12, 1957.

"FLYING SCOT"

For Air Transportation of Passengers, Mail, and Express.
First use Nov. 19, 1936.

Class 106—Material Treatment

SN 681,828. Asplonok Corporation, New York, N. Y., to Gera Corporation, New York, N. Y. Filed Feb. 17, 1955.



The term "Vat Colors" is disclaimed apart from the mark. For Printing and Dyeing Woven Fabrics, Particularly Fabrics of Cotton, of Synthetic Fibers, and of Cotton and Synthetic Fibers.

First use Jan. 18, 1955.

SN 25,902. Stillman Rubber Company, Culver City, Calif. Filed Mar. 11, 1957.

PERMADIZING

For Bonding Rubber or Rubber-Like Elements to Customers' Metal Parts and for Application of Protective Films or Coatings to the Exposed Surfaces of Said Metal Parts.
First use Aug. 24, 1953.

COLLECTIVE MEMBERSHIP MARKS

Class 200

SN 11,602. The National Institute of Rug Cleaning, Inc., Bethesda, Md. Filed July 5, 1956.



For Indicating Membership in an Association of Rug Cleaners.
First use Sept. 5, 1951.

CERTIFICATION MARKS

Class B—Services

SN 689,244. Simmons Company, New York, N. Y. Filed June 9, 1955.



The mark is used to indicate that the establishment which displays said mark has been inspected by applicant and that

it maintains applicant's standards with respect to equipment, maintenance, and operation. Owner of Reg. Nos. 632,319 and 602,721.

For Services in Providing Lodging in Hotels, Motels, and Tourist Courts.
First use Feb. 18, 1954.

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials Class 11—Inks and Inking Materials

658,173. TRI-COLOR. Polymers, Inc. SN 26,970. Pub. 11-26-57. Filed 5-13-57.

658,194. FUST SCHOFFER GUTENBERG. Chr. Hostmann-Steinberg'sche Farbenfabriken. SN 25,796. Pub. 11-19-57. Filed 3-8-57.

Class 2—Receptacles

658,174. STRIPAK. L. A. Dreyfus Company. SN 2,624. Pub. 11-26-57. Filed 2-14-56.

Class 12—Construction Materials

658,195. TROPIC AIR VENTANAS TIPO MIAMI AND DESIGN. Carpenter Manufacturing Corp. SN 623,030. Pub. 8-10-54. Filed 12-31-51.

658,196. RANDOMWOOD. Cincinnati Floor Company, also d. b. a. The Cincinnati Floor Mfg. Co. SN 665,566. Pub. 9-21-54. Filed 5-3-54.

658,197. FAIENCETTES. Sparta Ceramic Company. SN 15,072. Pub. 11-26-57. Filed 9-4-56.

658,198. DRESDEN. Sparta Ceramic Company. SN 15,074. Pub. 11-26-57. Filed 9-4-56.

658,199. SPANCRETE. West Allis Concrete Products Co. Inc. SN 19,210. Pub. 5-28-57. Filed 11-13-56.

658,200. CORNICE TEMPER ZINC ALLOY AND DESIGN. The Chomes Company, Inc. SN 21,988. Pub. 11-26-57. Filed 1-2-57.

658,201. TEMPRA-LOC. Oliver V. Cripps, d. b. a. Valley Weather Equipment Co. SN 25,922. Pub. 11-26-57. Filed 3-6-57.

Class 6—Chemicals and Chemical Compositions

658,175. SPER-DEE. Demert & Dougherty, Inc. SN 689,816. Pub. 11-26-57. Filed 6-20-55.

658,176. LA VONNE. Norma La Vonne Levik, d. b. a. Lamac Enterprises. SN 699,084. Pub. 11-26-57. Filed 11-29-55.

658,177. DESIGN OF GROTESQUE FIGURE. Panogen, Inc. SN 2,246. Pub. 11-26-57. Filed 2-7-56.

658,178. FIRE RED TONER. The Harshaw Chemical Company. SN 13,837. Pub. 11-26-57. Filed 8-13-56.

658,179. FUGITAL. Blackman Uhler Company. SN 16,019. Pub. 11-26-57. Filed 9-20-56.

658,180. CUBETOID. Whitmire Research Laboratories, Inc. SN 16,782. Pub. 11-26-57. Filed 10-1-56.

658,181. POWER SERVICE AND DESIGN. Power Service Engineering Company. SN 19,324. Pub. 11-26-57. Filed 11-15-56.

658,182. NURSERY MIST. B & C Products, Inc. SN 20,083. Pub. 11-26-57. Filed 11-29-56.

658,183. DRIAIRE. Driaire, Incorporated. SN 20,255. Pub. 11-26-57. Filed 12-3-56.

658,184. COLASE. The Columbia Malting Company. SN 20,598. Pub. 11-26-57. Filed 12-7-56.

658,185. ANTARA GAF AND DESIGN. General Aniline & Film Corporation. SN 23,393. Pub. 11-26-57. Filed 1-29-57.

658,186. BLEACH-A-WOOD. Finishline Laboratories, Inc. SN 25,413. Pub. 11-26-57. Filed 3-4-57.

658,187. SEAL LABEL AND DESIGN. Ames Harris Neville Co. SN 25,948. Pub. 11-26-57. Filed 3-12-57.

658,188. SIGMA. Sigma Chemical Company. SN 27,240. Pub. 11-26-57. Filed 3-29-57.

658,189. MIRAWHITE. Sterling Drug Inc. SN 27,907. Pub. 11-26-57. Filed 4-10-57.

658,190. DIFCO. Difco Laboratories Incorporated. SN 30,574. Pub. 11-26-57. Filed 5-23-57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

658,202. EMPIRE SLIP-ON HOOKS. Morrey Perlmutter, d. b. a. Empire Slip-On Hook Company. SN 685,393. Pub. 11-26-57. Filed 4-12-53.

658,203. W-K-M. W-K-M Manufacturing Company, Inc., to ACF Industries, Incorporated. SN 11,639. Pub. 11-26-57. Filed 7-5-56.

658,204. W-K-M ETC. AND DESIGN. W-K-M Manufacturing Company, Inc., to ACF Industries, Incorporated. SN 11,640. Pub. 11-26-57. Filed 7-5-56.

658,205. RAN-GUARD. Randolph Industrial Equipment Co. SN 20,880. Pub. 11-26-57. Filed 12-7-56.

658,206. STAR HOLZIN. Star Expansion N. Y., Inc. SN 25,570. Pub. 11-26-57. Filed 3-5-57.

658,207. MELITTA. Horst Wolfgang Bents, d. b. a. Melitta-Werke Bents & Sohn. SN 25,588. Pub. 10-15-57. Filed 3-6-57.

658,208. SPURIT. John M. Christianson. SN 27,574. Pub. 11-26-57. Filed 4-5-57.

658,209. "CN." L & L Manufacturing Company. SN 27,610. Pub. 11-26-57. Filed 4-5-57.

658,210. AROLUBE. The Aro Equipment Corporation. SN 32,042. Pub. 11-26-57. Filed 6-17-57.

Class 10—Fertilizers

658,191. PRIMA. Planters Cotton Oil & Fertilizer Co. SN 17,661. Pub. 11-26-57. Filed 10-17-56.

658,192. DURA-K. Glostex Chemicals, Inc. SN 18,949. Pub. 11-26-57. Filed 11-8-56.

658,193. NUTRA-PHOS. Leffingwell Chemical Company. SN 21,639. Pub. 11-26-57. Filed 12-26-56.

Class 14—Metals and Metal Castings and Forgings

658,211. MCKAY TUBE-ALLOY. The McKay Company. SN 12,281. Pub. 11-26-57. Filed 7-17-56.

658,212. MH. E. W. Bliss Company. SN 27,567. Pub. 11-26-57. Filed 4-5-57.

- 658,213. COLHED. Vanadium-Alloys Steel Company. SN 31,428. Pub. 11-26-57. Filed 6-5-57.
 658,214. ELVANDI. Vanadium-Alloys Steel Company. SN 31,432. Pub. 11-26-57. Filed 6-5-57.
 658,215. PAR-EXC. Vanadium-Alloys Steel Company. SN 31,439. Pub. 11-26-57. Filed 6-5-57.
 658,238. AL-300. Western Gold and Platinum Company. SN 2,604. Pub. 6-18-57. Filed 2-13-56.
 658,239. LUXAIRE. Pfaff and Kendall. SN 6,633. Pub. 4-9-57. Filed 4-18-56.

Class 16—Protective and Decorative Coatings

- 658,216. BES-KIN. Bealer Corporation. SN 9,769. Pub. 11-26-57. Filed 6-7-56.

Class 18—Medicines and Pharmaceutical Preparations

- 658,217. BRONCHODERMIN. Lucia Beatriz Niculescu Plachaud. SN 3,452. Pub. 11-26-57. Filed 2-27-56.
 658,218. BLOSSER'S. The Blosser Company. SN 6,152. Pub. 11-26-57. Filed 4-11-56.
 658,219. FERROGLOBIN-C. Jack Rothbaum, d. b. a. Camar Pharmacal Distributors. SN 23,092. Pub. 11-26-57. Filed 1-23-57.
 658,220. BYKANULA. Byk-Gulden-Lomberg, Chemische Fabrik, G. m. b. H. SN 23,893. Pub. 11-26-57. Filed 2-6-57.
 658,221. VIVO. Soluble Nutrients, Inc. SN 23,948. Pub. 11-26-57. Filed 2-6-57.
 658,222. DIACE. Blair Laboratories, Inc. SN 26,531. Pub. 11-26-57. Filed 3-20-57.
 658,223. VEGETONAL AND DESIGN. Elfriede Winter. SN 26,904. Pub. 11-26-57. Filed 3-25-57.
 658,224. LAXA-VESS. Miles Laboratories, Inc. SN 27,035. Pub. 11-26-57. Filed 3-27-57.
 658,225. VICENTRATE. Supreme Pharmaceutical Company. SN 28,071. Pub. 11-26-57. Filed 4-12-57.
 658,226. DERMHYDRAN. The Purdue Frederick Company. SN 28,276. Pub. 11-26-57. Filed 4-16-57.
 658,227. ALBA-F. The Upjohn Company. SN 28,395. Pub. 11-26-57. Filed 4-17-57.
 658,228. DELTALOG. The Upjohn Company. SN 28,396. Pub. 11-26-57. Filed 4-17-57.
 658,229. TESTROLIX. Chicago Pharmacal Company. SN 30,063. Pub. 11-26-57. Filed 5-15-57.
 658,230. LEVONOR. Nordmark Pharmaceutical Laboratories, Inc. SN 30,355. Pub. 11-26-57. Filed 5-20-57.
 658,231. PROPONESIN. The British Drug Houses, Limited. SN 30,888. Pub. 11-26-57. Filed 5-28-57.
 658,232. PIPOVAX. American Scientific Laboratories, Inc. SN 31,454. Pub. 11-26-57. Filed 6-6-57.
 658,233. HEPSTAT. Merck & Co., Inc. SN 31,500. Pub. 11-26-57. Filed 6-6-57.
 658,234. HEPZIDE. Merck & Co., Inc. SN 31,501. Pub. 11-26-57. Filed 6-6-57.
 658,235. MYCORTOL. Parke, Davis & Company. SN 34,990. Pub. 11-26-57. Filed 8-5-57.

Class 19—Vehicles

- 658,236. MOBILVAN. Clark Equipment Company. SN 694,696. Pub. 4-2-57. Filed 9-15-55.

Class 21—Electrical Apparatus, Machines, and Supplies

- 658,237. FASTON. Aircraft-Marine Products, Inc., now by change of name AMP Incorporated. SN 680,650. Pub. 12-6-55. Filed 1-28-55.

Class 22—Games, Toys, and Sporting Goods

- 658,240. CLARO. Claro Laboratories. SN 700,193. Pub. 11-26-57. Filed 12-19-55.
 658,241. GERBER AND DESIGN. Gerber Products Company. SN 4,443. Pub. 11-26-57. Filed 3-13-56.
 658,242. A GLO-GO TOY AND DESIGN. American Arts and Crafts, Inc. SN 13,952. Pub. 11-26-57. Filed 8-15-56.
 658,243. PLAYTIME. Binney & Smith Inc. SN 19,086. Pub. 11-26-57. Filed 11-13-56.
 658,244. ELEO. Hill's West Drug Store Ltd., d. b. a. Mayfair Gifts. SN 19,455. Pub. 11-26-57. Filed 11-19-56.
 658,245. TRU KURY. John T. Riddell, Inc. SN 20,299. Pub. 11-26-57. Filed 12-3-56.
 658,246. JILL. Vogue Dolls, Inc. SN 26,513. Pub. 11-26-57. Filed 3-19-57.
 658,247. REDI-SHOT. South Bend Tackle Company, Inc. SN 28,648. Pub. 11-26-57. Filed 4-22-57.
 658,248. BLITZ GUN. Louis Marx & Company, Inc. SN 30,177. Pub. 11-26-57. Filed 5-16-57.
 658,249. SCALPUM AND DESIGN. Don M. Cox. SN 30,234. Pub. 11-26-57. Filed 5-17-57.
 658,250. HEDLINER. James Heddon's Sons. SN 30,248. Pub. 11-26-57. Filed 5-17-57.
 658,251. TINY "CINDY LEE." The Sun Rubber Company. SN 30,280. Pub. 11-26-57. Filed 5-17-57.
 658,252. FANCY PANTS. The Sun Rubber Company. SN 30,281. Pub. 11-26-57. Filed 5-17-57.
 658,253. MAIN STREET. Gibbs Automatic Moulding Corporation. SN 30,329. Pub. 11-26-57. Filed 5-20-57.
 658,254. 3 JAYS. J. Kennedy Fisher. SN 30,421. Pub. 11-26-57. Filed 5-21-57.
 658,255. CAST FLO. Langley Corporation. SN 30,592. Pub. 11-26-57. Filed 5-23-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 658,256. H-LIKE FIGURE. Hamilton Watch Company. SN 21,438. Pub. 11-26-57. Filed 12-21-56.
 658,257. WONDA-EDGE. Imperial Knife Associated Companies, Inc. SN 23,627. Pub. 11-26-57. Filed 2-1-57.
 658,258. THORSEN. Thorsen Manufacturing Company. SN 24,877. Pub. 11-26-57. Filed 2-21-57.
 658,259. HAZELTON. Imperial Knife Associated Companies, Inc. SN 26,826. Pub. 11-26-57. Filed 3-25-57.
 658,260. CAPE COD. Imperial Knife Associated Companies, Inc. SN 26,827. Pub. 11-26-57. Filed 3-25-57.
 658,261. UNION. Union Steam Pump Company. SN 29,766. Pub. 11-26-57. Filed 5-9-57.
 658,262. CONTINENTAL. Continental Blindstitch Machine Corporation. SN 31,464. Pub. 11-26-57. Filed 6-6-57.
 658,263. BVI AND DESIGN. Burgess Vibrocrafters, Inc. SN 31,813. Pub. 11-26-57. Filed 6-12-57.
 658,264. BANT-A-MATIC. The Aro Equipment Corporation. SN 32,038. Pub. 11-26-57. Filed 6-17-57.
 658,265. MIDG-A-MATIC. The Aro Equipment Corporation. SN 32,039. Pub. 11-26-57. Filed 6-17-57.
 658,266. TAP-A-MATIC. The Aro Equipment Corporation. SN 32,040. Pub. 11-26-57. Filed 6-17-57.
 658,267. GAY-BELL. Gay-Bell Corporation. SN 32,178. Pub. 11-26-57. Filed 6-18-57.
 658,268. PALM-GRIP. Kipton Industries, Inc. SN 33,085. Pub. 11-26-57. Filed 7-2-57.

Class 24—Laundry Appliances and Machines

- 658,269. ECONO-MISER. Ward Industries Corporation. SN 33,775. Pub. 11-26-57. Filed 7-15-57.
 658,270. AUTO-MISER. Ward Industries Corporation. SN 33,776. Pub. 11-26-57. Filed 7-15-57.

Class 26—Measuring and Scientific Appliances

- 658,271. FOGSCOPE. Roland L. Bruenner, d. b. a. Bruenner Optical Industries. SN 4,280. Pub. 11-26-57. Filed 3-12-56.
 658,272. FLEXATEMP. Controls Company of America. SN 25,841. Pub. 11-26-57. Filed 3-11-57.
 658,273. SMOGGLE. Paulson Manufacturing Corporation. SN 26,020. Pub. 11-26-57. Filed 3-12-57.
 658,274. AL AND DESIGN. The Electric Auto-Lite Company. SN 26,074. Pub. 11-26-57. Filed 3-13-57.
 658,275. TOPSTAT. Penn Controls, Inc. SN 26,116. Pub. 11-26-57. Filed 3-13-57.

Class 27—Horological Instruments

- 658,276. WELBY. Welby Corporation. SN 21,965. Pub. 7-30-57. Filed 12-31-56.
 658,277. JOHNNY. Herold Products Company, Inc. SN 31,120. Pub. 11-26-57. Filed 5-31-57.
 658,278. THE WORLD'S MOST HONORED WATCH. Longines-Wittnauer Watch Co., Inc. SN 31,735. Pub. 11-26-57. Filed 6-10-57.

Class 28—Jewelry and Precious-Metal Ware

- 658,279. BORDEAUX. Home Decorators, Inc. SN 27,312. Pub. 11-26-57. Filed 5-27-57.
 658,280. HILCO. The Hilsinger Corporation. SN 30,490. Pub. 11-26-57. Filed 5-22-57.
 658,281. SWEPT BACK. John W. Rademacher. SN 31,023. Pub. 11-26-57. Filed 5-29-57.

Class 31—Filters and Refrigerators

- 658,282. ROLL-BOND. Olin Mathieson Chemical Corporation. SN 23,082. Pub. 11-26-57. Filed 1-23-57.

Class 32—Furniture and Upholstery

- 658,283. ALUMA-SHADE. Carey-McFall Company, Inc. SN 22,046. Pub. 11-26-57. Filed 1-3-57.
 658,284. "CENTA-FOAM." Slumberland Products Co. SN 28,197. Pub. 11-26-57. Filed 4-15-57.
 658,285. DRUGSAFE. Columbia Metal Box Co. SN 31,311. Pub. 11-26-57. Filed 6-4-57.
 658,286. FUN-VUE. Charles F. Otterstrom. SN 33,495. Pub. 11-26-57. Filed 7-10-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

- 658,287. ATMO-GEN. Hevi-Duty Electric Company. SN 19,364. Pub. 11-26-57. Filed 11-16-56.
 658,288. EVANS AND DESIGN. Evans Products Company. SN 20,925. Pub. 11-26-57. Filed 12-12-56.

- 658,289. MONOFIN. Young Radiator Company. SN 21,607. Pub. 11-26-57. Filed 12-24-56.

- 658,290. BIG BOY. Big Boy Manufacturing Co., Inc. SN 29,196. Pub. 11-26-57. Filed 5-1-57.
 658,291. HEAT VALVE. The Swartwout Company. SN 29,313. Pub. 11-26-57. Filed 5-2-57.
 658,292. WHITE STAR. Borg-Warner Corporation. SN 29,590. Pub. 11-26-57. Filed 5-8-57.
 658,293. SATISFABRICATED. Governair Corporation. SN 29,629. Pub. 11-26-57. Filed 5-8-57.
 658,294. UNION. The Union Diesel Engine Company. SN 34,189. Pub. 11-26-57. Filed 7-22-57.

Class 36—Musical Instruments and Supplies

- 658,295. DESIGN OF BIRD. Phenix Company. SN 22,702. Pub. 11-26-57. Filed 1-16-57.

Class 39—Clothing

- 658,296. SOCIALITES. The United States Shoe Corporation. SN 21,760. Pub. 11-26-57. Filed 12-27-56.
 658,297. NEWD NICK AND DESIGN. Parvin Manufacturing Co. SN 23,425. Pub. 11-26-57. Filed 1-29-57.
 658,298. GOLDEN PIMA BY TRU VAL. Tru Val Manufacturers, Inc. SN 26,576. Pub. 10-15-57. Filed 3-20-57.
 658,299. M. B. W. Marvin B. Weissman, d. b. a. M. B. Weissman Co. SN 26,902. Pub. 11-26-57. Filed 3-25-57.
 658,300. AZA. William Hollins & Company Limited. SN 27,605. Pub. 11-26-57. Filed 4-5-57.
 658,301. "LA STRADA" AND DESIGN. Monarch Garment Corporation. SN 29,646. Pub. 11-26-57. Filed 5-8-57.

Class 40—Fancy Goods, Furnishings, and Notions

- 658,302. SWIM FORM. Virginia Hall Incorporated. SN 37,995. Pub. 11-26-57. Filed 9-9-57.

Class 44—Dental, Medical, and Surgical Appliances

- 658,303. PLASTAFOAM. Connecticut Bandage Mills, Inc. SN 2,507. Pub. 8-14-56. Filed 2-18-56.

Class 46—Foods and Ingredients of Foods

- 658,304. GUITTARD MILK-DROPS. Guittard Chocolate Co. SN 692,937. Pub. 11-26-57. Filed 8-12-55.
 658,305. FORMULA 202. Special Bakers Service. SN 695,357. Pub. 11-26-57. Filed 9-26-55.
 658,306. FUDGETTES. H. C. Brill Company, Inc. SN 700,298. Pub. 11-26-57. Filed 12-20-56.
 658,307. SUGARIPE. Rosenberg Bros. & Co. Inc. SN 6,456. Pub. 11-26-57. Filed 3-29-56.
 658,308. STELLA D'ORO SD AND DESIGN. Stella D'Oro Blacuit Co. Inc. SN 7,773. Pub. 11-26-57. Filed 5-7-56.
 658,309. GOLDEN HEART. Bruce Church, Inc. SN 9,947. Pub. 11-26-57. Filed 6-11-56.
 658,310. HYDRO-NU GANIC ETC. Melvin Rabin. SN 10,910. Pub. 11-26-57. Filed 6-25-56.

Service Marks

658,311. CHERRY VALLEY AND DESIGN. Chappell V. Fowler, d. b. a. C. V. Fowler. SN 11,319. Pub. 11-26-57. Filed 6-27-56.

658,312. HITS. Klein Chocolate Company. SN 11,932. Pub. 11-26-57. Filed 7-11-56.

658,313. GLIDERS. Klein Chocolate Company. SN 11,935. Pub. 11-26-57. Filed 7-11-56.

658,314. TABASCO AND DESIGN. McIlhenny Company. SN 15,479. Pub. 11-26-57. Filed 9-11-56.

658,315. TRUE AMERICAN AND DESIGN. Holleb & Company. SN 15,963. Pub. 11-26-57. Filed 9-19-56.

658,316. FARMLEA. Farmlea Dairy, Inc. SN 16,112. Pub. 11-26-57. Filed 9-21-56.

658,317. DESIGN OF WOMAN. The Ohio Provision Company. SN 19,174. Pub. 11-26-57. Filed 11-13-56.

658,318. LUCKY WHIP. Lever Brothers Company. SN 22,122. Pub. 11-26-57. Filed 1-4-57.

658,319. LOBLAWS. Loblaw, Inc. SN 23,062. Pub. 11-26-57. Filed 1-23-57.

658,320. WARREN. Warren Dried Fruit Co. SN 23,267. Pub. 11-26-57. Filed 1-25-57.

658,321. MR LETTUCE. Taix, Vessey & Auker Co. SN 24,647. Pub. 11-26-57. Filed 2-18-57.

658,322. KAHN'S AND DESIGN. The E. Kahn's Sons Company. SN 24,996. Pub. 11-26-57. Filed 2-25-57.

658,323. DESIGN OF INFANT'S HEAD. Gerber Products Company. SN 26,807. Pub. 11-26-57. Filed 3-25-57.

658,324. GREEN GENERAL AND DESIGN. General Potato and Onion Distributors, Ltd. SN 27,297. Pub. 11-26-57. Filed 4-1-57.

658,325. PIEDMONT FARM. Hygrade Food Products Corporation. SN 30,462. Pub. 11-26-57. Filed 4-2-57.

658,326. EUGENE. Eugene & Co. SN 32,174. Pub. 11-26-57. Filed 6-18-57.

658,327. SLIM ETTIE AND DESIGN. Spaulding Bakeries, Inc. SN 32,263. Pub. 11-26-57. Filed 6-19-57.

Class 50—Merchandise Not Otherwise Classified

658,328. STICK-GLASS. Sun Chemical Corporation. SN 698,805. Pub. 11-26-57. Filed 11-23-55.

658,329. EXCELSIS AND DESIGN. Progressive Bronze Works Inc. SN 23,087. Pub. 11-26-57. Filed 1-23-57.

658,330. GLAZE-TEX. Union Wadding Company. SN 31,424. Pub. 11-26-57. Filed 6-5-57.

658,331. EKCO-MAT. Ekco Products Company. SN 31,916. Pub. 11-26-57. Filed 6-13-57.

Class 52—Detergents and Soaps

658,332. CLIN. Henkel & Cie GMBH. SN 4,447. Pub. 11-26-57. Filed 3-13-56.

658,333. LUCKY LADY AND DESIGN. William O. McGeechie, d. b. a. Cortes Product Co. SN 24,546. Pub. 11-26-57. Filed 2-15-57.

658,334. G & C. Chesebrough-Pond's Inc. SN 25,966. Pub. 11-26-57. Filed 3-12-57.

658,335. MAGNET. Thomas Petronio. SN 27,115. Pub. 11-26-57. Filed 3-28-57.

658,336. POND'S ANGEL. Chesebrough-Pond's Inc. SN 27,184. Pub. 11-26-57. Filed 3-29-57.

658,337. KERSEY'S ETC. E. M. Kersey. SN 28,256. Pub. 11-26-57. Filed 4-16-57.

Class 100—Miscellaneous

658,338. IE AND DESIGN. Inland Electronics Corporation. SN 687,595. Pub. 11-26-57. Filed 5-16-55.

658,339. KENNY THERAPIST. Sister Elizabeth Kenny Foundation Incorporated. SN 693,055. Pub. 11-26-57. Filed 8-15-55.

658,340. KENNY. Sister Elizabeth Kenny Foundation Incorporated. SN 693,056. Pub. 11-26-57. Filed 8-15-55.

658,341. DESIGN OF A WOMAN. Sister Elizabeth Kenny Foundation Incorporated. SN 693,057. Pub. 11-26-57. Filed 8-15-55.

658,342. THE BOTTOMLESS CUP. B/G Foods, Inc. SN 698,765. Pub. 11-26-57. Filed 11-23-55.

658,343. STYLE-GINEERING. Leotta & Parcher. SN 13,043. Pub. 11-26-57. Filed 7-30-56.

658,344. DE LONG. De Long Corporation. SN 29,040. Pub. 11-26-57. Filed 4-29-57.

Class 101—Advertising and Business

658,345. "EVERY TYPE SIGN BUT THE INDIAN." Herman B. Simon, d. b. a. Simon Sign Co. SN 25,745. Pub. 11-26-57. Filed 3-8-57.

Class 102—Insurance and Financial

658,346. TFC AND DESIGN. Tower Finance Corporation. SN 15,738. Pub. 11-26-57. Filed 9-14-56.

Class 103—Construction and Repair

658,347. CALL "MR. MEASURE" THE HOUSE TAILOR AND DESIGN. Hill-Behan Lumber Company. SN 3,188. Pub. 11-26-57. Filed 2-23-56.

Class 105—Transportation and Storage

658,348. CINDERELLA HOLIDAY. Northeast Airlines, Inc. SN 26,836. Pub. 11-26-57. Filed 3-25-57.

658,349. SURFAIR. Slick Airways, Inc. SN 30,043. Pub. 11-26-57. Filed 5-14-57.

658,350. HOLIDAY ON WINGS ETC. AND DESIGN. American Airlines, Inc. SN 30,630. Pub. 11-26-57. Filed 5-24-57.

Class 106—Material Treatment

658,351. ENGINEERED MODELS CORP. ETC. AND DESIGN. Engineered Models Corp. SN 697,155. Pub. 11-26-57. Filed 10-26-55.

658,352. FABRIFORM. George Gets Corporation. SN 5,197. Pub. 11-26-57. Filed 3-26-56.

Certification Mark

Class B—Services

658,353. SANITONE ETC. AND DESIGN. Emery Industries, Inc. SN 700,588. Pub. 11-26-57. Filed 12-27-55.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 12—Construction Materials

658,354. Hagan Mfg. Company, Delphos, Ohio. SN 17,354. Filed P. R. 10-15-56. Am. S. R. 8-26-57.



For Cellulose Fiber Insulation Made From Reclaimed Newspaper.
First use Mar. 1, 1955.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

658,355. George Gorton Machine Co., Racine, Wis. SN 23,699. Filed P. R. 2-4-57. Am. S. R. 12-9-57.



For Milling Machines.
First use Aug. 13, 1948.

Class 39—Clothing

658,356. Raymond's, Inc., Boston, Mass. SN 6,189. Filed 4-11-56.

A FAMOUS BRAND IN DISGUISE

For Women's Hosiery.
First use Dec. 19, 1952.

658,357. Walter L. Johnson Co., Inc., Endicott, N. Y. SN 18,760. Filed P. R. 11-5-56. Am. S. R. 12-10-57.

TITE-SEAL

For Storm Welting for Shoes.
First use Oct. 26, 1956.

Class 45—Soft Drinks and Carbonated Waters

658,358. O-So Grape Co., Peoria, Ill. SN 24,280. Filed P. R. 2-12-57. Am. S. R. 12-10-57.

A KISS OF LEMON—A KISS OF LIME

For Carbonated Soft Drink Prepared From the Natural Oils of Citrus Fruit.
First use June 1955.

Class 46—Foods and Ingredients of Foods

658,359. Vacuum Baking Corporation, New York, N. Y. SN 1,133. Filed P. R. 1-19-56. Am. S. R. 10-2-57.



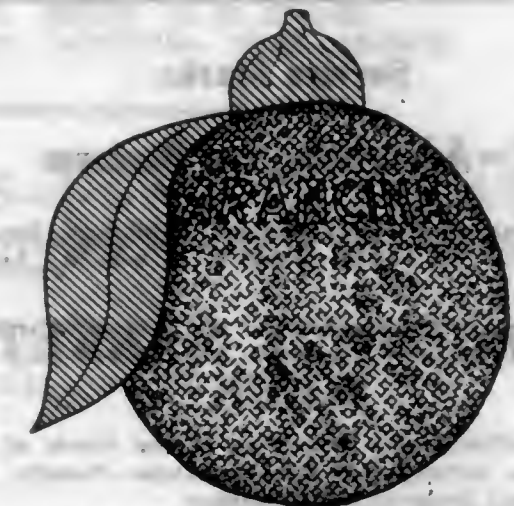
The drawing is lined for red and blue, but no claim is made to color.
For Baked in the Can Canned Cake and Baked in the Can Canned Bread.
First use Nov. 18, 1955.

658,360. Morris April Bros., Bridgeton, N. J. SN 21,498. Filed P. R. 12-24-56. Am. S. R. 11-19-57.



For Fancy Strained Cranberry Sauce (Canned) and Fancy Whole Cranberries (Fresh).
First use Nov. 2, 1956.

658,361. Luciano De Franco, Catania, Italy. SN 22,666. Filed P. R. 1-16-57. Am. S. R. 7-22-57.



The drawing is lined for the colors green and orange. The word "Arancina" has no meaning in the Italian language. Owner of Italian Reg. No. 123,892, dated June 1, 1955.
For Orange Juice and Orange Essence.

Class 51—Cosmetics and Toilet Preparations

658,362. Ferdinand Mülhens, d. b. a. Eau de Cologne. & Parfumerie-Fabrik Glockengasse No. 4711 gegenüber der Pferdepost von Ferd. Mülhens, Cologne (Rhine), Germany. SN 4,825. Filed P. R. 3-19-56. Am. S. R. 10-1-57.

COLOGNERIES

Owner of German Reg. No. 662,935, dated Sept. 17, 1954. For Eau de Cologne, Toilet Water, Perfumes, Skin Astringent, Hair Tonic, After Shaving Lotion, Tooth Paste, Mouth Wash, Bath Salt, Bath Powder, Face Powder, Talcum Powder, Cosmetic Creams, Brilliantine, Rouge, Lip Sticks, Eye Brow and Eye Lash Mascara, Personal Deodorants, Nail Polish and Polish Remover, Nail Oil, Nail White.

658,363. Juliette Marglen Inc., Ridgefield, N. J., now by merger and change of name Juliette Marglen, Inc. SN 22,691. Filed 1-16-57.

EL GRECO RED

The term "El Greco" means "The Greek."
For Lipsticks and Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Base Coating Materials, Liquid Top Coating or Sealer, Clear and Colored Enamels, Liquid Adhesives for Mending and Repairing Broken Nails, Thinners for Same, Removers for Same, and Liquid Cuticle Removers.
First use July 16, 1955.

658,364. Juliette Marglen Inc., Ridgefield, N. J., now by merger and change of name Juliette Marglen, Inc. SN 22,696. Filed 1-16-57.

BONNARD RED

For Lipsticks and Preparations for Repairing, Preserving, and Beautifying Finger Nails and Toe Nails—Namely, Liquid Base Coating Materials, Liquid Top Coating or Sealer, Clear and Colored Enamels, Liquid Adhesives for Mending and Repairing Broken Nails, Thinners for Same, Liquid Removers for Same, and Liquid Cuticle Removers.
First use July 16, 1955.

Class 52—Detergents and Soaps

658,365. Marlene Chemical Corporation, Buffalo, N. Y. SN 698,790. Filed P. R. 11-23-55. Am. S. R. 12-9-57.

Kleer-Wite

For Detergent and Penetrant for Dry Cleaning.
First use Mar. 1, 1954.

Service Marks

Class 101—Advertising and Business

658,366. Carolina-Virginia Fashion Exhibitors, Inc., Charlotte, N. C. SN 13,344. Filed P. R. 8-3-56. Am. S. R. 7-26-57.

CHARLOTTE MARKET WEEK

For Advertising and Promotion of the Goods of Others Through the Arrangement of Exhibitions—Namely, Ladies' and Children's Ready-to-Wear Clothing.
First use in or about June 1944.

TRADEMARK REGISTRATIONS RENEWED

- | | |
|---|---|
| 120,843. SUNNY VALLEY AND DESIGN. Cl. 46. 3-12-18. | 353,292. REZITOX. Cl. 16. 12-28-37. |
| 349,476. TOMLINSON OLD ENGLISH AND DESIGN. Cl. 32. 8-31-37. | 353,367. LORDSHIP. Cl. 47. 1-4-38. |
| 349,912. KINGS DELUXE. Cl. 49. 9-14-37. | 353,607. FLAME GRAIN. Cl. 8. 1-11-38. |
| 350,838. KAOLLOID. Cl. 1. 10-5-37. | 354,473. SEVENSEAS. Cl. 18. 2-15-38. |
| 351,222. OAK SPRINGS. Cl. 49. 10-19-37. | 354,945. LAMILUXE. Cl. 37. 3-1-38. |
| 352,279. PATENT, TRADE MARK AND COPYRIGHT WEEKLY REPORTS. Cl. 38. 11-28-37. | 355,135. MAGIC MOULD. Cl. 39. 3-8-38. |
| 352,420. PRO-PHY-LAC-TIC. Cl. 51. 11-30-37. | 355,546. CEROLA. Cl. 46. 3-22-38. |
| 352,909. ANHEUSER-BUSCH A-B DRI-MALT AND DESIGN. Cl. 46. 12-14-37. | 356,248. TRI-FLEX. Cl. 26. 4-19-38. |
| 352,910. ANHEUSER-BUSCH A-B DRI-MALT DARK AND DESIGN. Cl. 46. 12-14-37. | 356,573. RITZ DOUBLE ACTION SILVANA AND DESIGN. Cl. 29. 5-3-38. |
| 353,082. SILENT KNIGHT ETC. AND DESIGN. Cl. 34. 12-28-37. | 356,773. B CAND DESIGN. Cl. 1. 5-10-38. |
| | 356,774. KWK. Cl. 1. 5-10-38. |
| | 356,814. PERMAGUM. Cl. 12. 5-10-38. |

658,367. Rene J. Prevost, d. b. a. Institute Exposition Consultants, New York, N. Y. SN 13,544. Filed P. R. 8-7-56. Am. S. R. 9-3-57.

EXPOSITION CONSULTANTS management services institute-association-manufacturers

For Consultation Services Concerning the Promotion, Management, and Advertising of Expositions for Institutions, Associations, Manufacturers, and Civic Groups.
First use July 5, 1956.

658,368. Holiday Foods, Inc., d. b. a. Gift of the Holidays Club, Waterloo, Iowa. SN 21,157. Filed P. R. 12-17-56. Am. S. R. 11-12-57.



For the Servicing and Fulfillment of Commitments to Members of a Specialty Food Gift Club, Said Services Including the Providing of, Packaging and Distributing of Packaged Food Gifts According to the Respective Gift Plan To Which Each Respective Member Is Entitled.
First use Aug. 1, 1956.

Class 103—Construction and Repair

658,369. South River Brick-Face Co., Inc., South River, N. J. SN 20,314. Filed P. R. 12-3-56. Am. S. R. 7-10-57.

"LET'S FACE IT"

For Applying Facing to Industrial and Residential Buildings.
First use in March 1956.

TRADEMARK REGISTRATIONS CANCELED

Section 8

552,063. "PRESSET." Cl. 22. 12-11-51.

The following registrations issued Dec. 25, 1951

- 552,401. DARLING BABY ETC. AND DESIGN. Cl. 22.
552,403. VECTOR. Cl. 26.
552,404. PLYMOLD. Cl. 12.
552,406. LE GRANDE. Cl. 46.
552,408. SKICRAFT. Cl. 39.
552,409. ALL WEATHER. Cl. 12.
552,416. MAYOLITE ETC. Cl. 1.
552,417. I P CO. AND DESIGN. Cl. 44.
552,419. CONQUEROR. Cl. 21.
552,424. BASK-O-BELL. Cl. 22.
552,426. BEAUTIFLOW. Cl. 19.
552,427. FARMER GRAY. Cl. 46.
552,431. FOREST PINE. Cl. 52.
552,432. SILVER KING AND DESIGN. Cl. 21.
552,433. TIME-O-SCOPE AND DESIGN. Cl. 26.
552,438. TRITAR. Cl. 46.
552,439. CREST. Cl. 46.
552,441. PLAX AND DESIGN. Cl. 1.
552,447. RESIST-ALL. Cl. 12.
552,448. ARMOUR'S. Cl. 32.
552,464. CEANOETHYN. Cl. 18.
552,465. GESTHYN. Cl. 18.
552,468. TOWNSEND AND DESIGN. Cl. 18.
552,466. MILBERN. Cl. 51.
552,469. REGIS AND ENTIRE DESIGN. Cl. 1.
552,478. ZYLMONT. Cl. 26.
552,485. SEWEEZ. Cl. 26.
552,489. OXYFAX-20. Cl. 18.
552,490. GEMFLEX. Cl. 22.
552,495. REPRESENTATION OF A SEAHORSE DEVICE. Cl. 46.
552,496. NEW RAY. Cl. 52.
552,500. "SAVABELT." Cl. 44.
552,505. SUBMARINE SIGNAL SEAL. Cl. 26.
552,507. NEUROMYDINE. Cl. 44.
552,510. THE LUXWOOD. Cl. 32.

- 552,518. ULTRASONOR. Cl. 44.
552,524. EYE CATCHER AND DESIGN. Cl. 39.
552,534. GOLDEN FARMS. Cl. 44.
552,535. CHIQUITA REXORA RICE AND DESIGN. Cl. 46.
552,536. HOPALONG CASSIDY AND REPRESENTATION OF HAT. Cl. 32.
552,540. GRAVANON. Cl. 18.
552,541. BEMULTRA. Cl. 18.
552,546. CHRONGRANS. Cl. 18.
552,554. CAFECOPE AND DESIGN. Cl. 46.
552,555. C & C. Cl. 19.
552,560. "THE THING!" Cl. 19.
552,562. AJAX. Cl. 32.
552,563. FOTOGRAFER'S FRIEND. Cl. 26.
552,564. CUSHEEN. Cl. 32.
552,583. HOUSTON HOEDOWN. Cl. 104.
552,584. "DEAN CAMERON." Cl. 104.
552,585. CONSTELLATION AND DESIGN. Cl. 32.
552,587. CLEARSEAL MOTOR OIL. Cl. 15.
552,589. WAXED SILICONE. Cl. 16.
552,591. TRU-FRENCH AND DESIGN. Cl. 46.
552,593. KEEN CAN-D-GUM. Cl. 46.
552,594. WAVEDGE. Cl. 12.
552,596. THE CULLER LINES BALSADOR. Cl. 12.
552,599. CONRAD-CRIB. Cl. 32.
552,603. DONNAL NEVER LEAK FAUCETS AND DESIGN. Cl. 13.
552,605. SUGAR MAID. Cl. 46.
552,611. KAROL. Cl. 26.
552,612. BROAD-KURL. Cl. 1.
552,616. FOLDAWAY-LITE. Cl. 26.
552,618. NOSKAR AND DESIGN. Cl. 18.
552,619. WILTLESS WING. Cl. 22.

Section 18

- 364,459. HEIRLOOM OF BADEN. Cl. 48. 1-31-39.
381,028. SPORTERS. Cl. 39. 9-10-40.
441,003. HEIRLOOM. Cl. 48. 10-12-48.
548,823. ILOCA. Cl. 26. 9-25-51.
551,587. TREND. Cl. 42. 12-4-51.
568,298. CARDIOJEL. Cl. 18. 12-23-52.

TRADEMARK REGISTRATIONS—NEW CERTIFICATES

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

- 309,803. RIVAL. Cl. 46. Rival Packing Company. 1-30-34. New Cert. Sec. 7(c), to Associated Products, Inc., Chicago, Ill., 2-11-58.
429,151. RIVAL. Cl. 46. Rival Packing Company. 4-22-47. New Cert. Sec. 7(c), to Associated Products, Inc., Chicago, Ill., 2-11-58.
360,883. RIVAL. Cl. 46. Rival Packing Company. 9-27-38. New Cert. Sec. 7(c), to Associated Products, Inc., Chicago, Ill., 2-11-58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 5—Adhesives

352,205. Nov. 23, 1937. Atlas Supply Company, Newark, N. J. Pub. by registrant.

ATLAS

For White Rubber Tire Adhesive, a Self Vulcanizing Liquid Coating Compounded From Pure Live Rubber and White Waterproof Pigment.

Class 6—Chemicals and Chemical Compositions

352,340. Nov. 30, 1937. The Nulomoline Company, New York, N. Y. Pub. by American Molasses Company, New York, N. Y.

MOR-DEX

For Product Carbohydrate in Structure, for Use as a Plasticizer in the Glue, Paper, and Letter Industries.

Class 26—Measuring and Scientific Appliances

355,364. Mar. 15, 1938. Shuron Optical Company, Inc., Geneva, N. Y. Pub. by registrant.

SHURON

For Chairs, Stools, and Appurtenant Attachments for Use in Testing of the Eyes.

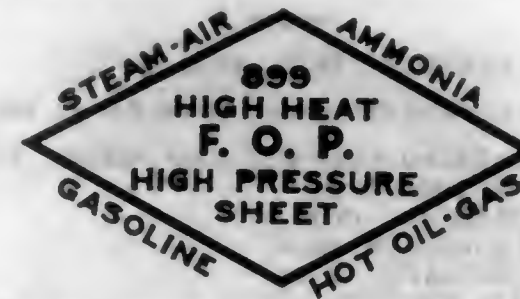
Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

351,335. Oct. 26, 1937. United States Rubber Products, Inc., New York, N. Y. Pub. by United States Rubber Company, New York, N. Y.



For Packing Composed of Rubber and Fibre in Sheet or Cut Gasket Form.

351,336. Oct. 26, 1937. United States Rubber Products, Inc., New York, N. Y. Pub. by United States Rubber Company, New York, N. Y.



For Packing Composed of Compacted Fibrous Material in Sheet or Cut Gasket Form.

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American Arts and Crafts, Inc., Columbus, Ohio. 658,242, pub. 11-26-57. Cl. 22.
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American Optical Co., Southbridge, Mass. 552,478, can. Cl. 26.
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 Raymond Laboratories, Inc., St. Paul, Minn. 552,496, can. Cl. 52.
 Raymond's Inc., Boston, Mass. 658,356, Cl. 39.
 Raytheon Mfg. Co., Newton, Mass. 552,505, can. Cl. 26.
 Regis Leather Co., Peabody, Mass. 552,469, can. Cl. 1.
 Reiset All Inc., Oklahoma City, Okla. 552,447, can. Cl. 12.
 Rhineland Paper Co., Rhineland, Wis. 354,945, ren. 3-1-58. Cl. 37.
 Riddell, John T., Inc., Chicago, Ill. 658,245, pub. 11-26-57. Cl. 22.
 Ritzenthaler, John, New York, N. Y. 356,573, ren. 5-3-58. Cl. 29.
 Rival Packing Co., to Associated Products, Inc., Chicago, Ill. 309,803, new cert. Cl. 46.
 Rival Packing Co., to Associated Products, Inc., Chicago, Ill. 360,883, new cert. Cl. 46.
 Rival Packing Co., to Associated Products, Inc., Chicago, Ill. 429,151, new cert. Cl. 46.
 Rosenberg Bros. & Co. Inc., San Francisco, Calif. 658,307, pub. 11-26-57. Cl. 46.
 Rosemarin, Philip, New York, N. Y. 552,612, can. Cl. 1.
 Rothbaum, Jack, d. b. a. Camar Pharmacal Distributors, New York, N. Y. 658,219, pub. 11-26-57. Cl. 18.
 Saltz, Lyle A., d. b. a. Caféco Co., Philadelphia, Pa., to Caféco Corp. 552,554, can. Cl. 46.
 Seidelhuber Steel Rolling Mill Corp.: See—
 Big Boy Mfg. Co., Inc.
 Selby International, Inc.: See—
 Selby Shoe Co., The.
 Selby Shoe Co., The, to Selby International, Inc., Portsmouth, Ohio. 355,135, ren. 3-8-58. Cl. 39.
 Sharp & Dohme, Inc., Philadelphia, Pa. 552,541, can. Cl. 18.
 Shuron Optical Co., Inc., Geneva, N. Y. 355,364, 12(c) pub. 2-11-58. Cl. 26.
 Sigma Chemical Co., St. Louis, Mo. 658,188, pub. 11-26-57. Cl. 6.
 Simon, Herman B., d. b. a. Simon Sign Co., Cleveland, Ohio. 658,345, pub. 11-26-57. Cl. 101.
 Simon Sign Co.: See—
 Simon, Herman B.
 Slick Airways, Inc., Dallas, Tex. 658,349, pub. 11-26-57. Cl. 105.
 Slumberland Products Co., Waltham, Mass. 658,284, pub. 11-26-57. Cl. 32.
 Smith, Kline & French Laboratories, Philadelphia, Pa. 552,546, can. Cl. 18.
 Smith, S. W., Rio Vista, Calif. 552,063, can. Cl. 22.
 Soluble Nutrients, Inc., Chicago, Ill. 658,221, pub. 11-26-57. Cl. 18.
 South Bend Tackle Co., Inc., South Bend, Ind. 658,247, pub. 11-26-57. Cl. 22.
 South River-Pace Co., Inc., South River, N. J. 658,369, Cl. 103.
 Sparta Ceramic Co., East Sparta, Ohio. 658,197-8, pub. 11-26-57. Cl. 12.
 Spaulding Bakeries, Inc., Binghamton, N. Y. 658,327, pub. 11-26-57. Cl. 46.
 Special Bakery Service, Jackson, Mich. 658,305, pub. 11-26-57. Cl. 46.
 Special Milk Products, Inc., Los Angeles, Calif., now by change of name Jackson-Mitchell Pharmaceuticals, Inc. 552,540, can. Cl. 18.
 Standard Milling Co.: See—
 Loudonville Milling Co., The.
 Star Expansion N. Y., Inc., New York, N. Y. 658,206, pub. 11-26-57. Cl. 13.
 Sterling Drug Inc., New York, N. Y. 658,189, pub. 11-26-57. Cl. 6.
 Sun Chemical Corp., Long Island City, N. Y. 658,328, pub. 11-26-57. Cl. 50.
 Sun Rubber Co., The, Barberton, Ohio. 658,251-2, pub. 11-26-57. Cl. 22.
 Supreme Pharmaceutical Co., Jersey City, N. J. 658,225, pub. 11-26-57. Cl. 18.
 Swartwout Co., The, Cleveland, Ohio. 658,291, pub. 11-26-57. Cl. 34.
 Tablax Co., New York, N. Y. 558,298, can. Cl. 18.
 Talx, Vessey & Auker Co., Salinas, Calif. 658,321, pub. 11-26-57. Cl. 46.
 Thomas Hosiery Co., Inc., New York, N. Y. 552,524, can. Cl. 39.
 Thompson, Weinman & Co., Inc., Catersville, Ga. 350,838, ren. 10-5-57. Cl. 1.
 Thorsen Mfg. Co., Oakland, Calif. 658,258, pub. 11-26-57. Cl. 23.
 Tidewater Oil Co.: See—
 Bailey & Grant, Inc.
 Tomlinson of High Point, High Point, N. C. 349,476, ren. 8-31-57. Cl. 32.
 Tower Finance Corp., Chicago, Ill. 658,346, pub. 11-26-57. Cl. 102.
 Townsend Medicine Co., Inc., Minneapolis, Minn. 552,458, can. Cl. 18.
 Tru Val Manufacturers, Inc., New York, N. Y. 658,298, pub. 10-15-57. Cl. 39.
 Ultrasonic Medical Equipment Corp., New York, N. Y. 552,518, can. Cl. 44.
 Union Diesel Engine Co., The, Oakland, Calif. 658,294, pub. 11-26-57. Cl. 34.
 Union Steam Pump Co., Battle Creek, Mich. 658,261, pub. 11-26-57. Cl. 23.
 Union Wadding Co., Pawtucket, R. I. 658,330, pub. 11-26-57. Cl. 50.
 United States Rubber Products, Inc., by United States Rubber Co., New York, N. Y. 351,335, 12(c) pub. 2-11-58. Cl. 35.
 United States Rubber Products, Inc., by United States Rubber Co., New York, N. Y. 351,336, 12(c) pub. 2-11-58. Cl. 35.
 United States Shoe Corp., The, Cincinnati, Ohio. 658,298, pub. 11-26-57. Cl. 39.
 Upjohn Co., The, Kalamazoo, Mich. 658,227-8, pub. 11-26-57. Cl. 18.
 Vacuum Baking Corp., New York, N. Y. 658,359, Cl. 46.
 Valley Weather Equipment Co.: See—
 Cripps, Oliver V.
 Vanadium-Alloys Steel Co., Latrobe, Pa. 658,213-15, pub. 11-26-57. Cl. 14.
 Vector Mfg. Co., Houston, Tex. 552,403, can. Cl. 26.
 Vernon Co., The, Newton, Iowa. 552,424, can. Cl. 22.
 Veterans Broadcasting Co., Houston, Tex. 552,583, can. Cl. 104.
 Vogue Dolls, Inc., Medford, Mass. 658,246, pub. 11-26-57. Cl. 22.
 W-K-M Mfg. Co., Inc., Houston, Tex., to ACF Industries, Inc., New York, N. Y. 658,208-4, pub. 11-26-57. Cl. 13.
 Ward Industries Corp., Syracuse, N. Y. 658,269-70, pub. 11-26-57. Cl. 24.
 Warren Dried Fruit Co., San Jose, Calif. 658,320, pub. 11-26-57. Cl. 46.
 Waxed Silicone Products, Inc., Miami, Fla. 552,589, can. Cl. 16.
 Weissman, M. B., Co.: See—
 Weissman, Marvin B.
 Weissman, Marvin B., d. b. a. M. B. Weissman Co., New York, N. Y. 658,299, pub. 11-26-57. Cl. 39.
 Welby Corp., Chicago, Ill. 658,276, pub. 7-30-57. Cl. 27.
 West Allis Concrete Products Co. Inc., West Allis, Wis. 658,199, pub. 5-28-57. Cl. 12.
 Western Gold and Platinum Co., San Francisco, Calif. 658,238, pub. 6-18-57. Cl. 21.
 Whallon, Edward V.: See—
 Conrad, Edward V., and Edward V. Whallon.
 Whitmire Research Laboratories, Inc., St. Louis, Mo. 658,180, pub. 11-26-57. Cl. 6.
 Williams & Bennett Co., Los Angeles, Calif. 552,426, can. Cl. 19.
 Wilson, Kenneth R., d. b. a. Homemaker Products, Antioch, Ill. 552,485, can. Cl. 26.
 Wiltse Laboratories, Inc., New York, N. Y. 552,507, can. Cl. 44.
 Winter, Elfriede, Frankfurt am Main, Germany. 658,223, pub. 11-23-57. Cl. 18.
 Wright & McGill Co., Denver, Colo. 552,619, can. Cl. 22.
 Wycombe, Meyer, Co., New York, N. Y. 551,587, can. Cl. 42.
 Young Radiator Co., Racine, Wis. 658,289, pub. 11-26-57. Cl. 34.

PATENTS NOTICES

Disclaimers

2,548,789.—*Rudolf C. Hergenrother*, West Newton, Mass. ELECTRONIC STORAGE DEVICES. Patent dated Apr. 10, 1951. Disclaimer filed Jan. 9, 1958, by the assignee, *Raytheon Manufacturing Company* and the inventor. Hereby enter this disclaimer to claim 11 of said patent.

2,733,390.—*Wayne W. Scanlon*, Silver Spring, Md. GERMANIUM RECTIFIER FOR LARGE CURRENTS. Patent dated Jan. 31, 1956. Disclaimer filed Jan. 15, 1958, by the inventor, acquiesced in by the Secretary of the Navy on behalf of the United States of America. Hereby enters this disclaimer to claims 1, 2, and 4 of said patent.

2,751,918.—*Stephen P. Higgins, Jr.*, Philadelphia, and *Pemberton H. Drinker*, Strafford, Pa. MANUALLY OR AUTOMATICALLY ACTUATED AIR-PRESSURE-RESPONSIVE CONTROLS. Patent dated June 26, 1956. Disclaimer filed Jan. 15, 1958, by the assignee, *Minneapolis-Honeywell Regulator Company*. Hereby enters this disclaimer to claims 6, 8, and 9 of said patent.

2,819,067.—*Theodore P. Dusenbury*, Los Angeles, Calif. CHECK SHINGLING MACHINE. Patent dated Jan. 7, 1958. Disclaimer filed Jan. 16, 1958, by the assignee, *Burroughs Corporation*. Hereby enters this disclaimer to that terminal part of the term of said patent subsequent to December 17, 1974.

Classification Order No. 245

The following transfers are hereby ordered to take effect on Monday, February 3, 1958:

From Division 19 to Division 49
Class 159, CONCENTRATING EVAPORATORS
From Division 23 to Division 1
Class 35, EDUCATION
From Division 30 to Division 67
Class 209, CLASSIFYING, SEPARATING AND ASSORTING SOLIDS, all subs. except 71 through 126
From Division 30 to Division 19
Class 236, AUTOMATIC TEMPERATURE AND HUMIDITY REGULATION
From Division 44 to Division 51
Class 343, COMMUNICATIONS, RADIANT ENERGY, subs. 700 through 916

From Division 55 to Division 67

Class 233, CENTRIFUGAL-BOWL SEPARATORS

M. C. ROSA,

Director, Patent Examining Operation.

Patents Available for Licensing or Sale

2,714,202. Recording System Utilizing a Single Control Signal Capable of Controlling Two Characteristics of the Signal (Adaptable To Control Tape Speed). Cook Electric Co., Patent Counsel, 6401 Oakton St., Morton Grove, Ill.

2,792,840. Smoking Pipe Composition and Process of Making Same. Paul Herriott, 2300 Ozone Court, Hermosa Beach, Calif.

2,796,792. Machine for and Method of Cutting Grooves in Pipes. Avelino Dias, 56 Liberty St., Lodi, N. J.

2,810,180. Stone Mold. Henry C. Barnack, 14 Avon Place, Hazardville, Conn.

2,815,379. Vacuum Bottle Cap. Bernard P. Hermes, 128 Mumford St., Chincoteague, Va.

2,818,589. Coin Control Shoe Polishing Stand. Isaac Carter, 128 Bank St., Dayton 7, Ohio.

General Electric Company is prepared to grant non-exclusive licenses under the following 25 patents on reasonable terms to domestic manufacturers.

Applications for licenses under the following 3 patents may be addressed to: General Electric Company, Patent Counsel, Chemical and Metallurgical Division, 1 River Road, Schenectady 5, N. Y.

2,564,498. Preparation of Alloys.

2,710,988. Molding Machine.

2,713,697. Molding Machine.

Applications for licenses under the following 3 patents may be addressed to: General Electric Company, Component Products Division, 1635 Broadway, Fort Wayne, Ind. Attention: Patent Counsel.

2,811,657. Means for Securing a Capacitor in a Dynamoelectric Machine Housing.

2,815,458. Dynamoelectric Machine Construction.

2,816,199. Dust Proof Switch Mechanism.

Applications for licenses under the following 19 patents may be addressed to: Patent Counsel, Turbine Division, General Electric Company, 1 River Road, Building 53, Schenectady 5, N. Y.

2,337,899. Heat Exchanger.

2,380,276. Welded Structure.

2,432,315. Bladed Rotors.

2,442,223. Method of Improving the Corrosion Resistance of Chromium Alloys.

2,479,573. Gas Turbine Powerplants.

2,534,980. Tensile Test Specimen and Fixtures.

New Applications Received During December 1957

Patents	6,609
Designs	361
Plant Patents	12
Reissues	27
Total	7,009

Issue

Patents	924—No. 2,823,383 to No. 2,824,306, incl.
Designs	56—No. 182,097 to No. 182,152, incl.
Plant Patents	3—No. 1,683 to No. 1,685, incl.
Reissues	3—No. 24,432 to No. 24,434, incl.
Total	986

2,659,232.	Apparatus for Making Stress-Strain Tests.	2,803,056.	Method of Applying an Elastic Insulating Tube to a Conductor Bar.
2,790,620.	Multiple Finger Dovetail Attachment for Turbine Bucket.	2,804,917.	Retractable Fuel Nozzle for Gas Turbine Combustor.
2,791,707.	Dynamolectric Machine Conductor With Internal Fluid Cooling Passages.	2,809,010.	Shut-Off Valve.
2,796,748.	Solid Coupling Assembly With Centering Plug.	2,809,802.	Damping Turbine Blades.
2,797,336.	Photoelectric Flame Detector.	2,813,400.	Governing Mechanism for Extraction Type Steam Turbine.
2,800,299.	Nozzlebox Structure for High Temperature Steam Turbine.	2,815,645.	Supercritical Pressure Elastic Fluid Turbine.
2,801,134.	Nozzle.		

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1957

Total number of pending applications (excluding Designs).....	212,606
Total number of pending Design applications.....	6,654
Total number of applications awaiting action (excluding Designs).....	94,856
Total number of Design applications awaiting action.....	3,138
Date of oldest new application.....	Dec. 20, 1956
Date of oldest amended application.....	Aug. 1, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS
(I) STONE, I. G., CHEMICAL AND RELATED ARTS.....	6, 31, 32, 43, 46, 50, 56, 59, 60, 63, 64.
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS.....	16, 26, 37, 41, 42, 44, 48, 51, 54, 60, 70.
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS.....	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs.
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES.....	7, 11, 17, 27, 34, 35, 39, 53, 62.
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION.....	5, 8, 20, 29, 33, 36, 40, 52, 66.
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS.....	1, 4, 9, 10, 18, 23, 25, 28, 45, 47.
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE.....	3, 15, 19, 25, 30, 32, 49, 55, 67.
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.....	I, II, III, IV, V.

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)	Oldest Application	
	New	Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders.....	4-12-57	1-11-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps.....	4-1-57	1-8-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats.....	4-4-57	1-2-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Storé Service; Conveyers, Chutes, Skids, Guides and Ways.....	4-8-57	1-2-57
5. (V) ROBINSON, C. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing.....	3-25-57	12-13-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines.....	5-2-57	5-2-57
7. (IV) OONSALVES, J. E. (ANDERSON, E. G., acting), Optics, Photographic Apparatus.....	4-1-57	1-18-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles.....	5-24-57	1-28-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines.....	4-1-57	1-17-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making.....	4-3-57	2-20-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits.....	5-6-57	5-2-57
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls.....	4-4-57	1-17-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work; Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning.....	4-8-57	1-22-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabrics; Air Brakes.....	4-4-57	2-20-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass.....	4-2-57	1-30-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part).....	12-20-56	10-16-56
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding.....	4-1-57	1-2-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices.....	4-1-57	1-11-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating.....	4-10-57	2-11-57
20. (V) KAMPE, A. H., (acting), Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors.....	4-1-57	1-2-57
21. (III) MADER, R. C., Textiles.....	1-16-57	12-12-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows.....	4-1-57	1-2-57
23. (VI) SMILOW, L., Cash and Fare Registers; Calculators and Counters; Education.....	2-10-57	8-1-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control.....	5-6-57	3-4-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making.....	1-31-57	1-7-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms.....	5-31-57	5-2-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids.....	5-2-57	5-1-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expansible Chamber Motors; Fluid Servomotors; Spring, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes.....	4-1-57	1-8-57
29. (V) FRITZ, M. M., (acting), Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings.....	2-19-57	12-14-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling.....	4-1-57	11-21-56

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)		Oldest Application	
		New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils.		1-11-57	1-11-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers.		5-7-57	3-4-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering, Roads and Pavements.		4-9-57	1-14-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements.		4-1-57	3-1-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding.		6-4-57	6-3-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales.		1-22-57	1-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits.		4-9-57	3-21-57
38. (I) MARMELSTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols.		6-3-57	5-20-57
39. (IV) WELL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows).		5-7-57	4-23-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages.		6-4-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television.		1-7-57	12-17-56
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part).		1-2-57	1-8-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles.		4-8-57	1-3-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes.		4-1-57	1-2-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part).		4-5-57	2-12-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part).		4-23-57	1-9-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles.		6-14-57	4-24-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers.		4-1-57	12-10-56
49. (VII) BENDET, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring.		4-15-57	3-12-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber.		6-5-57	6-10-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices.		3-14-57	3-14-57
52. (V) NEFF, P. R., Supports and Racks.		4-8-57	1-30-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators.		5-16-57	4-25-57
54. (II) NILSON, R. G., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications.		3-18-57	2-13-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators.		12-31-56	12-24-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry.		6-4-57	3-27-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending.		5-13-57	4-4-57
58. (III) BRONAUGH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrating Processes and Apparatus; Baths, Closets, Sinks, and Spilltoons; Boring and Drilling; Paper Manufactures; Packaging (part).		4-2-57	1-11-57
59. (I) BRINDISI, M. A. (acting), Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating.		4-1-57	12-27-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products.		6-6-57	4-1-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths.		4-4-57	1-9-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination.		8-6-57	8-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds.		4-1-57	12-7-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions.		4-2-57	1-14-57
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures.		4-1-57	1-3-57
66. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification.		4-2-57	1-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators.		5-1-57	2-14-57
70. (II) BREWRINK, J. L., Security Laws Administration.		4-29-57	2-18-57
CLASS. DIVS. I—BAILEY, J. S., Laminated Fabrics.		4-2-57	2-13-57
II—LADY, J. E., Oscillators; Amplifiers.		4-1-57	1-3-57
III—WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres.		4-10-57	1-17-57
IV—BERLOWITZ, W., Harrows and Diggers; Plows.		4-1-57	4-1-57
V—ANGEL, C. D., Refrigeration; Roofs.		4-19-57	2-3-57
M. E. DIV. A* (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part).		6-10-57	7-2-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts.		6-3-57	6-3-57
B—GRAY, M. A., Household, Personal and Fine Arts.			

* Established August 23, 1957, by order of the Commissioner—722 O. G. 218.

The following divisions have been abolished: 65 and 68

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1958*.

Patents..... Numbers 2,227,418 to 2,230,217, inclusive
Plant Patents..... Numbers 437 to 444, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals District of Columbia Circuit

CIRCUS FOODS, INC. v. ROBERT C. WATSON, COMMISSIONER OF PATENTS, HERPORT CANNING CO., INC., ET AL.

No. 13,830. Decided January 3, 1958

[— U. S. App. D. C. —; — F.2d —; — USPQ —]

1. TRADEMARKS—OPPOSITION—REVIEW BY THE U. S. DISTRICT COURT FOR THE DISTRICT OF COLUMBIA—COMPLAINT BY OPPOSER MOOT AFTER FINAL DENIAL OF REGISTRATION BY COMMISSIONER OF PATENTS.

Held that a complaint, seeking review of the dismissal by appellee Watson, Commissioner of Patents, of appellant's opposition to an application for registration of a trademark by appellee Circus Fruit Corporation, is moot where it appears that registration of said trademark has been denied by the Commissioner of Patents and the denial has become final.

2. APPEAL TO U. S. COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT—APPEAL FROM DISMISSAL BY DISTRICT COURT—WHERE COMPLAINT HAS BECOME MOOT.

Where, upon appeal from an order of the District Court dismissing a complaint seeking review of a dismissal by appellee Commissioner of Patents of a trademark opposition, it appeared that the complaint was moot, that statements by the Commissioner complained of by appellant were dicta, unnecessary to the Commissioner's decision and of no binding effect, and that another suit by appellant pending in the District Court could and should be adjudicated without reliance on or prejudice from the statements, Ordered that the cause be remanded to the District Court with directions to vacate the order of dismissal and to dismiss the complaint as moot.

Henry Gifford Hardy, pro hac vice, William E. Rollo and Noble McCartney for Circus Foods.

Clarence W. Moore for Robert C. Watson, Commissioner of Patents.

Before FAHY, WASHINGTON and BURGER, Circuit Judges PER CURIAM:

WHEREAS, the complaint herein seeks review of the dismissal by appellee Watson, Commissioner of Patents, of appellant's opposition to an application (T.M. Serial No. 611,179) for registration of a trademark by appellee Circus Fruit Corporation; and

WHEREAS, it appears that registration of said trademark was denied by appellee Watson, and, no review of such denial having been sought within the time allowed therefor, the denial has become final; and

[1] WHEREAS, by reason of the foregoing it appears to the court that the complaint herein is moot; and

WHEREAS, the statements by appellee Watson of which appellant complains appear to the Court to be

¹ See *Dunlap & Co. v. Bettmann-Dunlap Co.*, 57 App. D. C. 351, 23 F.2d 772 (1927); *Frigidaire Corp. v. Nitterhouse Bros.*, 63 F.2d 123 (CCPA 1933); *Frankfort Distilleries, Inc. v. Destora Co.*, 103 F.2d 924 (CCPA 1939); *Pabst-Eli Corp. v. Dr. W. J. Ross Co.*, 120 F.2d 390 (CCPA 1941); *The Pep Boys v. Fisher Bros. Co.*, 94 F.2d 204 (CCPA 1938); *Mishawaka Rubber Co. v. Bradstone Rubber Co.*, 109 F.2d 219 (CCPA 1940); *Baxter Laboratories, Inc. v. Don Baxter, Inc.*, 186 F.2d 511 (CCPA 1951); *Hat Corp. of America v. John B. Stetson Co.*, 228 F.2d 485 (CCPA 1955).
Namely, the statements in 110 USPQ 501 at 502 that as to Registrations No. 260,343 and No. 360,756, "Circus Foods has abandoned such rights as it may have acquired in the mark(s) and registration(s)", and as to Registration No. 424,243, since it was "... obtained as a result of a conspiracy ... Circus Foods may not rely on such registration for any purpose, either in this proceeding or otherwise."

dicta, unnecessary to appellee's decision and of no binding effect; and

WHEREAS, another suit is now pending in the District Court (C. A. 4099-56) in which the decision of the Patent Office denying the application of appellant Circus Foods, Inc., for registration of a trademark, is directly challenged, and this court considers that said suit can and should be adjudicated without reliance on or prejudice from the statements above mentioned;

[2] NOW, THEREFORE, IT IS ORDERED by the Court that this cause be, and it is hereby, remanded to the District Court, with directions to vacate the order of dismissal and to dismiss the complaint as moot.

United States Court of Appeals District of Columbia Circuit

ROBERT C. WATSON, COMMISSIONER OF PATENTS v. FREDERICK C. BERSWORTH AND THE DOW CHEMICAL COMPANY

No. 13,566. Decided January 9, 1958

[— U. S. App. D. C. —; — F.2d —; — USPQ —]

1. APPLICATION—DISCLOSURE—WORDS USED IN APPLICATION OR PATENT—QUESTION OF LAW—NOT TO BE DETERMINED BY THE OPINION OF EXPERTS.

"... the words of a patent or a patent application, like the words of specific claims therein, always raise a question of law for the court and may not be determined by the opinion of experts. ... *Minnesota Mining & Mfg. Co. v. Corborandum Co.*, 155 F.2d 746, 749 (8d. Cir.)."

2. SAME—SAME—CANNOT CLAIM UNDESCRIBED SPECIES MERELY BECAUSE WITHIN SCOPE OF DISCLOSED GENUS.

"As a matter of law, an applicant cannot 'include and claim a specific thing not originally described, merely because it comes within the scope of the genus before disclosed.'" *In re Masz*, 36 App. D. C. 435, 438."

3. REVIEW BY THE U. S. DISTRICT COURT FOR THE DISTRICT OF COLUMBIA—QUESTION OF FACT—PREPONDERANCE OF EVIDENCE NOT SUFFICIENT FOR REVERSAL OF PATENT OFFICE.

"A mere preponderance of evidence, if any, would not justify the District Court in reversing a factual finding of the Patent Office."

4. SAME—SAME—SAME—QUESTION OF INVENTION.

"Concerning the factual question whether patent claims are inventive, for example, it has long been clear that 'A mere preponderance of evidence' is not enough to justify reversing the Patent Office and deciding that an applicant is entitled to a patent." *Abbott v. Coc*, 71 App. D. C. 195, 197, 109 F.2d 449, 451."

5. SAME—SAME—PATENT OFFICE FINDING MUST BE ACCEPTED IF CONSISTENT WITH ALL THE EVIDENCE.

"Even when, as often happens, the District Court has before it more evidence than the Patent Office had, it remains true that on a factual issue 'the Patent Office finding must be accepted if it is "consistent with the evidence," the Patent Office being an expert body preeminently qualified to determine questions of this kind.' *Esso Standard Oil Co. v. Sun Oil Co.*, 97 U. S. App. D. C. 154, 157, 229 F.2d 87, 40. This includes the evidence before the court and the evidence before the Patent Office."

6. SAME—SAME—QUESTION IS WHETHER EVIDENCE CARRIES THOROUGH CONVICTION THAT PATENT OFFICE ERRED. "On a factual issue the question 'is whether all competent evidence, "new" and "old," offered to the District Court carries "thorough conviction" that the Patent Office erred.' *Minnesota Mining & Mfg. Co. v. Carborundum Co.*, 155 F.2d 746, 748 (3d Cir.)."

7. APPEAL TO U. S. COURT OF APPEALS, DISTRICT OF COLUMBIA CIRCUIT—DISTRICT COURT TO BE REVERSED IF IT OVERRULES A FACTUAL FINDING OF PATENT OFFICE CONSISTENT WITH EVIDENCE.

Held that, if the U. S. District Court for the District of Columbia overrules a factual finding of the Patent Office that is consistent with the evidence, the Court of Appeals must reverse.

8. APPLICATION—DISCLOSURE—SPECIFIC CHEMICAL FORMULA NOT SUPPORTED BY DISCLOSURE OF GENERAL FORMULA. Claims for a chemical compound described by a specific formula held not supported by an application disclosing a general formula encompassing the compound, but not expressly disclosing the specific formula.

REVERSED.

Clarence W. Moore (Joseph Schimmel of counsel) for the Commissioner of Patents.

Ellsworth H. Mosher (Thomas B. Graham of counsel) for Bersworth and The Dow Chemical Company.

Before EDGERTON, Chief Judge, and BAZELON and DANAHY, Circuit Judges

EDGERTON, Chief Judge, delivered the opinion of the court.

This is a suit under 35 U. S. C. 145, 66 Stat. 803 § 1, for a patent on certain claims of an application filed in the Patent Office in 1951. The Patent Office rejected the claims as anticipated by certain references, namely two patents issued in 1947. The District Court overruled the Patent Office and the Commissioner of Patents appeals.

In 1946 appellees filed an application, Serial No. 657,893, which became Patent No. 2,524,218. If the disclosure in that application would have supported claims like those now in suit, had they been made then, the doctrine of "continuity" gives these claims the benefit of the filing date of that application and so entitles them to priority over the references. The Patent Office tribunals ruled that the 1946 disclosure would not have supported claims like these. The District Court held the contrary.

The claims are for a chemical compound described by specific formula, and for the basic metal salts of this compound. The 1946 application did not disclose the specific formula of this compound. According to undisputed testimony in the District Court, a general formula disclosed by the 1946 application "encompassed within [its] scope . . . a large number", possibly thousands, of compounds, including the one now specifically claimed; "a small number of known, but many unknown" compounds; chemists can "derive" the specific formula now claimed, and many others, from the general formula; "You derive the compound [now claimed] by assigning certain values to the *m* variables set forth in the general formula" disclosed in 1946, but "there are many other compounds that would be derived in the same way . . ." A witness for appellees who testified, on direct examination, that the 1946 "formula, with the explanatory disclosure, specifically dictates the formula" now claimed, testified on cross-examination that "One is led to other compounds as well" and that he "had a definite goal in

mind" when he picked a particular "substituent".

The difference between the Patent Office and the District Court, and the issue before us, is not factual. As the Commissioner of Patents says in his brief, "There is little, if any, disagreement as to the salient pertinent facts of this case." He does not deny that the appellees are entitled to a patent if their 1951 claims are entitled to priority over the 1947 references. The appellees do not contend that they are entitled to a patent if their claims are not entitled to priority over those references. The question is not whether an invention has been made. The question is whether the appellees are entitled to claim the invention. The answer turns on the relation between the words of the 1946 application and the words of the 1951 claims. [1] And "the words of a patent or a patent application, like the words of specific claims therein, always raise a question of law for the court and may not be determined by the opinion of experts. *Sanitary Refrigerator Co. v. Winters*, 280 U. S. 30, 50 S. Ct. 9, 74 L. Ed. 147 . . ." *Minnesota Mining & Mfg. Co. v. Carborundum Co.*, 155 F.2d 746, 749 (3d Cir.). The 1946 disclosure would or would not have supported claims like the ones now made, according to whether such a general disclosure does or does not, in respect to such specific claims, meet the legal requirement that "The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains . . . to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention." 35 U. S. C. 112. [Emphasis added.] "This is a question of law, open to this court, precisely as it was open to the court below." *Minnesota Mining case*, supra. On this appeal the Patent Office does not question, and we do not question, any of the testimony of appellees' witnesses. But we answer the question of law in the negative.¹ [2] As a matter of law, an

¹ Since the Patent Office tribunals said nothing to the contrary, although the Commissioner's brief suggests a doubt, we assume in appellees' favor without deciding that the testimony meant the 1946 disclosure not only enabled chemists to make the formula now claimed but also enabled them to make the compound now claimed; despite the fact that it is not clear, to us non-chemists, that either the testimony or the District Court's findings meant this. One of appellees' witnesses testified without dispute that there "may be years of research necessary in order to make many" of the specific compounds encompassed within the scope of the general disclosure.

² If it were a question of fact the result would be the same. [3] A mere preponderance of evidence, if any, would not justify the District Court in reversing a factual finding of the Patent Office. [4] Concerning the factual question whether patent claims are inventive, for example, it has long been clear that "A mere preponderance of evidence" is not enough to justify reversing the Patent Office and deciding that an applicant is entitled to a patent." *Abbott v. Coc*, 71 App. D. C. 195, 197, 109 F.2d 449, 451. [5] Even when, as often happens, the District Court has before it more evidence than the Patent Office had, it remains true that on a factual issue "the Patent Office finding must be accepted if it is 'consistent with the evidence,' the Patent Office being an expert body pre-eminent qualified to determine questions of this kind." *Esso Standard Oil Co. v. Sun Oil Co.*, 97 U. S. App. D. C. 154, 157, 229 F.2d 37, 40. This includes the evidence before the court and the evidence before the Patent Office. [6] On a factual issue the question "is whether all competent evidence, 'new' and 'old,' offered to the District Court carries 'thorough conviction' that the Patent Office erred." *Minnesota Mining & Mfg. Co. v. Carborundum Co.*, 155 F.2d 746, 748 (3d Cir.). [7] If the District Court overrules a factual finding that is consistent with the evidence, the court is clearly wrong and we must reverse. In the present case, it appears to us that the Patent Office finding is not only consistent with the evidence but does not conflict with any of the evidence.

applicant cannot "include and claim a specific thing not originally described, merely because it comes within the scope of the genus before disclosed." *In re Mraz*, 36 App. D. C. 435, 438. An applicant "under the circumstances of this case, cannot pre-empt the entire field . . . by broadly teaching that useful results may be obtained by mixtures and combinations of a broad general group of materials without specifically naming such materials . . . or in some other manner pointing out his invention as is required by statute . . ." *In re Collins*, 75 F.2d 1000, 1002 (CCPA). *Minnesota Mining case*, supra.

[8] REVERSED.

DANAHY, Circuit Judge, dissenting:

The philosophy permeating the majority opinion basically is one of nullification of the remedy provided by Congress, a result here reached (1) by according to the Patent Office the equivalent of a conclusive presumption of correctness; and (2) by holding that sufficiency of disclosure raises a question of law. Relegated to zero status is the District Court, with its findings, its conclusions, its memorandum opinion and its judgment. Judge Wilkin heard many witnesses, had the benefit of charts and exhibits, received detailed explanations as to the points in issue and possessed the advantage of colloquy with opposing counsel. The record discloses close and careful attention to the many aspects of the case brought under 35 U. S. C. 145 which permits a dissatisfied applicant to pursue his remedy in the District Court which may adjudge the applicant entitled to receive a patent "as the facts in the case may appear." [Emphasis supplied.]

The majority views here given effect may be found more expansively set forth in Judge Edgerton's dissenting opinion in *Carbide & Carbon Chemicals Corporation v. Coc*.¹ Interestingly enough, contrary to the findings authorizing a patent in the instant case, the trial judge there found no invention, and Judge Edgerton, writing in support of his ruling, said: "Under the rule settled in this jurisdiction, while we are not absolutely bound by a chancellor's findings of fact, we are not to disturb them on appeal unless upon an examination of the evidence they are clearly wrong." 69 App. D. C. at 382, 102 F.2d at 246. We recently pointed out that under governing case law and the Federal Rules, even as to patent cases, "A finding of fact by the District Court, sitting without a jury, may be set aside on appeal only if it is clearly erroneous."² We noted that in such situations we are

¹ 69 App. D. C. 372, 378-383, 102 F.2d 236, 242-247 (D. C. Cir. 1938); cf. his explanation of the case and his further views in *Abbott v. Coc*, infra note 3.

² *Esso Standard Oil Company v. Sun Oil Company*, 97 U. S. App. D. C. 154, 156, 229 F.2d 37, 39 (D. C. Cir. 1956), certiorari denied, 351 U. S. 973 (1956); and see *Graver Mfg. Co. v. Linde Co.*, 339 U. S. 605, 611 (1950); in the earlier case, *Graver Mfg. Co. v. Linde Co.*, 336 U. S. 271, 274-75 (1949), the Court had said:

"Rule 52(a) of the Federal Rules of Civil Procedure provides in part: 'Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses.' To no type of case is this last clause more appropriately applicable than to the one before us, where the evidence is largely the testimony of experts as to which a trial court may be enlightened by scientific demonstrations. . . . He wrote a careful and succinct opinion and made findings covering all the factual issues."

bound to inquire whether the District Court's findings are clearly erroneous. Here, no effort is made by the majority to demonstrate that Judge Wilkin's findings are "clearly wrong," or "clearly erroneous." They are simply and peremptorily spurned as meaningless and nugatory in the context of the majority's treatment of the problem. I shall later undertake to show that the District Judge, with thorough conviction, arrived at his amply supported findings on the new evidence before him. I fail to see how he could have found otherwise than he did.

I

Contrary to our recent cases, the majority really are saying even when the District Court has before it evidence the Patent Office did not have, on a question of fact "the Patent Office finding must be accepted if it is 'consistent with the evidence,' the Patent Office being an expert body pre-eminent qualified to determine questions of this kind." *Esso Standard Oil Co. v. Sun Oil Co.*, 97 U. S. App. D. C. 154, 157, 229 F.2d 37, 40. That case did not so rule, I submit, except in situations where the new evidence amounts to a mere preponderance. On the contrary, the opinion pointed out, 97 U. S. App. D. C. at 159, 229 F.2d at 42: "Of course, if the decision of the Patent Office is not warranted on the evidence before it, or if the new evidence reaches the necessary standard, the District Court may rule as the totality of the evidence may require." [Emphasis mine.]

The majority in support of the status it accords to the Patent Office action cites *Minnesota Mining & Mfg. Co. v. Carborundum Co.*, 155 F.2d 746, 748 (3d Cir. 1946). But that case went off on the "mere preponderance" test (compare *Ellen v. Lovell Manufacturing Company*, 225 F.2d 844, 848 (3d Cir. 1955), certiorari denied, 350 U. S. 966 (1955)), and the proof was deemed insufficient to meet the "thorough conviction" requirement spelled out in our case of *Esso Standard Oil Company v. Sun Oil Company*, supra note 2. In this respect, the result in the *Minnesota Mining* case was simply the converse of our *Carbide & Carbon Chemicals* case, supra note 1, where we found invention, thus reversing the District Court. Judge Edgerton explained that the latter opinion "should be understood to mean, not that the usual presumptions of administrative and judicial correctness are inapplicable in suits to obtain a patent, but that the evidence in that particular case overcame these presumptions." [Emphasis supplied.]

Therefore, I would suppose the true rule to be that above quoted from the *Esso Standard Oil Company* case, supra. So applied, the test was overwhelmingly met by the evidence here, in character and amount carrying thorough conviction. The answers on cross examination quoted by the majority had largely to do with the non-elected subject matter in another divisional application, indeed the applicant's Claim 1 was, by express stipulation of the parties, withdrawn from this case. Affirmatively the expert referred to by the majority made it clear he was answering merely in terms of the "theoretical." He testified unequivocally that the compounds to be derived from the

³ *Abbott v. Coc*, 71 App. D. C. 195, 196, 109 F.2d 449, 452 (D. C. Cir. 1939); and see discussion of this point in *Standard Oil Development Co. v. Marshall*, 86 U. S. App. D. C. 210, 213, 181 F.2d 280, 283 (D. C. Cir. 1950).

claims in issue were the most practical and the most obvious, and that one skilled in the art would arrive at these compounds. His testimony in terms of the realities was abundantly supported. Surely the appellant could not plausibly argue that to have sufficient disclosure the claimed compounds must be the only ones which a chemist would derive; otherwise every application would have to be so specific that no alternative compounds would be possible. Nor did the Patent Office so argue, for its counsel surely recognized the doctrine of continuity, and he knew any such result would render meaningless the statute which permits a prior filing date to be given to a subsequent claim when that claim is disclosed in the prior application. Actually the Patent Office conceded invention as to the subject matter here, indeed various patents were issued, including the references relied upon by the Patent Office. Of course the claim here could not have been allowed in the patents referred to since they claimed different inventions. I fail to understand an assertion of lack of disclosure since the Board of Patent Appeals finds and sets forth the very formula before the court. That is the way the record stood before the new evidence was presented to the District Court upon which its findings are based. It seems to me that the findings not only are not shown to be clearly erroneous, they are clearly right, and the new evidence supporting them reached the "necessary standard," supra. Thus there is here no room for the presumption of correctness, and it should be laid out of the case.

II

The majority, to avoid the impact of our Esso rule, conclude erroneously I think, that here is presented a question of law arising from "the words of a patent or a patent application." The majority say the specification shall set forth its disclosure in "full, clear, concise, and exact terms . . . 35 U. S. C. 112," and "This is a question of law . . ." But the majority fail and decline to give effect to the statute at precisely the point critical in this case, for the statute is satisfied if disclosure is in such terms "as to enable any person skilled in the art to which it pertains . . . to make and use the same. . . ." [Emphasis supplied.] Thus, the question was not one of construing the "words" of the application, but whether the disclosure was sufficient to a "person skilled in the art." On that point the evidence of the experts is received by the courts, not as determining the issue, but as affording proof upon which the trier must pass as to what the application discloses to those skilled in the art.

As Judge Learned Hand wrote long since in *Kohn v. Elmer*, 265 Fed. 900, 902 (C. Cir. 1920): "Specifications are written to those skilled in the art, among whom judges are not. It therefore becomes necessary, when the terminology of the art is not comprehensible to a lay person, that so much of it as is used in the specifications should be translated into colloquial language; in short, the judge should understand what the specifications say."

And see *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U. S. 408, 437 (1902), "The specification of the patent is not addressed to lawyers . . ."

Here, the District Judge heard the experts and witnessed their demonstrations. One, a professor, had put before his class in organic chemistry the very problem in suit. Student after student took the witness stand and testified to the evolution of the formula for the compounds defined in the claim, and each

illustrated its achievement from the specification and the descriptions of the instant claim. Thus, the experts, and even those not yet graduated, demonstrated the sufficiency of the disclosure. The only question of law was that involved in the judgment of a trier who, when he understood the specifications, was bound to accept the responsibility for decision as to sufficiency. I suggest he correctly decided upon findings arrived at with complete conviction that continuity of the subject matter defined by the claim was maintained before the Patent Office at all times here material.

I see here, not a matter of construing language, not a question of law, but one of fact as to what was disclosed to those skilled in the art.

III

The cases my colleagues cite and rely upon may readily be distinguished, I submit. They quote from *Minnesota Mining & Mfg. Co.*, supra, where they necessarily include *Sanitary Refrigerator Co. v. Winters*, 280 U. S. 30 (1929), as cited by the Third Circuit. The latter case, 280 U. S. at 36, limits itself to saying that upon "undisputed evidence the question of infringement resolves itself in each case into one of law . . ." [Emphasis added]; and again, at page 43, the Third Circuit decree was reversed because the Court's conclusion was reached "under the controlling weight of the undisputed facts . . ."

As Judge Maris recently wrote: "It may be conceded that the question of construing the claims of a patent is one of law in the sense that, as in the case of other integrated documents, it is a question for the court and not the jury. But the question of infringement involves also questions of fact, such as the nature of the devices alleged to infringe . . . Thus the finding of infringement is a finding of fact . . ." *Vanderveer v. Erie Malleable Iron Co.*, 238 F.2d 510, 514 (3 Cir. 1956), citing, in footnote 14, three cases. Clearly, as the note shows, he is speaking there of *Singer Co. v. Cramer*, 192 U. S. 265, 275 (1904), as holding infringement presents a question of law only where "extrinsic evidence is not needed to explain terms of art therein, or to apply the descriptions to the subject matter." (Here the extrinsic evidence was properly received for both purposes.) In that same sense and in the same note, Judge Maris cites the *Minnesota Mining & Mfg. Co.* case. Thus, not even in the Third Circuit is the latter case relied upon for the proposition here asserted; indeed the case has never been cited by the Supreme Court nor by any court of appeals but this one, so far as I can see. On the contrary, the rule in the Third Circuit is set forth in *White v. E. L. Bruce Co.*, 162 F.2d 304, 305 (3 Cir. 1947), following *Hazeltine Corp. v. General Motors Corp.*, 131 F.2d 34 (3 Cir. 1942), where at page 37, that court said:

"Whether a patent shows invention is a question of fact and the findings of the trier of fact upon this issue are not to be disturbed unless clearly erroneous or not supported by substantial evidence. [Citing *Keyes v. Grant*, 118 U. S. 25 (1886) and several other Supreme Court cases]."

¹ Cf. *Fawikner v. Gibbs*, 170 F.2d 34, 37 (9 Cir. 1948), aff'd, 338 U. S. 267 (1949); and see *Standard Oil Development Co. v. Marshall*, 86 U. S. App. D. C. 210, 181 F.2d 280 (D. C. Cir. 1950); *White v. E. L. Bruce Co.*, 162 F.2d 304 (3 Cir. 1947); and see cases cited, note 19 infra; for the "words" of this application, see the chemical formulation in note 13 infra. How this presents a "question of law" has not been brought home to me.

The majority quotes a sentence from *In re Mraz*, 36 App. D. C. 435 (1911), but the context must be appraised. There, the appellant's original application was rejected since he had claimed a composition consisting of gelatin, glycerin and an "oxygenated solution," but failed to give an example of "oxygenated solution." Thus there was insufficient description. Had his specification included bone meal as an example of "oxygenated solution," we might have had an apt analogy. The *Mraz* amendment, however, simply substituted "bone meal" for "oxygenated solution" which, the court quite correctly said, was a substitution of new matter, not previously disclosed. On its face the *Mraz* case has no present application since here the claims neither present new matter nor enlarge the original specification. Rather, the present claims, by those skilled in the art, have been demonstrated to be an application of the specifications to the original generic formula, as the trial court properly found.

Similarly, *In re Collins*, 75 F.2d 1000, 1002, 22 CCPA 1053, 1055 (1935), may be distinguished, particularly since it cites and explains *In re Mraz* in the very terms I have just discussed.

I submit that the authorities relied upon do not apply to, and certainly do not control, the disposition of the issue here presented. Rather, the District Court here received detailed and extensive new evidence as to the sufficiency of the disclosure to those skilled in the art. It recognized fully the deference ordinarily due to the findings of the Patent Office but found that the new evidence was clear and convincing, and thus reached "the necessary standard" for thorough conviction, as spelled out in the *Esso* case, supra.

IV

That my affirmative view may more fully appear, in deference to my colleagues, I will analyze the case in detail as I see it.

Bersworth instituted action under the provisions of 35 U. S. C. 145 asking the District Court to authorize the Commissioner to issue a patent upon certain claims of his application, Serial No. 215,380, filed March 13, 1951, entitled "Hydroxy Derivatives of Alkylene Polyamines." Appellees urged before the Patent Office and in the District Court, and the trial judge found, that certain subject matter had originally been described and claimed and thereafter had been carried continuously in a series of divisional and continuing applications before the Patent Office. The Commissioner argued that the compounds defined in the instant application had been disclosed in two of Bersworth's patents, publication of which more than one year prior to the date of the instant application raised a statutory bar to the grant here sought. Judge Wilkin's order authorizing relief gave rise to the Commissioner's appeal.

² By order of the District Court, pursuant to stipulation, the Dow Chemical Company was added as party plaintiff. It was further stipulated that Claims 1 and 3 might be dismissed without prejudice. Claim 2 defines by formula two compounds, diethanol ethylene diamine diacetic acid and dipropanol ethylene diamine diacetic acid. Claim 4 defines the basic metal salts of the compounds of Claim 2. Claim 2 is typical. This group or class of organic compounds is said to have wide utility in the chemical arts as chelating agents which hold metal ions in aqueous solutions in such form that chemically they are no longer effectively present in the water. In addition, the compounds in question are said to have strong detergent and wetting properties and to be compatible with soap.

727 O. G.—31

The case turns on the applicability of the doctrine of continuity, both parties being in agreement that the applicant's right stands or falls on the sufficiency of the disclosure in Bersworth's application which matured into Patent No. 2,524,218, Case A.

Establishment of the sequence of events importantly requires the interpolation of much detail.

On June 21, 1943, Bersworth filed two applications, one maturing as Patent No. 2,407,645 which was issued September 17, 1946, and another, as Patent No. 2,428,353 which was issued October 7, 1947. On July 17, 1943, he filed an application for Patent No. 2,413,856 which was issued January 7, 1947.³ While these applications were pending, Bersworth, on March 23, 1946, filed application S. N. 657,893 which matured as Patent No. 2,524,218, Case A, issued on October 3, 1950.

While Case A was pending, Bersworth on July 17, 1948, filed application S. N. 30,377⁴ which remained before the Patent Office until March 21, 1951. As Case B, it was then abandoned, but not until after Bersworth on March 13, 1951, had filed application S. N. 215,380, which is the application in suit.⁵ The instant application, Case C, specifically identified its predecessor application, Case B, as a continuation-in-part of the parent application, Case A.⁶ Case C, like abandoned Case B, contained a specific claim to the chemical compound included within the subject matter of Case A, but particularly defined by name and by formula in Case C.

Thus at all times here involved there were before the Patent Office, co-pending applications involving the same subject matter, the inventiveness of which has not been challenged. The Commissioner's brief

³ Originating in *Godfrey v. Eames*, 68 U. S. 317 (1864), the principle of which was recognized in *Crown Cork Co. v. Gutmenn Co.*, 304 U. S. 159, 165 (1938). And see 35 U. S. C. 120 (1952) as related to 35 U. S. C. 112 (1952).

⁴ See discussion in Commentary on the New Patent Act, 35 U. S. C. App. 31, 33. "The statute is so worded that the first application may contain more than the second or the second application may contain more than the first, but in either case the second application would be entitled to the benefit of the filing date of the first case with respect to common subject matter." [Emphasis supplied.]

⁵ This patent on appellees' chart, an exhibit of record, is marked "Case A." I will similarly refer to later applications as Case B and Case C and so identify them for present purposes.

⁶ The sole ground for Patent Office refusal of a patent in this present case is that the compounds defined in the claims here in issue are disclosed in the two last identified Bersworth patents, relied upon as references. While the inventions actually claimed in 1943 were different, the general subject matter here involved was therein first disclosed. Without more, the publication dates being more than one year prior to the date of the application in suit, these references would bar a grant here. But there is more, as will be seen.

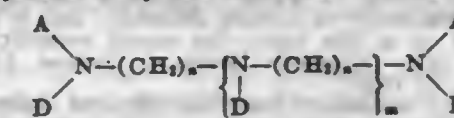
⁷ Case A contained a generic claim to compounds as disclosed in the specification but division was required by the Patent Office. Bersworth then on March 15, 1947, filed application S. N. 735,018 which matured as Patent No. 2,532,391, issued on December 5, 1950. It defined the broad subject matter by formula almost identically as it appeared in Case A. Case B was likewise so filed.

⁸ This is Case B; see note 8 supra.

⁹ This is Case C; see note 8 supra.

¹⁰ I quote from the latter, page 1, column 1, lines 25-46, inclusive:

"The alkylene polyamine derivatives of the present invention are represented by the following formula:



wherein n is either 2 or 3 and m is either zero or a positive integer and wherein D is a member of the group consisting of $-\text{CH}_2\text{COOH}$, $-\text{CH}_2\text{CH}_2\text{COOH}$ and their alkali metal salts, and wherein A is a hydrocarbon group containing at least two carbon atoms and having not more than two hydrogen atoms replaced by a member of the group consisting of $-\text{CH}_2\text{COOR}$, $-\text{CH}_2\text{COOM}$, $-\text{SO}_2\text{H}$, $-\text{SO}_2\text{M}$, $-\text{OR}$ and $-\text{OR}'$ wherein R is alkyl or hydrogen, M is an alkali metal, and R' is alkylene, said groups being spaced at least two carbon atoms from the nitrogen atoms."

tells us that "as to all common subject matter carried over into the continuing application from the parent application, the former is entitled to the benefit of the latter. . . . What is in dispute here is appellees' claim of right to rely upon the application which matured into Patent No. 2,524,218, [Case A] a bridging application, for the specific subject matter of the claims in issue, [Case C], which subject matter was first specifically disclosed in intermediate application Serial No. 39,377, [Case B]."

Patent Office counsel urged before Judge Wilkin that the applicant must show he could be entitled to claim the specific compound under the disclosure in Case A, and that the evidence showed "that he did not disclose it by name." The names of the compounds do not appear in Case A. But they are formulated.

Appellees' counsel agreed that the issue had been "pin-pointed"; thus, "If the disclosure of our Case A specifically gives us the compound we have in Exhibit 5, we are certainly entitled to this patent."

In evaluating the legal sufficiency of appellees' parent disclosure,

"... an inventor is required in his application for a patent to disclose the invention in such full, clear, concise, and exact terms as to enable one skilled in the art to make, construct, compound, and use the same. There is no requirement in [35 U. S. C. 112 (1952)] that a party relying on a constructive reduction to practice to establish priority of invention must show a specific working example to support the compound claimed. For this reason, if compound 17 would be the natural and expected result achieved by one skilled in the art following the procedures outlined by appellees in their parent specification, such disclosure must be regarded as sufficient."

The court in the Lawson case adopted the opinion of the majority of the Board of Patent Interferences, from which it quoted at length:

"After careful consideration of the parent disclosure we are satisfied that a person skilled in the art, following the general and specific teachings therein, would encounter no difficulty in producing compound 17. . . . It is not denied by the Examiner, or the senior party that compound 17 can actually be produced by following closely the analogous and general procedures disclosed in the parent application. We appreciate that it may involve some judgment on the part of the skilled worker. This, however, is true even in cases where examples are given since obviously every detail of the necessary procedure cannot be given in a patent specification and many details must be left to the skill of the chemist."

The appellees offered evidence to establish that organic chemical nomenclature gives a skilled chemist a word picture of the structural formula of an organic chemical compound, that a structural formula gives a skilled chemist a word name for an organic compound, and that the word code conveys a description of organic chemical structure so that chemists can reproduce that structure. Accordingly, an organic formula written in structural form is the equivalent of an organic name derived from the rules of nomenclature in common use in organic chemistry. The trial judge correctly received the evidence of the experts as

to what is understood and applied by those engaged in the art of organic chemistry, in order to resolve and to decide a question of fact." Against that background and with the formula "at hand, the witnesses traced the successive steps leading directly to the elected species defined in appellees' claim 2." The trial judge specifically found:

"12. The evidence before this Court was clear and convincing that the symbols set out in the formula as in finding 10, when interpreted in the light of the specifications, did lead those experienced in this field of chemistry and advanced students of such chemistry to the embodiment claimed by the plaintiffs. The testimony of the experts was clear and convincing that the language of the original application, including the chemical symbols, did lead directly to the composition for which the plaintiffs seek a patent monopoly."

"13. Claim 2 of the United States Patent Application S. N. 215,380 is specifically supported by the disclosure of United States Patent 2,524,218. In fact, Claim 2 of S. N. 215,380 was directly derived from Claim 1 of United States Patent 2,524,218 as filed."

"14. The Patent Office having conceded that the subject matter of United States Patent Application S. N. 215,380 is inventive, claims 2 and 4 define inventive subject matter."

To recapitulate, the allowed Case A, with its generic claim to compounds in the form in which disclosure appears in the specification, is but a concentrated disclosure of specific formulae for some six compounds, one of which is more specifically defined by the claims in suit. Thus one should look to Case A for the genus of which the instant claims are but species, elected and prosecuted after the required division. The trial judge has found the instant claims are the natural and expected result to be achieved by those skilled in the art following the procedures as specified and accompanying the disclosure in Case A. I believe he was right.

"Research Products Co. v. Tretolite Co., 106 F.2d 530, 533 (9 Cir. 1939); cf. *International Standard Electric Corp. v. Goss*, 81 U. S. App. D. C. 215, 157 F.2d 73 (D. C. Cir. 1946); *International Standard Electric Corp. v. Kingsland*, 83 U. S. App. D. C. 355, 169 F.2d 890 (D. C. Cir. 1948)."

"We quote from the Memorandum filed by the trial judge: 'The evidence before this Court was clear and convincing that the symbols, when interpreted in the light of the specifications, did lead those experienced in this field of chemistry and advanced students of such chemistry to the embodiment claimed by the plaintiffs. The testimony of the experts was clear and convincing that the language of the original application, including the chemical symbols, did lead directly to the composition for which the plaintiffs seek a patent monopoly.'"

"It would seem beyond question that the subject matter of the invention was continually before the Patent Office. *Godfrey v. Eames*, supra note 8; *Pield v. Colman*, 40 App. D. C. 598, 606 (D. C. Cir. 1913); certiorari denied, 231 U. S. 747 (1913). Thus, cases such as *In re Stoll*, 161 F.2d 241, 84 CCPA (Patents) 1058 (1947), do not apply."

In the United States Patent Office Decision of the Supervisory Examiner

EX PARTE SEARS

Decided February 27, 1957. Patent No. 2,814,840

PRACTICE—M. P. E. P. SEC. 1302.01—RESTRICTION OF DISCLOSURE TO INVENTIONS CLAIMED.

"The mere fact that some Examiners have failed to follow the practice set forth in Section 1302.01 of the Manual and have permitted patents to issue which contain matter extraneous to the claimed inventions is insufficient to justify an exception to the general practice. . . . In addition to the reasons for this practice as set forth in Section 1302.01 there is another important reason for requiring this restriction of disclosure and that is to reduce the bulk of the issued patents. . . . In this regard the Office has attempted to be reasonable and usually insists upon restriction of at least one sheet of drawing and/or one page of specification will be eliminated."

ON PETITION.

DENIED.

HULL, Supervisory Examiner:

This petition seeks a reversal of the Examiner's

requirement that the disclosure be restricted to the elected species, illustrated in Figs. 7, 8 and 9 of the drawings.

It is the Examiner's position that the claims allowed read only on the embodiment illustrated in these figures and that Section 1302.01 of the Manual of Patent Examining Procedure is explicit in directing the Examiner to require restriction of the disclosure to the invention recited in the claims.

Applicant urges hardship and the possibility for errors to arise if the requirement is insisted upon. He further urges that the figures required to be cancelled are necessary to a complete understanding of the invention and that the requirement is discriminatory.

In his argument in support of hardship applicant states that correcting the drawings would amount to a doubling of the cost of the drawings to applicant. This is not supported by the record which shows the Office draftsman has estimated the cost to be two dollars. This is believed to be a reasonable charge and is in fact but slightly more than the minimum charge for correcting errors which frequently occur in drawings.

Applicant's position regarding errors in the specification resulting from the amendment thereof is not understood. He takes the position that such errors would necessarily occur as the result of his efforts and that the Examiner would fail to detect them due to the late stage in the prosecution of the application. If reasonable care is exercised in the preparation of the amendment, no material errors should occur and

there is no apparent reason why errors which may occur would not be detected by the Examiner.

The disclosure of this application has been studied and the conclusion reached that so far as the claimed invention is concerned, it can be fully understood if the disclosure is amended in the manner required by the Examiner and if so amended the specification and drawings would be in harmony with the scope of the allowed claims.

The mere fact that some Examiners have failed to follow the practice set forth in Section 1302.01 of the Manual and have permitted patents to issue which contain matter extraneous to the claimed inventions is insufficient to justify an exception to the general practice and does not support applicant's charge of discrimination. In addition to the reasons for this practice as set forth in Section 1302.01 there is another important reason for requiring this restriction of disclosure and that is to reduce the bulk of the issued patents. The storage of patents in the Examiners' files and in the Public Search Room is an ever increasing problem which can be mitigated only by insisting upon the disclosures being confined to the inventions covered by the patents. In this regard the Office has attempted to be reasonable and usually insists upon restriction if at least one sheet of drawing and/or one page of specification will be eliminated.

The Examiner's requirement in the instant case is held to be reasonable and in accord with prevailing practice and will not be disturbed.

PETITION DENIED.

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

2,320,500, F. Brons, Process and apparatus for exploring geological strata; 2,630,014, S. A. Scherbatskoy, Radioactivity well logging system; 2,740,051, same, Radioactivity well logging apparatus; 2,740,052, Castel and Scherbatskoy, same; 2,740,053, S. A. Scherbatskoy, Radiation well logging system; 2,816,235, same, Radioactivity well logging calibrating system, filed Jan. 17, 1958, D. C., S. D. Texas (Houston), Doc. 11455, *Ppae Development Co. v. Welser, Inc.*

2,288,316, W. F. Focha, Apparatus for coating pipe; 2,347,316, same; 2,377,220, same, Method for coating pipe, filed Feb. 1, 1954, D. C., S. D. Texas (Houston), Doc. 7991, *Koppers Co., Inc. v. Crutcher-Rolls-Cummings, Inc.* Final decree; patents held valid and infringed; defendants enjoined Jan. 17, 1958.

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2,347,316, (See 2,288,316.)

2,363,497, (See 2,483,647.)

2,377,220, (See 2,288,316.)

2,380,960, H. M. Fraser, Production of lubricants; 2,397,956, same, filed July 25, 1956, D. C., W. D. Mo. (Kansas City), Doc. 10498, *Shell Development Co. v. Jesco Lubricants Co., Inc.* Patent No. 2,380,960 eliminated by amended complaint May 28, 1957.

2,397,956, (See 2,380,960.)

2,399,035, (See 2,483,647.)

2,414,574, (See 2,483,647.)

2,455,335, A. E. Ushakoff, Inflatable solar still, filed Jan. 2, 1958, Ct. Cls., Doc. 2/58, *Alexis E. Ushakoff v. The United States*.

2,483,647, B. R. F. Kjellgren, Method of growing a Rochelle salt crystal; 2,414,574, A. L. W. Williams, Means for fabricating piezoelectric crystal units; 2,483,677, F. Swinehart, Moie-

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2,561,966, P. A. Jones, et al., Recessed light fixture with separate outlet box, filed Nov. 13, 1956, D. C., N. D. Ill. (Chicago), Doc. 56c1903, *Preston A. Jones et al. v. Markstone Mfg. Co.* Patent held valid and infringed; defendant enjoined (notice Jan. 7, 1958.)

2,572,766, H. L. Vining, Pressure regulator for fuel lines, filed Dec. 27, 1957, D. C., S. D. Calif. (Los Angeles), Doc. 1428/57, *Henry L. Vining v. Sears, Roebuck & Co.*

2,575,990, (See 2,483,647.)

2,587,100, Black et al., Pulse jet thrust engine; 2,600,600, W. L. Tenney, Resonating pulse jet engine, filed Dec. 30, 1957, Ct. Cls., Doc. 590/57, *William L. Tenney v. The United States*.

2,601,126. (See 2,561,986.)

2,601,988. (See 2,561,986.)

2,609,660. (See 2,587,100.)

2,625,381. (See 2,538,891.)

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2,668,511, Eberle and Dubuison, Plumber's tool; 2,730,604, same, filed Feb. 28, 1957, D. C., W. D. Texas (San Antonio), Doc. 2414, *William J. Eberle et al. v. C. William Keseling*. Defendant enjoined (notice Jan. 10, 1958).

2,671,688, H. D. Conner, Aromatic devices, filed Jan. 16, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c84, *Odor-Aire, Inc. v. Enos Corporation et al.*

2,702,245, E. J. Mayer, Conversion of feathers, filed Mar. 17, 1953, D. C. Del. (Wilmington), Doc. 1692, *Central Hide & Rendering Co., Inc. v. B-M-K Corp.* Final judgment; patent held invalid; defendant enjoined Jan. 10, 1958.

2,719,058, F. E. Van Dusen, Silo unloader; 2,794,500, F. E. Buschbom, same, filed Jan. 16, 1958, D. C., N. D. Iowa (Dubuque), Doc. 835, *Vandale Farm Machines, Inc. et al. v. Fred J. Albrecht*.

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2,740,053. (See 2,220,509.)

2,751,898, P. M. DeGroat, Model engine starter, filed Jan. 7, 1958, D. C., S. D. Calif. (Los Angeles), Doc. 11/58-HW, *L. M. Cos Mfg. Co., Inc. v. Wen-Mas Corporation*.

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2,787,495, O. Przystawik, Fountain installation and an electric circuit for operating same; 2,794,674, same, Fountain installation disassembling features; 2,794,675, same, Fountain installation, filed Sept. 3, 1957, D. C., S. D. N. Y., Doc. 124/104, *Dancing Waters, Inc. v. Holiday On Ice Shows et al.* (now transferred to District Court, Minnesota).

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2,794,674. (See 2,787,495.)

2,794,675. (See 2,787,495.)

2,800,942, Parker and Brazill, Apparatus for performing multiple metal working operations on pipes, filed Jan. 14, 1958, D. C., S. D. Texas (Houston), Doc. 11438, *J. R. Parker et al. v. Brown and Root, Inc. et al.*

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Doc. 174,986, R. O. Fletcher, Clock included by counterclaim filed Dec. 19, 1957, D. C., S. D. N. Y., Doc. 128/73, *Herold Products Co., Inc. v. General Electric Co.*

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REISSUES

FEBRUARY 18, 1958

Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,432

SOD CUTTER

Luther V. Day, Malakoff, Tex., assignor to

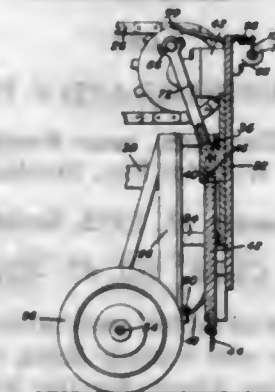
B. O. Warren, Palos Park, Ill.

Original No. 2,760,425, dated August 28, 1956, Serial No.

404,287, January 15, 1954. Application for reissue

July 11, 1957, Serial No. 672,531

10 Claims. (Cl. 97—226)



9. A sod cutter for attachment to a sod-cutting machine, comprising: a frame adapted to be secured to said sod-cutting machine; upright guide means secured to the frame; a reciprocating cross-head provided with a sod-cutting element, said cross-head being slidably mounted in the guide means for movement through a sod-cutting cycle; a clutch mechanism mounted on the frame and intermittently engageable with a source of power of the sod-cutting machine; connecting means operatively joining said clutch mechanism and said cross-head to drive the cross-head through said sod-cutting cycle each time the clutch mechanism is actuated; and means operable in response to the distance traveled by the sod cutter for engaging the clutch mechanism with the source of power to drive the cross-head through a sod-cutting cycle.

24,433

SEPARATION OF LIQUID PHASES IN GAS CONTACTOR TOWERS

Charles A. Lavery, Tulsa, Okla., assignor to National

Tank Company, Tulsa, Okla., a corporation of Nevada

Original No. 2,787,451, dated April 2, 1957, Serial No.

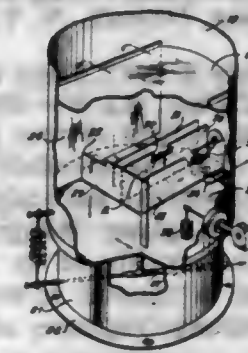
444,523, July 20, 1954. Application for reissue Sep-

tember 6, 1957, Serial No. 683,194

8 Claims. (Cl. 261—3)

5. A gas contactor tower for contacting a gas stream with a treating liquid including, a tower shell having a gas stream inlet and outlet, a treating liquid inlet to the tower spaced above the lower end thereof, a liquid receiving partition in the lower portion of the tower, liquid conducting means extending downwardly in the tower from the partition, a stratification chamber in the tower at the lower end of the conducting means, a light liquid discharge from the top of the chamber, a heavy liquid discharge from the bottom of the chamber, the tower having sumps therein into which the light and heavy

liquids are discharged from the chamber, outlet conductors from said sumps, controlled valves in said outlet con-



ductors, and liquid level means responsive to the liquid levels in said sumps for controlling said valves.

24,434

STARTER IGNITION SWITCH

Walter W. Miller, Abington Township, Montgomery

County, Pa., assignor to United Specialties Company,

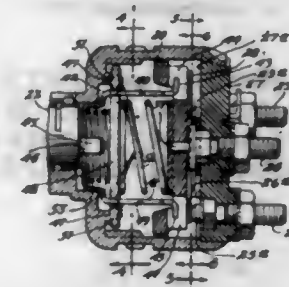
Philadelphia, Pa., a corporation of Delaware

Original No. 2,679,557, dated May 25, 1954, Serial No.

236,944, July 16, 1951. Application for reissue Au-

gust 4, 1955, Serial No. 526,580

11 Claims. (Cl. 200—11)



1. In a starter ignition switch comprising a generally cylindrical housing having a plurality of contact terminals positioned interiorly thereof, a switch plate assembly in said housing mounted for rotary movement about the longitudinal axis of said housing, a contact plate carried by said switch plate for engagement with said contact terminals, a bridge piece comprising a cylindrical head portion and forwardly extending parallel leg portions terminating in lugs engaging said switch plate and actuable to impart rotation thereto, a cam track arranged concentrically about the rotational axis of said switch plate adjacent the junction between the head and leg portions of said bridge piece, a detent pin mounted in longitudinal slots in the parallel leg portions of said bridge piece, spring means intermediate said leg portions in engagement with said switch plate resiliently urging said detent pin into engagement with said cam track, and second spring means positioned between said detent pin and the cylindrical head of said bridge piece to prevent rattling of said bridge piece, said second spring means being weaker than said first spring means whereby said first spring means maintain the detent pin in engagement with the cam track.

PLANT PATENTS

GRANTED FEBRUARY 18, 1958

Owing to the fact that almost all of the illustrations of the plant patents are in colors, it is not practicable to print a cut of the drawing.

1,683

ROSE PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application July 5, 1957, Serial No. 670,352
1 Claim. (Cl. 47-61)

A new and distinct variety of rose plant of the large-flowered polyantha class, substantially as herein shown and described, characterized particularly as to novelty by its vigorous growth, glossy foliage, the rich Empire Yellow general color tonality of its flowers, and their good color retention to the end of the blooms, and the unusual and very strong fragrance of its flowers.

tea class, substantially as herein shown and described, characterized particularly as to novelty by the vigorous habit of its plant growth, the graceful form of its buds and open flowers, the Empire Yellow general color tonality of its flowers, combined with the Eugenia Red color of the stamens, and the delightful, strong and long-last fragrance of its flowers.

1,685

RED DESSERT APPLE TREE

Erich Neumann, Zieverich, near Berghelm Lenft, Germany, assignor to Wilhelm Fey, Meckenheim, Germany

Application January 31, 1955, Serial No. 491,551

1 Claim. (Cl. 47-62)

The new variety of apple tree substantially as shown and described, the new variety being identical with the James Grieve variety except for the fruit which in color is approximately between Delft Rose .20 and Claret Rose .21.

1,684

ROSE PLANT

Eugene S. Boerner, Newark, N. Y., assignor to Jackson & Perkins Company, Newark, N. Y., a corporation of New York

Application July 11, 1957, Serial No. 671,368
1 Claim. (Cl. 47-61)

A new and distinct variety of rose plant of the hybrid

454

PATENTS

GRANTED FEBRUARY 18, 1958

GENERAL AND MECHANICAL

2,823,383

CUSHIONING DEVICE FOR SHOULDER STRAPS
Claus F. Crawford, Pasadena, Calif., assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York

Application March 25, 1955, Serial No. 496,752
1 Claim. (Cl. 2-2)



In a cushioning device for shoulder straps, a flat laminated pad including a relatively thick layer of foam cushioning material, and a thin skin-like layer of rubber-like material over said foam layer, said skin-like layer only having a pair of transversely spaced longitudinally extending slits therein and being secured to said foam layer elsewhere than between said slits to define a transversely extending elongated loop integral with the skin-like layer, a ribbon threaded through said loop, and snap-fastener means carried by the ends of said ribbon to unite said ends over a shoulder strap.

2,823,384

SHOULDER STRAP CLASP

Adolph Ellertsen, Centereach, N. Y.
Application July 26, 1955, Serial No. 524,355
3 Claims. (Cl. 2-2)



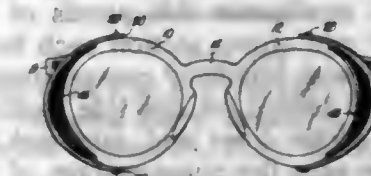
1. A device for securing together a plurality of garment shoulder straps to prevent slipping thereof comprising a flat elongated member having a wide base portion and a narrow flap, said base and flap being formed of one piece of material, one end of said flap being integral with one end of said base portion, the junction of said wide base portion and narrow flap being tapered, the ends of said flat elongated member being rounded, a sharp transverse crease dividing the base and flap whereby the flap is continually urged against the upper surface of the base portion, said crease being so formed that the flap will normally be urged against said base portion, a pair of parallel transverse slits in said base portion defining a strap, said strap being raised above the plane of the base portion, said slits being longer than the width of said flap whereby the flap may be inserted through said slits to form a loop adapted to receive a garment shoulder strap transverse of said flat elongated member.

2,823,385

ATTACHING STRUCTURE FOR SPECTACLE FRAME SIDE SHIELDS

Willis Thomas Watkins, Hickman Mills, Mo., assignor to Parmelee Plastics Company, Kansas City, Mo., a corporation of Missouri

Application August 16, 1954, Serial No. 450,059
1 Claim. (Cl. 2-13)

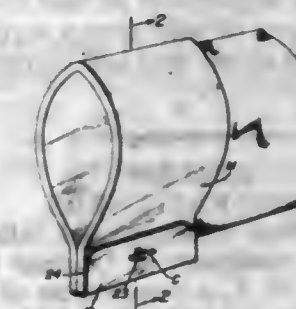


In combination with a pair of spectacles having a lens-receiving frame provided with a bow mount; a side shield for the frame entirely separate from said mount and provided with a pair of spaced ears embracing the frame; opposed, vertical pintles on the frame extending through the ears for swingably mounting the shield on the frame; a flange on one edge of the shield between the ears and overlapping the frame when the shield is at one end of its path of travel, said flange being cut away to clear said bow mount, there being an elongated, arcuate rib integral with the inner face of said shield and engageable with the frame for limiting the extent of outward swinging movement of the shield; and a resilient snap hook integral with the flange and normally looped over said frame for releasably holding the rib clamped against the frame.

2,823,386

CUFF PROTECTOR

Marlo M. Loatza, Mexicali, Mexico
Application April 30, 1956, Serial No. 581,441
2 Claims. (Cl. 2-46)



1. A shirt-cuff protector, including: a member comprising an elongated sheet of flexible transparent material folded on itself lengthwise along a medial line to provide two connected complementary portions adapted to straddle and completely cover opposite sides of a cuff, and a flap on one end of one of said portions of a length equal to the width of said portions and so foldable thereon as to extend completely across the ends of said portions and onto the outer side of one of said portions, said portions and said flap having openings therein adapted to register with each other when the flap is folded so that a cuff link can be extended through the link holes of the cuff and all of said openings to secure said member and said flap in cuff-covering position.

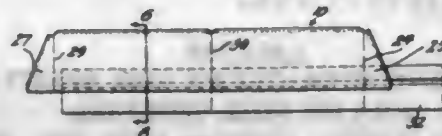
2,823,387

DISCARDABLE CAP CONSTRUCTION WITH ADJUSTABLE BRIM

Edmund J. De Villers, Columbus, Ohio, assignor, by mesne assignments, to Paperlynen Company, Columbus, Ohio, a corporation of Ohio

Application September 6, 1955, Serial No. 532,698

2 Claims. (Cl. 2—197)



1. A discardable cap comprising relatively elongated, substantially rectangular crown and brim sections of unequal length disposed in edge-adjointing, parallel relation, said crown section being folded longitudinally upon itself along a transverse crease line dividing the crown section into opposite continuous side panels of equal area, the side panels of said crown section each being formed at one end thereof with relatively coextensively overlying triangular end flaps defined on one side thereof by registering transverse crease lines and said end flaps being folded backwardly over the outer surface of one of said side panels, the side panels of said crown section and said triangular end flaps being respectively joined together along the outer marginal edges thereof to close said crown section; said brim section being longer than said crown section and having a first end portion extending a substantial distance longitudinally outwardly beyond a corresponding end of said crown section and a second end portion terminating a distance inwardly from the opposite end of said crown section, the distance between the second end portion of said brim section and the said opposite end of said crown section being less than the longitudinal extension of the first end portion of said brim section beyond the said corresponding end of said crown section, said brim section being folded transversely upon itself along a pair of spaced longitudinally extending crease lines to provide in said brim section a coextensive channel having closed longitudinal edges and open ends, and said brim section being folded longitudinally upon itself along a transverse crease line coincident to the transverse crease line which divides said crown section, the transverse crease line of said brim section dividing the latter into opposite side panels of unequal length; the first-named end portion of said brim section being folded adjacent the triangular end flaps of said crown section and being telescoped with the second-named end portion of said brim section, whereby to provide for head size adjustment of said brim section and the triangular end flaps of said crown section upon relative sliding movement of the first and second end portions of said brim section.

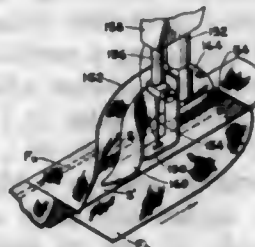
2,823,388

SLIDE FASTENERS

Robert I. Prupis, West Orange, and Albert Bashover, Livingston, N. J., assignors to Conmar Products Corporation, Newark, N. J., a corporation of New Jersey

Application May 11, 1954, Serial No. 428,902

2 Claims. (Cl. 2—234)



1. In the manufacture of garments having an opening closure therefor provided with a slide fastener of the type comprising stringers formed of tape having spaced, interlockable fastener elements secured to an edge thereof, the method comprising attaching the tape of one of a

pair of interlocked slide fastener stringers of continuous length to a series of fly strips, said fly strips thereby being connected to each other in substantially end to end relation by said continuous attached stringer, attaching a series of opposite fly strips to the tape of the second stringer while said stringers are interlocked with each other, cutting both of said stringers intermediate the fly strips and removing a segment of interlocked fastener elements from said stringers opposite the bottom portion of each of said fly strips.

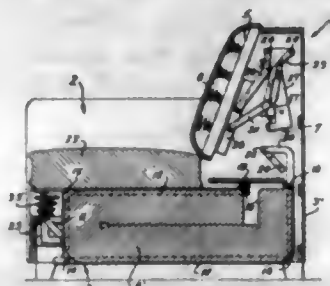
2,823,389

SOFA BED CONSTRUCTION

Rudolph Coopersmith, Clayton, Mo.

Application August 13, 1954, Serial No. 449,569

1 Claim. (Cl. 5—13)



In a sofa bed construction having a sofa frame including a storage compartment defined by spaced end frame members, a back frame member and a back rest, and a bed frame for supporting a mattress and including an end frame section connected to the end frame members of the sofa frame for pivotal movement relative thereto between a vertical folded position adjacent to the back frame member and a horizontal bed forming position; the improvement which comprises a combination headboard and shelf member secured to said end frame section adjacent to the end of the bed frame and movable between a vertical headboard position when said end frame section is in horizontal bed forming position and a horizontal shelf position when said end frame section is pivoted to its vertical position, said headboard and shelf member when in shelf position extending between said end frame members of said sofa frame and forwardly from said end frame section to adjacent said back rest member and forming a bottom wall for supporting articles in the storage compartment, said headboard and shelf member also preventing said mattress from extending upwardly into the storage compartment when in shelf position.

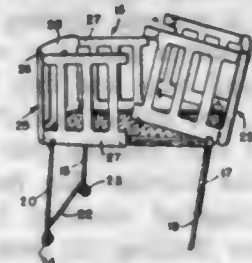
2,823,390

FOLDABLE CRIB

Lydia Adolfin Hagelfeldt, Stockholm, Sweden

Application November 12, 1954, Serial No. 468,479

5 Claims. (Cl. 5—99)



3. A foldable crib comprising two substantially symmetrical sections each including a substantially U-shaped rigid frame member, a pair of joined legs each pivoted to one corner of the frame member for placing the legs in a folded position and an erected position respectively, and a wall unit having an end element hingedly connected to the base branch of the U-member and two side elements each corresponding in length substantially to a side branch of said frame member and hingedly connected to

the end element for placing the side elements in a set-up position alongside the side branches and for folding the side elements back upon the end element respectively, a retaining means for each leg on each of said side elements engageable with the respective leg in the set-up position of the corresponding side element for retaining the legs in the erected position, and a locking means at the lower edge of each side element for positively locking the respective side element to the corresponding side branch of the frame member in its erected position, each of said locking means including a coacting protrusion on said side element and a protrusion receiving opening in said side branch of the frame member for preventing rotatable displacement of said side element about said hinged connection to said end wall, and a clamping means on said side element underlying said protrusion receiving opening in said side branch of the frame member, said clamping means preventing rotatable displacement of said wall unit about said hinge connection to said base branch, each of said locking means including an angle member secured with one flange to the inner wall of the respective side member, the end edge of said flange being situated substantially flush with the lower edge of the said side member, the other flange of the angle member laterally extending from said inner wall, a nose downwardly extending from said lateral flange, the corresponding side branch of the respective frame member being formed with said opening for receiving the nose, and a clamping arm pivoted to said respective side member at the end edge thereof in parallel relationship with said lateral other flange, the perpendicular distance between the lateral other flange and the plane of said arm being approximately equal to the cross sectional thickness of said side branch of the frame member, said arm being pivotal into a clamping position underlying the said side branch and a reverse position disengaged therefrom.

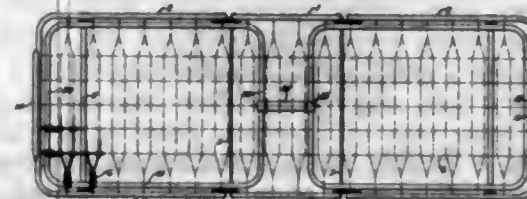
2,823,391

FOLDING BED

Samuel M. Fischer, Pittsburgh, Pa., and Henry P. Glass, Chicago, Ill., assignors to Fischer Bed Spring Company, Pittsburgh, Pa.

Application February 1, 1955, Serial No. 485,447

3 Claims. (Cl. 5—152)



1. In a folding bed construction, in combination, a center section formed of inverted spaced U-shaped members disposed at opposite sides of the bed, a U-shaped end section at each side of the center section, the arms of said end sections forming the sides of the bed with the free end of each arm pivotally connected with the adjacent arm of the center section in substantial horizontal alignment therewith when in horizontal position, resilient mattress supporting members connecting the opposite arms of each end section and the top of the center section

members, transversely disposed U-shaped leg members adjacent the outer ends of each end section with the free ends of the arms of each said leg members being pivotally connected to the arms of the U-shaped end members, a continuous substantially rectangular shaped brace member disposed beneath each end section when in horizontal position and extending in overlapping relation between the arms of the adjacent leg member and center section, and pivotal connections between each brace member and the adjacent arms of the leg members and center section members intermediate the vertical ends thereof at each side of the bed restraining lateral movement of said arms under vertical load applied to the said center and end sections, said brace members cooperating with said leg members and center section members to provide a continuous rigid lateral and longitudinal support for each end section of the bed in open and closed positions.

2,823,392

REMOVABLE FURNITURE LEG

Howard Barry, Brooklyn, N. Y.

Application August 11, 1955, Serial No. 527,692

15 Claims. (Cl. 5—310)



2. In a bed structure, a wooden frame box spring, a headboard, a leg adapted to support each corner at the head end of said box spring, L-shaped members adapted to extend along the lower sides of said frame adjacent the corner and to extend horizontally toward the headboard, said members each having a hole therein, a wood screw attached to and extending upwardly from each leg through said hole into said frame, a bracket attached to the outer end of each L-shaped member, a second bracket attached to each side of said headboard in a manner such that the position thereof can be adjusted with respect to said side and a means of securing the respective brackets together to support said headboard.

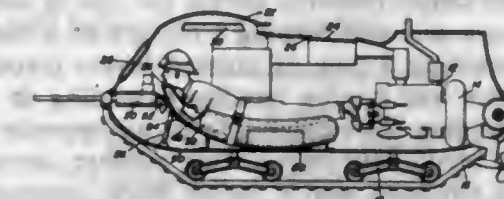
2,823,393

CUSHION PAD FOR ONE-MAN ARMORED TANK

Joseph James Baldine, Hubbard, Ohio

Original application April 2, 1951, Serial No. 218,764, now Patent No. 2,722,986, dated November 8, 1955. Divided and this application September 19, 1955, Serial No. 534,997

1 Claim. (Cl. 5—344)

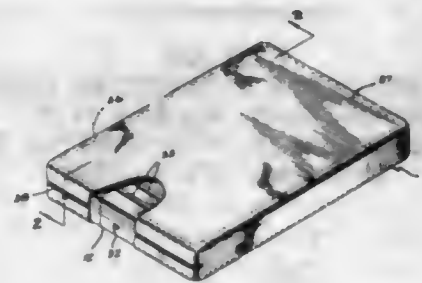


A pad for use in endless track vehicle comprising an elongated rubber-like member arcuate in longitudinal

and transverse cross section and having a reduced cross-section extension at one end, said extension terminating in a recessed chin rest, an intermediate portion of said member having a vertically extending projection integrally formed therewith for positioning between the legs of the operator, the upper surface of said pad being concave, said member having longitudinally extending ridges at the sides thereof.

2,823,394
COMBINATION PNEUMATIC AND PADDED MATTRESS

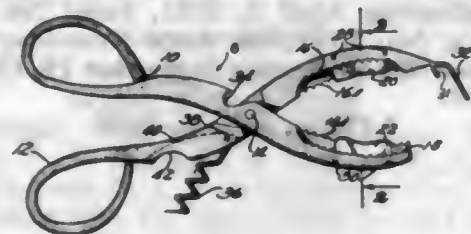
Aubrey L. Smith, Vernon, Tex.
Application July 8, 1955, Serial No. 520,870
3 Claims. (Cl. 5-348)



1. A combined pneumatic and padded mattress comprising a rectangular main pneumatic core formed of sheets of flexible rubber-like elastic material secured together to define a plurality of side by side, longitudinally extending, independent pneumatic cells having substantially flat top walls, valve means on the wall of each cell for inflating said cell, a plurality of parallel transverse flexible, substantially non-elastic strips secured on the top wall of said main pneumatic core and transversely securing said cells in side by side uniformly spaced relation, a sheet of flexible material substantially coextensive with said main core disposed over said flexible strips, and a pad of yieldable material secured over said last-named sheet and being substantially coextensive therewith.

2,823,395
COMBINED SEAL CUTTER AND CLOSURE REMOVING DEVICE

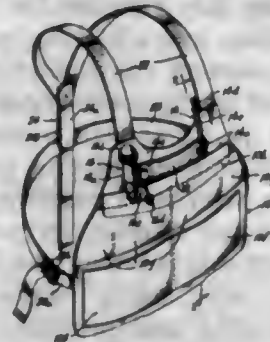
Harvey A. Brownson, Baltimore, Md.
Application September 14, 1956, Serial No. 609,922
1 Claim. (Cl. 7-14.25)



A combination cutter-remover device for use in simultaneously cutting a seal and turning a closure of a bottle, said device comprising a pair of crossed levers pivotally connected together and having handles extending in one direction and gripping jaws extending in an opposite direction from the pivot, said jaws having arcuate, serrated closure-engaging surfaces, and a cutter blade secured to each gripping jaw and projecting inwardly from its closure-engaging surface, so that upon squeezing of the handles the jaws will move toward each other to cause the cutter blades to pierce the seal while the closure-engaging surfaces grip the closure and a subsequent turning of the device will effect a severing of the seal and turning of the closure.

2,823,396
SPORTSMAN'S LIFE PRESERVER GARMENT

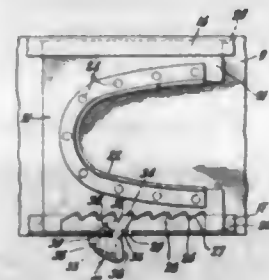
Charles E. Erickson, Seattle, Wash.
Application July 19, 1954, Serial No. 444,099
5 Claims. (Cl. 9-20)



1. A life preserver garment comprising a double-walled apron-like garment having front and rear panels secured together marginally to form a bottom-opening bladder-retaining pocket, a pneumatically inflatable bladder retained loosely in said pocket and conforming generally in shape to the interior thereof, said bladder being removable through the bottom pocket opening in said garment, said bladder having an inflation element on the front and near the top thereof, said garment front panel having an opening therein through which said inflation element projects forwardly for access in front of said garment, thereby to suspend said bladder in said pocket by said forwardly projecting inflation element, said inflation element being retractable through said projection opening, and harness means comprising a pair of shoulder straps connected to the upper portion of said garment on respectively opposite sides thereof to pass rearwardly therefrom over the wearer's shoulders and downwardly along the wearer's back, and girth strap means connected to said shoulder straps and adapted to extend around the wearer's waist for holding the garment in place.

2,823,397
SKI BINDING

John S. Wagner, San Francisco, Calif., assignor to Kimball Manufacturing Corporation, San Francisco, Calif., a corporation of California
Application April 5, 1956, Serial No. 576,292
5 Claims. (Cl. 9-21)



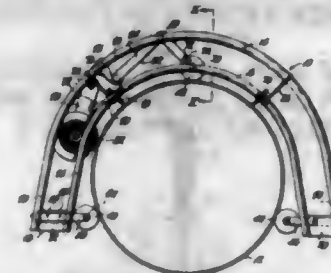
1. In a ski, a flexible vamp secured to an upper surface of the ski, a toothed rack plate slidably mounted on the ski rearwardly of the vamp, a flexible heel support secured to the rack plate, a pawl pivotally mounted on the ski and detachably engageable with the rack plate, and resiliently deformable locking means to hold said pawl and said rack plate in engagement, whereby deformation of said locking means permits disengagement of said pawl and said rack plate.

2,823,398
PIPELINE WELD CLEANING MACHINE

Donald Michael Curran, Tulsa, Okla., assignor to D. M. Curran, Tulsa, Okla., trustee
Application September 26, 1955, Serial No. 536,372
5 Claims. (Cl. 15-104.04)

4. A pipeline weld cleaning machine comprising a frame; roller means on the frame for mounting the same

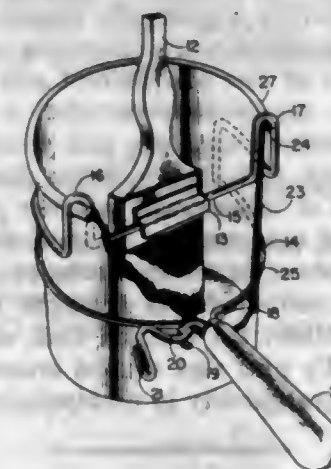
on the pipeline for rotation therearound; releasable structure for clamping the frame to the pipeline with the rollers in tight engagement therewith, said frame being shiftable toward the pipeline and the roller means being shiftable away from the pipeline upon release of said



structure; cleaning means mounted on the frame for engagement with a weld in said pipeline as the frame is rotated; and means on the frame movable into engagement with the pipeline as the frame shifts for supporting the latter for longitudinal movement along the pipeline.

2,823,399
PAINTING ACCESSORIES

Harold A. Stewart, Danvers, Mass.
Application July 21, 1954, Serial No. 444,715
3 Claims. (Cl. 15-121.3)



1. Painting equipment comprising, a cylindrical paint container having an open end and an annular groove formed in the wall thereof substantially midway along its length, a disposable paper insert lining said container, said insert having a flared edge conforming to the open end of said container, a wire clamp, a first part of said clamp being engaged in said annular groove, a second part of said clamp passing axially of said container and being bent back upon itself within said open end to form loops for locking said paper insert to said container, a third part of said clamp being a straight section passing across and within said open end, a paint brush, a molded strip being attached to said paint brush and forming a U-shaped enclosure therewith, said enclosure cooperating with said straight section of said clamp to support said brush upright in said container, a fourth part of said clamp including means for locking said clamp in position and having a portion thereof extending outwardly from said container, and a handle formed on said outward extending portion for lifting said container.

2,823,400
BRUSH MOP

Roger J. Abdo, Sherman Oaks, Calif., assignor to Wade, Wenger & Associates, Inc., Chicago, Ill., a corporation of Illinois
Application March 19, 1956, Serial No. 572,470
5 Claims. (Cl. 15-124)

1. A mop comprising in combination a mop head having a flat top surface and a semi-circular bottom surface and a row of projections extending in a median line

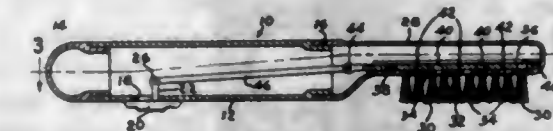
on the bottom surface parallel to the longitudinal axis of the said head whereby the semi-circular bottom surface is divided into a plurality of adjacent arcuate areas, the mop head having a handle receiving opening in the top thereof, a hollow handle secured to the said mop head and extending into the said opening, the said head having a surface channel on one of said arcuate surfaces extending longitudinally thereof and having a port



therein leading from the handle receiving opening to the said surface channel, a pair of removable mop members having their adjacent edges overlapped and secured over the said row of projections and extending away from said projections to the outer sides of the said arcuate areas of the lower surface of the mop head and detachable holding members over the outer edges of each of said mop members.

2,823,401
TOOTH BRUSH

Michael O'Higgins, Washington, D. C.
Application January 15, 1954, Serial No. 404,259
1 Claim. (Cl. 15-131.1)



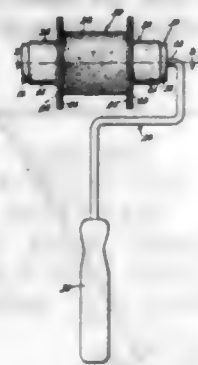
A tooth brush comprising a hollow handle adapted to receive powdered dentifrice, a slot in said hollow handle, a detachable hollow head carried by said hollow handle adapted to receive powdered dentifrice, a plurality of bristles in said detachable head, a plurality of apertures in said hollow head adjacent some of said bristles, a valve plate having a plurality of apertures slidably mounted within said hollow head and adjacent the apertures in said hollow head, a plurality of agitator pins extending laterally from said valve plate, an arm in the slot in said hollow handle having a button end, a link in said hollow handle connecting said valve plate with said arm, the button end of said arm being remote from said brush and adapted to actuate said arm, link and valve plate to bring into register in discharge position the apertures in said valve plate with the apertures in the hollow head, and to close the apertures in said hollow head in its reverse position, the agitator pins during movement of the valve plate agitating powdered dentifrice to facilitate the discharge through the apertures in the valve plate and the apertures in the hollow head when said apertures in said valve plate and said hollow head are aligned.

2,823,402
ROLLER-TYPE APPLICATORS

Leonard H. Phillips, Belmont, Mass.
Application October 4, 1954, Serial No. 460,002
6 Claims. (Cl. 15-132.5)

1. A roller-type paint applicator for fence elements, comprising a generally cylindrical roller body, handle means on a portion of which said roller body is rotatably mounted, a paint-applicating sleeve removably mounted on said roller body for rotation therewith, means providing an annular flange at an end portion

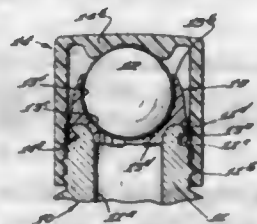
of said sleeve, and absorbent resilient material covering the exposed exterior surface of said sleeve and covering the inner adjacent surface of said flange, whereby said absorbent material may be immersed in paint and



the roller manually rolled along a fence element with said absorbent material on said sleeve applying paint to one side of the fence element and with the absorbent material on said flange simultaneously applying paint to an edge of the fence element.

2,823,403

BALL AND SOCKET PLASTIC FITMENT
Ralph H. Whitney, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio
Application April 23, 1956, Serial No. 580,018
9 Claims. (Cl. 15-132.7)



5. In a container having a dispensing opening, a resiliently flexible annular support on the container having one open end communicating with said opening and another end spaced therefrom, a ball disposed medially of said support and entrapped therein between an annular lip of less diameter than the ball at said another end and a radially inwardly projecting, readily deflectible support surface adjacent said one end, means defining an annular seat adjacent said one end and normally spaced from the ball periphery by contact of said ball with said support surface, and closure means removably engageable with said container in surrounding relation with said flexible support and having a ball-engaging surface for forcing the ball against said seat by forcibly deflecting said support surface.

9. For use with a container having a dispensing opening, an applicator assembly comprising a resiliently flexible support adapted to be secured to the container and having an annular generally radially outwardly directed shoulder adapted to contact said container adjacent the opening, an inwardly projecting annular sealing shoulder on said support, a ball confined by said support and of larger diameter than said inwardly projecting shoulder, such engagement of said ball with said inwardly projecting shoulder sealing the ball thereto and applying a compressive force to those portions of said support between said shoulders to urge the outer shoulder into snug sealing engagement with the container.

2,823,404

TWO-PIECE TOOTHBRUSH

Richard M. Hyman, Toledo, Ohio, assignor to Owens Brush Company, Toledo, Ohio, a corporation of Ohio
Application March 1, 1955, Serial No. 491,254
2 Claims. (Cl. 15-145)

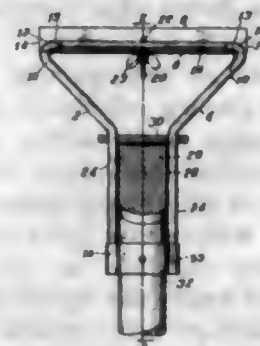


2. In a collapsible toothbrush, in combination, a first generally elongated member having a generally elliptical cross-section with a thin slot formed at one end thereof generally along the minor axis of the elliptical cross-section and grooves formed in alignment with said slot and on opposite sides thereof, a second generally elongated member having a generally elliptical cross-section with generally longitudinally extending grooves formed on opposite sides of one end thereof and separated by a thin wall fitting snugly into the slot to removably secure the two members together, said grooves of said first member receiving and snugly fitting longitudinally extending portions of said second member positioned along opposite sides of said wall to further secure the fit between such members, and brush bristles mounted on the end of one of said members opposite the end thereof secured to the other, the secured ends of said members having a generally plus sign shaped cross-section for improved manual graspability in manipulation of the brush.

2,823,405

MOP HOLDER

Troy L. Jones, Columbia, S. C.
Application June 7, 1955, Serial No. 513,750
2 Claims. (Cl. 15-153)



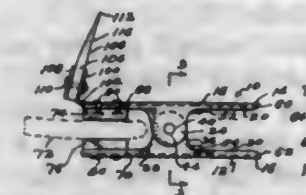
1. A mop holder, comprising in combination a substantially U-shaped trough, the bottom of said trough being provided with an open-ended recess at each end thereof, a pair of diverging arms having intumed ends, said intumed ends being seated in said recesses and having a portion overlying and permanently secured to said trough, said recesses being at least as deep as the thickness of said intumed ends of said diverging arms, a substantially straight anchor bar, shorter than said trough and positioned just above the bottom of said trough and extending parallel to and lengthwise thereof, and positioned between the end faces of said intumed ends of said arms and on the same level therewith, and in line therewith, and a centrally positioned threaded member passing through the bottom of said trough and

secured to said anchor bar, and provided with a cooperating nut, for holding said anchor bar toward the bottom of said trough.

2,823,406

SPOON WIPING ATTACHMENT FOR A PLATE OR THE LIKE

Raymond Joseph Beaulieu, New York, N. Y.
Application July 24, 1953, Serial No. 370,045
2 Claims. (Cl. 15-245)

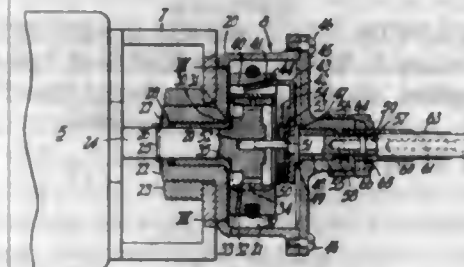


1. A table device comprising clamp means including a pair of levers forming jaws for clamping a portion of a plate, pot or the like therebetween, resilient means acting upon said pair of levers for biasing them into clamping position, bracket means carried by said clamp means, utensil wiping means carried by said bracket means and constructed and arranged for wiping an under surface or side edge surface of an eating utensil, said utensil wiping means being pivotally secured to said bracket means, for turning about the axis of said pivot.

2,823,407

WINDSHIELD WIPER DRIVE AND CONTROL MECHANISM

John R. Oishe, Buffalo, N. Y., assignor to Trico Products Corporation, Buffalo, N. Y.
Application September 9, 1952, Serial No. 308,634
12 Claims. (Cl. 15-253)



5. In a windshield cleaner system, rotating driving and driven parts operable to drive a wiping element, said driven part having clutch shoes displaceable radially outwardly from the axis of rotation of said driven part and controlled by the centrifugal force generated by the rotation of said driven part and by a regulatable centripetal force applied thereto for modifying the speed of rotation transmitted from said driving part to said driven part, and transmission means for connecting the driven part to the wiping element and including a rotatable shaft and shoe-lifting means operable by the shaft to so displace the clutch shoes for arresting the system.

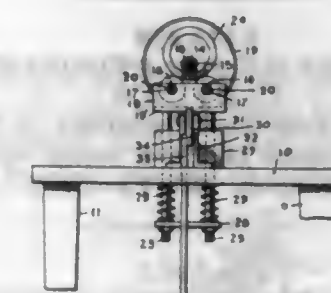
2,823,408

MACHINE FOR SUPPORTING AND ROTATING RINGS

Ansel R. Meadors, Jr., Greenville, S. C.
Application August 3, 1954, Serial No. 447,602
1 Claim. (Cl. 15-268)

A machine for supporting and rotating a spinning ring or the like having outwardly extending flanges to clean or polish the same, comprising a support having a pair of substantially vertical spaced guide openings, a pair of spaced substantially vertical guide rods slidably mounted

within said openings, a crosshead arranged beneath said support and spaced from the same and secured to the lower ends of the substantially vertical guide rods, compressible coil springs surrounding the guide rods between the support and crosshead and urging the crosshead downwardly, an elongated carrier which is substantially U-shaped in cross section and includes sides, said carrier being arranged above the support and secured near its ends to the upper ends of the spaced substantially vertical guide rods, spaced substantially horizontal shafts mounted upon the sides of the U-shaped carrier, said substantially horizontal shafts being arranged in substantially the same horizontal plane and disposed near and above the substantially vertical guide rods, a pair of rotatable grooved rollers having substantially the same diameters arranged within said carrier and mounted upon the substantially horizontal shafts and held thereby in spaced relation and substantially horizontal, a substantially horizontal drive shaft arranged near and above and between said rollers and substantially equidistantly spaced from the same, means to mount the substantially hori-



zontal drive shaft upon the support and to operate the same, a spinning ring being adapted to be arranged upon the upper portions of said rollers to have its grooves and its flanges engaging within the grooves of such rollers, a friction drive roller arranged within the spinning ring and engaging the lowermost portion of the spinning ring when the spinning ring is mounted upon said rollers, the friction drive roller being mounted upon the drive shaft to be driven thereby and held against vertical movement, all of said rollers being arranged in a triangular group and the lower grooved rollers being disposed adjacent to the ends of the base of the triangular group and the friction drive roller being disposed at the upper apex of the triangular group, the grooved rollers being shiftable vertically with the carrier member toward and from the drive roller, a generally horizontal vertically swinging lever pivotally mounted upon the support and engaging beneath the carrier member and between the guide rods to raise the carrier member, a pivotally mounted vertically swinging treadle arranged beneath the support, and an element connecting the treadle and lever, the springs serving to raise the treadle.

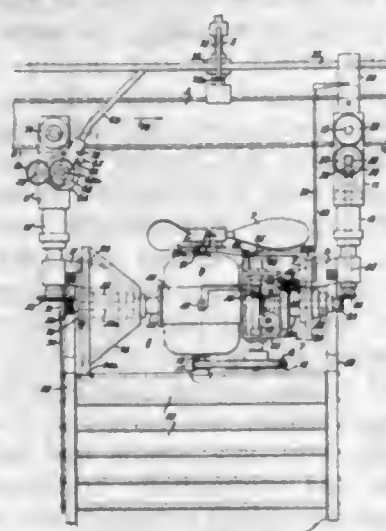
2,823,409

TRAVELING CLEANER FOR TEXTILE ROOMS

George W. Allred, Mayodan, N. C.
Application January 15, 1952, Serial No. 266,520
9 Claims. (Cl. 15-312)

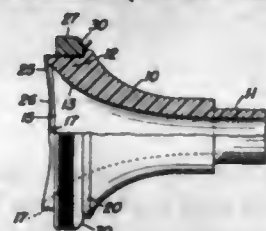
1. Apparatus for cleaning lint and other foreign particles from the ceiling of a room containing textile machinery and also from the machinery comprising a generally horizontal trackway disposed over the machinery, a blower unit suspended from and movable along said trackway, said blower unit comprising a support shaft extending parallel with said trackway, said shaft being rotatable about its axis, a motor mounted on said support shaft, the shaft of said motor extending normal to the axis of said support shaft, an impeller on said motor shaft, and means for indexing said support shaft about

its axis in a step-by-step manner and hence also said motor shaft and impeller axis in a vertical plane trans-



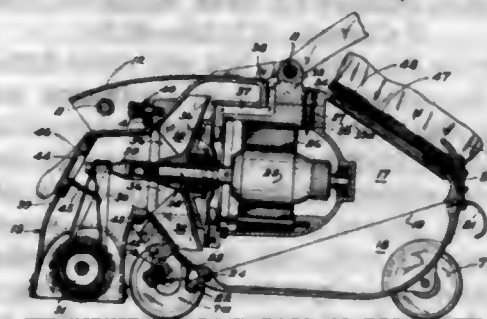
verse to said trackway to different blowing angles in said vertical plane throughout a range of 360°.

2,823,410
SUCTION DEVICE FOR REMOVING HAIR CLIPPINGS
Joseph Paul Aleo, Rochester, N. Y.
Application August 16, 1955, Serial No. 528,663
4 Claims. (Cl. 15-339)



1. A head for suction apparatus for removing hair clippings from a person after a hair cut, comprising a tubular member having an inlet opening at its front end and an outlet opening at its rear end, said rear end being connectable to a suction source, the front end wall of said tubular member being provided with a plurality of bosses spaced angularly about the bore of said tubular member and projecting forwardly, and means for removably securing a flexible, disposable, sanitary sheet over said front end wall, said sheet serving to prevent contact of the front end of said member with the skin and hair of a person, and said bosses serving to render the sheet undulatory when said rear end is connected to the suction source, thereby to insure that air will be drawn into said member over said sheet between the bosses so as to prevent the inlet opening becoming closed upon application of the front end of said member to a person's body.

2,823,411
VACUUM CLEANER
James B. Kirby, West Richfield, Ohio
Application June 22, 1953, Serial No. 363,311
2 Claims. (Cl. 15-352)



1. A vacuum cleaner comprising first, second and third body sections detachably secured to each other in the

sequence named, said first section comprising a transverse nozzle having a brush mounted for rotation therein, the side walls of said first section merging above said brush in a circular outlet disposed substantially at right angles to said transverse nozzle, said second section having a forward portion in the form of a horizontally disposed truncated cone providing a circular inlet having a diameter substantially corresponding to the outlet of said first section, latch means carried by said second section adjacent said inlet to secure said first section to said second section, a horizontally disposed power unit supported within said second section consisting of a brush pulley, a fan and motor co-axially secured to each other in the sequence named, said second section having a top wall and side walls extending rearwardly from said conical portion, said power unit mounted within said second body section by means consisting of a boss depending from the top wall of said second section for attachment with a complementary boss on said motor whereby said fan is disposed within said conical portion co-axially thereof and the brush pulley in advance of the fan is projected through the outlet of the first section, the side walls of said second section terminating at their lower edges in a plane inclined with respect to the axis of said motor and fan unit, said third section having a bottom wall and side walls terminating in said inclined plane and co-operating latch means carried by said second and third sections to secure said sections to each other at said inclined plane whereby said power unit may be inserted within and mounted in said second section through the opening provided at the bottom of said second section when the third section is removed, said second section having a downwardly inclined top wall rearwardly of said motor mounting boss, said inclined wall having a dust bag opening therein whereby the side walls of said third section have their greatest vertical extent beneath said dust bag opening.

2,823,412
VACUUM CLEANER NOZZLE ADJUSTMENT
James B. Kirby, West Richfield, Ohio
Application August 31, 1953, Serial No. 377,481
5 Claims. (Cl. 15-354)

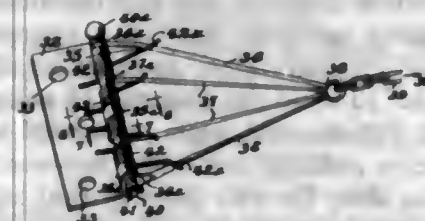


2. Nozzle adjusting means for a vacuum cleaner comprising a vacuum cleaner having a transverse floor nozzle, a member secured to said cleaner adjacent the floor nozzle, a wheel shaft pivoted on said member, a supporting wheel mounted eccentric of said wheel shaft at each end of the shaft, a pedal pivoted on the cleaner body, a first gear sector concentric with and fixed to the wheel shaft, a second gear sector meshing with said first gear sector on said pedal concentric with the pivot for the pedal whereby movement of said pedal effects movement of said wheel shaft and moves said supporting wheels toward and away from said cleaner body to lower and raise said floor nozzle.

2,823,413
DOOR CLOSER OR THE LIKE
Kenneth M. Stewart, Maysville, Ky.
Application June 23, 1953, Serial No. 363,465
3 Claims. (Cl. 16-76)

1. In a door closer or the like for mounting on a door member or the jamb member of its frame, and comprising

a base plate having a forward edge and adapted to be secured to one of said door and jamb members, a plurality of laterally spaced and aligned bearings carried by said base plate and substantially tangent to the plane of the outer surface of the latter, said bearings disposed substantially entirely beyond said forward edge of said base plate, laterally spaced actuator arms interconnected at their outer ends and means carried by said outer arm ends for establishing an operative connection with the other of said door and jamb members, the actuator arms having aligned bearings at their inner ends, and a shaft projected through said plate and arm bearings and pivotally securing said actuator arms to said base plate; in combination with a plurality of coil springs spaced in the direction of the length of said shaft and surrounding the same, each of said coil springs having a forwardly extending and a rearwardly extending tensioning terminal located at opposite ends thereof, the rearwardly extending spring terminals engaging the outer surface of the base plate, each of the forwardly extending spring terminals disposed alongside

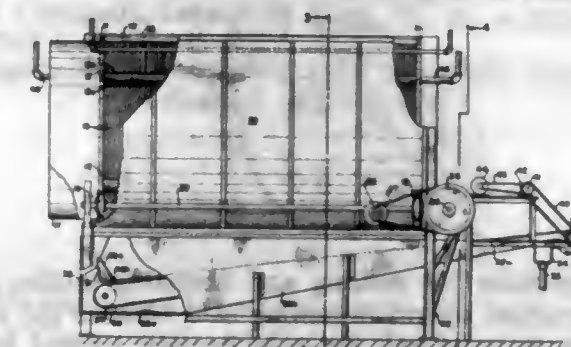


one of said actuator arms and each of the latter having a portion inclined toward the axis of the related spring terminal, each of the forwardly extending spring terminals having a hook-like offset detachably engageable with the outer edge of the adjacent inwardly inclined arm portion, whereby to normally tend to swing said connected actuator arms inwardly toward the forward edge of said base plate, at least one of said plate-provided bearings engaging the coiled rear terminal-providing end of an adjacent coil spring to prevent axial shifting of the opposite coiled end thereof away from the related actuator arm, whereby to prevent accidental disengagement of its forwardly extending tensioning terminal therefrom, said forwardly extending arm-engaging spring terminals being independently engageable with or disengageable from related actuator arms without compressing or actuating said springs axially of said shaft, stop means at opposite ends of said shaft for limiting outward movement of adjacent actuator arm bearings, and one of said stop means being removable to admit of endwise withdrawal of said shaft from said plate and actuator arm-provided bearings.

2,823,414
APPARATUS FOR RECOVERING THE MEATS OF BIVALVES
Roderick D. Seal, Golden Meadow, La., and Sterling G. Harris, Beaufort, S. C., assignors to The Blue Channel Corporation, Port Royal, S. C., a corporation of Maryland
Application October 19, 1956, Serial No. 617,103
13 Claims. (Cl. 17-9)

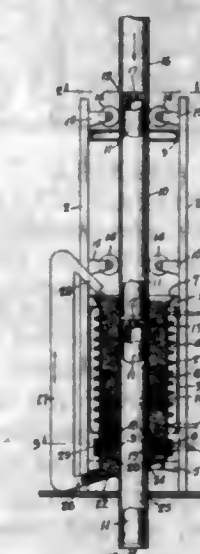
1. Apparatus for recovering the meats from the shells of bivalve mollusks, which comprises a supporting structure, a plurality of wheels mounted for rotation in fixed bearings on the structure, a cylindrical drum having a wall formed with closely spaced substantially continuous openings, said openings being axially spaced and extending circumferentially about the drum and being of a width to pass the meats and hold back the shells, the drum having a pair of circumferential tires resting on the wheels to support the drum for rotation, with its axis approximately horizontal, driving means connected to at least one of the wheels and operable to rotate the wheel and the drum, a pan mounted on the structure and enclosing the lower part of the drum to receive meats escaping

from the drum, the pan having a bottom discharge opening, means mounted on and lying within the drum for raising the shells and allowing them to fall as the drum



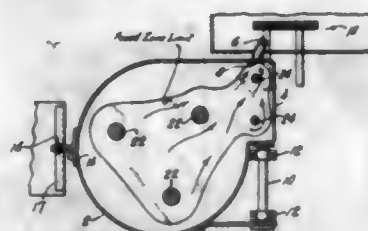
rotates, and means for wetting the inner surface of the pan to prevent sticking of the meats thereto, whereby the openings throughout the lower half of the drum are unrestricted for the free passage of the meats by gravity.

2,823,415
APPARATUS FOR HEAT AND PRESSURE CURING OF ARTICLES
Wesley G. Martin and Daniel J. Reed, Milwaukee, Wis., assignors to A. O. Smith Corporation, Milwaukee, Wis., a corporation of New York
Application July 15, 1954, Serial No. 443,542
4 Claims. (Cl. 18-1)



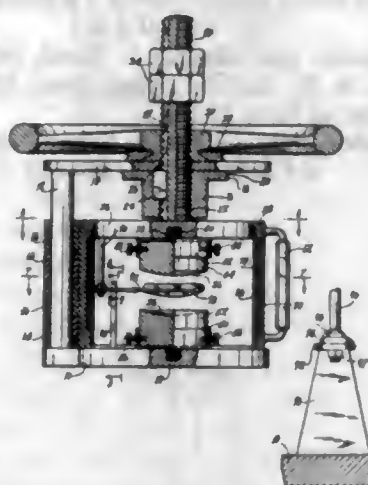
1. An apparatus for applying heat and pressure to a rigid elongated unpolymerized resin article, comprising a hollow container of substantial height and having axially aligned inlet and outlet openings adapted to receive the elongated article and with the outlet opening substantially below the top of the container, means to move the article longitudinally through the container to progressively treat the article, a bed of divided solid material filling said container and surrounding the portion of the article within the container in substantially direct contact therewith to apply pressure to the resin for assisting in curing the same, and means to heat said material with the heat being transferred to the article within the container to polymerize the resin of the article.

2,823,416
APPARATUS FOR MELTING AND FIBERIZING
REFRACTORY MATERIALS
 Edward R. Powell, North Plainfield, N. J., assignor to
 Johns-Manville Corporation, New York, N. Y., a cor-
 poration of New York
 Application August 16, 1955, Serial No. 528,609
 2 Claims. (Cl. 18-2.6)



1. Apparatus for melting and fiberizing molten material, a furnace, means mounting said furnace for tilting, a molten material exit for said furnace located in substantial alignment with the axis of tilt, said molten material exit being the discharge end of a trough extending in the general direction of said axis and fiberizing means positioned adjacent said exit.

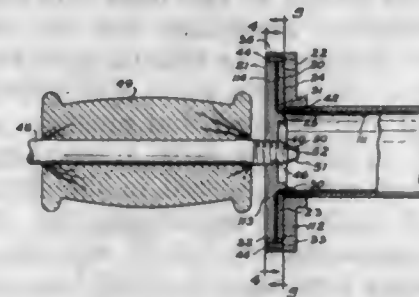
2,823,417
MEANS FOR PRODUCING OPTICAL LENSES
FROM PLASTIC MATERIALS
 Bruno Pasini and Guido Foschi, Milan, Italy, assignors
 to Ermanno Zanini, Milan, Italy
 Application May 20, 1954, Serial No. 431,169
 2 Claims. (Cl. 18-17)



1. Apparatus for shaping a plastic lens blank comprising a base, a hollow casing supported on the base, an upstanding post on said base, adjacent its periphery, outside said casing, a radial arm on the top of said post, said arm having an opening intermediate its ends, a screw extending through said opening and being vertically movable therethrough, a supporting plate carried on the bottom end of said screw, a hand wheel above said arm around said screw for moving the same up and down, an inverted cup-shaped member mounted on the under-surface of the plate, a cup-shaped member mounted on the base in opposition to said inverted cup-shaped member, complementary die members secured to said inverted cup-shaped and cup-shaped members, a post depending from the plate adjacent its periphery inside the casing, opposed spring arms having arcuate end portions radially mounted on the bottom end of said latter post, said end portions being adapted to releasably support a lens blank between the die members.

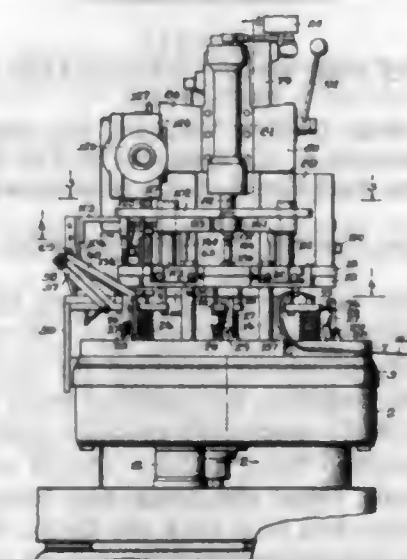
2. Apparatus as defined in claim 1, characterized by means supported on the casing for heating the lens blank and an inverted V-shaped camming plate vertically disposed on the base in the path of movement of the spring arms upon downward movement of the plate for spreading said arms apart to release the lens blank.

2,823,418
FLANGING TOOL
 Charles J. Fritts, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York
 Application December 31, 1953, Serial No. 401,681
 2 Claims. (Cl. 18-19)



1. A tool of the character described comprising in combination a plate having one face forming a plane surface, a lip extending along the periphery of the other face of said plate, a circular ridge on said last mentioned face of said plate disposed centrally thereof, a rounded step at the base of said circular ridge, an annular disk having an outer diameter equal to the diameter of said plate positioned on said lip on said plate, whereby a chamber adapted to receive a flange is formed between said plate and said annular disk, the two faces of said annular disk forming plane parallel surfaces, said annular disk having an inner diameter greater than the outer diameter of said circular ridge on said plate whereby an annular liner entry port leading to said chamber is formed between said circular ridge and said annular disk, means located within said annular disk and said plate at a level not above the unopposed plane surfaces of said annular disk and said plate for separably attaching said annular disk to said plate, a handle attached to said plate at the face forming a plane surface, means providing a fluid entry port passing through said plate and disposed substantially centrally of said circular ridge, a conduit leading through said handle to said fluid port, and fluid deflecting means located at the downstream side of said fluid port.

2,823,419
MACHINE FOR PRESSING TANTALUM
CAPACITOR ELEMENTS
 John D. Winters, Winnetka, Ill., and Rudolph J. Perme, Kenosha, Wis., assignors to Fansteel Metallurgical Corporation, a corporation of New York
 Application March 14, 1952, Serial No. 276,722
 14 Claims. (Cl. 18-20)



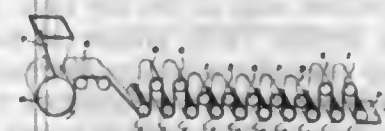
1. An apparatus for compacting metal powder around an article comprising a plurality of supports for carrying said articles individually, means for intermittently moving said supports successively through a plurality of stations, a feeder positioned at one of said stations

and adapted to position individual articles on successive supports as said supports are successively positioned at said station, a powder dispenser means positioned at a second station to apply a measured quantity of metal powder adjacent the article against which it is to be compacted, vertical pressure means adjacent a third station, a pair of horizontally movable dies for each of said supports, said vertical pressure means cooperating with said dies at said third station to press said powder against said article uniformly in vertical and lateral directions, means for retracting said vertical pressure means before said article is moved from said third station, means at a fourth station for separating said horizontally movable dies by horizontal outward movement to release said compacted article from said dies, and means at a fifth station for removing said compacted article from said supports.

2,823,420
MANUFACTURE OF CORK COMPOSITION
PRODUCTS
 Russell W. Helges and William R. Reed, Pittsburgh, Pa., assignors to Armstrong Cork Company, Lancaster, Pa., a corporation of Pennsylvania
 No Drawing. Application July 2, 1956
 Serial No. 595,094
 12 Claims. (Cl. 18-48)

1. In a method of making molded products from cork granules of varying sizes, the steps comprising thinly coating a mass of cork granules which vary in size with a binder system which is essentially tack-free including a primary binder component which is essentially tack-free and will not prevent particle segregation and a secondary resinous component which is potentially tack producing and may be chemically activated to produce a tack to hold said finer granules in clinging relationship with the larger of said granules and avoid particle segregation and which is inadequate to cause the mass of said granules to be essentially self-adherent, thereafter distributing onto said binder coating on said granules a chemical activator to activate said secondary component on said granules, holding said finer granules in clinging relationship with said larger granules through the intermediary of said chemically activated secondary resinous component, charging said granules into a mold while said tack persists and said granules are essentially uniformly interspersed, and molding said mix under pressure to bond said granules under compression into a cork composition block which is essentially free of particle segregation.

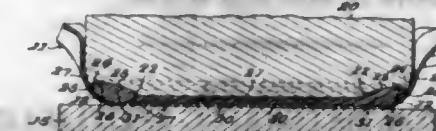
2,823,421
STRETCHING OF POLYETHYLENE
TEREPHTHALATE FILM
 Arthur C. Scarlett, Buffalo, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
 Application May 12, 1952, Serial No. 287,354
 6 Claims. (Cl. 18-57)



5. A process for preparing polyethylene terephthalate film which comprises continuously casting a substantially amorphous polyethylene terephthalate film, continuously longitudinally stretching said amorphous film at the rate of at least 400% per minute no greater than 3.25x at a temperature within the range of 80°-90° C., thereafter continuously transversely stretching said film to substantially the same extent at a rate of at least 400% per minute at a temperature within the range of 95°-110° C., and continuously heat-setting the resulting biaxially

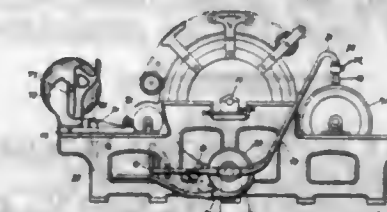
stretched film at a temperature within the range of 150°-250° C. while maintaining said film under transverse tension.

2,823,422
MANUFACTURE OF CLOSURE SEALS HAVING
FORMED CUSHION PADS THEREIN
 Julius L. Schneider, Chicago, Ill., assignor to Continental Can Company, Inc., New York, N. Y., a corporation of New York
 Application November 8, 1950, Serial No. 194,662
 6 Claims. (Cl. 18-59)



1. The method of forming a closure seal with a cushion pad in a closure shell, said shell having a resiliently yielding internally concave domed bottom portion joined by a top corner radius portion with a skirt extending from the top corner radius portion, which comprises depositing a charge of plastic material in the closure shell, engaging a limited central part of the outer surface of the bottom portion with a supporting surface, engaging a punch end surface with said charge and pressing there-with against the same and producing plastic flow and adhesion over said bottom portion and toward the top corner radius portion, effecting a sealing engagement of the periphery of said punch surface with the top corner radius portion prior to the flow of the charge material past said periphery and thereby confining the charge between said punch surface and the closure shell, continuing the movement of the punch surface toward the supporting surface while the periphery of the punch surface remains in engagement with the top corner radius portion so that the resilient domed bottom portion of the closure shell yields and is flattened and the charge material continues its confined flow for filling the spaces adjacent the container-engaging surfaces of the cushion pad without formation of "flash" material, and thereafter withdrawing the punch surface and permitting the said flattened bottom portion to return to domed shape.

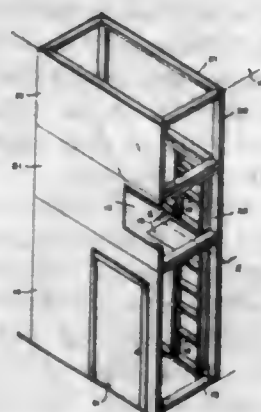
2,823,423
AUTOMATIC CARD STRIPPER
 Seichi Suzuki, Takarazuka, Hyogo-ken, Japan
 Application May 24, 1954, Serial No. 431,944
 Claims priority, application Japan November 12, 1953
 3 Claims. (Cl. 19-109)



1. Stripping apparatus for a carding cylinder or a doffer cylinder in carding machines having the carding cylinder and the doffer cylinder each rotatably mounted between end brackets, comprising a hollow sleeve with a longitudinal slot therein mounted between said brackets adjacent the cylinder, a carriage having a plurality of teeth thereon sidably mounted on said sleeve, a valve on said carriage, a suction nozzle on said valve having a suction opening elongated in the circumferential direction of the cylinder adjacent the surface of the cylinder, a lead screw rotatably and slidably mounted in said sleeve with the teeth on said carriage engaged with said lead screw, the lead screw having a circumferential groove in each end thereof, gear and clutch means on said lead screw adapted to drive said screw in either direction, a

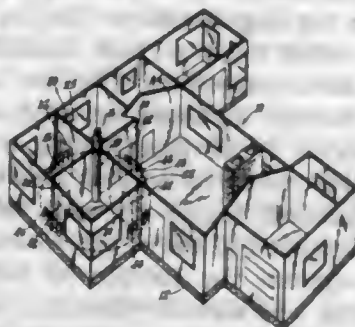
push rod on each bracket adapted to engage said valve when said carriage is next to a bracket to operate said valve, a rod having tapered ends mounted on said carriage, each bracket having a hole therein extending from said hollow sleeve, and a pin in each hole having an elongated opening therein adapted to receive a tapered end of said rod, the ends of said pins engageable in the circumferential grooves in the ends of said lead screw, whereby when said carriage reaches a point adjacent a bracket, a tapered end of the said rod enters the elongated hole in the pin in said bracket to withdraw the pin from the groove in said lead screw.

2,823,424
TOWER FOR DETERRING SHOPLIFTING
Ernest M. Reinhold, Asheville, N. C.
Application May 14, 1957, Serial No. 659,161
2 Claims. (Cl. 20—5)



1. A device for deterring unauthorized removal of commodities, comprising a tower for disposition in an area where articles of value are located, said tower comprising a plurality of hollow sections disposed in stacked relation one above the other, ingress and egress means to and from said tower, continuous upright step means along the inner wall of each of such stacked sections and leading to said ingress and egress means, whereby a person may ascend and descend the tower, a floor in an upper section of the tower having an opening accessible to said step means so that a person ascending or descending the tower by said step means may pass through said opening, and closure means for said opening providing a portion of said floor, the walls of said sections being of one-way transparency affording visibility outwardly from within said tower of the surrounding area in which the articles of value are located and the exterior of each of said walls presenting a substantially plane continuous mirror reflective surface on any side of said tower but preventing visibility into said tower from the exterior thereof.

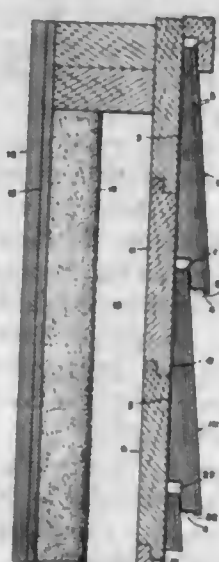
2,823,425
ROTATABLE SECTIONS FOR BUILDINGS
Alfred Granek, Bronx, N. Y.
Application December 16, 1954, Serial No. 475,704
3 Claims. (Cl. 20—1)



1. A building comprising a stationary portion including a plurality of walls dividing the same into a plurality of rectangular rooms, a turntable rotatably mounted

upon said stationary portion and including a plurality of partitions extending radially of the axis of the rotation of the turntable, said turntable being manually rotatable to selected positions in each of which said partitions move into coplanar relation with the several walls, and means for moving and latching the turntable in selected positions to which it is rotated, said latching means including a plurality of hand railings extending in opposite directions from the respective partitions adjacent the outer periphery of the turntable, and latch devices carried by said railings and engageable with the walls of the stationary portion, each of said railings being of arcuate formation and lying in a horizontal plane, in concentric relation to the axis of rotation of the turntable, each of said railings having a plurality of depending legs spaced along the length thereof, to support the railing in an elevated position above the lower end of the turntable, each of said latch devices including a frusto-conical ball seat secured to and projecting laterally from the associated railing within the partition from which the railing projects, and a ball element carried by said ball seat and projecting into engagement with a wall with which the associated partition is coplanar.

2,823,426
VENTILATED SIDING
Matthew E. Dunlap, Madison, Wis.
Application April 10, 1953, Serial No. 348,145
1 Claim. (Cl. 20—5)
(Granted under Title 35, U. S. Code (1952), sec. 266)

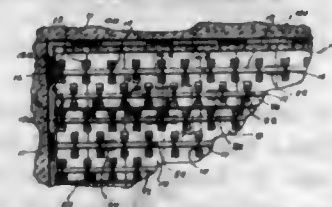


A composite lap type siding board having a weather side, a sheathing side, a top edge, and an exposed bottom edge comprising: an outer weather- and moisture-resistant weather shield on said weather side; and an inner tubate section contiguous with and substantially coextensive with the weather shield, said tubate section comprising a plurality of alternate layers of flat and corrugated sheets so disposed as to provide a series of unobstructed passageways substantially parallel to the weather shield and extending from the bottom edge to the top edge, the thickness of the tubate section being greater at the bottom edge than at the top edge, the thickness decreasing in the direction of the top edge at such an angle as to provide each of said passageways with an opening in the sheathing side.

2,823,427
RESILIENT FLOOR CONSTRUCTION
Leo E. Kuhlman, Detroit, Mich.
Application March 8, 1956, Serial No. 570,314
2 Claims. (Cl. 20—6)

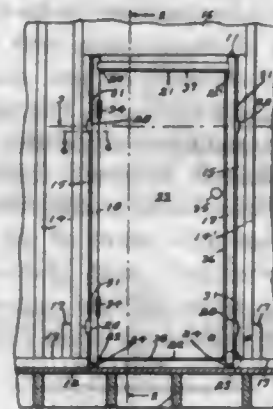
1. In a building construction, including fixed walls, a concrete under-floor, a sub-floor and a finished floor, the combination of a plurality of longitudinal members for supporting said sub-floor and finished floor, arcuate

spring members secured at their centers to said longitudinal members, in spaced relation, the springs on one member being staggered with respect to the springs on an adjacent member, elongated stiffening members secured to the underside of said sub-floor, parallel to said



longitudinal members and at right angles to said springs, said stiffening members, being deeper than said longitudinal members and serving as direct floor load carrying members, when said springs have been flexed a predetermined distance.

2,823,428
PREFABRICATED COMBINATION DOOR AND DOOR FRAME
William Calvin Curtz, Corvallis, Oreg.
Application February 21, 1955, Serial No. 489,478
1 Claim. (Cl. 20—11)

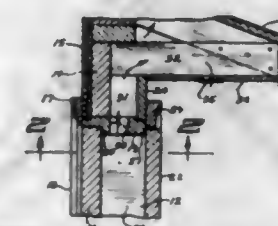


A prefabricated combination door and door frame comprising a pair of spaced parallel substantially rectangular door jambs, a header extending between the upper ends of said jambs and secured thereto, a temporary sill, said sill having the lower opposite end edges thereof arcuately truncated, said sill having the upper opposite end edges rabbeted with the lower ends of said door jambs engaging said rabbeted ends, means securing said temporary sill to said door jambs, a door hingedly secured to one of said door jambs, means supporting said door between said door jambs for shipment, and spacing wedges secured to the outer faces of said door jambs, said temporary sill facing the lower ends of said door jambs for shipment and supporting said door jambs during installation of said frame, said arcuately truncated lower ends of said sill permitting said sill to be swung from beneath said door jambs after being cut in two.

2,823,429
DOORWAY CONSTRUCTION
James B. Grant, Minneapolis, Minn.
Application June 8, 1955, Serial No. 514,032
3 Claims. (Cl. 20—16)

1. Doorway construction comprising an upstanding wall having a doorway therethrough between first and second spaces at opposite sides, respectively, of said doorway, upper and lower horizontal sills and spaced, vertical jambs in and bounding said doorway, first and second doors in spaced, aligned relation at inner and outer sides, respectively, of said doorway, there being a third space between said first and second doors, a first device, supporting said first door for inward swinging movement

to open position and outward swinging movement to closed position, a second device supporting said second door for outward swinging movement to open position and inward swinging movement to closed position, and means for maintaining atmospheric pressure in said third space when either of said doors is moved to closed



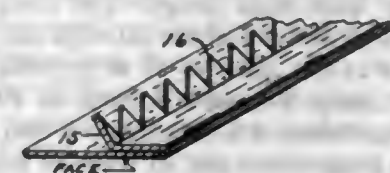
or open position while the other door is closed constituted as a passageway for air between the third space and a compartment for air under atmospheric pressure, said sills, jambs and first and second doors bounding said third space and precluding the direct travel of air between the third space and said first and second spaces through any of said sills, jambs or first and second doors.

2,823,430
REFRIGERATOR DOOR GASKET
Evans T. Morton, Knoxville, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois
Application March 25, 1955, Serial No. 496,800
9 Claims. (Cl. 20—69)



8. A door sealing gasket comprising a body having a base portion adapted to be connected to a door or the like, a curved section connected at its opposite ends to said base portion and between its ends extending away from the base portion toward a frame of an opening to be sealed and providing a hollow space between itself and the base portion, a rib on the exterior surface of said curved section extending at an angle from said curved section, said rib terminating in a portion overhanging said curved section, and a thin web connected between the overhanging portion of said rib and said curved section in spaced relation to said rib, said web being connected to said curved section at a location thereon spaced from said ends of the curved section.

2,823,431
WEATHERSTRIP AND FLASHING STRUCTURES
Walter E. Horrocks, Lakewood, Ohio
Application August 24, 1956, Serial No. 606,144
8 Claims. (Cl. 20—69)

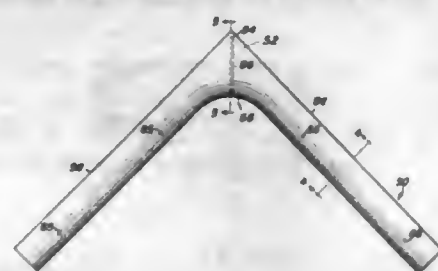


1. A weatherstrip structure comprising a body portion having a face side and a back side, said body portion having a flange rebent upon the back side and extending between the ends of the body portion, an upstanding rib formed at the end of said flange and extending away from said body portion, the edge of said rib being serrated along its margin.

2,823,432

MITERLESS CORNER MOULDING

Casimer George Dloniak, Dunkirk, N. Y., assignor of one-half to Arthur V. Harrison, Dunkirk, N. Y.
Application April 13, 1955, Serial No. 501,025
3 Claims. (Cl. 20—74)

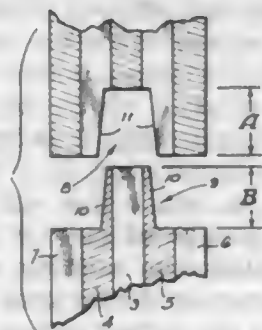


1. A corner moulding device comprising a generally V-shaped wooden frame having a pair of arms extending at an inclined angle from the apex portion thereof, said arms and apex having a flat bottom side and one upright flat side, said apex portion being V-shaped at its one end and rounded from its one end toward said other end and terminating in conjunction with said bottom side, said arms being provided with a plurality of spaced, drilled nail holes extending at substantially 30° angles from the curved side surface thereof to the heel portion at the junction of said bottom and upright flat sides, said juncture being slightly arcuate, said apex portion being provided with a slit extending vertically through said heel portion and terminating in an upper wall inclined at an angle of substantially 30° slightly spaced at both ends from the rounded upper surface of said apex portion to present a substantially unbroken upper surface.

2,823,433

TONGUE AND GROOVE PLYWOOD

Robert A. Kendall, Vancouver, Wash., assignor to Vancouver Plywood Co., Vancouver, Wash., a corporation of Washington
Application February 28, 1955, Serial No. 490,909
3 Claims. (Cl. 20—92)



1. In a piece of plywood having at least a center core, two intermediate plies and two face plies, a mated tongue and groove jointer means formed about the periphery of the plywood and carrying wear surfaces in which the grain is normal to the adjoining plies, said jointer means including a projecting tongue formed upon two sides and a recessed groove formed upon the other two sides of said plywood piece, each said tongue and each said groove being symmetrical about a plane through the center of and parallel to said center core so as to provide equal resistance to shear forces imposed normal to either face ply, each said tongue being at least three ply and including the full width of a center core and at least an equal fractional portion of the width of each intermediate ply adjacent to the center core to define said wear surfaces, each said groove having the center core completely removed to the depth of the groove and being bounded on each side by at least a two ply construction including the full width of a face ply and at least an equal fractional portion of the width of each intermediate ply adjacent to the center core to define said wear surfaces.

2,823,434

FASTENING DEVICE

Harold S. Van Buren, Jr., Cambridge, Mass., assignor, by mesne assignments, to United-Carr Fastener Corporation, Boston, Mass., a corporation of Delaware
Application November 29, 1954, Serial No. 471,637
1 Claim. (Cl. 24—3)

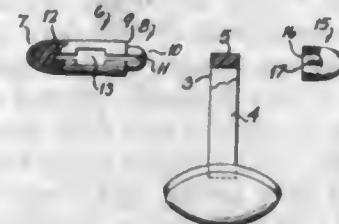


A fastening device for securing an article to a support, comprising a flat strip of material bent to provide a back, a slide-carrying arm spaced forwardly from the back and joined thereto at one end, and a slide-end-receiving arm extending forwardly from the other end of the back into alignment with and spaced from the slide-carrying arm, a slide member formed of a flat strip of material disposed against the slide-carrying arm, said slide being movable longitudinally to open and close the space between the slide-carrying arm and the slide end-receiving arm and retainer means associated with said slide-carrying arm having means frictionally gripping the side of said slide member opposite the slide-carrying arm so that the slide is disposed flatwise therebetween, said slide having means cooperating with said retainer to limit the longitudinal movement of said slide in the open and the closed positions, said slide-end-receiving arm having an aperture receiving the end of said slide when said slide is in the closed position.

2,823,435

CUFF LINKS

John H. Bacon, Wellesley, Mass.
Application November 23, 1956, Serial No. 624,092
5 Claims. (Cl. 24—97)



3. In combination with a cuff link having a button and a trunnion secured to and spaced from the button, a locking bar, said locking bar having an opening formed therein extending transversely therethrough intermediate its ends and receiving the trunnion, said opening in the bar and the said trunnion being of such a shape that the bar can be selectively locked in one of a plurality of positions, said locking bar also having a slot formed transversely therethrough from the opening to one end so that a pair of arms are formed on opposite sides thereof for permitting the bar to be slid onto the trunnion so that the trunnion lies within the opening, said arms extending from the opening to the end of the bar, a cap having a recess formed in one end for receiving the ends of the arms, a partition formed in the recess of the cap and extending into the end of the slot, and means for securing the ends of the arms in the recess and the partition within the slot.

2,823,436

SAFETY PIN ATTACHMENT

Lew W. Karalus, Bridgeport, Conn.
Application October 26, 1955, Serial No. 542,874
4 Claims. (Cl. 24—156)



2. As a new product of manufacture, in combination, a conventional-type safety pin having a spring coil at one end and a keeper-equipped guard at the other end in which the adjacent end of the openable and closable end of the pin proper is releasably retained, and an ornate holder and safeguarding cover for said safety pin comprising a one-piece elongated elastic strip having a flat reverse side against which one side of said safety pin is held flatwise, the area of said strip being such that the marginal edges of the strip project outwardly beyond the corresponding marginal portions of the over-all safety pin and thus serving to conceal the safety pin, said strip being provided on said reverse side and at its opposite end portions with a pair of outstanding coplanar longitudinally spaced elastic pockets having mouth portions opening toward each other and the cooperating end portions of said safety pin projecting into and being lodged and grippingly held in their respective pockets.

2,823,437

BUCKLE

Harry V. Anderson, Minneapolis, Minn., assignor of one-half to James M. Abeln, Hopkins, Minn.
Application June 12, 1957, Serial No. 665,225
1 Claim. (Cl. 24—197)



A buckle of flat rigid material comprising a fastener member of general Z-shape constituted as a first flat body, a tongue, and a neck between and connecting said first body and tongue, the first body having spaced parallel first and second elongated slots therethrough bounded at their opposite ends by opposite end portions and defining spaced parallel first, second and third cross bars, said neck being integral with and extending from the first body in substantially perpendicular relation thereto, said tongue extending forwardly in substantially perpendicular relation to the neck and in parallel relation to said first body, the fastener member being adapted to receive a strap portion extending over said first cross bar, through the first elongated slot, under said second cross bar, through the second slot, and over said third cross bar, neck and tongue, and rearwardly under said tongue, neck and first body, and a second flat body having an elongated slot therethrough, bounded at its opposite ends by opposite end portions and at its opposite sides by cross bars, said elongated slot in said second body being adapted to receive the tongue and neck of the fastener member and parts of said strap portion thereon and said neck when so received being in perpendicular relation to said second body and confined in the last mentioned elongated slot.

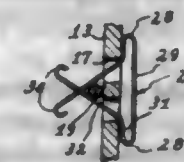
2,823,438

ANTENNAE CLIP

William H. Sommerer, Chicago, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application October 23, 1953, Serial No. 387,976
4 Claims. (Cl. 24—261)

1. A one-piece clip of resilient material comprising an elongated handle having inwardly curved opposite

ends which present elongated stop portions extending toward one another in substantial alignment with each other and spaced inward from said handle, a pair of elongated arms connected respectively to the inner ends of said stop portions and extending substantially coplanar with said stop portions, said arms extending at acute

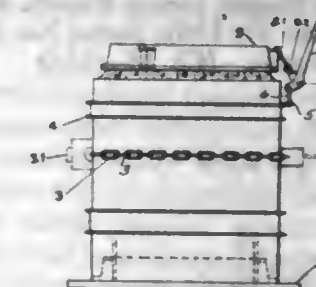


angles inward from said stop portions away from said handle and crossing over in contact with one another at a location spaced substantially from said stop portions and terminating in free ends having oppositely directed open hooks extending away from each other back toward said handle portion, said hooks terminating substantially inward from said crossover location.

2,823,439

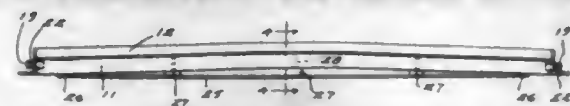
APPARATUS FOR MAKING CONCRETE CULVERT PIPES

Hartzell Henry Schmidgall, Mediapolis, Iowa
Application July 21, 1954, Serial No. 444,863
2 Claims. (Cl. 25—30)



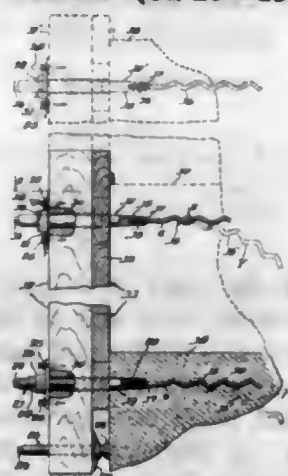
1. Apparatus of the class described, comprising: an upright cylindrical outer form and an upright cylindrical inner form concentrically within said outer form to afford an annular space for receiving a concrete mix, said forms having bottom edge portions proximate to each other and further having top edge portions proximate to each other; means supporting the forms via their bottom edge portions and including a bottom header closing the bottom of the annular space; a top header in the form of a ring supportable by the space-received mix in a preliminary relatively high position, said ring having inner and outer peripheries respectively freely encircling the exterior wall of the inner form and freely encircled by the interior wall of the outer form so as to be capable of descent at least in part into the annular space; means for vibrating at least one of the forms for compacting the mix; and a plurality of force-exerting means spaced uniformly angularly about the exterior wall of the outer form and engaging the top header at correspondingly uniformly angularly spaced portions thereof and operative to exert downward forces on said top header for forcibly lowering said top header to a final position within said annular space and thereby to increase the compaction of the mix adjacent to said top edge portions, each force-exerting means including an anchor projecting outwardly from the exterior of the outer form at a level below the top edge portions, a first link attached to said anchor and extending upwardly therefrom, a lever fulcrumed on the first link and extending radially outwardly, and a second link attached to the top header and connected to the lever in radially outwardly spaced relation to the lever fulcrum so that downward force applied to the lever acts through the second link and reacts against the first link and anchor to force the header downwardly.

2,823,440
CHANNEL SLAB CONCRETE MOLD
 Henry E. Schade, Camden, N. J., assignor to
 The H. Edwin Schade Co., Camden, N. J.
 Application February 23, 1954, Serial No. 411,721
 2 Claims. (Cl. 25-121)



1. A mold for casting substantially elongated pre-formed convex-upwardly bowed concrete slabs of uniform cross-section said mold including a convex-upwardly bowed gradually curved bottom wall, a pair of side wall members secured to the opposite side edges of said mold and extending upwardly therefrom, said side wall members each having a convex-upwardly bowed upper edge extending parallel to the upper side of said bottom wall, a pair of end walls, means detachably securing said end walls to the opposite ends of said side wall members, a pair of elongated flat straight rigid truss bars underlying said mold in spaced parallel relation and having their opposite end portions welded to the underside of said bottom wall, and a plurality of spacer members welded between the medial portions of said truss bars and said bottom wall.

2,823,441
DUMMY SHE-BOLT
 Chester I. Williams, Grand Rapids, Mich.
 Application June 27, 1951, Serial No. 233,851
 8 Claims. (Cl. 25-131)

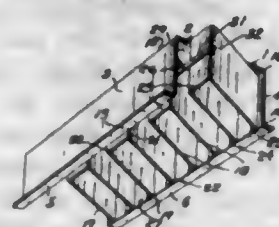


1. The combination with a concrete form, of a dummy she-bolt adapted to extend through a hole in the concrete form and an ordinary she-bolt adapted for replacing the dummy she-bolt, said dummy she-bolt having a tapered end, undulating elongated rod-like anchoring means adapted to be detachably connected to the dummy she-bolt, complementally formed means on the dummy she-bolt and the anchoring means for detachably connecting them together, and said tapered ends of the dummy she-bolt and the ordinary she-bolt differing whereby removal of the dummy she-bolt from the cast concrete forms a larger tapered opening in the concrete for detachably mounting the smaller tapered end of the ordinary she-bolt upon the anchoring means when the form is raised and the ordinary she-bolt affixed to the afore-said undulating elongated rod-like anchoring means pre-cast in the cast concrete.

2,823,442
CARTON FORM
 Elmer J. Miller, Evern Budd, and Lee E. Hughes, Keene, Tex.; said Hughes assignor to J. Evern Budd
 Application July 9, 1953, Serial No. 366,991
 3 Claims. (Cl. 25-131.5)

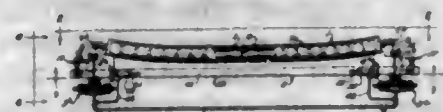
1. A form of corrugated board adapted for bearing support on spaced apart soffits to shape and support

poured concrete into spaced apart longitudinal beams and a floor, said form including a member having two opposite side walls, a top connecting upper edges of the side walls, and footing flanges extending outwardly along lower edges of the side walls, said side walls, top and footing flanges all being provided of corrugated board having longitudinal parallel folds integrally connecting the footing flanges with the side walls and the side walls with the top, and transverse members also formed of corrugated board having a depth corresponding with height of the side walls and having folds spaced apart according to spacing between said side walls to provide lateral flanges at ends of said transverse members, said



transverse members being located between the side walls in spaced apart relation with the flanges at the ends thereof in face contact with inner faces of the side walls and with their upper edges in direct supporting contact with said top and their lower edges substantially in plane with flanges of said side walls to prevent the top and side walls from buckling inwardly under weight of the concrete, the flanges at one end of the transverse members being fastened to one side wall and the other ends of any two transverse members being connected by a flange and unattached to the other side wall, whereby the transverse members are carried by said one side wall and are connected in pairs to hinge on said folds thereof when the form is to be removed after use.

2,823,443
AUTOMATIC WIDTH CONTROLLER
 Harold F. Umstott, Akron, Ohio, assignor to The Firestone Tire & Rubber Company, Akron, Ohio, a corporation of Ohio
 Application August 3, 1955, Serial No. 526,251
 6 Claims. (Cl. 26-63)



3. Apparatus for controlling the width and position of a continuous, moving sheet comprising a bowed member over which said sheet passes, said member supported by an axle divided transversely into two sections, the abutting ends of said sections relatively rotatable about a common axis to permit arcuate movement of the outer ends of said sections, means adapted to sense the position of each edge of said sheet, means adapted to move said outer ends in arcuate paths, each said moving means responsive to each said sensing means respectively, whereby said sheet maintains across its width a direction of travel over said member normal to the axis of said member to maintain a predetermined width and position.

2,823,444
BANDAGE
 Thomas Parry Davies and Denis Benedict Sullivan, Skipton, England, assignors to Johnson & Johnson, a corporation of New Jersey
 Application October 7, 1954, Serial No. 460,974
 13 Claims. (Cl. 28-76)

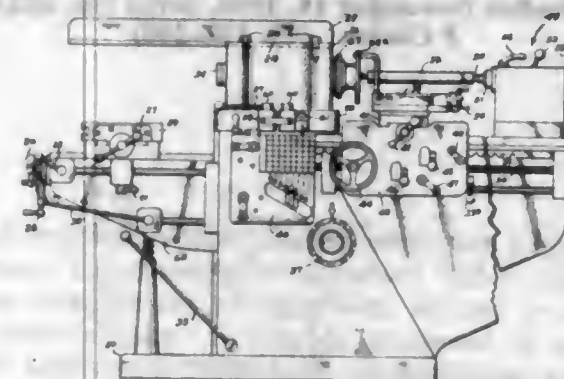
1. A conforming bandage strip having an open-mesh woven structure and selvaged edges, comprising a main portion and integral inwardly folded marginal portions

of said strip, forming with the main portion of said strip edges of double thickness, individual threads of said folded portion and the adjacent main portion being kinked in random manner, the kinked threads intermingling and interlocking with threads in the adjacent portion, said portions being held together by said kinked threads to form a substantially permanent selvage in said strip.



5. The method of producing a selvaged conforming bandage from a strip which is shrinkable and has open-mesh structure of woven twisted threads which comprises folding inwardly opposite marginal portions of said strip in close contact with the main portion and toward the center thereof, thereby forming edges of double thickness, and subjecting said strip to shrinking conditions, said steps being carried out in any available sequence, causing individual threads of said folded portion and the adjacent main portion to kink in random manner and thereby interlock with threads in the adjacent portion, whereby said portions are held together by said kinked threads to form a substantially permanent selvage in said strip.

2,823,445
MACHINE TOOL WITH ROTATABLE HEADSTOCK
 Richard B. Lyons, Portland, Oreg.
 Application May 31, 1955, Serial No. 511,919
 8 Claims. (Cl. 29-27)

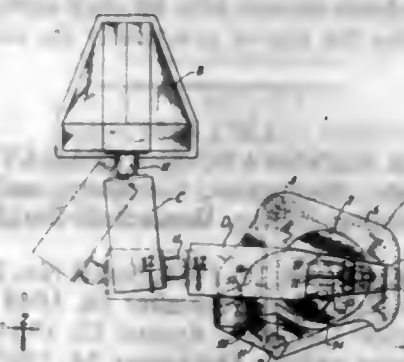


1. A machine tool, comprising an elongated fixed base member having a headstock means releasably clamped in position and mounted for selective rotation with respect to the base about a vertical axis through a full 360°, and a power driven spindle means protruding from one end only of said headstock and mounted for rotation about a horizontal axis, said fixed base member supporting both an engine lathe with a work bed and a knee type milling machine, the bed of said lathe and the knee of said milling machine lying on opposite sides of said headstock, said spindle means being sweepable over and being operatively located with relation to either said lathe bed and said milling machine.

2,823,446
FILING MACHINE
 Robert L. Crane, Hopkins, Minn., assignor to Continental Machines, Inc., Savage, Minn., a corporation of Minnesota
 Application February 16, 1955, Serial No. 488,536
 9 Claims. (Cl. 29-76)

1. In a machine tool for performing work on a stationary work piece: a pedestal; a rigid C-shaped carrier member having an upright bight at its inner end and spaced

arms projecting horizontally from the upper and lower portions of the bight to the outer end of the carrier member; a tool element; means mounting the tool element on the carrier member with a work performing portion of the tool element constrained to linear motion along a vertical path between the upper and lower arms of the carrier member near the outer end of the carrier member; power means on the carrier member for driving the tool element along said path; and means suspending the carrier member from the pedestal for free horizontal swinging motion in all directions, comprising an upright hinge member having an inner end adjacent to the pedestal, and extending horizontally therefrom toward the carrier member with its outer end adjacent to the bight of the carrier member, means providing an inner hinge connection between the pedestal and the adjacent inner portion of the hinge member to support the hinge member from the pedestal for swinging motion about a vertical axis fixed with respect to the pedestal, and means providing an outer hinge con-



nection between the bight portion of the carrier member and the adjacent outer end portion of the hinge member, comprising complementary hinge parts on the side of one of said members and on the end of the other member, and by which the carrier member extends to one side of the hinge member and is supported thereby for swinging motion relative thereto about a vertical axis spaced from the axis of said inner hinge connection as well as for bodily swinging motion with the hinge member about the axis of said inner hinge connection, said carrier member being substantially longer in its horizontal dimension than the hinge member so that swinging motion of the carrier member relative to the hinge member enables the work performing portion of the tool element to be carried along an arc of substantial radius, while bodily swinging motion of the carrier member with the hinge member enables the work performing portion of the tool element to be carried to any point within a relatively large area for engagement with any selected part of a stationary work piece embraced by the carrier arms and located within said area.

2,823,447
VERTICAL EJECTOR TOOL HOLDER
 Paul Doerseln, Hawthorne, and Kenneth Paul Doerseln, Haledon, N. J.
 Application July 27, 1953, Serial No. 370,377
 1 Claim. (Cl. 29-96)



A tool holder having, in combination, two parts, one part being a shank, and the other part being a tool holder head, said tool holder head having a male dove-tail at its rear end, and a well at the front end, said well being off center and to the left of said tool holder head and along one side of said tool holder head adjacent to the front end of said tool holder head, a slot through said male dove-

tail and through said well, said slot being at a slight angle to the vertical, a clamping means adjacent to said well and passing through said slot at an angle to the vertical to clamp a tool bit in said well, said means clamping said well about the entire length of said tool bit, and effecting a solid clamping of said tool bit, said shank portion containing a female dove-tail and locking means, to secure the tool holder head and said shank as a solid unit, said locking means together with said dove-tail, also effecting an additional locking means of said tool bit, said means also acting as a releasing means of said tool holder head from said shank and as a releasing means of said tool bit from said tool holder head, and means to expand said slot in said tool holder head, said means being near the top of said tool holder head and said means also effecting a release of said tool bit, said tool holder well being rectangular, and extending to within a slight distance of the bottom of said tool holder head, and the top outer portion of said tool holder head being open to permit an exposure and use of said tool bit, said sundry clamping means permitting the use of practically the entire tool bit.

2,823,448

GEAR GENERATING APPARATUS

Walter Krumme, Wuppertal, Germany, assignor to W. Ferd Klingelberg Söhne, Remscheid-Berghausen, Germany

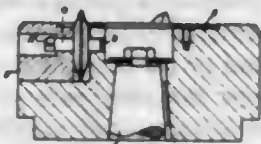
Application March 27, 1951, Serial No. 218,201

In Germany December 24, 1949

Public Law 619, August 23, 1954

Patent expires December 24, 1969

2 Claims. (Cl. 29—105)



1. A tool for cutting in a single operation both the concave and the convex faces of curved teeth bevel gears, comprising a circular knife head having a body and two abutting removable arcuate segments, a pair of disc-shaped cutting tools rotatably mounted in said head, one behind each of said segments and disposed in planes forming an acute angle with each other, with template means carried by said knife head for adjusting said cutting tools in proper cutting relation, said cutting tools being rotatable into engagement with said template.

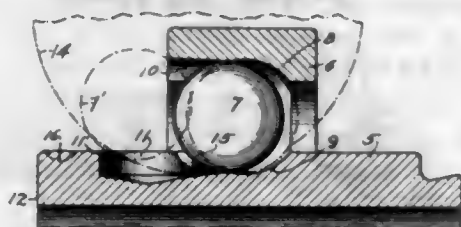
2,823,449

METHOD OF MAKING A BALL BEARING

Howell L. Potter, New Britain, Conn., assignor to The Fafnir Bearing Company, New Britain, Conn., a corporation of Connecticut

Application April 13, 1953, Serial No. 348,299

6 Claims. (Cl. 29—148.4)



1. The method of making an inner bearing ring of the character indicated from a cylindrical annular ring blank, which comprises forming a circumferential race groove between the ends of said ring, boring said ring between the race groove and one end of said ring, hardening said ring, finish-grinding the race groove, and grinding away a passage between the bore and the race groove.

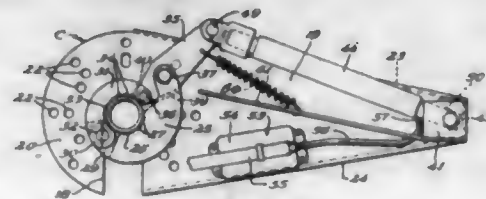
2,823,450

HYDRAULIC HYDRANT DISASSEMBLY WRENCH

David F. Thomas, West St. Paul, Minn., assignor to Waterous Company, Ramsey County, Minn., a corporation of Minnesota

Application April 19, 1954, Serial No. 423,992

9 Claims. (Cl. 29—240)



1. A portable hydraulic hydrant disassembly wrench assembly for attachment to a hydrant and use in rotating an attachment to an inner valve member with respect to an outer enclosing member, the wrench assembly including in combination a base plate attachable to a hydrant, a plurality of attachment means for securing the base plate to different sized outer enclosing members to extend and hold the base outwardly therefrom as a support, a grip wrench arranged to encircle said attachment to the inner valve member and rotate the same upon rotation of the wrench, and an expandable and contractable hydraulic cylinder connected to said base plate and to said wrench to rotate the wrench upon expansion or contraction of said cylinder.

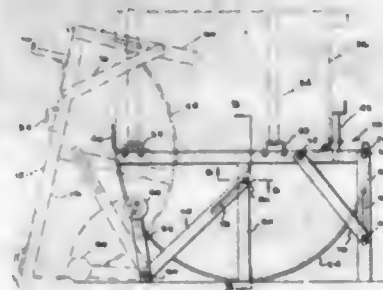
2,823,451

MOBILE SUPPORTING CARRIAGE FOR AUTOMATIC WASHING MACHINES AND THE LIKE

Stephen G. Suhan, East Chicago, Ind.

Application November 16, 1956, Serial No. 622,698

3 Claims. (Cl. 29—288)



1. A supporting stand for an automatic washing machine or the like comprising a frame having an upper side on which a machine may be placed on its side longitudinally of the frame, said frame having opposing sides and ends and an under side, means carried by the frame for securely anchoring the machine on the upper side thereof, arcuate ground engaging rocker bars secured to the frame adjacent the ends thereof and disposed longitudinally below the underside thereof to support the frame in a horizontal position, brace bars extending between the sides of the frame and the rocker bars, a handle means at one end of the frame for manually moving the frame into and from vertical and horizontal positions about the rocker bars, shaft means on the rocker bars adjacent the other end of the frame, rollers mounted on the shaft means and protruding below the rocker bars, stabilizing legs pivotally mounted on the shaft means at one of their ends and having opposing ends adapted to extend below the rocker bars for ground engagement, locking and adjusting arms pivotally connected to the stabilizing legs and means adjustably securing the arms to the brace bars for locking the stabilizing legs in adjusted angular relation and depending positions from the rocker bars when the frame is in a horizontal position.

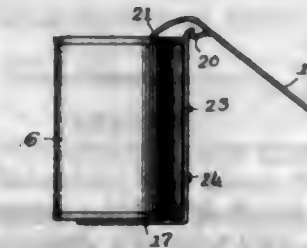
2,823,452

CAN OPENER

Samuel Segal, New York, N. Y.

Application June 29, 1954, Serial No. 440,126

1 Claim. (Cl. 30—1)



In a can opener adapter the combination of a body portion formed to be positioned adjacent to the side of a can, a flanged base section formed by bending one end of the body portion at substantially right angles thereto, a plurality of flanges formed by bending the other end of the body portion at substantially oppositely disposed right angles thereto and whereby a bearing point is provided for a can opener.

2,823,453

ELECTRIC SHAVER HAVING COMBINED RECIPROCATORY AND OSCILLATORY CUTTING MEMBERS

Leonard E. Lattin, San Antonio, Tex.

Application April 2, 1956, Serial No. 575,590

1 Claim. (Cl. 30—43)



An improved electric shaver comprising a hollow body, a motor and power shaft mounted within said body, a cutter head having an open side, secured to said body, an extension shaft removably connected to said power shaft within said cutter head, an oscillating tubular cutting blade having angularly disposed grooves presenting cutting blades, mounted for oscillation within said cutter head, a tubular cutting member mounted on said tubular cutting blade for reciprocating movement, said tubular cutting member having longitudinally disposed cutting edges cooperating with the cutting blades of said tubular cutting blade, in shearing hair over which said shaver is moved, spaced cam flanges disposed within said tubular cutting blade, spaced pins extending laterally from the outer surface of said tubular cutting member, a cam mounted on said extension shaft, contacting with and operating between said flanges, a second cam mounted on said power shaft and operating between said pins in contact therewith, simultaneously oscillating said cutting blade in reciprocating said tubular cutting member for creating a shearing action between said blade and said member.

2,823,454

CABLE CUTTER

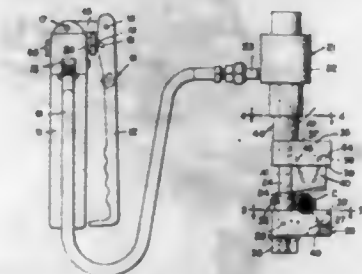
Alexander A. Kirchner, Arlington, Va.

Application July 1, 1957, Serial No. 669,360

6 Claims. (Cl. 30—228)

1. A cable cutter comprising a hydraulic piston and cylinder assembly including a piston rod projecting there-

from and movable axially toward the cylinder, an anvil member, a carrier member, means fixing one of said members to the piston rod adjacent to the free end of the latter, means for mounting the other one of said members on said piston rod adjacent to said cylinder and for sliding



movement with respect to the piston rod, a cutter blade fixed to said carrier member in opposed relationship to said anvil member whereby when the said one member is moved toward the cylinder said cutter blade will be disposed in the path of movement of the anvil.

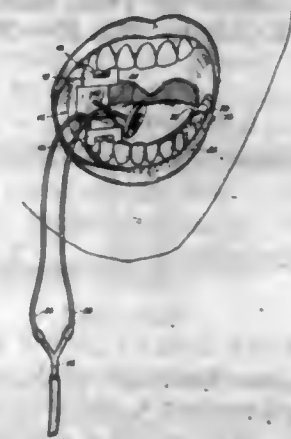
2,823,455

DENTAL INSTRUMENT

Boyd F. Sprague, Portland, Oreg.

Application April 24, 1956, Serial No. 580,210

3 Claims. (Cl. 32—33)



1. Dental mouth aspirating apparatus comprising a pair of limp tubes each sealed at one end thereof and open at the other end for connection to a suction device and each being perforated along a length of the tube adjacent said sealed end, said tubes being adapted to lead into a patient's mouth and to be positioned at one side thereof with said perforated lengths extending anteriorly one along the inner side of the gum of the lower jaw at said one side, and the other along the outer side of said gum whereby liquids may be aspirated through said tubes from both sides of said gum, and means secured to said tubes and formed for attachment to the patient's teeth at the opposite side of the mouth from said one side thereof for supporting said tubes in the mouth, said means comprising a U-shaped bite block having upper and lower feet, said tubes extending through openings in the lower of said feet and being frictionally engaged therein.

2,823,456

PANTOGRAPH

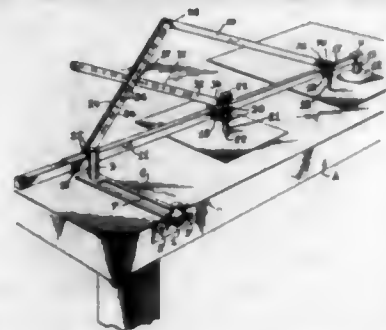
Léon Valois, Sillery, Quebec, Quebec, Canada

Application November 4, 1953, Serial No. 390,125

2 Claims. (Cl. 33—23)

1. A drafting instrument of the character described comprising an upright pivot member adapted to be mounted on a drawing board or the like, a channel-shaped guiding member pivoted on said pivot member, a rigid bar of a cross-section fitting said channel-shaped member, said bar slidable longitudinally through said guiding member, a first stylus carrying member movable longitudinally of said bar, a second stylus carrying member

secured to said bar, means for moving said first stylus carrying member longitudinally of said bar according to a predetermined constant ratio with respect to the longitudinal movement of said bar through said guiding member,

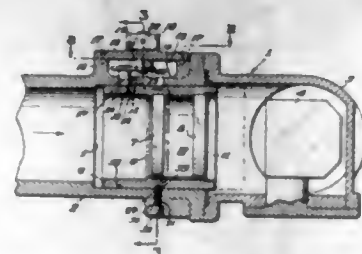


and a drawing board engaging plate mounted at the end of said rigid bar remote from said pivot member and supporting said end of said rigid bar, said plate being pivotable about the longitudinal axis of said bar in a plane perpendicular to said bar.

2,823,457

RETICLE ADJUSTMENT MECHANISM

Joseph W. Mihalyi, Rochester, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application August 10, 1956, Serial No. 603,461
2 Claims. (Cl. 33—50)



1. In a mechanism for quick replacement of one reticle with another in a telescopic system, an outer tubular member, having a coaxial chamber bored therein, an open-ended, inner tubular member mounted to reciprocate within said coaxial chamber in said outer tubular member, a pair of reticles secured in spaced relation within said inner tubular member, means for sliding said inner tubular member in a reciprocating manner in said chamber comprising, an upstanding boss on said outer tubular member having a milled-out chamber therein and a slot in its floor communicating with the interior of said chamber, said slot being disposed in parallel relation to the longitudinal axes of said outer and inner tubular members, a cover secured to said boss on said outer tubular member, a first pin defining a reduced portion and an enlarged portion, said reduced portion secured to said inner tubular member, said enlarged portion extending up through said slot in said floor of said chamber, a second pin journaled for rotation in said cover, a flat link provided with an elongated slot at one of its ends embracing said enlarged portion of said first pin, a boss integral to the other end of said link having a vertical bore therein, the lower portion of said second pin extending into said bore in said boss on said link, an operating knob adapted to be fitted over the upper portion of said second pin and means for securing said link and said knob against rotation about said second pin.

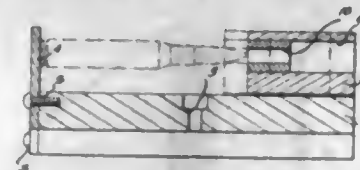
2,823,458

CARTRIDGE GAUGE

Edward M. Zabloodil, Cheyenne, Wyo.
Application March 12, 1954, Serial No. 415,914
3 Claims. (Cl. 33—143)

1. In a cartridge gauge, a base having a top, a block shorter than the base, means mounting said block on the

top of the base for longitudinal sliding movement along the base, an abutment plate fixed on and rising above the top of the base, said block having an end facing and longitudinally aligned with and spaced from said abutment

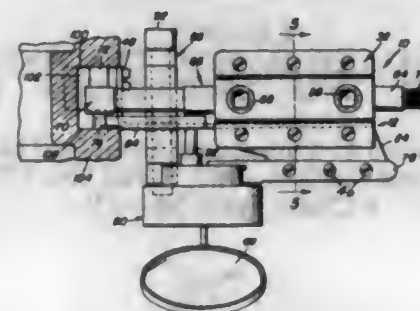


plate, and a longitudinal bushing mounted on said block, said bushing having a bore of a diameter to receive therein the point of a bullet of a cartridge having its other end engaged with the abutment plate.

2,823,459

RING GROOVE MEASURING DEVICE

Price S. Brawley, Mooresville, N. C.
Application March 14, 1955, Serial No. 494,091
6 Claims. (Cl. 33—147)

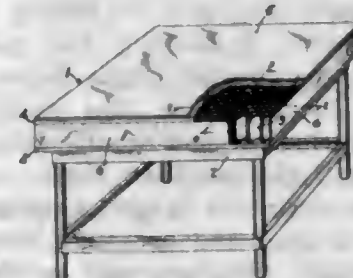


1. A ring groove measuring device comprising a frame, a follower carried by said frame having a wall engaging surface for guided engagement with a ring groove wall, a measuring head carried by said frame adjacent said follower, said measuring head including a fixed finger coplanar with said wall engaging surface for engaging the ring groove wall, and a spring urged movable finger for engaging an opposite ring groove wall, and an indicator carried by said frame, means connecting said movable finger to said indicator, and means adjustably mounting said follower whereby ring grooves of different heights may be measured.

2,823,460

MEASURING INSTRUMENTS

Edward William Weller, New York, N. Y., assignor to J. C. Busch Company, Milwaukee, Wis., a corporation of Wisconsin
Application December 14, 1955, Serial No. 553,080
1 Claim. (Cl. 33—174)



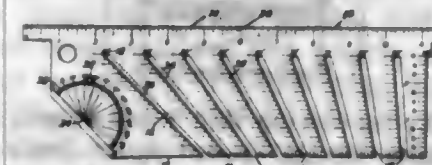
A lightweight surface plate for precision measuring requiring resistance to deflection under substantial load during the measuring operation, photogrammetric plotting or the like, comprising a lightweight cellular core member having an upper and lower surface, a facing plate of lightweight metal adhesively secured to the upper surface of said core member, a second facing plate of lightweight material adhesively secured to the lower surface of said core member, a layer of hard metal secured to the outer surface of said first named plate, said layer

having a precision-made outer surface to provide close tolerance control for measuring purposes, and means to seal the edges of said surface plate between the facing plates to prevent weakening of said core due to external causes, said surface plate being substantially rigid and capable of resisting deflection in excess of .0002 inch under load.

2,823,461

TILTING ARBOR SAW GAGE

Irving Schneider, Fair Lawn, N. J.
Application November 22, 1954, Serial No. 470,256
1 Claim. (Cl. 33—185)



A device for simultaneously determining the angle of inclination of a saw blade and the depth of cut thereof, said device comprising a one-piece flat plate having parallel side edges, a plurality of equal depth slots extending inwardly from one side edge of the plate for receiving a saw blade therein, all of said slots being disposed in different angular relation to the one side edge of the plate, each of said slots having indicia at the inner end thereof for designating the angular relation between the slot and said one edge, and graduated indicia on one edge of the slot for indicating the depth of cut of the saw blade.

2,823,462

DOOR TEMPLATE

Harry Greenfield, Los Angeles, Calif.
Application April 29, 1954, Serial No. 426,416
5 Claims. (Cl. 33—194)

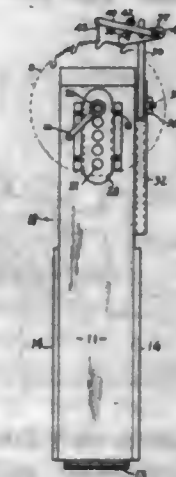


2. An adjustable template for reproducing the contour of a longitudinally extending surface comprising: an elongated hollow housing having opposed substantially parallel side walls; a plurality of fingers carried in said housing and transversely movable relative thereto, said fingers being disposed in spaced relation along said housing, the fingers being of equal length greater than the distance between said walls and projecting beyond both of said side walls, the fingers being permitted slight movement longitudinally of the housing; resilient means for urging said fingers in a given direction transverse of the housing; and selectively operable means for locking the fingers against movement, including means for forcing each finger into binding frictional engagement with members laterally fixed relative to the housing.

2,823,463

FIXTURE FOR USE IN SHARPENING SAWS

Charles E. Carney, Jefferson, Ohio
Application June 9, 1954, Serial No. 435,457
7 Claims. (Cl. 33—202)

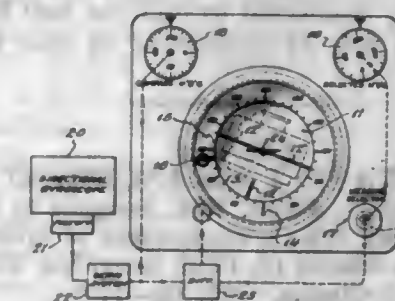


6. A gauge for circular saws comprising a pendulous gauge member, an adjustably extensible vertical support, an arm from which said gauge member depends in free swinging relation, a mount for said arm having a pivotal connection to said vertical support, and pivotal attaching means connecting said arm to said mount for swinging movement about an axis in spaced relation to the axis of the pivotal connection of the mount and the support, the gauge member being set by adjustment of the slide and mount to hang to a predetermined point with respect to the saw being gauged, whereby any teeth thereof projecting above such point as the saw is rotated therepast strike and cause the gauge member to swing.

2,823,464

FLIGHT INDICATING SYSTEM

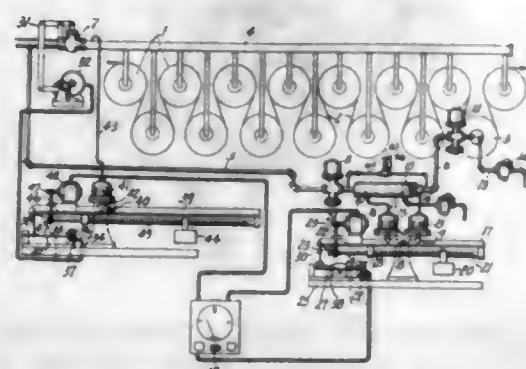
Reuben P. Snodgrass, Lake Ronkonkoma, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 8, 1954, Serial No. 403,018
15 Claims. (Cl. 33—204)



1. In an aircraft flight indicating instrument the combination of an indicium mounted for movement in at least one degree of freedom, a reference index, means including a vertical reference device for deflecting said indicium from said reference index in a direction and to an amount depending upon the direction and magnitude of the roll attitude of said aircraft, and indicator means for indicating a desired change in heading of said aircraft from an initial heading as a deflection of said indicator from said reference index in a direction therefrom the same in sense as the movement of said indicium produced by the roll attitude of the aircraft required to produce a turn thereof in a direction to approach said desired heading whereby a substantially asymptotic flight approach to said desired heading will be attained by progressive corrections of craft roll attitude necessary to effect and maintain alignment of said indicium with respect to said heading indicator.

2,823,465 MOISTURE CONTROL SYSTEM FOR PAPER DRYING MACHINES

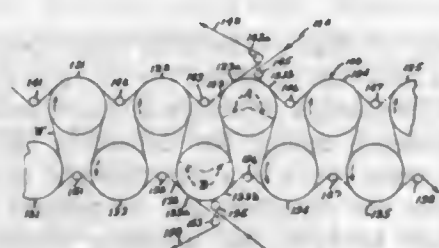
Adam E. Armstrong, Three Rivers, Mich., assignor to Armstrong Machine Works, Three Rivers, Mich.
Application September 30, 1953, Serial No. 383,154
16 Claims. (Cl. 34-48)



1. In combination with a web drier having a series of drying rolls with an indicating roll near the dry end thereof and separate steam supply pipes to the indicator roll and the remainder of the rolls of the series, constant pressure regulators and an orifice forming member in the pipe to said indicator roll, a flow responsive balance beam subject to the differential of pressure on opposite sides of said orifice and having an adjustable balance weight, a reversible motor connected to adjust said balance weight, a switch contact movable by said beam between a pair of terminals, a valved bypass conduit connected around the orifice to adjust the sensitivity of the response of said beam to flow to said indicator roll, a second balance beam subject to the pressure in the pipe to said series of rolls and having an adjustable balance weight, a second reversible motor connected to adjust said second weight, a manual switch electrically connected to alternately connect said pair of terminals to said first and second motors, a valve controlling the flow of said pipe to said series of rolls, a third motor connected to regulate said valve, a switch actuated by said second beam and alternately engageable with a second pair of terminals, said second pair of terminals being connected to reversely energize said third motor, and a fourth motor energized through said manual switch and mechanically connected to oscillate said first pair of terminals in the line of movement of said first switch contact.

2,823,466 DRYER FELT ARRANGEMENT

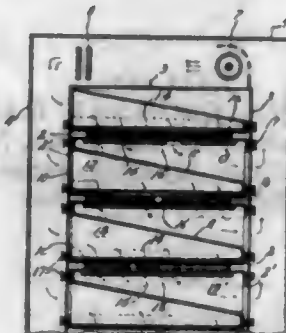
Edward D. Beachler, Beloit, Wis., assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin
Application March 16, 1956, Serial No. 572,132
2 Claims. (Cl. 34-117)



1. In a tier of paper dryer rolls in a paper machine dryer section, first, second and third dryer rolls mounted in succession, each roll having a traveling paper web covered surface region, a first felt urged against the web covered region of the first roll and against a first portion of the web covered region of the second roll, and a second felt separate and apart from the first felt urged against a second portion, spaced from the first portion of the web covered region of the second roll and also urged against the web covered region of the third roll.

2,823,467 APPARATUS FOR THE DRYING OF THIN WOOD SHEET

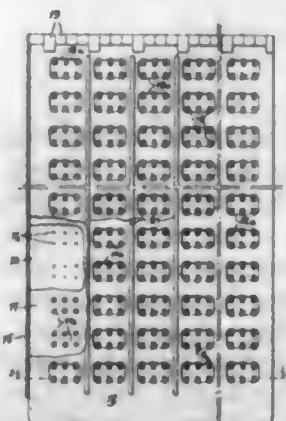
Masatsugu Minami, Meguro-ku, Tokyo, Japan
Application July 28, 1954, Serial No. 446,240
2 Claims. (Cl. 34-155)



1. Apparatus for drying thin wood sheets, comprising a cubical casing having spaced apart inner and outer walls, a plurality of substantially parallel spaced apart partitions extending across and within the inner wall of said casing, opposing inner walls and outer walls of said casing and said partitions having slots therethrough extending in line for the passage of the sheets to be dried, a plurality of rollers rotatably carried by said casing opposing inner walls and said partitions each on a side of one of said slots, means for rotating the rollers of each slot in a direction opposite to one another, means for drawing air from one side of the remaining inner walls of said casing and blowing and heating air to the other side of said remaining inner walls, said drawing and blowing and heating means being positioned between said casing inner and outer walls, a plurality of series of superimposed alternating inlet and outlet chambers extending laterally of said casing between said partitions with each of the inlet chambers having an end opening for receiving said heated air on a side opposite to a similar end opening in each of said outlet chambers, the remaining inner walls of said casing having openings corresponding to and in line with said chamber openings for feeding air to said inlet chambers and drawing air from said outlet chambers, said chambers of each series being spaced apart for the passage of the sheets to be dried and having openings provided in opposing sides thereof and heating means provided in each outlet chamber adjacent the side openings of said chambers.

2,823,468 PAPER HOLDER AND STYLUS FOR PRODUCING RAISED CHARACTERS OF THE BRAILLE SYSTEM

Antonio Mora, New York, N. Y.
Application November 23, 1954, Serial No. 470,664
3 Claims. (Cl. 35-38)



1. A paper holder for embossing Braille dots in the upper surface of a sheet of paper comprising a paper holder composed of a relatively stationary base plate of sheet material having a width and length similar to a conventional sheet of paper and adapted to support and

2,823,471 SLEEVE PRESSING PAD

Alethea A. Jennings, Cleveland, Ohio
Application November 25, 1955, Serial No. 548,944
2 Claims. (Cl. 38-141)

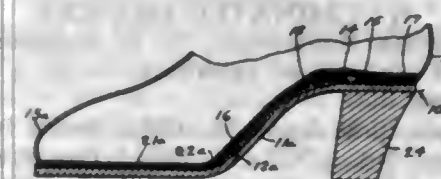


fit beneath such conventional sheet of paper, said base plate having upwardly projecting points of pins arranged in a multiplicity of aligned series disposed in accordance with the conventional Braille system of six dots in a series, means arranged in combination with said bottom plate to permit a blind person to guide into contact with one or more of each of such a series of points so arranged in accordance with the Braille system, an instrument adapted to enable production in the paper of upwardly-embossed Braille characters by the use of said instrument comprising, a top plate provided with apertures fitting over the points and adapted to guide the movement of the instrument over a given pin in each series of dots so as to enable the embossing of such dots in the paper by a blind person, said upper stylus guiding plate being provided with a series of longitudinal ribs adapted to guide a dot-embossing instrument during a touching of the points in a series of such points so arranged in accordance with the Braille system.

2. A garment pressing pad comprising, a tubular body of tapering form adapted to be inserted within at least the shoulder-adjacent portion of a suit coat sleeve and having front and rear upper portions of different areas, the exterior dimension of said pad being substantially the equivalent of the interior dimension of a suit coat sleeve, the rear portion of said tubular body being of sufficient area to extend above the armpit portion of the sleeve and adjacent to the rear shoulder portion of the coat, said body being capable of being turned inside out to operatively reverse it front for rear and thereby adapt it for proper pressing association with either a right or a left sleeve.

2,823,469 SHOE

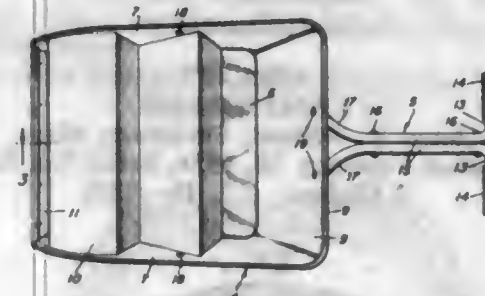
William R. Eberhart, Atlanta, Ga.
Application May 14, 1956, Serial No. 584,808
1 Claim. (Cl. 36-2.5)



A shoe comprising a sole, an upper secured to said sole, an insole secured to said sole and having a forward portion, an arch portion, and a heel portion, a transversely extending block secured to the upper side of said insole at the extreme rear of said arch portion closely adjacent to said heel portion, a resilient flexible strap overlying and engaging said block and secured at its opposite ends to said insole at the rear of said heel portion and at the forward edge of said arch portion respectively with said strap vertically spaced from said insole adjacent said block, and a resilient cushion panel overlying said strap and said block.

2,823,470 SNOW SCOOP

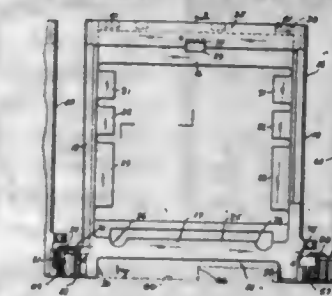
Phillip N. Page, Leominster, Mass.
Application August 3, 1956, Serial No. 601,932
1 Claim. (Cl. 37-53)



A snow scoop comprising: a handle, a blade mounted on one end portion of said handle, said blade including a substantially flat bottom and upwardly inclined marginal side and back portions, and a raffle mounted transversely on the bottom and having a front portion constituting a flange seated on the bottom of the scoop, said bottom including an upwardly and rearwardly bent flange on its forward end overlying the flange of the raffle.

2,823,472 LINKED HOLDERS FOR LANTERN SLIDES

Fred Waller, Huntington, and Waldo M. MacLaury, Cold Spring Harbor, N. Y.
Application May 7, 1954, Serial No. 430,217
3 Claims. (Cl. 40-64)



1. A chain for holding a number of slides for display in sequence, said chain including a plurality of individual slide holders each of which has a frame for supporting a slide in a fixed position with respect to the holder, pivotal connections between the respective slide holders, a spring clip attached to each of the slide holders adjacent to the upper end of the slide holder, and a tab extending from a portion of each clip across the top of a slide positioned in the frame to prevent displacement of the slide from the frame, the clip having indexing notches in another portion, the indexing notches of the clips on different slide holders being differently located for the purpose of selectively controlling other apparatus in connection with the display of the respective slides.

2,823,473 DISPLAY SIGNS

Gilbert C. Jacobs, Milwaukee, Wis., assignor to Everbrite Electric Signs, Inc., Milwaukee, Wis., a corporation of Wisconsin
Application November 21, 1956, Serial No. 623,568
9 Claims. (Cl. 40-125)

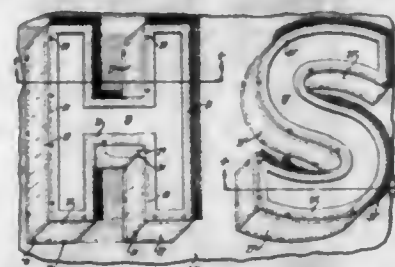
8. An illuminatable display, comprising a relatively large rectangular, open frame with internal brace bars, a composite, light permeable facing covering a side of the frame and formed of a plurality of elongated side-by-side strips of corrugated sheet material with the corrugations running lengthwise of the strips, the longitudinal margins of adjacent strips being formed with intumed lapped flanges having complementary joints, anchor members

securing portions of the strip flanges together and projecting inwardly therefrom for securement to the internal brace bars of the frame, the forward ends of the anchor members being shiftably secured to the lapped portions



of the strips, display character mounting clips adjustably and removably engaging exterior portions of certain ribs of the strip corrugations, and display characters detachably carried by said clips in superimposed relation to outer surface portions of the composite facing.

2,823,474
ILLUMINATED SIGN CHARACTER
Harold Hotchner, San Francisco, Calif.
Application June 8, 1953, Serial No. 360,270
13 Claims. (Cl. 40—130)

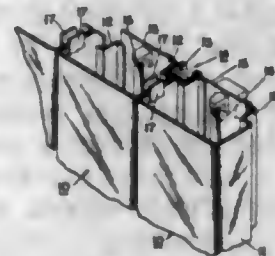


1. A display comprising a substantially opaque character outline-defining means having an open channel therein conforming in pattern to a selected character outline, light transmissive border sections secured to a portion of the periphery of the outline-defining means and extending outwardly from the character outline and simulating the shadow cast by the character illuminated by light from an external source, light opaque side closure sections secured also to the periphery of the outline-defining means and extending in a direction generally at right angles to the plane of the border sections, one of said sections being opposed to the illuminating direction to form a support element for the display and to space the outline-defining means from a supporting surface, the said border sections and side closure members being located an opposite peripheral edges of the character outline with each side closure member section being arranged approximately opposite to a border section, the display being adapted for illumination by light originating in regions beneath the character and removed from the open channel so that light is visible through the border sections and appears as illumination observable through the character outline conforming channel.

2,823,475
SPECTACULAR SIGN
John C. Packard, Bristol, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
Application March 21, 1956, Serial No. 572,870
1 Claim. (Cl. 40—130)

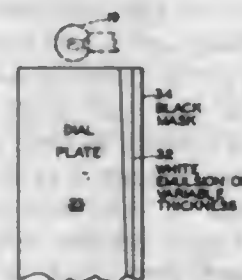
A sign of the spectacular variety comprising a plurality of relatively small modular units of plastic through which

light may pass, supporting structure for said units, each modular unit having at least two side walls parallel to each other and an intermediate wall between said side walls, the intermediate walls of said modular units being of a configuration such that they fit closely adjacent one another but sufficiently apart to provide for expansion and contraction due to temperature changes without substan-



tial distortion of said intermediate walls, said intermediate walls presenting a substantially uninterrupted viewing surface, said parallel side walls of each of said modular units being directly secured to said supporting structure, means carried by said supporting structure comprising lighting elements each of which extends into a modular unit, and hinged means for closing the open ends of said modular units.

2,823,476
ILLUMINATED DEVICES
George S. Miles, Englewood, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Original application April 23, 1952, Serial No. 283,933, now Patent No. 2,772,498, dated December 4, 1956. Divided and this application April 18, 1956, Serial No. 579,078
5 Claims. (Cl. 40—130)



1. A device of the type described comprising a transparent member having indicia thereon, a source of illumination positioned and arranged with respect to the member so that light rays are transmitted therethrough to illuminate the indicia, and a compensating filter on said member of variable thickness for varying the brightness values of the rays illuminating the indicia, the opacity of said filter corresponding to the thickness thereof.

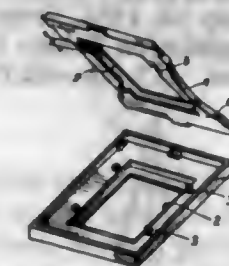
2,823,477
LAMP SHADE
Henry F. Willard, Fitchburg, Mass.
Application February 20, 1956, Serial No. 566,620
2 Claims. (Cl. 40—131)



2. A lamp shade having a window opening therein, a transparent cover fitting flush against the inside of the shade behind the opening, a frame having a picture of

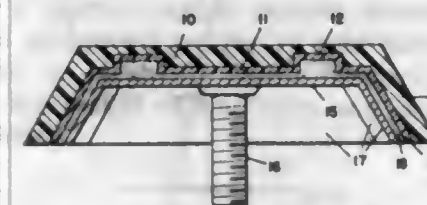
light penetrating material displayed therein, a translucent cover secured to the rear of the frame, and means constituting a structural part of the shade near the top and bottom thereof and on the inside of the shade removably supporting the picture in the window opening behind the first-named cover.

2,823,478
FILM STRIP MOUNT
Bent Högsbro Östergaard, Thorstruphus pr. Sig, Knud Högsbro Östergaard, Aastrup pr. Glesbørg, and Godfred Kirk Christiansen, Billund, Denmark
Application November 23, 1954, Serial No. 470,772
Claims priority, application Denmark November 28, 1953
2 Claims. (Cl. 40—152)



1. A film strip mount comprising a holding frame and a cover for said frame, said frame having a picture window conforming in shape and size substantially to the picture area on a film strip having the usual perforations, said picture window having a length less than the film picture length by an amount equal to one-half of the pitch of the film perforations, said frame also having pairs of spaced apart fastening pins respectively at opposite sides of said picture window which are receivable respectively in spaced pairs of said perforations, said pairs of pins being disposed eccentrically in relation to the transverse center line of the picture window and the common median line between the pins of said pairs being spaced from said picture window center line by a distance equal to one-quarter of the pitch of the film strip perforations so that any position of the picture area on the film strip in relation to said perforations will coincide with the picture window and no light streaks will appear at the opposite side edges of the picture area when the picture area is viewed or optically projected, said cover having a window conforming in shape and size to the picture window in the frame, said cover also having provision for determining the correct location of the mount in a projecting apparatus so that the picture area will be disposed right side up.

2,823,479
ORNAMENTAL ARTICLE
Richard E. Zdanowski, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
Application October 25, 1955, Serial No. 542,644
1 Claim. (Cl. 41—34)



An ornamental article comprising a plastic body having a rearwardly and outwardly extending continuous wall circumscribing a recess in the rear face thereof which is substantially coextensive in area with its front face except for the thickness of said wall, at least two layers of opaque coating material applied to said recess, the layer immediately adjacent to the plastic serving for

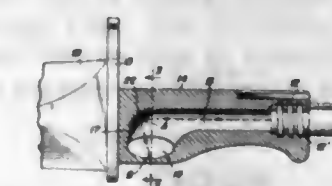
decorative purposes and the other layer serving to protect the plastic and decorative layer, a metal plate having on one side means rigidly affixed thereto whereby the composite article may be attached to other articles of manufacture, the other side of said metal plate substantially conforming in area and contour to the entire recessed portion of said plastic body, said metal plate and said plastic body being circumferentially bonded to each other throughout substantially the entire area and contour aforesaid by means of an adhesive.

2,823,480
RECEIVER CONSTRUCTION
Thomas R. Robinson, Jr., New Haven, Conn., assignor to The Marlin Firearms Company, New Haven, Conn., a corporation of Connecticut
Application April 2, 1954, Serial No. 420,605
4 Claims. (Cl. 42—75)



1. In a firearm, a barrel, a receiver secured to the barrel, and having a bolt guide channel in axial alignment with the barrel including an upper wall and depending side walls, and having a downwardly facing open chamber below said bolt guide channel, said receiver also having a forward and a rearward downwardly extending integral lug of width substantially less than the distance between the said side walls, whereby the side faces of the lugs are spaced inwardly from the inner faces of the side walls, a unit removably engaged in said open chamber having an upper portion constituting the base of said channel, said unit having side wall portions intermediate its ends the upper edges of which extend into said chamber and to be retained against outward movement by the side walls of the receiver and having forward and rearward integral extensions adapted to receive between them the forward and rearward downwardly depending integral lugs of the receiver to retain the side walls thereof against inward displacement, a bolt engaged in said channel for reciprocating movement, the upper portion of said unit having a horizontal guide portion in downwardly spaced relationship to said upper wall of the receiver which in cooperation with said upper wall and side walls of the receiver guides the bolt in its reciprocating movement.

2,823,481
EXCAVATING TOOL COMBINED WITH A FIREARM
Stephen M. Walter, Washington, D. C.
Application July 1, 1954, Serial No. 440,685
6 Claims. (Cl. 42—93)



1. In combination with a fire-arm having a barrel, an excavating tool secured to the discharge end of said barrel, the terminal end of said tool being disposed forwardly of the discharge end of said barrel, and means on said tool for receiving the impact from a bullet fired by said barrel to deliver a longitudinal thrust to said terminal end in a direction parallel to said axis and to deflect the bullet laterally of the axis of said bore.

2,823,482
FISHING ROD
 Adolph Kremski, Flint, Mich.
 Application July 14, 1955, Serial No. 522,071
 3 Claims. (Cl. 43—19)



1. A fishing rod comprising a tubular butt section, a tubular tip section of smaller diameter than said butt section telescopically mounted in said butt section for movement to an extended position whereby the major portion of said tip section is outwardly of said butt section or to a retracted position whereby the major portion of said tip section is within said butt section, said tubular butt section and said tubular tip section having the interiors thereof open to one another and being adapted to have a line extending therethrough and freely slidable therein, a ring fixed on the inner end of said tip section and in slidable engagement with the inner surface of said butt section, a bushing on the outer end of said butt section through which said tip section slides, a contractile coil spring within said butt section and about said tip section and having its rear end reduced in diameter and slidable on said tip section, attaching means connecting the forward end of said spring to the forward end of said butt section, a collar fixed to said tip section and disposable within said contractile spring, a compression coil spring within said contractile spring and bearing against one end of said collar and the reduced end of said contractile spring, and a trigger mechanism supported on said butt section for engaging said ring and holding said tip rod section in retracted position against tension of both of said springs.

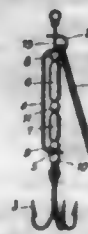
2,823,483
COMBINATION FISH POLE AND SLINGSHOT AS A FISHING DEVICE
 John O. Malott, Arlington, Va.
 Application November 30, 1956, Serial No. 625,265
 1 Claim. (Cl. 43—19)



A combination bait caster and fish pole comprising an elongated pole having at one end thereof a frame includ-

ing two prongs, a fishing reel having a line wound thereon and a lure connected to the end thereof, means for detachably connecting said fishing reel to said fishing pole at the opposite end thereof, a line guide secured to said pole between said frame and the reel connecting means, said guide being adapted to have the line threaded therethrough, a bait caster including a pair of elastic bands secured at one of their ends each to a prong of the frame and having a cup secured to the free ends of said bands in such a manner as to receive said lure whereby the same can be projected out into space by said bait caster when the same is actuated.

2,823,484
ROTARY SPOON BAITS
 Maurice Bousquet, Paris, France
 Application February 16, 1954, Serial No. 410,567
 Claims priority, application France June 11, 1953
 2 Claims. (Cl. 43—42.19)



1. A rotary spoon for use in fishing; comprising an elongated spindle provided with a loop at one of its ends for receiving a leader and with hook means at its other end, one U-shaped yoke section having first and second spaced apart legs and an arcuate portion interconnecting said legs, said legs being provided, respectively, with aligned perforations, said spindle extending through said perforations and supporting said one U-shaped yoke section adjacent said one end of said spindle with said first leg located adjacent said loop, a blade member loosely engaged by said arcuate portion and positioned at the same side of the spindle at which said one U-shaped yoke section extends, another U-shaped yoke section forming a continuation of said one section and directed lengthwise of and at a side of said spindle opposite to that of said one U-shaped yoke section, said other section being provided with a third leg bent back and perforated for passage of said spindle therethrough, the length of said other section being considerably greater than the distance between the legs of said one section and the combined length of said one section and said other section corresponding approximately to the entire spindle length located between said loop and said hook means.

2,823,485
FISHHOOKS
 Erhard Traummüller, Schwabach, Germany
 Application March 27, 1956, Serial No. 574,163
 5 Claims. (Cl. 43—43.16)



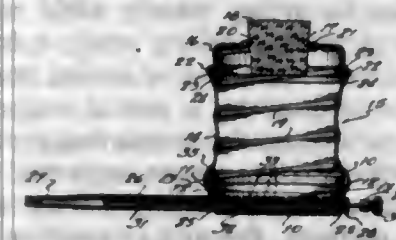
1. A fishhook, comprising a point at the end of said hook, a barb spaced from said point, and at least two oppositely directed bulges in the hook section between the point and the barb.

2,823,486
EASILY REMOVABLE FISHHOOK
 Roy J. Bebee, Leavenworth, Kans.
 Application May 14, 1956, Serial No. 584,703
 1 Claim. (Cl. 43—43.16)



Fishhook structure comprising an elongated, rigid shank provided with an eye at one end thereof; a substantially U-shaped, rigid hook portion having a first leg integral with and extending from the other end of the shank, a bight integral with and extending from the extremity of the first leg remote from the shank, a second leg integral with and extending from the extremity of the bight remote from the first leg, and a barb integral with and disposed at the extremity of the second leg remote from the bight, said bight being provided with a hole therethrough intermediate its extremities; an elongated, flexible element passing through the hole adjacent one end thereof and secured only to the bight at said end thereof, said element extending from said one end thereof along the shank; and means adapted for securing said eye of the shank and the other end of the element to a fishing line.

2,823,487
DISPENSER FOR POWDERED SUBSTANCES
 Louis Mandlak, Fort Worth, Tex.
 Application October 31, 1955, Serial No. 543,736
 7 Claims. (Cl. 43—146)

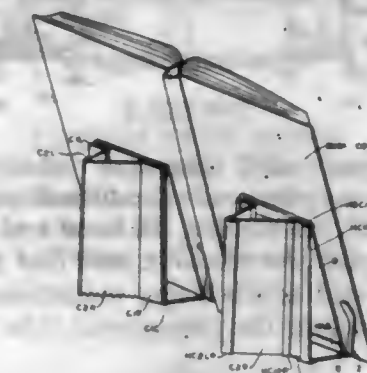


1. In a dispenser for powdered insecticides, and the like, having a compressible container operable as a bellows, and having a base portion and a top portion providing a pliable tubular closed structure, a discharge tube having its inner end fixed in said base portion and extending therefrom transverse to the axis of said base portion, and having a tapered nozzle portion formed toward its outer end, a perforated portion of said tube in said base portion, and a cleanout needle removably arranged throughout the length of said tube and securable in the inner end thereof.

2,823,488
BOOKREST
 Elsie-Mlo Brown, Washington, D. C.
 Application April 3, 1953, Serial No. 346,679
 19 Claims. (Cl. 45—57)

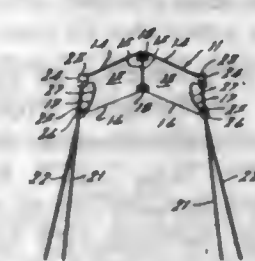
1. In a bookrest for supporting a book in inclined position on a relatively horizontal surface, said book having a cover, the combination of foldably and permanently connected panels which includes a rigid compression

structure, this rigid structure comprising a first flat panel with a folding rib structure attached thereto, this folding rib structure comprising a flat trapezoidal panel contacting the first flat panel along a first edge of the trapezoidal panel, and being flexibly and permanently connected thereto, and rib structure holding means extending from a second edge of each trapezoidal panel, which second edge is opposite from said first edge, to the first flat panel and which rib structure holding means is permanently and



flexibly attached to and rigidly holds the trapezoidal panel in a plane at an angle to the plane of the first panel whereby said flat trapezoidal panel, in the operating position of the bookrest acts as a rib to reinforce and make rigid the first panel; a flat inclined member flexibly joined to the upper edge of said rigid compression structure and extending to the lower edge of a cover of said book; and a further flat horizontal member flexibly joined to the lower edge of said rigid compression structure and extending to the lower edge of said book cover.

2,823,489
READING STAND
 Bertha V. Laing, Detroit, Mich.
 Application February 4, 1957, Serial No. 637,919
 7 Claims. (Cl. 45—82)

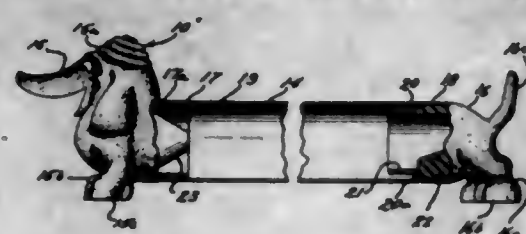


1. A reading stand for supporting reading material in an inverted open face position comprising a transparent support member having two angularly related sections, the line of intersection of said sections being higher than the side edges thereof, leg means attached to the underside of said support member, said leg means being proportioned to support said support member so that said line of intersection is at an angle to a base plane defined by said leg means whereby reading material straddling said line of intersection will be supported with its top edge higher than its bottom edge, and abutment means positioned to engage said bottom edge to maintain said reading material on said support member upper surface.

2,823,490
CONTAINER CONVERTIBLE TO A TOY
 Paul D. Griem, Toledo, Ohio, assignor to Owens Brush Company, Toledo, Ohio, a corporation of Ohio
 Application June 29, 1955, Serial No. 518,820
 3 Claims. (Cl. 46—11)

1. A package comprising an elongated article having a head end portion and a tail end portion, an elongated hollow transparent tube open at both ends axially receiving the article to retain the same therein, a first plug having a first projection thereon releasably and snugly fitting

within one tube end and a first recess in said first projection, and a second plug having a second projection thereon releasably and snugly fitting within the other tube end and a third projection extending outwardly from said second projection and being of smaller cross-section to snugly fit into said first recess, both said plugs having feet por-

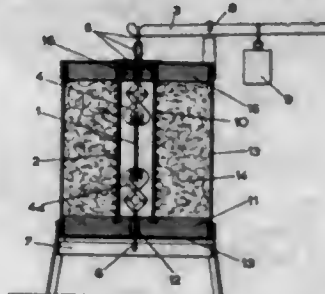


tions extending in parallel alignment therefrom to support said package on a surface with the tube in generally parallel alignment with the surface, the head end of said article extending into said first recess in said first projection and the tail end of said article being maintained in fully exposed position within the transparent tube by said third projection.

2,823,491

PRODUCTION OF BIREFRINGENT GLASS

Bernard Long, Paris, France, assignor to Compagnies Reunies des Glaces & Verres Speciaux du Nord de la France, Paris, France, a corporation of France
Application May 3, 1955, Serial No. 505,768
Claims priority, application France October 18, 1950
9 Claims. (Cl. 49-89)



1. The process of producing an annealed glass sheet having permanent birefringent properties which comprises heating a borosilicate glass sheet containing by weight from 50-75% SiO_2 , 5-25% B_2O_3 , and less than 5% Al_2O_3 , to a first temperature at which the viscosity of said glass ranges between 10^{10} and 10^{12} poises, applying an external mechanical force to said glass sheet at said first temperature, reducing the temperature of said glass sheet to a second temperature at which the viscosity exceeds 10^{12} poises while continuing the application of said external force, and thereafter cooling said glass gradually to room temperature in such manner as to inhibit the retention therein of permanent internal stresses resulting from temperature gradients created in the glass during the cooling steps, whereby an annealed glass sheet is obtained exhibiting permanent birefringent properties, said glass being cooled in such manner as to inhibit the retention therein of permanent internal stresses resulting from temperature gradients created in the glass during the cooling steps.

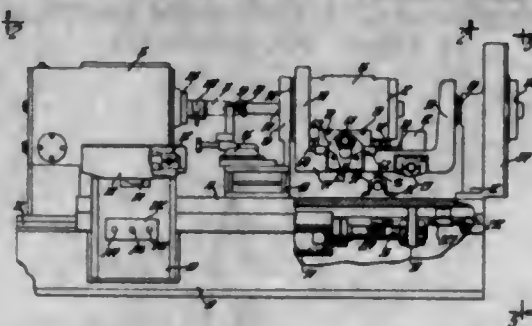
2,823,492

GRINDING MACHINE AND METHOD

Robert M. Arbuckle, Shelbyville, and Joseph R. Hamilton, Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 16, 1954, Serial No. 443,854
7 Claims. (Cl. 51-32)

1. The method of compensating for work tool wear in a profiling machine having the work surface of a work member adapted to generate an arcuate path about the rotational axis of a preferred work tool, which meth-

od includes disposing the working edge of a worn work tool tangentially of said arcuate path, and oscillating said worn tool in an arcuate path concentric with said first-

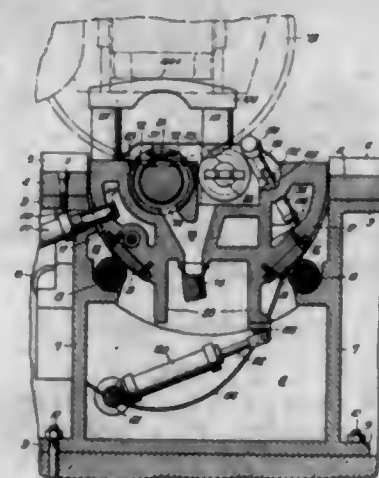


mentioned arcuate path and in timed relation with the movement of said work surface within said arcuate path for maintaining said working edge in continuous working engagement with said work member.

2,823,493

WHEEL TRUING MACHINE

Richard B. Stanley, Park Ridge, Ill., assignor, by mesne assignments, to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware
Application July 9, 1956, Serial No. 596,764
32 Claims. (Cl. 51-104)



1. In a device for truing wheels while mounted in a truck assembly of railway rolling stock, a frame, a rock beam supported on said frame and having portions engaging said wheels to provide a partial support therefor, means on said rock beam for supporting a pair of finishing tools, and wheel driving means supported by said rock beam for engaging the wheels to be trued to provide a partial support therefor, the axis of rotation of the rock beam being horizontal and being so located between vertical planes running through the axes of rotation of the finishing tool supporting means and the means for rotating the wheels to be trued so that a force exceeding more than half of the weight on the rock beam is exerted by said means for rotating the wheels against the peripheries of wheels to be trued.

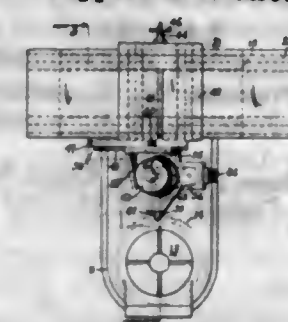
2,823,494

GEAR TOOTH GRINDER HAVING RADIALLY DIRECTED BELT

Samuel S. Board, Jr., Snyder, N. Y., assignor to Farrel-Birmingham Company, Incorporated, Ansonia, Conn., a corporation of Connecticut
Application September 19, 1955, Serial No. 535,078
9 Claims. (Cl. 51-142)

3. A gear-grinding apparatus comprising a support for carrying a gear blank, means rotatably mounting said support, a belt having abrasive elements thereon, means for supporting and guiding said belt for movement against the face of a gear tooth on said blank in a rec-

tilinear path substantially transverse to the axis of the blank to cause said belt to move in and out of the space between two adjacent teeth, means on said belt support for moving said belt in the direction of its length relatively to its support, means for rotating the blank, means for moving the belt support in a direction to cause the

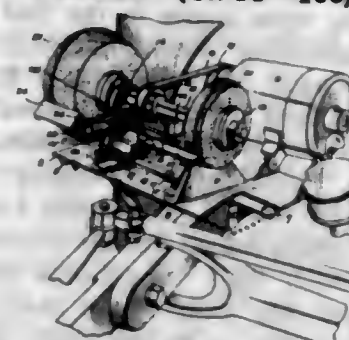


belt to follow the face of the tooth during movement of the blank, and a backing member projecting outwardly from the supporting means and having a terminal nose portion extending into the space between two adjacent teeth on the blank, the belt being trained over the nose portion of said backing member so as to move substantially directly toward and from the axis of the blank.

2,823,495

GRINDER ATTACHMENT FOR VEHICLES

Harold R. Arve and James Barker, Homestead, Fla.
Application March 22, 1956, Serial No. 573,141
4 Claims. (Cl. 51-166)

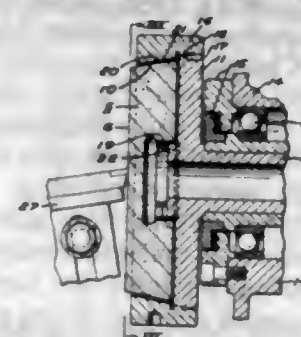


1. In a grinding machine, a base, supporting standards rising in spaced parallelism from said base, a plate pivoted inwardly from its ends to each of said standards upon adjacent sides thereof, tie bars disposed between said plates and rigidly connected at their ends to the latter, a shaft rotatably mounted between said plates and carried near one end of the latter, set screws passing through said plates near the opposite ends thereof to bear against said standards to hold the plates and shaft in any desired pivotal adjusted position in relation to the base, grinding wheels affixed to said shaft, and a belt pulley on said shaft to receive a power belt.

2,823,496

GRINDING DEVICES

Otto W. Winter, Grand Island, N. Y.
Application March 16, 1953, Serial No. 342,550
10 Claims. (Cl. 51-168)



9. A grinding device, comprising a grinding wheel, a shaft for mounting said wheel, a flange carried by said

shaft, said grinding wheel having an outer periphery of cone-frustum shape and an inner cylindrical periphery, said flange being in supporting relation to the adjacent face of said wheel and having wheel-supporting means engageable with the inner periphery thereof, said supporting means extending over only a portion of the inner periphery thereof, and a continuous reinforcing ring member supported by said flange and having a wheel engaging surface portion of cone-frustum shape extending over the major portion of the outer cone-frustum shaped periphery of said wheel.

2,823,497

CORRECTION HONE

Thomas E. Brooks, Clarinda, Iowa, assignor to Lisle Corporation, Clarinda, Iowa, a corporation of Iowa
Application August 22, 1955, Serial No. 529,687
9 Claims. (Cl. 51-184.3)

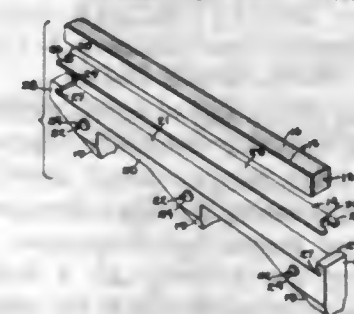


2. In a tool of the character disclosed, a base cam and a top cam connected together, tension springs having their ends connected to said cams, a rod extending from said top cam and being threaded, a head having a bore receiving said extending end of said rod, means on said extending end to propel said head toward said cams, said cams having cam lands inclined in directions parallel to each other, and tool carriers each having a cam face engaging a land of each of said cams and an end engaging said head, said carriers having spring hooks receiving intermediate portions of said springs.

2,823,498

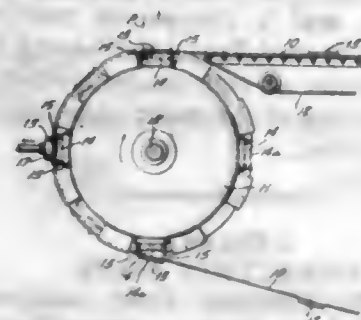
HONING ELEMENT

George A. Saunders, Rockford, Ill., assignor to Barnes Drill Co., Rockford, Ill., a corporation of Illinois
Application April 5, 1956, Serial No. 576,402
3 Claims. (Cl. 51-204)



2. For use in a hone having a cam follower plate with outstanding lugs near opposite ends defining opposed notches facing toward each other along the outer edge of the plate, a honing element comprising a stick of bonded abrasive adapted to fit between said lugs, a strip of nonmetallic material covering at least one side of said stick and extending to the bottom thereof, and a flat bar extending along and rigidly secured to the bottom of said stick with one edge underlying and engaging the lower edge of said strip, the ends of said bar projecting beyond the ends of said stick and being adapted to enter said notches by bodily edgewise movement of the bar while lying against said plate edge.

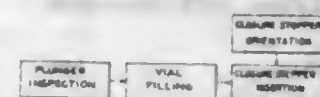
2,823,499
METHOD OF AND APPARATUS FOR WRAPPING
SOFT SUBSTANCES
 Clarence W. Vogt, Norwalk, Conn.
 Application February 24, 1954, Serial No. 412,234
 9 Claims. (Cl. 53—14)



1. A method for reversely bending curved reinforcement strips of enwrapments wherein the reinforcing strips extend beyond the edges of the enwrapments comprising the steps of delivering the enwrapment with the reinforcement strip applied thereto to a movable holder, engaging a face of the reinforcement strip and applying pressure thereto to reversely bend it, gripping the edges of the reinforcement strip beyond the edges of the enwrapment to maintain the reverse bend therein, and releasing the edges of the reinforcement strip to permit it to straighten out.

4. Apparatus for reversely bending curved reinforcement strips of enwrapments wherein the reinforcement strips extend beyond the edges of the enwrapments comprising, means for translating the enwrapment and the reinforcement strip toward the wrapping position, gripper jaws for receiving the reinforcement strip between them, and means for engaging the reinforcement strip and reversely bending it in a manner opposite to the original curved shape thereof, said gripper jaws engaging the side edges of the reinforcement strip beyond the edges of the enwrapment to maintain the reverse bend therein, and thereafter releasing the reinforcement strip from the gripper jaws.

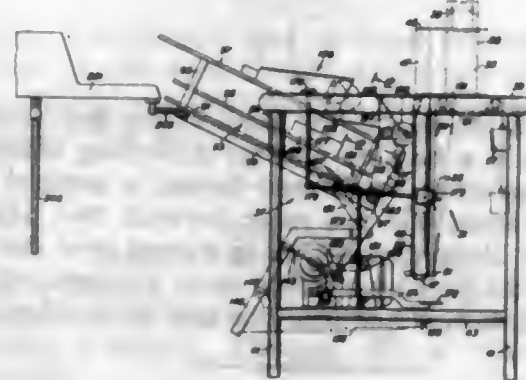
2,823,500
MACHINE FOR ASSEMBLING HYPODERMIC
SYRINGES
 Frank E. Brown, Burbank, Calif., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
 Application September 13, 1954, Serial No. 455,566
 7 Claims. (Cl. 53—53)



1. A machine for filling and stoppering cylindrical containers, comprising movable container supporting means for conveying a series of cylindrical containers in upright position, reciprocating jaws synchronized with said container supporting means and responsive to container depth for detecting the presence of a bottom-forming member within said containers and for removing from said supporting means those containers lacking such a member; filling means synchronized with said container supporting means and comprising a reciprocating cylinder having an outlet projecting within said container upon actuation of said cylinder for dispensing a measured amount of medicament therefrom, a slidable piston carried within said cylinder and provided with an adjustable stop for varying the stroke of the piston with respect to the cylinder, control means to actuate said piston and cylinder when said container supporting means conveys a container into alignment with said outlet; a stopper orientation hopper provided with a stopper-receiving chute projecting therewithin for receiving stop-

pers therefrom in unidirectional endwise alignment, a stopper insertion magazine connecting with said chute and provided with a reciprocating plunger for ejecting stoppers therefrom into said containers, said plunger being synchronized with said container supporting means.

2,823,501
MACHINE FOR FILLING AND CLOSING CARTONS
 Leon H. Tobey, Newark, N. Y., assignor to Bloomer Bros. Company, Newark, N. Y., a corporation of New York
 Application June 21, 1956, Serial No. 592,802
 4 Claims. (Cl. 53—76)

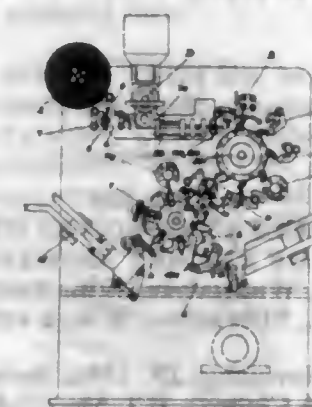


1. A machine for filling and closing the end of a carton having at least three end flaps, said flaps comprising a pair of opposed outer flaps foldable toward each other along substantially parallel lines and an inner flap foldable at substantially right angles to the fold lines of said outer flaps, interlocking means on said outer flaps adapted to be engaged for holding said flaps in closed position, said machine comprising movable platform means for supporting the carton in position for filling beneath a nozzle, yieldable means urging said platform and carton upwardly toward said nozzle, a chute through which said filled carton moves, means adjacent said chute for folding said outer flaps to positions substantially in alignment with the side walls of the carton during said movement of the carton, a second chute through which said carton is moved, means for moving said carton through said second chute, means adjacent said second chute moving faster than said carton for folding said inner flaps down across the open end of the carton, means engaging the outer surfaces of said outer pair of flaps for folding the same downwardly as said carton moves through said second chute, means cooperating with said last mentioned means for engaging the under surface of one of said outer flaps for guiding said locking means into interengagement for completing the closure of said end of said carton, and motor actuated means for driving said carton moving means and said means for folding said inner flap.

2,823,502
METHOD AND MACHINE FOR MANUFACTURING, FILLING, AND CLOSING OF BAGS
 Adolf G. F. Rambold, Viersen, Germany
 Application March 14, 1952, Serial No. 276,537
 Claims priority, application Germany March 15, 1951
 66 Claims. (Cl. 53—134)

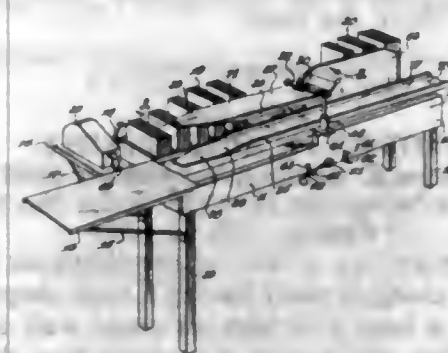
1. A machine for the manufacture and wrapping of individual tea bags and the like comprising means to hold a supply of a strip of liquid-penetratable bag-forming material, a feed roller assembly including a shuttle roller adapted to act intermittently to draw said strip from said supply means to insure a uniform feeding thereof from said assembly, a dosing assembly for depositing doses of tea and the like at spaced intervals along said strip, folding means for forming said strip into a flat tube around said doses, cutting sears for severing segments from said tube, a first conveyor wheel having a plurality of segment-

receiving zones spaced thereabout, each of said zones having therein anvil means for forming a W-fold at the midpoint of each of said segments and bag holding arms adapted to grasp the respective segments after said fold is formed, a plurality of devices spaced about the periphery of said first conveyor wheel to form bags including first and second forming devices having therein anvil and blade means for folding the outwardly extending flap portions of said segments, a third forming device having string supply means and anvil and driving means for forming and driving staples to seal said folds and to attach said string thereto, a fourth forming device for cutting said string into the desired lengths and guiding it about said bags, a second conveyor wheel including a plurality of cavity forming members disposed thereabout, transfer means for transferring said bag from said first conveyor wheel to said second conveyor wheel including tong means for



drawing said bag into said transfer means and tong means for expelling said bag therefrom into said second conveyor wheel cavities, means positioned about the periphery of said second conveyor wheel for forming an envelope about said transferred bag including an envelope blank stacking rack and pick up and feed means for feeding said blank individually from said rack to said second conveyor wheel, cutting means for partially severing a label from said blank during said feeding operation, a second staple-forming and driving means for forming a staple and attaching said string to said label portion, packaging means for placing said individually wrapped bags in cartons and the like, and transfer means for transferring said wrapped bag from said second conveyor wheel to said packaging means including knurling means for sealing the edges of said envelope, and reversing means for reversing every other wrapped bag.

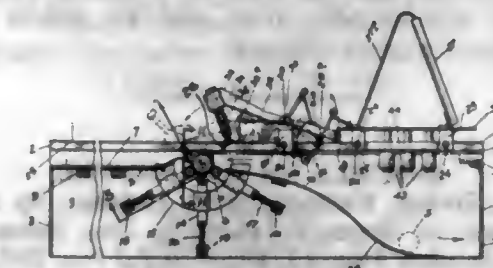
2,823,503
BAG DISTENDING AND SUPPORTING DEVICE
 Irving Wolf and Edwin A. Kuzniar, Chicago, Ill.
 Application June 29, 1956, Serial No. 594,762
 15 Claims. (Cl. 53—187)



3. A device for distending and gripping bags and the like during filling thereof, comprising a fixed longitudinally disposed guide plate and a movable longitudinally disposed guide plate arranged for relative movement to-

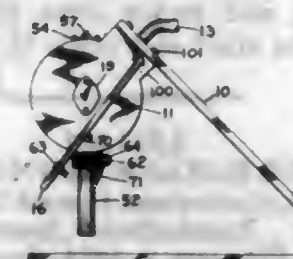
ward and away from each other, the upper of said plates having a transversely upwardly tilted lip adapted to compress filling materials between said guides, the movable plate having a spring tilting mechanism operably connected thereto whereby, upon application of excessive plate separating force, said movable plate will tilt; a gear operated elevator mechanism operably connected to said tilting mechanism and being adapted to raise and lower said guides, and a position control element operably connected to said elevator mechanism.

2,823,504
SIMPLIFIED COIN-WRAPPING MACHINES
 Harvey C. Nesbitt, Calgary, Alberta, Canada
 Application February 3, 1954, Serial No. 407,944
 12 Claims. (Cl. 53—213)



1. A device for wrapping rolls of coins comprising in combination with supporting framework therefor, a carriage adapted to be reciprocated within said framework, spaced and parallel guides attached to the upper sides of said framework, said carriage being supported within said guides, said carriage including a transversely situated carriage plate, a set of coin roll supporting rollers mounted transversely within said framework, resilient means mounting said rollers for limited movement in a plane normal to the axis of said rollers, a coin wrapper tray mounted transversely in advance of said set of rollers, means coacting with said carriage and mounted thereon, adapted to position an associated coin wrapper from said tray upon said rollers, means also on said carriage adapted to initiate the rolling of said wrapper around the associated roll of coins, said carriage plate being adapted to engage the upper surface of said coin roll, thereby completing said wrapping process as said carriage is moved along said framework, and further means associated with said carriage adapted to fold in the ends of said wrapper adjacent the ends of said coin roll.

2,823,505
AUTOMATIC BAG SELECTOR AND OPENER
 Virgil A. Lehmkuhle and Richard G. Oros, Grand Rapids, Mich.
 Application April 11, 1955, Serial No. 500,464
 9 Claims. (Cl. 53—386)



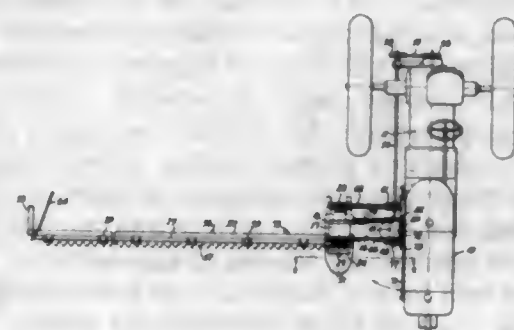
9. In a bag selecting machine adapted to be used with a source of vacuum, the combination comprising: a housing having a stationary member and a movable member; said movable member being biased to bag receiving position; a tubular casing on said movable member; a tubular plunger slidably received in said casing; an air passage in said casing adjacent said plunger; a vacuum operated motor for moving said movable member away from said bag receiving position when sufficient vacuum is applied

to it; conduit means for simultaneously exhausting air from said motor together with air entering through said plunger and said air passage; the size of said air passage being such that when the end of said plunger is closed, sufficient pressure differential will be created in said casing to raise said plunger but insufficient to move said motor; said motor being adapted to move said movable member away from said bag receiving position when the ends of both said plunger and said air passage are closed; a tubular arm movably connected to said housing for travel with said movable member as said movable member moves away from said bag receiving position; said arm being adapted to recede radially from said movable member as said movable member moves away from said bag receiving position; said arm having an air intake port adapted to become aligned with the end of said plunger as said movable member moves; means to exhaust air from said tubular arm, after said air intake port and plunger have become aligned.

2,823,506

DOUBLE SICKLE MOWER

George E. Irving, Fresno, Calif., assignor, by mesne assignments, to Bryce L. Parsons, Dos Palos, Calif.
Application May 13, 1955, Serial No. 508,195
6 Claims. (Cl. 56—25)



1. In a mowing machine, a frame, a body member rotatably mounted on said frame, a pair of superposed sickle bars, each of said sickle bars having a plurality of cutting blades mounted side by side lengthwise of the bar, means connected to said body member for carrying said sickle bars, a drive shaft mounted in said body member, a crank pin fixed to said drive shaft, a pair of rocker arms pivotally mounted on said body member and connected to said sickle bars, a connecting rod connecting one of said rocker arms to said crank pin, and a link inter-connecting said rocker arms whereby upon rotation of said drive shaft said sickle bars are reciprocated.

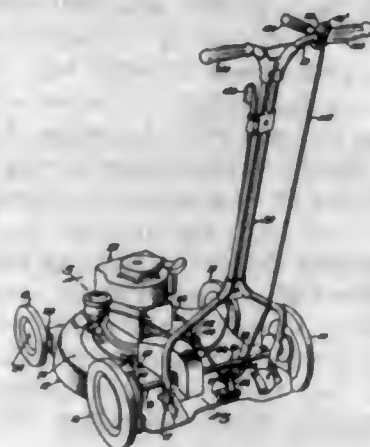
2,823,507

POWER ROTARY LAWN MOWER

Allyn R. Cooper and Harold M. Cooper,
Marshalltown, Iowa
Application February 6, 1956, Serial No. 563,514
13 Claims. (Cl. 56—25.4)

1. A rotary power mower comprising a housing, a plurality of ground wheels fixed to said housing for supporting said housing, an engine mounted on said housing for rotation about a vertical axis through the crankshaft of said engine, a cutting blade fixed to the end of said crankshaft and disposed within the housing, said engine having a cam shaft radially spaced from said crankshaft and carrying a pulley, a belt trained about said pulley and adapted to transmit driving power to at least one of

said wheels, and actuating means connected to said engine for oscillating said engine about said crankshaft axis to

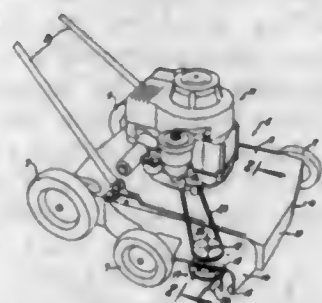


effect movement of said pulley, whereby said belt may be tightened or loosened to clutch the pulley with the wheels.

2,823,508

GUARD AND CLEANER FOR CLIPPING OUTLET OF ROTARY MOWER

Hugh S. Brown, Wauwatosa, Wis., assignor to Briggs & Stratton Corp., Milwaukee, Wis., a corporation of Wisconsin
Application November 19, 1956, Serial No. 622,965
6 Claims. (Cl. 56—25.4)



1. In a lawn mower of the type comprising a cutting element rotatable on a vertical axis, power drive means for the cutting element, and a wheeled carriage having a deck beneath which the cutting element is mounted and a skirt surrounding the cutting element and having an outlet at one side thereof through which grass clippings may be expelled, means for preventing clogging of said outlet with grass clippings and for preventing a person from contacting the cutting element through said outlet, said means comprising: a rotor journaled on the carriage adjacent to said outlet, said rotor having a plurality of circumferentially spaced apart fingers forming a barrier across the outlet; and transmission means providing a driving connection between the drive means and said rotor to drive the rotor.

2,823,509

COTTON PICKING SPINDLE

Maurice E. Lindsay, Bakersfield, Calif.
Application November 21, 1955, Serial No. 548,132
7 Claims. (Cl. 56—50)

1. A cotton picking spindle of the character described, including, an elongate body having a cone shaped picking portion with a base and with an outer wall converging to a tip portion and having a recessed face therein disposed longitudinally thereof, and picking means in the said portion and comprising a series of barbs extending longitudinally of said portion and projecting from said recessed face, each barb having an outer side wall in a plane facing toward the tip portion of the cone and an inner side wall slanted inwardly toward the base

and joining the recessed face and facing toward the base of the cone, the edge and the corner being substantially

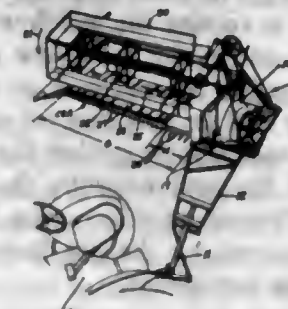


rounded where the inner wall joins the outer wall of the cone and the recessed face.

2,823,510

WINDROWER HAVING STALK BENDING MEANS

Carl A. Grasswick, Valley City, N. Dak.
Application September 8, 1953, Serial No. 378,761
17 Claims. (Cl. 56—192)

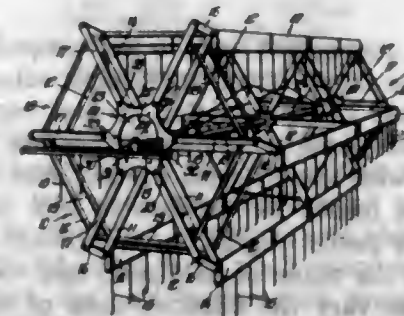


1. In a grain harvesting swather having a mobile frame and a cutter assembly composed of a cutter bar frame extending transversely of the direction of motion of the mobile frame, a plurality of standard cutter sections in spaced relation thereon and a reciprocable cutter bar having a plurality of cutter knives thereon, the improvement comprising forming at least some of said cutter sections with a bender horn extending downwardly and rearwardly below the cutter knives so as to form a vertical space between the cutter knives and said horn and bender means attached to the cutter bar so as to be reciprocable therewith, said bender means extending downwardly from the cutter bar into proximity to said horn for bending the cut stubble over said horn as the cutter bar and the knives and bender means thereon reciprocate and move with the mobile frame.

2,823,511

ECCENTRIC DEVICE FOR PICK-UP REEL

Clarence E. Beaty, Urbana, Ill., assignor to Harrison Cropsaver Co., Champaign, Ill., a corporation of Illinois
Application October 20, 1954, Serial No. 463,414
4 Claims. (Cl. 56—226)



1. An eccentric device for a pick-up reel, comprising an eccentric track roller unit mounted in eccentric rela-

tion to a shaft for the reel, said unit having a pair of side disks in parallel spaced relation and a series of spaced track rollers journaled in an arcuate series between said disks, said rollers projecting beyond the perimeter of said disks, and a movable bat control unit rotatably guided by said eccentric unit, said control unit comprising a housing formed from a pair of centrally apertured side plates the inner peripheral portions of which overlap the outer peripheral portions of said side disks, one of said side plates carrying radially inwardly of its inner periphery and transversely directed toward the other of said side plates an annular track the interior surface of which engages and is rollingly supported by said rollers.

2,823,512

LUMINOUS WATCH DIAL

James Oliver Le Van, Lancaster, Pa., assignor to Hamilton Watch Company, Lancaster, Pa.
Application September 8, 1954, Serial No. 454,728
1 Claim. (Cl. 58—50)



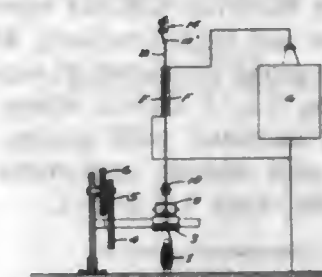
In a watch, a dial having a phosphor coated minute track, a hand revolving in close proximity to the dial, the coating to be such as to glow for fifteen seconds after exposure to ray emanations, a beta ray emitting substance carried on the undersurface of said hand and directly above said minute track.

2,823,513

APPARATUS FOR PRODUCING CURLED YARN

Louis Vandamme and Louis Rouyer, Saulce, France, assignors to Moulinsage et Retorderie de Chavanoz, Chavanoz, France, a corporation of France
Original application June 11, 1954, Serial No. 436,077, now Patent No. 2,761,272, dated September 4, 1956. Divided and this application July 11, 1956, Serial No. 597,302

Claims priority, application France June 19, 1953
1 Claim. (Cl. 57—34)

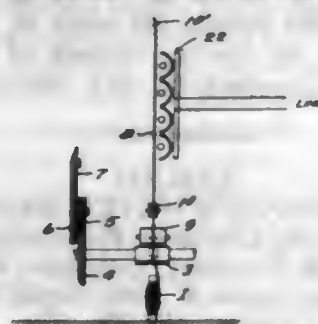


An apparatus for producing a curled yarn from a bundle of synthetic thermoplastic filaments comprising a false twister, feed rolls for feeding yarn to said false twister, a bobbin on which the yarn is wound after passing through said false twister, means driving said feed rolls and said bobbin at a predetermined speed ratio for maintaining a constant predetermined shrinkage in said bundle, a pair of electrodes disposed between said feed rolls and said false twister on opposite sides of the bundle path and means supplying high frequency current to said electrodes to produce an alternating field therebetween for thereby applying dry heat to the bundle suited to heat the bundle to a temperature to set the curl therein.

2,823,514

APPARATUS FOR PRODUCING CURLED YARN
Louis Vandamme and Louis Rouyer, Saulce, France, assignors to Moulinage et Retorderie de Chavanoz, Chavanoz, France, a corporation of France
Original application June 11, 1954, Serial No. 436,077, now Patent No. 2,761,272, dated September 4, 1956. Divided and this application July 11, 1956, Serial No. 597,303

Claims priority, application France June 19, 1953
1 Claim. (Cl. 57—34)



An apparatus for producing a curled yarn from a bundle of synthetic thermoplastic filaments comprising a false twister, feed rolls for feeding yarn to said false twister, a bobbin on which the yarn is wound after passing through said false twister, means driving said feed rolls and said bobbin at a predetermined speed ratio for maintaining a constant predetermined shrinkage in said bundle, and a source of infra red radiations disposed along the path of the bundle between said feed rolls and said false twister to apply dry heat to the bundle suited to heat the bundle to a temperature to set the curl therein.

2,823,515

AUTO-IGNITION METHOD

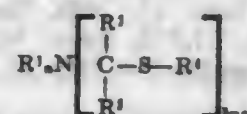
William P. Webb, San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

No Drawing. Application April 9, 1954

Serial No. 422,257

6 Claims. (Cl. 60—35.4)

1. The method of starting a fire by auto-ignition, which comprises mixing an organic compound having the formula:



wherein R^1 is a material selected from the group consisting of alkyl and alkenyl radicals containing 1 to 3 carbon atoms, R^2 and R^3 are materials selected from the group consisting of hydrogen and methyl radicals, R^4 is a material selected from the group consisting of alkyl and alkenyl radicals containing 1 to 4 carbon atoms, and n is a number from 0 to 2 inclusive, with fuming nitric acid, the weight ratio of said organic compound to fuming nitric acid being in the range 1:5 to 5:1.

2,823,516

DUCTED FAN POWER PLANT FOR AIRCRAFT

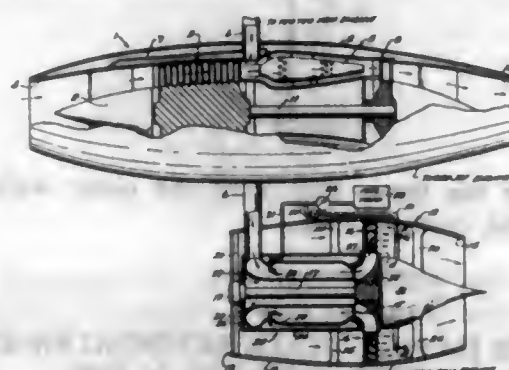
Helmut R. Schelp, Pacific Palisades, Calif., assignor to The Garrett Corporation, a corporation of California
Application October 30, 1951, Serial No. 253,945

4 Claims. (Cl. 60—35.6)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In an aircraft propulsion system having a turbojet engine housing having an air compressor, combustion chamber, gas turbine and exhaust nozzle all connected in series, conduit means connecting the said housing to a second housing to bleed a portion of the compressed air from said air compressor to an auxiliary propulsion unit contained within said second housing, which extends in spaced parallel relation with respect to said

first housing, an annular combustion unit within said second housing connected to said conduit means, means for feeding liquid fuel to said combustion unit connected thereto, means supporting said combustion unit centrally of said second housing with an annular space between said unit and said second housing for the flow of atmospheric air therethrough, a self-propelled fan in said second housing rearwardly of said combustion unit and having a rotor portion receiving combustion products from said combustion unit, passage means in said rotor portion terminating in radially directed outlets, hol-



low fan blades extending radially from said rotor portion turned at an angle to axial direction and having channel means adapted to receive the gas flow from said radially directed outlets and direct said flow out of the blades along the trailing edges thereof and at an angle to axial direction, whereby the jet reaction of said gas flow acts forwardly against said self-propelled fan and also rotates said self-propelled fan and whereby the induced flow of outside air through said annular space has its mass and kinetic energy increased by the gas flow issuing from the trailing edges of the fan blades.

2,823,517

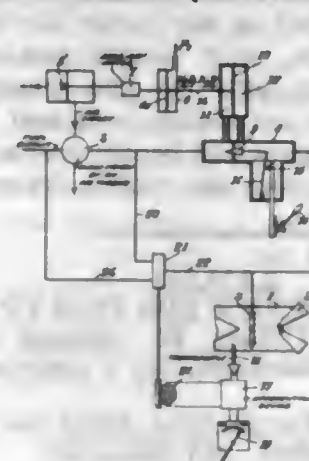
JET ENGINES, CHIEFLY TURBO-JET ENGINES PROVIDED WITH AN AUXILIARY HEATING SYSTEM

Jacques Jean Louis Blanc, Paris, France, assignor to Societe d'Exploitation des Matieres Hispano-Suiza S. A., Bois-Colombes, France

Application November 10, 1953, Serial No. 391,306

Claims priority, application France November 15, 1952

1 Claim. (Cl. 60—35.6)



For use in connection with a jet propulsion engine including an air compressor, an exhaust reheater system which comprises, in combination, a fuel burner, a variable output fuel pump, a conduit connecting the delivery of said pump with said burner, a valve seat in said conduit limiting an orifice for the flow of fuel therethrough a valve member partly engaged in said orifice and slidable transversely to the plane of said seat, said valve member being shaped to vary the effective area of flow through said orifice in accordance with the position of said valve member with respect to said seat, a resilient rod carrying, at one of its ends said valve member to urge it toward

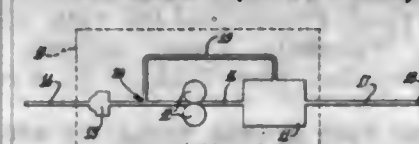
said seat, the other end of said resilient rod being tightly held with respect to said conduit, an abutment slidable with respect to said conduit in a direction parallel to the general direction of said rod, means for adjusting the position of said abutment so as to determine the length of the freely deformable portion of said rod that is urging said valve member toward said valve seat, pressure responsive means differentially operative by the pressures existing in said conduit respectively upstream and downstream of said valve seat, pressure responsive means operative by the delivery pressure of said compressor, and means operatively connected with both of said pressure responsive means for controlling the output of said fuel pump to keep the flow rate of fuel delivered therefrom proportional to said compressor delivery pressure.

2,823,518

AIRCRAFT FUEL PUMPING SYSTEM

John F. Murray, Macedonia, Ohio, assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application November 19, 1953, Serial No. 393,036

13 Claims. (Cl. 60—35.6)



1. An aircraft fuel pumping system comprising, a two-stage fuel pump having an initial centrifugal stage in series with a positive displacement stage, fluid connections for said pump to carry fuel discharged from said pump, propulsion means for the aircraft including a main burner and an after-burner, a main burner control and an after-burner control in said fuel connections for regulating the flow of fuel through said fluid connections to said main burner and to said after-burner, and by-pass conduit means from both of the main and after burner controls to a point interstage between said centrifugal stage and said positive displacement stage for minimizing fuel temperature rise in said fuel pumping system by reducing the horsepower operating thereon.

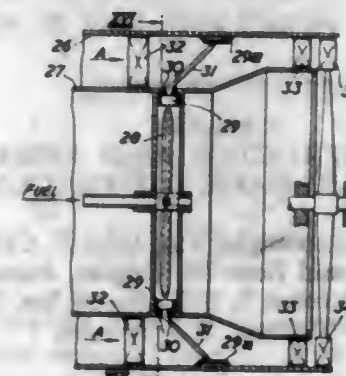
2,823,519

REVOLVING FUEL VAPORIZER AND COMBUSTION STABILIZER

Dudley B. Spalding, Cambridge, England
Application February 5, 1951, Serial No. 209,378
Claims priority, application Great Britain

February 14, 1950

11 Claims. (Cl. 60—39.71)



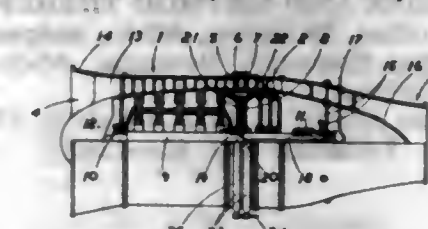
1. Apparatus for burning liquid fuel in a ducted stream of combustion-supporting gas, comprising an outer wall and an inner wall defining together an annular space constituting the said duct, a plurality of elongated vaporizer bodies spaced apart from each other and positioned within the duct, the said bodies each presenting an unstreamlined profile to the oncoming gas so that a turbulent wake is created in the rear of the body, means for continuously supplying fuel to wet at least part of the

external surface of each body to form a continuously maintained wet film thereon, mounting means for said bodies and said fuel supply means to permit relative rotation between the bodies as a whole and said fuel supply means, and means to effect said relative rotation, whereby, when gas is flowing in the duct, fuel evaporates from the wet films on the bodies and when ignited burns only in the turbulent wake of each body.

2,823,520

COMBUSTION EQUIPMENT AND GAS TURBINE PLANT

Dudley Brian Spalding, Cambridge, England
Application May 5, 1952, Serial No. 286,073
Claims priority, application Great Britain May 10, 1951
7 Claims. (Cl. 60—39.72)



1. Apparatus for burning liquid fuel in a stream of combustion-supporting gas comprising an annular duct in which the stream of gas flows, a rotatable body mounted co-axially with the duct, a plurality of slender rod-like elements attached to the said body for rotation therewith and arranged in two axially spaced rows of peripherally spaced elements, each radially extending from the body transversely across the duct, the elements of the upstream row being of circular cross-section and constituting combined fuel vaporizer and flame-stabilizing baffles and the elements of the downstream row being of streamline cross-section and constituting fuel vaporizers, means for rotating the body, means for introducing fuel in a film to the outer surface of each element, which film during rotation of the body and the elements spreads under centrifugal force over at least part of the said outer surface and ignition means positioned in the duct immediately downstream of the said upstream row.

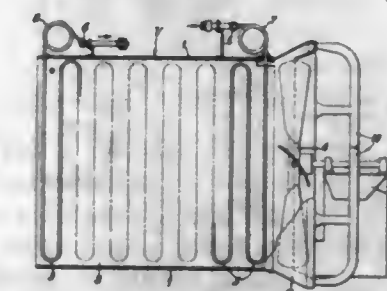
2,823,521

ATMOSPHERIC VAPORIZER

Robert C. Enger, Buffalo, and Ford R. Park, Jr., Snyder, N. Y., assignors to Union Carbide Corporation, a corporation of New York

Application July 24, 1953, Serial No. 370,157

2 Claims. (Cl. 62—1)



2. An atmospheric vaporizer for vaporizing liquefied gas comprising a plurality of spaced parallel fins of heat conducting material; a heat conducting parallel-flow fluid conduit having a plurality of serpentine bends, positioned in the air space between an adjacent pair of said plurality of spaced fins, and secured on one side in heat exchange contact with one of said fins over substantially all the length of the fins to increase the contact area between said fluid conduits and said fins; inlet manifold means communicating with one end of each of said fluid conduits for introducing a volatile liquid into the same end of each of said fluid conduits; outlet manifold means

communicating with the other end of said fluid conduits for collecting vapors of said volatile liquid from said plurality of fluid conduits; means for passing atmospheric air unidirectionally in parallel-flow streams between and in heat exchange contact with said plurality of spaced parallel fins; and a plurality of parallel-flow conduit means, one associated with each of said fins, positioned in heat exchange contact therewith and communicating between said inlet manifold means and one of said fluid conduits, said plurality of parallel-flow conduit means of substantially greater total cross-sectional area than that of each of said fluid conduits.

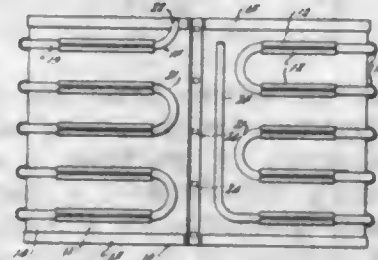
2,823,522

EVAPORATOR CONSTRUCTED FROM EXTRUDED SECTIONS AND METHOD THEREFOR

William A. Collins, Dowagiac, Mich., assignor to Rudy Manufacturing Company, Dowagiac, Mich., a corporation of Michigan

Application August 14, 1953, Serial No. 374,365

5 Claims. (Cl. 62-126)



1. In an evaporator, an extruded plate having spaced pairs of walls extending outwardly from one surface thereof in parallel relation to each other, said walls being interrupted at spaced points, and a sinusously formed tube having straight portions disposed between said spaced walls and secured therein by bent-over portions of the walls, the tube and plate forming at least a bottom and two side walls with corners therebetween provided at said interrupted points.

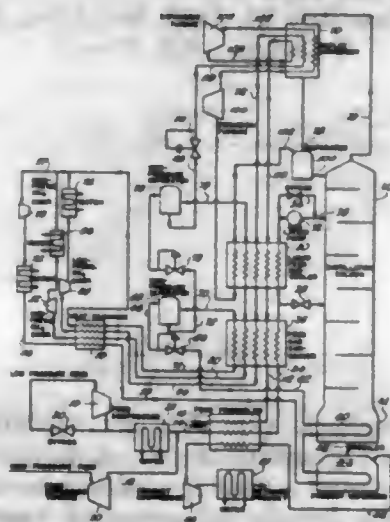
2,823,523

SEPARATION OF NITROGEN FROM METHANE

Bert E. Eakin, Chicago, and Rex T. Ellington, Evanston, Ill., assignors to The Institute of Gas Technology, Chicago, Ill., a corporation of Illinois

Application March 26, 1956, Serial No. 573,865

2 Claims. (Cl. 62-175.5)



1. In a process for separating nitrogen from a gaseous mixture of methane and nitrogen by liquefaction and fractional distillation in a distillation column maintained at elevated pressure, the steps of compressing methane refrigerant gas to above said elevated pressure, passing the compressed methane sequentially through a vaporizer containing cold product methane from the distillation column to vaporize the product methane and through

cold product methane in the lower reboiler portion of the distillation column to supply heat for operating the column, thereby simultaneously reducing the temperature of the compressed methane to condense said compressed methane, firstly partially expanding said condensed methane to a gas and a liquid phase at about one-half said elevated pressure, passing the gas phase and a portion of the liquid phase through a heat exchanger to supply part of the refrigeration required to condense the feed gas, secondly further expanding the remainder of the liquid phase to a mixture of gas and liquid at about one-fourth said elevated pressure, passing the gas and most of the liquid at said reduced pressure through a second heat exchanger to supply refrigeration for sub-cooling said condensed feed gas before introduction into the distillation column, and finally expanding the remaining liquid from said reduced pressure to substantially atmospheric pressure to provide refrigeration for a reflux condenser connected to said distillation column.

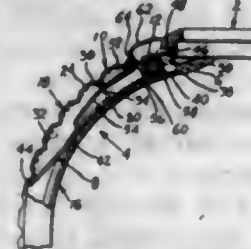
2,823,524

BRACELET WITH ABUTMENT STOP MEANS FOR PREVENTING PIVOTING OF THE ARMS

Norman Slater, Waterbury, Conn., assignor to Benrus Watch Company, Inc., New York, N. Y., a corporation of New York

Application April 2, 1954, Serial No. 420,539

8 Claims. (Cl. 63-9)



1. In the combination of a supporting body on which a wrist-encircling element is pivotally mounted by means of a pivotal support operatively connected to said body; the improvement which comprises a member projecting from said supporting body and extending over said pivotal support on the side thereof opposite the wrist-facing surface thereof, and a part articulately mounted on said element so as to be movable relative thereto between operative and inoperative positions, said part, when in its operative position relative to said element and when said element is in wrist-engaging position, engaging with said member so as to prevent pivotal movement of said element from said wrist-engaging position, said part being movable to an inoperative position out of operative engagement with said member, thereby permitting pivotal movement of said element away from its wrist-engaging position.

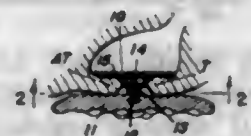
2,823,525

EARRING CONSTRUCTED AND ARRANGED TO CLAMPINGLY ENGAGE THE TRAGUS AND THE ANTI-TRAGUS

Ilene M. Crigler, Alexandria, Va.; John F. Crigler, administrator of said Ilene M. Crigler, deceased

Application October 9, 1952, Serial No. 313,909

18 Claims. (Cl. 63-14)



1. An earring including an ornament portion and attaching means therefor comprising a pair of companion clamping members constructed and arranged having lateral dimension as to be capable of receiving and clamping between them both the tragus and anti-tragus of the ear.

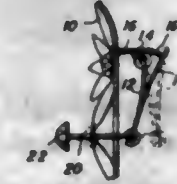
2,823,526

EARRING CONSTRUCTED AND ARRANGED TO CLAMPINGLY ENGAGE THE TRAGUS AND THE ANTI-TRAGUS

Ilene M. Crigler, Alexandria, Va.; John F. Crigler, administrator of said Ilene M. Crigler, deceased

Application June 4, 1953, Serial No. 359,531

3 Claims. (Cl. 63-14)



1. An earring including an ornament portion, means for clipping said ornament portion to the tragus and anti-tragus of the ear and including said ornament portion functioning as one clip jaw and having lateral dimension such that it is adapted to bridge the intertragic notch and to engage on the frontal surfaces of said tragus and anti-tragus, a generally parallel companion member hingedly connected along its upper edge to said ornament portion and functioning as an inner clip jaw, the lower end portion of the inner clip-jaw member having edge contour and lateral dimension such as enables it to be freely inserted flatwise and lowered into the concha opening and its side edge portions to engage against the under surfaces of said tragus and anti-tragus, means for maintaining said ornament portion and said inner clip-jaw member clamped to said ear surfaces and cooperating means on said ornament portion and said clip-jaw member for imparting relative swinging movement thereto including means affixed to the inner clip-jaw member and extending forwardly thereof through the ornament portion and having length such that its forward end is accessible from the front side of said ornament portion and further having longitudinal rigidity and extending forwardly from the lower and substantially middle portion of the inner clip-jaw member thereby when the earring is clamped to the ear to pass through said intertragic notch.

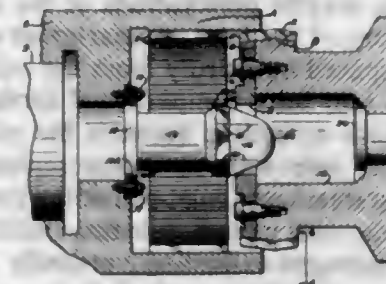
2,823,527

GEAR TYPE COUPLINGS

Charles W. Belden and Harley C. Northrop, Westfield, N. Y., assignors to Ajax Flexible Coupling Co. Inc., Westfield, N. Y., a corporation of New York

Application May 16, 1955, Serial No. 508,559

8 Claims. (Cl. 64-9)



1. In a coupling of the type comprising an outer gear with a circular series of internal teeth and an inner gear with a circular series of external teeth, the teeth of the gears formed to be mutually meshed by axially telescoping them together; means, operated by relative movement of the gears toward each other, to cause said telescoping to occur when the gears are out of coaxial alignment and the teeth and tooth spaces of the respective gears are out of longitudinal alignment, said means comprising guide elements connected to the respective gears disposed to come into mutual engagement upon initiating said movement of the gears, and formed to guide the gears to align them coaxially, and to align the teeth of each gear with the

tooth spaces of the other, longitudinally, whereby telescoping will occur upon continuation of said movement; and the guide elements being formed to become mutually disengaged by continuation of said movement by the time meshing of the teeth has been completed.

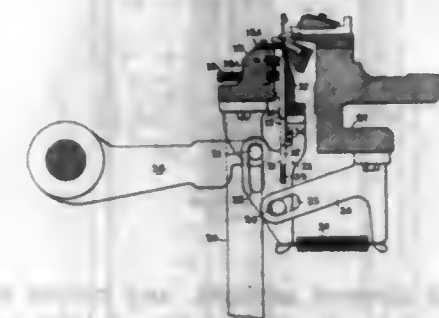
2,823,528

NEEDLE BAR ASSEMBLY AND METHOD OF KNITTING

Frank G. Welsbecker, Lansdale, Pa.; Mary Welsbecker, executrix of said Frank G. Welsbecker, deceased

Application December 5, 1956, Serial No. 626,431

7 Claims. (Cl. 66-5)



1. In a straight bed full fashioned knitting machine, the improvement which comprises: means for supporting each of the needles for knitting movement independently of one another; means for lowering needles from their uppermost to lowermost position including pressing each needle as it passes the press edge; means for raising a portion of the needles from lowermost to uppermost position; and means operating in timed relation to the knitting action for selecting on each course different needles and raising them from lowermost to uppermost position.

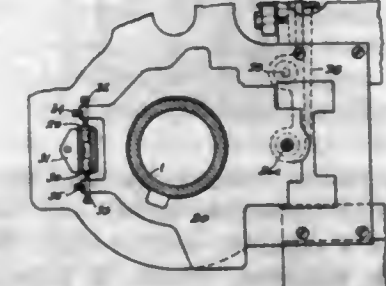
2,823,529

CAM ASSEMBLY FOR KNITTING MACHINES

Paul L. St. Pierre, Pawtucket, and Joseph Wawzonek, Cumberland, R. I., assignors to Hemphill Company, Pawtucket, R. I., a corporation of Massachusetts

Application April 24, 1956, Serial No. 580,215

8 Claims. (Cl. 66-54)



1. In or for a circular, independent needle, knitting machine a rotatable needle bearing cylinder, a cam supporting plate surrounding said cylinder, a support for said cam plate comprising a pivot upon which said plate is capable of being swung to permit lateral adjustment between said plate and said cylinder, and an adjustable clamp adapted to maintain said plate in its adjusted horizontal position.

2,823,530

INTERMEDIATE CONNECTING AND SUPPORTING MEANS FOR ROTATIONAL SECTIONAL BEAMS AND THE LIKE

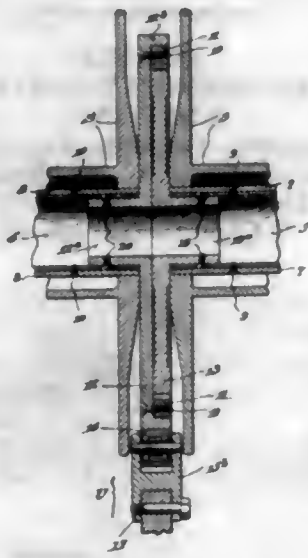
Ira L. Rikard, Jackson, Ala., assignor to Vanity Fair Mills, Inc., Reading, Pa., a corporation of Pennsylvania

Application March 31, 1954, Serial No. 419,981

14 Claims. (Cl. 66-86)

1. In a textile apparatus, an elongated rotationally mounted motion transmitting element comprising separate

sections arranged in axially aligned relation, two separate wheel-like members connectedly arranged in united manner so that each member extends transversely in intermediate relation to said element sections and is secured



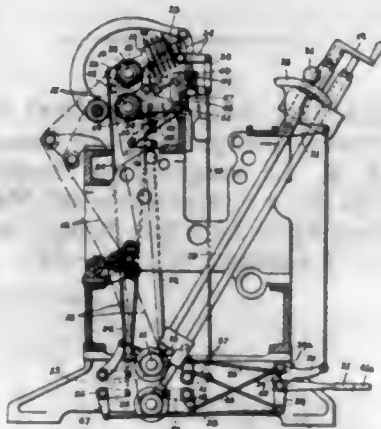
to one of said element sections, and means arranged to establish a peripheral support for at least one of said members adapted to effect free rotational movement thereof in unison with said element sections.

2,823,531

STRAIGHT-BAR KNITTING MACHINES

Samuel Arthur Monk, Gedling, England, assignor to S. A. Monk (Sutton in Ashfield) Limited, Sutton-in-Ashfield, England

Application July 2, 1956, Serial No. 595,418
5 Claims. (Cl. 66-89)



1. In a straight-bar knitting machine the combination with a plurality of fashioning screws and associated bluff plates each with a separate control shaft disposed longitudinally of the machine, means to connect each control shaft to its associated bluff plate and means to turn each control shaft to adjust the position of the bluff plates and to reset the fashioning screws.

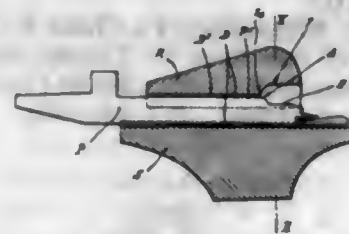
2,823,532

SINKER HEADS OF RECTILINEAR KNITTING MACHINES

Jean Louis Robert Bogey, Neuilly-sur-Seine, France
Application March 12, 1957, Serial No. 645,468
Claims priority, application France July 26, 1956
3 Claims. (Cl. 66-110)

1. In a rectilinear knitting machine, a sinker head formed with a slot having a bottom, a stitch forming element engaged for reciprocal movement in said slot and having an edge slidably engaging said bottom, said stitch forming element having a recess formed in said edge and forming at least one corner with the unrecessed portion of said edge, and said bottom being formed with a cavity whose position and extension are such that

said corner remains out of contact with the unexcavated portion of said bottom, throughout the stroke between the

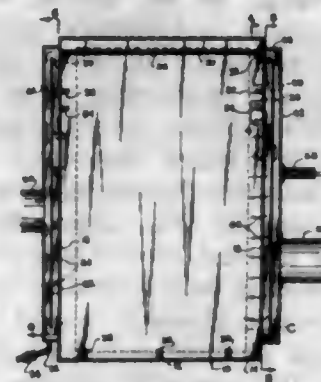


extreme positions assumed by said stitch forming element during its reciprocal movement.

2,823,533

STEAM CABINET FOR FABRIC ARTICLES

Regina Klein, New York, N. Y.
Application June 14, 1956, Serial No. 591,378
3 Claims. (Cl. 68-6)



1. A steam cabinet for wearing apparel and like articles comprising a container for said articles having an inlet and an outlet for steam, means extending to said inlet for supplying steam to the interior of the container, and means extending from the outlet for leading off steam after passage thereof through the container, said inlet and outlet being formed in respective, opposite side walls of the container, said side walls being perforated at locations spaced from the upper to the lower ends of the side walls and from one to the other side edges of the side walls to provide said inlet and outlet for the steam, said cabinet further including compartments projecting outwardly from the respective side walls and communicating with the interior of the container by means of said perforations, said compartments constituting inlet and outlet compartments for the steam, said inlet compartment having partitions therein arranged as baffles to cause the steam to be distributed within the compartment for passage through the several perforations of the adjacent side wall, the partitions of the inlet compartment comprising a main partition spaced outwardly from the adjacent perforated side wall, said inlet compartment further including auxiliary partitions extending between the main partition and the adjacent side wall to define separate passages for the incoming steam, the inlet-providing perforations in the adjacent side wall communicating with the several passages, said passages extending vertically substantially from the upper to the lower end of the container.

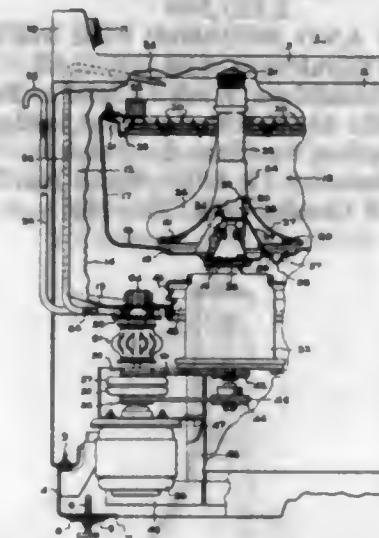
2,823,534

CLOTHES WASHING MACHINE

Max J. Loehle, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application October 7, 1955, Serial No. 539,216
7 Claims. (Cl. 68-23)

6. In a clothes washer, a wash basket, an agitator disposed in said basket having a center post and an outwardly flared skirt on said post, said skirt being disposed adjacent the bottom wall of said basket and covering a portion thereof, means supporting and driving said agitator with an oscillatory motion on the axis of said center

post whereby to wash clothes in said basket, said oscillatory motion creating only limited turbulence under said agitator skirt whereby insoluble soil particles collect thereunder, at least one aperture in the bottom of said basket under said skirt and displaced from the axis of said center post for the escape of said particles from said basket, and a plurality of fins on the underside of said

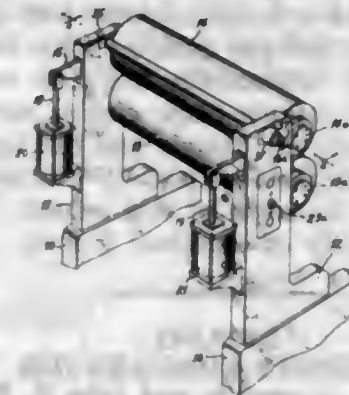


agitator skirt for creating a net circular flow of liquid under said skirt during the oscillatory motion of said agitator, thereby to sweep said soil particles over and into said aperture, said fins protruding downwardly from said skirt each said fin having a substantial part thereof disposed at an acute angle to a radius drawn thereto from the axis of said center post.

2,823,535

AUTOMATIC LOCKING MEANS FOR SQUEEZE ROLLS AND THE LIKE

Donald S. Warner, Williamstown, Mass., assignor to James Hunter Machine Company, North Adams, Mass., a corporation of Massachusetts
Application April 25, 1955, Serial No. 503,737
13 Claims. (Cl. 68-258)



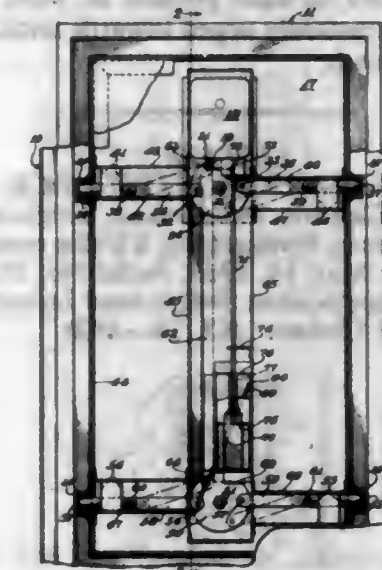
1. In an apparatus of the character described having a frame, a roll mounted for rotation on the frame, a pair of roll levers pivoted on the frame, a second roll mounted for rotation on said levers and extending in substantially parallel adjacent relation to the first roll, a power source connected to the levers, and a control device connected to the power source for selectively operating the power source to swing each lever back and forth through a path and thereby move the second roll into and out of engagement with the first roll, the combination of a bar extending substantially parallel to the roll axes and mounted on the frame for longitudinal sliding movement, a pair of locking blocks on the bar normally disposed in the paths of the respective levers and engageable thereby to hold the second roll spaced from the first roll, the power source being operable on the levers to swing them in one direction away from the blocks and thereby increase the spacing between the rolls, and an

element connected to the bar for shifting it longitudinally to move the blocks out of the paths of the levers, whereby said power source is operable on the levers to swing them in the opposite direction and thereby move the second roll against the first roll.

2,823,536

SAFE DOOR LOCKING MECHANISM

William J. Watson, Crozet, Va., assignor to Acme Visible Records, Inc., Crozet, Va., a corporation of Delaware
Application December 28, 1954, Serial No. 477,988
5 Claims. (Cl. 70-1.5)

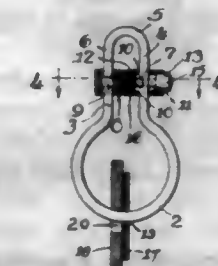


4. The combination with a safe door having a combination lock mounted thereon, locking mechanism carried by said door comprising a pair of opposed locking bolts mounted for reciprocation in spaced parallel relationship to each other, a rotatable disc, said disc having its axis disposed intermediate the inner ends and projected longitudinal axes of said bolts, links pivotally connected to the inner ends of said bolts and to diametrically opposed points on said disc respectively, means for rotating said disc to reciprocate said bolts and adapted to project them outwardly for locking reception within seats carried by an associated safe and to align the links with their respective bolts in said projected position, abutment means disposed adjacent said links for limiting successive angular movement of said links from inclination to their respective bolts when the latter are retracted to said aligned relationship in projected locking position, attack defeating mechanism associated with said combination lock, said attack defeating mechanism comprising a spring pressure bolt means releasably anchored to said combination lock means and adapted to be received in a peripheral notch formed on said rotatable disc to prevent rotation of said rotatable disc when said combination lock is tampered with.

2,823,537

KEY RING AND GUARD

Samuel Segal, New York, N. Y.
Application May 11, 1956, Serial No. 584,232
5 Claims. (Cl. 70-459)



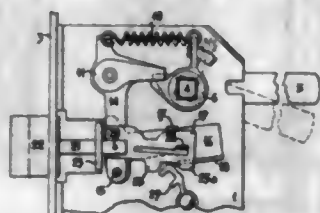
3. A key ring having a straight portion of wire provided with a notch, a pair of straight portions of wire

parallel to said first wire and aligned axially with each other, the free ends of said axially aligned wire portions being spaced apart to provide a gap aligned with said notch, the opposite ends of each of said axially aligned wire portions being integrally connected with opposite ends of said first wire portion by oppositely disposed loop portions, a cylindrical latch casing slidably mounted on said parallel straight portions of wire, said casing having a diameter large enough to span said gap, a longitudinal bore in said casing, and a spring pressed latch slidable in said bore, said latch having an L-shaped latch bolt including a transverse arm positioned inwardly of said first mentioned straight portion of wire, said transverse arm being constantly urged towards latching engagement with said notch.

2,823,538

REVERSIBLE MORTISE LOCK

Marcel Fresard, Geneva, Switzerland, assignor to Mefina S. A., Fribourg, Switzerland, a Swiss company
Application May 14, 1953, Serial No. 355,000
Claims priority, application Switzerland January 14, 1953
8 Claims. (Cl. 70-462)

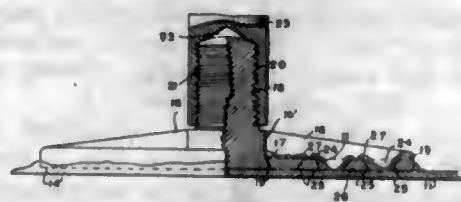


1. A mortise lock comprising a framework and including an end plate, a beveled bolt having a transverse section of a geometric figure consisting of two symmetrical halves and guided in the end plate, a rod rigidly connected at one end to the bolt and guided by the framework, transmission means pivoted by a removable pin to the other end of the rod, a door handle movably mounted in the framework, lever means fulcrumed on the framework and urged to engage the handle and connected thereto and including an arm engaging the handle, a coupling member connecting the transmission means to the door handle by the lever means arm and including means releasably connecting the coupling member to the transmission means, whereby a key when inserted and turned in the framework will engage the coupling member to disengage same from the transmission means and retract the bolt or project same to locking position, and said transmission means having means thereon for and engaging the framework to deadlock the bolt in its locking position, and whereby removal of the pin and extraction of the bolt and rod from the framework and reinsertion therein the bolt in reversed position will render the lock suitable for use on a door opening toward the right or left.

2,823,539

SCREED SUPPORTING PAD

Ronald C. Kersh, Orinda, and Burkhardt R. Hoerr, Oakland, Calif.
Application June 14, 1955, Serial No. 515,284
1 Claim. (Cl. 72-128)



A second support comprising a screed pad, a peripheral flange projecting upwardly above the upper surface of said pad, a central hub, inclined radial ribs extending downwardly from said hub to the peripheral flange, a stem pro-

jecting upwardly from said hub, a screed support detachably secured to said stem, and a series of apertures in said pad having upwardly diverging side walls whereby the pad can be pressed into an adhesive so that the adhesive will pass through said apertures and spread outwardly over said side walls.

2,823,540

APPARATUS AND METHOD FOR METERING ENTRAINED AIR OR GAS

Orin G. Patch, Wenatchee, Wash.; Clara L. Patch, executrix of said Orin G. Patch, deceased, assignor, by decree of distribution, to Clara L. Patch
Application January 19, 1951, Serial No. 206,761
2 Claims. (Cl. 73-19)

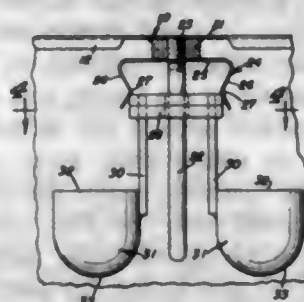


1. A method of determining the quantity of an entrained gaseous fluid in a material such as fresh concrete comprising in combination the steps of establishing a sample body of a predetermined quantity of the material in the bottom of a container, establishing a body of liquid in the container above and in contact with the sample without agitating the sample, establishing an elongated, vertically disposed column of liquid in said container above and in communication with said body of liquid and having a uniform cross-sectional area throughout its length very substantially less than the cross-sectional area of said sample body, closing said container, and agitating to mix the sample and the liquid thereby releasing entrained gaseous fluid by displacement with liquid, the change in length of said column of liquid indicating said quantity of entrained gaseous fluid.

2,823,541

VISCOSITY COMPARATOR

Myron S. Gordon, Annapolis, and John R. Belt, Severna Park, Md.; said Belt assignor to said Gordon
Application February 16, 1956, Serial No. 565,926
3 Claims. (Cl. 73-56)



1. In a viscosity comparator, a pair of vertically disposed guide pins, a base slidably engaging said pins, a pair of spaced parallel vertically disposed arms depending from said base, a pair of spaced apart cups secured to the lower ends of said arms, each of said cups having

the same shape and size, there being a central opening in the bottom of each of said cups, said cups adapted to be simultaneously dipped into two separate containers of fluid, and a spring clip mounted at the top of said pins for frictionally engaging said base for selectively maintaining said cups in raised position.

2,823,542

COMPRESSION GAUGE FOR INTERNAL COMBUSTION ENGINES AND THE LIKE

George M. Walraven and Melvin Kenneth Kuehl, Kenosha, Wis., assignors to Snap-On Tools Corporation, Kenosha, Wis., a corporation of Delaware
Application March 23, 1954, Serial No. 417,994
2 Claims. (Cl. 73-116)

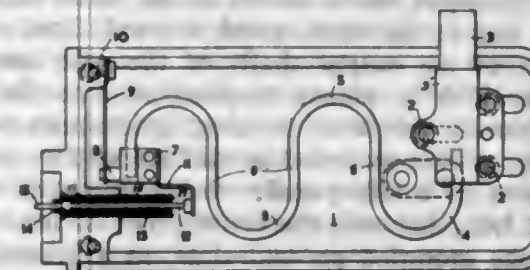


1. A compression gauge for internal combustion engines and the like comprising an elongated tube, a yieldable spark plug engine opening sealing mount on one end of said tube, a compression gauge on the other end of said tube, and a hook-shaped arm adjustably mounted on said tube to engage a pipe or the like in the vicinity of the spark plug engine opening to which said yieldable sealing mount is applied responsive to application of force normal to said elongated tube about said pipe.

2,823,543

FLUID PRESSURE RESPONSIVE UNIT

Waldemar Emil Voss, London, England, assignor to L. Adams Limited, London, England, a company of Great Britain
Application August 3, 1953, Serial No. 371,904
Claims priority, application Great Britain August 5, 1952
3 Claims. (Cl. 73-411)



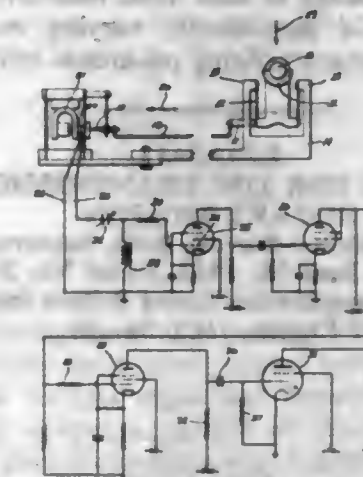
1. A fluid pressure responsive unit comprising a rigid base, a tube having a sealed output end and shaped in plan as a number of undulations in serpentine form, thus including alternate curved portions of opposite curvature connected by straight parallel portions spaced from each other perpendicular to the axis of symmetry and perpendicular to the direction of motion of said output end when subjected internally to fluid pressure, the other end of said tube being fixed to said base, a pressure connection for said other end of said tube, a leaf spring having one end fixed to said base and its other end fixed to said output end of said tube, the width of said spring being perpendicular to the direction of motion of said output end of the tube to prevent movement of said output end of the tube in directions other than the direction of movement due to the internal application of fluid pressure in the tube, a plunger, means guiding said plunger for linear movement generally in the direction of movement of said output end of said tube, said plunger having

an axial extension of substantial length connected to said output end of said tube, said axial extension being pliant to accommodate components of movement of said output end of said tube transverse to said plunger.

2,823,544

ROTOR UNBALANCE INDICATING DEVICE WITH STROBOSCOPE PHASING

John G. McCoy, Chicago, Ill., assignor to Balance Engineering Co., Chicago, Ill., a corporation of Illinois
Application February 18, 1954, Serial No. 411,059
1 Claim. (Cl. 73-466)



Apparatus for stroboscopically illuminating the location of unbalance in a rotating body on the surface thereof at a point in space substantially 90° circumferentially from an axial plane of occurrence in which unbalance-caused vibrations are sensed which comprises, a pick-up unit including a signal wave generating coil, means for supporting the rotating subject and for reciprocating said coil in an axial plane in accordance with the unbalance vibrations thus produced, a field magnet disposed to have its flux path cut by the coil winding, a series resonant first stage circuit which includes said coil winding and a tuning condenser in series with a tuning choke whereby to effect a current-voltage lag phenomenon, a grid controlled amplifier tube with its grid element connected across said tuning choke whereby to displace the primary tube emission instant by approximately 90°, the said current-voltage lag factor, and to thereby reproduce its amplified output signal 180° out-of-phase with the grid voltage, second and third stage amplification tubes and circuits following said first stage circuit for steepening by amplification the positive and negative wave lobe characteristics to thereby approximate straight line side components thereof and by alternate reversal to effect a third stage plate voltage output in phase with the first stage output, and a stroboscope flash tube having its firing grid triggered by the said third stage plate voltage output signal during the positive lobe straight side rise and directed to illuminate the rotating body at a point in its rotation 90° from said axial plane and corresponding to said 90° current-voltage lag displacement.

2,823,545

MAGNETIC FIELD REACTOR AND SYSTEMS THEREFOR

Philip K. Bodge, Swampscott, Mass., assignor to General Electric Company, a corporation of New York
Application May 4, 1956, Serial No. 582,800
17 Claims. (Cl. 74-541)

1. A magnetic field reactor for generating electrical signals characterizing positional information with respect to an external unidirectional magnetic field comprising: magnetically biased flux conducting means having a configuration such that said external field acts thereon to vary the permeability thereof along paths deter-

mined by the orientation of said flux conducting means in said field; means for producing a periodically varying magnetic flux circulating through said flux conducting

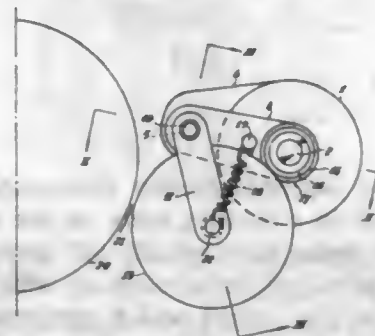


means along paths determined by the orientation of said flux conducting means in said field; inductive means for deriving from said periodically varying magnetic flux electrical signals characterizing positional information.

2,823,546

COUPLING FOR THE TRANSMISSION OF ROTARY MOTION

Walter William Henry Barrett, Bath, Somerset, England
Application June 26, 1953, Serial No. 364,422
Claims priority, application Great Britain June 27, 1952
7 Claims. (Cl. 74-8)

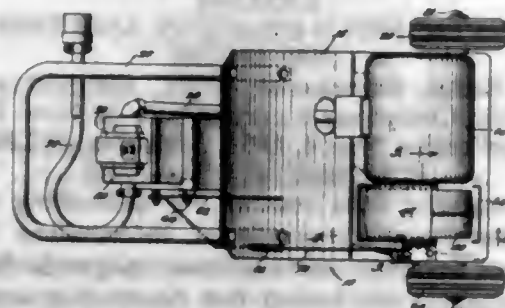


1. Coupling for the transmission of rotary motion comprising a driving, an idle and a driven wheel constituting a train of three friction wheels, lever means, on which the idle wheel is mounted, supported for pivotal motion about the axis of the driving wheel for enabling the idle wheel to be engaged in driving connection with the driving and the driven wheel by the torque of the driving wheel and withdrawn from such driving connection upon cessation of that torque and means for allowing a limited amount of relative independent motion of the idle wheel transversely to its axis with relation to the driving wheel substantially in the plane connecting the axes of the driving wheel and the idle wheel, said lever means including a lever one end of which has said idle wheel mounted thereon and the other end of which is supported for pivotal motion as aforesaid and an arm co-pivoted with the latter end of said lever and on the other end of which said driving wheel is mounted.

2,823,547

WHEEL SPINNER UNIT

Paul C. Hosking, Wilmette, Ill., assignor to Stewart-Warner Corporation, Chicago, Ill., a corporation of Virginia
Application September 20, 1956, Serial No. 611,033
7 Claims. (Cl. 74-16)



1. A portable vehicle wheel spinner unit comprising, in combination, frame means, support wheels on said frame

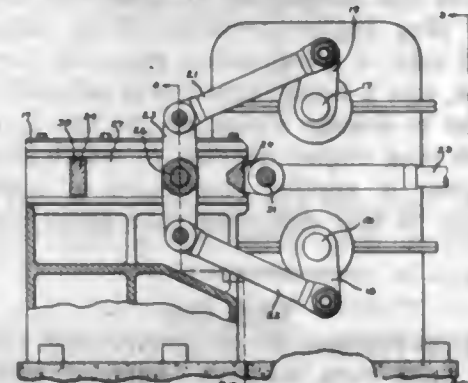
means, a spinner wheel, mounting means supporting said spinner wheel rotatably on said frame means to locate on upwardly curving portion of the periphery of the wheel in a vehicle wheel contact zone disposed upwardly and outwardly from the axis of said spinner wheel, a wheel spinning motor supported on said frame means and drivingly connected to said spinner wheel to rotate the latter in a predetermined direction, a handle on said frame means for moving the latter on said support wheels therefor, a vehicle wheel brake member, support means movably supporting said brake member for movement between a retracted position exposing the periphery of said spinner wheel in said contact zone and an operative position disposed in said contact zone in covering relation to the adjacent periphery of said spinner wheel, and abutment means on said frame means positioned to coact with said brake member when the latter is in said operative position to preclude movement of the brake member in the direction of rotary movement of the adjacent portion of said spinner wheel periphery.

2,823,548

COOLING BED ACTUATING MECHANISM

Roger Kinnicutt, Jr., Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts

Application March 26, 1952, Serial No. 278,689
2 Claims. (Cl. 74-44)



1. In a rolling mill having a cooling bed with packing arms, a mechanism for actuating said packing arms, comprising: a gear box having an input shaft connected to a source of power, said gear box having two parallel, vertically-spaced, output shafts driven in the same direction of rotation and at the same speed, a crank fixed at one end to each of the output shafts of the gear box and rotating therewith in planes perpendicular to the axes thereof, a motion converter housing, guides mounted in said housing, a slide mounted in said guides for reciprocatory motion in a line parallel to the plane of crank motion and lying between the center lines of the output shafts, a yoke mounted on said slide on a pivotal axis passing through its center and parallel to the center-lines of the output shafts, said yoke extending in opposite direction away from the slide, connecting rods each attached at one end to a free end of the yoke and at the other end to the free end of a crank, and a drive shaft connected to said slide for imparting the motion thereof to the packing arms.

2,823,549

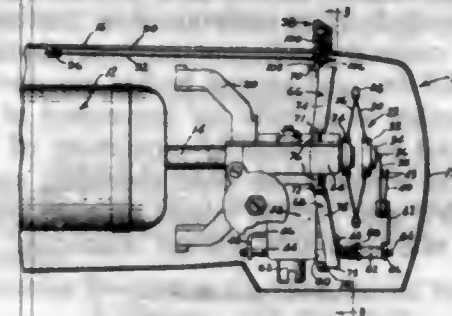
MANUALLY CONTROLLED LINKAGE

John B. Buckman and Robert D. Uthoff, St. Louis, Mo., assignors to Knapp-Monarch Company, St. Louis, Mo., a corporation of Delaware

Application April 25, 1955, Serial No. 503,749
4 Claims. (Cl. 74-110)

1. In an appliance housing of the type having an elongated linear slot, a control device comprising a manual control knob disposed outside of the housing and having a portion extending inwardly through the housing slot, an elongated control lever pivotally mount-

ed within the housing directly inward of the housing slot, said extending portion of the control knob extending inwardly through an elongated curved slot formed in said lever, bracket means pivotally mounted within the housing and operatively connected to said control lever, movement of said knob along the housing slot being trans-



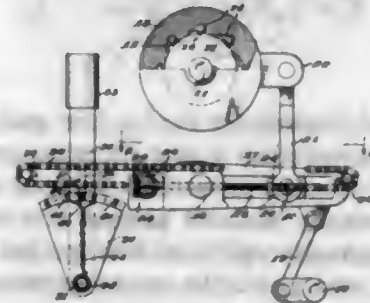
lated through said linkage means to effect rotation of said bracket means, and an adjusting pin mounted within the housing for reciprocation, said bracket means being operatively connected to said adjusting pin whereby rotational movement of said bracket means serves to effect reciprocation of said adjusting pin.

2,823,550

GEARLESS SPEED REGULATOR

Harry Woldenga, Toronto, Ontario, Canada

Application March 9, 1956, Serial No. 570,571
4 Claims. (Cl. 74-119)



1. In a means for varying the speed of rotation of a secondary shaft driven by a constantly rotating primary shaft, comprising a one-way drive clutch operatively associated with said secondary shaft, a lever pivotally supported adjacent one end for oscillation thereof, means connecting said lever with said primary shaft for uniform oscillation thereof, a crosshead supported by said lever for adjustment toward or from the pivot thereof, and a drive connection between said crosshead and said clutch; the improvement which comprises a screw extending longitudinally of said lever and maintained thereby against axial movement, a threaded connection between said screw and said crosshead, a reversible motor having a constant driving connection with said screw, and manually operable control means for said motor including a segment pivoted on an axis and having spaced contact bars thereon, lead connections between said bars and a source of electric power, a speed variation setting handle movable about said axis and having lead connections to said motor, contacts on said handle engageable with said plates for setting the motor into operation for movement of said crosshead, and a drive connection between said crosshead and said segment for moving the latter on its axis in the direction of setting movement of said handle whereby upon resulting positioning of said contacts between said contact bars, the motor stops.

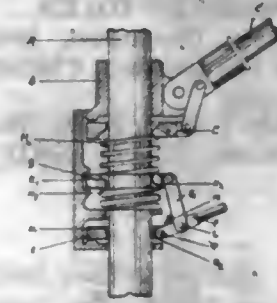
2,823,551

LIFTING JACK

Hans Utz, Stegen, Ammersee, Germany
Application November 9, 1953, Serial No. 391,015
Claims priority, application Germany November 11, 1952
1 Claim. (Cl. 74-141.5)

A lifting jack comprising, in combination, a rigid shaft; a substantially C-shaped carrying body having top and

bottom walls respectively formed with openings through which said shaft freely extends; a lifting plate formed with an opening through which said shaft freely extends, said lifting plate being located between said top and bottom walls and adjacent said top wall of said carrying body; a return movement plate formed with an opening through which said shaft freely extends, said return movement plate being located between said top and bottom walls and adjacent said bottom wall of said carrying body; a locking plate formed with an opening through which said shaft freely extends and located between said lifting plate and return movement plate; first spring means located be-

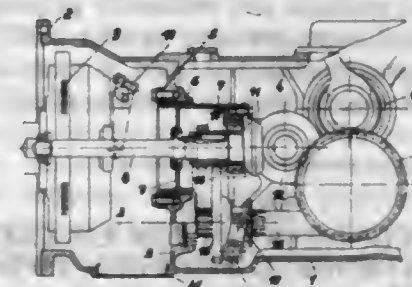


tween said lifting plate and locking plate for urging the same apart from each other; second spring means located between said locking plate and return movement plate and abutting against a portion of said body for urging said locking plate away from said return movement plate; a first lever turnably connected at one end to said return movement plate and extending freely therefrom so that the operator may turn said first lever; and a second lever pivotally connected at one end to said locking plate and at its opposite end to said first lever at a part thereof adjacent said one end of said first lever connected to said return movement plate.

2,823,552

SPEED-CHANGE GEAR UNIT FOR MOTOR-VEHICLES, ESPECIALLY TRACTORS

Karl Haverlender, Hannover, Germany, assignor to Hannoverische Maschinenbau-Aktiengesellschaft vormals Georg Egestorff (Hanomag), Hannover-Linden, Germany, a German company
Application December 18, 1952, Serial No. 326,627
7 Claims. (Cl. 74-15.66)



1. In a tractor, a driving arrangement comprising in combination, a housing containing a clutch mechanism and a main gear mechanism spaced from each other; an auxiliary gear casing removably mounted in said housing between said clutch and main gear mechanisms and having a wall dividing said housing into a clutch chamber and an oil-tight gear chamber; a main driving shaft in said housing rotatably mounted in said wall of said auxiliary gear casing; a main driven shaft arranged coaxial with said main driving shaft and connected to said main gear mechanism; an intermediate shaft arranged in said auxiliary gear casing rotatably mounted at one end in said wall thereof and being parallel to said main driving and driven shafts; a take-off shaft arranged coaxial with said intermediate shaft; disengageable coupling means between said take-off shaft and said intermediate shaft; first gear means non-rotatably mounted on said driving shaft in said auxiliary gear casing; second gear

means non-rotatably mounted on said intermediate shaft in said auxiliary gear casing and meshing with said first gear means for permanently driving said intermediate shaft; third gear means non-rotatably mounted on said intermediate shaft in said auxiliary gear casing; fourth gear means rotatably mounted in said auxiliary gear casing on said main driven shaft and permanently engaging said third gear means; and coupling means for selectively coupling said main driven shaft to said first gear means and said fourth gear means, respectively.

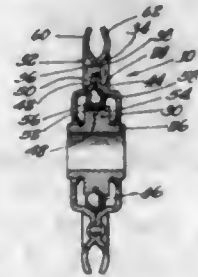
2,823,553

SPROCKET IDLER

Richard F. Harrington, Davenport, Iowa, assignor to Parkersburg-Aetna Corporation, Chicago, Ill., a corporation of West Virginia

Application July 7, 1955, Serial No. 520,462

7 Claims. (Cl. 74-243)



1. A sprocket idler comprising a hub member, an inner annular bearing race on said hub member, a pair of annular sheet material disks surrounding said hub member and having circumferentially spaced teeth thereon for cooperating with a sprocket chain or the like, said disks having abutting annular mid-portion, said teeth curving axially outwardly from said mid-portion and then back toward one another progressing radially outwardly from said mid-portion, securing means extending through said abutting portions and rigidly connecting the disks, said disks including complementary sections extending oppositely from inner margins of said abutting portions, and providing an outer bearing race spaced from and radially aligned with the inner bearing race, said disks including inner annular wall sections extending from said bearing race sections inwardly along and spaced from opposite ends of the inner race for providing a lubricant chamber, means between said hub member and inner annular margins of said wall sections and resiliently gripping said hub member and resiliently pressing against said inner margins for sealing said chamber, and a plurality of anti-friction element means disposed between said inner and outer races.

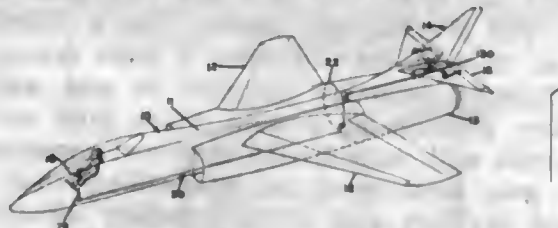
2,823,554

SEPARABLE CONNECTION FOR LINKAGE MECHANISMS EXTENDING BETWEEN TWO SEPARABLE BODIES

Raymond J. Enyeart, Trumbull, Conn., assignor to Chance Vought Aircraft, Incorporated, Dallas, Tex., a corporation of Delaware

Application April 18, 1955, Serial No. 501,917

2 Claims. (Cl. 74-469)



1. A separable linkage connector for two separable bodies comprising: a rocker arm pivotally mounted on the first body and having a pair of inclined surfaces on either side of the pivotal mount facing the second body, a first linkage rod in said first body attached to one leg

of said rocker arm, an adjustable stud mounted in each of said inclined surfaces presenting an abutting head, an abutment member pivotally mounted on said second body and having inclined abutment surfaces facing said first body and a second linkage rod in said second body connected to said abutment member, said abutting heads of said adjustable studs being maintained in continuous contact with the respective adjacent inclined abutment surfaces when said first and second bodies are positioned in joined relationship to provide for movement of said second linkage rod in response to movement of said first linkage rod and whereby the mere unjoining and separation of said first and second bodies provide unrestricted separation of said separable linkage connector.

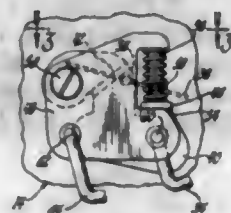
2,823,555

COMBINED CONTROLS FOR CARBURETOR AND TRANSMISSION THROTTLE VALVES

Casimer J. Cislo, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application April 27, 1955, Serial No. 504,286

13 Claims. (Cl. 74-472)



1. A combined control for carburetor and transmission throttle valves comprising a first member rotatable with and on the axis of said carburetor throttle valve, a second member pivotally secured to said first member on a different axis, manually operated linkage for moving said second member, and yieldable means between said members for compelling said members to rotate in unison about said first axis under urging from said manually operated linkage, said members being rotatable one relative to the other about said second axis within limits.

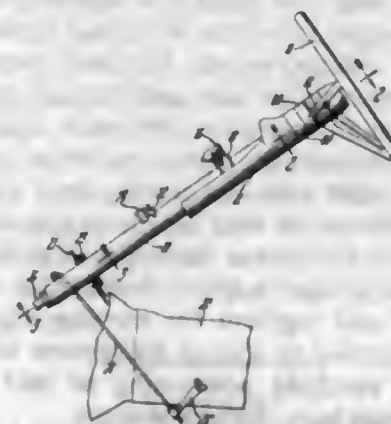
2,823,556

STEERING COLUMN ASSEMBLY

Casimer J. Cislo, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application October 12, 1956, Serial No. 615,577

4 Claims. (Cl. 74-492)



1. A steering column assembly including a mast jacket, a shaft confined by said mast jacket for controlling a transmission actuating element extending through an opening in said jacket, manually-operated means for rotating said shaft, said last means being positioned in spaced relation to said actuating element, stop means supported by said jacket and engaged by a portion of said manually-operated means, a steering shaft within said jacket having a steering wheel at the upper end thereof,

a turn signal switch mechanism above said manually-operated means, a spacer between said signal switch mechanism and the hub of said steering wheel, said spacer being connected to said hub to turn therewith and serving as a cancelling member in the operation of said signal switch mechanism, and means below said jacket and backed by said steering shaft operating to load bearing surfaces comprised in the assembly.

2,823,557

BRAKE PEDAL MOUNTING

Carroll Knopf Lenning, Lansing, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application December 21, 1953, Serial No. 399,191

2 Claims. (Cl. 74-512)



1. In a motor vehicle, the combination of, a floor wall having a first opening therein adapted to receive a steering column and a second opening adapted to receive a brake actuator, a steering column grommet on one side of said wall aligned with said first opening, a brake actuating mechanism support plate on said one side of said wall extending longitudinally adjacent said openings and having a transversely extending arm portion disposed between said openings, said arm portion and the longitudinally extending portion of said plate adjacent said steering column engaging a portion of the periphery of said grommet to hold the same in position relative to said first opening, a brake actuating device positioned on the opposite side of said floor wall at the lower end of said plate in respect to the positioning thereof on the vehicle and including an actuating device extending through said second opening, fastening means extending between the extremities of said arm and said longitudinally extending portions of said plate and said device and through said floor wall to secure said plate and said device to opposite sides of the floor wall for specific relative positioning of the plate relative to said device and retention of said grommet in position relative to said first opening, a brake pedal suspension arm including a brake pedal pad at one end thereof operatively connected at the pedal pad end to said brake actuator for actuation thereof, said plate having bracket means extending substantially normal to the face of the plate at the end thereof opposite to that on which said device is mounted to form pivot means on which said suspension arm is pivoted, and means pivotally suspending said arm on said bracket means.

2,823,558

GEARING APPARATUS

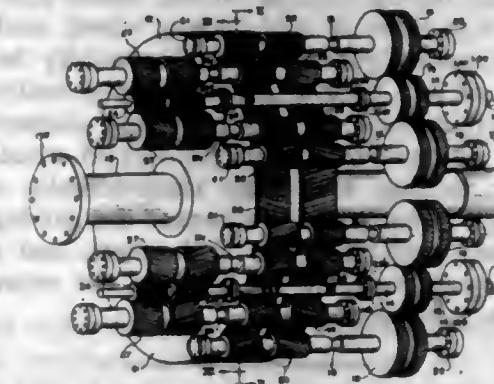
Harold W. Semar, Drexel Hill, and Ira Short, Prospect Park, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 4, 1955, Serial No. 492,274

3 Claims. (Cl. 74-665)

1. In gearing, the combination of a low speed gear wheel, a high speed driving shaft extending transversely

of the face of said gear wheel, said driving shaft having a pair of high speed pinions fixed thereto of different pitch diameters and disposed on opposite sides of said low speed gear wheel, first and second pairs of intermediate speed pinions of identical pitch diameters disposed in driving engagement with said low speed gear wheel, first gear means for transmitting power from one



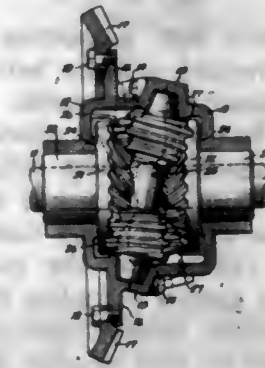
of said high speed pinions equally to said first pair of intermediate speed pinions and second gear means for transmitting power from the other of said high speed pinions equally to said second pair of intermediate speed pinions, whereby each of said intermediate speed pinions transmits one quarter of the power output of the high speed driving shaft to said low speed gear wheel.

2,823,559

DIFFERENTIAL GEAR SET

Richard B. Ransom, South Bend, Ind.
Application May 7, 1956, Serial No. 583,257

7 Claims. (Cl. 74-715)



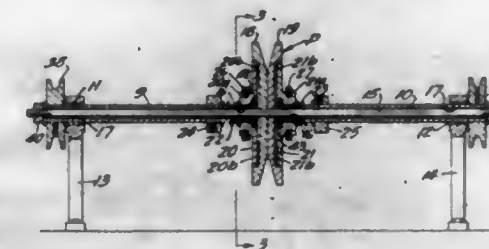
1. A differential gear set comprising a pair of side gears mounted in spaced coaxial relation and having facing toothed surfaces, a pair of pinions whose axes lie in planes parallel to the axis of the side gears and spaced therefrom a distance less than the maximum radius of the toothed surfaces, each of the pinions meshing with one of the side gears only and the two pinions meshing with different side gears, and means drivably connecting the pinions for simultaneous rotation.

2,823,560

CONTROLLABLE MULTIPLE DRIVING MECHANISM

Ray S. Harp and Harold P. Heinisch, Minneapolis, Minn.
Application November 30, 1953, Serial No. 395,112

4 Claims. (Cl. 74-722)



4. A driving mechanism comprising an elongated supporting and mounting rod, a pair of hollow shaft elements

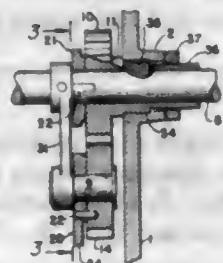
respectively journaled on said rod for rotation on a common axis therethrough, the inner ends of said shaft elements being longitudinally spaced apart, a driving wheel mounted on the center portion of said rod between the inner ends of said shaft elements, a pair of friction clutch discs mounted on opposite sides of said driving wheel and respectively splined to the inner ends of said hollow shaft elements and having friction driving connections with the respective side faces of said driving wheel, said supporting and mounting rod extending outwardly beyond the outer ends of said hollow shaft elements, resilient means normally urging said discs into driving connection with respect to adjacent face portions of said wheel, control means for shifting said discs longitudinally outwardly of said shaft elements to disconnect the driving connection between said discs and said wheel, and a pair of driven elements respectively fixed to the outer ends of said hollow shaft elements.

2,823,561

HUNTING TOOTH STOP STRUCTURE

Willard J. Opocensky, Glendale, Calif., assignor to Librascope, Incorporated, Glendale, Calif., a corporation of California

Application January 18, 1952, Serial No. 267,079
11 Claims. (Cl. 74-802)



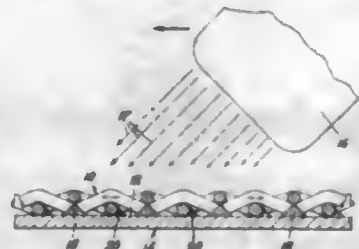
1. The combination with supporting means of a stop mechanism for preventing rotation beyond desired limits of certain parts associated therewith, comprising complementary meshed hunting tooth gears, having different numbers of teeth, associated with said certain parts of which the rotation is to be limited; a male stop member concentric with one of said gears comprised of a hub portion smaller in radius than the associated gear and a segmental portion greater in radius than the associated gear, said stop member being attached to and movable with said gear; a female stop member disposed in a position to contact the male stop member and lock the gears against further rotation in one direction after completion of an integral number of revolutions thereof, concentric with the other of said gears comprised of a hub portion smaller in radius than the associated gear and a concave extended portion of radius substantially equal to that of the segment of said male stop member, said female stop member being attached to and movable with said other gear.

2,823,562

METHOD OF FABRICATING FILES AND THE LIKE

Frank F. Humbarger, Indianapolis, Ind., assignor to Union Carbide Corporation, a corporation of New York

Application September 16, 1953, Serial No. 380,561
10 Claims. (Cl. 76-24)



1. A method of fabricating a file having hard-surface teeth comprising placing a screen in contact with the work

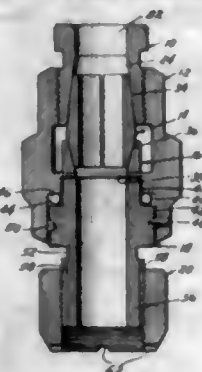
surface of a file blank, applying a deposit of hard-surface material to said work surface of said file blank to form file teeth of hard-surface material on the work surface thereof by detonating a body of gas containing particles of hard-surface material therein and directing the products of said detonation through said screen and against said surface.

2,823,563

DEPTH CONTROL ATTACHMENT FOR A DRILL OR THE LIKE

Walter Nipken, Irvington, N. J.

Application September 6, 1956, Serial No. 608,276
4 Claims. (Cl. 77-55)



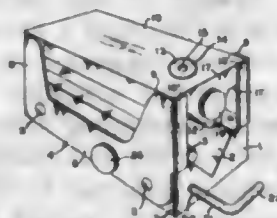
1. A depth control attachment for a drill or the like comprising in combination, a housing having a central bore, a chuck having a central bore and threaded into one end of the housing bore, a collet supported in the housing bore for engagement by the chuck and adapted to be closed by the chuck as it is advanced into the housing, a stop sleeve rotatably supported in the housing bore and projecting from the other end thereof, the projecting portion of said stop sleeve being provided with external threads, and a stop nut threaded on the projecting portion of said sleeve and extending therefrom, the attachment including all of the aforesaid components being adapted to receive a boring tool extending through the chuck and through the stop sleeve and the attachment being adapted for connection with the tool by closing the collet thereon at a selected location along the length of the tool, and the attachment being further adapted to adjust the extending length of the tool by adjustment of the stop nut on the stop sleeve.

2,823,564

DRILL JIG

Nelson Lentino, Astoria, and John Curran,
Long Island City, N. Y.

Application April 30, 1956, Serial No. 581,512
4 Claims. (Cl. 77-62)



1. In a jig in combination, a base block having a groove disposed longitudinally on its top face, said base block having end faces and side faces, a shoulder plate secured to and extending along each of said side faces of said base block, said shoulder plate projecting upwardly for at least a portion of its length above said side faces of the base block and said upwardly projecting portions of said shoulder plates being bent inwardly toward each other to provide resilient retaining means, a jig member retained in a plurality of vertical positions by the resiliency of said shoulder plates, said jig member being adapted to secure a rod to be drilled between said base block and said jig

member, the latter having a vertically disposed first bore extending therethrough adapted to receive selectively a bushing of predetermined inner diameter in accordance with a drill bit to be used and the said base block having a vertically disposed second bore, and means for alignment of said first and second bores in order to permit of drilling a hole through said rod.

2,823,565

GLASS NIPPING PLIERS WITH FLOATING JAW

Jerome B. Bohland, San Jose, Calif.

Application November 13, 1956, Serial No. 621,792
7 Claims. (Cl. 81-5.1)



1. A pair of glass nipping pliers for nipping the edge portion of a pane of glass of predetermined maximum thickness comprising a pair of plier half members, each half member having a handle on one end and a jaw on the other end thereof, means pivotally connecting the half members together between their jaw and handle portions, one of said jaws being fixed and having a flat inner face terminating in a straight outer edge parallel to the pivotal axis of the half members, the other jaw comprising a fixed base portion and a floating outer jaw portion, and having a total length equal to that of said one jaw, a pivot pin fixedly mounted in the outer end of said jaw base portion and extending longitudinally of the jaw base portion therebeyond, the floating jaw portion being journaled on the pivot pin with a journal fit preventing substantial longitudinal relative tilting of the floating jaw portion, the inner face of the fixed base portion of said other jaw being spaced from the inner face of said one jaw by a distance sufficient to clear a pane of glass being nipped by the pliers, the inner face of the floating jaw portion being disposed at an outwardly converging angle relative to the flat inner face of said one jaw when the pliers are in nipping engagement with a pane of glass, the outer edge of the floating jaw portion being straight, and opposite the straight outer edge of the first jaw portion when the pliers are in nipping engagement with a pane of glass, whereby the floating jaw is free for pivotal movement to bring the outer edge thereof into full bearing engagement with such pane to provide a nipping fulcrum therefor, and to urge such pane toward full bearing relation with the flat inner face of said one jaw.

2,823,566

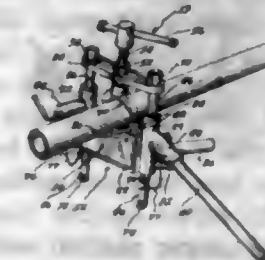
VISE HAVING AN ADJUSTABLE AND WITHDRAWABLE PIPE-CLAMPING UNIT

Herman Bachli and Harry S. Shapiro, Chicago, Ill., assignors to Chicago Specialty Manufacturing Co., Chicago, Ill., a corporation of Illinois

Application May 14, 1956, Serial No. 584,736
3 Claims. (Cl. 81-19)

1. A portable vise of the character described comprising a hollow base housing, a pair of lower jaws supported in said hollow base housing in horizontally spaced relation, said base housing having a pair of spaced vertical openings, an upper clamping unit including a transverse member having a centrally located threaded open-

ing and a rod at each of the opposite ends of said transverse member, said rods being freely slidable in said spaced vertical openings, said rods each having a plurality of axially spaced openings, retractable pins insertable in a selected and corresponding pair of said axially spaced openings and engaging the bottom of said housing to limit the upward movement of said upper clamping unit, said upper clamping unit including a screw



member in engagement with the threaded opening in said transverse member, an upper clamping jaw secured to the lower end of said screw member whereby said upper clamping jaw is adjustable for clamping engagement with a pipe, said upper clamping jaw being movable into the space between the lower clamping jaws to permit said upper clamping jaw to be adjusted to a position between and below the top of said lower jaws.

2,823,567

VISE ROD MOUNTING A FIXED JAW AND AN ADJUSTABLY FULCRUMED PIVOTABLE JAW

Arthur C. Pothier, Westbrook, Maine

Application May 17, 1955, Serial No. 508,901
1 Claim. (Cl. 81-23)



In a vise, a jaw-supporting rod of substantially uniform cross section, a pair of workpiece gripping jaws mounted on said rod, one of the jaws being rigidly fixed to the rod and the other jaw being provided with an opening substantially larger than the cross-sectional area of the rod, said other jaw being movable along the support to various positions and pivotable to said support at a selected one of a plurality of positions so as to pivot between engaged and disengaged positions relative to the fixed jaw, said jaw-supporting rod having a plurality of axially spaced bores which define said plurality of positions, said pivotable jaw having a threaded bore transversely intersecting the opening therein, and a pivot pin having an enlarged threaded portion fitting the threaded bore and a reduced portion fitting the selected one of the axially spaced bores, and a threaded jaw-actuating member extending through the pivotable jaw and engageable with the fixed jaw to move the jaws into gripping relation.

2,823,568

WRENCH WITH BOX-TYPE PIVOTABLE JAWS RATCHETABLE ON WORKPIECE

Morley Mann, Lombard, Ill.

Application June 8, 1955, Serial No. 513,980
3 Claims. (Cl. 81-91)

2. A wrench adapted to grip adjustably varied shapes of units when rotated in one direction and further adapted to slip on said units when rotated in a contra direction, comprising a handle provided with a head portion and a

tongue portion, a pair of complementary jaw elements articulately secured to said tongue portion by pivot means spaced rearwardly from a free end of said tongue portion, said pivot means being disposed on axes laterally spaced from a longitudinal axis of said handle and being offset along said axis, concealed spring means located in front

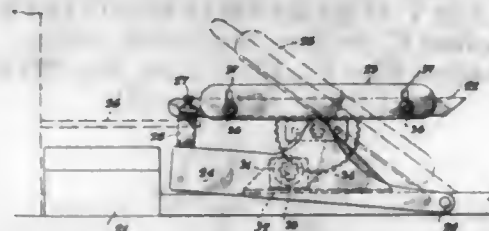


of said free end of said tongue portion and secured to said complementary jaw elements for urging them to closed position, a saddle portion on said head portion, and latch means mounted on said saddle portion and engageable with one of said jaw elements to hold the latter in open position.

2,823,569

PIANO-ORGAN PLAYING MECHANISM-PEDAL
Fred W. Doerr, Palmyra, N. J., assignor to Kohler & Campbell, Inc., Granite Falls, N. C., a corporation of New York

Application April 26, 1956, Serial No. 580,878
7 Claims. (Cl. 84-172)



7. In a piano-organ musical instrument, the combination of a piano manual, an organ manual, a swell pedal for controlling the tone volume of said organ, said swell pedal being pivoted on its shorter axis, a piano sustaining pedal, a foot element mounted on the side of said swell pedal and operated by the same foot of the player as said swell pedal, said foot element having two slots therein to allow relative vertical movement between it and the surface of said swell pedal in whatever position said swell pedal may be in, a mechanical part mounted between said foot element and said piano sustaining pedal, an extension on one end of said part for mounting it in said piano-organ instrument in balanced fashion, a knob portion on said part for engaging said foot element with a substantially point contact and being operated thereby, the other end of said part being adjustably mounted to the piano sustaining pedal without any lost motion between it and said foot element, the top of said knob being curved and being normally positioned to have the center of said curvature aligned with the pivoting axis of said swell pedal, said foot element and said part conducting movement from said foot element to said piano sustaining pedal.

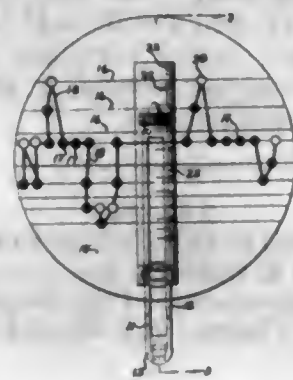
2,823,570

MUSICAL WHISTLE

John H. Bacon, Wellesley Hills, Mass.
Application September 28, 1955, Serial No. 537,163
8 Claims. (Cl. 84-330)

1. A musical whistle comprising an air conduit terminating in a constricted passage, a transparent resonant tube positioned angular to said conduit having an opening at one end, an air deflecting edge positioned at said opening and aligned with said constricted passage, a movable piston positioned within and adapted to vary the resonant frequency of said tube, said piston being

visible through said tube wall, and note indicating means formed on said tube and with which said piston may

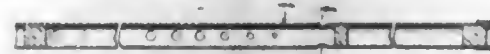


selectively be aligned to obtain predetermined notes from the whistle.

2,823,571

MUSICAL INSTRUMENT

Henry N. Herod, Woodville, Tex.
Application November 25, 1955, Serial No. 548,989
4 Claims. (Cl. 84-384)

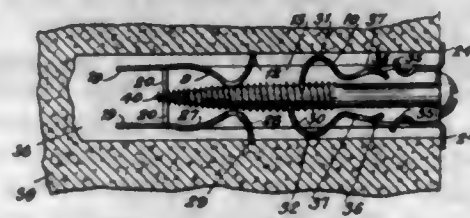


1. A wind instrument comprising a tube having a forward end and a rear end, said tube having a side wall, a forward stopper plug closing the forward end of the tube, an intermediate plug in the tube near to and spaced from said forward plug, a rear stopper plug in the tube near to and spaced from the rear end of the tube, the rear end of the tube being open, a line of spaced finger holes in said side wall between and spaced from said rear plug and said intermediate plug, a tone hole in the side wall near to and spaced forwardly from said rear plug, and vent hole means in said side wall near to and spaced rearwardly from said intermediate plug, said tone hole and vent means being spaced from related ends of the line of finger holes.

2,823,572

SCREW ANCHORAGES WITH A PLURALITY OF TONGUES FOR RECEIVING SCREWS OF DIFFERENT SIZE AND LENGTH

Emanuel Gisondi, New York, N. Y.
Application June 4, 1956, Serial No. 589,149
5 Claims. (Cl. 85-2.4)



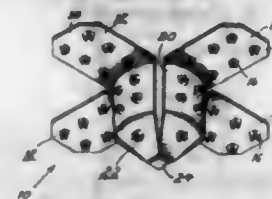
3. A screw anchorage adapted to be fitted in an opening in a wall, said anchorage consisting of a four-walled sleeve having a plurality of pairs of spring tongues formed out of two of its opposing walls, the walls out of which two of the tongues are formed being provided at one end with outturned lugs, the two remaining walls having intumed tabs at said end to co-operate with the lugs in forming a head at said end of the anchorage, one pair of the spring tongues having inwardly-extended hooked ends adapted to grippingly engage the shank of a screw inserted between them, each of the tongues in said latter pair having a pair of oppositely-directed lugs, one of said lugs being directed inwardly and the other outwardly, a second pair of spring tongues having hooked ends directed outwardly and adapted to be projected outwardly beyond the sides of the sleeve when a screw is engaged between

them, the tongues in one of said pairs having their bases located adjacent to the head end of the sleeve and the tongues in the second pair having their bases adjacent to the opposite end thereof.

2,823,573

FLANGE FASTENING CLIP FOR SPOOLS

John W. Vaskonis, Oaklyn, and Owen Bradley, Browns Mill, N. J.
Application October 10, 1955, Serial No. 539,304
4 Claims. (Cl. 85-40)

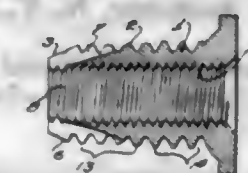


1. A readily dismembered integral clip for joining the end flange and core of a spool including a center portion, a plurality of inwardly extending slits in said center portion, a plurality of strips extending outwardly from said center portion, with each of said strips having a plurality of outwardly extending projections defined by spaced punchings, and each of said strips being bent to form a generally horizontal outermost portion and a generally upright portion adjacent said outermost portion.

2,823,574

SELF-TAPPING FASTENER

Joseph Rosan, Newport Beach, Calif.
Application August 9, 1954, Serial No. 448,526
8 Claims. (Cl. 85-47)



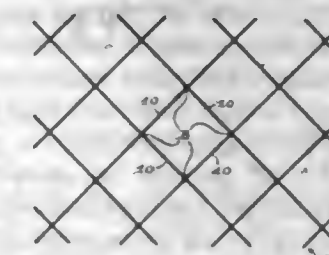
1. A self-tapping fastener adapted to tap a mating screw thread in a circular bore, comprising: a cylindrical body member having a recess extending inwardly from one extremity thereof and having external screw threads, at least the first of said screw threads at said one extremity being beveled, said body member also having at least two circumferentially spaced slots extending parallel with the axis of said fastener starting from said one extremity and extending across and beyond the beveled portion of said body member to interrupt the external screw threads thereon, said recess extending into said body for a distance at least substantially as great as the length of said slots and cooperating with said slots to provide arcuate sections at said one extremity, each of said slots having confronting side walls with one side wall of each slot constituting the leading edge of the interrupted screw threads and lying in a plane extending substantially parallel with a diametrical line passing through the axis of said fastener and forming thread cutting edges, at least said one beveled interrupted screw thread progressively increasing in radius from its leading-cutting edges at one slot to its trailing edge at the succeeding slot, said external screw threads including a first series of threads adjacent the beveled screw thread having truncated crests of a diameter less than the normal diameter for a given thread size, certain of said truncated threads nearest said beveled thread being intersected by said slots, said external screw threads also including a second series of threads adjacent said first series of threads having untruncated crests of normal diameter for said given thread size; an integral yieldable web extending across each slot between said side walls and interconnecting said

arcuate sections to provide a flexible cutting tip for the fastener, said webs gradually decreasing in thickness in the direction toward said one extremity of said body member and terminating in a thin outer end, said webs in normal use being capable of withstanding a substantial crushing force and also being capable of twisting a slight amount while being driven to permit lateral offsetting of said arcuate sections, so that upon driving said body member into a circular bore, pressure is exerted by the surrounding material on said interrupted screw threads to distort said webs and relatively laterally offset the sides of the respective slots and force the leading-cutting edges of said interrupted screw threads into cutting engagement with the surrounding material and an interference fit is obtained when said second series of screw threads follow into the screw threads made by said cutting edges of said beveled and truncated threads.

2,823,575

SLIP-FREE FISH NETTING

Edward R. Needham and Roland Johnson, Drummondville, Quebec, Canada, assignors, by mesne assignments, to Dominion Textile Company, Limited, Montreal, Quebec, Canada, a corporation of Canada
Application February 28, 1952, Serial No. 273,804
Claims priority, application Canada December 20, 1951
2 Claims. (Cl. 87-1)

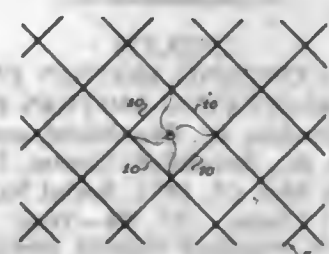


1. Fish netting, comprising, essentially uncoated twine of a synthetic linear polymer knotted with tight single knots, the knots being substantially evenly spaced apart and intervened by precise lengths of twine and the knots being set to retain substantially the form and relationship to the twine that were given when knotted, the elastic memory of the twine material being intact and tending to cause loosening and slipping of the knots, the twine being impregnated with a water-insoluble synthetic resin by being passed through a solution containing from about .5 to 3% of said resin to subdue the tendency of the knots to slip, and said synthetic resin being present in the netting in an amount in the neighborhood of about 1% of the twine material by weight.

2,823,576

METHOD OF MAKING SLIP-FREE FISH NETTING

Edward R. Needham and Roland Johnson, Drummondville, Quebec, Canada, assignors to Drummondville Cotton Company Limited, Montreal, Quebec, Canada, a corporation of Canada
Application March 2, 1953, Serial No. 339,680
2 Claims. (Cl. 87-1)



1. A method of making fish netting which comprises, forming on a netting machine netting from a twine of continuous filament high polymer synthetic resin by knotting with single knots, keeping such netting after

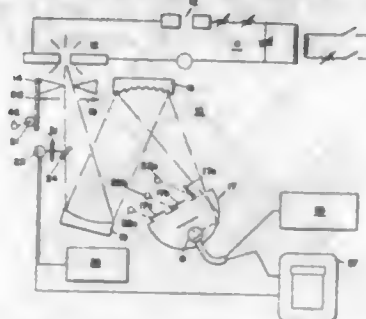
knotting under a tension sufficient to maintain the knots tight, then continuing to keep the netting under tension after formation and impregnating it with a knot-retaining resin by advancing the netting while still under tension from the netting machine through an impregnating bath containing a thin alcohol solution of from about 0.5% to about 3% of an alcohol-soluble synthetic resin whereby the netting picks up the solution, separating the netting from excess resin solution by removing the netting from the impregnating bath while still keeping the netting under tension, and removing the solvent to leave a light deposit of synthetic resin impregnated in the twine and an imperceptible coating on the netting effective to maintain the knots tight against the normal tendency of the twine to undo the knots, all during the process keeping the temperature of the treatment insufficient to counteract the elastic memory of the twine by heat-setting.

2,823,577

MULTIPLE SLIT SPECTROGRAPH FOR DIRECT READING SPECTROGRAPHIC ANALYSIS

Raymond C. Machler, Philadelphia, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application August 10, 1951, Serial No. 241,188
5 Claims. (Cl. 88-14)



3. In a system for spectrum analysis including a monochromator having means for producing a spectrum, the combination of means for sequentially isolating and individually scanning selected spectral lines comprising entrance and exit slit structures, one of said structures being movable over a narrow range between fixed limits bearing a predetermined relation to spectral line width, control means which for continued actuation in one direction automatically moves said one of said slit structures back and forth between said fixed limits to insure passage of the peak intensity of each said selected spectral line through at least one of said slit structures, a measuring circuit including radiant energy sensitive means for receiving radiant energy passing through said at least one of said slit structures to produce a signal of varying magnitude whose maximum is a function of the peak intensity of said selected spectral line unaffected by intensities of adjacent portions of the spectrum, and indicating means continuously connected to said sensitive means during movement of said one slit structure between said fixed limits to provide an indication of the peak intensity of said selected spectral line.

2,823,578

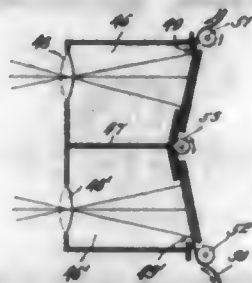
METHODS OF EXPOSING MOTION PICTURE FILM AND OF PROJECTING MOTION PICTURES

Thurlow M. Gordon, Jr., Brookfield, and Howard L. Taylor, Jr., Brookfield Center, Conn.

Application May 10, 1951, Serial No. 225,632
1 Claim. (Cl. 88-16.6)

The method of exposing motion picture film bearing a layer of light-sensitive material to form a series of sets of longitudinally disposed stereoscopically-related latent images in said light-sensitive layer, which comprises moving the film at constant speed through a camera having a pair of separate picture gates and an open taking lens

associated with each of said picture gates, said picture gates being so disposed that the respective paths of the film therethrough are equally but oppositely inclined from the plane of the taking lens associated therewith, and moving through said picture gates with said film a screen interposed between said lens and the light-sensitive layer, said screen having a series of elements subdividing the film into a corresponding series of discrete units, each of said elements being adapted to restrict the point at which light admitted through one of said taking lenses reaches



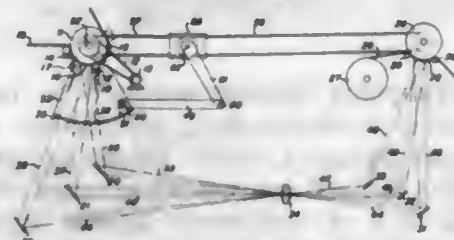
substantially the full width of the light-sensitive layer of the associated film unit to a limited area which sweeps across half in the direction of sweep of the light-sensitive layer of the film unit associated therewith and to restrict the point at which light admitted through the other of said taking lenses reaches the full width of the light-sensitive layer of said associated film unit to a limited area which sweeps across the balance of said light-sensitive layer as said unit moves through said picture gates successively.

2,823,579

CONTINUOUS OPTICAL COPIER

Charles F. Fitter, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application March 29, 1955, Serial No. 497,637
16 Claims. (Cl. 88-24)



1. A projection printing apparatus for projecting images of copy comprising, in combination, a projection station over which said copy is moved, means to illuminate said images successively at said station, an image receiving station spaced from said means and under which a sensitized strip is moved to receive projected images of said copy, a plurality of light paths between said means and said station to project the images of said copy at different magnifications to said station, and means for selecting one of said paths to secure an image of a desired magnification at said station.

2,823,580

AUTOFOCUS MECHANISM

Wright K. Gannett, near Davenport, Iowa

Application July 11, 1955, Serial No. 521,067
6 Claims. (Cl. 88-24)

1. Autofocus apparatus, comprising: support means; an image platen and an object platen carried by the support means for movement relative to each other; a lens intermediate the platens; and inverter mechanism interrelating the platens and lens for maintaining proper focus, including first and second carriers mounted on the support means for movement of one relative to the other along a straight line of action parallel to the light path through the lens, a first pinion fixed to the first carrier,

a second pinion journaled on the second carrier on an axis parallel to that of the first pinion, said pinions having equal pitch diameters, a first rack bar meshing with the pinions for rotating the second pinion upon relative movement of the carriers, a third pinion coaxial with and



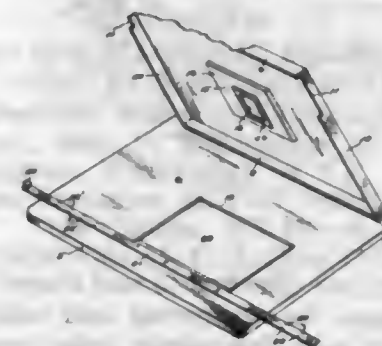
driven by the second pinion, second and third rack bars connected respectively to the platens and meshing with the third pinion, and means connecting the lens to the first carrier for effecting positioning of the lens according to the position of said first carrier when said carriers are moved relatively.

2,823,581

PHOTOGRAPHIC ENLARGING EASEL

Nathan Greenspan, Hollywood, Fla.

Application January 16, 1956, Serial No. 559,361
2 Claims. (Cl. 88-24)



1. A photographic enlarging easel of the character described and wherein multiple spaced apart images are printed upon a relatively large sheet of sensitized paper in a step by step manner, comprising a base plate and an overlying elevated cover hinged thereto to swing in a vertical plane, the cover having marginal walls that have resting engagement upon the base plate, opposite end walls of the cover being notched adjacent their forward ends, the cover being provided with a rectangular opening, a recessed adaptor pan engaging the opening, the adaptor pan having a bottom wall that is provided with a masking opening, a valve plate hingedly connected to the bottom wall to overlie the masking opening, an operator bar disposed upon the base plate and with its opposite ends projecting through the slots, the bar being shiftable in parallel relation to the base plate, means formed on the bar for engagement with the opposite ends of the slots whereby to accurately position the bar in a step by step longitudinal movement with respect to the cover, a carrier for a sensitized sheet of material and with the carrier being connected to the bar to be shifted therewith, the carrier and a sensitized sheet being disposed in underlying relation to the masking opening and whereby the sensitized sheet may be shifted in a step by step motion beneath the masking opening for the production of multiple prints in spaced apart relation, the recessed pan disposing the masking opening closely adjacent the sensitized sheet, the upper surface of the valve plate constituting a focusing surface from an enlarging device, the adaptor pan being provided with marginal flanges that overlie the cover, the bottom wall of the adaptor being disposed below the upper wall of the cover and parallel with the base plate, a protective strip of felt secured to the under surface of the bottom and

2,823,582

MICRO-PRINT ENLARGER AND VIEWER

Walter W. Gray, Crozet, Va., assignor to Acme Visible Records, Inc., Crozet, Va., a corporation of Delaware
Application November 28, 1956, Serial No. 624,810
5 Claims. (Cl. 88-24)



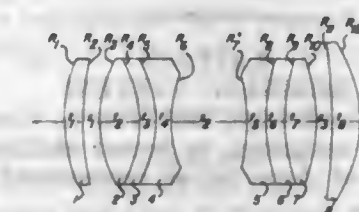
1. A micro-print record card enlarger and viewer which comprises, a housing, a translucent screen carried by said housing as one of the walls thereof, said housing being provided with an opening, enlarging lens means positioned in said housing having the optical axis thereof projecting through said opening, a light source disposed adjacent said enlarging lens means, reflecting means for said light source for directing light from said light source outwardly through said opening, a multi-voltage electric circuit connected to said light source, an electric switch connected in said circuit for selectively subjecting the light source to one of a plurality of voltages, a movable actuating arm carried by said switch disposed adjacent said opening, a card supporting plate for carrying a micro-print record card, said plate being mounted upon said housing in movable overlying relationship with respect to said opening, said plate being in contacting relationship with said switch arm, said plate being provided with an aperture registering with said opening in said housing whereby said plate with a micro-print record card carried thereon may be moved to move said switch arm to change the voltage in said circuit and change the intensity of the light projected through said opening onto the card carried by said card support, and light reflective means carried in said housing for reflecting the image of the micro-print from said enlarging lens means upon said screen.

2,823,583

OPTICAL OBJECTIVE LENS COMPRISING TWO CEMENTED MENISCUS TRIPLETS ENCLOSED BY TWO OUTER COLLECTIVE LENSES

Fred E. Altman and Rudolf Kingslake, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application April 4, 1956, Serial No. 576,073
3 Claims. (Cl. 88-57)



1. An optical objective consisting of two collective members and axially aligned therebetween two negative meniscus components concave toward a central airspace, in which the power of each positive member is between $0.5/f$ and $2/f$ where f is the focal length of the objective as a whole, in which the concave surface of each negative

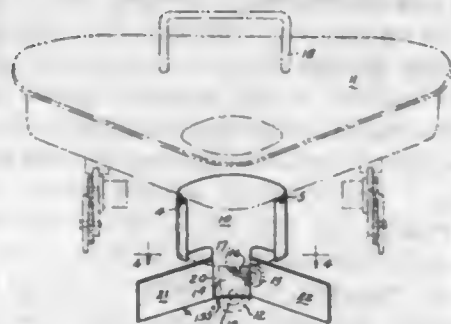
component has a radius of curvature between $0.1/f$ and $0.6/f$ and the convex surface thereof has a radius of curvature between $0.2/f$ and $0.7/f$, and in which the thickness of each negative meniscus component is between $0.1/f$ and $0.25/f$ and the over all length of the objective is less than f , characterized by each negative meniscus component being a cemented triplet consisting of a weak meniscus element cemented between a biconcave element and a biconvex element, by the refractive index N_m of each meniscus element being between 1.43 and 1.60, by the refractive index of each of the two elements which enclose the meniscus element in each triplet being between $(N_m + 0.08)$ and 1.75, and by the radii of curvature of the cemented surfaces of each said triplet being between $0.2/f$ and f and the reciprocals thereof differing numerically by less than $0.4/f$.

2,823,584

REFLECTOR FOR VIEWING MARKER WHEEL
John A. Stump, Covington, Ohio, assignor to the United States of America as represented by the Secretary of the Air Force

Application February 11, 1953, Serial No. 336,462
1 Claim. (Cl. 88—85)

(Granted under Title 35, U. S. Code (1952), sec. 266)



A reflecting device for improving the visibility of the marker wheel trace of the marker wheel of an aviation ground training recorder in which the marker wheel is pivotally mounted for rotating about a vertical steering axis and freely rotatable about a horizontal axis for rotation over a recording surface and including a stationary frame element which remains with a fixed orientation with respect to the recording surface; the reflecting device including a first portion secured to the stationary frame element of the recorder, a second portion depending from the first portion, and a third portion connected to the first portion by the second portion; said third portion including a center section substantially perpendicular to the line of sight of an observer and having a width substantially the same as the diameter of the marking wheel, and two reflecting sections extending from the plane of the center section at an angle of substantially 135° , the lower edge of each of the two reflecting sections being disposed substantially parallel with the recording surface and closely adjacent thereto to reflect to the observer an image of the contact point of the marker wheel with the recording surface.

2,823,585

BOMBING SYSTEM

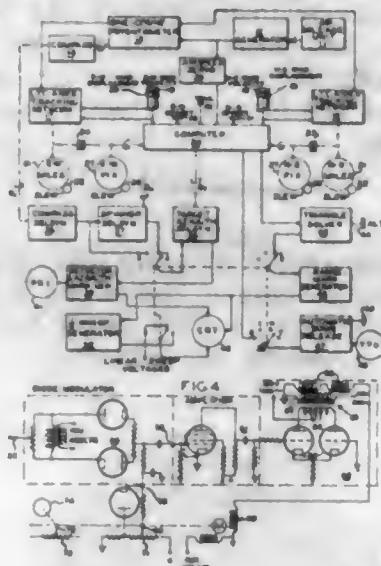
John W. Gray, Cambridge, and Ivan A. Greenwood, Jr., Boston, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of War

Application June 7, 1945, Serial No. 598,161

8 Claims. (Cl. 89—1.5)

7. An aircraft navigation and bombing system comprising means for continuously measuring air speed and azimuthal heading direction of the craft, means for determining the polar components of range and direction to a chosen location on the ground, means responsive to

voltages proportional to components of air speed from said measuring means comprising aided target marker tracking circuit means for generating azimuthal components of ground range, said tracking circuit including means for introducing an initial setting for a tracking rate corresponding to an assumed wind velocity and a setting correction for wind velocity, means for setting the magnitudes of said ground range components relative to said chosen location, means for providing a control effect which varies inversely with air speed, a computing means responsive to said ground range vector components and adjustable in accordance with components of wind velocity and said air speed control effect, switching means which in one position provides for operating said computing means independently of said wind velocity component and said air speed control effect to produce polar com-



ponents of range and direction to said chosen location together with means for comparing said computed polar components with said determined polar components to guide the adjustment in said tracking circuits of said corrections for wind velocity and which in a second position provides for operating said computing means with said wind velocity components and said control effect for producing polar components of range and direction to a travelling virtual location up wind from said chosen location and for producing a potential proportional to the time of travel at said air speed to said virtual location, and means for comparing said polar component of direction with the heading direction of said craft to indicate by their difference any error in steering said craft toward said virtual location whereby said craft may be piloted to travel a straight line path to said chosen location.

2,823,586

BOMB RELEASE COMPUTING SYSTEM

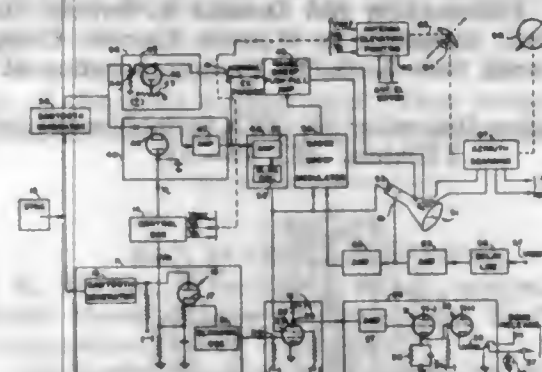
Byron L. Havens and John J. Lentz, Cambridge, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of War

Application October 3, 1945, Serial No. 620,134

4 Claims. (Cl. 89—1.5)

1. A bomb release point computing system for producing an electrical signal to operate a bomb release mechanism comprising first pulsing means to produce first periodic pulses the times of occurrence of which a function of the slant range at which the bombs are desired to be released, second pulsing means adjustable to produce second periodic pulses the times of occurrence of which are a function of the actual slant range, third means for producing third periodic pulses the times of occurrence of which are a function of the target distance, means for indicating coincidence between said second and third pulses, coincidence circuit means coupled to said first and second pulsing means to provide a periodic pulse output

only upon coincidence of said first and second periodic pulses, a cathode follower circuit connected to said coincidence circuit means to receive the output pulses therefrom, a memory circuit comprising a parallel capacitor-resistor circuit connected in the cathode circuit of said cathode follower, the time constant of said capacitor-



resistor circuit being somewhat longer than the repetition rate of said periodic pulses, and relay means connected to said memory circuit for operating a bomb release relay only upon a voltage build-up on said memory circuit by the reception of a plurality of successive pulses from said coincidence circuit means whereby spurious operation of said bomb release relay is prevented.

2,823,587

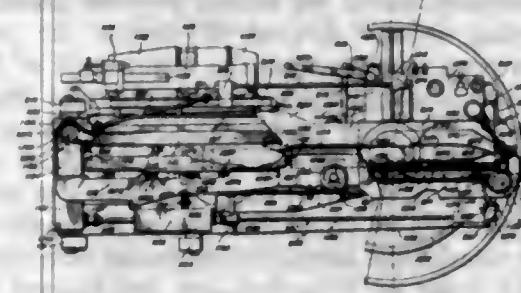
LOADING AND RAMMING MECHANISM FOR SEMI-AUTOMATIC GUNS

George A. Chadwick, Washington Grove, Md., and Philip H. Glouard, John H. Sihler, Carl V. Hickman, and David Wertman, Washington, D. C.

Application November 28, 1942, Serial No. 467,182

136 Claims. (Cl. 89—4)

(Granted under Title 35, U. S. Code (1952), sec. 266)



136. In a gun, the combination of a slide, a barrel and a transversely movable breech block mounted on said slide for recoil and counterrecoil, a breech bolt for locking the breech block in a closed position, a cylinder movable with said barrel and breech block in the recoil and counterrecoil thereof, a piston disposed within said cylinder and connected to said breech block, a source of hydraulic energy for said cylinder and piston, a control unit interposed between said source and cylinder including a valve shiftable by the breech bolt for admitting hydraulic fluid from said source to said cylinder and a pair of valves for controlling the direction of flow of the hydraulic fluid within the cylinder, means for holding the first-mentioned valve in its fluid porting position in all open positions of the breech block, means for shifting the pair of valves simultaneously in one direction to cause an opening of the breech block, means for shifting one of said pair of valves in a reverse direction for terminating the flow of the hydraulic fluid from said source through said first-mentioned valve to said cylinder, and means for shifting the other of said pair of valves in a reverse direction to cause a closing of the breech block.

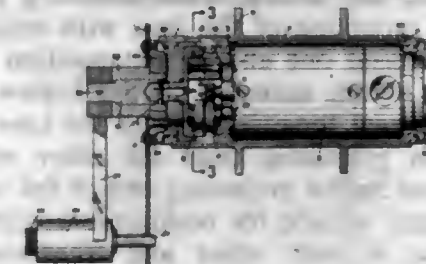
2,823,588

AMMUNITION BOOSTER

William A. Webb and William B. Hipsley, Towson, Md.

Application April 6, 1955, Serial No. 499,704

10 Claims. (Cl. 89—33)



1. An ammunition booster for driving an ammunition belt comprising, a motor having a rotating shaft, clutch means interposed between said motor and said shaft to allow rotation of said shaft in one direction only, a pinion attached to said shaft, a drive sprocket carried for rotation with respect to said motor, a ring gear carried by said sprocket, a first planet gear interposed between said pinion and said ring gear, a second planet gear coaxial with and fixed to said first planet gear, a second ring gear engaging said second planet gear, and means for selectively allowing or preventing rotation of said second ring gear in either direction with respect to said motor.

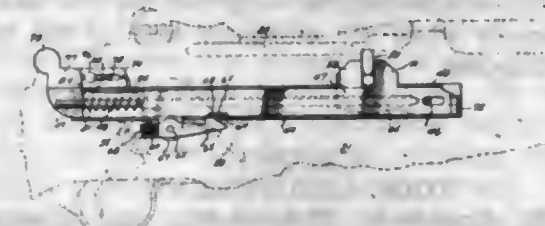
2,823,589

SELECTIVE FIRE CONVERTER AND RATE REDUCER

Alonzo F. Gaidos, Redwood City, Calif.

Application March 31, 1952, Serial No. 279,623

18 Claims. (Cl. 89—131)



8. In an automatic firearm having an automatically reciprocating slide, a hammer cocked by rearward movement of said slide, and a sear engageable with said hammer to retain it in cocked position, a cyclic rate reducer comprising a housing for mounting on one side of the firearm to form a longitudinally extending guideway with the side of the firearm, a plunger slidable in said housing, sear tripper means carried by said housing, spring means normally urging said plunger from a set position at the rear of said housing in a forward direction to engage and operate said sear tripper means to cause disengagement of the sear from the hammer, a latch carried by said housing and engageable with said plunger to retain it in set position during forward movement of said slide, a latch release member slidable in said housing operated by movement of said slide toward its battery position for causing disengagement of the latch to allow said spring means to move said plunger forward to operate the sear tripper means and discharge the firearm a predetermined time following release of the latch, and selector means carried by the housing having a manually operable member for rendering said rate reducer operative and inoperative.

2,823,590

MACHINE TOOL

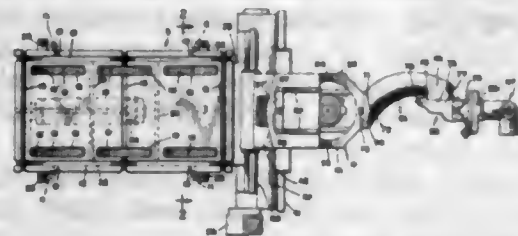
Fred R. Swanson and Carl F. Erikson, Rockford, Ill., assignors to Sundstrand Machine Tool Company, a corporation of Illinois

Application March 14, 1956, Serial No. 571,522

20 Claims. (Cl. 90—13)

1. A portable milling machine adapted for movement to positions adjacent supporting means and for attach-

ment to such supporting means adjacent relatively large workpieces stationarily mounted, comprising, in combination, a hollow elongated base of rectangular cross section formed with four outsides and one end each providing an outer exposed and unobstructed mounting surface, to thereby permit mounting of the base with either of said four outsides or said one end in juxtaposition with supporting means, a ram mounted in the hollow base for reciprocal movement longitudinally of the base with one end of the ram projecting from the other end of the base, slide means on the projecting end of the ram carrying a rotary cutter spindle for bodily movement in directions transverse to each other and transverse to the



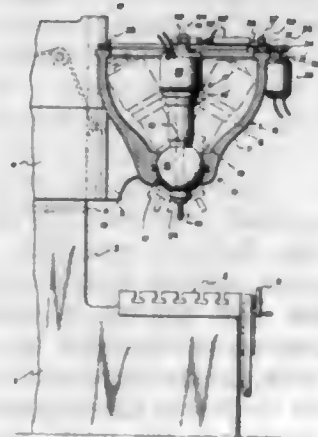
movement of the ram, guide means formed on each of said four outsides and said one end adapted for cooperation with guide means on supporting means for confining and guiding slidable movement of the base relative to supporting means, means on each of said four outsides and said one end adapted for receiving clamping means for securing the base to the supporting means, means on each of said four outsides for receiving attachable means facilitating movement of the machine from place to place, and means connected between the base and the ram for counterbalancing the weight of the ram and parts carried thereby when the elongated axis of the base is vertically disposed.

2,823,591

TOOL ADJUSTMENT

William D. Craddock, Philadelphia, and George G. Cudhea, Morrisville, Pa., assignors to Kaiser Metal Products, Inc., Oakland, Calif., a corporation of California

Application November 13, 1953, Serial No. 391,906
11 Claims. (Cl. 90—15)



1. In a milling machine, the combination of a head element, said head element including a carrier member provided with an annular socket, a work performing member movably attached to said carrier member, and means for attaching said work performing member to said carrier member, said means including a ball member movably mounted within the annular socket in said carrier member, and multiple control means operable simultaneously as well as individually for rotating the ball member in a plurality of directions within said socket prior to as well as during the stroke of the work performing member over a workpiece, whereby said work per-

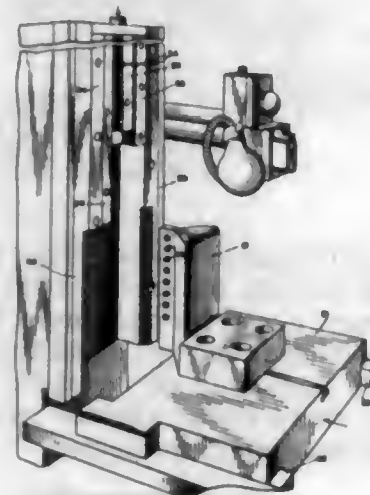
forming member can be adjusted at a plurality of angles with respect to any vertical as well as any horizontal axial line drawn through the said carrier member.

2,823,592

APPARATUS FOR BROACHING ARTICLES

Vaughn L. Johannessen and Donald B. Sweely, Indianapolis, Ind., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York

Application December 30, 1953, Serial No. 401,168
3 Claims. (Cl. 90—33)



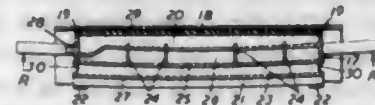
1. A broaching apparatus, which comprises a vertical guideway, a pair of broaches, means for mounting said pair of broaches for vertical movement along one side of the guideway and extending along said side of the guideway in positions in which each of the broaches faces at least partially toward the other side of the guideway and the broaches are spaced apart, a second pair of broaches, means mounting the second pair of broaches on the side of and extending along the guideway opposite to that at which the first pair of broaches are mounted in positions in which the broaches of the second pair are spaced apart, said mounting means serving to mount the pairs of broaches in positions in which the lower ends of the first pair of broaches extend downwardly beyond the lower ends of the second pair of broaches, a holder provided with a series of bores therethrough in a vertical row for receiving shafts each having a flange near one end only thereof in positions in which the ends of the shafts extend beyond the sides of the holder in alignment with the spaces between the pairs of broaches and the flanged end of each shaft is on the side of the holder nearer to the first pair of broaches, and means for moving the broaches downwardly into engagement with the ends of the shafts held by the holder, each of said first pair of broaches having teeth in a row at an angle partially facing the teeth of the other broach of the first pair and partially facing the holder to seat the flange of each shaft against the holder.

2,823,593

SUCTION ROLL FOR PAPER-MAKING MACHINES

Herbert Holden, Sheffield, England, assignor to Beloit Iron Works, Beloit, Wis., a corporation of Wisconsin

Application February 3, 1955, Serial No. 486,008
Claims priority, application Great Britain March 15, 1955
11 Claims. (Cl. 92—53)



1. In a suction box structure for suction roll of a paper making machine, fixed longitudinal sealing strips adapted to contact the roll shell to define edges of a main suction compartment to which suction is directly applied, spaced support members defining a longitudinal beam se-

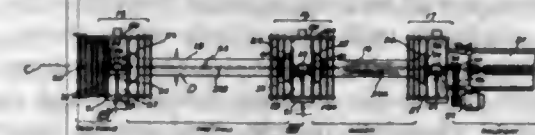
cured at its ends only to the suction box structure, a further longitudinal suction compartment formed adjacent the main suction compartment and adapted to receive suction only from the main suction compartment by a communication between the two compartments, one boundary surface of this further compartment nearer the sealing edges at the mouth of the main compartment being constituted by a wall of the suction box structure itself and the other boundary surface farther from the sealing edges of the main compartment being connected to the longitudinal beam over the length of said beam.

2,823,594

BOX MAKING MACHINE

Paul E. Fischer, Minneapolis, Minn., assignor to E. G. Staude Manufacturing Company, Inc., St. Paul, Minn., a corporation of New Hampshire

Application March 2, 1955, Serial No. 491,570
17 Claims. (Cl. 93—49)



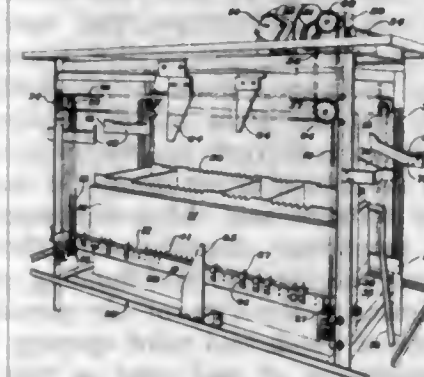
1. A box making machine comprising a plurality of drive units at spaced intervals along the longitudinal center line of the path of movement of the box blank through the machine, a power transmission gearing at each drive unit along said center line, box blank operating mechanisms mounted on adjacent drive units and operated by said gearings and power transmission shafts connecting the gearings of successive drive units.

2,823,595

PHOTOGRAPHIC PROCESSING MACHINE

William D. McFadden and William R. Weller, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application July 27, 1954, Serial No. 446,132
12 Claims. (Cl. 95—98)

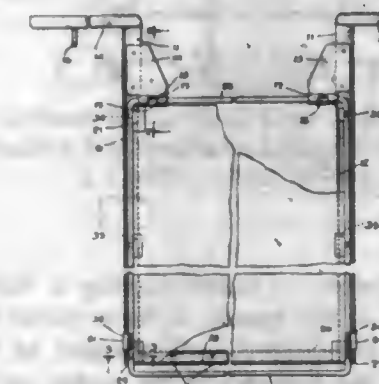


1. A photographic processing apparatus comprising a tank, a sensitized sheet holder including a supporting bar having laterally extending arms adapted to extend beyond and rest upon the top edges of the opposite sides of said tank when the sensitized sheet is immersed therein, a lift rail along each of said opposite sides of the tank, a series of endless, lift chains, a pivotal connection between each end of each of said lift rails and a different one of said series of lift chains whereby the two rails are horizontally supported between pairs of chains and one rail is normally offset vertically from the other as the rails are both being raised or are both being lowered by said lift chains, and means driving said lift chains at identical speeds whereby said lift rails are vertically raised and lowered between positions below and above the top edges of the tank and longitudinally shifted forward and backward as the rails reverse their upward and downward travel, said rails being adapted to engage and raise said supporting bar arms as said rails move above the top edges of said tank.

2,823,596

FILM NEGATIVE SUPPORTING FRAME

Frank A. Stirrup, Plainfield, N. J.
Application March 1, 1956, Serial No. 568,860
4 Claims. (Cl. 95—100)

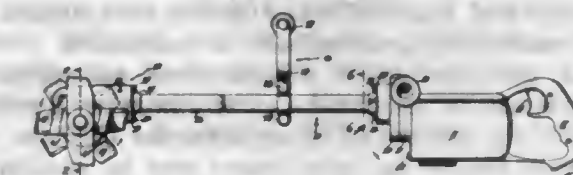


1. A film supporting device of the class described, comprising a main substantially U-shaped frame of L-shaped cross-sectional form throughout the major portion of its length, free upper ends of the side members of the main frame having long and short laterally extending supporting rails, brackets secured to said ends of the main frame and including downwardly extending cutout hinge bearings, an O-shaped clamp frame defined by side members and top and bottom crossheads, the top crosshead being pivotally mounted in the bearings of said brackets, the side members being arranged within upstanding wall portions of the main frame beyond limits of said brackets, the side members of said clamp frame extending through openings in the lower portion of the main frame to form, of the lower crosshead, a fingerpiece portion for operation of the clamp frame, the sides of the main frame, adjacent the lower ends thereof, having spring clips operatively engaging the side members of the clamp frame in retaining the same in operative position within the main frame, cushioning pads spaced along the main frame, and said clamp frame having, in alignment with the pads, protruding beads adapted to operatively engage a film supported on said pads in retaining the film against displacement from said frames.

2,823,597

ROTARY SOIL WORKING DEVICE

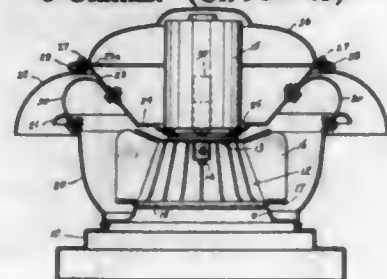
Cadwallader W. Kelsey, Troy, N. Y.
Application September 3, 1953, Serial No. 378,208
5 Claims. (Cl. 97—40)



2. A rotary soil working device of a size and weight adapting it for manual manipulation while supported and balanced by an operator; said device comprising an electric motor; a handle on said motor; an elongated shaft housing secured at one end thereof to said motor; a main shaft in said housing driven by said motor; a gear housing secured to the other end of said shaft housing; a transverse shaft mounted in said gear housing and driven by said main shaft; a soil working tool mounted on said transverse shaft; a friction clutch interposed between said tool and said transverse shaft; and a second handle secured to said shaft housing in a zone intermediate said motor and said housing, whereby said device is supported and balanced by said operator for manual manipulation.

2,823,598 VENTILATOR

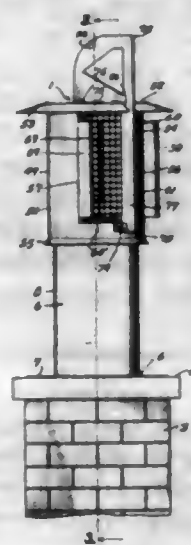
Louis J. Jenn, Indianapolis, Ind.
Application February 20, 1956, Serial No. 566,550
3 Claims. (Cl. 98—43)



1. In a fan assembly, a motor having a shaft, a fan blade on the shaft of the motor, a sheet metal truncated cone coaxial with the motor and attached at the small end of the cone to the fan-end of the motor, an air bowl in the form of a figure of revolution substantially coaxial with said motor, an annular hood depending from the large end of said cone and overlying in spaced relation the rim of said bowl, and a plurality of flat U-shaped suspension springs extending from the rim of the bowl to the surface of said cone and attached to said bowl and cone respectively, the points of attachment of the springs being on a line at an angle to the axis of said motor.

2,823,599 VENTILATOR

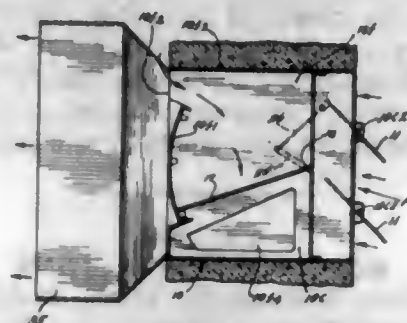
August J. Still, Atchison, Kans.
Application July 1, 1955, Serial No. 519,396
4 Claims. (Cl. 98—68)



1. A ventilator for chimneys and like vent stacks, said ventilator including a cylindrical base member adapted to form a continuation of a vent stack on which the ventilator is to be mounted, a cap member having a cylindrical body portion of larger diameter than the base member and having an open lower end to provide an annular space encircling the base member, said cylindrical body portion of the cap member being closed at its upper end and having a lateral generally rectangular outlet opening in a side thereof, means rotatably mounting the cap member coaxially of the base member to maintain said annular space for the passage of air therethrough and discharge of the air through said lateral outlet to induce an upward flow through the base member for discharge through said lateral outlet, and a vane projecting upwardly from the closed top of the cap member and having a portion depending in the vertical longitudinal median of the outlet opening for the full height of the lateral outlet and projecting exteriorly therefrom to be swept by air currents sweeping around the body portion of the cap member to maintain the outlet opening of the cap member on the leeward side of said air currents.

2,823,600 AIR CONTROL DEVICE FOR A BUILDING HAVING AIR CONDITIONING

Arthur D. Cole, St. Paul, Minn.
Application October 11, 1955, Serial No. 539,877
5 Claims. (Cl. 98—116)



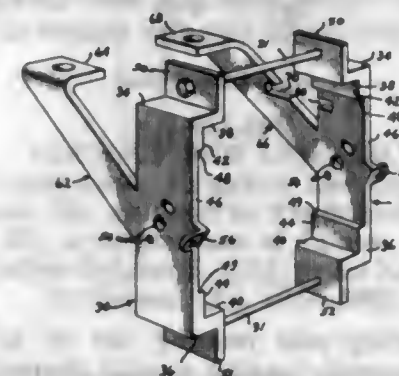
1. An air control device for a building having in combination, a casing having a chamber therein, said chamber having a wall with an opening therethrough connecting said chamber with the outside atmosphere, said chamber having an opening at one side thereof connecting the same with the inside of said building, said casing having a second chamber therein, said casing having a wall between said chambers having an opening therein through which said chambers are in communication, a damper in said first mentioned opening normally in closed position, pivot means for mounting said damper in said first mentioned opening so as not to be affected by wind outside of the building, said second chamber having a vertical wall at one side thereof, a plate-like vane in said second chamber, pivot means secured to said vertical wall of said second chamber for mounting said vane for swinging movement in said second chamber, said third mentioned opening being disposed at one side of said vane, said second chamber having a second wall with an opening therein connecting said second chamber with the inside of said building, said last mentioned opening being at the opposite side of said vane from said third mentioned opening, means connecting said vane to said damper so that movement of said vane causes a corresponding movement of said damper, said vane having a large area relative to the cross-sectional area of said second chamber taken on a plane perpendicular to said vertical wall so that it will be moved by lowering the air pressure at one side thereof, and means in said building for causing movement of air from said second mentioned chamber through said third mentioned opening into said first mentioned chamber, and through said second mentioned opening into said building, said movement of air causing a lowering of air pressure at the side of said vane at which said third opening is located, thus causing movement of said vane so that said first mentioned means will open said damper and air can then move past said damper into said first mentioned chamber and through said second mentioned opening to the inside of said building.

2,823,601 HAY BALER TYING NEEDLE GUIDE

Earl N. Tisdell, Connerville, Okla.
Application January 11, 1956, Serial No. 558,453
2 Claims. (Cl. 100—19)

1. A needle pitman guide for an automatic tying hay baler having tying needles supported by pitman pivot brackets and having a rectangular bale chamber within which hay is compressed, comprising: a pair of elongated plate metal side members vertically co-operatively disposed, and each having transversely thickened right angularly shaped end portions adapted for receiving opposing surface corners of said bale chamber therebetween thereby disposing a central portion of each said side member in spaced-apart relation with the adjacent respective side wall of said bale chamber; an arm ex-

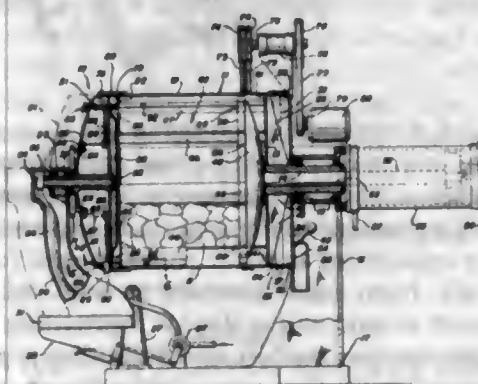
tending forwardly and upwardly from each said side member and terminating in a centrally perforated inwardly disposed flanged end co-planar with the uppermost right angular ends of said side members for connecting with the upper surface corners of said bale chamber and preventing longitudinal movement of said side members relative to said chamber, each of said side members perforated intermediate its ends, said needle pitman



brackets pivotally connected to each respective said side member through the perforation therein, each of said side members having a flanged end projecting vertically above and below, respectively, in parallel relation from said bale chamber; and means rigidly connecting said flanged ends together, whereby the side walls of said bale chamber may fluctuate with respect to said side members when hay is compressed within the chamber.

2,823,602 METHOD AND APPARATUS FOR WASHING AND WATER-EXTRACTING CLOTHES

John Zimarik and Paul C. Zarrs, Akron, Ohio, assignors to International Laundry Machinery Co., Akron, Ohio, a corporation of Ohio
Application June 5, 1952, Serial No. 291,914
15 Claims. (Cl. 100—35)

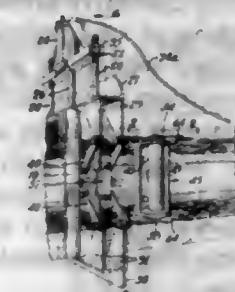


4. A machine for washing and fluid-extracting clothes or like articles, comprising a drum support, a drum mounted on said support to be rotatable about a substantially horizontal axis and having a forward open end, power-operated means for rotating said drum on said drum support, a plunger mounted to be axially shiftable in said drum, power means for axially shifting said plunger toward and from a given position at the forward end of the drum, locking means for locking said plunger against retraction from said given position, a closure at said open end of the drum including releasable locking means for locking the same in closed position on the drum to rotate therewith, a closure support rotatably supporting said closure, said closure support being movable to operate the closure from and toward said closed position thereof, a fluid-containing member mounted on said closure presenting a fluid-expandable diaphragm inwardly of the drum, means for applying fluid-pressure in said fluid-containing member to expand said diaphragm to-

ward said plunger in locked position thereof, the rotatable connection between said closure and said closure support including a conduit extended through the closure to communicate with the interior of said fluid-containing member, and valving means controlling supply of pressure fluid to said fluid-containing member through said conduit.

2,823,603 BALER

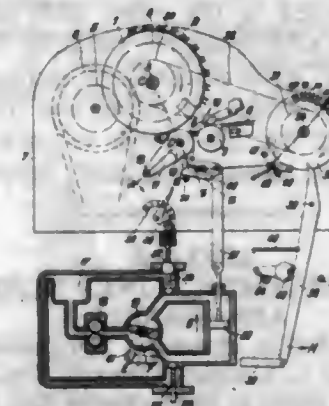
Robert H. Collins, Brownsville, Oreg.
Application November 1, 1954, Serial No. 466,025
2 Claims. (Cl. 100—179)



1. In a baling machine having a baling chamber defined by upper and lower walls and a pair of laterally movable side plates, a vertically disposed channel-shaped bracket fixed to each of said side plates, said brackets having top and bottom flat surfaces, a vertical shaft journaled in each of said brackets and projecting beyond said top and bottom flat surfaces, said shafts being independently rotatable, a pair of disc members fixed to the upper and lower projecting portions of each of said shafts, radial extensions on said disc members extending into said baling chamber in the path of material passing therethrough, frictional lining between said disc members and said top and bottom flat surfaces for applying a frictional retarding force to said disc members, said disc members being disposed adjacent the upper and lower portions only of said baling chamber for forming retarding means for material in said baling chamber at the upper and lower side portions for distributing said material with equal density vertically and laterally as it moves through said baling chamber in engagement with said disc members, and adjustable screw threaded means on said shaft arranged to apply resilient compressive force on said frictional lining between said disc members and said top and bottom surfaces for varying said retarding force.

2,823,604 PRINTING APPARATUS WITH HYDRAULIC CONTROL

Wilhelm Ritzerfeld, Berlin-Dahlem, and Gerhard Ritzerfeld, Berlin-Grunewald, Germany
Application November 20, 1956, Serial No. 623,384
Claims priority, application Germany November 22, 1955
9 Claims. (Cl. 101—91)

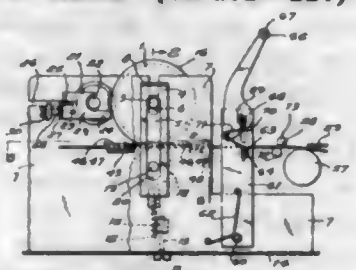


1. In a printing apparatus for selective intermittent printing, in combination, a frame; a rotary printing roll mounted on said frame and adapted to have printing form attached thereto; a counter roll supported on said frame

for movement to and from a printing position in close proximity to said printing roll for pressing a copy sheet passing between said rolls against said printing form; a hydraulic operating device including a movable member operatively connected to said counter roll for moving the same to and from said printing position, said hydraulic operating device including valve means movable between two positions for advancing and retracting said movable member, respectively; a shifting means for shifting said valve means between said positions thereof; a set of control means respectively associated with sections of said printing form, each control means having an operative and an inoperative condition; means for successively connecting control means in operative condition to said shifting means during rotation of said printing roll, said shifting means being actuated whenever one of said control means in operative condition is connected to said shifting means; and selector means including a set of operating members respectively associated with sections of said printing form and with said control means, said operating members being selectively movable to and from an operative position for placing the associated control means in said operative condition.

2,823,605

APPARATUS FOR PRINTING STRIP MATERIAL
Mathias Kutsch, Attendorf, Westphalia, Germany
Application April 20, 1954, Serial No. 424,469
Claims priority, application Germany April 21, 1953
5 Claims. (Cl. 101—227)



1. A combined apparatus of the type described comprising, in combination, supply means for delivering strip material; supporting means having spaced upright wall members formed with opposite slots therein; rotatable printing means including printing members and associated with said supply means and adapted for printing on the strip material received from said supply means, said rotatable printing means having an axially extending spindle slidably mounted at opposite ends in said slots of said wall members; counter support means adjacent said rotatable printing means for supporting the strip material during printing; resilient ring means on one of said rotatable printing means and said counter support means extending around the periphery thereof and having a radial thickness substantially equal to the radial thickness of said printing members on said printing means; a pair of tension means each connected at one end to opposite ends of said spindle; a pair of spring means respectively connected to the other ends of said tension means for urging said rotatable printing means against the strip of material to be printed and against said counter support means supporting the same; and transverse beam means connected to the other ends of said spring means and being pivotally mounted in said supporting means.

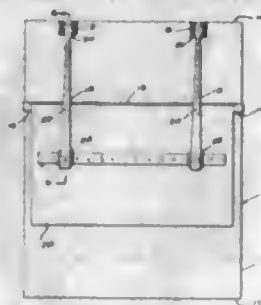
2,823,606

SEISMOGRAM TIMING LINES NUMBERING APPARATUS

Denny P. Schafer, Houston, Tex., assignor to Willis L. Looney, Orange, Tex.
Application April 1, 1955, Serial No. 510,679
(Filed under Rule 47(b) and 35 U. S. C. 118)
3 Claims. (Cl. 101—298)

1. Means for imprinting time numerals on a seismogram comprising a flat support, a straight abutment ele-

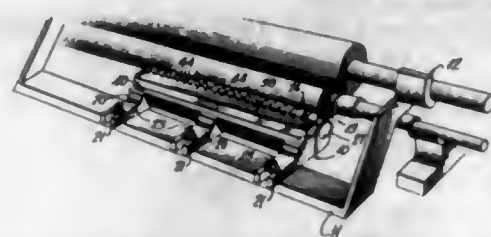
ment of substantial length on said support for engagement with an edge of a seismogram disposed on the outer portion of said support, lever means pivoted to said support for rotation around an axis parallel to said abutment element, channel means secured to the underside of said lever means, and a printing bar carrying depending, uniformly spaced time numerals on its under side, means



slidably supporting said printing bar in said channel means for adjustment parallel to said abutment element in a position overlying said outer portion of the support, and resilient means secured to said printing bar and depending below the time numerals thereon, said resilient means being engageable with the support prior to the engagement of said time numerals therewith when the printing bar is moved downwardly toward said support.

2,823,607

PORTABLE COLOR INK FOUNTAIN
Ernest E. Butcher and Louis Spilman, Waynesboro, Va., assignors to Waynesboro Publishing Corporation, Waynesboro, Va., a corporation of Virginia
Application July 13, 1956, Serial No. 597,753
1 Claim. (Cl. 101—363)



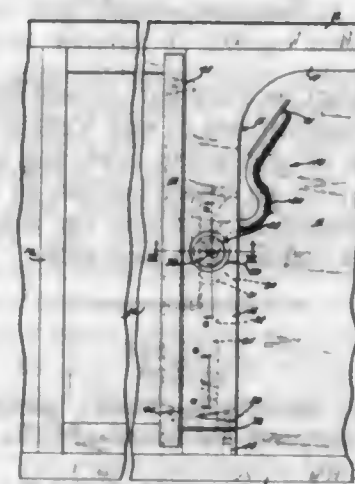
A color ink fountain for supplying ink to a driven inking roller of a rotary printing press comprising an elongated fountain adapted to be removably disposed along-side said inking roller having a bottom and erect side and end walls, a cylindrical transfer roller in said fountain for supplying ink from said fountain to said inking roller, means secured to said end walls for journalling said transfer roller for rotation within said fountain, a plurality of laterally spaced mounting arms projecting to one side of said fountain parallel to said side walls in the plane of said bottom in a direction to extend away from said inking roller, said mounting arms each having an elongated slot adjacent the terminus thereof extending parallel to said end wall plane to accommodate securing means for affixing said arms to said cross frame member and permit adjustment of said fountain along a rectilinear axis parallel to said side walls and perpendicular to the axis of said inking roller to dispose said transfer roller in frictionally driven contact with said inking roller, means for regulating the thicknesses of the ink film on said transfer roller, each end of said cylindrical transfer roller having an uninterrupted annular projecting portion at the periphery thereof and a recessed central portion, a disk having a diameter corresponding to the diameter of said transfer roller positioned adjacent each end of said transfer roller, fixed guide pins spaced in diametrically opposite relation to the axis of said disks and extending in parallelism with the axis of said disks and said transfer roller, said pins supporting said disks for axial movement relative to said fountain side walls, and spring means surrounding said guide pins and located between said disks and their adja-

cent fountain side walls for resiliently maintaining said disks in frictional contact with said projecting annular peripheral portions of said transfer roller ends to prevent transfer of ink along said roller ends from said fountain to said inking roller, said disks each having relieved flats along the peripheral portions thereof to be disposed immediately adjacent said inking roller for maintaining said disks spaced from said inking roller when said transfer roller is in contact with said inking roller.

2,823,608

LOCK-UP BAR ASSEMBLY

David D. Vandercook, Evanston, and Garret D. Robar, Northbrook, Ill., assignors to Vandercook & Sons, Inc., Chicago, Ill., a corporation of Illinois
Application October 5, 1955, Serial No. 538,630
6 Claims. (Cl. 101—390)



1. In a lock-up bar assembly for use in locking printing forms in a printing press bed having side rails, a plate arranged to engage one of the side rails of the bed, a shoe associated with said plate and arranged to engage the other side rail, a bar associated with said plate for movement with respect thereto and arranged to engage a printing form in the bed, means acting between said plate and shoe for urging said plate and shoe into pressure engagement with the side rails of the bed, means acting between said bar and said plate for urging said bar into pressure engagement with the printing form, and a single operating lever for successively operating said means.

2,823,609

DEVICE FOR SEISMIC PROSPECTING

Norman Gardner Johnson, Wilmington, Del., and George Adelbert Noddin, Sewell, and Merrill Edward Swanson, Pittman, N. J., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Original application April 15, 1953, Serial No. 348,895.
Divided and this application May 24, 1956, Serial No. 587,022

4 Claims. (Cl. 102—27)



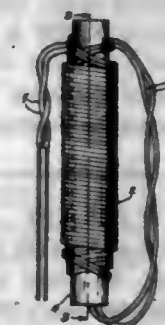
1. A delay connector for connecting two lengths of detonating fuse which comprises a tubular shell having an inner diameter substantially equal to the outer diam-

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2,823,610

BLASTING CAP PACKAGES

Harvey J. Frazer, Alton, Ill., assignor to Olin Mathieson Chemical Corporation, East Alton, Ill., a corporation of Virginia
Application January 23, 1956, Serial No. 560,506
3 Claims. (Cl. 102—28)

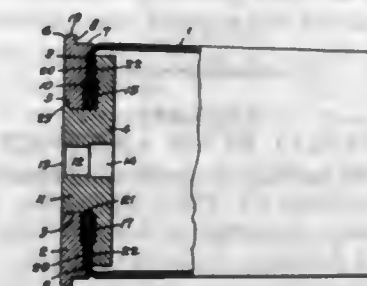


1. In a prepared package wherein an electric blasting cap is contained within a tube having a pair of diametrically opposite slots at one end, and the lead wires are wound about the exterior of the tube to form a coil with an uncoiled portion at each end of the coil, both uncoiled portions extending from the coil at the slotted end of said tube; the improvement which comprises, said slots each having a straight portion open at the end of the tube and an offset portion connecting with the straight portion at a point remote from the mouth of the straight portion, said offset portions being diametrically opposed and on opposite sides of a plane through the straight portions of said slots, one of the uncoiled portions of lead wires, immediately as it leaves the coil, being disposed within the straight portion of one of the slots athwart the mouth of the offset portion thereof and extending across said tube, and seating within the offset portion of the opposite slot, the uncoiled portion at the opposite end of said lead wires, immediately as it leaves the coil, being disposed within the straight portion of said opposite slot athwart the mouth of the offset portion thereof and extending across said tube, and seating within the offset portion of the first mentioned one of said slots.

2,823,611

BASE FOR SHELL CASE

Richard P. Thayer, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Army
Application July 2, 1952, Serial No. 296,981
2 Claims. (Cl. 102—44)
(Granted under Title 35, U. S. Code (1952), sec. 266)

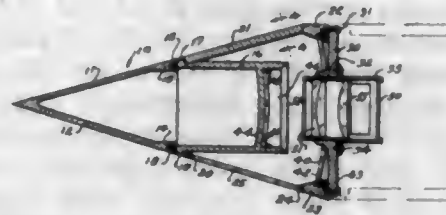


1. A pressure seal for the base of a cartridge case comprising an elongated tubular member having an inwardly curved rear end, a base plate, said plate having an integral annular seat matingly engaging the curved rear end of

said tubular member, said seat radially inwardly terminating in a flat surface, an axial bore through said plate, a base recess between said bore and said flat surface, a cylindrical adaptor of substantially the same diameter as the inside diameter of said tubular member, a rearwardly extended reduced portion integral with said adaptor extending through said axial bore and slideably engaging the wall of said bore, said adaptor having a flat face overlying the flat surface of said base plate, and adaptor recess between said flat face and said reduced portion, means to attach said adaptor to said base plate, a disk shaped sealing member concentric with said reduced portion and spaced therefrom, said sealing member being interposed between the curved end of said tubular member and the adjacent flat face of said adaptor, the propellant gases acting on the exposed surface of said adaptor force said adaptor against said sealing disk, tubular member and the flat surface of said base to form a pressure seal under a force proportional to the pressure of the propellant gases, said adaptor and reduced portion having an axial bore therethrough to accommodate a primer.

2,823,612

TARGET SEEKER HEAD FOR GUIDED MISSILES
Arthur Cox, Park Ridge, Ill., and Catherine Ledda, New York, N. Y., assignors to the United States of America as represented by the Secretary of the Air Force
Application August 20, 1953, Serial No. 379,483
6 Claims. (Cl. 102—50)



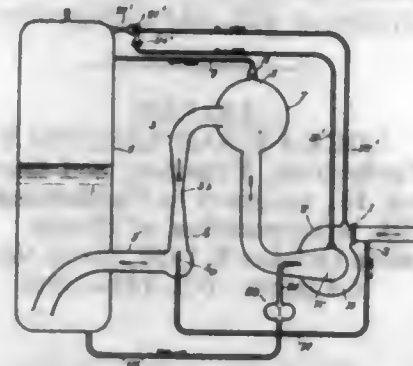
1. A target seeker head for guided missiles adaptable to be attached to the missile body comprising; a pyramidal-shaped body having a plurality of sides with flat glass plate windows separated by narrow stringers circumferentially adjacent the base thereof; a primary concave annular glass mirror having the back surface thereof coated with a reflecting material; a secondary convex glass mirror having the back surface thereof coated with a reflecting material, said primary and secondary mirrors facing each other with the primary mirror facing the vertex of the body through said glass plate windows whereby light rays entering through the glass plate windows from in front of said body will be focused on a plane through the central opening of said primary annular concave glass mirror for the use of the control mechanism of a missile.

2,823,613

CENTRIFUGAL PUMP ARRANGEMENT
René Leduc, Argenteuil, France
Application May 17, 1955, Serial No. 509,065
Claims priority, application France May 17, 1954
4 Claims. (Cl. 103—113)

1. Fluid moving apparatus comprising, in combination, a tank for holding a supply of liquid to be pumped; a first conduit communicating with and leading from said tank for carrying liquid away from the same, said first conduit having a Venturi portion; a centrifugal pump

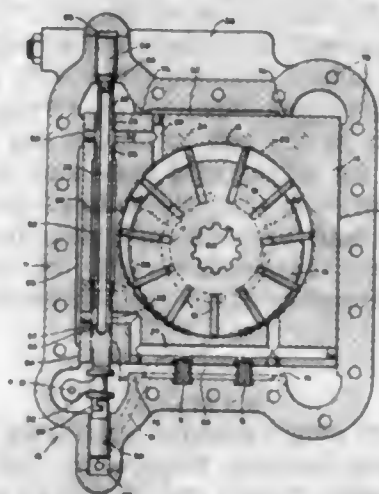
having an inlet communicating with said first conduit downstream of said Venturi portion thereof and having an outlet; a second conduit communicating with said outlet and terminating distant from said outlet in a nozzle communicating with said first conduit upstream of said Venturi portion thereof and feeding into said Venturi



portion; a container forming part of said first conduit and located therein downstream of said Venturi portion thereof and upstream of said pump inlet; and a third conduit communicating with an upper portion of said container and an upper portion of said tank for guiding gases and vapors from said container to said tank.

2,823,614
PUMP

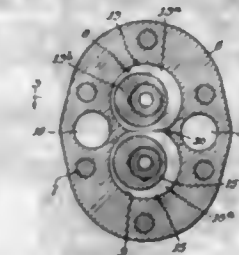
Robert Lapsley, Buchanan, Mich., assignor to Clark Equipment Company, Buchanan, Mich., a corporation of Michigan
Application June 13, 1952, Serial No. 293,345
9 Claims. (Cl. 103—120)



1. In a pump, a housing, a casing slidably mounted therein, a chamber formed in said casing, a rotor mounted for rotation in said chamber, intake and discharge ports formed in said housing and communicating with said chamber, fluid passageway means in said casing having connection with said intake and discharge ports, a fluid balanced valve slidable in said casing lengthwise thereof and having fluid passageway means formed therein, means actuated exteriorly of said housing for operating said valve, said valve effecting through said fluid passageway means responsive to relative movement between said valve and casing connection of said discharge port with the interior of said housing at one end of said casing and said intake port with the interior of said housing at the other end of said casing or oppositely connecting them whereby said casing is subjected to fluid pressure at one end and to suction at its other end effective for shifting said casing endwise for controlling the eccentricity of said casing relative to said rotor so as to adjust the volume of fluid discharged by said pump.

2,823,615

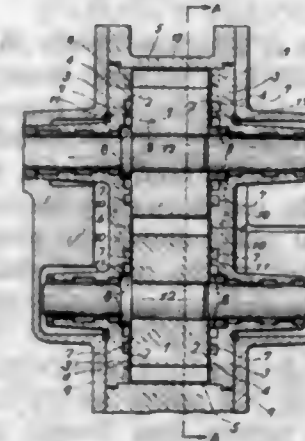
PUMP WITH PRESSURE LOADED BUSHINGS
Frederick C. Haberland, Cleveland, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application December 3, 1949, Serial No. 130,904
31 Claims. (Cl. 103—126)



1. A fluid pump of the type including a housing having an inlet and an outlet port formed therein, a rotatable pumping member journaled in said housing for transferring fluid from said inlet to said outlet, axially movable end plate means adapted to engage said pumping member in sealing relation and movable independently of said rotatable pumping member, a continuous generally annular motive surface on said end plate adapted in response to application of pressure thereto to urge said end plate toward said rotatable member to establish said sealing relation, and conduit defining means for continuously communicating pressure generated by said pump to said motive surface, said motive surface having a generally circular outer periphery concentrically disposed with respect to the axis of rotation of the pumping member and a generally circular inner periphery eccentrically disposed with respect to the axis of said pumping member, said inner periphery having its center offset toward said inlet port.

2,823,616

HORIZONTAL TYPE GEAR PUMP
Shigeo Toyoda, Zushi, Kanagawa-ken, Japan
Application May 23, 1955, Serial No. 510,412
In Japan September 2, 1948
Public Law 619, August 23, 1954
Patent expires September 2, 1968
3 Claims. (Cl. 103—126)

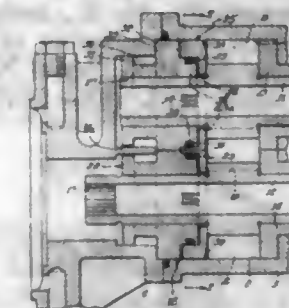


1. A gear pump, comprising a casing having a suction opening and a delivery opening, a pair of parallel shafts rotatably journaled in said casing, a pair of gears mounted on said shafts, respectively, and meshing with one another to transport pressure fluid from said suction opening of said casing to said delivery opening thereof, said gears having opposite side faces, respective bearings supporting said shafts and provided with oppositely facing inner bearing surfaces located adjacent said side faces of said gears, respectively, each inner bearing surface being provided with two pairs of first and second concentric annular recesses separated by an annular partition, each pair of said recesses being located coaxially with respect to the corresponding

shaft and gear, said first recess of each pair of said concentric recesses communicating with said suction opening and said second recess of each pair of concentric recesses communicating with said delivery opening of said casing, whereby said gears are maintained in an axially balanced and centered position relative to one another due to the effects of the pressure exerted on said opposite side faces of said gears by said fluid entering said second recesses from said delivery opening, displacement of one or the other of said gears axially of itself increasing the clearance between one of its side faces and the adjacent inner bearing surface and permitting enhanced flow of said pressure fluid about and across the corresponding partition from the respective second recess to the associated first recess concentric therewith and communicating with the suction opening of the pump casing, thereby permitting the unbalanced pressure of said fluid in the oppositely located second recess acting on the other side face of said gear to return the same to its balanced position.

2,823,617

PUMP WITH PRESSURE LOADED BUSHING
James A. Compton, South Euclid, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Continuation of application Serial No. 132,934, December 14, 1949. This application November 2, 1955, Serial No. 544,458
16 Claims. (Cl. 103—126)



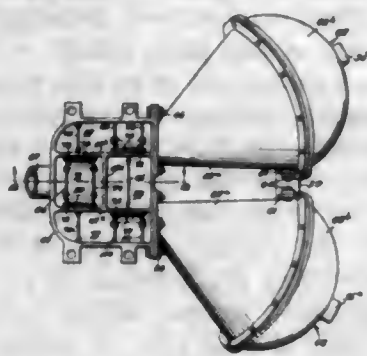
1. A fluid pump comprising a housing, an inlet leading to and an outlet leading from said housing, means including a rotatable member received in said housing effective to force fluid from said inlet out of said housing through said outlet, end plate means received in said housing and adapted to engage the side surface of said rotatable member in pumping seal relation comprising a first member and a second member assembled in telescopic relation, one of said first and second members being axially movable with respect to said rotatable member and the other of said first and second members, means defining a pressure motive chamber between said first and second members eccentric to the axis of rotation of said rotatable member, and means continuously effective to direct pressure liquid generated by said rotatable member to said pressure motive chamber for urging said one of said first and second members in the direction of the adjacent gear side face.

2,823,618

APPARATUS FOR PLASTERING
Broadus Wilson, Raleigh, N. C.; Margaret Wilson and Robert E. Long, executors of said Broadus Wilson, deceased
Application December 4, 1953, Serial No. 396,132
4 Claims. (Cl. 103—150)

3. In a plastering machine, a valve box having partition means defining with the walls of said box, first, second, third and fourth chambers, a hopper above and in communication with said first chamber, an outlet opening from said fourth chamber, a pair of drums each comprising a container of fixed volume and a resilient di-

aphragm dividing the same into first and second compartments of reciprocally variable volume, means rigidly associating said drums and box to place said first compartments in communication with said second and third chambers, respectively, there being valve means in said partitions permitting flow from said first chamber to said second and third chambers only, and from said second



and third chambers to said fourth chamber only, said drums lying in horizontally side-by-side relation, and means pivotally mounting said drums and box as a unit on a normally horizontal first axis whereby said drums may be tilted from position wherein the axes of said drums extend downwardly and away from said box, to a clean-out position wherein fluid will flow by gravity from all parts of said first compartments to said box.

2,823,619

RADIAL TYPE HYDRAULIC UNIT

John P. May, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application July 16, 1956, Serial No. 598,149
1 Claim. (Cl. 103—161)



A radial type hydraulic unit having center fluid port means, block means rotatably and concentrically mounted on said port means, a plurality of fixed apertures circumferentially spaced on said block means, cylinder means pivotally mounted in each of said apertures to freely swing with respect to said apertures in response to the loading thereon, circular race means radially spaced from said block means, a piston coaxing with each of said cylinder means and race means adapted to reduce the piston loading in the hydraulic unit to a negligible amount.

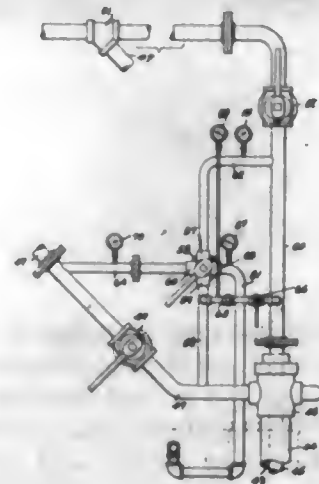
2,823,620

METHOD AND APPARATUS FOR STARTING FLOW OF WELLS

Charles C. Carlisle, Tulsa, Okla.
Application September 6, 1952, Serial No. 308,236
6 Claims. (Cl. 103—232)

6. An apparatus for starting flow of fluid from a well under gas pressure including ducts extending downwardly from the top of the well and terminating within the well fluid of said well, main discharge ducts connected with the well ducts at the top of the well, shutoff valves in each of the discharge ducts, a gas pressure supply duct, branch ducts connected with the well ducts on inlet sides of the shutoff valves, a single control valve interconnecting the branch ducts and the gas pressure supply duct and having a valving element provided with ports arranged relatively to said connections with the branch ducts and having positions to alternately establish flow of gas pressure into one and then the other of the well ducts

and to release pressure when the valving element is shifted through said positions for effecting alternate pulsations on the well liquid until flow is established to the top of the well through one of the well ducts, said shutoff valve in that well duct being adapted to be opened



2,823,621

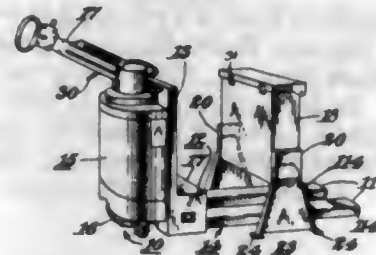
VEHICLE BATTERY REPLACER

Alfred Erwin Reginald Arnot, Basingstoke, England, assignor to Emmanuel Kaye and John Reginald Sharp, Basingstoke, England

Application February 7, 1955, Serial No. 486,650
Claims priority, application Great Britain

February 8, 1954

1 Claim. (Cl. 104—34)



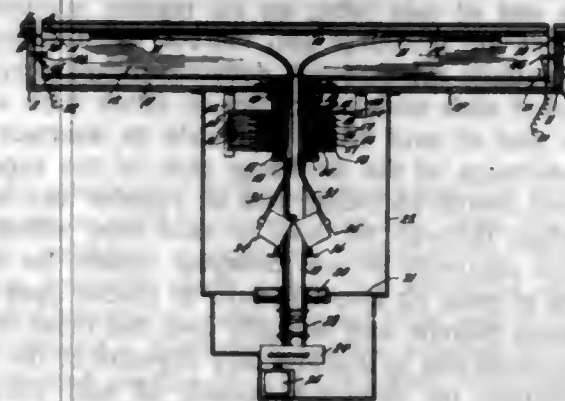
The combination of a battery driven pallet truck, comprising in combination, a wheeled truck body, a vertically movable member having two forwardly extending fork arms and a support means mounted on said truck body, said support means comprising a horizontal shelf open on either side and forwardly thereof and extending in a horizontal plane above the plane of said fork arms and positioned at the rear of said fork arms, a storage battery case and storage battery mounted therein, said battery case being supported on said shelf such that said battery is in operative relationship to said truck, terminals connecting the power source of said truck to said battery, said battery case having a width greater than the distance between the outer edges of said fork arms and having on either end thereof a socket element such that said socket elements are positioned to the outside of said fork arms when said battery case is in place on said shelf, and an auxiliary support means comprising two upstanding support members spaced from one another a distance slightly greater than the width of said battery case, each said support member having a spigot element upstanding therefrom, said spigot elements adapted to enter into said socket elements when said auxiliary support means is appropriately positioned relative to said truck and said vertically movable member is lowered such that said auxiliary support means carries said battery case in sole supporting relationship and, when said battery case is so carried by said auxiliary

support means and the terminals are disconnected from said battery, said truck may be moved away from said battery case.

2,823,622

TURN TABLE FOR MODEL ELECTRIC TRAINS

Ben F. Prewitt, Norfolk, Va.
Application April 4, 1951, Serial No. 219,248
12 Claims. (Cl. 104—38)



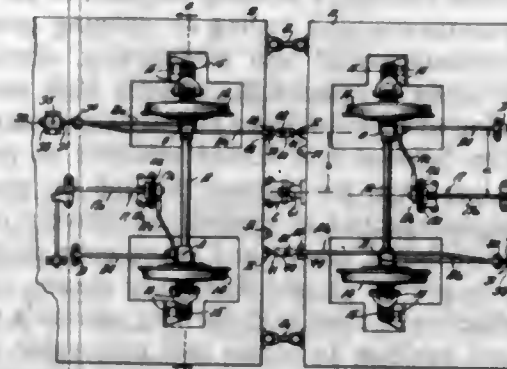
1. In a railway turntable, in combination, a turntable pit having a rim wall, tracks radiating from said wall, a bridge mounted for rotation in said pit and carrying a track adapted to have either end thereof selectively aligned with any one of said radiating tracks, locking means on and effective at each end of the bridge to engage cooperating means on the pit rim allotted one for each radiating track to lock the bridge in position when a selected radiating track and bridge track end are aligned, means to rotate the bridge, contact means on the pit rim allotted one to each radiating track, a contact on each end of the bridge adapted to successively engage the rim contacts as the bridge is rotated, means to manually selectively energize a single pit rim contact corresponding to a single selected radiating track to indicate by engagement thereof by a selected bridge contact of proper bridge-radiating track alignment and a circuit associating the engaged, selected contacts and the corresponding locking means to actuate the latter.

2,823,623

RAILWAY TRAINS

Francisco M. F. Heredia, Madrid, Spain, assignor to Patentes Talgo, S. A., Madrid, Spain, a corporation of Spain

Application January 28, 1953, Serial No. 333,793
8 Claims. (Cl. 105—3)



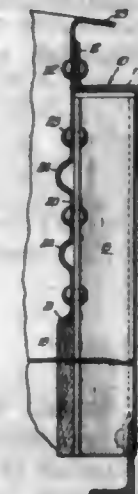
1. In a railway train, the combination of two cars joined by a separable coupling having a vertical pivot located between the cars, a supporting two-wheel running gear for each car located close to its coupled end, vertically extending struts pivoted at one end to the car and at the other end to the running gear and mounting the car on the running gear for lateral displacement so that the cars may enter a curve without disrupting the pivotal coupling between them, and steering mechanism attached to the running gear of each car and detachably connected to the other car.

2,823,624

INSIDE LINING SHEET FOR FREIGHT CAR

James S. Swann, Homewood, Ill., assignor to Standard Railway Equipment Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application March 11, 1954, Serial No. 415,577
3 Claims. (Cl. 105—423)



1. A composite side wall structure for railway house cars comprising a side plate having an upstanding inner flange, a non-metallic lower lining portion, the upper edge of which is beveled, a metallic upper lining portion, the lower margin of which is inclined correspondingly to the bevel of and rests upon the upper edge of the lower portion, the upper margin of which extends above the side plate and is provided with a flange extending in a plane with and supporting the car roof, and the intermediate portion of which is provided with a corrugation pressed from the plane of said intermediate portion.

2,823,625

METHOD OF LAMINATING DOUGH

Earle T. Oakes, East Islip, N. Y., assignor to The E. T. Oakes Corporation, Islip, N. Y., a corporation of New York

Application April 8, 1954, Serial No. 421,864, which is a division of application Serial No. 664,456, April 24, 1946, now Patent No. 2,687,699, dated August 31, 1954. Divided and this application March 9, 1955, Serial No. 493,251

5 Claims. (Cl. 107—54)



1. A method of producing laminated sheets of dough comprising advancing a sheet of dough endwise, alternately stopping the leading portion of said sheet and advancing it a higher speed than the remainder of said advancing sheet, severing the leading portion of said sheet into shorter sheets and depositing each shorter sheet in staggered, overlapping engagement with a previously deposited shorter sheet while the leading portion of said sheet is stopped.

2,823,626

CONTROL CIRCUITS FOR ELECTRIC INCINERATORS

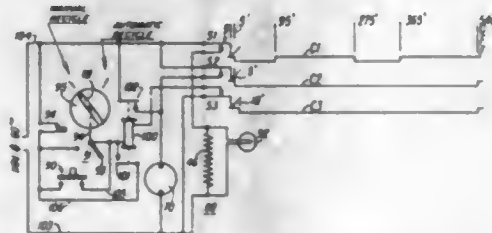
Walter L. Raucher, Chicago, Ill., assignor to General Electric Company, a corporation of New York

Application March 10, 1955, Serial No. 493,337

9 Claims. (Cl. 110—18)

1. In an incinerator including a firebox provided with a grate adapted to support material to be burned and movable between unloaded and loaded positions, said grate normally occupying its unloaded position and be-

ing moved into its loaded position in response to the placement thereon of the material to be burned and being moved back into its unloaded position in response to the burning-out of the material supported thereby; and an electric heating unit associated with said firebox and effective when heated to ignite the material supported by said grate; the combination comprising a source of electric power, a grate switch operatively associated with said grate and selectively operated into open and closed positions in response to movements of said grate into its



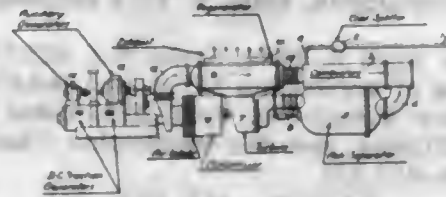
respective unloaded and loaded positions, an electric timer operative through a predetermined cycle, a start circuit including said grate switch in its closed position for initiating operation of said timer, a run circuit responsive to initiation of operation of said timer for effecting continued operation thereof through its predetermined cycle independently of said start circuit, and switching means selectively controlled by operation of said timer through its predetermined cycle for selectively connecting and disconnecting said heating unit with respect to said power source.

2,823,627

COLD WALL COMBUSTOR WITH FLEXIBLY MOUNTED FLAME TUBE

Frederick D. Buckley, Fredonia, N. Y., assignor to Bituminous Coal Research, Inc., Washington, D. C., a corporation of Delaware

Application November 19, 1951, Serial No. 257,165
4 Claims. (Cl. 110—28)



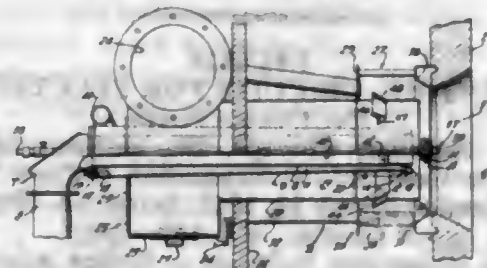
1. A flame tube construction for cold wall combustors, comprising radially arranged longitudinal supporting members, axially disposed supporting bands fixedly secured to and within the longitudinal members, and overlapping flame rings mounted for radial movement in the said bands.

2,823,628

MULTI-FUEL BURNER

Arthur J. Poole, Belleville, and Warren S. Blundin, North Plainfield, N. J., assignors to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application January 21, 1953, Serial No. 332,418
5 Claims. (Cl. 110—28)



1. In a fuel burner, a substantially cylindrical fuel nozzle; a substantially cylindrical relatively large diam-

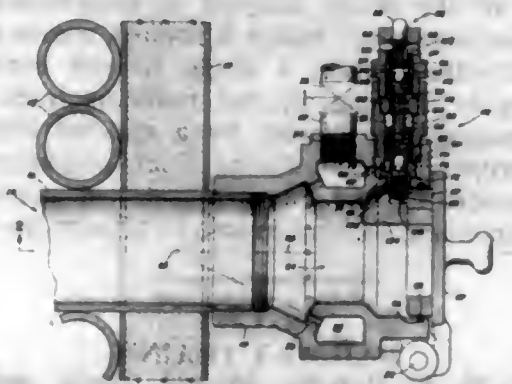
eter tube, adapted to form a burner, in substantially coaxial surrounding relation with said nozzle, the diameter of said tube being at least twice that of said nozzle; means for supplying fluent fuel under pressure to said nozzle for discharge from the discharge end thereof; the discharge from said nozzle creating a static low pressure in said tube, when the latter is inactive as a burner, resulting in a tendency for the fluent fuel discharged from said nozzle to build up deposits on the inner surface of the discharge end of said tube; an air register surrounding said tube at the discharge end thereof for directing air circumferentially therearound; deflector means operatively associated with said air register to direct such air toward the axis of said tube and nozzle to intersect such axis downstream of the discharge ends of the tube and nozzle; and means, including said air register and including openings through the wall of said tube within said air register upstream of said deflector means, for effecting a flow of such air into said tube to relieve such static low pressure therein, and helically over the inner surface of its discharge end to dislodge any deposits of the fluent fuel therefrom for discharge axially of said tube and nozzle.

2,823,629

CLOSURE MEANS INCLUDING FLUID SCREEN FOR ACCESS PASSAGEWAY INTO PRESSURIZED FURNACE AND THE LIKE

Ernest C. Wittke, Westbury, N. Y., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware

Application June 13, 1955, Serial No. 515,031
11 Claims. (Cl. 110—179)



1. In combination with a passageway adapted to lead into a pressurized furnace, a housing disposed at the outer end of said passageway and having an opening generally forming a continuation of said passageway, distributor means for directing a gaseous fluid under high pressure into said opening toward the inner end of said passageway in a manner to form a fluid screen effective to prevent escape of hot gas from the furnace through the passageway, valve means effective to control the delivery of said fluid to said distributor means and when open causing a high pressure to prevail in said distributor means, removable means effective to close said opening, movable means effective in one position to retain said removable means in its closed position and in another position releasing the same for movement from said closed position, means operated by fluid pressure for moving said movable means to its other position and another valve means for controlling said fluid pressure operated means when the first mentioned valve is open and the high pressure prevails in the distributor means, said other valve means being effective in one position to cause said high fluid pressure to operate the fluid pressure operated means to move the movable means to its other position and in another position to cause said high fluid pressure to be ineffective for this purpose.

2,823,630

ROTARY PLOW WITH DISTRIBUTOR

Francesco Clevello, Forli, Italy

Application June 10, 1953, Serial No. 360,661
Claims priority, application Italy June 11, 1952
2 Claims. (Cl. 111—74)



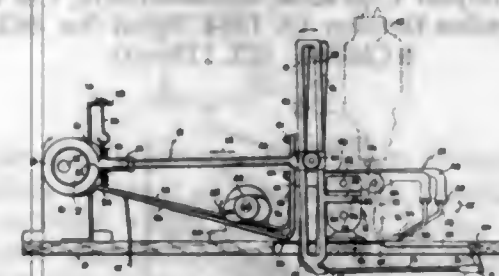
1. An attachment for rotary plows and like agricultural devices to be used in conjunction with farm tractors and similar vehicles; comprising substantially horizontal, flexible, rotatable shaft means for operative connection with said tractor, a casing spaced from said tractor, said casing having a horizontal section adapted to rotatably carry an end portion of said horizontal shaft means and having a downwardly extending vertical section, substantially vertical, rotatable hollow shaft means passing through said vertical casing section, gear means within said casing and adapted to transmit motion of said horizontal shaft means to said vertical shaft means, a tool holder shaft operatively connected to and concentric with said hollow shaft means and adjustable as to its height with respect to the latter, a tool secured to the lower end of said tool holder shaft, blade means on said vertical casing section, and hopper means on said hollow shaft means and rotatable therewith, said hopper means extending about said blade means and being provided with downwardly directed outlets, whereby fertilizer when fed to said hopper means will be mixed therein by said blade means upon rotation of said hopper means and conducted to said outlets so as to fall to the ground area therebelow to be worked upon by said tool.

2,823,631

TUCKING ASSEMBLY FOR SEWING MACHINES

Leonard Colner, Winnipeg, Manitoba, Canada

Application March 8, 1956, Serial No. 570,261
11 Claims. (Cl. 112—132)



1. In a machine including a head, an arm below said head, and a foot assembly extending between said head and towards said arm, a tucking assembly co-operating with said foot assembly adapted to gather material preparatory to passing same under said foot for securing; said tucking assembly including drive means therefore, a pair of substantially side by side rocking bars mounted intermediate the ends thereof, a bearing block for each bar pivotally mounted upon said arm, each of said bars being mounted upon one of said bearing blocks, crank shafts extending between each of said bars and said drive means, each of said crank shafts having diametrically opposite throws, a tucking foot secured to each of said bearing blocks above said pivotal mounting thereof, each of said tucking feet including a downwardly curved material tucking end situated adjacent the surface of said arm, the rocking of said bars adapted to transmit sub-

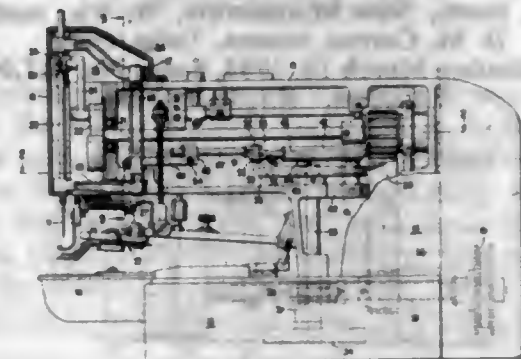
stantially horizontal reciprocal motion to said material tucking ends, and means operatively connected with said tucking feet adapted to impart substantially vertical reciprocal motion to said material tucking ends, said last mentioned means being operatively connected to said drive means, the timing of said horizontal and vertical reciprocation adapted to resolve said horizontal and vertical reciprocation into a substantially circular motion.

2,823,632

NEEDLE-BAR JOGGING MECHANISMS FOR SEWING MACHINES

John D. Garasimowicz, Bridgeport, Conn., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application March 15, 1955, Serial No. 494,351
4 Claims. (Cl. 112—158)



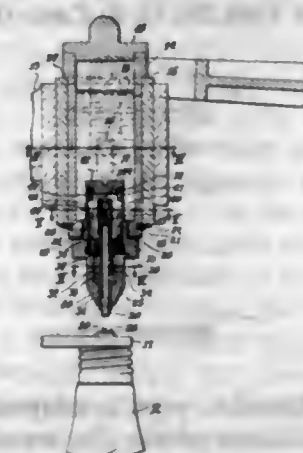
1. In a sewing machine having a frame, stitch forming instrumentalities and actuating mechanism for said instrumentalities carried in said frame, mechanism for jogging at least one of said instrumentalities to effect the formation of a pattern of stitches comprising, a driven lever of the first class operatively connected at one extremity to said stitch forming instrumentality to be jogged, a driving lever of the third class pivotally connected at one extremity to said driven lever, a fulcrum carried by said sewing machine frame and disposed operatively to engage said driving lever at its opposite extremity, means on said driving lever for freely varying the length thereof between said extremities during jogging movement of said driving lever, and means driven by said sewing machine actuating mechanism and adapted to engage said driving lever between said extremities thereof for imparting jogging movements thereto.

2,823,633

FLUXING DEVICES

Arthur P. Meier, Bloomfield, and Sylvester P. Denison, Belleville, N. J., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 3, 1953, Serial No. 395,996
4 Claims. (Cl. 113—95)

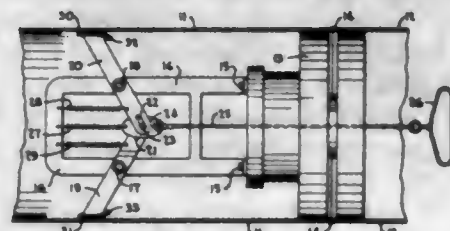


1. A device for fluxing an article comprising a reservoir for fluid flux, a nozzle projecting from said reservoir,

valve means on said nozzle for admitting a predetermined amount of fluid flux to said nozzle from said reservoir, means between said reservoir and said valve means for impeding the rapid flow of fluid flux from said reservoir to said valve means due to sudden pressure and a dauber in the outer end of the nozzle adapted to absorb said predetermined amount of fluid flux as fed to the nozzle through said valve means from the reservoir, means for reciprocating said reservoir toward said article to cause said dauber to engage and be compressed against said article to flux said article and to cause said nozzle to move with respect to said reservoir to open said valve means and permit the passage of said predetermined amount of fluid flux to said nozzle from said reservoir.

2,823,634

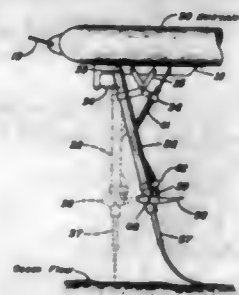
BRAKES FOR INTERNAL ALIGNMENT CLAMPS
Robert L. Barth, New Martinsville, W. Va., assignor to D. M. Curran, trustee, Tulsa, Okla.
Application March 18, 1954, Serial No. 417,097
5 Claims. (Cl. 113-103)



1. In an internal pipe alignment clamp, a pipe engaging brake therefor comprising a support extending from one side of said clamp for being positioned longitudinally of one section of pipe when said clamp is in use, a plurality of legs pivotally mounted intermediate their extremities on said support and extending from the latter in a direction away from said one side of the clamp, resilient means coupled with the legs adjacent the inner extremity thereof and yieldably biasing said legs toward a normal position extending laterally of said support whereby the outer extremity of the legs will bear against the interior surface of a pipe section containing the same braking longitudinal movement of said clamp therein, and control means extending through said clamp to the opposite side thereof and connected to the inner extremity of said legs for moving the same inwardly away from said normal position against the action of said resilient means.

2,823,635

UNDERWATER VEHICLE WITH BOTTOM-REGULATED DIVING CONTROL
Julius Hagemann, Panama City, Fla., assignor to the United States of America as represented by the Secretary of the Navy
Application March 2, 1954, Serial No. 413,733
1 Claim. (Cl. 114-16)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A buoyant submarine vehicle adapted to ride through a seaway at a distance above the waterbed as regulated by diving fins movable under the control of a depending tactile means in contact with the waterbed characterized by the tactile means having a rigid proximal portion

upon which the diving fins are pivotally mounted and having its distal portion elastically flexible under bending stress.

2,823,636
VESSEL

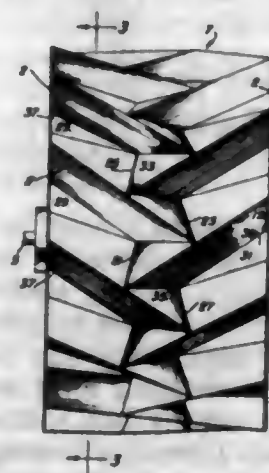
Calvin A. Gongwer, Glendora, and George M. McRoberts III, Sierra Madre, Calif., assignors to Aerojet-General Corporation, Azusa, Calif., a corporation of Ohio
Application February 18, 1955, Serial No. 489,085
14 Claims. (Cl. 114-16)



1. A submersible boat adapted to be freely flooded when submerged in water comprising: a hull having a longitudinal axis extending in its direction of forward motion, and also a generally horizontal and a generally vertical axis, the axes being mutually perpendicular; a pair of drive shafts rotatably mounted in the hull; a propeller affixed to each drive shaft outside the hull; means for counter-rotating the drive shafts; means for flooding and draining the hull; a plurality of vanes pivotally mounted to the hull independently of each other and extending outwardly from the hull, said vanes having a normal position which maintains the boat in a level attitude, said vanes being so spaced angularly from each other around said longitudinal axis of the hull that when the vanes are in said normal position, planes generally parallel to said vanes intersect so as to include a dihedral angle other than 180° between them; and means for adjustably and individually pivoting each vane in its mounting, whereby the vanes are separately tiltable with respect to the hull and to each other and whereby said vanes may react with the water to exert a resultant force on the hull about any of the axes of the hull, the boat thereby being turnable in any manner.

2,823,637

PONTOON WHEELS
Andrew A. Cheramle, deceased, late of Cut Off, La., by Theresa Gajour Cheramle, administratrix, Cut Off, La.
Application October 13, 1954, Serial No. 462,019
6 Claims. (Cl. 115-1)

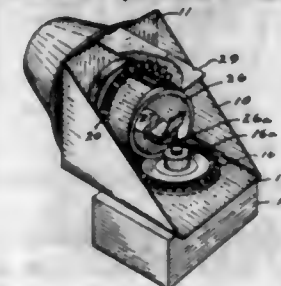


1. A combination paddle and traction wheel for use in water and on land comprising a closed drum having sides and a tread band, said tread band including two circumferential side by side series of hollow ribs of right angled cross section extending inwardly of the band from said sides in alternating relation in each series relative to the other series, the ribs in each series extending obliquely transversely of the band and at obtuse angles in each

series to those in the other series, the ribs having inner ends alternating in overlapping relation in the circumferential center of the band, the inner ends of the ribs in each series being joined to one side of the ribs in the other series, said wheel having sides provided with wedge-shaped ears closing the outer ends of said ribs.

2,823,638

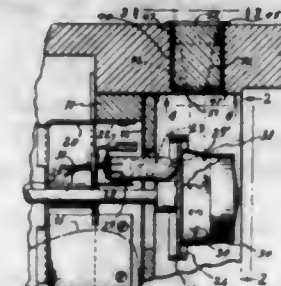
RANGE HEAT INDICATOR
Elmo E. Aylor, Galesburg, and Don C. Sevey, Abingdon, Ill., assignors to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois
Application June 13, 1956, Serial No. 591,208
7 Claims. (Cl. 116-124)



1. In heating apparatus, the combination of adjustable means controlling the heat setting of the apparatus, light source means for producing a light spot visible at the exterior of the apparatus, an apertured member positioned in front of said light source means to control the size of said light spot, and means for adjustably positioning said apertured member toward or away from said light source means in response to the setting of said adjustable means to thereby control the size of said light spot in accordance with the heat setting of the apparatus.

2,823,639

TUNING INDICATOR
James E. Vistain, Jr., Skokie, and Wallace C. Johnson, Lincolnwood, Ill., assignors to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application May 6, 1955, Serial No. 506,543
4 Claims. (Cl. 116-124.4)



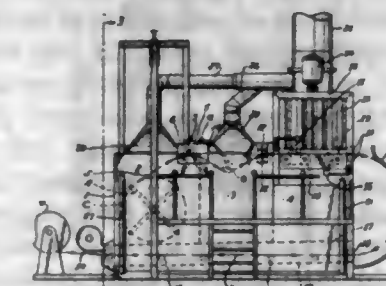
1. A television tuner station indicator wherein a television cabinet houses a chassis having a television tuner which is provided with a control shaft having a control knob thereon, said knob being disposed adjacent to the top forward edge of the cabinet and being formed with a translucent skirt having station identifying indicia thereon, a light source supported within the cabinet and directing light onto said skirt to illuminate the skirt around the indicia, the top of said cabinet being formed with an opening through the cabinet opposite to the skirt of said knob and magnifier means disposed in the opening through which a magnified view of the indicia on the knob may be viewed.

2,823,640

APPARATUS FOR APPLYING LIQUID TO, AND DRYING, METAL STOCK
Roland A. Whitbeck, Lorain, Ohio
Application June 22, 1955, Serial No. 517,220
8 Claims. (Cl. 118-64)

1. In a liquid applying and drying apparatus, a tank adapted to contain at least one liquid to be applied to

articles, means for supplying heat into the tank for heating the liquid therein, means having walls with portions thereof within the tank and providing in the tank a drying compartment for articles to which the liquid has been applied, said compartment being arranged to exclude entry of the liquid into the compartment from the tank and being open at at least one of its ends exteriorly of the tank, at least the major portion of the exterior of the surface of said wall portions being positioned below

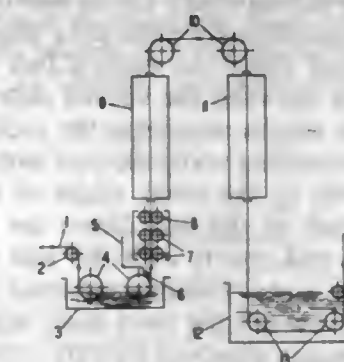


a predetermined normal liquid level of the tank and exposed in the tank for direct contact with liquid therein when the tank is filled to said level, means for causing articles to travel along a predetermined path, means for applying the liquid from the tank onto the articles when they pass along a portion of said path, and means for causing the articles to pass through said drying compartment after they have traveled along said portion of said path.

2,823,641

APPARATUS FOR FLUXING AND COATING METAL STRIP

Nelson E. Cook and Samuel L. Norteman, Wheeling, W. Va., assignors to Wheeling Steel Corporation, Wheeling, W. Va., a corporation of Delaware
Application February 24, 1954, Serial No. 412,265
13 Claims. (Cl. 118-74)

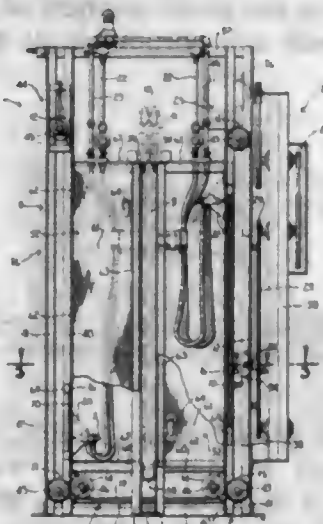


7. Apparatus for coating metal strip with coating metal having a lower melting point than the metal of the strip comprising a molten metal coating receptacle, means for advancing the strip in the direction of its length, means guiding the advancing strip in a path having a generally vertical reach in which the strip moves upwardly and at least one subsequent reach in which the strip moves to and into the molten coating metal, means for applying flux to the strip adjacent the bottom of the first mentioned reach, means engaging the strip above the flux applying means to promote uniformity of and limit the thickness of the coating of flux thereon, a drying chamber through which the strip passes in the first mentioned reach but which is out of contact with the strip, heating means for applying heat to the strip in the drying chamber to dry the flux before it reaches the top of the first mentioned reach, a heating chamber separate from the drying chamber through which the strip passes subsequent to the first mentioned reach and heating means for applying heat to the strip in the heating chamber to raise the temperature of the fluxed strip to a temperature relatively closely approaching that of the molten coating metal.

2,823,642

PASTING PLATE PASTE SPRAYING APPARATUS
Ralph J. Stehling, Milwaukee, Wis., assignor to The Chas. H. Stehling Company, Milwaukee, Wis., a corporation of Wisconsin

Application January 20, 1956, Serial No. 560,427
4 Claims. (Cl. 118—323)



1. In an apparatus for spraying paste upon pasting plates as they travel edgewise in a vertical position along a defined path preparatory to having hides pasted thereon: means including spaced side walls each having vertically extending inner and outer edges, defining an upright chamber alongside said path, said chamber having a height at least equal to the vertical dimension of plates to be sprayed and having an open inner side facing a vertical plane in said path along which the pasting plates travel; the longitudinally extending inner edges of said side walls which define the open side of the chamber being close to said plane so that each plate as it moves past the chamber substantially closes said open side thereof; the outer longitudinally extending edges of the side walls being spaced apart; an endless belt of a width to span the distance between the spaced outer edges of the side walls; pulley means mounting the endless belt with a stretch thereof extending vertically and with the side edges thereof contiguous to the outer edges of said side walls so that said stretch of the belt closes the space between said outer edges and coacts with the side walls in defining said chamber; a spray nozzle mounted on said stretch of the belt facing toward the open inner side of the chamber; and drive means disposed entirely outside the chamber and connected to the endless belt to impart back and forth endwise movement to the belt to carry the spray nozzle up and down.

2,823,643

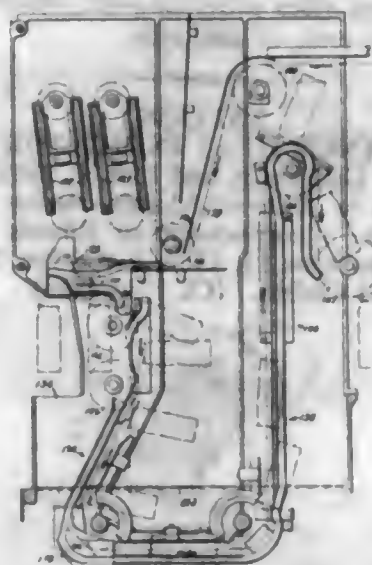
CARTON COATING MACHINE

Harry B. Egleston, Livonia, and Donald E. Smith, Detroit, Mich., assignors to Ex-Cell-O Corporation, Detroit, Mich., a corporation of Michigan

Application March 25, 1955, Serial No. 496,816
11 Claims. (Cl. 118—423)

1. In a machine for coating flat top paperboard cartons having overhanging top side edges and a hinged top flap, a first carrier having a top slide holder for suspending a carton by said edges with the top flap folded upen, a first conveyor adapted to connect said carrier and carton suspended therefrom at a uniform rate in a closed circuit from a loading station to a transfer station through a tank of melted wax, loading means for sliding a carton into said loading station, drive means for said loading means coupled to said first conveyor to actuate the loading means as the carton slide holder is conveyed through said loading station, a second carrier having a top slide holder for suspending a carton by said side edges, a second conveyor

for conveying said second carrier in a closed circuit through said transfer station, a cooling zone, and a discharge station, means for sliding cartons from said first



conveyor carrier to said second conveyor carrier at said transfer station, and drive means for said second conveyor and said sliding means coupled to said first conveyor.

2,823,644

DRAWING PENCIL HOLDERS

Hendrik Karel Dominicus van den Bussche, Bergen, and Henri Bernard Wieringa, Amsterdam, Netherlands; said van den Bussche assignor to said Wieringa

Application November 17, 1953, Serial No. 392,668
6 Claims. (Cl. 120—22)



1. A drawing pencil holder comprising, in combination, a tubular casing, an axially-bored mouthpiece having an end providing an axially-inner surface secured in a first end of said casing, a lead-gripping clasp member received in the bore of said mouthpiece, one end of said clasp member projecting from said mouthpiece axially into said casing and having an upper end portion, and the other end of said clasp being formed with lead gripping jaws and extending outwardly from said mouthpiece, an axially-slidable push button member received in the second end of said casing, a lead-holding tube secured to the end portion of said clasp member and to said push button, and a compression spring abutting against the inner surface of said mouthpiece and against the end of said lead-holding tube adjacent said end portion of said clasp member, said lead-holding tube consisting of a spring which is so closely-wound that it is rigid, the end coil of said last-named spring adjacent said compression spring providing a shoulder for engagement by said compression spring.

2,823,645

FOUNTAIN PEN

Clarence R. Johnson, Gary, Ind., assignor of one-half to Joseph Szallar, East Chicago, Ind.

Application July 20, 1956, Serial No. 599,145
1 Claim. (Cl. 120—42.03)



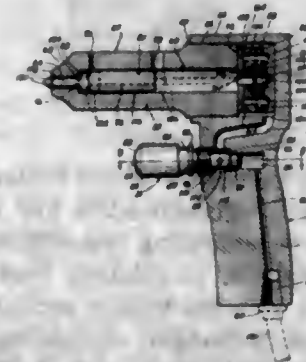
A fountain pen comprising a barrel including a front section and a rear end cap threaded into the front section and providing an internal shoulder therein, a retractile plunger having front and rear ends and a writing point on its front end and being slidable in said barrel forwardly and rearwardly when the barrel is held upright and inverted whereby to advance and retract the writing point into and from writing position, a pair of rearwardly diverging dogs pivoted in said plunger remote from the rear end of the plunger for swinging apart in front of said shoulder when the plunger is slid forwardly and whereby to prevent rearward sliding of the plunger, a tubular slidable gravity weight on said plunger spaced rearwardly of and remote from said dogs when the barrel is inverted for sliding forwardly in between said dogs with sudden impact against the same to swing said dogs apart when the barrel is held upright, said dogs being swingable toward each other into ineffective position, a flange on said plunger forwardly of said dogs, and a second tubular gravity weight slidable on said plunger in front of said dogs for engaging said dogs and the flange in response to inverting of said barrel and positioning of the same upright whereby to swing said dogs into ineffective position and slide said plunger forwardly respectively, said flange being on the front end of the plunger remote from said dogs whereby the second weight will strike said dogs and flange with sudden impact against the same.

2,823,646

PNEUMATIC TAP HAMMER

Lowell N. Brown, Overland, Mo.

Application March 5, 1954, Serial No. 414,287
4 Claims. (Cl. 121—3)



1. In a pneumatically operable hammer of the character described, said hammer including a handle member having a hand grip section integral with an internally threaded cylindrical section; a barrel member comprising a hollow cylindrical body terminating at its forward end in a nosing, and at its rearward end in an externally threaded portion in engagement with the internally

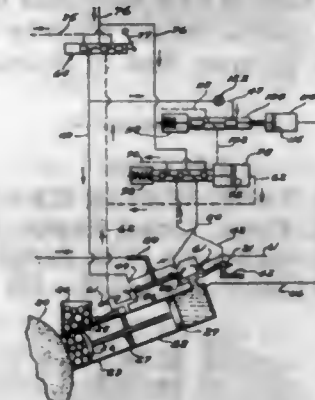
threaded cylindrical section of the handle member, said body having formed therein a first longitudinal bore extending therethrough from the rearward end thereof to a point adjacent the nosing thereof; a second longitudinal bore of smaller diameter than that of the first bore extending through said nosing and merging into said first bore thus to provide an annular internal shoulder at the point of merger; a forward small-diametered radial exhaust port rearwardly located approximately one quarter of an inch from said shoulder to provide fluid communication between said first bore and atmosphere; a rearward larger-diametered radial exhaust port located precisely equidistantly from said shoulder and from the rearward end of said first bore to also provide fluid communication between said bore and atmosphere; a pair of diametrically opposite longitudinal air pressure passageways and a pair of similarly disposed radial air pressure passageways each longitudinal passageway communicating at its forward end with one of said radial passageways and extending from that point to the rearward end of the barrel body, each radial passageway intersecting the internal annular shoulder aforesaid and communicating at its inner end with both said first and second longitudinal bores, and being plugged at its outer end; a piston slidable in said first bore and having an integral extension slidable in said second bore; an annular air chamber in said cylindrical section; a manually operable control assembly in the hand grip section for supplying air under pressure to said chamber; and a composite assembly in said chamber operatively disposed relatively to said first bore and said longitudinal passageways to alternately direct the flow of air pressure from the chamber into said bore and said passageways.

2,823,647

VALVE SYSTEM AND APPARATUS FOR CONTROLLING FLUID ACTUATED SERVOMOTOR

Adolph F. Meyer, St. Paul, Minn.

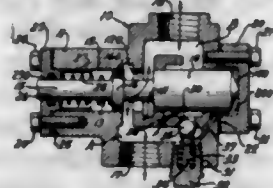
Application March 11, 1954, Serial No. 415,595
12 Claims. (Cl. 121—38)



1. The combination with a cylinder and a piston slidably mounted therein, of a first flow pipe for delivering fluid under pressure to said cylinder, a second flow pipe for delivering fluid under pressure to the cylinder, a valve assembly consisting of first, second, third, fourth and fifth valves, each of said five valves including a flow chamber, a control chamber, a valve port open from the interior of said flow chamber to the outside of said valve, means operative in response to pressure in said control chamber for closing said valve port in said flow chamber and a control pipe open to said control chamber, a first conduit open from the valve ports of said third and fifth valves to a first end of said cylinder, a second conduit open from the valve ports of said second and fourth valves to a second end of said cylinder, a passageway open from said flow chamber of said first valve to said first conduit, said first flow pipe for delivering fluid under pressure being open from outside of first valve to said valve port of said first valve,

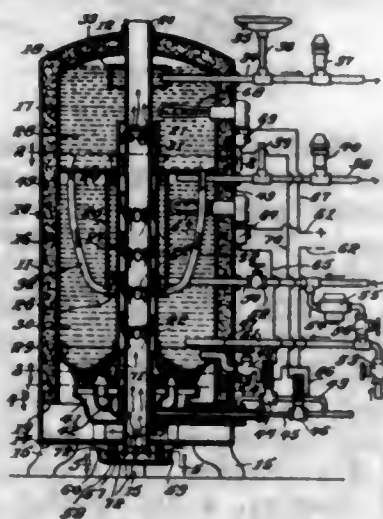
said second flow pipe being open to said flow chambers of said second and third valves, the flow chambers of said fourth and fifth valves being open to drain, and means for selectively exerting and removing a control pressure in each of the five control pipes.

2,823,648
HYDRAULIC LIFT RETURN CONTROL MEANS
 Louis S. Wood, Findlay, Ohio
 Application January 28, 1957, Serial No. 636,651
 6 Claims. (Cl. 121-46)



1. A hydraulic lift return control means comprising a housing having a main passage therethrough adapted to be connected into the hydraulic power pressure and return pressure line and to and from a power cylinder, the said housing having a valve spool bore therein, a valve spool reciprocally mounted in said bore including a piston at one end thereof adapted to close said main passage through said housing when the said valve spool is moved to its operating position, the said housing having a pressure chamber formed therein at the piston end of said valve spool bore with a fluid passage thereto admitting hydraulic fluid under pressure therein to move said valve spool to its operating position and close said main passage through said housing, spring means urging said piston to its neutral position whenever insufficient pressure exists in said pressure chamber to move said valve spool to its operating position, the said housing having also a restricted passage therethrough permitting either a restricted power pressure flow or a restricted return pressure flow of hydraulic fluid in opposite directions through the hydraulic lift return control means, and valve means openable only responsive to a power pressure flow of hydraulic fluid through said hydraulic lift return control means whereby to permit a relatively free power pressure flow of hydraulic fluid therethrough.

2,823,649
DUAL TANK WATER HEATER
 Elwin E. Flynn, Grand Rapids, Mich.
 Application November 30, 1954, Serial No. 472,103
 4 Claims. (Cl. 122-17)

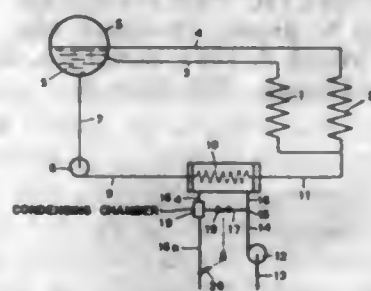


1. In a dual water heater, a hollow housing including a horizontally disposed bottom wall and a top wall, a casing arranged within said housing, insulation interposed between said casing and housing, a vertically disposed open ended tube extending through the top and bottom walls of said housing and casing and provided with apertures in

the upper portion thereof and a plurality of cutouts therebelow, a partition secured within said casing adjacent the lower end thereof, a plate positioned above said partition and secured to said casing, the cutouts in said tube being arranged above said partition and below said plate, a body member depending from said plate and defining a chamber therein, a plurality of tubes extending between said plate and the bottom of said chamber, a sleeve arranged in concentric spaced relation around said tube with the upper portion of said sleeve being connected to the tube and the sleeve extending through said chamber, said sleeve and body member being spaced from each other to define therebetween an open top well so that the water may circulate upwardly through the well and down through the plurality of tubes, said sleeve surrounding that portion of the tube having the cutouts therein, said plate coacting with the upper portion of said casing to define an upper compartment for holding water, said partition and plate coacting to define therebetween a lower compartment for holding water, a main burner positioned below said partition and adapted to be connected to a source of supply of fuel, an auxiliary burner arranged in said main burner and communicating with the lower end of said sleeve and adapted to be connected to a source of supply of fuel, said burners being positioned above the lower end of said tube so that only the gaseous medium will enter at the bottom of said tube, thus air will flow through the cutouts in said tube into the space surrounding said tube to come into contact with combustion gases from said burners and then flow back out of the space through the apertures at the top of said tube into said tube, a first conduit communicating with said upper compartment for the egress therethrough of hot water, a second conduit communicating with said lower compartment for the egress therethrough of hot water and conduits communicating with said lower compartment and with said chamber for supplying water thereto from a source of supply, the upper end of said tube defining a discharge means for the flue gases.

2,823,650
METHOD AND MEANS FOR HEAT EXCHANGE BETWEEN FLOWING MEDIA, PREFERABLY FOR REMOTE HEATING SYSTEMS
 Tore J. Hedbäck and Gustaf G. Lundman, Sodertälje, Sweden, assignors to Aktiebolaget Svenska Maskinverken, Sodertälje, Sweden

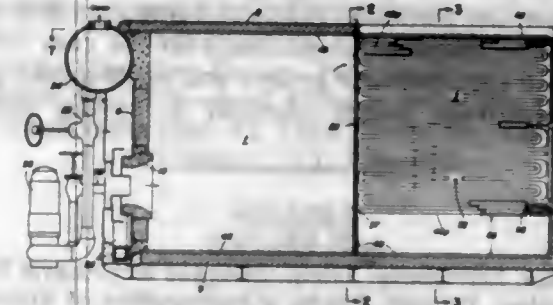
Application February 4, 1952, Serial No. 270,694
 Claims priority, application Sweden February 6, 1951
 5 Claims. (Cl. 122-32)



1. The method of utilizing a steam boiler to heat liquid for a service system to accommodate low heat output requirements without necessitating remodeling of the boiler which method comprises: circulating heat transfer fluid at a constant rate in a closed system including said boiler and a secondary heat exchanger; circulating service liquid from a source thereof through said secondary heat exchanger, to be heated therein by indirect heat exchange with said heat transfer fluid, and thence to the service system; circulating other service liquid from said source thereof directly to the service system without circulating it through said secondary heat exchanger; and regulating the ratio of said service liquid circulated through the secondary heat exchanger to said other service liquid

bypassed around said secondary heat exchanger, in such proportions that the portion of service liquid which is circulated through said secondary heat exchanger is maintained substantially in direct relation to the heat demands of the service system.

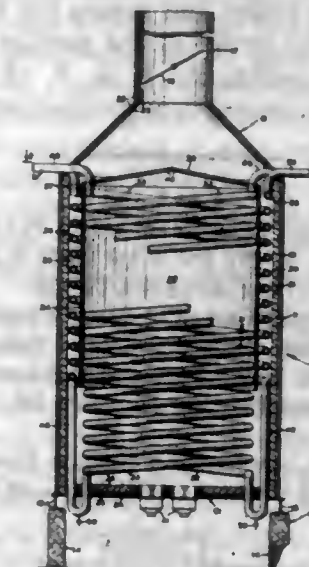
2,823,651
PACKAGE BOILER USING CONTROLLED CIRCULATION
 Leonard J. Marshall, Tenafly, N. J., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
 Application December 30, 1954, Serial No. 478,783
 3 Claims. (Cl. 122-235)



1. In a steam generator of the package boiler type that is adapted to be assembled in the shop and to be shipped as an assembled unit, the combination of left and right side walls plus floor and roof walls and front and rear walls organized to define an enclosed space, said space including a forward furnace portion that extends rearwardly from said front wall and a rear gas pass portion that extends forwardly from said rear wall, burner means for bringing fuel into said furnace space along with air to support combustion of the fuel, means forming in the rear portion of said roof a first opening which communicates with one side of said gas pass space and through which first opening combustion gases can discharge from that space, a steam and water drum disposed along the upper portion of said front wall in spanning relation thereto, a water distributing header disposed along the lower portion of said front wall in spanning relation thereto, circulating pump means for receiving water from the lower portion of said drum and for forcing it into said distributing header, steam generating circuits made up of tubes that extend in parallel from said bottom header along the floor of said furnace space and of said gas pass space so as to line that floor and thence in spaced sinuous relation upwardly through said gas pass space to form convection heat absorbing surface therein and thence in parallel along the gas pass roof area so as to line that area exclusive of said first opening and further along the furnace space roof so as to line that roof and thence into said upper drum, other steam generating circuits made up of further tubes that line each of said left and right side walls and that are connected with said lower header to receive circulating water therefrom and with said upper drum to discharge steam and water mixture thereinto, and a transverse partition wall disposed between said forward furnace space and said rear gas pass space and serving to confine flow of combustion gases out of the furnace space to a second opening through that transverse partition which is opposite said first opening in the gas pass roof, said transverse partition wall being formed from parallel steam generating tubes which are sinuously bent back and forth in the plane of the transverse partition and which are connected with said water distributing header at their lower ends and with said steam and water drum at their upper ends, said transverse partition wall having said second opening therethrough located in the upper area of the partition wall and wherein there is provided between the left and right portions of said rear gas pass space

a longitudinal partition which is disposed along one edge of said first opening in the gas pass roof and which extends downwardly from said roof to a point spaced above the gas pass floor, said longitudinal partition separating the said convection heat absorbing surface on the longitudinal partition's left side from the said convection heat absorbing surface on the longitudinal partition's right side with the result that hot combustion gases entering the rear gas pass space through said upper second opening in the aforesaid transverse partition wall are directed downwardly over the convection heat absorbing surface on the gas entering side of said longitudinal partition thence beneath that longitudinal partition and thence upwardly over the convection heat absorbing surface on the gas leaving side of that longitudinal partition and finally out of the rear gas pass space by way of said first opening in the gas pass roof.

2,823,652
HELICAL COIL HEATER
 Charles K. Mader, Suffern, N. Y., assignor to The M. W. Kellogg Company, Jersey City, N. J., a corporation of Delaware
 Application November 30, 1954, Serial No. 471,941
 7 Claims. (Cl. 122-250)



1. A heater comprising in combination a body section including a refractory cylindrical wall defining a central space, refractory wall means closing one end of said cylindrical wall, helically wound tubing through which the medium to be heated is circulated, disposed within said central space concentric with and spaced from said refractory cylindrical wall, cylindrical baffle means positioned in said central space between said tubing and said cylindrical wall and extending from the region adjacent the other end of said cylindrical wall for a substantial distance in the direction of said one end of said cylindrical wall to provide an annular flow passageway radially outwardly of said helically wound tubing, means closing the end of said cylindrical baffle adjacent said other end of said refractory cylindrical wall, further helically wound tubing through which medium to be heated is circulated, positioned in said annular flow passageway and concentrically disposed relative to said cylindrical wall, means extending through said refractory wall means for introducing high temperature combustion products into said central space, and means for providing a pressure differential between said central space and the external space whereby said combustion products flow along said central space and impart heat by radiation to said first helically wound tubing and when they reach said means closing one end of said baffle means have their direction of flow reversed until they reach the open end of said baffle means whereat the flow again goes forward

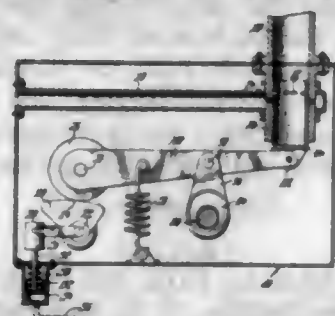
in the original direction and said combustion products contact said further helically wound tubing to impart heat thereto by direct contact therewith.

2,823,653

FREE PISTON ENGINE CONTROL

Dean M. Dildine, La Grange, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application June 26, 1956, Serial No. 594,006
7 Claims. (Cl. 123-46)



1. A control for a free piston engine having a free piston, a cushion chamber and an air reservoir, the control comprising means synchronized with the free piston for placing the cushion chamber and the air reservoir in communication with each other over some portion of each stroke of the free piston and means for shifting the relative location on the stroke of the portion of communication toward the mechanical I. D. P. of the free piston in accordance with increases in the load on the engine.

2,823,654

AUTO-GENERATORS OF HOT GASES UNDER PRESSURE, AND IN PARTICULAR IN FREE PISTON AUTO-GENERATORS

Helge Horgen, Lyons, France

Original application July 20, 1953, Serial No. 369,147, now Patent No. 2,783,750, dated March 5, 1957. Divided and this application January 16, 1957, Serial No. 634,507

Claims priority, application France January 30, 1953
10 Claims. (Cl. 123-46)



1. An auto-generator of hot gases under pressure which comprises, in combination, an internal combustion engine power cylinder provided with at least one air intake port and one exhaust port located at different points along said power cylinder, a power piston freely movable in said cylinder, means for collecting the hot gases under pressure from said exhaust port, an air compressor cylinder in line with said power cylinder, a compressor piston rigid with said power piston and fitting slidably in said compressor cylinder, a closed annular casing surrounding said power cylinder, valve means for letting compressed air flow unidirectionally from said compressor cylinder into said casing, an elongated chamber extending on the outside thereof and forming a shunt passage between two points of said casing spaced apart longitudinally from each other, means for causing at least a portion of the air in said casing to travel through said passage, and air cooling means in said passage.

2,823,655

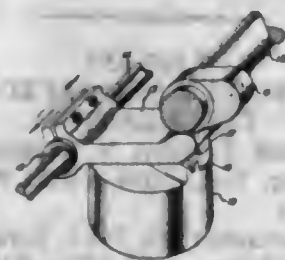
VALVE TIMING MECHANISM

Louis L. Repko, Detroit, Mich., assignor to Ford Motor Company, Dearborn, Mich., a corporation of Delaware

Application December 13, 1956, Serial No. 628,179
4 Claims. (Cl. 123-90)

1. A valve operating mechanism comprising a valve tappet, a cam, means for rotating said cam, a cam fol-

lower intermediate the cam and the valve tappet, and a cam follower shaft rotatably supporting the cam follower, said cam follower shaft being capable of independent axial and rotary movements, the surface of the cam follower adjacent the valve tappet being provided



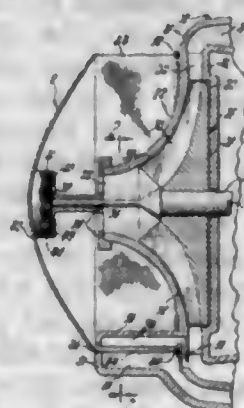
with a cam follower groove, the surface of the valve tappet adjacent the camshaft follower being provided with a tappet groove disposed at an angle to the cam follower groove, said cam follower groove and valve tappet groove being operatively joined through a keying spherical member.

2,823,656

AIR FILTER

John Dolza, Davisburg, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 27, 1954, Serial No. 458,437
7 Claims. (Cl. 123-119)



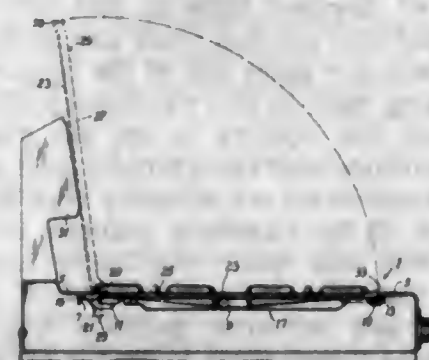
1. An air filter for engines and like devices comprising means for mounting said filter on said engine, said mounting means including portions of the front end of the crankcase of said engine, air driving means, said means being driven by the crankshaft of said engine, air passages for said driven air, said passages being formed in part by extensions of the walls of said crankcase, and air filtering means, said filtering means being driven by means associated with said air driving means and being supported and guided by means forming a part of said front end of said crankcase.

2,823,657

COOKING RANGE

Almer H. Brodbeck, St. Louis, Mo., assignor to Magic Chef-Food Giant Markets, Inc., a corporation of New Jersey

Application January 16, 1956, Serial No. 559,173
1 Claim. (Cl. 126-37)



A cooking range having a top wall, said top wall having an opening, a griddle in said opening, said top wall

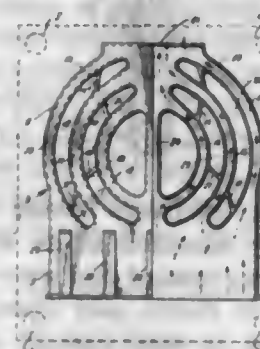
having downwardly extending flanges at opposite sides of said opening, the rear end of the griddle being spaced from the rear end of the opening, a griddle cover comprising a sheet metal plate having a peripheral flange, side portions of said peripheral flange having notches adjacent the rearward end of the cover, and means supported by said downwardly extending flanges in the opening at the rear of the griddle received in the notches for supporting the cover for swinging movement away from a lowered position overlying the griddle with the peripheral flange surrounding the griddle, said cover being removable from said means.

2,823,658

COMBINATION HEAT EXCHANGE HEAD AND COMBUSTION CHAMBER

George B. Herbster, Dallas, Tex., assignor to Herbster-Schmiller, Inc., Cleveland, Ohio, a corporation of Ohio

Application May 12, 1954, Serial No. 429,215
9 Claims. (Cl. 126-91)



1. A heat exchanger and combustion chamber combination comprising a generally upright head having a plurality of groups of substantially arcuate tubes for gaseous heating media, which tubes are concentric to a horizontal axis and are open at the bottom to receive the heating media and at the top to discharge the heating media, and which extend generally about their common axis whereby the heating media pass through one group clockwise from the bottom to the top of the tubes and through one group counter-clockwise from the bottom to the top of the tubes, the tubes of each group being radially spaced apart from each other to provide therebetween elongated substantially concentric air passages through the head from the front to the rear of the head, said head having walls forming a hollow downwardly opening combustion chamber directly beneath the bottom of the tubes and openings at its upper end into the bottoms of the tubes and adapted to receive at the lower portion secondary air and combustible gaseous fuel from a burner, said head having walls forming an outlet at its upper portion and connected with the tops of the tubes for conducting residua of the gaseous heating media from the tubes, metal ribs integral with the tubes and positioned with their cross sections, taken in vertical planes extending forwardly and rearwardly of the head, horizontal and said ribs forming connectors across the air passages between adjacent tubes, said connectors being arranged one pair in each arcuate passage of each group, each connector being joined along its longitudinal side margins at an abrupt angle to its associated tubes, respectively, each connector being relatively narrow in cross-section in a direction circumferentially of its associated air passage and spaced a material distance from the circumferential extremities of its associated air passage and extending forwardly and rearwardly through the head the major portion of the forward and rearward extent of its associated air passage, a through tube extending upwardly between the two innermost tubes and arranged to receive at its lower end products from said chamber and to discharge the same at its upper end, said through tube terminating at its lower end at least as

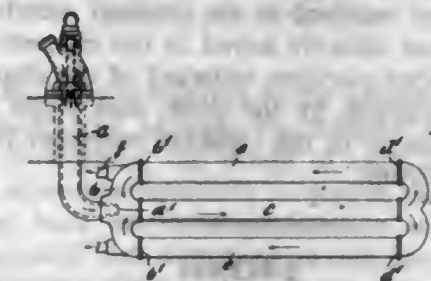
high as the upper level of the inlets of the adjacent arcuate tubes and terminating at its upper end substantially at the lower level of the outlets of said adjacent arcuate tubes, all of the aforesaid structure being a one-piece iron casting, and each of said connectors being solid iron.

2,823,659

INTERNALLY FIRED TUBES FOR HEATING FURNACES OR OTHER PURPOSES

John Fallon, Smethwick, England

Application March 10, 1955, Serial No. 493,521
7 Claims. (Cl. 126-91)



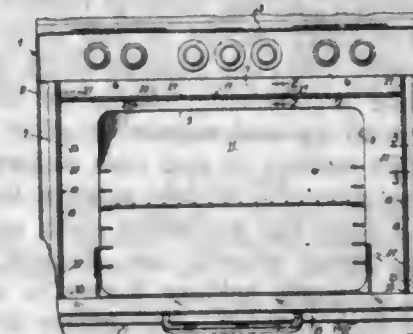
1. An internally fired balanced tubular heat exchange unit for radiantly heated furnaces comprising, in combination, a header union, means forming a combustion chamber exteriorly of said header union and having a jet nozzle communicating therewith, said jet nozzle being provided with an outlet for combustion products and being positioned with said outlet within said union approximately centrally transversely thereof, a main tube having an inlet connected in communication with said header union and extending substantially coaxially of said jet nozzle outlet, a plurality of return tubes positioned axially substantially parallel to said main tube and substantially symmetrically arranged on each side thereof, each of said return tubes having one end thereof connected in communication with said header union and through said header union with said inlet of said main tube providing for recirculation of fluids from said return tubes through said main tube, a second union connecting said main tube with the other ends of each of said return tubes, and one of said unions having separate exhaust ports for respectively exhausting fluid from each of said return tubes, each of said exhaust ports being positioned substantially equidistantly from said jet nozzle.

2,823,660

COOKING RANGE

Walter H. Holzboog, Clayton, and Fred H. Heselmeyer, Normandy, Mo., assignors to Magic Chef-Food Giant Markets, Inc., a corporation of New Jersey

Application January 16, 1956, Serial No. 559,281
6 Claims. (Cl. 126-190)



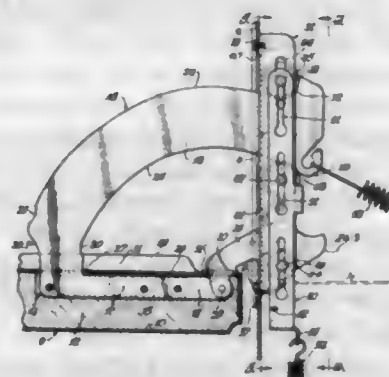
1. In a cooking range having an oven, a front wall provided with a rectangular opening for the oven and a door pivoted on a horizontal axis adjacent the lower edge of the opening for swinging movement between a closed position extending vertically upward and confronting portions of the front wall surrounding the opening and an open position extending forward, means comprising vertically extending sealing strips at the sides of the open-

ing and a horizontally extending sealing strip above the opening for making a seal between the door and the front wall when the door is in closed position, the vertical strips being separate from one another and the horizontal strip being separate from the vertical strips, vertically extending strip-retaining channel members of C-shape in cross section secured on the front face of the front wall at opposite sides of the opening, and a horizontally extending strip-retaining channel member of C-shape in cross section secured on the front face of the front wall between said vertically extending channel members above the opening, the open sides of all of said channel members being directed forward, said strips having rib portions received in the channel members whereby the strips are slidably keyed in the channel members, and resilient bead portions outward of the channel members for engagement by the door, said strips being longitudinally slidable in the channel members for endwise removal therefrom.

2,823,661

HINGE CONSTRUCTION FOR RANGE OVEN DOORS AND THE LIKE

William D. Grannan, Des Plaines, Ill., assignor to General Electric Company, a corporation of New York
Application December 30, 1953, Serial No. 401,229
10 Claims. (Cl. 126—191)



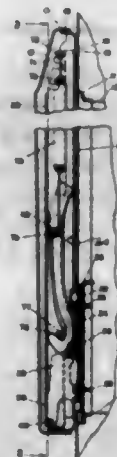
1. In a door structure, means comprising side, top, and bottom frame members defining a door opening, a door for said opening, and means for removably hinging said door to said frame to rotate about a swing axis adjacent one edge of said door, said hinging means comprising a rigid hinge member fixed to said door and having a plate-like arcuate cam element extending from said door remote from the said one edge thereof, the plane of said cam element being normal to the said edge of the door, said cam element generally spiralling toward the said swing axis of the door, a support bracket fixed to one of said frame members and having spaced rigid side walls accommodating the passage of the cam element therebetween and the removal thereof from said bracket, a support roller carried by said support bracket in engagement with said cam element along one surface thereof to provide a supporting means for said door, a detent roller carried by said support bracket in engagement with another surface of said cam element, a plate-like link member pivotally secured relative to said door adjacent its said edge and extending from said door in substantially the plane of said cam element, said link member having a notch portion facing in a direction away from said cam element, pivot means fixed to said support bracket and extending between said spaced walls for passage through the notch portion of the link member, the diameter of said pivot means being not substantially smaller than the width of said notch portion whereby said link member may rotate about said pivot means without undue looseness thereon while maintaining an easy slidable relation of said link member and said pivot means for the removal of said link member therefrom, means for resiliently biasing said detent roller into en-

gagement with the said edge of said cam element, and means for resiliently urging said cam element in a door-closing direction.

2,823,662

OVEN DOOR HINGE CONSTRUCTION

Elmo E. Aylor, Galesburg, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois
Application January 24, 1955, Serial No. 483,663
8 Claims. (Cl. 126—191)

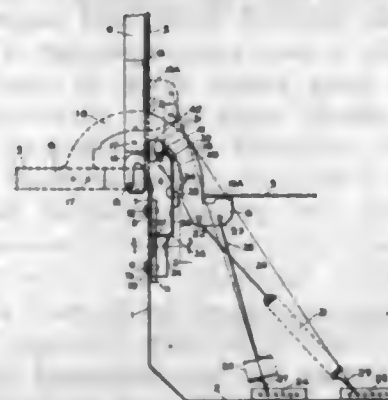


2. In combination, a cabinet having an opening therein, a door pivotally mounted at its lower end on said cabinet for movement toward and away from an upright position in which it closes said opening, a rigid link having a connection to said cabinet above the pivotal mounting for the door and toward the interior of the cabinet from the pivotal mounting of the door, said link being swingable about said connection, said door having guide means which terminates at its inner end in spaced relation to the pivotal mounting of the door and which extends along the door outward from said pivotal mounting, a follower carried by said link in spaced relation to said connection of the link to the cabinet and slidably engaging under said guide means for movement along said guide means inward toward said pivotal mounting of the door upon pivotal movement of the door about its pivotal mounting down away from said upright position, and a spring acting between the door and said follower which urges the follower outward along said guide means away from said pivotal mounting of the door and maintains said follower bearing against said guide means to apply an upward force against the door at said follower which urges the door toward its upright position.

2,823,663

OVEN DOOR HINGE STRUCTURE

Ralph W. Aten, Swan Creek, and Elden W. Silvey and William J. Miller, Galesburg, Ill., assignors to Admiral Corporation, Chicago, Ill.
Application August 16, 1954, Serial No. 449,932
11 Claims. (Cl. 126—194)



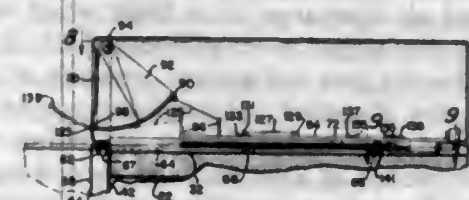
3. In combination, a cooking range having an oven, a door pivotally mounted on said range at the front of

the oven and movable between open and closed positions, and means for counterbalancing the weight of said door when it is in its open position and during its movement between its open and closed positions, said counterbalancing means including a connector having one end secured to said door and an arm extending downwardly below the pivotal mounting for said door when the door is in its closed position and said arm being provided with an extension, spaced forward and rear anchoring means arranged at the lower portion of said range at positions rearwardly of said extension, a main spring having one end connected to the forward anchoring means and its other end connected to the rear portion of said extension, an auxiliary spring exerting less pull than said main spring and having one end connected to the rear anchoring means and its other end to the forward portion of said extension and throughout the movement of the door between its open and closed positions exerting its pull on the door at a greater angle from the vertical than the pull exerted by said main spring, said connector being movable with said door during its movement to open position to expand and increase the force of said springs, and the angular difference between the directions of the pulls exerted by the main and auxiliary springs becoming progressively greater as the door moves from its open position to its closed position whereby the ratio of the downward pull exerted on the door by the auxiliary spring with respect to the downward pull exerted on the door by the main spring decreases as the door moves from its open position to its closed position.

2,823,664

DOMESTIC APPLIANCE

Jesse L. Evans and Donald F. Hitchcock, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 20, 1954, Serial No. 463,352
5 Claims. (Cl. 126—198)



4. An oven including a wall structure enclosing an oven compartment, double doors operably connected to said wall structure for closing said oven compartment, said wall structure including a control panel above the doors, said control panel having in its lower portion a horizontal slot, heating means for said oven compartment, said control panel being provided with control means for said heating means, said control means being located above said horizontal slot, a shield means located in and protruding from said horizontal slot, a traveler, links connecting each of the doors with the traveler, stationary guide means for said traveler, spring means for projecting said shield means forwardly from said control panel out of said slot, and means engaged by said traveler coincidentally with the closing movement of said doors for retracting said shield means rearwardly into said slot.

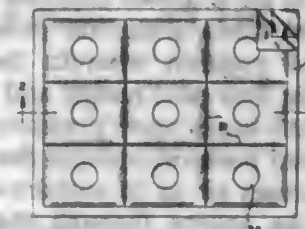
2,823,665

HEATING PAD

John D. Steinbach, Tillamook, Oreg.
Application September 12, 1955, Serial No. 533,639
1 Claim. (Cl. 126—263)

A heating pad comprising three sheets of similar sizes and shapes arranged in superimposed relation, the marginal edges of said sheets being permanently joined together to form a bag, the two outer sheets being of waterproof material and the inner sheet being water permeable, said

outer sheets being connected with the inner sheet interposed therebetween and anchored thereby, means interconnecting the sheets to subdivide the pad into a grid of individual pockets with the inner sheet anchored to the outer sheets at each line of the grid, a quantity of exothermic material in each pocket to be confined therein between the inner sheet and one of the outer sheets and the

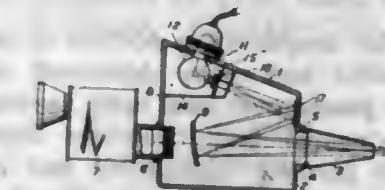


inner sheet being impermeable to the exothermic material and being interposed between the material and the other outer sheet throughout the extent of each pocket, and a plurality of spaced perforations formed in said other outer sheet and at least one such perforation communicating with each pocket for admitting water into the pocket through the inner sheet.

2,823,666

APPARATUS FOR ILLUMINATING AND INSPECTING CAVITIES

Charles Skinner Hallpike, London, and Louis Blackmore, Ashted, England, assignors to National Research Development Corporation, London, England, a British body corporate
Application April 13, 1953, Serial No. 348,229
Claims priority, application Great Britain April 15, 1952
16 Claims. (Cl. 128—9)

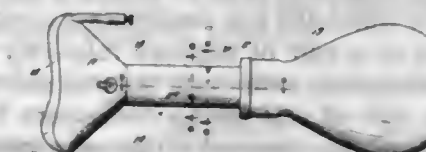


1. In an apparatus for examining cavities, the combination of a casing having front and rear apertures in line with each other for mounting a speculum and a viewing microscope respectively, a concave mirror arranged on the line of the sight between the two apertures and inclined with respect thereto, the portion of the mirror on the line of sight being light-passing to permit direct viewing through the mirror, a light source means arranged within the casing above the concave mirror for emitting a ring-shaped beam of light, a condenser lens system arranged in front of the light source means to form a real image of the light from said light source means in the vicinity of the surface of the concave mirror, and a plane mirror positioned on the front of the casing above the speculum aperture for reflecting the light from the condenser lens system back onto the concave mirror.

2,823,667

TO-AND-FRO BREATHER

Paul A. Raiche, North Providence, R. I.
Application January 24, 1955, Serial No. 483,688
5 Claims. (Cl. 128—29)

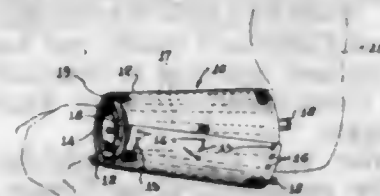


1. In a respirator, a flow tube, means at one end thereof for introducing air to the lungs of a patient, a source of alternate pressure and suction pulsations communicat-

ing with the other end thereof, a partition in said tube having flow port means, said tube having wall port means intermediate the partition and said other end, and a control device in said tube intermediate the partition and the other end and movable through a series of cyclatory positions responsive to successive suction, and pressure pulsations from said source, said device being movable from a first position wherein air is drawn into said source through the wall port means upon a suction pulsation from the source to a second position wherein the air is forced through the partition flow port means and the introducing means to the patient's lungs upon pressure pulsation from said source, to a third position wherein the next successive suction pulsation causes air to be withdrawn from the patient's lungs into the source through the partition flow port means and to a fourth and final position wherein the next successive pressure pulsation expels air from the source through the wall port means.

2,823,668 INFLATABLE SPLINT

Carl P. Van Court, North Hollywood, Harold E. Kinsman, Beverly Hills, and Clawson N. Skinner, Whittier, Calif.
Application October 12, 1953, Serial No. 385,522
2 Claims. (Cl. 128—87)



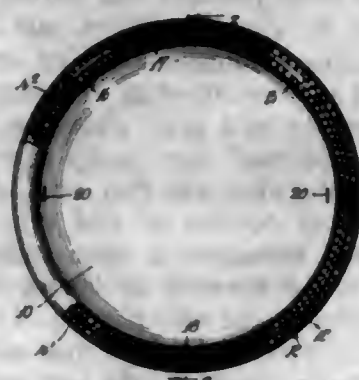
1. A splint for supporting a portion of the body comprising: a flexible and easily deformed inner wrapper of a size to be placed over said body portion and having a series of elongated fluid chambers therein arranged in substantially parallel relationship and interconnected for fluid communication; means connected to said wrapper for introducing fluid into said chamber; a fluid-body in said chambers under a controlled pressure corresponding substantially to the physiologic pressure of the tissue in the body portion; a separate outer wrapper adapted to overlay said inner wrapper, said outer wrapper having a plurality of spaced parallel stays therein rendering said outer wrapper substantially rigid in one direction; and means mounted on said outer wrapper for tightening said wrapper around said inner wrapper to hold said fluid chamber against outward deformation while allowing free relative adjustment of said chambers inwardly to conform to the natural shape of said body portion and exert a uniform pressure thereagainst.

2,823,669 VAGINAL DIAPHRAGM

Eric Kunnas, Jr., Yardley, Pa., assignor to Holland-Rantos Company, Inc., a corporation of New York
Application July 20, 1956, Serial No. 599,171
4 Claims. (Cl. 128—127)

1. A vaginal diaphragm of the type comprising a dipped latex cup enclosing a flexible rim essentially of metal, said rim being of type to afford a bow-bend; the combination in which the rim comprises a composite inner ring consisting of a pair of opposed relatively stiff spring wire arcuate members with ends tapered substantially to a point and a pair of coil spring connectors between the respective ends of the opposed spring wire members, said spring connectors being telescoped at their ends over the tapered extremities of the arcuate spring wire members for frictional hold with respect thereto, the spring connectors determining a substantial gap between the tapered

extremities of the arcuate wire members which they connect, a coil spring encompassing the entire length of



the composite inner ring, the opposed ends of the encompassing coil spring being connected together to form an endless annular coil spring.

2,823,670 UNDERWATER BREATHING APPARATUS

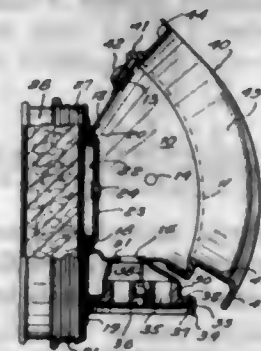
Rory E. Page, Long Beach, Calif., assignor to Hope-Page Engineering Corp., Lakewood, Calif., a corporation of California
Application March 29, 1954, Serial No. 419,195
10 Claims. (Cl. 128—142)



1. Underwater breathing apparatus adapted for use with air supply and air discharge tubes from which water may be completely discharged when submerged which includes: a tubular T having first and second coaxially aligned legs, and a third leg disposed substantially normal thereto; first and second ring-shaped flanges extending outwardly from the extremities of said first and second legs respectively, which flanges are provided with threads on the outer circumferential portions thereof, and recesses that extend outwardly from the inner circumferential edges thereof to define first and second body shoulders respectively; a first circular valve body in which a plurality of ports are formed, said body being adapted to be removably positioned in said first recess; a first valve member associated with said first valve body that only permits fluid flow into said tubular member when the air pressure on the interior of said T is lower than that on the exterior thereof; a second circular valve body in which a plurality of ports are formed, which is adapted to be removably disposed in said second recess, with said ports extending outwardly beyond the inner surface of said second leg to permit discharge of all water entering said T to pass therethrough; a second valve member associated with said second valve body that only permits flow of air and water through said ports in said second body when the air pressure within said T is greater than that on the exterior thereof; first threaded means which removably engage said threads of said first flange to hold said first valve body in fluid-sealing contact with said first body shoulder, said air supply tube communicating with said ports in said first valve body; second threaded means which removably engage said threads of said second flange to hold said second valve body in fluid-sealing contact with said second body shoulder and said air discharge tube; and a mouthpiece affixed to the extremity of said third leg to permit said apparatus to be held in a breathing position by a diver.

2,823,671 RESPIRATOR

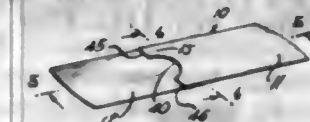
Judith J. Garelick, Brooklyn, N. Y., assignor to Pulmosan Safety Equipment Corporation, Brooklyn, N. Y., a corporation of New York
Application March 29, 1954, Serial No. 419,251
4 Claims. (Cl. 128—146)



1. A respirator comprising a hollow, open-ended body, engaging means on one end of said body extending about the periphery thereof and adapted to conform with the facial contours of a wearer, an inlet valve on the other end of said body, an inlet filter means secured to said body eccentrically of said inlet valve and depending substantially beyond said body, and outlet means intermediate the ends of said body and shielded by the depending portion of said inlet filter, said outlet means constituting an exhalation unit and comprising a metal mounting member or holder, an exhalation valve and valve seat plug, said mounting member being secured to and in communication with the body and having a web circumjacent the mounting member and an annular flange extending outwardly from said web, said valve seat plug being apertured and being located within said mounting member and abutting against said web, its circumference fitting within said flange, an annular bead in said flange extending inwardly against the valve seat plug to securely retain said plug in said member, said exhalation valve comprising a flexible resilient sheet exteriorly of and closely underlying said plug, said sheet having an upturned marginal edge portion normally engaging said plug to seal said apertures, and movable away from said plug in response to increased fluid pressure interiorly of said body.

2,823,672 ADHESIVE BANDAGE

Peter Schladermundt, Bronxville, and William H. Dennerlein, Beechhurst, N. Y., assignors to Johnson & Johnson, a corporation of New Jersey
Application August 19, 1954, Serial No. 450,972
9 Claims. (Cl. 128—156)



4. In an adhesive bandage comprising a flexible adhesive-covered backing and a dressing secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing and exposed areas of adhesive at opposite sidewise portions of said backing, the improvement which comprises a protective facing strip covering each of said two endwise exposed areas, said strips overlapping above said dressing, said bottom strip having an inward transverse edge terminating at opposite inward corners of said strip adjacent opposite sidewise exposed adhesive areas of said backing, a straight line joining said corners being substantially perpendicular to the longitudinal dimension of said bandage, said inward edge having a protruding tab relative to said line and centered approximately in the middle of said edge.

2,823,673 ADHESIVE BANDAGE

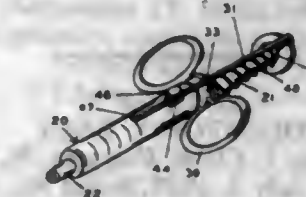
Peter Schladermundt, Bronxville, and William H. Dennerlein, Bethpage, N. Y., assignors to Johnson & Johnson, a corporation of New Jersey
Original application August 19, 1954, Serial No. 450,972. Divided and this application September 7, 1956, Serial No. 608,466
7 Claims. (Cl. 128—156)



1. In an adhesive bandage comprising a flexible adhesive-covered backing and a dressing secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing and exposed areas of adhesive at opposite sidewise portions of said backing, the improvement which comprises a protective facing strip covering each of said two endwise exposed areas, said strips overlapping above said dressing, each of said strips having an inward transverse edge terminating at opposite inward corners of said strips adjacent opposite sidewise exposed adhesive areas of said backing, lines joining said opposite corners of respective strips being substantially parallel, each of said inward edges having a protruding tab portion relative to a line joining said opposite corners.

2,823,674 HYPODERMIC SYRINGE FOR VETERINARIANS

Donald E. Yochem, Columbus, Ohio
Application November 15, 1955, Serial No. 546,855
13 Claims. (Cl. 128—218)



1. A hypodermic syringe comprising a barrel and a plunger movable therein, a control on the syringe, said control comprising a guide member mounted on the barrel of the syringe and having a guide opening therein, a control member mounted on the plunger of the syringe and passing through the guide opening of said guide member longitudinally substantially parallel to the axis of said barrel, and a stop member on the control member positioned to engage the guide member adjacent said opening when the plunger is retracted relative to the barrel so as to predetermine the amount of liquid which can be pulled into the barrel of the syringe by the retracting movement of the plunger, a compression spring surrounding said plunger and engaging portions of said barrel and said plunger to normally retract said plunger, said stop member being adjustably mounted on the control member to permit setting of it at different positions longitudinally of the control member, said guide opening having a slot in one of its walls to permit lateral movement of the control member through the slot into or out of said opening, said guide member being provided with finger-engaging portions.

2,823,675 HYPODERMIC SYRINGE ASSEMBLY

Joseph Sciarba, Rutherford, N. J.
Application November 4, 1957, Serial No. 694,383
12 Claims. (Cl. 128—218)

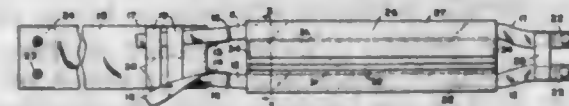
1. In a hypodermic syringe finger grip mounting means consisting of a plunger and cap assembly comprising a

cylindrical plunger having an encircling flange at one end; a cap having a circular top coextensive with the flanged end of the plunger; a curved side wall depending from the circular top for a portion of its periphery not in excess of 180 degrees with its inner surface in contact with the outer edge of the plunger flange; a bottom member extending from the curved side wall parallel with the circular top and embracing a portion of the plunger flange therebetween; a spring catch on the circular top engaged with the plunger flange; and a finger grip mounted atop the circular top; and a barrel and barrel cap assembly comprising a cylindrical barrel having an external flange encircling its open top; a cut-away section in such flange;



a band partially encircling the barrel beneath the flange; an upstanding flexible member attached to such band curved about the cut-away edge of the flange a spaced distance therefrom; a cap member having a collar encompassing the barrel, band and flange; finger members extending downward from the collar in friction fit engagement with the barrel; and an inwardly turned edge on top of the collar forming an opening coaxial with the barrel and substantially identical with the periphery of the flange and having a notch therein adapted to accommodate passage of the upstanding flexible member; and a pair of finger grips extending from the collar on opposite sides thereof.

2,823,676
COLOSTOMY BELT
Adelaide J. Clark, Fairport, N. Y.
Application July 3, 1957, Serial No. 669,816
10 Claims. (Cl. 128-283)

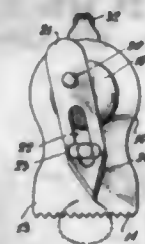


1. A colostomy belt comprising a back band of flexible, elastically extensible material having its opposite ends connected by frontal straps of flexible material attached to said ends and extending in spaced relation with each other between said band ends, and a sheet of thin, pliable, impervious material having its opposite edges connected to said straps, respectively, and yieldably supported thereby, said sheet having a width between said straps substantially greater than the width of said band to provide a portion adapted to be extended between said straps and transversely thereof to form a pocket for receiving and supporting a colostomy pad in applied position.

2,823,677
LANCET
George N. Hein, Jr., San Carlos, Calif., assignor to Becton, Dickinson and Company, Rutherford, N. J., a corporation of New Jersey
Application January 17, 1955, Serial No. 482,155
6 Claims. (Cl. 128-314)

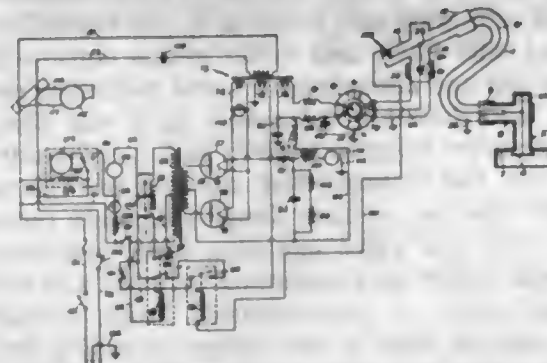
2. A lancet assembly comprising in combination a mounting, a shaft rotatably supported by said mounting, a crank connected to said shaft, a blade having a sharpened end, said blade being operatively connected adjacent its opposite end with said crank and disposed for slidable movement with respect to said mounting, a spring con-

nected to said shaft to rotate the same, a single manually operated lancet-actuating means, shiftable clutch means connecting said latter means with said shaft to rotate the latter and tension said spring and said clutch means



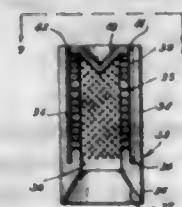
being shiftable to release said shaft from said manually operated means whereby said spring will rotate said shaft to project the sharpened end of said knife beyond said mounting.

2,823,678
DIATHERMY POWER CONTROLS
Alvin S. Luftman, Allston, and Earle R. Roswell, Marshfield, Mass., assignors to Raytheon Manufacturing Company, Waltham, Mass., a corporation of Delaware
Application April 29, 1954, Serial No. 426,402
5 Claims. (Cl. 128-422)



3. In combination, an oscillation generating element, an energy applicator electrically connected to said generating element, means including a severable joint interposed in the connection between said generating element and said applicator, means connected to said generating element for supplying energization thereto, and means connected between said applicator and said energizing means for interrupting the operation of said energizing means in response to severance of said severable joint.

2,823,679
CIGARETTE SLEEVE
Rudolph J. Vrana, Blauvelt, N. Y.
Application April 13, 1954, Serial No. 422,834
1 Claim. (Cl. 131-174)



A shield for the lighted end of a cigarette comprising a cylindrical body portion having outer and inner sleeve members, said inner sleeve member continuing at one end into an outwardly flaring portion in the body portion opening outwardly thereof, said outer sleeve being spaced from said inner sleeve member providing a space therebetween, and a perforated wall joining said sleeve members at the other end of the inner sleeve member, said inner sleeve member being provided with a plurality of openings in its side wall communicating with the space between the sleeve members, the wall joining said sleeve members having openings communicating with the atmos-

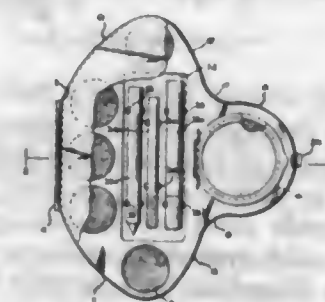
phere, said inner sleeve member having a closure wall at one end formed with an inwardly conical portion extending axially of said inner sleeve member.

2,823,680
SMOKE COOLING CIGARETTE HOLDER
Samuel J. Busby, Winlock, Wash.
Application April 7, 1955, Serial No. 499,885
1 Claim. (Cl. 131-198)



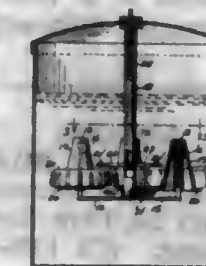
A cigarette holder comprising a front section and a rear section threadedly connected to each other and having axially aligned smoke passages, an expansible chamber at the junction of said smoke passages, lateral air inlet passage means in one of the sections leading to the chamber and adapted to admit fresh air thereto for mixing with the smoke, a valve seat on one of the sections at its meeting end, a valve on the other of said sections at its meeting end engaging the valve seat upon a connecting movement of said section to close said air inlet, and a sealing band at the rear end of the front section and projecting rearwardly therefrom in constant overlapping covering relation with the threads of the rear section during relative movement of the front and rear sections to open or close the air inlet.

2,823,681
COSMETIC DISPENSER
Willie Mae Sutton Miller, Chicago, Ill.
Application July 21, 1955, Serial No. 523,503
1 Claim. (Cl. 132-83)



In a cosmetic container, an upwardly open case having a substantially flat bottom wall, a cover for said case hingedly mounted thereon along the rear edge thereof and having a substantially flat top wall, said case and cover having a generally elliptical periphery and an outwardly-directed projection positioned generally centrally of the forward edge thereof and in general alignment with said hinged mounting, the outer portion of said projection having a generally circular edge, said outer portion being joined with said forward edge of said case and cover by oppositely curved portions extending laterally in opposite directions from said outer portion, said case having a support positioned entirely therewithin, said support extending throughout said case and of substantially the configuration thereof, said support having a plurality of individual wells spaced along said hinge and along the rear curved edge of said elliptical central portion adapted to receive a plurality of individual cosmetic materials, said support having a larger well positioned within the area of said projection and a central well in said support positioned between said wells along said hinge and said well in said projection, said central well having secured to the bottom wall thereof a plurality of upwardly open securing means adapted to receive and hold a plurality of cosmetic instruments.

2,823,682
BEARING CLEANING APPARATUS
Clyde Coulter, Caledonia, Ohio
Application October 19, 1953, Serial No. 386,736
2 Claims. (Cl. 134-94)



1. An apparatus for cleaning bearings, comprising a container for holding a quantity of cleaning fluid, a lid mounted on the top of said container, a vertically disposed hollow standard depending from said lid, a conduit extending down through said standard and adapted to be connected to a source of supply of air under pressure, a plurality of horizontally disposed arms secured to the lower end of said standard, a vertically disposed finger extending upwardly from the outer end of each of said arms, a sleeve, rotatably supported by each of said fingers, a frusto-conical support member supported by each of said sleeves and provided with a lower annular lip for supporting a bearing to be cleaned, and a plurality of apertured tubes connected to said conduit for supplying air onto the bearings, said air being directed tangentially onto the bearings being cleaned.

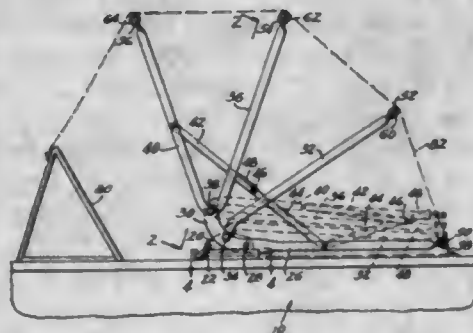
2,823,683
COLLAPSIBLE BUILDING STRUCTURES
Charles Aquila Vincent Smith, London, and John Feasey, Hemel Hempstead, England
Application November 17, 1952, Serial No. 320,872
Claims priority, application Great Britain November 20, 1951
1 Claim. (Cl. 135-1)



A collapsible building structure comprising, when erected upon a supporting surface, a rectangular sheet of flexible material, a framework consisting of a number of flexible, resilient rod-like rib members attached to said sheet in spaced relation parallel to one pair of opposite edges of said sheet, said rib members each having a length substantially equal to that of each of said edges and being bowed to constitute an arched support springing from said supporting surface, anchoring means detachably connected to the ends of said rib members to constrain said rib members in bowed condition, and a plurality of purlins, at least three purlins extending between each adjacent pair of rib members and lying parallel to the other pair of opposite sides of said sheet, each purlin being hingedly connected at one of its ends to a rib member, and having its other end detachably received in locating means on an adjacent rib member, each rib member being formed of at least two portions arranged to be detachably engaged end to end, and each of said portions being affixed to said rectangular sheet whereby, when said purlins are removed from their locating means and brought into parallel relation with the rib members to which they are hingedly connected, and said portions of said rib members are disengaged one

from another, the constituents of said framework are retained in their relative dispositions by said sheet of flexible material, and said structure is not only capable of being further collapsed and wrapped in said flexible sheet material, but also is capable of re-erection with each of said constituents attached to at least one other part of the structure and correctly disposed relatively to one another.

2,823,684
CANOPY FOR BOATS
Osvaldo F. Sartori, Sacramento, Calif.
Application January 20, 1956, Serial No. 560,320
3 Claims. (Cl. 135-6)

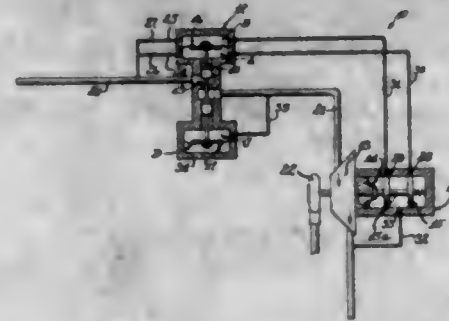


1. A canopy frame comprising a pair of channel-shaped support plates adapted to be fixed axially on the upper edges of the opposing sides of a boat, a bracket member slidably and removably engageable in each support plate and having upstanding mounting portions, means for locking the bracket members in place in the support plates, a main side rib having an end disposed alongside the mounting portion, said main side rib being adapted to extend axially from the bracket member substantially in a horizontal plane, said end of the main side rib being upwardly curved and pivoted to the mounting portion, at least one other side rib pivoted at its lower end to the mounting portion and to the end of the main side rib and at least two additional side ribs pivoted at their lower ends, to the curved end of the main rib, brace means connected between the main side rib and one of said additional side ribs, said side ribs constituting a side rib assembly and being movable about their respective pivots from a collapsed position to a raised position in which they are spaced apart and held in such spaced relationship by the brace means, and a plurality of cross ribs pivotally connected between the side ribs of the side rib assemblies at each side of the boat and adapted to extend across the boat, said cross ribs having outer ends pivoted to the side ribs and having inner ends pivoted together and automatically operable locking means carried by the inner ends for locking the cross ribs in extended positions.

2,823,685
TURBINE SPEED CONTROL
Robert J. Anderson, Wickliffe, and Victor W. Gennert and Allen Edwin Lepley, Cleveland, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application June 22, 1951, Serial No. 233,092
17 Claims. (Cl. 137-29)

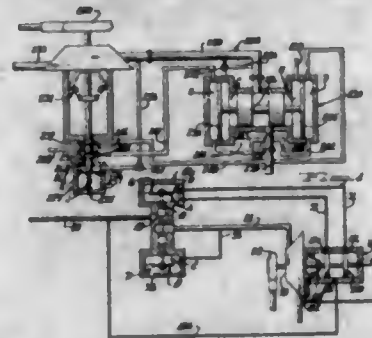
4. A prime mover system comprising a fluid propelled motor, a source of pressure fluid, means interconnecting the source of pressure fluid with the motor, a servomechanism comprising a throttle valve movably mounted in said servomechanism for controlling fluid flow there-through from said pressure source to said motor, diaphragm means connected to said throttle valve, first and second fluid connections referencing fluid pressure from said pressure source to opposite sides of said diaphragm means for biasing said throttle valve in opposite directions, restrictions in said fluid connections for inducing

a substantial pressure drop in response to fluid flow therethrough, and a third fluid connection referencing the pressure between said throttle valve and said fluid motor to one side of said diaphragm means for biasing



said throttle valve toward closed position, and means responsive to motor speed to prevent fluid flow in one of said first and second fluid connections while causing flow in the other.

2,823,686
TURBINE CONTROL
Robert J. Anderson, Wickliffe, and Victor W. Gennert and Allen E. Lepley, Cleveland, Ohio, assignors to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application April 17, 1952, Serial No. 282,862
7 Claims. (Cl. 137-29)

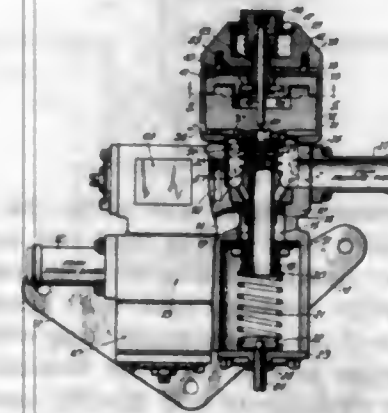


2. In a speed control system, a fluid motor, a source of fluid under pressure for said motor, a conduit connecting said source of said fluid pressure to said motor, a throttle valve in said conduit, a pilot valve adapted to control the throttle valve for controlling fluid flow there-through from said pressure source to said motor, diaphragm means connected to said pilot valve, centrifugal mechanism biasing said pilot valve in one direction, resilient means biasing said pilot valve in an opposite direction, and a fluid connection referencing the pressure between said throttle valve and said fluid motor to one side of said diaphragm means for biasing said pilot valve against said centrifugal mechanism biasing means.

2,823,687
VALVE STRUCTURE
Charles P. Gabriel, Bryan, Ohio, assignor to The Aero Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application May 26, 1951, Serial No. 228,427
3 Claims. (Cl. 137-38)

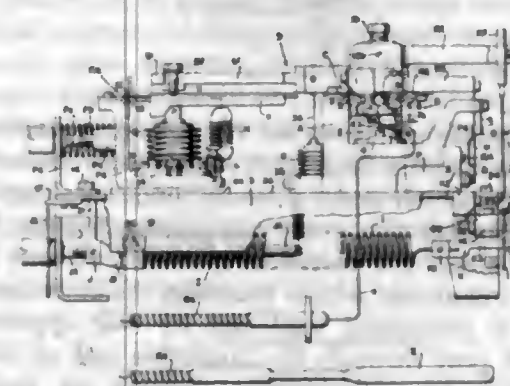
1. In a valve structure adapted to be interposed between a source of pressure medium and pressure pads or the like, a valve body, a demand valve chamber, said source being adapted to be attached thereto, an exhaust valve chamber and an intermediate chamber therein, said intermediate chamber being adapted for communication with the pressure pads, a movable valve member, first demand and exhaust valve elements carried thereby and both fixed relative thereto, cooperating second demand and exhaust valve elements stationary and movable respectively in said valve body, upwardly acting means constantly biasing said demand valve elements closed in-

dependent of the force of gravity, diaphragm means separating said intermediate chamber from said exhaust valve chamber and carrying said second exhaust valve element, a bellows separating said inlet chamber from atmosphere and having an effective diameter equal at all times to the effective diameter of said demand valve elements, and a single downwardly movable weight operatively connected with said second exhaust valve element and said diaphragm means to permit said upwardly acting means to close said demand valve elements when gravity acting on said weight is normal, said weight upon downward



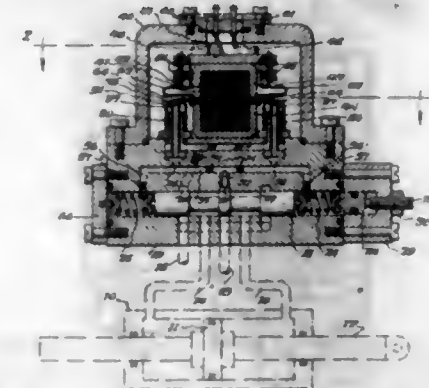
movement under the force of increase of the gravity load above normal engaging said second exhaust valve element with said first exhaust valve element, and through them immediately disengaging said first demand valve element from said second demand valve element as such downward movement continues and said weight overcomes said upwardly acting means and the pressure of the medium admitted through said demand valve elements and acting on said diaphragm means, said weight thereupon retaining said exhaust valve elements closed except when said weight responds upwardly to gravity load decrease.

2,823,688
CONTROLLER
Konrad H. Stokes, Roslyn, and Robert C. Whitehead, Jr., Oreland, Pa., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application April 9, 1953, Serial No. 347,812
14 Claims. (Cl. 137-79)



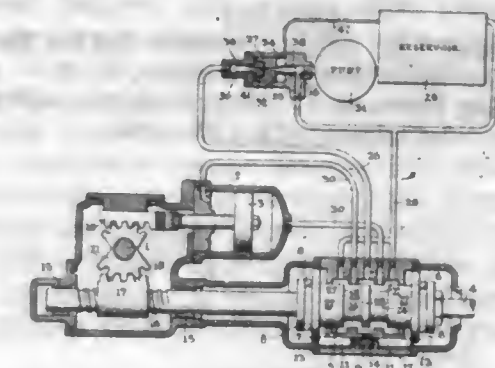
8. In a pneumatic transmitter of the force balance type comprising a deflecting member and means for subjecting said member to a deflecting force responsive to variations in an independent variable, and separate means for subjecting said member to rebalancing and spring suppression forces; the improvement comprising means for compensating for ambient temperature changes, which means comprise a bi-metallic element located between said means for subjecting said member to spring suppression forces and said member so as to vary the moment of the leverage which said means for subjecting said member to said spring suppression forces exerts on said member.

2,823,689
ELECTRO-HYDRAULIC SERVO VALVE
Donald V. Healy, East Aurora, N. Y.
Application June 18, 1954, Serial No. 437,778
7 Claims. (Cl. 137-82)



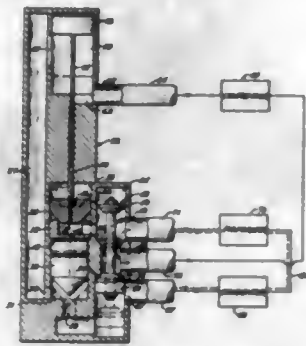
1. In an electro-hydraulic servo valve, a coil for receiving electric signals, an armature about which said coil extends for magnetizing said armature when a signal is received by said coil, said armature being in the form of a thin plate extending beyond the opposite ends of said coil, two pairs of magnetic poles of opposite polarity, one pair extending into close proximity to said armature beyond one end of said coil and the other pair extending into close proximity to said armature at the opposite end of said coil, fluid discharge nozzles terminating in close proximity to said armature at opposite ends of said coil and acting on the same face of said armature, means for resiliently locating the opposite ends of said armature normally in positions in which said armature is disposed in close proximity to both nozzles, said armature when magnetized by a signal in said coil swinging toward one of said magnetic poles and away from a nozzle, and means actuated by the difference in flow of fluid through said nozzles for amplifying the power developed by said coil.

2,823,690
SECONDARY UNLOADER FOR PUMP SYSTEMS
Parker Dodge, Chevy Chase, Md., assignor to The New York Air Brake Company, a corporation of New Jersey
Application July 20, 1953, Serial No. 369,057
5 Claims. (Cl. 137-108)



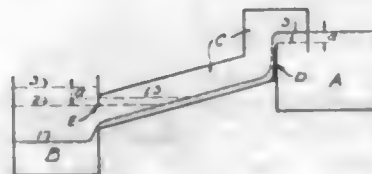
1. The combination of a pump; means defining a venturi-passage through which the pump discharges, and a restricted control passage communicating with the throat of the venturi-passage; a pump unloader shiftable freely between a loading and an unloading position; an expansible chamber motor comprising a working space in communication with said control passage and a movable motor element connected with said unloader; means for exerting a constant force on said unloader in opposition to the force exerted by the expansible chamber motor; and valve means controlling flow from said venturi-passage and operable to modify back pressure on the venturi-passage through a range sufficient to cause the motor and the constant force means to move the unloader between its two limiting positions.

2,823,691
VALVE UNIT
 George N. Chatham and O O Shurtleff, Austin, Tex.
 Application December 13, 1955, Serial No. 552,863
 9 Claims. (Cl. 137-119)



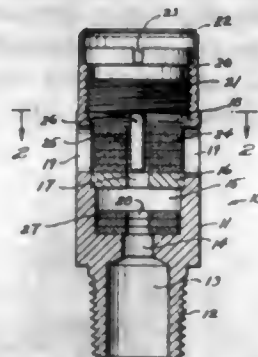
8. A four-way valve unit for a fluid pressure line, comprising a housing having an inlet and three vertically spaced ports for flow of fluid, the housing also having a vertically extending chamber connecting the inner ends of all three ports together and provided with valve seats between the middle port and the upper and lower ports, a main passage connecting said inlet with the lower part of said chamber, and an alternate main passage connecting the inlet with the upper part of the chamber, a control valve normally closing the alternate main passage and movable upwardly to open it, a main floating valve normally closing the main passage and movable upwardly by said line fluid pressure beneath it to open it, the housing having an opening connecting the top of the main valve with the alternate main passage at the downstream side of the control valve, a secondary floating valve in said chamber having vertically spaced seats facing each other with the upper seat normally closing that chamber between the upper and middle ports, the secondary valve being movable upwardly by fluid pressure below it to close the chamber between the lower and middle ports when the main floating valve opens the main passage, and means for causing said control valve to rise and open said alternate main passage, whereby the main floating valve will descend and close the main passage and the secondary valve will drop to its lower position.

2,823,692
HYDRAULIC REGULATION DEVICES
 Erik Rils-Carstensen, Buffalo, N. Y.
 Application February 11, 1955, Serial No. 487,688
 2 Claims. (Cl. 137-154)



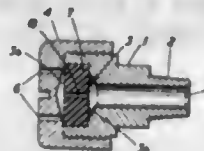
1. A liquid flow regulating device comprising an upper container, a lower container, a connecting conduit extending from the top of the upper container to a point spaced from the top of the lower container, a downward projection extending from the ceiling of the connecting conduit at its junction with the lower container, said conduit terminating at its upper end with a downward projection which extends a substantial distance into the upper container, whereby the liquid level above the lowest ridge of the first mentioned projection seals a closed air chamber in said connecting conduit, and continued liquid flow through said conduit causes an increase in the air pressure in said conduit to the point that flow into said conduit ceases.

2,823,693
AUTOMATIC VENT VALVE
 Joseph Balter, Cranston, R. I., assignor to Taco Heaters, Incorporated, Cranston, R. I., a corporation of New York
 Application September 16, 1954, Serial No. 456,505
 2 Claims. (Cl. 137-197)



1. In an automatic steam vent valve; the combination comprising a valve body having inlet and outlet passageways, a chamber communicating with said outlet passageway and a cavity between said inlet passageway and said chamber, said cavity communicating with said chamber, fibrous means in said chamber between said cavity and said outlet passageway and directly controlling flow through said chamber, said fibrous means, when dry, passing air to said outlet passageway and, when wet, being impervious to the passage of steam and liquid there-through, and moisture absorbent means in said cavity defining a continuously open passage through the latter between said inlet passageway and said chamber, said moisture absorbent means being operative to absorb moisture in and thereon from air passing through said cavity to said chamber so that premature closing of the valve is inhibited prior to the time air is exhausted.

2,823,694
SAFETY VENT PLUG
 Alexander Osmond Champion, Islington, Toronto, Ontario, Canada, assignor to Orenda Engines Limited, Malton, Ontario, Canada, a corporation
 Application November 25, 1955, Serial No. 548,951
 2 Claims. (Cl. 137-197)

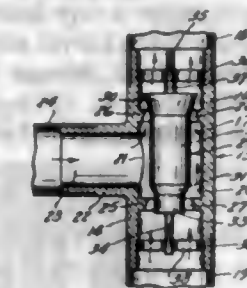
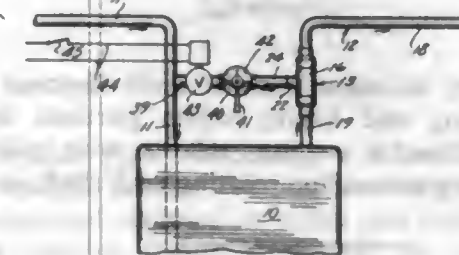


1. A safety device for an air vent of an apparatus containing a combustible fluid from which the vent normally is shielded but which under adverse conditions might tend to escape through the vent, comprising a plug having an insertable end for insertion in the vent and having a free end, a chamber within the plug, the chamber being defined by a peripheral wall and by two opposed end walls, a first port through the insertable end of the plug and extending to the chamber through an end wall, a second port in the free end of the plug extending from the other end wall of the chamber to atmosphere, a resilient partition dividing the chamber into a fore compartment which is in communication with the first port and an aft compartment which is in communication with the second port, an aperture in the partition interconnecting the two compartments, the aperture being out of registration with the second port, the partition deflecting and bearing against the aforesaid other end wall when the partition is subjected to a sudden surge of the combustible fluid contained in the apparatus with which the device is used so that the aperture and the second port are sealed from each other and combustible fluid thus is prevented from escaping to atmosphere, the partition

being made of a material which swells when contacted by the said fluid so that the partition swells and seals the aperture when it is contacted by a mere seepage of the said fluid.

2,823,695
HOT WATER SYSTEM AND CONTROLS THEREFOR

Harry A. Coffin, Minneapolis, Minn., assignor of fifty percent to Victor F. Scholz, Minneapolis, Minn.
 Application March 2, 1955, Serial No. 491,642
 7 Claims. (Cl. 137-337)

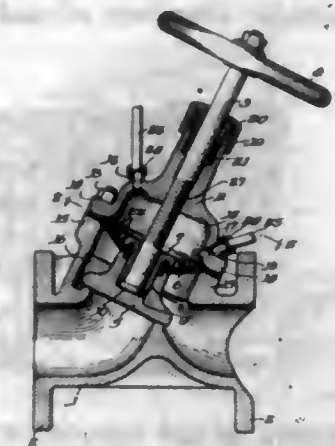


1. In a hot water supply system, a hot water tank, a cold water inlet pipe connected to and communicating with said tank adjacent the bottom thereof, a hot water outlet pipe connected to and communicating with said tank adjacent the top thereof, a generally vertically disposed intermediate portion of said outlet pipe defining a mixing chamber and having a port formed therein opening into said mixing chamber, said intermediate portion being formed to provide a pair of vertically spaced valve seats at opposite limits of said mixing chamber, a generally vertically disposed floating valve member mounted in said intermediate portion for vertical movements and defining a pair of vertically spaced valves each cooperating with a different one of said valve seats, a stop member anchored to said intermediate portion disposed vertically upwardly of said valve member to limit the upward movements thereof, the downward vertical movements of said valve member being limited by the seating of said valves at their respective valve seats, said valves being constructed and arranged to open at different rates, conduit means defining a passageway between said inlet pipe and said port, and a manually-operated variably opening valve disposed in said conduit means.

2,823,696
FLUID COOLED DIAPHRAGM VALVE
 Gustav C. Dettelson, Chicago, Ill., assignor to Crane Co., Chicago, Ill., a corporation of Illinois
 Application January 4, 1954, Serial No. 401,777
 3 Claims. (Cl. 137-340)

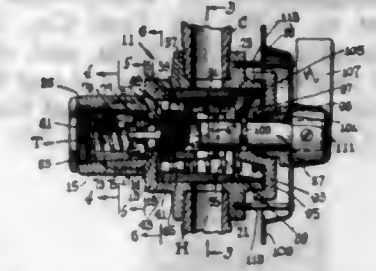
1. In a diaphragm valve, the combination comprising a bonnet, a casing therefor, a flexible diaphragm interposed therebetween, said diaphragm effecting a fluid tight seal between said bonnet and said casing when said valve is in the normally assembled position, the upper surface of said diaphragm being of frusto-conical form and having a relieved portion in the configuration of a spiral, said bonnet having entrance and exit apertures, the said entrance aperture directing fluid flow against said spiral

configuration whereby a fluid medium may be circulated therethrough and over the diaphragm relieved portion to



define a substantially spiral travel of the medium being circulated.

2,823,697
COMBINED MIXING AND DIVERTING VALVE
 Berthens J. Picard, Norwalk, Conn.
 Application August 31, 1953, Serial No. 377,303
 1 Claim. (Cl. 137-597)

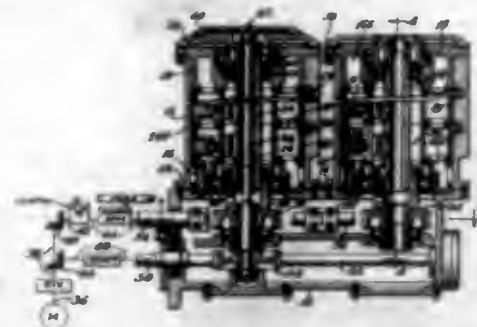


A fluid flow control valve comprising a housing including a mixing chamber having a plurality of inlet ports and a connected coaxial diverter chamber supplied with fluid from said mixing chamber and having a plurality of discharge ports; a rotary mixing valve in said mixing chamber for determining the proportioning of fluids admitted from said inlet ports and permitting their mixture; a partition between said chambers having an aperture defined by a shut-off valve seat; a resilient disk on said mixing valve cooperable with said seat for controlling the flow of fluid from the mixing chamber to the diverter chamber, said mixing valve being axially movable in its chamber to move said disk towards and away from said seat; a rotary diverter valve in said diverter chamber, coaxial with said mixing valve for selecting a particular discharge port to dispense the mixture; connection means between said mixing valve and diverter valve passing through said aperture and constraining said valves to rotate in concert having a tongue and slot engagement permitting relative axial sliding of said valves; and cam means on said housing displacing said mixing valve axially in response to rotation thereof.

2,823,698
ADJUSTABLE TIMER
 Harold E. Larson, Anderson, Ind., assignor to Lynch Corporation, Anderson, Ind., a corporation of Indiana
 Application July 26, 1954, Serial No. 445,519
 18 Claims. (Cl. 137-622)

1. In a timer of the character disclosed, a cylindrical housing, a plurality of annularly chambered timer valve units stacked therein, each rotatable relative thereto and each including a trip valve carried thereby for establishing selective communication between the annular chamber and the outside or inside of each unit, double sealing means for the periphery of each of said units relative to said cylindrical housing, said housing having an aperture for each of said units between its double sealing

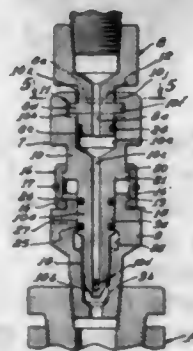
means for communication with the respective spaces outside said units, a timer shaft at the center of said cylindrical housing and extending through the open center formed by the annular chambers of said units, a series



of axially aligned cams on said timer shaft, one for operating each of said trip valves, and means for rotating each of said units and its trip valve relative to said cylindrical housing to vary the relative angular setting of said trip valves.

2,823,699

VALVED COUPLING EMBODYING FLUID PRESSURE ACTUATED LOCKING MEANS
Robert S. Willis, Long Beach, Calif., assignor, by direct and mesne assignments, of ninety-eight and three-fourths percent to Willis Oil Tool Co., Long Beach, Calif., a corporation of California, and one and one-fourth percent to Elmer L. Decker, Long Beach, Calif.
Application November 20, 1953, Serial No. 393,378
16 Claims. (Cl. 137-625.26)



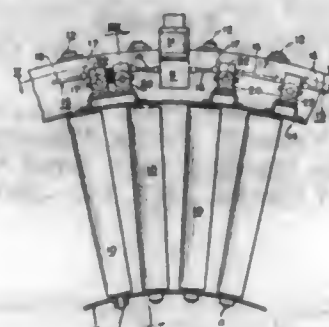
1. A valved coupling including: a pair of coupling members having fluid passages; means for detachably connecting said coupling members, with said passages registering to form a flow channel through said coupling; valve means in said channel for communicating said channel with a source of fluid under pressure; means for opening and closing said valve means; and elements on said coupling members engageable with one another for locking said coupling members against disconnection responsive to fluid pressure in said channel upon opening said valve means; said locking elements being disengageable upon reduction of said fluid pressure in said channel.

2,823,700

FLUID FLOW CONTROL APPARATUS
Oswald A. Christensen, San Jose, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 19, 1954, Serial No. 469,980
3 Claims. (Cl. 138-46)

1. In an air flow control device of the class wherein a plurality of vanes are mounted for rotative movement between concentrically disposed inner and outer cylindrical casings and each vane has a spindle end disposed outwardly of the outer casing; means for simultaneously adjusting said vanes, said means comprising a plurality of levers, said levers having one end secured to said spindles and their other ends extending laterally therefrom, a plurality of rods extending transversely of said outer casing, said rods being pivotally connected to the

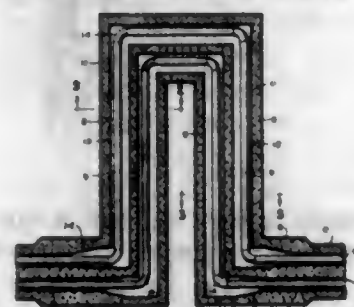
ends of said levers farthest from said spindle, each said rod having a worm gear screw threaded thereon adjacent the end farthest removed from said pivotal connection, said worm gears being adapted to move said rods in either direction across said outer casing to ac-



tuate said levers, an annular drive shaft disposed about said outer casing and having worm portions thereon which are positioned in coacting relation with said worm gears and driving means for rotating said shaft in either direction.

2,823,701

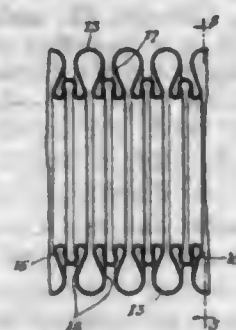
EXPANSION LOOP AND BEND FOR UNDERGROUND HEATING PIPE SYSTEM
Morris S. Burk, Miami Beach, Fla.
Application February 6, 1956, Serial No. 563,745
4 Claims. (Cl. 138-48)



3. Means for providing space for the expansion and contraction of a fluid carrying pipe in an underground heating system encased in heat insulating concrete, said pipe having straight portions joined by a bend or loop, tubular members closely embracing the straight portions of said heating pipe, an elbow-shaped fitting surrounding the bend of said pipe and being elliptical in cross-section to provide space for expansion of said pipe at the bend in two directions, and transition members connecting the ends of the fitting with the tubular members; said tubular members, elbow-shaped fitting, and transition members being of flexible heat insulating material of a strength to withstand the pressure of the concrete poured over said pipe encased in said flexible heat insulating material.

2,823,702

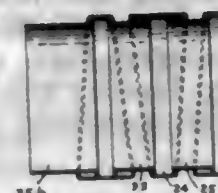
HIGH PRESSURE CONVOLUTED METAL HOSE
Milton H. November, Montclair, N. J., assignor to Breeze Corporations, Inc., Union, N. J., a corporation of New Jersey
Application May 24, 1955, Serial No. 510,602
2 Claims. (Cl. 138-50)



1. A convoluted flexible hose structure comprising, a continuous fluid tight tubular member, the wall of said

member being formed into a series of crests and troughs, and an intermediate crest formed in each trough, the amplitude of said intermediate crest being less than that of the initial tube crest.

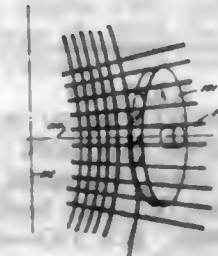
2,823,703
FLEXIBLE PIPE
Otto Nusser, Jr., Newark, N. J.
Application July 26, 1955, Serial No. 524,465
1 Claim. (Cl. 138-52)



A flexible pipe comprising a plurality of relatively short straight tubular components individually rotatable and connected endwise in series and adapted to have a limited relative sliding movement for lengthening and shortening the pipe, each of said components having a uniform diameter throughout its length, alternate components having a uniform length and the intermediate components having a tapered length, said components having retaining flanges at their ends, the flanges of alternate components being intumed and the flanges of the intermediate components being outturned, the flanges of each component being disposed between the flanges of adjacent components to enable each component to be moved on adjacent components in a lengthwise direction.

2,823,704

WEFT COMPRESSING MOTION FOR CIRCULAR LOOMS
Jean Rabeux, Paris, and Bernard Masson, Courbevoie, France, assignors to Societe d'Applications Generales d'Electricite & de Mecanique, Paris, France
Application November 4, 1953, Serial No. 390,198
Claims priority, application France November 10, 1952
10 Claims. (Cl. 139-13)

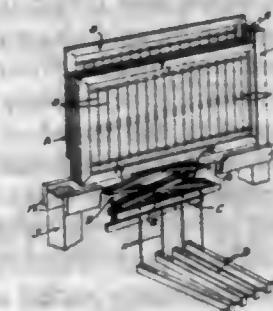


1. A weft compressing motion for circular looms having a horizontal shed comprising in combination: a rotatable wheel, and a series of curved blades having flat cross-sections arranged radially on the circumference of said wheel, the active edge of each blade being curved and being determined by the condition that the tangent to said curve drawn from the point of contact with a weft thread is always perpendicular to the mean plane of the shed wherein the warp threads are generally located at the moment of compression.

2,823,705

LIFTING DEVICE FOR JACK LOOMS
Herald J. Micander, Redwood City, Calif.
Application March 2, 1954, Serial No. 413,555
17 Claims. (Cl. 139-30)

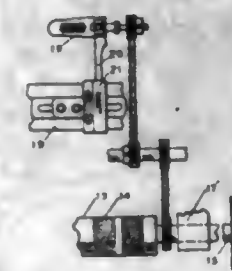
1. An improved harness-frame lifting device for foot-power hand looms comprising a pair of fixed shafts mounted in a main frame, a pair of main lever arms crossing each other and pivotally connected to each other and each pivotally supported on one of said shafts,



stituting a single pivotal connection between a harness frame and said lifting device, whereby said harness frame may be supported on said lifting device at its center of balance, thereby permitting a truly vertical lifting action.

2,823,706

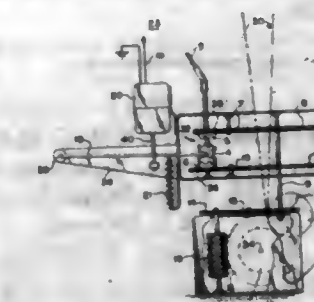
LOOM TEMPLE MECHANISM
Hester J. Parham, Newnan, Ga., assignor of one-fourth to Edward T. Newton and George M. Hopkins, Atlanta, Ga.
Application December 21, 1953, Serial No. 399,491
2 Claims. (Cl. 139-295)



1. In a loom temple, an adjustable mounting bracket, a hollow cylindrical sleeve fixed to said bracket, a shaft rotatably mounted in said sleeve, said shaft being provided on one end with an enlarged head and having a threaded portion intermediate its ends, a plurality of outwardly burred rings arranged on said shaft at approximately right angles to the axis of said shaft, a lock nut on said threaded portion of said shaft locking said rings against rotation relative to said shaft, means on said shaft to prevent axial sliding thereof, and means on said shaft for rotatably driving the same.

2,823,707

DRAWING-OFF MECHANISM FOR A LOOM AND A METHOD FOR THE WEAVING OF CLOTH ON A LOOM
Jean Rabeux, Paris, and Bernard Masson, Courbevoie, France, assignors to Societe d'Applications Generales d'Electricite & de Mecanique, Paris, France
Application November 4, 1954, Serial No. 466,798
Claims priority, application France November 6, 1953
3 Claims. (Cl. 139-309)



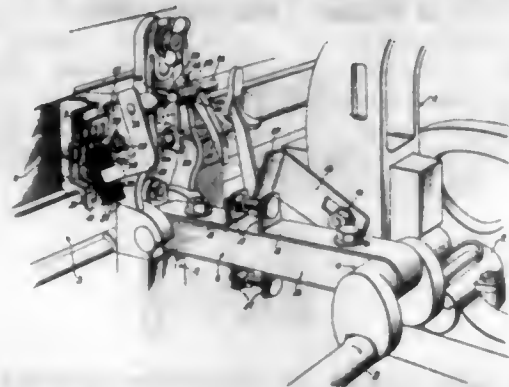
1. In a drawing-off mechanism for a loom having fabric producing implements, a device which may be selectively operated to control the density of the weft in various zones of a fabric produced by the loom, said de-

vice comprising: draw-off members rotatable in predetermined timed relationship with the fabric producing implements of the loom, a path defined between said draw-off members through which said fabric is caused to move at a predetermined speed by said draw-off members, selectively operable selecting means drivingly cooperating with said draw-off members to selectively vary their speed of rotation with respect to the speed of the fabric producing implements of the loom from said predetermined speed to a different predetermined speed thereby to vary the drawing-off speed at which the fabric is caused to move through said defined path whereby the density of the weft will be predeterminedly varied in predetermined zones of the fabric, and setting means operable in dependence on the drawing-off of the fabric for a selective operation of said selecting means, said setting means including a controlling means engaged with and operated by the fabric drawn off by said draw-off members.

2,823,708

LOOM FILLING GRATE CLEANER

Coy M. Culpepper and Jael Culpepper, Greenville, S. C.
Application October 13, 1955, Serial No. 540,196
5 Claims. (Cl. 139—379)



1. A grate cleaning device for use with a loom having a lay provided with a filling detecting grate and a crankshaft mounted on the loom frame with a pitman rod pivotally connecting the crankshaft and the lay for imparting oscillatory movement to the lay, comprising bearing means having mounting means therefor to fasten said device to the lay structure to partake of oscillatory movement along with the lay and grate, shaft means pivotally carried in said bearing means, an arm extending laterally from one end of said shaft means and having a support portion for cleaning means at the outer end thereof, cleaning means mounted on said support portion to be swingable upon pivotal movement of said shaft means into cleaning engagement with the slots of the grate, an actuating lever connected to said shaft means to extend rearwardly from the lay structure on which the device is fastened and be engageable with an abutment on the loom frame upon each oscillation of the lay from beat-up position, thereby to effect swinging movement of said cleaning means into cleaning engagement with the grate, and spring biasing means urging said cleaning means to swing away from the grate.

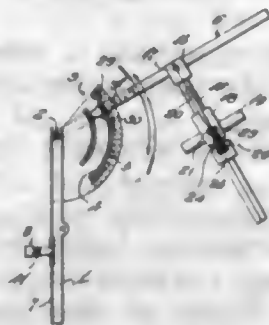
2,823,709

PROTRACTOR FOR ELECTRIC HAND SAW

Edmund T. Konieczka, Nekoosa, Wis.
Application May 29, 1956, Serial No. 588,122
1 Claim. (Cl. 143—6)

In a mechanism of the class described, a saw guide comprised of a length of angle iron having a flat portion and an upright portion perpendicular thereto, an indicator slidably mounted on said upright portion, said indicator comprising an inner section and an outer section slidable relative to each other, means for securing the sections in a desired position of adjustment, a bifurcated

end on said inner section detachably secured to said upright portion, a depending marker point on said outer section, an auxiliary arm pivotally mounted on one end of said guide, a degree plate fixed to said guide, said degree plate having a pair of arcuate slots therein, degree indicia marked adjacent said slots, a pointer affixed to said auxiliary arm, said pointer having a cut-out portion through which certain of said degree indicia may be read, a clamping member extending through one of said slots for securing said auxiliary arm in a desired position of angularity relative to said guide, a sleeve slidable on said auxiliary arm, a clamping jaw fixed to said sleeve, a second auxiliary arm fixed to said sleeve in perpendicular relation to said first-mentioned arm, a second sleeve slidable upon said second auxiliary arm, a second clamping jaw parallel to said first-mentioned jaw carried by said

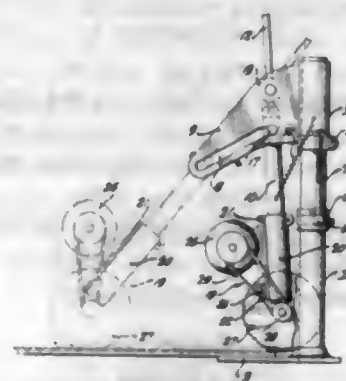


second sleeve movable to clamp lumber between said jaws, and means for clamping said last-mentioned jaw in a selected position, said last-mentioned clamping means comprising a stud on said sleeve, a link pivotally connected at one end to said stud, a handle, an extension on said handle, a pivotal connection between an intermediate portion of said extension and the other end of said link, a second link pivotally connected to the end of said extension, a clamp lock surrounding said second auxiliary arm, a stud carried by said clamp lock, and a pivot connecting said last-mentioned stud to the other end of said second link whereby when said handle is moved towards said second auxiliary arm said clamp lock will preclude movement of said second sleeve, the linkage forming an over-center snap to secure said clamp lock in clamping position.

2,823,710

SWING SAW CONSTRUCTION WITH STRAIGHT LINE MOTION

Henry P. Angel, Compton, Calif.
Application October 10, 1955, Serial No. 539,401
5 Claims. (Cl. 143—46)



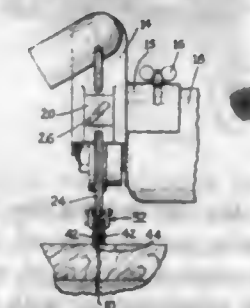
1. A swing saw construction comprising a vertical column, a head mounted on said column, a pair of elongated, horizontally spaced plates in parallel, normally vertical planes extending horizontally from said head, each of said plates having a cam slot therein extending lengthwise of the plates, a post, a guide rod projecting horizontally from the post and extending into said cam slots, a fitting, means rotatably mounting said fitting between the plates on a normally horizontal axis,

a pin extending upwardly from and rigidly attached to said post and slidable in the fitting, saw mounting means on the lower end of the post, said mounting means including a motor, an arbor normally parallel to said axis and guide rod, a saw journaled on the arbor, and drive means extending from the motor to the saw, said cam slots being shaped so that the saw arbor travels laterally in a straight horizontal line as the post is swung.

2,823,711

ADJUSTABLE SPLITTER BLADE ASSEMBLY FOR SAWS

Robert C. Kaley, Landisville, Pa., assignor to De Walt Inc., a corporation of Pennsylvania
Application October 27, 1955, Serial No. 543,076
6 Claims. (Cl. 143—159)

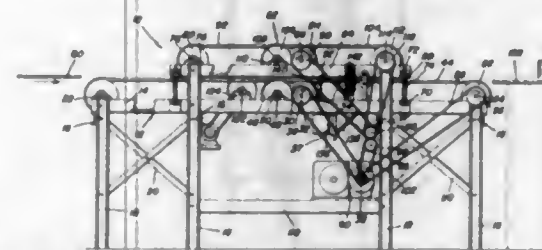


4. In combination, a machine having a rotary cutter rotating in substantially one plane, an arcuate guard attached to a part of the machine and shielding a portion of the cutter, a support member having a free end adjacent said rotary cutter and secured on said guard, a unitary bracket, a shaft journaled in said bracket and having a threaded portion engaging the free end of said support member and having the long axis of said shaft transverse the plane of said cutter, said bracket supporting kickback dogs and a splitter blade whereby rotation of said threaded shaft will adjust said bracket transverse the plane of said rotary cutter.

2,823,712

VENEER SIZING AND JOINING MACHINE

Edwin A. Ranta, Port Angeles, Wash.
Application June 28, 1955, Serial No. 518,595
3 Claims. (Cl. 144—3)



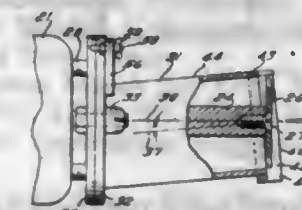
1. A machine for assembling veneer panels of random width and length into a continuous panel having a constant width whereby the continuous panel may be cut into desired lengths, said machine comprising horizontally disposed and aligned pairs of conveyors, the conveyors in each pair being superimposed for receiving random width panels therebetween with the side edges of the panels being disposed in adjacent relation, means for driving the first pair of conveyors at a faster rate of speed than the second pair of conveyors for urging the side edges of the panels into abutting engagement, a vertical saw adjacent each edge of the first pair of conveyors for cutting the random length panels thereby forming panels of equal length and random width, means for driving said vertical saws, a horizontal saw adjacent each edge of the second pair of conveyors for cutting a continuous longitudinal groove in the end edges of the constant length panels having the side edges in abutting engagement, means for driving said horizontal saws, means

for positioning a string in each of said grooves, and means crimping the top and bottom walls of the grooves inwardly for retaining the strings in the grooves, thereby forming a continuous panel of random width, and equal length panels having the end edges joined by the strings.

2,823,713

POWER KERFING SAW

William L. Goldsmith, Redwood City, Calif.
Application March 19, 1956, Serial No. 572,373
10 Claims. (Cl. 144—136)



1. A saw of the character described comprising a saw shaft adapted to support a saw blade at the distal end thereof, a casing substantially encompassing said shaft, and means permitting relative movement between said shaft and casing in a direction generally normal to the axes thereof.

2,823,714

METHOD OF RECONSTRUCTING SALVABLE BOWLING PINS

Gordon J. Francar, Green Bay, Wis.
Application October 6, 1954, Serial No. 460,734
2 Claims. (Cl. 144—309)

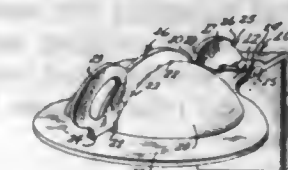


1. A method of reconstructing a salvable bowling pin, comprising the steps of: dividing a salvable bowling pin along the longitudinal axis thereof, on a plane selected to isolate major defects most distantly from said dividing plane, into two half segments; cementing said segments, oppositely disposed, on opposite faces of a wood slab means, to form a partially laterally expanded rough pin unit; and trimming away excess outer portions of said unit to form a reconstructed bowling pin of standard size and shape.

2,823,715

EGG CRACKING DEVICE

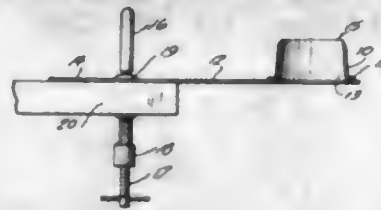
Andrew Carlos Quave, Pensacola, Fla., assignor of one-half to R. C. Saunders
Application January 6, 1954, Serial No. 402,553
2 Claims. (Cl. 146—2)



1. An egg cracking device comprising a body member provided with a vertically disposed base adapted to be secured to a supporting structure, a horizontally disposed flange extending from said base and provided with a horizontally disposed lip, a curved egg receiving socket positioned inwardly of said lip, said body member being provided with a slot, portions of said flange being shaped to provide bearings, a pin extending through said bearings, a blade mounted for movement into and out of engagement with said slot, a spring engaging said blade and pin, a handle on said blade, a plurality of teeth on the lower surface of said blade for engagement with an egg positioned in said socket, the front end of said blade being shaped to provide a shoulder for abutting said lip

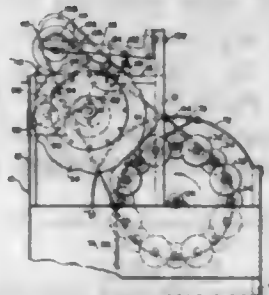
when the blade is lowered, a portion of said blade being cut away to define a pair of spaced apart stop members for limiting rotation of said blade.

2,823,716
SWEET CORN CUTTER
Harold Van Gelder, Ocheyedan, Iowa
Application January 4, 1957, Serial No. 632,565
1 Claim. (Cl. 146-4)



A corn kernel cutter comprising a handle, the side edge portions of said handle being recessed inwardly and adapted to be held in one hand, there being a circular opening in the opposite end of said handle, a tapered sleeve of frusto-conical formation registering with said circular opening, said sleeve being secured to said handle, said sleeve including one end of a diameter corresponding to a corncob and arranged contiguous to said handle, the outer end of said sleeve being of reduced diameter, the diameter of the circular opening in the handle being equal to the diameter of the sleeve at the large end thereof, said sleeve having a smooth inner surface, the outer surface of said sleeve adjacent the outer end thereof being tapered to provide a sharp cutting edge, said sharp cutting edge extending a short distance only so that the major portion of the sleeve on the outside is smooth.

2,823,717
SWINGING ROTARY KNIFE FRUIT HALVER
Joseph A. Amori, San Jose, Calif.
Application April 23, 1956, Serial No. 579,965
8 Claims. (Cl. 146-73)

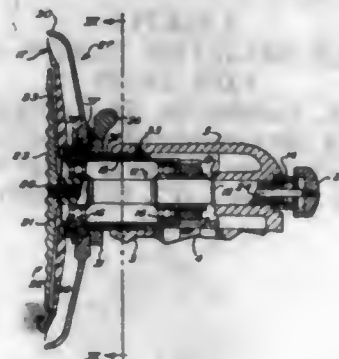


7. In a fruit halving machine, the combination of a support frame, an annular knife blade, means mounted on said frame disposing said blade in a vertical plane including rotary means mounting the same for rotation and for limited pendulum-like swinging movement about said rotary means during rotation, and means carried by said frame supporting said rotary means for pendulum-like swinging movement.

2,823,718
KNIFE GUARD FOR SLICING MACHINES
James D. Brown, Toledo, Ohio, assignor to Toledo Scale Company, Toledo, Ohio, a corporation of New Jersey
Application February 24, 1956, Serial No. 567,535
6 Claims. (Cl. 146-102)

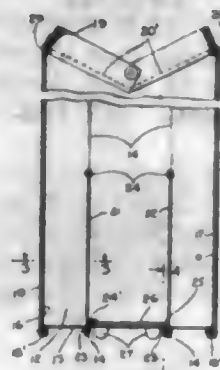
1. In a slicing machine, in combination, a housing having a cam-guiding portion, a circular knife that has a marginal area which lies in a plane about a dished central area and that is mounted for rotation on the housing, a cam surrounding a part of the housing and cooperating with said cam-guiding portion whereby the cam may be moved toward or away from the plane of the knife, a stationary center plate that is carried by the

housing and that is disposed within the dished central area of the knife and that is substantially coplanar with the marginal area of the knife to support the pressure of work material being sliced, an abutment on the housing between the knife and the cam, and a rear knife guard that is carried by the cam and that has an interrupted front portion exposing less than one half of the marginal area of the knife and that includes a throat opening toward the interrupted front portion of the guard and a flange covering all but the exposed marginal por-



tion of the knife, the throat on the guard being carried by the cam whereby movement of the cam toward the plane of the knife moves the guard against the abutment into encompassing relationship with the cutting edge of the knife and movement of the cam away from the plane of the knife moves the guard out of such encompassing relationship so that the guard safely may be removed from the machine without danger of marring the cutting edge of the knife by sliding it in its plane until its throat is free from the cam.

2,823,719
EXTENSIBLE BRIEFCASES
Jacob H. Littman, Roslyn Heights, and Joseph Gnthart, Brooklyn, N. Y., assignors to Alrbilt Leather Goods Co., Inc., Brooklyn, N. Y., a corporation of New York
Application June 20, 1955, Serial No. 516,626
2 Claims. (Cl. 150-1.6)



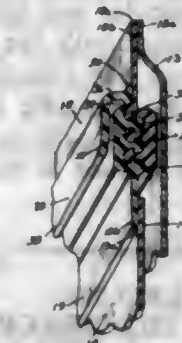
1. A luggage case of the character described, comprising front, rear, side and bottom walls, means forming a closure at the upper portion of the case, means for reinforcing and supporting the front and rear walls of the case in extended position, and said means comprising sheet aluminum facings arranged upon the entire inner surfaces of said front and rear walls.

2,823,720
SLIDERLESS FASTENER CLOSURE
Emil F. Svec, New York, N. Y., and Karel J. Staller, Rutherford, N. J., assignors to Flexigrip Inc., New York, N. Y., a corporation of New York
Original application October 26, 1954, Serial No. 464,867, now Patent No. 2,780,261, dated February 5, 1957. Divided and this application August 16, 1956, Serial No. 605,460

4 Claims. (Cl. 150-3)

1. A pouch comprising front and back sheet-like walls having mated edges united together to define a container

and having corresponding free upper edges spaced from each other to define an opening into said container on the front side thereof, a first closure strip secured to the free upper edge of said back wall to extend the length thereof and downwardly therefrom, a second closure strip secured to the upper free edge of said front wall to extend the length thereof and upwardly therefrom to overlap said first closure strip, said closure strips having offset integral thickened marginal reinforcements, said reinforcements having on confronting faces longitudinally extend-



ing grooves and ridges, each groove in one of said reinforcements being aligned with a corresponding ridge in the opposite reinforcement and vice versa and adapted for resilient locking engagement therewith, and a downwardly extending flange integral with and generally parallel to the marginal reinforcement on said second closure strip and extending longitudinally the entire length thereof whereby said reinforcements can be separated to provide an opening into said container by grasping said flange and pulling the same away from said first closure strip.

2,823,721
SLIDERLESS FASTENER CLOSURE
Emil F. Svec, New York, N. Y., and Karel J. Staller, Rutherford, N. J., assignors to Flexigrip Inc., New York, N. Y., a corporation of New York
Original application October 26, 1954, Serial No. 464,867, now Patent No. 2,780,261, dated February 5, 1957. Divided and this application August 16, 1956, Serial No. 605,461

3 Claims. (Cl. 150-3)

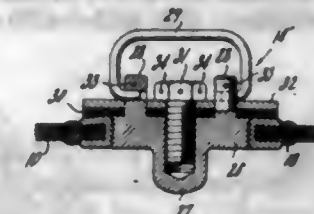


1. A pouch comprising front and back sheet-like walls having mated edges united together to define a container and having corresponding free upper edges spaced from each other to define an opening into said container on the front side thereof, a first closure strip secured to the free upper edge of said back wall to extend the length thereof and downwardly therefrom, a second closure strip secured to the upper free edge of said front wall to extend the length thereof and upwardly therefrom, said first closure strip having an offset integral thickened marginal reinforcement disposed angularly downwardly away from the back wall, and said second closure strip having an offset integral thickened marginal reinforcement disposed angularly upwardly toward said back wall to overlap the marginal reinforcement on said first closure strip, said marginal reinforcements having on confronting overlapping faces longitudinally extending grooves and

ridges, each groove in said reinforcements being aligned with a corresponding ridge in the other reinforcement and vice versa and adapted for resilient locking engagement therewith, and a flange integral with said marginal reinforcement on said second closure strip extending longitudinally along the entire length thereof and extending upwardly therefrom into contact with said first closure strip.

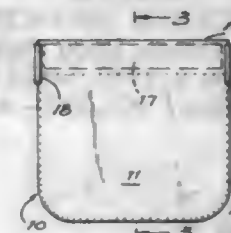
2,823,722
CLOSURE FOR FLEXIBLE CONTAINERS
Marion M. Cunningham, Providence, R. I., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Original application March 22, 1952, Serial No. 277,998, now Patent No. 2,787,309, dated April 2, 1957. Divided and this application February 14, 1957, Serial No. 640,229

2 Claims. (Cl. 150-8)



1. A closure for a container comprising internally threaded means in the container wall forming an opening into the container, externally threaded means adapted to screw into said internally threaded means and to close said opening, a portion of said externally threaded means defining a recess therein having screw threads on the walls defining said recess, a gasket constructed and arranged to cover the juncture between said internally threaded means and said externally threaded means when said externally threaded means is in position to close said opening, a pressure plate adapted to overlie said gasket and exert pressure thereon to force said gasket into sealing engagement with said internally threaded means, externally threaded means constructed to project through said gasket and said pressure plate and to screw into said recess, and means carried by said latter externally threaded means arranged to force said pressure plate into pressing engagement with said gasket as said externally threaded means is screwed into said recess.

2,823,723
CONTAINER
Arthur D. Cohn, New York, N. Y.
Application December 20, 1954, Serial No. 476,447
3 Claims. (Cl. 150-10)



1. A container comprising, in combination, a first flexible sheet material portion having an edge folded back upon and joined to itself to form a tubular portion extending along a part of the periphery of said sheet material portion; a second sheet material portion identical with said first sheet material portion located next to the same with said tubular portions overlying each other and with said edges located between said sheet material portions, said sheet material portions being joined together at their outer peripheries along a path extending from one end of said tubular portions to the opposite end thereof; a pair of leaf springs respectively located within and substantially filling

said tubular portions, said leaf springs having a length slightly less than that of said tubular portions; a pair of clips respectively connected to and closing the ends of said tubular portions; a pair of flexible strips located between and respectively fixed to said sheet material portions next to said tubular portions thereof; a plurality of flexible interlocking members respectively fixed to said pair of strips, the interlocking members fixed to one of said strips projecting toward the interlocking members fixed to the other of said strips so that said interlocking members close the interior of the container when said tubular portions are located next to each other along their entire length.

2,823,724

TUBELESS TIRE VALVE AND RIM ASSEMBLY
Ray H. Gill, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

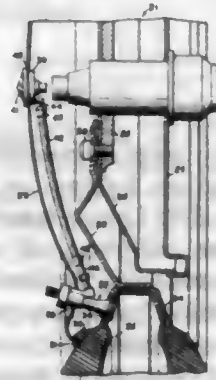
Application September 23, 1955, Serial No. 536,098
1 Claim. (Cl. 152-427)



In combination, a side flanged tubeless tire rim having a drop center well adjacent the axially outer side flange, a U-shaped shroud occupying part of said well forming a chamber for reception of a valve assembly, a circular band resting at its ends on said shroud and covering the balance of the well, an aperture in the outside wall of said well at said shroud, and a tire valve assembly mounted in the aperture portion from the outside of the wall, said valve assembly comprising a shank of material having metal-like deformation characteristics, said shank having a through bore internally threaded at one end, said shank being headed at the other end, said shank being fixed in said rim wall aperture with the head at the outside wall surface and a radially bulged rib formed in the shank resiliently pressing against the opposite rim wall surface, an axially bored valve stem threaded into said internally threaded shank portion and extending outwardly past the head of said shank, and means for sealing said shank against the rim wall portion and the stem against the shank against air leakage, and air passage means extending from said chamber at a zone axially inward of the axially outer side flange.

2,823,725

LOCKING DEVICES
Frederick Trinca, Rego Park, N. Y.
Application June 4, 1957, Serial No. 663,528
8 Claims. (Cl. 152-431)

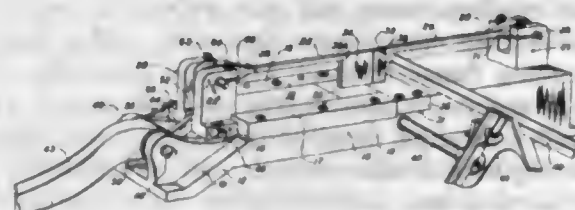


1. A combined air gauge adapter and lock for an automobile wheel cover plate for application to the threaded nipple of a tire valve body projecting through an aperture

in said plate, comprising an outer shell adapted to be disposed in the aperture about the nipple and having a hollow enlarged portion greater than the aperture, a hollow inner member rotatably disposed within the shell having one end threaded to engage the threads of the nipple with its hollow portion in communication with the said nipple, a hose coupler removably mounted on the exterior of the shell, and means communicating said coupler with the interior of the hollow inner member, a portion of the inner member lying within the enlarged portion of the shell and having a corrugated cylindrical surface, a portion of the shell being annular and spaced from said surface, a hollow stem integral with the inner member and projecting outwardly from the enlarged portion, an air valve in said stem, and a removable key member having a cylindrical portion adapted to fit in the space between the shell and corrugated surface to mesh with the corrugations of the latter.

2,823,726

HAND PRESS WITH DIE BRACING STRUCTURE
Frank Wagner, San Gabriel, Calif.
Application April 19, 1954, Serial No. 424,039
1 Claim. (Cl. 153-21)



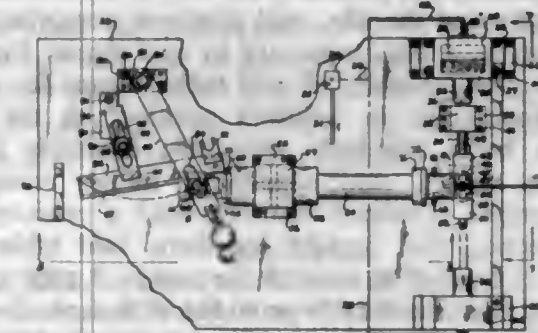
A hand press comprising a base, a carriage slidable along a portion of the base, lever means adapted to reciprocate the carriage, a first die mount immovably supported on the base, a second die mount mounted on the carriage to reciprocate therewith, first and second dies mounted respectively in and projecting from the first and second die mounts in mating relation when the second die mount is moved into proximity with the first die mount by reciprocation of the carriage, a first clevis immovably supported on the base in fixed spatial relation to and outwardly of the first die mount on the side thereof opposite the carriage, a second clevis mounted on the carriage in fixed spatial relation to and outwardly of the second die mount on the side thereof opposite the first die mount so as to move with the carriage, a first die locating member held in the first clevis and extending inwardly therefrom to engage and brace the first die at a point spaced from the first die mount, a second die locating member held in the second clevis and extending inwardly therefrom to engage and brace the second die at a point spaced from the second die mount, adjustable means mounting each die locating member in its respective clevis operable to adjust the position of the respective die locating member and thereby provide an adjustment of the respective die, said adjustable means comprising a shaft rotatably mounted horizontally in the respective clevis and transversely of the extension of the respective die locating member, the shaft having an enlarged cylindrical section within the clevis eccentric to the shaft axis and about which the die locating member is rotatably supported whereby rotation of the shaft within the clevis results in a linear displacement of the die locating member.

2,823,727

AIRFOIL WARPING FIXTURE
Shakespeare O. Goldsmith, Detroit, Mich.
Application April 7, 1955, Serial No. 499,818
4 Claims. (Cl. 153-78)

1. A blade warping fixture comprising a horizontal base, a pair of spaced opposed motors secured upon

the base, oppositely arranged aligned piston rods reciprocally projecting from said motors, yokes upon the outer ends of said piston rods, complementary formed rolls loosely journaled upon upright axes within said yokes adapted to operatively and compressively engage opposite side walls of a horizontally disposed upright airfoil blade blank upon energization of the motors, an upright support upon said base, an elongated horizontally disposed draw bar slidably and rotatively mounted upon said support extending at right angles to said piston rods, lying in a general plane intermediate said rolls and adapted for connection to said airfoil blank, means mounted upon said base connected with said drawbar for longitudinally moving the same while permitting rotary movement thereof, a control arm rigidly secured to said drawbar and depending therefrom, an elongated cam plate



secured upon said base having a cam face lying in an upright plane at a predetermined angle with respect to and intersecting an upright plane passing through the drawbar axis, the lower end of said control arm operatively engaging said cam face and responsive to lateral thrust to effect a predetermined rotary movement of said drawbar as it is moved longitudinally of said cam face, an upright standard secured on the base spaced from said support, said drawbar moving means including a horizontally disposed arm pivotally mounted at one end upon said standard, means upon its other end for effecting horizontal arcuate reciprocal movements thereof, a drawbar journal block loosely mounted upon the adjacent end of said drawbar, and means intermediate the ends of said arm and loosely supported thereby and secured to said drawbar block whereby the drawbar is free to rotate during longitudinal movements thereof.

2,823,728

METHOD AND APPARATUS FOR MAKING AN ADHESIVE BANDAGE
Burton D. Morgan, Palmsville, Ohio
Application February 16, 1956, Serial No. 565,861
6 Claims. (Cl. 154-1.6)



1. A method of preparing adhesive bandages from a continuous flexible strip having a flexible continuous backing sheet covered by a layer of adhesive and a pair of continuous facing sheets covering the adhesive and having inner side edges in abutting relation at the center of said strip, said method comprising separating said side edges to uncover the central portion of said adhesive layer, applying gauze to the uncovered adhesive layer to adhere the gauze thereto, then moving said side edges together so that the facing sheets cover said gauze, and thereafter dividing the strip transversely into a series of adhesive bandages.

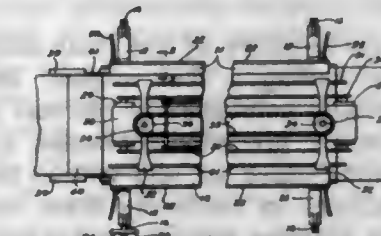
5. Apparatus for preparing adhesive bandages from a strip having a continuous flexible backing sheet and a pair of facing sheets adhered to said backing sheet and having inner side edges in abutting relation at the center

727 O. G.-37

of said strip, said apparatus comprising: means forming a bed having a width less than half that of said strip for supporting the central portion of said strip in a generally flat position, means for moving said strip over said bed, supporting means on opposite sides of said bed for holding the moving strip substantially flat, means for turning the side portions of the moving strip downwardly over the sides of said bed between said supporting means and for moving the inner side portions of said facing sheets to a position substantially perpendicular to said central portion of said strip so as to expose said central portion, means above the exposed central portion for applying a continuous strip of gauze to said exposed central portion and for pressing the gauze against the backing sheet, and means downstream of said last-named means for moving the inner side portions of said facing strips over said gauze and for pressing said inner portions against the gauze so that the inner side edges of said facing sheets are substantially in engagement and said gauze is substantially completely covered by said facing sheets.

2,823,729

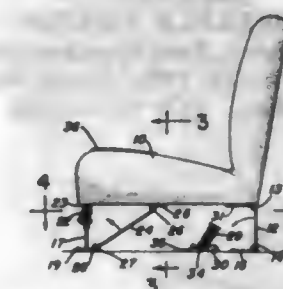
COOLING MEANS FOR PACKAGE SEALS
Merlin A. Stickelber, Kansas City, Mo., assignor to Stickelber & Sons, Inc., a corporation of Missouri
Application April 14, 1955, Serial No. 501,403
15 Claims. (Cl. 154-42)



1. Cooling means for seals of wrapped packages comprising a metallic wall having a wax repellent synthetic resin surface covering on the outer face thereof, said surface covering being thin relative to the thickness of said wall, means for moving seals of wrapped packages into sliding engagement with said surface covering, and means for cooling said wall.

2,823,730

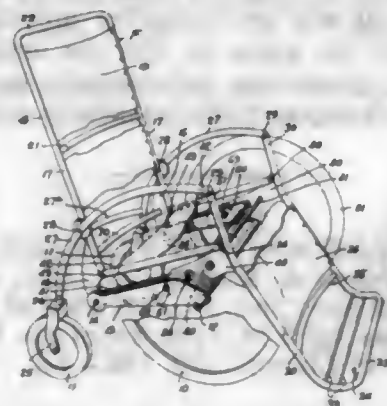
COLLISION SEAT FOR VEHICLES
Clarence J. Lawrence, Washington, D. C.
Application December 9, 1955, Serial No. 552,026
5 Claims. (Cl. 155-9)



1. A vehicle seat comprising a bottom, a back integral with the bottom and positioned substantially at a right angle to the bottom, a floor upon which the seat is positioned, a support positioned at the back of the seat, a hinge connecting the lower edge of the support to the floor, a hinge connecting the upper edge of the support to the lower surface of the bottom of the seat, a support having a latching element on the upper edge positioned below the forward edge of the bottom and releasably connected to the bottom, and an inclined brace positioned below the seat with the leading end pivotally con-

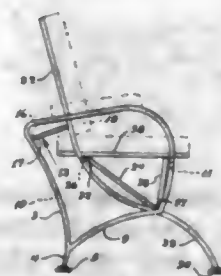
ected to the floor and the trailing end pivotally connected to the lower surface of the bottom of the seat, whereby upon sudden stopping of the floor the seat is thrown forwardly with the latching element at the forward edge separating and with the forward edge of the seat being moved upwardly by the brace and the rear edge downwardly by the support.

2,823,731
ARTICLE OF FURNITURE
Herbert W. Miller, Campbell, Calif.
Application February 13, 1956, Serial No. 565,156
8 Claims. (Cl. 155—30)



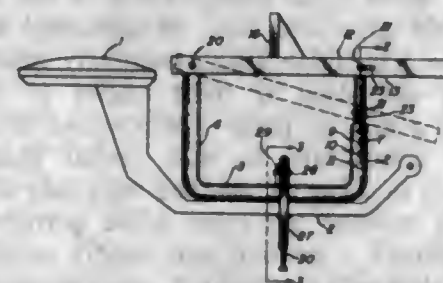
1. An article of furniture of the class described comprising: a frame having a seat section, back and leg rest sections pivotally connected to the seat section, and leg-forming members pivotally connected to said back and leg rest sections above the seat section to co-act with the aforesaid sections in rendering them relatively adjustable from one extreme position to another to support a person in a seated position, reclining positions, or a prone position; a pair of wheels having an axle; links pivotally connecting said axle to said back rest section below said seat section; a second pair of wheels rotatably mounted on said leg-forming members in trailing relation to the first said pair of wheels; and means co-acting with said back and leg rest sections to support said frame from said axle against uncontrolled adjustment from any adjusted position, yet yielding to shifting of the occupant's weight forwardly or rearwardly of the frame, so as to enable any position of adjustment of the frame to be assumed in response to such weight shifting and maintained without effort on the part of the occupant.

2,823,732
ADJUSTABLE CHAIRS
John H. Humphrey, Port Washington, N. Y.
Application October 26, 1954, Serial No. 464,677
10 Claims. (Cl. 155—116)



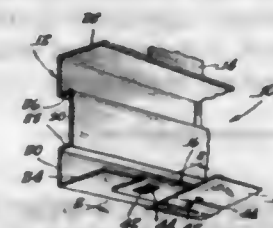
1. In a multiple position chair including a seat and a back, means for mounting said seat and back together in adjustable relationship, said mounting means including in combination, means for varying the height of said seat, means for varying the length of said seat, means for varying the slope of said seat and means for varying the angular relationship of said seat and back.

2,823,733
PLATFORM FOR USE IN DENTAL AND MEDICAL TREATMENT OF CHILDREN
Milton E. Gellin, Cleveland Heights, Ohio
Application February 4, 1955, Serial No. 486,246
4 Claims. (Cl. 155—165)



1. A stabilization platform for use in connection with dental chairs and the like, said platform comprising supporting means, a table supported by said means, foot rests adjustable longitudinally of said table, means for clamping the foot rests, in adjusted position, to the table, said table being angularly adjustable relatively to said supporting means, said supporting means comprising spaced upright U-shaped members and a cross-member interconnecting said upright members, said table being pivotally connected to one of the arms of each of said upright members, said table provided with depending rods at points spaced from the pivotal connection of the table to said arms, said rods being telescopically movable in the other arms of the upright members for the purpose of permitting said angular adjustment, said table provided with a flange having elongated slots therein, and said rods secured to said flange by means of pins which extend through said elongated slots.

2,823,734
STRUCTURE FOR FURNITURE AND THE LIKE
Justin J. Wetzler, Evanston, Ill., assignor to The Englander Company, Inc., Chicago, Ill., a corporation of Delaware
Application June 21, 1954, Serial No. 438,255
8 Claims. (Cl. 155—181)

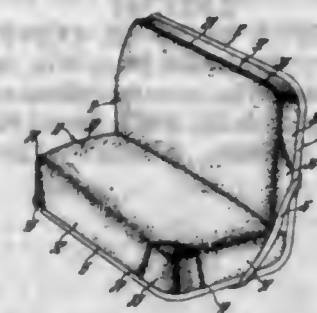


1. A fastening member for securing fabric means to a metal frame member, comprising generally U-shaped clip means for embracing a marginal edge of said frame member, said clip means having one leg for extending along an inner surface of said frame member, projection means struck inwardly from said one leg and extending toward the closed end of the U for digging into said frame member for restraining removal of the clip means from the frame member, a second leg for extending along an outer surface of said frame member, and projection means struck from said second leg and including a prong flared away from said first mentioned leg and adapted to be embedded in the fabric means for securing the fabric means to the frame member.

2,823,735
AUTOMOBILE SEAT TRIM
Chester C. Jacobs, Mooresville, Ind., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 16, 1953, Serial No. 392,175
6 Claims. (Cl. 155—182)

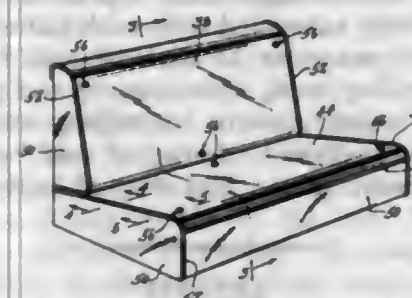
1. In combination, an automobile seat having a generally horizontal supporting surface, generally vertical

side edge surfaces and a generally vertical front edge surface which joins each side edge surface to form opposite front corners, a primary member covering substantially the entire supporting surface and extending without



a break over the major portion of at least one of said vertical surfaces and terminating along said vertical surface short of a front corner, a skirt member covering said last-mentioned front corner, and means securing the skirt member to the primary member.

2,823,736
BREATHERS FOR PLASTIC AUTO SEAT COVERS
Joseph Brody, Fresh Meadows, N. Y.
Application October 22, 1954, Serial No. 463,963
1 Claim. (Cl. 155—182)



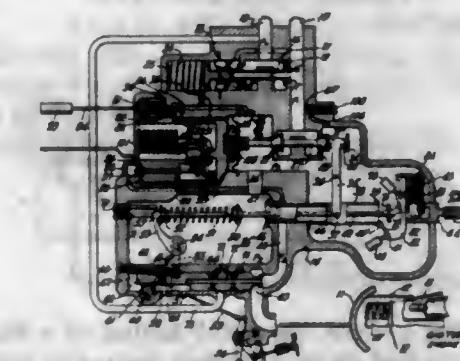
A cover for vehicles comprising an upholstery-overlying body of air-impervious plastic material, and means in said body forming openings through which the upholstery may be vented to atmosphere, each of said means including a screen element extending across the opening associated therewith, said means further including a disc-like, flat body having a central opening and carrying said screen element, said disc-like body being under said plastic body and being reduced progressively in thickness in a radial direction toward its outer periphery, and being tapered to a substantially sharpened outer edge to merge into the material of the plastic body, said disc-like body having a shallowly conical bottom surface and a flat top surface to impart a radially and outwardly directed taper to said disc-like body, said disc-like body additionally including a flattened inner edge surface offset downwardly from said flat top surface of the body and extending about said screen element, the screen element being supported upon said inner edge surface in the central opening of the disc-like body, the disc-like body having an upwardly facing, annular recess between the flat top surface and inner edge surface thereof, said recess receiving the edge portion of the opening of the plastic body of the cover, each means further including a ring having an inwardly directed circumferential lip overlying the marginal part of the screen element to hold the same against said downwardly offset inner edge surface, said ring having a depending, internally threaded flange extending into the recess to hold the edge portion of the plastic body opening in said recess, the recess having a wall threaded to engage said ring, the outer surface of said ring being flush with the body of plastic material.

2,823,737
INFANT'S CHAIR
George N. Eriksen, Wilmington, Del.
Application March 18, 1955, Serial No. 495,266
1 Claim. (Cl. 155—191)



In an infant's chair, in combination, a pair of spaced, parallel, substantially vertical side panels constituting opposite sides of the chair and providing legs for said chair; a back planar panel removably secured at its opposite side edges to both of said side panels and extending from its lower end rearwardly and upwardly at an angle to the horizontal of between 30° and 45°; and a front planar panel also removably secured at its opposite side edges to both of said side panels and extending from its lower end forwardly and upwardly at an angle to the horizontal of between 30° and 45°; said four panels when so secured, forming a complete chair of a crib-like nature; the lower ends of said back and front panels meeting substantially at the base of the chair and at a point substantially midway between the front and rear ends of said side panels; said back and front panels being at an obtuse angle to each other and forming with said side panels and upwardly-opening, infant-supporting, pocket-like chamber of adequate size to permit an infant laid on its back in said chamber to lie comfortable and to exercise by kicking, twisting and squirming in a normal manner, but the angularity of said back and front panels together with the high sides provided by said side panels preventing such an infant from falling or rolling out of the chair.

2,823,738
FUEL FEED GOVERNOR FOR GAS TURBINE ENGINES
Vincent P. Gibney, South Bend, Ind., assignor to Bendix Aviation Corporation, South Bend, Ind., a corporation of Delaware
Application April 18, 1951, Serial No. 221,679
2 Claims. (Cl. 158—36)



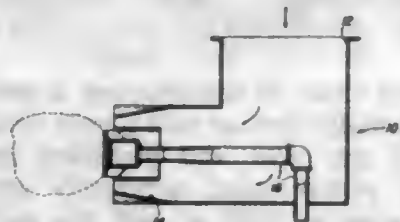
2. In a fuel feed system for an engine, a fuel conduit having a metering restriction therein, a throttle valve for varying the effective area of said restriction, governor means connected to said valve including means adapted to be variably preloaded to select an engine operational speed, engine-speed responsive means arranged to oppose opening movement of said valve over a predetermined low engine speed range following preloading of said first-named means to accelerate the engine and to move out of opposing position in response to an increase in engine speed beyond said range, and means responsive to changes in engine speed and the

pressure and/or temperature of the air flowing to the engine for automatically modifying the metering head across said restriction.

2,823,739

GAS BURNER

Edward M. Michalski, Chattanooga, Tenn., assignor to Combustion Engineering, Inc., New York, N. Y., a corporation of Delaware
Application August 30, 1956, Serial No. 607,107
3 Claims. (Cl. 158-109)

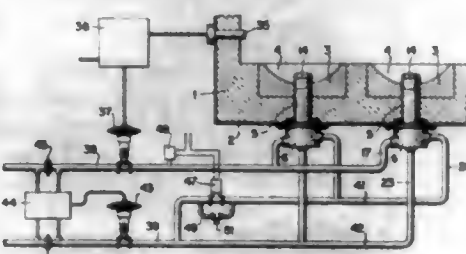


1. A gas burner comprising in combination a gas supply conduit, a cylindrical housing coaxial with and extending from the outlet extremity of said conduit to form a mixing chamber, said housing having an area about five times that of the conduit and a length from one to four times the diameter of the conduit, means interposed between said housing and conduit providing openings having an area between five to seven times the area of said conduit to meter air from the exterior of said conduit into said chamber, an outwardly flared conical diffuser coaxial with said housing and disposed adjacent the outer end thereof but spaced therefrom sufficiently to form an annular passageway therebetween having an area between 1 and 3.4 times that of the gas conduit, said diffuser being of a diameter at least equal to 1.2 times that of the cylindrical mixing chamber and having an opening therein substantially equal to the diameter of the chamber, a cylindrical sleeve disposed about said housing in spaced coaxial relation therewith with the outer end of said sleeve being axially spaced from the diffuser cone to provide an annular passage therebetween of an area between 3.4 and 20 times that of the gas conduit.

2,823,740

GAS BURNER SYSTEM

Charles W. Morck, Jr., Philadelphia, Pa., assignor to Selas Corporation of America, Philadelphia, Pa., a corporation of Pennsylvania
Application December 16, 1954, Serial No. 475,700
4 Claims. (Cl. 158-119)



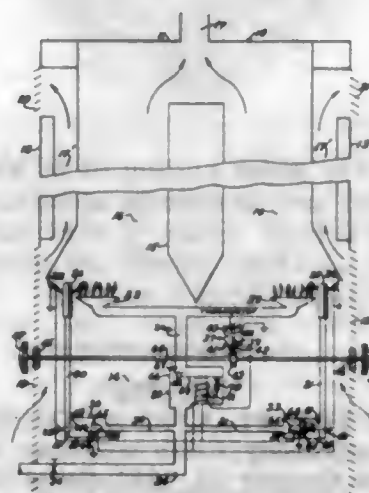
1. In a burner system, the combination of a burner and means to supply fuel to said burner, means in said burner forming a plurality of burner outlets, means to supply air to said burner in a predetermined proportion to the fuel, means to divide the air supply into a plurality of branches prior to the time it reaches said burner and to deliver the air in said branches to said burner, means in said burner upstream of said outlets to bring all of the fuel and the air supply from one branch together at a predetermined point in their path of travel to a place of combustion downstream of said outlets, means in said burner to bring the air supply from the other branch together with the fuel at a point closer to said outlets than said first mentioned point, and means responsive to the flow of fuel to discon-

tinue all but a very minor portion of the flow of air through said one branch while the remainder of its supply of air flows through said other branch upon reduction of said fuel supply to a predetermined value.

2,823,741

MULTIPLE BURNER CONTROL

John H. Thornbery, Whitefish Bay, Wis., assignor to Baso Inc., Milwaukee, Wis., a corporation of Wisconsin
Application March 26, 1953, Serial No. 344,758
20 Claims. (Cl. 158-123)

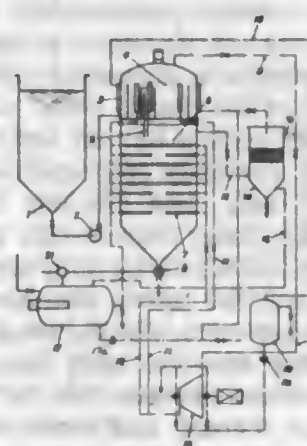


20. Apparatus for controlling the flow of fuel in a fluid fuel burning unit, comprising: a plurality of ignition burners, an electromagnetically operated fuel shut-off valve operatively associated with each burner, a separate thermoelectric generator at each of said burners, each of said generators being connected to and powering the fuel shut-off valve directly controlling another burner whereby extinguishment of one of said burners causes sequential closure of the fuel shut-off valves of all the said burners.

2,823,742

PROCESS FOR DRYING SLIME, PARTICULARLY FOUL SLIME, AND PLANT FOR EXECUTING THE SAID PROCESS

Werner Ludin and Fritz Blon, Zurich, Switzerland, assignors to L. von Roll A. G., Zurich, Switzerland, a company of Switzerland
Application August 13, 1951, Serial No. 241,632
Claims priority, application Switzerland August 14, 1950
5 Claims. (Cl. 159-24)



1. In a drying plant for treating slime and like viscid mass; an upright casing having an upper part and a lower part, transverse partition means fixed in said casing and separating said upper and lower parts thereof, a motor-driven rotatable shaft extending substantially centrally through said partition means and said upper and lower parts of said casing, first duct means communicating with the interior of said upper part of said casing adjacent and above said partition means and defining an intake for

admitting said mass into the lowermost region of said upper part of said casing, a substantially cylindrical preheater located exteriorly of and surrounding said upper part of said casing, a first substantially cylindrical body mounted on said partition means interiorly of said upper part of said casing and disposed concentrically about said shaft, at least one second substantially cylindrical heating body located within said upper part of said casing and disposed concentrically about said shaft and between the latter and said first body, said heating body being vertically spaced from said partition means, whereby a tortuous up-and-down flow path for said mass from said first duct means and through said upper part of said casing is defined by said first and second bodies, the latter together with said preheater constituting preliminary heating means for said mass, brushing means carried by said shaft in said upper part of said casing and contacting the vertical surfaces of said second body for moving said mass past the same upon rotation of said shaft as said mass is partly dried, a plurality of vertically spaced plate drying means arranged concentrically about said shaft in said lower part of said casing below said partition means, each of said plate drying means being provided with at least one aperture extending therethrough, second duct means extending through said partition means at a location between said heating body and said shaft for discharging said partly dried mass onto the uppermost one of said plate drying means, respective scraper means carried by said shaft for rotation therewith and extending over and in contact with said plate drying means to effect movement of said partly dried mass over each plate drying means to the aperture therein, thus causing said mass to fall from each plate drying means to the next lower plate drying means and in the direction of the bottom of said casing, sieve means covering said aperture of at least one intermediate plate drying means, whereby said partly dried mass upon passage from said intermediate plate drying means to the next lower one is divided into strip-like formations to facilitate drying thereof on those of said plate drying means beneath said sieve means as well as crumbling of said mass by said scraper means associated with said last-named plate drying means, and outlet means in said lower part of said casing for receiving said mass in substantially fully dried and crumbled state from the lowest of said plate drying means.

2,823,743

ADJUSTABLE FRAME CORNICE SUPPORT

Sadie M. Isaac, Bryan, Ohio
Application November 22, 1955, Serial No. 548,507
2 Claims. (Cl. 160-39)



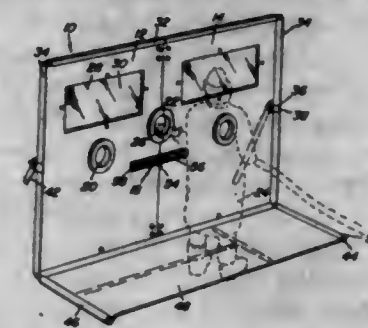
1. A cornice support comprising two elongated parallel extending and spaced apart frame members, the opposite end portions of said frame members being bent rearwardly, two cross-members one interconnecting each end of said frame members for providing an integrated assembly, each cross-member comprising two bars which are relatively movable, an automatic lock securing said bars against collapsing movement, said lock comprising a friction element which is carried by one bar and which slidably engages the other bar, said friction element being inclined with respect to said other bar whereby said other bar will be frictionally gripped against movement in one direction but will be released for movement in the other direction, said one direction corresponding to moving said frame members together and

said other direction corresponding to moving said frame members apart, and two brackets removably engaging one of said frame members, each bracket comprising a plate having a mounting flange, a channel on said plate receiving said one frame member, and an outwardly extending ear on said plate engaging the respective bar for securing said one frame member in place, the other frame member and its respective bars being separable from said one frame member while the latter is supported on said brackets.

2,823,744

FIRE FIGHTER'S SHIELD

James T. Garris, Charlotte, N. C.
Application July 26, 1955, Serial No. 524,562
3 Claims. (Cl. 160-135)

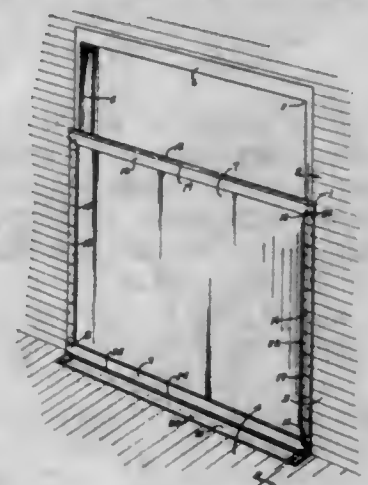


1. A fire fighter's shield comprising a pair of vertically disposed panels hingedly interconnected at their adjacent edges, means selectively locking the panels in aligned relation, said panels having openings therein for the passage of water hose nozzles and water, a transparent section in each panel for viewing a fire and a ming the water from the nozzle, and a platform hingedly connected to said panels and being disposed at the bottom for resting on a supporting surface whereby a person using the panels as a shield will step on the platform and retain the panels in vertical disposition, each of said panels having a tubular outer edge pivotally receiving an elongated rod, each of said rods having a right angularly extending lower end, said platform having one tubular end pivotally mounted on the lower end of one of said rods, the other end of said platform having a downwardly facing recess for detachable engagement over the lower end of the other rod thereby permitting folding of the panels and platform to a superposed relation.

2,823,745

LOAD RETAINING DOORS

Justin Dewitt Hill, Lawrence, Kans., assignor to The Lawrence Paper Company, Lawrence, Kans., a corporation of Kansas
Application August 3, 1953, Serial No. 371,767
1 Claim. (Cl. 160-368)



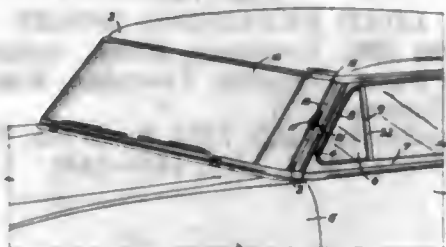
A load retaining door applicable to bulk material containing structures having doorways with a floor member

and spaced vertically disposed posts defining the bottom and sides of the doorway comprising, a door frame having spaced relatively stiff upper and lower horizontal bars and spaced relatively stiff vertical bars, said horizontal bars of substantial thickness having end portions overlapping the doorway side posts and said vertical bars overlying said doorway side posts, said end portions of the upper and lower horizontal bars having notches in the lower edge of the upper horizontal bar and upper edge of the lower horizontal bar for receiving the respective upper and lower ends of the vertical bars, said notches forming outwardly facing shoulders engaging the inner edges of the vertical bars adjacent the ends thereof to maintain the spacing of said vertical bars, the vertical bars of the door frame having rounded outer edges, a flexible sheet of fabric underlying the door frame and having marginal portions extending beyond the bars of said frame, means securing the sheet to the vertical bars in underlying relation thereto, said marginal portions adjacent the vertical bars being turned around the rounded edges and overlying said vertical bars, means securing said marginal portions to said vertical bars, a lower marginal portion of said sheet extending under the lower horizontal bar and overlying the floor, means extending through the vertical bars and portions of the sheet overlying and underlying same for securing the vertical bars and sheet to the doorway side posts whereby the sheet is under tension resisting pressure of the bulk material in the containing structure, means securing the end portions of the horizontal bars to the doorway side posts, an upper marginal portion of said sheet being turned around the upper horizontal bar and overlying same, means securing the overlying upper marginal portion to the upper horizontal bar, said rounded outer edges of the bars being of a curvature whereby the engagement of the sheet and the surface of said rounded edges provide a frictional contact tending to hold the sheet against slippage and in such a manner that the sheet is characterized by absence of bending injury adjacent the bars of the frame, and a strip overlying the lower marginal portion of the sheet adjacent the lower horizontal bar and secured to the floor.

2,823,746

WINDSHIELD PROTECTOR

William H. Morgan, Topeka, Kans.

Application January 10, 1955, Serial No. 480,652
2 Claims. (Cl. 160—368)

1. A windshield protector for a vehicle having corner posts and a door frame swingable thereon comprising, a sheet of plastic material having one end wound upon a pole, a rod having ends secured to the pole in a manner to hold the latter against rotation, a suction cup on said rod for engaging one side edge of the windshield, means on said rod for engaging the door frame of the vehicle, a second rod secured to the other end of the plastic sheet of material, a suction cup on said last-named rod for engaging the other side edge of the windshield, a hook member having one end engaging said suction cup and its other end engaging the corner post for retaining the sheet of material in taut condition across the windshield and the suction cups engaging the opposite side edges of the windshield.

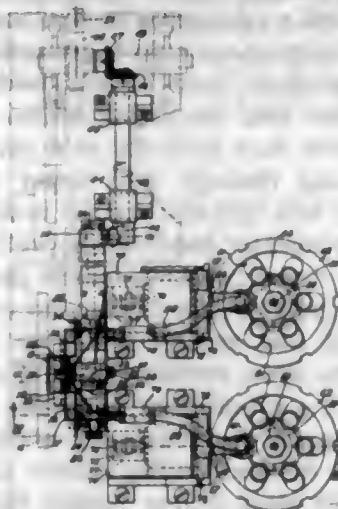
2,823,747

MACHINE FOR WIRE-FORMING AND SEVERING

Richard A. Rehberg, Livingston, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application August 10, 1954, Serial No. 448,866

4 Claims. (Cl. 164—48)



1. A wire forming and severing machine, comprising parallel axially aligned discs having wire-receiving notches cross-wise of and in the peripheries thereof for receiving and transitionally advancing wire work pieces by rotation of said discs, means for retaining said work pieces in said notches for a part of the rotational orbit of said discs, a fixed cutter and abutment between said discs, holding means for resiliently pressing said work pieces against said abutment and a second cutter movable with respect to said holding means and adapted to be advanced between said discs and cooperate with said fixed cutter for severing said work pieces between said discs while held in the notches.

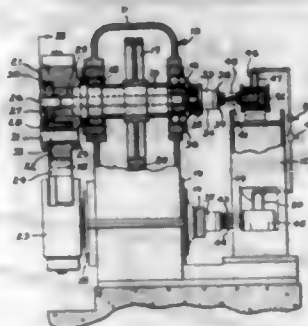
2,823,748

SHEAR

Lothar H. Peterelt, Worcester, Mass., assignor to Morgan Construction Company, Worcester, Mass., a corporation of Massachusetts

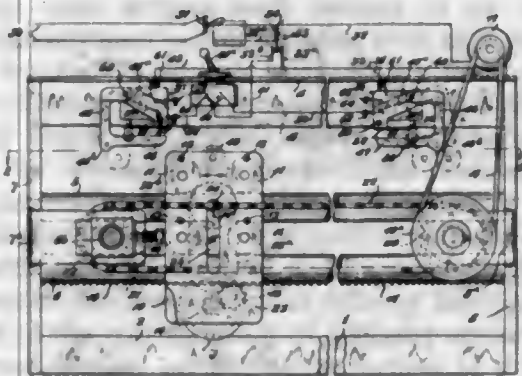
Application July 25, 1955, Serial No. 523,967

3 Claims. (Cl. 164—60)



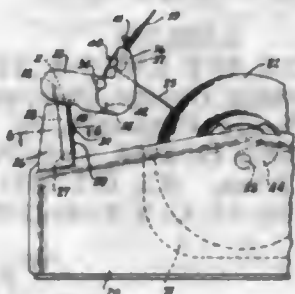
1. A shear comprising a housing, a first shaft rotatably-mounted in the said housing, a knife holder mounted for rotation with the first shaft and hindredly-mounted for additional positional movement from a first position to a second position, a second shaft mounted for rotation with the first shaft, means connecting the second shaft to the knife holder to bring about the said movement from the first position to the second position, a rotary motor having a housing connected to the first shaft for rotation therewith and a rotor connected to the second shaft, the actuation of the motor causing a differential rotation in the second shaft relative to the first shaft to cause the said positional movement of the knife holder, and means rotatable with the motor housing to permit the introduction of an actuating signal to the motor during its rotation with the first shaft.

2,823,749
DEVICE FOR TRIMMING SHEET MATERIAL
 George H. Chamberlain, San Jose, Calif.
 Application August 23, 1954, Serial No. 451,620
 8 Claims. (Cl. 164-76)



1. A trimmer for sheet material comprising the combination with a board and shear strip thereon, of brackets mounted upon said board at the two ends of said shear strip, rail means mounted upon said brackets and extending parallel to the edge of said shear strip, a carriage slidably mounted upon said rail means for reciprocating movement therealong, a rotatable cutter mounted upon said carriage and having operative engagement with the cutting edge of said shear strip, and motive means for effecting continuous reciprocating movement of said carriage along said rail means, means for automatically interrupting the movement of said carriage at the end of said straight-line path thereof, and means for selectively rendering said interrupting means operative or inoperative.

2,823,750
DESK TYPE TAPE HOLDER AND DISPENSER
 Clarence W. Vogt, Weston, Conn.
 Application May 11, 1954, Serial No. 428,884
 10 Claims. (Cl. 164-84.51)



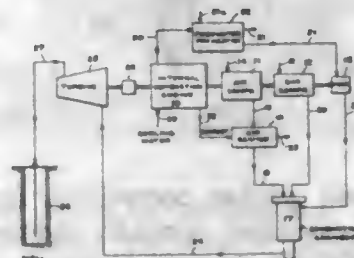
1. In combination with means to support a roll of adhesive tape, tape positioning, snubbing and cutting means comprising at least one side plate, means to mount a roll of tape on the plate, a tape positioning member on the plate, a resilient snubbing and cutting tongue having a cutting edge on one end to sever a strip of tape drawn from the roll and a tape snubbing portion as its other end, said tongue being stiffened adjacent to said cutting edge, means engaging said tongue between its ends to pivot the tongue on said side plate below said member for movement between a first position, by pulling the tape downwardly against the cutting edge, in which said tape is

snubbed between said member and said snubbing portion and a second position in which said tape is gripped between said member and a portion of said tongue adjacent to said cutting edge, said tongue being flexed in said first position by engagement with said member and by pulling said tape downwardly, the resiliency of the tongue, when flexed, normally urging said tongue member toward said second position.

2,823,751
SECONDARY RECOVERY OF OIL
 Jan Offeringa, Amsterdam, Netherlands, assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
 No Drawing. Application September 15, 1955
 Serial No. 534,616
 Claims priority, application Netherlands
 September 17, 1954
 1 Claim. (Cl. 166-2)

A method of recovering hydrocarbons from a hydrocarbon-bearing formation that is substantially devoid of natural fluid energy and that is penetrated by at least one input well and one output well, said method comprising injecting an aqueous flooding fluid under pressure into the formation through the input well so as to drive hydrocarbons in said formation toward said output well at a given pressure gradient and produce them at the output well, reversing the pressure gradient in said hydrocarbon-bearing formation by stopping the injection of aqueous fluid into said input well and injecting the produced fluid under pressure into said output well so that at least a portion of the hydrocarbons in said formation moves temporarily in a direction substantially opposite to that prevailing during normal injection, and repeatedly reversing the pressure gradient in said formation so that the hydrocarbons therein are caused to move back and forth in the formation, the intensity and duration of the movement of hydrocarbons in each direction being such that there is a net movement of hydrocarbons toward said output well from which all of said hydrocarbons are produced.

2,823,752
METHOD AND ARRANGEMENT OF APPARATUS FOR OIL RECOVERY
 Hellmuth Walter, Upper Montclair, N. J., assignor to Worthington Corporation, Harrison, N. J., a corporation of Delaware
 Application August 30, 1955, Serial No. 531,567
 5 Claims. (Cl. 166-11)



4. A method of injecting a gas-steam mixture into a depleted oil reservoir to force oil therefrom comprising providing a source of power for flowing fuel, compressed air to support combustion, and liquid to be converted into steam into a combustion zone, firing the fuel in the combustion zone to produce a gas-steam mixture therein, flowing the gas-steam mixture into an expansion zone to provide energy for aiding in the flowing of said fuel, air, and liquid into said combustion zone, and thereafter flowing the expanded gas-steam mixture from said expansion zone into said depleted oil reservoir.

2,823,753

METHOD OF TREATING WELLS

John K. Henderson, Robert B. Rosene, and Caleb M. Stout, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 27, 1955

Serial No. 555,293

6 Claims. (Cl. 166—20)

1. In a method of treating an earth formation penetrated by the bore of a well so as to prevent particles of the earth formation from being carried into the well during the production of fluid from the earth formation into the well the steps which consist in coating the surface of particles of a solid particulate material with a film of liquid adhesive material capable of hardening and cementing the particles together not more than 10 percent of the particles being finer than those passing through a No. 100 standard sieve and said film being thick enough to cause the so-coated particles to adhere to each other as a rigid mass but not thick enough to close the interstices between the particles when brought together, suspending the so-coated particles in a liquid vehicle inert to the film of liquid adhesive so as to form a fluid suspension of the coated particles in the liquid vehicle, injecting the so-formed suspension into the well and thence into the earth formation wherein the coated particles are strained out of the vehicle by the earth formation and become deposited therein, the particles so-deposited sticking together thereby forming a rigid fluid permeable mass permitting the passage of earth fluids but not earth particles into the well from the earth formation.

2,823,754

WELL PACKER

Isaac L. Ault, Morgan City, La., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York

Application August 12, 1954, Serial No. 449,296

15 Claims. (Cl. 166—120)



1. A hook-wall packer comprising structure having a flow channel extending centrally thereof, a first cone longitudinally slidable on said structure, a plurality of slips positioned on said first cone, shearable means for securing said slips to said first cone, a second cone secured in a fixed position on said structure below said first cone, a plurality of slips positioned on said second cone, deformable packing means positioned around said structure between and engageable with said first cone and said second cone and adapted to support said first cone, means positioned above said first cone slidable longitudinally on said structure adapted to engage said first cone and slips and force said cone and slips downwardly to expand said flexible packing element and set said slips, and hydraulically operable means on said structure below said second cone adapted to set said slips on said second cone.

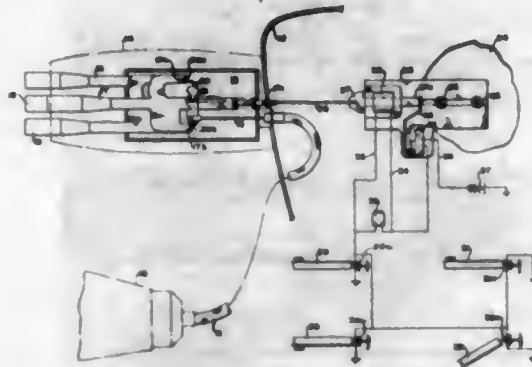
2,823,755

DOOR-OPERATED SAFETY DEVICE FOR MOTOR VEHICLES HAVING PUSH-BUTTON CONTROLLED TRANSMISSIONS

Cecil E. Hall, Kingsville, Tex., assignor to Neutro-Gear, Inc., New York, N. Y., a corporation of New York

Application April 4, 1956, Serial No. 576,092

2 Claims. (Cl. 180—82)



1. In combination with a motor vehicle of the type having an automatic transmission, a push-pull cable for setting operating conditions of said automatic transmission, said push-pull cable extending to the control panel of said vehicle and being operable from a position adjacent said control panel, a plurality of push-button control elements mounted on said control panel and adapted upon selective actuation to operate said push-pull cable, one of said control elements being adapted upon actuation to operate said cable for shifting said transmission to a neutral condition, said one control element being movable through a substantially fixed distance and being operable, when so moved in one direction, to operate said cable from any pre-existing position thereof to a position in which said transmission is in a neutral condition; an automatic safety device comprising a solenoid, bracket means rigidly mounting said solenoid behind said control panel adjacent said one control element, pulling means connecting said armature directly to said one control element whereby upon actuation of said solenoid said one control element is pulled through its substantially fixed distance of movement, said armature being independent of the other control elements, and a power circuit for said solenoid including the battery of said vehicle and a switch operable upon opening of a door of the vehicle to complete the power circuit.

2,823,756

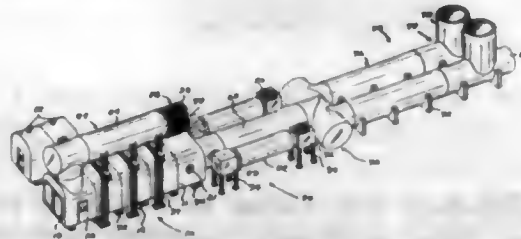
TRANSPORTABLE JET ENGINE TEST STAND

Lawrence R. Bridge, Dayton, Ohio, and John T. Welbourn, Pittsburgh, Pa.

Application October 12, 1956, Serial No. 615,725

10 Claims. (Cl. 181—35)

(Granted under Title 35, U. S. Code (1952), sec. 266)



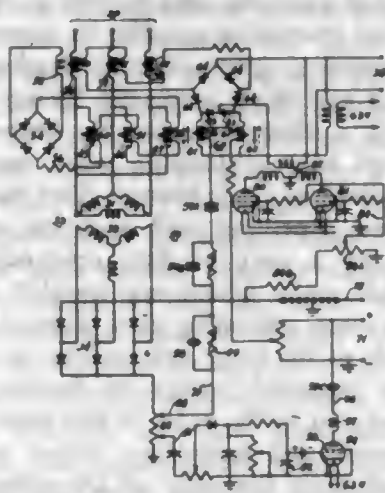
1. A prefabricated engine test stand installation comprising, in combination: an engine enclosure section having a continuous outer shell formed of a plurality of connected, insulated metallic compartments provided with air flow openings at the forward and rearward portions of said shell; operator control means associated with said engine enclosure section; a primary air silencer section communicating with the forward air flow opening of said engine enclosure section formed of an insulated tubular compartment, an inner concentric, in-

insulated tube spaced within said compartment extending the length of said air silencer section, and an air inlet screen portion to filter the air induced therethrough; a secondary air silencer section including a muffler compartment disposed at the rearward end of said engine enclosure section, transverse air flow fittings leading into said muffler compartment, and elongate air conduits including air inlet screens each formed of an insulated tubular compartment communicating with said transverse air flow fittings to provide silenced air flow into said muffler compartment; an augments section extending rearwardly from said muffler compartment to cool and to reduce the velocity and pressure of the discharge gases, said augments section consisting of an outer tubular shell having an inner concentric, perforated tube disposed therein with acoustic material distributed throughout the annular space therebetween; and exhaust silencer section connected to the rearward end of said augments section, said exhaust silencer section being formed of a plurality of connected, tubular compartments insulated for noise reduction of the air, one of said compartments comprising an insulated discharge stack, another of said compartments including a rearwardly disposed sound trap compartment to reduce fluttering and vibration and to alter the direction of air flow through said insulated discharge stack, each of said compartments and fittings in said test stand installation being provided with detachable couplings for interconnection of said compartments and connection between each section whereby said test stand can be assembled for testing, and disassembled for shipment to another location.

2,823,757

CONTROL OF ELECTROSTATIC PRECIPITATOR CURRENT BY ELECTRICAL MEANS

Hans Klemperer, Belmont, Mass., assignor, by mesne assignments, to Apra Precipitator Corporation, New York, N. Y., a corporation of Delaware
Application February 11, 1954, Serial No. 409,660
8 Claims. (Cl. 183-7)



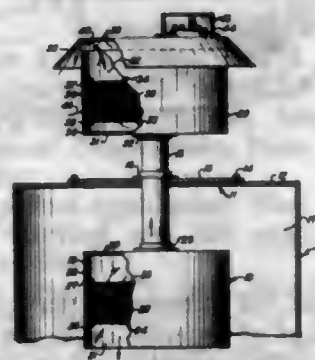
1. In a power supply system for an electrostatic precipitator having an alternating current source, a high voltage transformer with its primary winding connected to said source, a power rectifier connected to the secondary winding of said transformer with its high voltage side connected to electrodes of said precipitator and its low voltage side connected to ground, a ground for said precipitator, saturable reactors connected in series with said primary winding, a control wind for said reactor series the improvement comprising; a control reactor of the self saturating type connected for energizing the control winding of said series reactor; a resistor connected between the low voltage side of said power rectifier and the precipitator ground so that voltage drop across the resistor is proportional to precipitator current; a direct current source of the same polarity with respect to ground as the low

voltage side of said power rectifier; and excitation windings for said control reactor connected between a tap on said resistor and said direct current source and constituting a feedback connection so that the precipitator current flowing through said resistor opposes the constant control reactor excitation and thus renders the feedback connection through said control reactor degenerative.

2,823,758

BREATHER DEHUMIDIFIER

Gunnar C. F. Asker, Washington, D. C., assignor to Desomatic Products, Inc., Falls Church, Va., a corporation of Delaware
Application August 26, 1955, Serial No. 530,656
7 Claims. (Cl. 183-4.1)

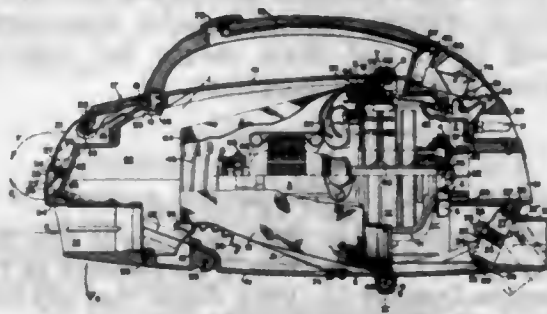


4. A dehumidifier comprising a first bed consisting of desiccant material, a second bed consisting of desiccant material combined with an electrical heating element for regeneration of said second bed, a duct interconnecting both beds for serial passage of gas from one bed to the other, said duct having a length less than 10 times the diameter thereof, and means responsive to the ambient temperature external to the beds for activating said electrical heating element.

2,823,759

SUCTION CLEANERS

André Conord, Paris, France, assignor to Societe Moderne d'Appareils Menagers Conord, Paris, France, a company of France
Application March 23, 1955, Serial No. 496,256
Claims priority, application France December 2, 1954
8 Claims. (Cl. 183-37)



1. In a suction device, in combination, front and rear hollow casing elements disposed in abutting connected relation, an opening in the outer end of said front casing element, a door hinged to said front casing element and closing said opening, an air inlet opening on said door, an air outlet opening on the rear casing element, a laterally extending inclined outlet nozzle mounted in said air outlet, a motor and fan assembly resiliently mounted in said casing between said air inlet and outlet openings, an inwardly extending hollow socket on said rear casing element in axial alignment with the motor and fan assembly for reception of a connection from an auxiliary appliance to be driven from said motor assembly, a closed air filter bag mounted on said motor and fan assembly adjacent the air inlet opening for removing any suspended dust from the air before passing to said fan, said door when opened providing a discharge open-

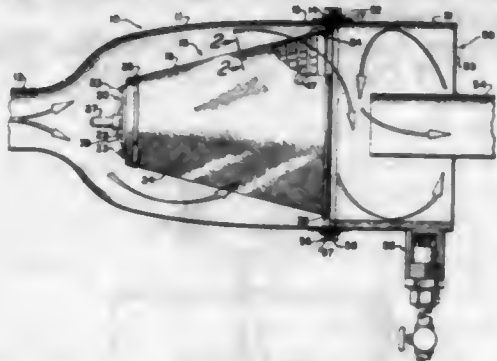
ing for dust removed from the air by said filter bag, and means on said door cooperating with said air filter bag for vibration thereof to dislodge dust therefrom as the door is opened.

2,823,760

WATER SEPARATOR

Soren K. Andersen, Los Angeles, Calif., assignor to The Garrett Corporation, Los Angeles, Calif., a corporation of California

Application May 10, 1955, Serial No. 507,228
7 Claims. (Cl. 183—39)



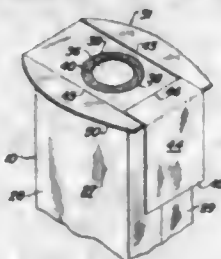
1. In apparatus for removing particles of liquid entrained in a stream of gaseous fluid, the combination of: a generally conically shaped housing adapted to be disposed in a fluid line, said housing having an inlet at one end for the moisture-laden fluid; a condenser within said housing, said condenser including a conically shaped mesh wall having inwardly directed swirl vanes formed thereon, the smaller end of said conically shaped mesh wall being positioned upstream and spaced a greater distance from said housing than the larger end thereof so as to define an annular channel decreasing in cross-sectional area toward the downstream end of said condenser; a radially outwardly disposed annular mounting flange on the larger end of said conical condenser wall; a fiber-glass cloth disposed about the outer surface of said conical condenser wall; clamp means for maintaining said cloth in position; a cylindrical centrifugal collector section disposed downstream from said condenser; means associated with said condenser mounting flange for securing said housing, condenser and collector sections in respective positions; a dry fluid outlet passage mounted in an end wall of said collector section and extending into the cylindrical portion thereof in axial alignment with said housing inlet; and drain means for removal of moisture from said collector section.

2,823,761

DUST RECEPTACLE

Jack E. Duff, North Canton, Ohio, assignor to The Hoover Company, North Canton, Ohio, a corporation of Ohio

Application October 13, 1954, Serial No. 461,983
3 Claims. (Cl. 183—51)



1. A dust collecting receptacle for a suction cleaner having a receptacle supporting member and an inlet tube for dirt laden air, said receptacle comprising a body having a wall portion provided with an opening for connection with the inlet tube, a mounting member attached to said wall portion and having means engageable with the supporting member to position the receptacle

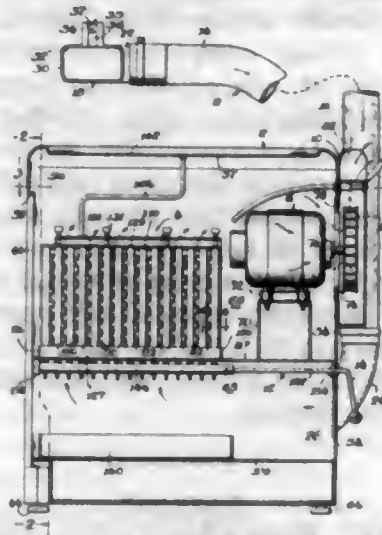
in the cleaner, tape means secured to said receptacle and overlying said wall portion and having a portion of greater area than said opening adapted to be partly stripped to uncover said opening for said connection to the cleaner inlet tube, the unstripped portion of said tape means being permanently secured to said receptacle and retaining said tape means on said receptacle for replacement of said stripped portion to again cover said opening and prevent escape of dust from said receptacle.

2,823,762

DUST COLLECTOR

William S. Bunnell, Chicago, Ill., assignor to Boyar-Schultz Corporation, Chicago, Ill., a corporation of Illinois

Application March 24, 1954, Serial No. 418,297
3 Claims. (Cl. 183—60)



1. A dust collector having means for drawing dust away from a dust filled region through a duct, a housing having a partition dividing the housing into a lower dust inlet compartment and an upper filtered air outlet compartment, an opening in said partition, walls extending upward from said partition and spaced a small distance outwardly of and extending parallel to opposite edges of said partition opening, strips of noise-deadening material on said partition extending along the facing sides of said upstanding walls, a filter bag assembly supported on said partition between said upstanding walls and comprising a number of individual open bottom filter bags in side by side relation and overlying said partition opening, said bags each having a pair of flat, upstanding, parallel, dust-filtering side walls which are parallel to the walls of the adjacent bags, mounting ears secured to the opposite bottom ends of the bags and resting on said strips of noise-deadening material, strips of flexible, air impervious material sealed to the sides of the bags adjacent the open ends thereof and extending across said partition opening, and abutting the strip of the adjacent bags to prevent entry of air between the bags at the partition opening, means for holding said filter bag assembly securely in an upright position comprising a pair of spaced corrugated clamping strips seated on the tops of said bags, the corrugations thereof extending between adjacent bags, clamping means for pressing downward against the top of said clamping strips to hold the subjacent filter bags in place, spacer means between adjacent bags for preventing contact of the dust-filtering side walls of adjacent bags, brushes within said bags and having shanks depending from the open bottoms of said bags and secured to a rock shaft mounted beneath said partition which shaft extends transversely across the filter bags, and means for rocking said shaft to move the brushes simultaneously within said bags to loosen the dust accumulating on the walls thereof, and means beneath said partition opening for collecting the loosened dust falling therethrough.

2,823,763

ACETYLENE SEPARATION

Frank Maslan, Brookline, Mass., assignor, by mesne assignments, to Escambia Chemical Corporation, a corporation of Delaware

No Drawing. Application May 11, 1956

Serial No. 584,186

2 Claims. (Cl. 183—114.2)

1. A process for the separation of acetylene from a dilute acetylene stream which comprises contacting said dilute acetylene stream with a slurry of water and activated charcoal and recovering the acetylene adsorbed on said charcoal.

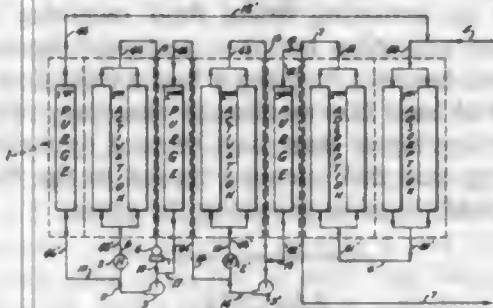
2,823,764

CYCLIC ADSORPTION PROCESSES FOR REMOVAL AND/OR RECOVERY OF CONDENSABLE HYDROCARBONS FROM NATURAL GAS

Ernest B. Miller, Houston, Tex., assignor to Jefferson Lake Sulphur Company, New Orleans, La., a corporation of New Jersey

Application February 8, 1957. Serial No. 639,006

4 Claims. (Cl. 183—114.2)



1. In the process of treating wet natural gas to remove and/or recover water vapor and condensable hydrocarbons therefrom involving the contact of adsorbent material with the gas to be treated with resultant adsorption of the water vapor and condensable hydrocarbons by the adsorbent material and the subsequent treatment of the adsorbent material with a heated medium to vaporize and remove the water and condensable hydrocarbons and thereby reactivate the adsorbent material for further contact with the gas to be treated, the improvement which comprises rotating a series of separated beds of adsorbent material directly in succession and substantially continuously relative to and through a first purging stage, a first activation stage, a second purging stage, a second activation stage, a third purging stage and at least one adsorption stage; continuously directing a flow of the gas being treated, under high pressure and in succession, through the adsorption stages so that the water vapor and condensable hydrocarbon content thereof which is to be removed will be adsorbed by the adsorbent material therein; continuously heating and recycling a flow of activation medium through said first activation stage to desorb the water and condensable hydrocarbons contained in the beds of adsorbent material therein and reactivate the adsorbent material; continuously heating and recycling a flow of activation medium through said second activation stage to desorb the water and condensable hydrocarbons contained in the beds of adsorbent material therein and reactivate the adsorbent material; continuously diverting a portion of the flow of the recycling activation medium used in the first activation stage and directing its flow through the first purging stage to remove all of the gas being treated therefrom; continuously directing the flow of the effluent gas from the first purging stage into the flow of the gas being treated on its way to the first adsorption stage of the adsorber; continuously diverting a portion of the flow of the recycling activation medium used in the second activation stage and directing its flow through the second purging stage to remove all of the activation medium therefrom; continuously directing the flow of the effluent gas from the second purging

stage into the flow of the recycling activation medium used in the first activation stage; continuously diverting a portion of the flow of the effluent stripped gas being treated from the last of the adsorption stages and directing its flow through the third purging stage to remove all of the activation medium therefrom; continuously directing the flow of the effluent gas from the third purging stage into the flow of the recycling activation medium used in the second activation stage; and continuously directing the flow of the captive activation medium used in the first activation stage as it is recycled and after its passage through the first activation stage, through a condensing and separating stage and there condensing and removing the water and condensable hydrocarbons therefrom.

2,823,765

ADSORPTION OF GASES WITH A LIQUID-ADSORBENT SLURRY

Frank Maslan, Newton Highlands, Mass., assignor to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Original application May 11, 1956, Serial No. 584,186. Divided and this application June 11, 1957, Serial No. 664,913

4 Claims. (Cl. 183—114.2)

1. A process for the separation of ethane and propane from a natural gas stream which comprises contacting said natural gas stream with a slurry of water and activated charcoal, and recovering the ethane and propane adsorbed on said charcoal.

2,823,766

GAS REMOVAL WITH A CARBON-WATER SLURRY

Frank Maslan, Newton Highlands, Mass., assignor to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Original application May 11, 1956, Serial No. 584,186. Divided and this application June 11, 1957, Serial No. 664,914

4 Claims. (Cl. 183—114.2)

1. A process for the separation of gases which can be adsorbed on charcoal from gases soluble in water from a gaseous mixture containing the same which comprises contacting said gaseous mixture with a slurry of water and activated charcoal, maintained under pressure, separating the water and the charcoal, and recovering the gases adsorbed on said charcoal and the gases absorbed in said water.

2,823,767

PRODUCTION OF CHEMICALS

James H. Gardner, Weston, Erwin F. Schoenbrunn, Needham, and Nat C. Robertson, Wellesley, Mass., assignors to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application July 1, 1957

Serial No. 668,852

5 Claims. (Cl. 183—120)

1. A process of separating hydrogen peroxide from a gaseous mixture comprised of hydrogen peroxide, formaldehyde, acetaldehyde and water which comprises the steps of cooling said gaseous mixture to a temperature below about 10° C., rapidly washing the condensate formed from contact with said gaseous mixture with a white mineral oil, and recovering hydrogen peroxide from the resultant mixture.

2,823,768

LUBRICATOR

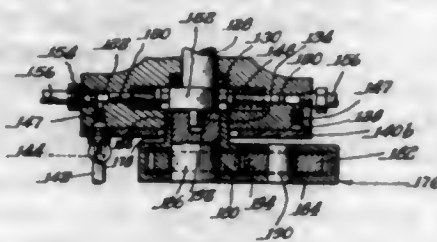
Charles R. Taylor, Scott City, Kans.

Application March 26, 1953, Serial No. 344,707

9 Claims. (Cl. 184—7)

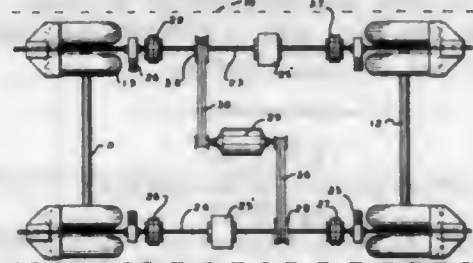
1. A lubrication system comprising a storage container for lubricant, power operated means for pressurizing and

distributing lubricant under pressure to a plurality of stations, and means for conveying lubricant from said container to said lubricant distributing means, said lubricant distributing means including a plurality of like units stacked together with complementary parts oper-



atively interconnecting said units, and each of said units including a plurality of cylinders and pistons, and power means for actuating the pistons in turn individually to pressurize and supply lubricant under pressure to distributing conduits.

2,823,769
EMERGENCY BRAKING ATTACHMENT FOR MOTOR TRUCKS AND THE LIKE
Lafayette Gamble, Bolivar, Pa.
Application March 3, 1955, Serial No. 491,872
3 Claims. (Cl. 188-2)

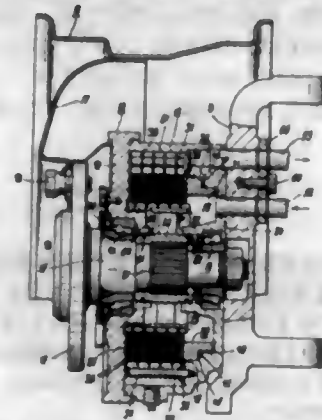


1. In combination with a vehicle of the type having a frame structure and a plurality of rubber tired wheel assemblies, a system for braking said vehicle when the regular brakes thereof fail comprising a plurality of brackets mounted on said frame structure adjacent said wheel assemblies, said brackets having track-like portions thereon, a plurality of contoured brake shoe members slidably mounted on said track-like portions for movement toward and away from said wheel assemblies, threaded operating shafts for said brake shoe members, electric motor means drivingly connected with said operating shafts, and torque limiting friction slip clutches interposed in said operating shafts for each of said wheel assemblies for limiting the braking force applied to said wheel assemblies, said brake shoe members being adapted to have friction contact with substantial peripheral surface or tread portions of said wheel assemblies.

2,823,770
ACTUATING MECHANISM FOR A FRICTION BRAKE
James O. Helvern, Lewisburg, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application March 21, 1956, Serial No. 572,942
2 Claims. (Cl. 188-72)

1. In a friction brake, the combination of, a stationary brake housing, a rotatable axle shaft in said housing, disk brake means within said housing some of which are connected with said shaft for rotation therewith and others of which are stationary with said housing and dividing said housing into a first fluid chamber internally of said disk means and a second fluid chamber externally of said disk means, means providing for supply of fluid under pressure into one of said chambers, means providing for exhaust of fluid from the other of said chambers, an actuating member in the form of an

annulus having a part thereof engaging said disk means to effect braking engagement thereof, said actuating member having a transverse cross section substantially in the form of an L and provided with exteriorly peripheral annular axially extending coaxially parallel surfaces slidably engaging cooperating axially extending peripherally interior coaxially parallel annular surface in a recess in



said housing receiving said actuating member and providing thereby an actuating brake fluid receiving chamber between said actuating member and said housing, and means in said housing forming a brake fluid flow passage connected with said last mentioned chamber, said actuating member having at least part thereof opposite to that part engaging said disk means exposed to the fluid pressure in the said chamber receiving the same.

2,823,771
EXTENSIBLE TELESCOPIC ANTENNA
Richard Langheck, Niefern, Baden, Germany, assignor to Wilhelm Sihm Jr. K. G., Niefern/Baden, Germany, a firm
Application August 15, 1955, Serial No. 528,472
Claims priority, application Germany February 4, 1955
2 Claims. (Cl. 189-26)



1. In a motor-operated telescopic antenna adapted for mounting in the cowl of an automobile and having an antenna mounting assembly comprising a toggle head, a support plate provided with rocker means, and a base tube stationary in the interior of the cowl, and a telescopic assembly comprising a plurality of telescopic members and conveying means having a free end and operable with aid of friction by means of an antenna actuating device; the improvement comprising means for fastening said telescoping assembly in said base tube from the outside of said cowl, said fastening means comprising a sleeve part of said base tube protruding from said toggle head to the outside of said cowl, the widest of said telescoping members having an abutment at its innermost end, a grooved sleeve being displaceable on said widest telescoping members downwardly to said abutment thereof, and fitting snugly with friction around said widest telescopic member and inside said sleeve part of said base

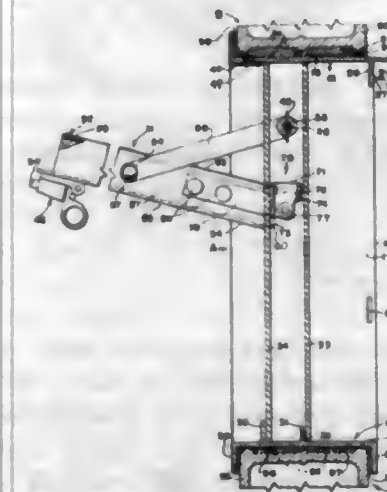
tube, said grooved sleeve being provided with a threaded flange of a diameter wider than said sleeve part, and a cap nut adapted for being screwed on to said threaded flange and said threaded sleeve part from the outside of said cowl.

2,823,772
ALUMINUM DOOR CONSTRUCTION
Victor E. Anderson, Bradenton, Fla., assignor to V. E. Anderson Manufacturing Company, Bradenton, Fla., a corporation of Kentucky
Application February 28, 1955, Serial No. 490,884
9 Claims. (Cl. 189-46)



1. In a door, a pair of spaced stiles of U-shaped cross section, a cross bar of inverted U cross section at the bottom of the door interfitting with said stiles, a cross member of U-shaped cross section forming an adjustable insert in the aforesaid cross bar extending the length thereof and having at its opposite ends intumed flanges from opposite sides thereof, leaving a slot therebetween, a nut within said cross bar at each end thereof adjacent to said flanges, and a headed screw swivelled in the edge portion of each stile and extending through an adjacent slot, each screw engaging an adjacent nut and forming therewith a clamping means for holding said insert in adjusted position.

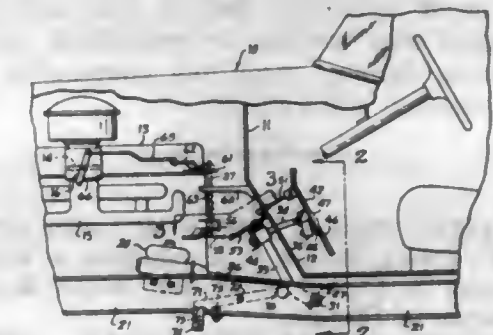
2,823,773
WINDOW AND SCREEN CONSTRUCTION
Woodrow P. Kubatzky, Olivette, and Theodore O. Kubatzky, St. Louis, Mo., assignors to Winco Ventilator Company, St. Louis, Mo., a corporation of Missouri
Application April 3, 1953, Serial No. 346,744
4 Claims. (Cl. 189-66)



4. A window construction including a window frame comprising a sill and lintel connected by side jambs, spaced-apart flanges extending lengthwise the sill, lintel and jambs and intermediate the side edges thereof providing sash frame engaging elements, a sash frame including upper and lower rails and side stiles connected at their abutting ends, the rails and stiles having outwardly extending flanges engaging the flanges on the window frame when the sash is in closed position, link means pivotally connected to the side jambs and the side stiles between the flanges thereof for permitting the sash

frame to be swung selectively to open and closed positions with respect to the window frame, a horizontally-disposed rigid pivot pin extending outwardly from each side stile, rockable and slidable guide members mounted upon and slidable longitudinally of the pivot pins and extending into the channel formation provided by the spaced-apart flanges and having sliding and canting engagement with the last-named flanges for guiding the lower portion of the sash frame, when swung to open position, and resilient means mounted upon said pivot pins and bearing against said rockable guide members to yieldably press the rockable guide members outwardly from the side stiles so as to frictionally engage the jambs.

2,823,774
COMBINED THROTTLE AND BRAKE CONTROL FOR AUTOMOBILES
Claude H. Thompson, Shelby, N. C.
Application April 15, 1954, Serial No. 423,285
8 Claims. (Cl. 192-3)

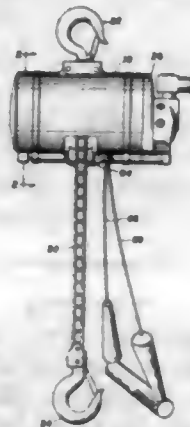


1. In combined throttle and brake controls for automotive vehicles having a brake pedal lever, a throttle link, a single foot-pedal pivotally connected to the throttle link and pivotally supported on the brake pedal lever, an engine and a throttle valve for controlling admission of fuel to the engine; the combination of a movable member spaced forwardly of the throttle link, mechanical connections between said movable member and said throttle valve, resilient means urging the throttle valve to idling position and also urging the movable member toward but in spaced relation to the throttle link, a second lever pivotally supported on said brake pedal lever and to one end of which the throttle link is pivotally connected, a normally taut pliable element connected to the other end of the second lever, said pliable element also being connected to said movable member, means releasably restraining actuation of the brake pedal lever, and said last-named means being releasable to permit actuation of the brake pedal lever in response to predetermined forward pressure applied to the foot-pedal whereby the pliable element may be slackened when the brake pedal lever is actuated.

2,823,775
HOIST MOTOR AND BRAKE CONTROL
Robert E. Zwyer, Bryan, Ohio, assignor to ARO Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application February 28, 1955, Serial No. 490,968
9 Claims. (Cl. 192-3)

2. In combination with a reversible air motor having a source of compressed air, a valve structure comprising a valve body forming an open-ended bore, said source of compressed air communicating with said bore at the opposite open ends thereof, a plunger reciprocally slidable in said bore and carrying a pair of valve heads spaced relative to the length of said bore so as to effect selective opening and closing of the ends of said bore when reciprocated, means for reciprocating said plunger in said bore, said body providing intake ports communicating with said bore and adapted to transmit a flow of compressed air from said bore to the forward and reverse actuating sides respectively of said reversible air motor, said body

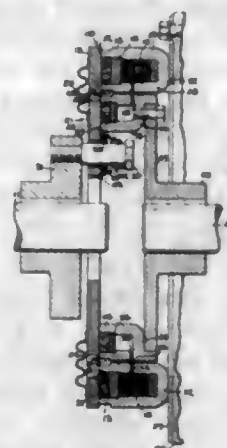
providing exhaust ports communicating with said bore and through said bore with corresponding forward and reverse intake ports, said plunger serving to selectively close and open said exhaust ports when reciprocated for effecting throttling of said air motor, and brake means



operatively associated with said reversible air motor for effecting speed regulation thereof, said plunger reciprocating means also serving to operatively regulate said brake means, thereby permitting cooperative timing of said air motor and brake means.

2,823,776

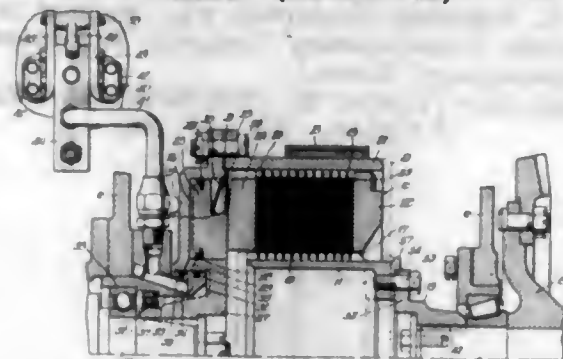
MULTIPLE MAGNETIC FRICTION DEVICE
William C. Pierce, Beloit, Wis., assignor to Warner Electric Brake & Clutch Company, South Beloit, Ill., a corporation of Illinois
Application July 16, 1953, Serial No. 368,404
17 Claims. (Cl. 192-18)



1. The combination of, a magnetic torque producing friction device having axially engageable friction faces defined by radially spaced pole pieces and a magnetic armature ring spanning the pole pieces, means defining a toroidal flux path of low reluctance through said pole pieces and said armature and including a permanent magnet having both of its poles spaced along said path from said friction faces, a second similar device having an armature and radially spaced pole pieces terminating in pole faces spanned by the armature, means supporting the coacting parts of each of said devices for rotation relative to each other, a first member magnetically connecting one of said permanent magnet poles and one pole piece of said second device, a second magnetic member connecting the other pole piece of said second device and the other pole of said permanent magnet and co-operating with said first member to define a parallel toroidal flux path of higher reluctance through said permanent magnet and the friction faces of said second device, each of said members having fixed and rotatable parts closely telescoping together, and a stationary coil mounted within said higher reluctance flux path and operable when energized to divert the permanent magnet flux away from said low reluctance path and into said high reluctance path.

2,823,777
HYDRAULIC CLUTCH CONSTRUCTION
Oscar H. Banker, Evanston, Ill., assignor to New Products Corporation, Chicago, Ill., a corporation of Delaware
Original application November 5, 1948, Serial No. 58,414, now Patent No. 2,669,330, dated February 16, 1954.
Divided and this application November 9, 1953, Serial No. 390,808

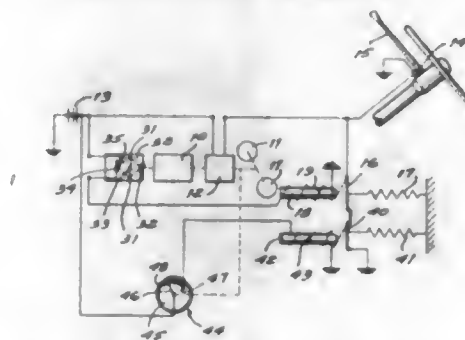
7 Claims. (Cl. 192-85)



2. In a hydraulically controlled clutch, a rotatable drum comprising an end element which is axially recessed to provide an axially exposed, annular pressure cylinder and which is provided with an annular bearing portion ported for pressure communication with said cylinder, and a drum element releasably secured on an annular pilot surface of said end element on the exposed side of said cylinder, a bearing rotatably supporting said bearing portion and provided with a fluid supply passage communicating with said cylinder, an annular piston disposed in said cylinder, said piston having an annular recess on the side thereof facing said drum element, and a spring disposed in said last named recess in axial thrust transmitting relation to said piston and end element, said piston and spring being wholly housed in said annular cylinder.

2,823,778

AUTOMATIC CLUTCH ARRANGEMENT
Richard Binder, Schwelmfurt am Main, Germany, assignor to Fichtel & Sachs A. G., Schwelmfurt am Main, Germany
Application July 30, 1956, Serial No. 600,923
Claims priority, application Germany July 30, 1955
6 Claims. (Cl. 192-103)

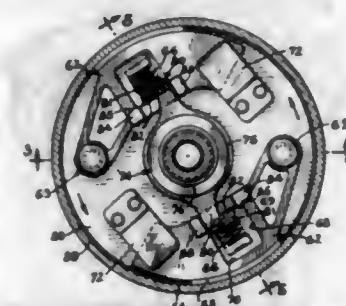


1. In a motor vehicle having at least one driving wheel and an engine for driving the same, an automatic clutch arrangement, comprising in combination, electric clutch means interconnecting the engine and the driving wheel for power-transmittingly coupling and uncoupling the same to and from each other, said clutch means being so constructed and arranged that when it is unenergized it occupies its coupled position and that when it is energized it occupies its uncoupled position; clutch energizing means responsive to the rotational speed of the engine and operatively associated with said clutch means for energizing the same when the rotational speed of the engine is below a predetermined rotational speed, said clutch energizing means including a source of electric energy and switch means connected in series circuit with said clutch means, said switch means being continuously biased to closed position, and

switch actuator means operatively associated with the engine for opening said switch means against the force continuously biasing said switch means to closed position when the rotational speed of the engine is at least as great as said predetermined speed so that when the rotational speed of the engine is below said predetermined speed, said switch actuator permits said switch means to assume its closed position under the influence of its biasing force thereby energizing said clutch means; and deactivating means responsive to the linear speed of the vehicle and operatively associated with said clutch energizing means for deactivating the same when the linear speed of the vehicle is greater than a predetermined linear speed, said deactivating means including circuit breaker means responsive to the linear speed of the vehicle and incorporated in the series circuit containing said clutch means, said source of electric energy and said switch means for interrupting said circuit when the linear speed of the vehicle is greater than said predetermined linear speed, thereby de-energizing said clutch means so that the latter assumes its coupled position, whereby the engine and the driving wheel are uncoupled from each other when the rotational speed of the engine is below said predetermined rotational speed and the linear speed of the vehicle is not greater than said predetermined linear speed and whereby the engine and the driving wheel are coupled to each other when the linear speed of the vehicle is greater than said predetermined speed, irrespective of the rotational speed of the engine.

2,823,779

ONE-WAY CLUTCH
Harold D. Johnson, Earl W. Babcock, and John F. Mouglin, Fairfield, Iowa, assignors, by mesne assignments, to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application December 3, 1953, Serial No. 395,917
3 Claims. (Cl. 192-105)



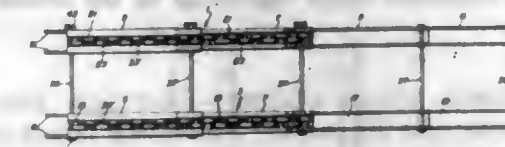
1. A one-way clutch, comprising, in combination, a rotatable driving member, a driven member journaled for rotation in coaxial relation to said driving member and having an internal cylindrical clutch surface adjacent said driving member, a plurality of clutch dogs mounted on said driving member for radial outward movement due to centrifugal action into driving engagement with said clutch surface, yieldable means resisting outward movement of said clutch dogs, a lock-out member journaled coaxially relative to said driving member and having a plurality of hooks adjacent said respective dogs and facing in one rotative direction, latching abutments on said respective dogs for engaging said hooks when said driving engagement is rotated in one direction, said lock-out member being swingable relative to said driving member out of latching engagement with said abutments as an incident to rotation thereof in the opposite direction.

2,823,780

PORTABLE SKID TYPE CONVEYOR
Calvin W. Gross, Milwaukee, Wis.
Application February 21, 1956, Serial No. 566,913
2 Claims. (Cl. 193-41)

1. A conveyor comprising a pair of elongated skids each comprising telescopically connected square tube sections

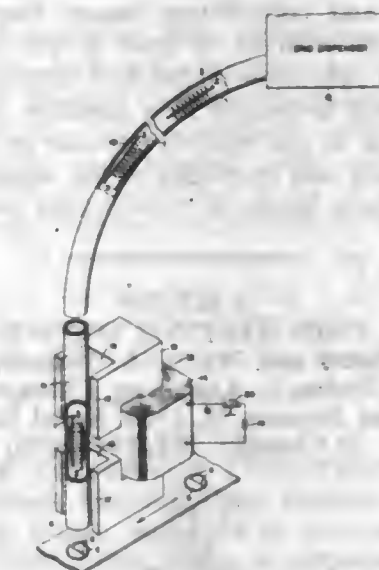
including a head section at one end of each skid, a foot section at the other end of each skid and an intermediate section between the head and foot sections, and means detachably connecting said skids together in laterally spaced parallel relation for use as a boat launching ramp when connected or for use when detached as separate side by side ramps for loading a boat onto an automobile top, said head and intermediate sections having telescoping



longitudinal troughs therein spaced in each section from the sides of the section and each having a bottom one of which is spaced from the bottom of the telescopic section for sliding of the bottom of the telescopic section under the same, longitudinal parallel row of rollers in each trough with rollers in each row overlapping those in the other row, and spacers in said trough spacing the rollers from the sides of the trough and spacing the rows apart.

2,823,781

ARTICLE HANDLING APPARATUS
Robert E. Bosch, West Caldwell, N. J., assignor to General Electric Company, a corporation of New York
Application February 27, 1956, Serial No. 568,066
3 Claims. (Cl. 193-43)



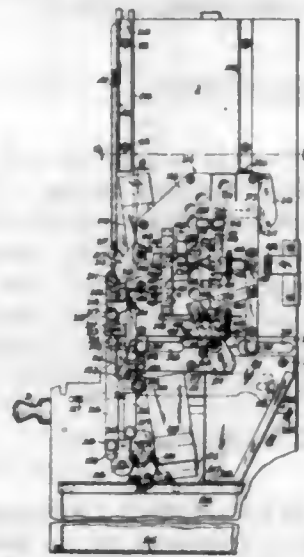
1. Magnetic article handling apparatus comprising a non-magnetic tubular element for determining the direction of transportation of an article admitted thereto, an electromagnet comprising a pair of spaced-apart bifurcated pole pieces, said spaced-apart pole pieces being aligned along the longitudinal axis of said tubular element with said tubular element being disposed intermediate bifurcated portions thereof, said electromagnet being adapted when energized for establishing a magnetic field in said tubular element effective for arresting said magnetic article in said tubular element, and means for deenergizing said magnet for collapsing said field thereby to effect release of said article from said tubular element upon demand.

2,823,782

COIN APPARATUS
Clements A. Ridings, Normandy, Alvin W. Holstein, Lemay, and Elmer S. Marr, St. Louis, Mo., assignors, by mesne assignments, to National Vendors, Inc., a corporation of Missouri
Application August 24, 1955, Serial No. 530,333
14 Claims. (Cl. 194-57)

1. In a vending machine having a first and a second selector operable to obtain items of a first and a sec-

ond price, respectively, means for locking both selectors against operation to obtain any item comprising a first stop means movable between locking and non-locking positions and normally occupying its locking position, means for locking the second selector against operation to obtain any item of the second price comprising a second stop means movable between locking and non-locking positions and normally occupying its non-locking position, means operable upon operation of the second selec-



tor but not upon operation of the first for moving said second stop means to its locking position, a movable coin receiver, means operable by either selector for moving the receiver, and coin-driven means responsive to the presence in the receiver of coin in the amount of the first price and operation of the first selector to move the first stop means to non-locking position, and responsive to the presence in the receiver of coin in the amount of the second price and operation of the second selector for moving both stop means to non-locking position.

2,823,783

COIN TESTING DEVICE

William A. Patzer and Walter A. Tratsch, Chicago, Ill., assignors to Walter P. Attenburg, Chicago, Ill., trustee
Application January 25, 1954, Serial No. 405,936
22 Claims. (Cl. 194-102)



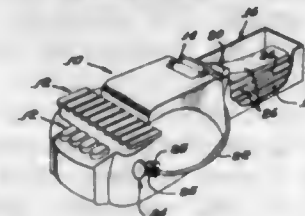
1. In a coin testing device, a pair of vertically disposed plates having a spaced relation therebetween dimensioned to permit free passage of coins downwardly therebetween, vertically spaced apart downwardly inclined runways having a surface beveled downwardly in the direction towards one of the plates and positioned between the plates in the path of the coins passing downwardly therebetween, the other of said plates having substantially vertically aligned openings extending upwardly from the surfaces of the runways dimensioned to have a length greater than the maximum diameter of coins adapted to be separated out on the corresponding runway and a height slightly less than the minimum diameter of the coins adapted to be separated out on the respective runway, a backing plate for each opening extending upwardly and outwardly from the surface of the runway in the direction away from the one plate, the one plate having substantially vertically aligned portions deformed outwardly in the direction away from the other plate between

each backing plate from a distance above the runway which is less than one-half the diameter of the coin adapted to be separated out on said runway to a distance above the runway beneath, which is greater than the distance defining the start of the deformed portion for the latter runway, and means for displacing one plate in the direction away from the other to increase the spaced relation therebetween to enable coins which have been held up on the runways to fall downwardly therebetween.

2,823,784

STRIP RECORD SIGNALING

Jack D. Ambrose, Los Angeles, Calif.
Application January 14, 1955, Serial No. 481,931
2 Claims. (Cl. 197-9)

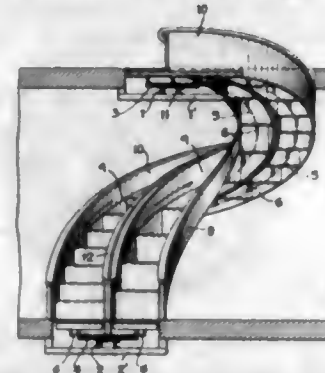


2. In combination, a digitally operable machine for making a record on a body movable relative to the machine, the body being made of thin bendable material having an edge of regular contour; and digitally operable means for lancing a portion of said material adjacent its edge and folding the lanced portion through 180° whereby to project outwardly of the edge.

2,823,785

ESCALATOR ADAPTED TO FOLLOW A CURVED PATH

Martin Heftli, Bach, Switzerland
Application October 20, 1954, Serial No. 463,435
Claims priority, application Switzerland January 13, 1954
14 Claims. (Cl. 198-17)



1. A step escalator adapted to follow a variably curved path and to move around substantially horizontal angular turns up to 180°, comprising guide rails placed parallel to the path of the escalator, a plurality of steps, each step including a platform and a support structure, rollers mounted on said support structure and guided by said guide rails, an endless chain permanently connected with all of said steps and being adapted to bend in at least two planes which are at an angle to each other, the entire chain following and being equidistant from the entire path of the escalator, and a plurality of horizontal chain wheels rotating on vertical axes and engaging said chain for determining the path of said chain.

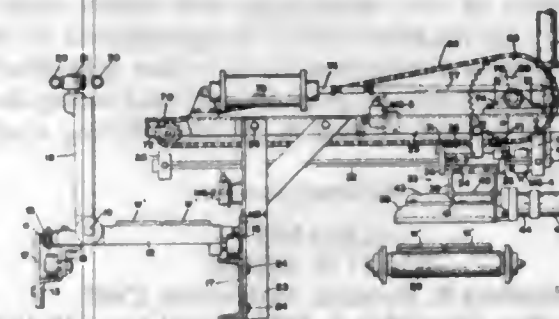
2,823,786

WAFFLE TRANSFER MECHANISM

William Grogg, Jr., Stow, Ohio, assignor to The Quaker Oats Company, Chicago, Ill., a corporation of New Jersey
Application January 2, 1957, Serial No. 632,122
16 Claims. (Cl. 198-20)

1. Apparatus for transferring battercakes from successive griddles on a moving conveyor to an unloading

station, including a frame having one end above the conveyor and extending laterally outward therefrom to the unloading station, a carriage mounted on the frame for movement lengthwise thereof, a vacuum lift pan adapted for registry with said griddles as they pass under the

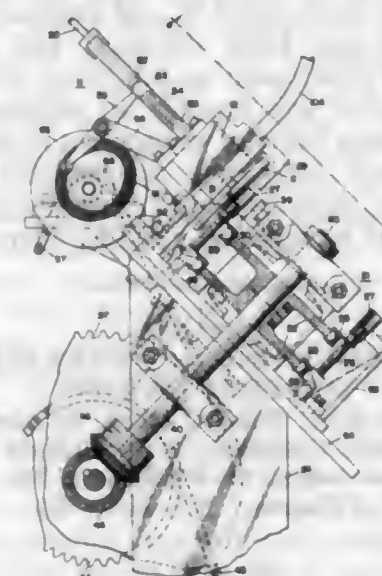


frame, means mounting said pan on said carriage for swinging transversely of said frame substantially into contact with a cake on a griddle passing under said frame, means for moving said carriage back and forth on said frame, and means on the frame for swinging said pan.

2,823,787

APPARATUS FOR HANDLING SHELL CASINGS AND THE LIKE

Harry W. Morgan, Wilmington, Del., assignor to Jennings Machine Corporation, Philadelphia, Pa., a corporation of Pennsylvania
Application May 24, 1954, Serial No. 431,715
11 Claims. (Cl. 198-32)



1. An arrangement for handling shell casings and the like comprising an endless conveyor having transverse pockets along the conveyor, driving means for effecting continuous motion of said conveyor, structure for directing streams of shell casings in end-to-end relation from several sources and with the casings of each stream in similarly oriented end-to-end relation to a transfer station adjacent the path of said conveyor, and mechanism at said station operating in timed relation to said conveyor for transferring the successive groups of end shells of said streams to successive groups of pockets of said conveyor, the shells as transported by said conveyor being in side-by-side relation.

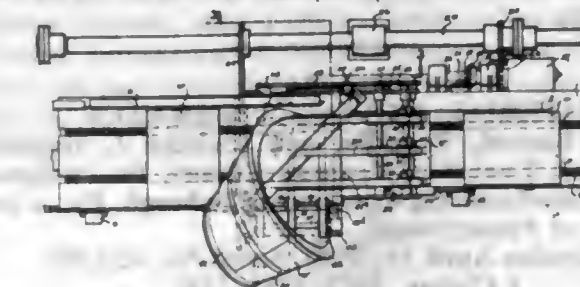
2,823,788

WORK-TURNING MACHINE

Lewis J. Chase, Sparta, Ill., assignor to The World Color Printing Company, St. Louis, Mo., a corporation of Missouri
Application August 6, 1956, Serial No. 602,168
14 Claims. (Cl. 198-33)

1. A work turning machine comprising a generally vertical spiral path-forming member having a leading edge

and a discharge edge, said member being contoured so as to dispose said edges at an angle of less than 180° to

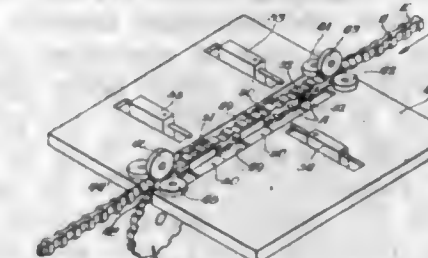


each other, and work-engaging means adapted for conforming travel about one surface of said member.

2,823,789

PARTS FEEDER RIBBON

Frederick Rudolph Henning, Janesville, Wis., assignor to Gilman Engineering & Manufacturing Corporation, Janesville, Wis., a corporation of Wisconsin
Application May 6, 1952, Serial No. 286,290
13 Claims. (Cl. 198-131)

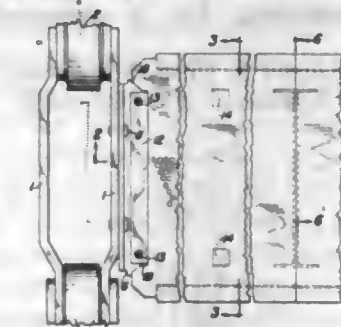


1. An article-carrying belt comprising an elongated member formed from an elastomer and flexible in all directions, said member having a longitudinally extending series of spaced, article-receiving sockets extending partially through said member from one face thereof and a longitudinally extending series of equally spaced drive faces lying in planes transversely of the longitudinal direction of said member, each of the sockets being spaced from the nearest drive face a distance equal to the spacing between each of the other corresponding sockets and the drive face nearest thereto respectively.

2,823,790

PLATE CONVEYOR CONSTRUCTION

Luther L. Sifford, Hamden, and Edward J. Kittelman, Wallingford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine
Application July 15, 1954, Serial No. 443,456
6 Claims. (Cl. 198-196)



1. A conveyor having a pair of spaced parallel longitudinally extending linked chains and sections being substantially one-half of the width of the distance between the linked chains carried by said chains, brackets secured to said chain links, a guard member secured to said bracket, a spacer member separating said bracket from said guard member, the sections having cutout portions allowing assembly of the section with the bracket, said cutout portion being such that extended portions of the sections substantially abut the aforementioned spacer member, members transversely connecting said brackets, clips secured to the underside of said sections, said clips

and said transverse member having holes in alignment and a removable fastening means for inserting in said aligned holes.

2,823,791

MATERIAL MOVING APPARATUS

Arthur L. Barrett, Franklin, and Richard J. Hopkins, Sugarcreek Township, Venango County, Pa., assignors to Joy Manufacturing Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application April 19, 1954, Serial No. 423,908
3 Claims. (Cl. 198—224)



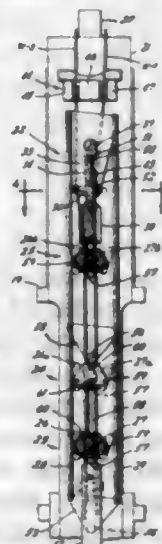
1. A material moving device comprising, a stationary support, a deck reciprocally mounted on said support, a first material engaging means located adjacent one side of said deck and extending laterally thereacross with reference to the path of movement of said deck, said first material engaging means being rigidly secured to said support to engage said one side of said deck, said first material engaging means being so constructed that forward movement of said deck in one direction relative to said first material engaging means causes material to flow relatively freely over said first material engaging means, a second material engaging means having a material engaging position and an inactive position, said second material engaging means being movably mounted on the other side of said deck to be retractable therethrough and extend outwardly from said side of said deck when in a material engaging position; and sequentially operable means located adjacent the other side of said deck to move said second material engaging means into material engaging position, then to move said deck beneath said first mentioned engaging means so that said second material engaging means approaches said first material engaging means, then to move said second material engaging means to said inactive position, and then to move said deck in the reverse direction to cause said first material engaging means to scrape said one side of said deck.

2,823,792

WIRE FEEDING APPARATUS

John G. Lord, Swarthmore, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application April 5, 1956, Serial No. 576,434
17 Claims. (Cl. 203—65)



1. In apparatus for feeding wire at a predetermined rate, a supply structure adapted to supply a plurality of

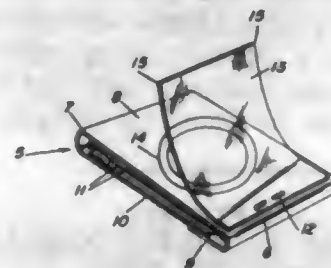
wires; transfer means adapted to gradually remove one of said wires from said supply structure, at said rate; and control means adapted, in response to a discontinuity in the wire which is being removed in this manner, so to reset the transfer means that it thereafter gradually removes another of said wires from said supply structure, at said rate; the transfer means being adapted to move back and forth in intermittent feed strokes with intervening returning strokes, to grip one of said wires during each feed stroke and to release all wires during each return stroke.

2,823,793

MATCH BOOK

Herbert P. Jackson, Inglewood, Calif.

Application December 4, 1956, Serial No. 626,163
1 Claim. (Cl. 206—29)



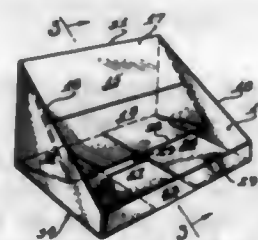
A match book comprising an elongated cover including an imperforate back, a foldable front on one end of said back, match cards, a fastener mounting the cards at one end of the cover, a resilient polygonal sheet of substantially the same dimensions as said back mounted on the back and having one end secured by said fasteners to the other end portion of said back, the other end of said sheet being free and superposed in overlying, contacting relation to said cover and forming an additional thickness thereon, said sheet being of transparent material whereby a surface of said cover may be inspected through said sheet, and right angular pointed corners on the free end of said free end constituting cleaning elements.

2,823,794

DISPLAY CONTAINER CONVERTED FROM SHIPPING CARTON

Edward B. Garman, Toledo, Ohio, assignor to Owens-Illinois Glass Company, a corporation of Ohio

Application August 16, 1955, Serial No. 528,718
3 Claims. (Cl. 206—44)



1. A display container converted from a rectangular carton into display form, said rectangular carton having single-ply, front, rear and side walls and flap-formed top and bottom walls comprised of foldable sheet material, said display container having bottom, sloping upright side walls, high back and low front vertical walls, and a strip comprised of the complete flap-formed planar top and upper portion of the front wall forming a hingedly connected extension of the back wall, said strip being folded about the upper edge of said back wall with its major portion comprised of the complete planar carton top extending from said back wall in a downwardly and forwardly, inclined direction forcefully maintained in position by friction interiorly between said side walls, the outermost portion of said strip comprised of the upper portion of the carton front wall arranged in a downwardly and rearwardly inclined direction between said side walls

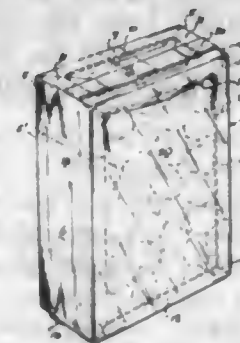
with its extremity placed within the transverse lower rear corner of said display form to support the major portion of said strip in the inclined back-rest position.

2,823,795

COMPOSITE CONTAINER

George Arlington Moore, New York, N. Y.

Application March 7, 1955, Serial No. 492,584
4 Claims. (Cl. 206—45.33)



1. A rectangular reinforced transparent bag container comprising a reinforcing articulated frame of substantially rigid sheet material consisting of two side wall panels and two end wall panels being hingedly connected in end to end succession so that said frame may be adjusted from a collapsed oblique parallelogram condition to an expanded rectangular condition, an outer bag composed of flexibly stretchable transparent heat-sealable material and having heat-sealed seamed side walls and a seamed closed end wall including an opposite closable end wall, said frame being insertable into said bag in partially collapsed condition and expandable to stretch the side and closed end wall of the bag tautly against the corresponding wall panels of the expanded frame, and narrow flanges hinged to the opposite free edges of each of said frame panels and pressed by said taut bag walls into disposition substantially at right angles to the panels to which they are hinged, thereby rigidifying said frame to prevent inward buckling of the frame panels, the bag walls tautly spread over said flanges defining opposite open sides of frame panels constituting two transparent window panels provided for the visible display of the particular product intended for said bag container, one of said end wall panels traversing the open end of the bag and being substantially cut away inwardly of the side edges thereof to provide an opening for inserting said particular product into said bag container, said last named panel being spaced inwardly of the free end edges of the open end of the bag.

2,823,796

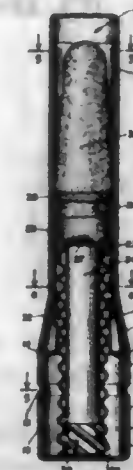
LIPSTICK HOLDER

Ira W. Schwartz, Rosedale, N. Y., Andrew Gentoso, Cresskill, N. J., and Edward Noyack, Seymour, Conn., assignors, by mesne assignments, to Juliette Marglen Inc., Ridgefield, N. J., a corporation of California

Application March 13, 1956, Serial No. 571,239
5 Claims. (Cl. 206—56)

2. A lipstick holder having a casing the upper portion of which is non-circular in cross-section, a lipstick retaining cup within said portion of the casing having a cross-section corresponding with that of said portion of the casing and having a sliding fit in relation thereto, said casing having a lower portion of cylindrical form with a diameter at least equal to the greatest transverse dimension of said upper portion, a tubular member secured to said cup and extending downwardly therefrom into said lower portion of the casing, said member having a diameter less than the minimum transverse dimension of said upper portion of the casing and the lower end thereof having a multiple lead thread of at least three leads, each lead of said thread having a pitch of not less than about

half an inch, a bottom closure for said casing mounted for rotation thereon but held against axial movement in relation thereto, and a sleeve surrounding said tubular member and secured to said bottom closure for rotation therewith and extending upwardly within said casing and into the non-circular upper portion thereof in coaxial



relation thereto, said sleeve having a maximum external diameter less than the minimum transverse dimension of said upper portion of the casing and having a multiple lead thread extending throughout the length thereof co-operating directly with the multiple lead thread of said tubular member to shift said member and cup upon relative rotation of said closure and said casing.

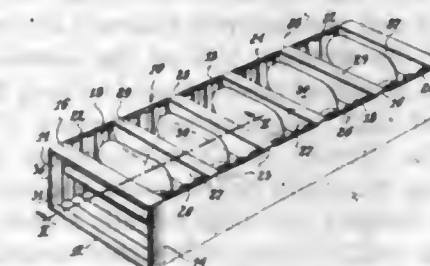
2,823,797

ARTICLE PACKING AND DISPLAY CONTAINER

Harold Amatel, Verona, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 1, 1954, Serial No. 440,583

5 Claims. (Cl. 206—65)



5. The combination which comprises a lamp-packing and lamp-display container and the lamps packed therein, said container having sides, a bottom and a face, the height of each of said container sides being slightly greater than the maximum diameter of said packed lamps, a plurality of generally-rectangular transversely-disposed lamp-receiving slots contained in said face, facing spacers in said face and separating adjacent lamp-receiving slots, said slots formed by substantially oppositely-disposed cuts along the container edges formed by said face and said sides and by transverse cuts extending from one of said sides to the other of said sides and intermediate said facing spacers, lamp-retaining flaps formed by said edge cuts and said transverse cuts and attached to said facing spacers and resiliently bendable thereabout, each of said lamp-receiving slots bounded on each of its transverse sides by one of said lamp-retaining flaps, a portion of each of said lamp-retaining flaps which bounds an individual lamp-receiving slot contacting a portion of the lamp received therein and maintaining a pressure thereon, and the pressures maintained on each of packed lamps by said retaining flaps being expressible as a vector which intersects the plane of the bottom of said container.

2,823,798

COVERED PACKAGE WITH INITIALLY SEALED BUT RELEASABLE TUCK CLOSURE FLAP

Lloyd I. Volckening, Glen Ridge, John R. O'Meara, Scotch Plains, and Frank J. Lefebvre, Caldwell, N. J., assignors to Ivers-Lee Company, Newark, N. J., a corporation of Delaware

Application October 29, 1956, Serial No. 619,075
3 Claims. (Cl. 206-65)

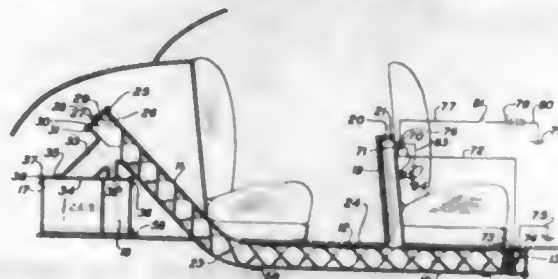
1. A package comprising an approximately flat commodity container having outer thermoplastic surfaces, and a cover comprising a strip of flexible material having a fold providing a body portion with a container-attaching flap, one edge portion of said container being disposed in said fold in juxtaposition to said body portion and positively thermoplastically sealed directly to said body portion and to said container-attaching flap in a zone disposed inwardly of said fold with the edge of said container-attaching flap spaced from said container, said body portion having a closure flap hinged at the end of the body portion opposite said container-attaching flap and of a size and shape to overlie the side of said container opposite said body portion with its edge tucked between said container and the free edge of said container-attaching flap to close the package, and means initially positively securing said closure flap in package-closing position, said means including a portion of the end edge zone of the closure flap which extends approximately to said fold between said container and the container-attaching flap and is thermoplastically and permanently fastened directly to the outer surface of the adjacent side of the container when the closure flap is in closed position, said closure flap being otherwise free of said container said portion of the end edge zone of the closure flap comprising at least one tongue projecting integrally beyond said end edge of the closure flap and initially thermoplastically sealed in direct contact with the wall of said commodity container, and there being means providing for simultaneous manual tearing of said container, said closure flap and juxtaposed portions of said attaching flap and said body portion along a line extending inwardly from said fold and beyond said sealed zone and transversely of said tongue to separate the tongue from the cover flap and thereby release said cover flap for swinging away from said container into open position, said closure flap being of a size after said separation of the closure flap and said sealed zone to provide for releasable tucking of the end edge of the closure flap into the space between the container and said marginal end zone of the container attaching flap for closing the package.

2,823,799

AUTOMOBILE TRASH DISPOSALLawrence J. Gangell, Bloomfield, N. J.
Application July 8, 1955, Serial No. 520,832
3 Claims. (Cl. 209-83)

2. A trash disposal for motor vehicles comprising in combination with a floor for the vehicle, a horizontally disposed conveyor tube having an intake section and said tube is adapted to be mounted below the floor of the vehicle with an intake tube communicating with the intake section of said conveyor tube and adapted to extend

upwardly through the floor of the vehicle and with the trailing end of the conveyor tube also adapted to extend upwardly through the floor of the vehicle, a flexible conveyor element including a spiral band extended through said conveyor tube in operative association with said intake tube, a motor operatively connected to said spiral band for rotating the band to provide a screw conveyor, a door at the upper end of said intake tube, a trash receiving container adapted to be positioned in a trunk of the vehicle, depending spouts communicating with and extended downwardly from the upwardly extended section of the conveyor tube with the inner ends of said spouts being in operative association with said spiral band

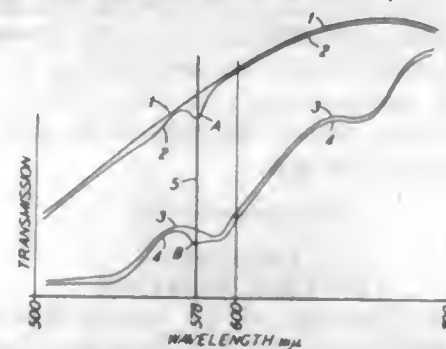


and with the outer ends of said spouts and communicating with sections of the trash receiving container, one of said depending spouts being comparatively small and located ahead of the other of said depending spouts for selectively carrying cigarette butts and the like to a section of the trash receiving container and the other depending spout being adapted to selectively carry objects such as beer cans from the conveyor to another section of said trash receiving container, means for completing a circuit to the motor of the spiral conveyor element upon opening of the door of the intake tube, and a delayed action element for breaking the circuit to the motor after a predetermined period of time.

2,823,800

AUTOMATIC CANDLER FOR BROWN OR WHITE EGGS

George N. Bliss, Ithaca, N. Y.

Application June 26, 1953, Serial No. 364,264
5 Claims. (Cl. 209-111)

1. In an automatic egg candler for bloods, the combination of a source of yellow light having wave lengths between 575-585 mμ and including a filter cutting out the green-blue light waves on the one side of the spectrum and the red-orange light waves on the other side of the spectrum, said source providing a beam of light of a narrow band of wave lengths sharply peaked at substantially 577-579 mμ so as to be strongly affected by hemoglobin, a second beam of light having wave lengths in between 550 mμ and 630 mμ and dispersed so that their range is sufficiently extended in relation to wave lengths 577-579 mμ so as to be relatively little affected by hemoglobin, a filter in said second beam proportioned to transmit a pattern of light wave lengths whose total intensity is approximately proportional, though not necessarily equal, to that of the narrow band of peaked light for various degrees of transmission thru various blood-free

eggs, a phototube alternately receiving light from the two said beams after they pass thru the same egg, a variable dimmer for equalizing the effect of said beams on the phototube when they have passed thru an egg that is free from blood, a two sided alternating switch having one side operatively connected to the phototube when one of said beams falls upon it and having the other side operatively connected to the phototube when the other of said beams falls upon it so that the alternate voltages created by the energization of the phototube by the alternate light beams thru a blood-free egg are balanced out and no effective voltage difference is delivered beyond said balanced circuit, a relay connected to said balanced circuit operative when said circuit is in a state of unbalance, a conveyor for receiving an egg and from which the egg is capable of being rejected, and a rejector operated by said relay to distinguish an egg containing blood from a blood-free egg, said relay and rejector mechanism being energized by a lack of balance in said balancing circuit produced by the absorption of light in the narrow first mentioned beam by hemoglobin in the egg.

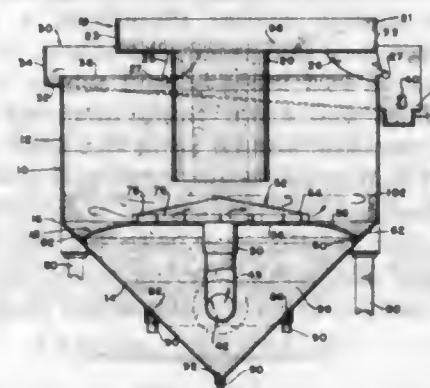
2,823,801

RECOVERY OF COAL

Harrison A. Strohl, Sr., Nesquehoning, Pa., assignor to Menzies Engineering Company, Pottsville, Pa., a partnership composed of A. Harold Leisawitz and Bernard A. Moser

Application July 6, 1956, Serial No. 596,284

4 Claims. (Cl. 209-159)



1. In apparatus for recovering coal by gravity separation, the improvement comprising a tank for separating refuse solids from coal fines, a feed well positioned in the tank for feeding a mixture of coal fines and refuse solids into the tank, a gyrating device having a central water inlet, said device being located in the lower portion of the tank for feeding water into the lowermost portion of the tank in a swirling movement, a plurality of spaced and curved swirl plates radiating outwardly from said water inlet, a dome above the swirl plates, a hopper below the tank for receiving the refuse solids, a diaphragm disposed between the hopper and the tank, said diaphragm swirl plates and dome defining water discharge openings, an opening for the passage therethrough of refuse solids from the tank to the hopper, an outlet in the hopper for the withdrawal of refuse solids admixed with water, and a launder at the top of the tank for the withdrawal of coal fines admixed with water.

2,823,802

MACHINE FOR REMOVING MOSS FROM WATER FLOWING IN AN IRRIGATION DITCH

Hubert Massey, Gilbert, Ariz.

Application August 15, 1955, Serial No. 528,351
5 Claims. (Cl. 210-143)

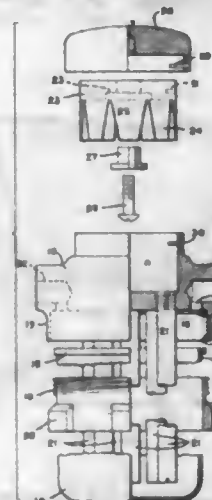
3. In a machine for removing moss floating in irrigation water flowing in an irrigation ditch, a frame adapted to rest in the bottom of the irrigation ditch, having upright members, an upwardly and rearwardly extending grating of parallel rods attached at the bottom to a trans-

verse bar hinged to the bottom portion of said frame, and having rearwardly and downwardly curved upper ends, arms extending upward from said transverse bar, engaging portions of said frame to limit hinging motion of said grating and maintain it resiliently in upstream hinged position, a comb having teeth extending forwardly between said grating rods, operating on the down stream



side of said grating, so that said teeth travel upward between said grating rods and over the upper curved portions thereof to remove moss caught by said grating, mechanism, including a motor, started by down stream hinging motion of said grating due to flow resistance of accumulated moss, and stopped by the upstream hinging action of said grating upon removal of said moss by said comb.

2,823,803

MAGNETIC FILTEREdward H. Sinclair, Windsor, and Grover H. Curtis, Hartland, Vt., assignors to Sinclair Machine Products, Inc., Windsor, Vt., a corporation of Vermont
Application September 12, 1955, Serial No. 533,726
3 Claims. (Cl. 210-222)

1. A magnetic filter comprising a vessel through which the liquid to be purified passes, a plurality of soft iron rods extending into the interior of the vessel in a circular series, and a cylindrical permanent magnet having spaced poles equal in number to the number of rods and extending parallel to the axis of the cylinder into contact with one end of the series of rods, and means for mounting the permanent magnet for rotation from a position in which each pole contacts the end of one rod to a position in which each pole makes contact with two adjacent rods.

2,823,804

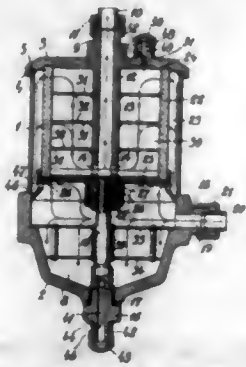
FILTER COMBINED WITH GRAVITATION SEPARATOR

Aksel Myring, Oslo, Norway

Application March 17, 1954, Serial No. 416,747
5 Claims. (Cl. 210-305)

1. A filter for lubricating oil, benzine and fuel oil, comprising an upright housing provided with oil inlet and outlet, a hollow filtering cylinder mounted axially in said housing and in spaced relationship to the same, a tight bottom plate closing the lower end of said filtering cylinder above the level of said oil inlet, the oil outlet

in the upper end of the housing communicating with the inner space of the filtering cylinder through a channel in a pipe the latter extending downwards in the filtering cylinder from the top cover of the housing, said pipe having one or more inlet openings in the wall thereof situated near the bottom plate of the filtering cylinder,

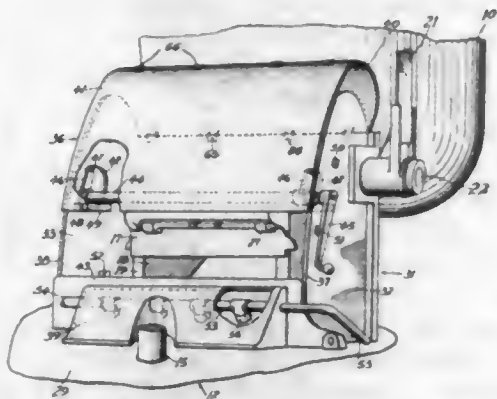


whereby the contents of air and gas in the oil will be collected in the upper part of the filter, the said bottom plate being mounted axially adjustable on the outlet pipe, the latter extending through the bottom plate a threaded bolt closing said pipe at the lower end whereby said filtering cylinder can be clamped between the top cover and the bottom plate.

2,823,805

SUGAR CENTRIFUGAL CHARGING APPARATUS
Joseph Hertrich, Hamilton, Ohio, assignor to The Western States Machine Company, Hamilton, Ohio, a corporation of Utah

Application August 15, 1952, Serial No. 304,515
10 Claims. (Cl. 210-360)



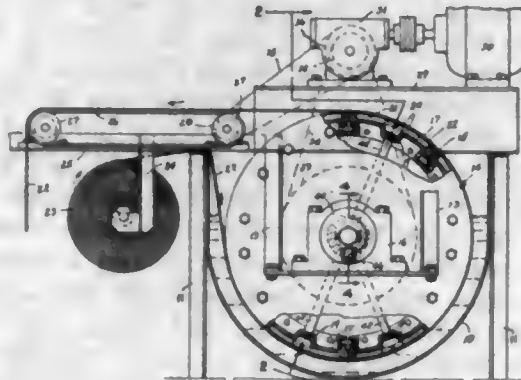
1. For a sugar centrifugal installation including a rotary basket having an open top to receive charge material, a surrounding curb, and a loading gate disposed above and toward one side of the basket, charging apparatus comprising a top member for said curb normally closing it so as to prevent outside air currents from passing through it to the basket, said top member having an opening to lie between the basket opening and the loading gate and surrounding the flow path of charge material passing from the gate to the basket, and an enclosure surrounding and extending between said top member opening and the loading gate and completely enclosing said flow path so as to unify the atmospheres ambient to the basket and the loading gate, said enclosure comprising two spaced side wall members at opposite sides of said loading gate extending in spaced relation from the same to parts of said top member at opposite sides of said opening, a backward closure member bridging the space between said side members from the bottom of the loading gate to the top member at the back of said opening, and forward closure means bridging the space between said side members and extending from an upper part of the loading gate to said top member at the front of said opening.

2,823,806

VACUUM FILTER

Avery S. Harlan, Indianapolis, Ind., assignor to Industrial Filtration Company, Indianapolis, Ind., a co-partnership

Application August 17, 1954, Serial No. 450,413
5 Claims. (Cl. 210-387)



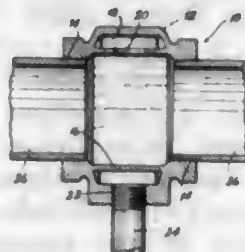
1. A filter for filtering liquid from a tank comprising a drum rotatably mounted on said tank with the lower surface thereof submerged in the liquid, a disposable filtering media carried by said drum about the submerged surface thereof, means for rotating said drum to progressively move said filtering media covered surface through said liquid, a plurality of vacuum tubes extending into said drum communicating with the peripheral surface thereof at spaced intervals and having a source of partial vacuum for drawing said liquid through said filter media to separate foreign matter therefrom, a control valve interposed between said tubes and source of partial vacuum for opening said tubes to said source upon the adjacent surface of said drum being submerged and closing said tubes from said source upon the adjacent surface of said drum rotating to an unsubmerged position, and an endless conveyor belt associated with said drum and driven in timed relation therewith for receiving and disposing of said disposable filtering media upon said drum rotating to carry it from its submerged position.

2,823,807

SPRINKLER SYSTEM CONNECTION FOR SPRINKLER HEAD

Herbert W. Hempel, Belleville, Ill.

Application July 27, 1953, Serial No. 370,457
4 Claims. (Cl. 210-532)



1. A sprinkler head connection for installing a sprinkler head in directly depending relation to a fluid pipe line comprising a casing, means for connecting the casing into a fluid pipe line, means for connecting a sprinkler head to the bottom of the casing, a wall within said casing spaced from the inside thereof and forming therewith a chamber disposed substantially out of the fluid flow path through said connection, and an opening in said inner wall near or above the maximum level of fluid in a connected fluid pipe line communicating said chamber and the area interiorly of said inner wall, the maximum level of fluid in a connected fluid pipe line being the vertical internal diameter of such fluid pipe line, said sprinkler connecting means including an opening through said casing leading from said chamber.

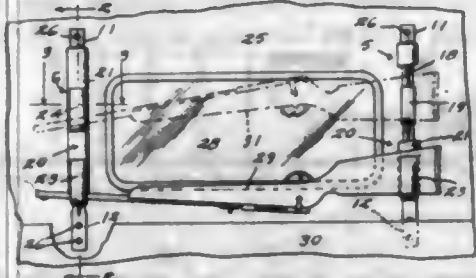
2,823,808

RIFLE RACK

Ednen Hindi, Duran, N. Mex.

Application February 3, 1954, Serial No. 407,907

2 Claims. (Cl. 211-64)



1. In a rifle rack, a rack section comprising an elongated mounting member constituting a rear part of the rack section and including an elongated longitudinally creased intermediate portion of V-shaped cross section having a concave forward side, said mounting member having upper and lower ends provided with fastening receiving openings, and a rifle supporting strip element having a flat intermediate portion disposed against and secured to the edges of the open forward side of said creased portion and combining therewith to form a reinforced intermediate tubular frame portion, said strip element having a forwardly and upwardly extending lower end portion and successively downwardly folded and upwardly and forwardly extending upper end portion, said end portions forming vertically spaced upwardly opening rifle engaging hooks, said hooks being disposed on the forward side of said tubular frame portion.

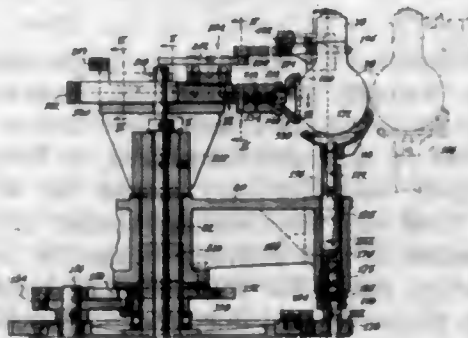
2,823,809

TRANSFER DEVICE FOR A LEAD WIRE
THREADING MACHINE

Frederick T. May, Verona, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Original application May 17, 1954, Serial No. 430,240. Divided and this application March 17, 1955, Serial No. 498,508

5 Claims. (Cl. 214-1)



1. In combination for a lead wire threading machine a lamp holder head having support means for supporting a lamp and gripping means for gripping said supported lamp, and a lamp transfer device comprising a lamp transfer head adapted to be engaged with the lamp to be transferred, moving means to move said transfer head toward and away from said lamp in said lamp holder head, opening means carried by said moving means and operable to open said gripping means after securement of said lamp in said transfer head, and means to apply a vacuum to said transfer head to secure said lamp therein.

2,823,810

PARKING LIFT

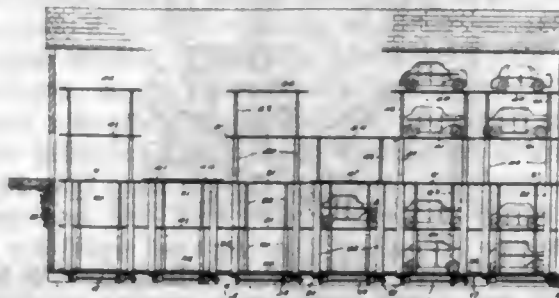
David Derellus Stoner, Cincinnati, Ohio

Application March 19, 1954, Serial No. 417,431

2 Claims. (Cl. 214-16.1)

1. In a building having a ground level and a basement, a vehicle parking lift comprising a ground level

platform, a lower platform, an intermediate lower platform, lower tubular members extending between said lower and intermediate lower platforms, lower intermediate tubular members secured to said ground level platform and telescoping into said lower tubular members, upper tubular members depending from said upper platform, intermediate upper tubular members telescoping



over said upper tubular members, means including said first mentioned telescoping members for lowering or raising said lower and lower intermediate platforms, means including said second mentioned telescoping members for raising or lowering said ground level and lower intermediate platforms, and retaining means to hold the upper platforms when loaded in elevated position free of restraint of said raising and lowering means.

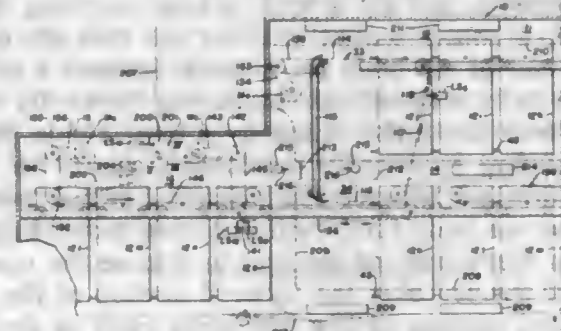
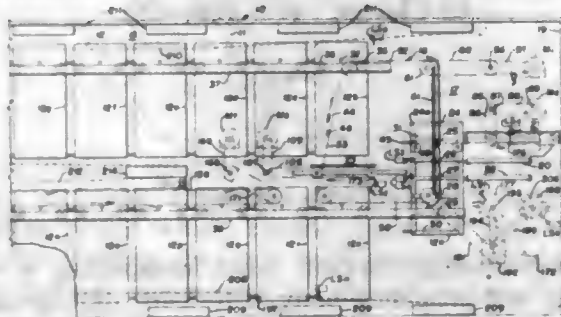
2,823,811

PROOFER

Hiram E. Temple, York, Pa., assignor, by mesne assignments, to Capitol Products Corporation, a corporation of Pennsylvania

Application June 29, 1955, Serial No. 518,770

17 Claims. (Cl. 214-16.4)

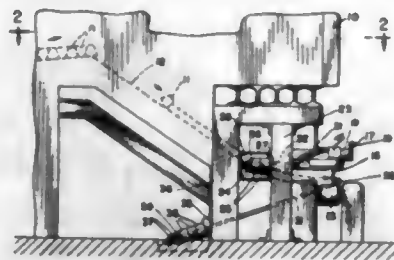


1. In an apparatus for proofing dough, a proofing chamber, means for conducting a succession of racks, adapted to support pans of dough to be proofed, in a closed loop through said chamber, means adjacent a section of said closed loop adapted for loading pans of dough to be proofed on said racks and for unloading proofed pans of dough from said racks, and conveying means having one end adjacent said closed loop remote from said loading and unloading means and extending outwardly therefrom and being engageable with a rack for diverting it from said closed loop out of the path of travel of said racks in said closed loop whereby said diverted rack can be by-passed by a succeeding rack.

2,823,812

SHOCK ABSORBERS FOR BILLETS

Clarence E. McCoy, Clarendon Hills, Ill., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application July 16, 1954, Serial No. 443,757
6 Claims. (Cl. 214-18)

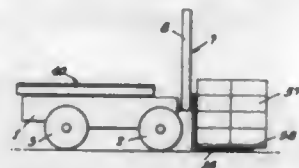


1. In a rolling mill including a furnace having an inclined chute and a roll conveyor extending transversely of the inclined chute for conveying billets from the furnace supplied thereto by the chute, the improvement which comprises a bumper plate, a slide extending transversely of the conveyor and supporting the bumper plate in a position parallel to the conveyor, a slidably mounted rod secured rigidly to the slide, a second slidably mounted rod secured to the bumper plate, a plurality of butyl rubber bushings mounted on the rods, and means for restraining movement of the bushings with the bumper plate as a billet strikes the bumper plate and moves the rods, said bushings being insufficiently resilient to return the bumper plate rapidly to its normal position while the billet is thereagainst.

2,823,813

SELF-LOADING FORK-LIFT TRUCK

William L. Shimon, Modesto, Calif.
Application April 6, 1956, Serial No. 576,731
13 Claims. (Cl. 214-75)



1. A self-loading fork-lift truck comprising a wheel-supported, self-propelled body, a fork-lift unit upstanding adjacent one end of the body, said unit including outwardly projecting, vertically movable forks adapted to engage beneath and lift a load, a load receiving bed on the body, a rotary mount securing the fork-lift unit to said one end of the body for rotation between a position with the forks lowered and projecting forwardly and a position with the forks raised to a level above the bed and projecting rearwardly thereabove, means to rotate said fork-lift unit between said positions; means mounting the bed on the body for forward shifting movement from a position rearwardly of the unit to dispose the rearward portion of the bed over the forward portion of the body; the forward portion of the bed being open at the front and between the sides, the fork-lift unit upstanding in clearance relation between said sides when the bed is so shifted forwardly.

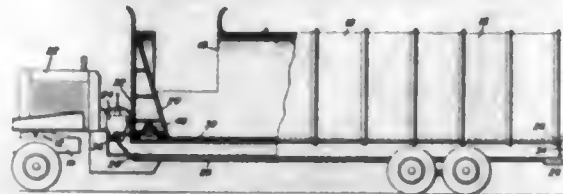
2,823,814

OVERLOAD RELEASE FOR REFUSE COMPACTOR

Edwin A. Schonrock, San Angelo, Tex.
Application November 3, 1955, Serial No. 544,637
15 Claims. (Cl. 214-82)

1. In a refuse truck, a body, a refuse compacting means operatively associated therewith and including a compactor extending transversely of the body and movable longitudinally within the same, reciprocating means disposed longitudinally of said body, connecting means op-

eratively securing the compactor to the reciprocating means for movement therewith whereby the compactor will compress refuse in said body upon movement of the compactor longitudinally thereof in one direction, said connecting means normally securing the compactor

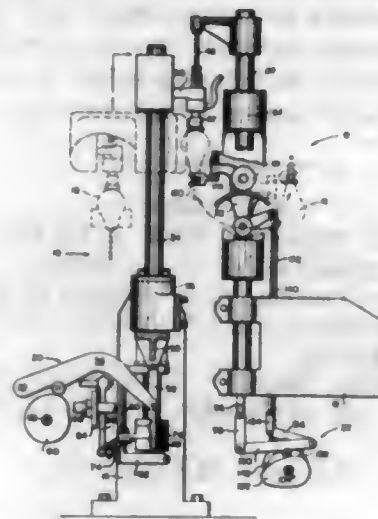


to the reciprocating means but operatively disengaging the compactor from the reciprocating means when the compactor encounters a predetermined resistance to its longitudinal movement, said connecting means being mounted upon the compactor.

2,823,815

LAMP TRANSFER

Richard S. Doron, Salem, and Ernest E. Yeo, Wenham, Mass., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
Application June 17, 1955, Serial No. 516,166
9 Claims. (Cl. 214-91)



1. Apparatus for transferring lamps comprising a base, an arm pivotally mounted on said base to swing from a pick-up station to an intermediate transfer station, pick-up means on said arm for picking up lamps at said pick-up station, lamp delivery means for transferring said lamps from said intermediate station to a delivery station, means in said delivery means for loosely receiving said lamps, means for releasing said lamps held by said pick-up means at said intermediate transfer station after said lamps have been loosely received by said delivery means, and means for thereafter fixing said lamps accurately in position on said delivery means whereby said pick-up means may be positioned accurately for picking up lamps and said delivery means may be positioned accurately for delivering said lamps while accurate positioning between said pick-up and delivery means is not necessary.

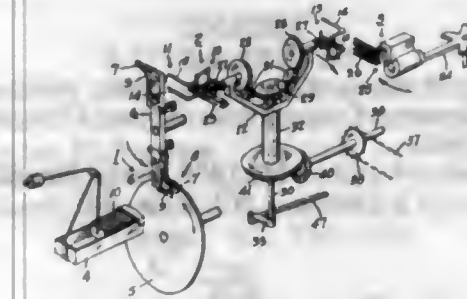
2,823,816

SEAL TRANSFERRING APPARATUS

William Barton Eddison, Irvington, N. Y., assignor to Gisholt Machine Company, Madison, Wis., a corporation of Wisconsin
Application February 12, 1954, Serial No. 410,008
10 Claims. (Cl. 214-151)

1. In seal transferring apparatus of the class described adapted to transfer a flexible tubular seal of the type employed in sealing bottles and the like from one station to another in a machine for applying the same, means to position a semi-open flexible tubular seal at a transfer

station with the axis of the seal orientated for seal pick-up and with the oppositely spaced folds of the seal open and free for receiving pick-up means, a pick-up head having spaced fingers adapted to enter said open folds of the seal at said station, means to separate said fingers to expand the seal thereon, means to transfer said pick-up head to deliver the seal to a second transfer station, means

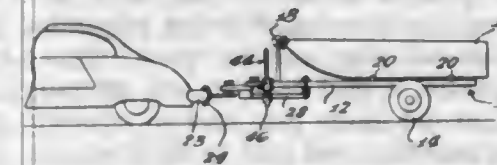


to give a rotational movement to said head during said transfer whereby the fingers thereof move forwardly into the seal at said first transfer station and are reversed in direction as they approach said second transfer station to facilitate stripping of the seal therefrom, means to contract said fingers relatively toward one another at said second transfer station, and means to remove the seal from said fingers at said second transfer station.

2,823,817

TRAILER TILTING ARRANGEMENT

Charles H. Holsclaw, Evansville, Ind.
Application August 12, 1955, Serial No. 528,015
7 Claims. (Cl. 214-506)

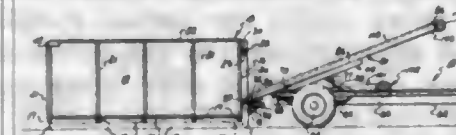


1. In a boat trailer the combination comprising a frame having a pair of wheels, a tongue extending forwardly from the frame, a trailer tilt bar arranged so as to be normally parallel to said tongue, said tilt bar having means at its forward end for anchoring to a hauling vehicle and having a pivot connection with said tongue at its rear end, means for clamping the tilt bar in its parallel position relative to the tongue under conditions of transport while permitting disengagement so as to enable the tongue to scissor upwardly about the pivot connection for unloading of the boat, a jack mechanism anchored to the tongue and including a vertical support member together with means for lowering the support member into contact with the ground for supporting the tongue in the absence of the hauling vehicle, and means at the lower end of the vertical support member for engaging the tilt bar for forcibly scissoring the tongue upwardly with respect to the tilt bar when the latter is coupled to the hauling vehicle.

2,823,818

BIN AND TRUCK REFUSE DISPOSAL DEVICE

Hartley E. Chastain and Robert B. Monroe, Carmichael, Calif.
Application May 16, 1955, Serial No. 508,377
1 Claim. (Cl. 214-518)



A refuse disposal device comprising a horizontal main frame; a sub-frame pivotally mounted adjacent its rear end on the rear end of said main frame to rotate about

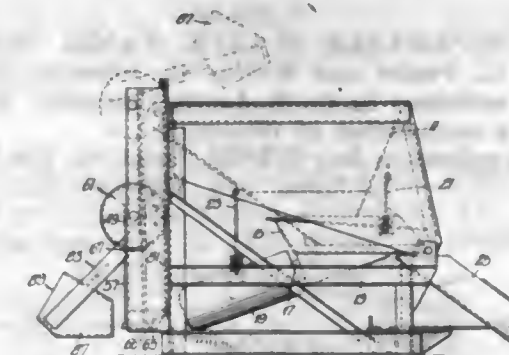
727 O. G.-38

a transverse axle with a predetermined arc; a first pulley on the front end of said sub-frame; a second pulley mounted adjacent to and forwardly of said transverse axle; a power-driven windlass mounted on said frame, the axis of rotation of said windlass being at substantially the same elevation above said main frame as the axis of rotation of said second pulley; a cable reeved about said windlass and taking off from the upper periphery of said windlass and running toward the lower periphery of said second pulley whereby the run of said cable is directed toward a location below said axle when said sub-frame is in substantially horizontal attitude and toward a location above said axle when said sub-frame is in an attitude of maximum inclination from the horizontal, said cable further being reeved about said second pulley and said first pulley serially; means for tilting said sub-frame between said horizontal attitude and said attitude of maximum inclination, and for supporting said sub-frame in attitudes inclined from the horizontal; and a refuse bin adapted to translate along said sub-frame under urgency of said cable.

2,823,819

LOADING BUCKET HOIST

Edward W. Pottmeyer, Pittsburgh, Pa., assignor to Blaw-Knox Company, Pittsburgh, Pa., a corporation of Delaware
Application March 12, 1956, Serial No. 570,888
4 Claims. (Cl. 214-700)



1. A loading bucket hoist comprising a frame having spaced vertically extending guideways, a yoke member providing axles which extend laterally into the guideways for guiding the said yoke member during up and down vertical movement, a sheave mounted for rotation on each of said axles, arms extending from the sheaves, a bucket secured to the arms, a cable extending around each sheave and having its ends anchored above and below the sheave respectively, and power means connecting with the yoke member for reciprocating the same to impart vertical reciprocating movement to the sheaves, whereby as the sheaves move bodily the said cables cause said sheaves to rotate so that a lifting and a swinging movement about the moving axes of the sheaves is imparted to the bucket.

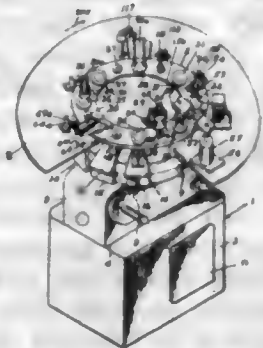
2,823,820

TRIPPING MECHANISM

Chester O. Merchant, Erie, Pa., assignor to Swanson Tool and Machine Products, Inc., Erie, Pa., a corporation of Pennsylvania
Application June 15, 1953, Serial No. 361,797
5 Claims. (Cl. 218-5)

2. In an automatic machine, a position where a first operation is performed on an article of manufacture, a second position where a second operation is performed on said article, a tripping device supported on a movable member of said machine, said tripping device comprising an elongated hollow body member having an internal longitudinal bore therein, means to support said hollow body member in a hole in said member of said machine, a pin slidably disposed in the bore of said hollow body

member, means to hold said pin in a first predetermined position in said hollow body member, means to hold said pin in a second position spaced axially from said first position, means to hold said pin in a third position spaced axially from said other positions, said means to hold said pin comprising axially spaced notches on the surface of said bore in said hollow body member, a

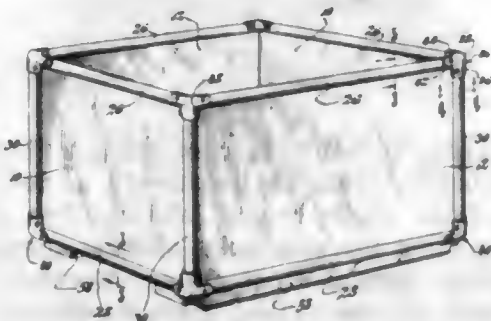


lateral bore in one side of said pin, a spring pressed detent in said bore to selectively engage said notches, means to move said pin to said first position to actuate means to prevent said second operation from being performed at said second position when said first operation has been improperly performed at said first position, and means actuated by said pin when said pin is moved to said third position to control another actuating device.

2,823,821

SEPARABLE PLASTIC PANEL BOX

George G. Frater and Wesley O. Johnson, Watertown, Wis., assignors to G. B. Lewis Company, Watertown, Wis., a corporation of Wisconsin
Application July 6, 1955, Serial No. 520,173
1 Claim. (Cl. 220-4)



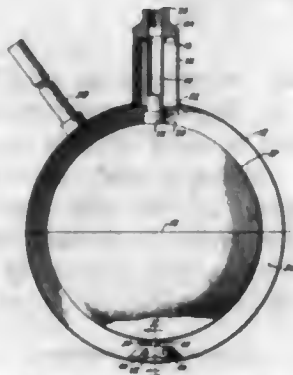
A separable rectilinear box comprising, in combination, for rectangular side panels and one rectangular bottom panel, each panel being of plastic construction and having a generally flat form, each panel having four marginal edges each formed by a filler strip encased in plastic material integral with the panel, each filler strip having a transverse shape narrowing progressively in width away from the side of the panel marginal edge incorporating the filler strip which corresponds to the side of the attached panel facing the interior of the box, each marginal panel edge formed by a plastic encased filler strip having a thickness substantially greater than that of the adjacent portion of the attached panel, the four thickened marginal edges of the bottom panel being turned downwardly at an angle to the plane of the panel, the lower marginal edges and the vertical marginal edges of each side panel being turned outwardly in relation to the planes of the respective panels, the adjacent marginal edges of adjoining panels mating together, longitudinally slotted tubular members extending along the respective edges of the box and embracing the adjacent marginal panel edges longitudinally on opposite sides thereof substantially to the junctures of said marginal panel edges with the attached panels, corner brackets at the respective corners of the box, each corner bracket having a central connecting portion and three semicylindrical leg portions extending from the central

portion in mutually perpendicular relation to each other for embracing contiguous end portions of the three tubular members terminating at the adjacent corner of the box, and an elongated connector extending through and firmly connecting each bracket leg portion to the adjacent tubular member.

2,823,822

VACUUM BOTTLE

Howard W. Altman, Columbus, Ohio, assignor to The Aro Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application October 10, 1955, Serial No. 539,521
2 Claims. (Cl. 220-15)

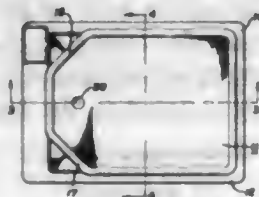


2. A Florence flask-shaped vacuum bottle comprising spaced inner and outer spherical shells, each shell having a neck extending outwardly therefrom, the neck of the inner shell being spaced from the neck of the outer shell by an annular sealing ring circumferentially welded to opposed surfaces of said necks near the outer ends thereof, the inner shell being suspended pendulum fashion from said ring, and the space between said shells being evacuated, a stud fixed to and extending from the inner shell at the lower pole thereof opposite said neck, a collar surrounding said stud to reinforce the inner shell in this area, and a vibration damper comprising a spiral monoplane spring mounted within a cup-shaped support fixed to the inner surface of the outer shell at a plurality of point contacts, the inner coil of said spring embracing said stud in line contact to provide resilient retention of the inner shell in spaced relation with the outer shell.

2,823,823

LAUNDRY TUB COVER

Bernard E. Mustee, Cleveland, Ohio, assignor to E. L. Mustee & Sons, Inc., a corporation of Ohio
Application December 17, 1953, Serial No. 398,830
1 Claim. (Cl. 220-24)



In a laundry tub device having a tub portion with a rim defining a rectangular upper peripheral edge, the provision of a cover member adapted to provide an unencumbered work top surface for said tub and permit hose access from an automatic washer, comprising, a cover sheet fitting within the outline of said rim and having a first edge substantially complementary to said rim along one end, a second edge fitting less than the length of the rim opposite said one end, a third edge fitting less than the length of one side of the rim, a fourth edge fitting less than the length of the opposite side of the rim, a first bridge edge between said second and third edges to expose a first corner of said rim and provide a first opening into said tub, a second bridge edge

between said second and fourth edges to expose a second corner of said rim and provide a second opening into said tub, said edges all fitting within the outline of said rim, said first and second openings exposing opening areas larger than a washing machine hose and thereby serving as inlets into said tub for washer hoses and as grip handles for said lid.

2,823,824

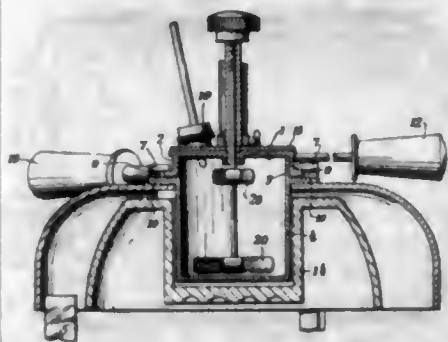
APPARATUS FOR DETERMINING THE FLASH POINT OF PETROLEUM PRODUCTS

Claude Alan Richardson, Chiswick, London, England

Application October 6, 1954, Serial No. 460,637

Claims priority, application Great Britain January 1, 1954

1 Claim. (Cl. 220-40)



In an apparatus for determining the flash point of petroleum products including an oil cup for receiving the product to be tested and having an outturned annular flange intermediate the top and bottom thereof for supporting the same within a vessel, and a cover closing the top of said cup; the improvement comprising cooperating means on said flange and said cover for sealing the cover to the cup, said means including a depending skirt on said cover and surrounding the upper portion of said cup, a plurality of lugs mounted on said flange at circumferentially spaced intervals therearound, said lugs having upstanding block-like bodies and integral legs projecting respectively beyond the lug body toward the side wall of said cup and being spaced above said flange, said means further including a plurality of circumferentially spaced cam elements carried by said cover skirt and extending outwardly from the bottom edge thereof, said cam elements extending in a circumferential direction around said skirt and seating under said legs and clamping said lid onto said flange as the cover is rotated in one direction, said cam elements having cam portions on the leading ends thereof with respect to said one direction of rotation and stops on the trailing ends thereof for abutment with the respective lug to limit the camming movement thereof in sealing direction, and means joining said legs to said lugs for limited resilience relative thereto said joining means comprising said lugs each having a horizontal slot in its inner portion facing said cup wall and separating the inner portion of said lug body from its associated leg, said lug also having an enlarged transverse bore at the inner end of said slot, whereby a resilient clamping pressure is maintained in said cam elements by said legs.

2,823,825

SWING GATE FOR PROCESSING VESSELS

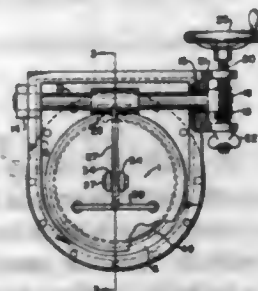
James V. Coffman, East Liverpool, Ohio, assignor to The Patterson Foundry and Machine Company, a corporation of Ohio

Application May 6, 1954, Serial No. 428,098

1 Claim. (Cl. 220-57)

An enclosed drying vessel wherein material is processed under controlled temperature and pressure comprising a shaft rotably mounted at the side of an opening into the vessel, a single lever arm fast on the shaft having arms extending laterally from the distal end thereof and substantially parallel to the shaft, a swing gate closure

permitting charging of materials into and discharging of materials from the vessel pivotally mounted at an intermediate portion of said lever arm and at the gate's center to swing about the lever arm on an axis parallel to the axis of the shaft, said gate being so mounted on the lever arm as to center itself in place about the closure opening as the lever arm is moved in a direction toward the vessel, compression spring means interposed between the outer ends of said laterally extending arms and said gate and exerting a force against said gate whereby when said gate



is in an open position said springs will exert forces against the gate at each side of said pivotal mounting tending to hold the gate against the lever arm at the end thereof adjacent the shaft, and whereby when said gate is in a closed position pressure will be applied against said gate at three points to maintain it in its closed position, and worm gearing for turning said shaft to swing said gate into and out of sealing relation with the portion of the vessel surrounding the opening, said worm gearing forming the sole means for maintaining said gate in its sealing position.

2,823,826

INTERLOCKING PANELS AND JOINT

Clyde Maurice Moore, Richmond, Va.

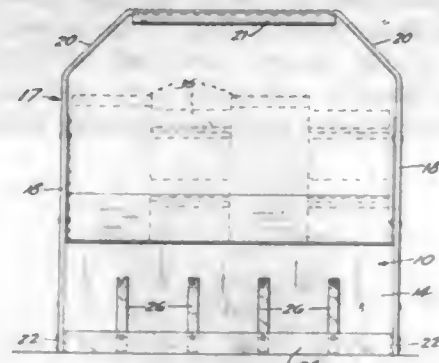
Application April 12, 1955, Serial No. 500,861

18 Claims. (Cl. 220-76)



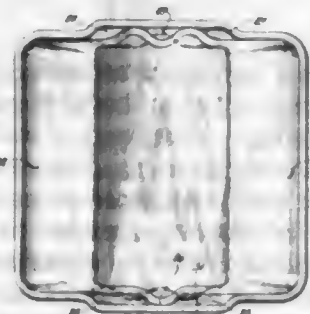
4. A demountable container comprising, adjacent wall panels of reinforced resin material having overlapping edge portions defining a joint, one of said edge portions having a V-shaped channel integral therewith and extending along said joint and facing said other edge portion, an elongated metallic reinforcing member of V-shape, transverse section imbedded within the material of said channel walls, the other of said edge portions having an integral rib complementary to said channel and nested therein, a ribbonlike metal reinforcing member imbedded in said other edge portion adjacent the base of said rib, longitudinally spaced portions of said rib being cut away, said channel having projections therein complementary to and nested within said cut away portions, said rib and said projections being provided with aligned openings extending along said joint, tubular metallic liners in said openings, each of said liners being secured to the imbedded reinforcing member of the corresponding edge portion, and an elongated fastener extending through said aligned openings to hold said adjacent panels in assembled relationship.

2,823,827
MILK CARTON CARRIER
 Reginald S. Carlson, Minneapolis, Minn.
 Application April 6, 1954, Serial No. 421,348
 1 Claim. (Cl. 220-94)



A carrier for stacked rectilinear packages such as are employed for dairy products, which comprises a cradle structure having a pair of spaced parallel vertical sides, an upwardly and forwardly angled plate secured at the bottom thereof and another plate upwardly and rearwardly secured at the bottom of said cradle, said forwardly angled plate forming a lesser angle with the horizontal than said rearwardly angled plate, a rigid handle element fixedly attached to the vertical sides and extending upwardly and over said cradle in spaced relation with the uppermost portion thereof, said plates joining and forming a lower trough, the apex of which lies somewhat rearwardly of the plane defined by said handle element, said rearwardly angled plate protruding a lesser distance from the plane of the rigid handle than the forwardly angled plate, said plates being of substantially the same length from said apex to their outer free edges, a base member secured at the underside of said cradle and extending both forwardly and rearwardly of said apex to define a supporting surface at substantially right angles to said handle member, the angular dispositions of said plates being such in respect to each other and the position of said handle member whereby a plurality of rectilinear packages may be maintained in the cradle structure for ready dispensing at the forward side thereof, the packages tending to assume a center of gravity approximately in the plane defined by the handle.

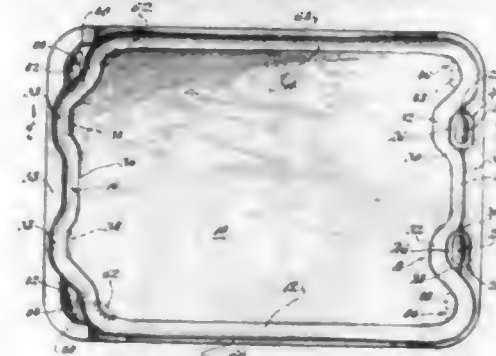
2,823,828
NESTING AND STACKING CONTAINER
 Milton A. Frater, Watertown, Wis.
 Application July 1, 1953, Serial No. 365,390
 3 Claims. (Cl. 220-97)



1. An integral generally rectangular container for use with other identical containers which may be nested or stacked, comprising, a bottom, flat side walls sloping inwardly at an angle of approximately forty-five degrees, end walls sloping inwardly at an angle of approximately seventy degrees with respect to the plane of the bottom, said end walls having tapered convolutions therein, the outwardly projecting convolutions being wider at the top than at the bottom and being so arranged that an inwardly extending convolution of one end is opposite an outwardly extending convolution of the other end, shelf-like portions extending across the tops of the inwardly

projecting convolutions of the end walls, the maximum horizontal spacing from the central vertical plane of the container of the lower ends of the outwardly extending convolutions exceeding the minimum spacing from the same plane of the shelf-like portions at the upper ends of the inwardly extending convolutions, and a generally rectangular bead above the level of the shelf-like portions extending around the upper edges of the side and end walls and joined to the shelf-like portions.

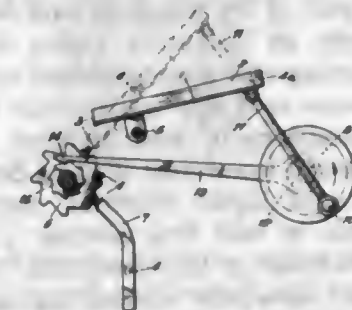
2,823,829
NESTING AND STACKING CONTAINER
 Milton A. Frater, Watertown, Wis.
 Application February 1, 1956, Serial No. 562,758
 7 Claims. (Cl. 220-97)



1. An integral upwardly open container adapted to nest in a similarly oriented lower container or to stack thereon substantially within the projected horizontal area thereof upon being turned end for end relative thereto, comprising, in combination, a flat horizontal bottom panel generally rectilinear in its overall outline, two longitudinal walls rising upwardly from opposite side edges of said bottom panel and inclined away from each other from bottom to top, adjacent ends of said longitudinal and transverse walls merging together, each transverse wall being shaped to define near the upper edge thereof two horizontally spaced support saddles, each of said saddles defining a flattened inner bearing surface inclined upwardly and outwardly in relation to the interior of the container, the two saddles on each transverse wall together having heel portions rising upwardly from the adjacent saddle bearing surfaces and embracing the latter horizontally in opposite directions transversely with respect to said bottom panel, the vertical portions of said transverse walls extending from said respective saddles to said bottom panel bulging inward from adjoining portions of the respective transverse walls, said inwardly bulging portions of said transverse walls being thickened outwardly from the respective saddles downwardly a distance equal to only a fraction of the height of said transverse walls to define nesting abutments underlying said respective saddles in mutually reinforcing relation thereto, two horizontally spaced stacking seats formed at the lower edge of each transverse wall opposite said respective saddles at the upper edge of the opposite transverse wall, each stacking seat defining a flattened outer bearing surface shaped and inclined to conform to the shape and inclination of the bearing surface of the opposite saddle, the medial spacing of said stacking seat bearing surfaces from a vertical transverse plane through the center of the container being substantially equal to the medial spacing from the same plane of said respective saddle bearing surfaces diagonally opposite therefrom, the vertical portions of said transverse walls extending upwardly from said respective stacking seats to the top the transverse walls bulging outward in relation to adjoining portions of the respective transverse walls, and two ledges integrally adjoining the upper edges of said respective transverse walls and extending horizontally outwardly therefrom to form

convenient support handles at opposite ends of the container reinforcing said bulging portions of said transverse walls and said support saddles thereon.

2,823,830
APPARATUS FOR FEEDING OF PIN-SHAPED BODIES WITH A ONE-SIDED CENTER OF GRAVITY
 Alfred Kreidler, Stuttgart, Germany
 Application June 3, 1952, Serial No. 291,374
 Claims priority, application Germany June 5, 1951
 3 Claims. (Cl. 221-171)

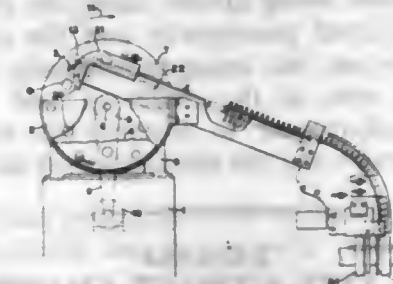


1. In an apparatus for feeding pin-shaped bodies, the combination of a plate having a flat upper non-perforated face, means supporting said plate in inclined position, said plate being of a length many times that of said pin-shaped bodies in order to permit of said bodies to swing out freely with their larger end downwards during their accelerated downward travel along said inclined plate, means for subjecting said plate to a reciprocating movement from a lesser inclined position to a greater inclined position within a predetermined cycle in order to provide an accelerated feeding movement for said bodies, a plurality of walls substantially perpendicular to and extending upwardly from the upper face of the said plate, each pair of said walls converging towards one another in a downward direction and substantially for the entire length of the said plate to provide at their lower end an outlet zone for the said bodies fed to the upper portion of the said plate, the minimum space between each pair of said walls being in the outlet zone for the said bodies and slightly larger than the diameter of one of said bodies, with a rotatable conveyor device disposed adjacent the said outlet zone of the said walls, the said conveyor device receiving said bodies head first and releasing said bodies head last during its rotating movement, means for rotatably supporting said conveyor device and means for advancing said conveyor device in synchronism with said tilting means in such manner that the receiving position of said conveyor device corresponds with the most inclined position of said plate, and said conveyor device having a plurality of pockets peripherally spaced apart from each other and receiving successively said pin-shaped bodies head first and releasing said pin-shaped bodies head last after performing a rotating movement along a predetermined angle.

2,823,831
WORK FEEDING MECHANISM
 Ernst Fritz Wilhelm Moeltzner, Berlin-Charlottenburg, and Johann Hubl, Berlin-Halensee, Germany, assignors, by mesne assignments, to Landis Machine Company, Waynesboro, Pa., a corporation of Pennsylvania
 Application May 20, 1954, Serial No. 431,166
 Claims priority, application Germany June 6, 1953
 6 Claims. (Cl. 221-184)

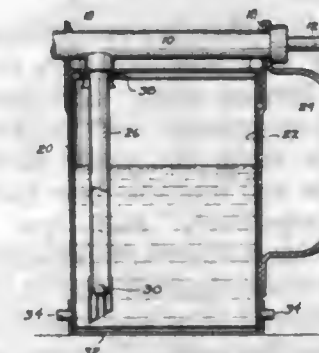
1. Mechanism for removing magnetizable work pieces from a hopper and delivering them to the end of a feed chute mounted above said hopper comprising, a disc arranged to rotate in a substantially vertical plane and bridging the space between said hopper and said end of said chute, a set of feeding magnets mounted on said disc with their poles substantially in the plane of a side face

of the disc, said magnets being arranged on a substantially circular path to pass through said hopper and above the end of said chute upon rotation of said disc, a set of agitating magnets mounted on said disc with their poles substantially in the plane of said face of said disc and arranged inwardly of said feeding magnets, and a



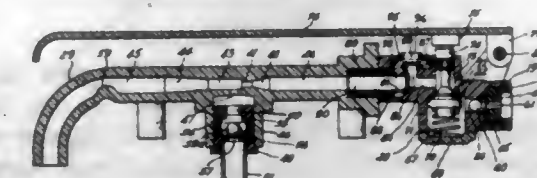
member mounted above said hopper in the path of work pieces carried by said agitating magnets to strip work pieces therefrom whereby work pieces picked up by said agitating magnets are returned loosely to said hopper to facilitate their subsequent pickup by said feeding magnets for delivery to said chute.

2,823,832
CANNED OIL PUMP
 Walter A. Potter, Des Moines, Iowa
 Application December 28, 1953, Serial No. 400,628
 2 Claims. (Cl. 222-82)



2. In a new article of manufacture; a frame top; a pump secured to said frame top; an oil supply tube communicating with said pump and extending through said frame top; a cutting head on the lower end of said oil supply tube; an air pervious oil seal around said oil supply tube and adjacent said frame top; said frame top being free of puncturing structure other than said cutting head; and means for securing an initially sealed can of oil, that has been punctured by said cutting head, in close proximity to said frame top; whereby an initially sealed can of oil is secured in oil tight and vented relation to said frame top by said air pervious oil seal.

2,823,833
CONCENTRATE DISPENSER
 Carl C. Bauerlein, Mukwonago, Wis., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois
 Application January 7, 1955, Serial No. 480,332
 11 Claims. (Cl. 222-129.2)



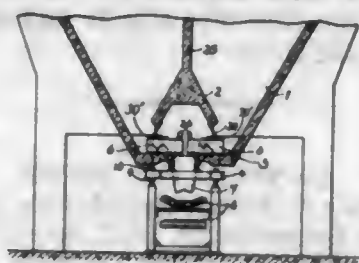
1. In a concentric dispenser, a spout having a first passageway extending therealong, a Venturi in said passageway having a throat, a vacuum chamber on the downstream side of said throat, a second passageway leading to said vacuum chamber through the bottom thereof, a

suction connection from said second passageway to a source of supply of concentrate, the cross-sectional area of said second passageway being greater than the cross-sectional area of said throat, and a restriction in said first passageway extending along said spout and on the downstream side of said Venturi, the cross-sectional area at said restriction being greater than the cross-sectional area of said second passageway and the cross-sectional area of said throat, but being substantially less than the cross-sectional area at the outlet of said Venturi and creating a backpressure to assume the filling of said Venturi with water and the elimination of air therein.

2,823,834

SLIT TYPE STORAGE CHAMBER

Joseph Buschmann, Essen-West, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application April 5, 1954, Serial No. 421,128
5 Claims. (Cl. 222-136)

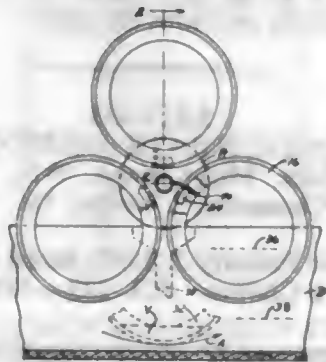


1. Slit type storage chamber comprising a central saddle member dividing said chamber into compartments for stored material one on either side thereof with a slit between each compartment and the saddle, evacuating arms advanceable along the saddle between the slits of the compartments and movable into and out of the two compartments respectively, each arm being pivotally mounted and having a rearward extension at an angle to the arm, locking hooks located near the rearward extensions of the evacuating arms and maintained under spring tension to maintain the evacuating arms in an inoperative position, means for automatically tripping the locking hooks at the end positions of the slits to release the evacuation arms, and a tension spring normally urging the evacuating arms to operative position.

2,823,835

DISPENSING DEVICES

Iben Browning, Tonawanda, N. Y., and Lloyd S. Lockingen, Austin, Tex.
Application June 22, 1954, Serial No. 438,433
7 Claims. (Cl. 222-254)



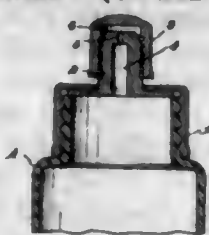
1. Apparatus for accurately measuring and dispensing liquid material from a supply container or the like at a preselected uniform volumetric rate even though the level of the liquid material in said container may vary appreciably from time to time, said apparatus comprising a rotatable shaft adapted to be operatively positioned above the normal maximum level of the liquid material in said container, means for rotating said shaft at a preselected constant rate, a dispensing unit carried by said shaft, said unit being in the form of a generally

vertically disposed elongated circularly curved member, having a first portion secured to said shaft and a dipping portion extending downwardly therefrom for dipping into said liquid material in said container and for extracting a predetermined unit portion of material therefrom during each revolution of said shaft, said circularly curved member being formed by a bottom wall and a pair of spaced side walls integral therewith so as to define an elongated liquid receiving and transporting trough-like recess of uniform cross sectional area between said spaced side walls, said recess facing inwardly toward the center of said circularly curved member and extending the greater part of the length of said first and dipping portions, whereby an upwardly facing liquid retaining compartment having said predetermined unit volume will be effected between said side walls at the bottom of said recess for all positions of said member while same is being rotated from a lowermost dipping position upwardly and out of said liquid material, means defining a trough-like recess in said first portion arranged to receive said unit volume of liquid material as said dipping portion is moved upwardly toward an upper discharge position, and liquid conducting means communicating with said last named means and extending therefrom to a discharge location laterally disposed relative to the path of rotation of said member, so that liquid material collected from said supply container may be conducted at said preselected rate to a discharge location spaced from material in said supply container regardless of variations in the level of the material in said container.

2,823,836

MEANS FOR DELIVERING A LIQUID FROM A FLEXIBLE BOTTLE

José Cervelló Bach, Barcelona, Spain, assignor to J. y L. Cervello, Barcelona, Spain, a Spanish "sociedad regular colectiva"
Application August 30, 1955, Serial No. 531,352
Claims priority, application Spain September 29, 1954
4 Claims. (Cl. 222-521)



1. An atomizing closure for flexible bottles, or the like, comprising a cap adapted to be secured to the bottle neck, an aperture through the end of said cap, an elongated member terminating within the cap in a disc forming a seal with the bottle neck, an axial discharge passage extending through said disc and substantially to the free end of said elongated member, a first small discharge duct extending from the end of said axial discharge passage to the end of said elongated member, screw threads on the outer surface of said elongated member, a screw cap mounted on the end of said elongated member and engaging said screw threads, and a second small discharge duct in said screw cap out of alignment with said first duct whereby upon screwing said screw cap tight one of said ducts is blocked by contact between said screw cap and the end of said elongated member.

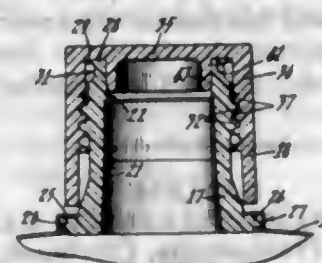
2,823,837

FLEXIBLE DISPENSING NOZZLE WITH SUPPORTING CLOSURE

Carl W. Heinle, East Orange, N. J., assignor to American Can Company, New York, N. Y., a corporation of New Jersey
Application September 22, 1955, Serial No. 535,796
3 Claims. (Cl. 222-546)

1. A sheet metal container having a top wall provided with an upstanding deformable tubular nozzle for dis-

pensing the container contents, said nozzle being formed of flexible resilient plastic material having external screw threads thereon and secured at its inner end to said container wall, said nozzle terminating at its outer end in a flat annular seat surrounding the nozzle bore, and a cap member having a depending skirt provided with internal screw threads engageable with said nozzle threads for closing the nozzle, said cap having a flat top wall provided with an integral depending support member of substantially the same diameter as and fitting snugly within



the upper end of the nozzle bore, and a flat annular seat on the lower top wall surface of said cap member between said cap skirt and said support member for firm sealing engagement against said flat annular nozzle seat when the cap member is screwed home with said depending support member and said cap skirt disposed on opposite sides of said nozzle seat to preserve the peripheral configuration of the deformable plastic material at the outer end of the nozzle during axial pressure exerted thereon by said cap.

2,823,838

INFLATABLE DRESS FORM

Lovey N. Qualintance, Kingman, Ariz.
Application April 18, 1957, Serial No. 653,695
2 Claims. (Cl. 223-67)



1. An inflatable dress form including an air-tight bag having a bottom, a bore through said bottom, a counterbore inside the top of said bag, a stem in said counterbore having a diametrically disposed locking pin fixed therein, a support tube having an integral bottom flange engaging the bottom of said bag, bayonet locking notches on the upper end of said tube adapted to lock around said pin when said flange engages the bottom of said bag, said bore and counterbore having lip means formed by bosses in said bag forming an air-tight seal with said tube when said bag is inflated.

2,823,839

SHIRT COLLAR RETAINER

Lowell S. Bunch, Cape Girardeau, Mo.
Application September 22, 1955, Serial No. 535,935
1 Claim. (Cl. 223-83)

A shirt collar retainer comprising an elongated strip of flexible resilient material adapted to be disposed within a shirt collar, tabs on the upper edge of the strip for engaging the upper edge of the collar, tabs on the lower edge of the strip for positioning under the collar, thereby retaining the strip alongside the inner surface of a collar, said strip having overlapping ends, and means adjustably securing the ends together for expanding the strip into

engagement with the inner surface of the collar, said strip member generally conforming to the shape of the collar,

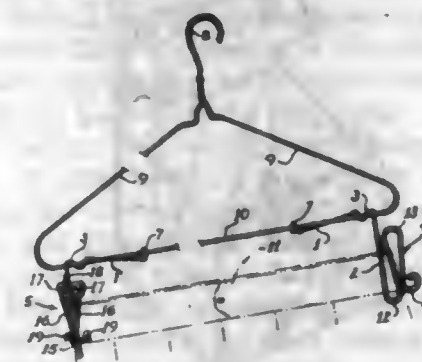


and spring means in contact with said strip for expanding the strip of material into engagement with the inner surface of the collar.

2,823,840

GARMENT CLAMP

Charles Leroy Allen, deceased, late of Drumheller, Alberta, Canada, by Donna Maude Allen, executrix, Drumheller, Alberta, Canada
Application January 3, 1956, Serial No. 557,124
4 Claims. (Cl. 223-91)

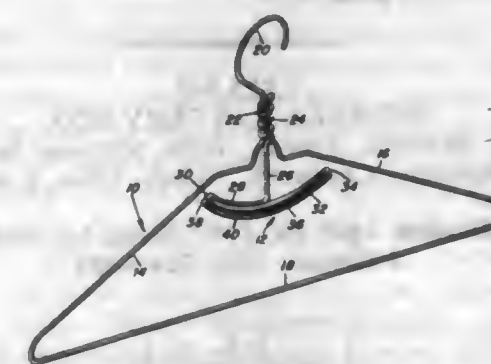


1. In a garment hanger having a helical coil engageable loosely with the bottom bar of a coat hanger; a first arm fixed rigidly to the coil to extend downwardly with respect to the bottom bar of the coat hanger and terminating in a garment engaging clamp; a second arm fixed rigidly to the coil to extend therefrom at an angle with respect to the first arm, such second arm being movable to cant the coil into frictional engagement with the bar; a hook on the second arm engageable with the bar to maintain the coil in the canted position.

2,823,841

CLOTHES HANGER

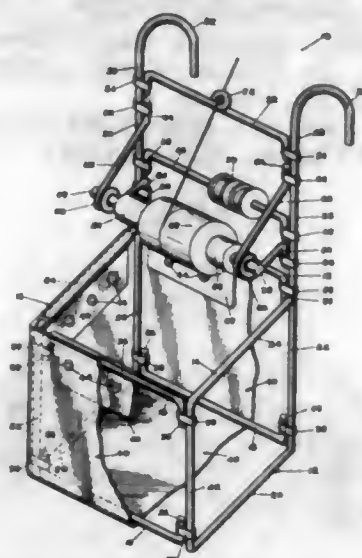
John G. Gehm, Kirksville, Mo.
Application June 15, 1956, Serial No. 591,650
3 Claims. (Cl. 223-91)



1. In a wire hanger that has side rails and a bottom rail connected thereto together with a shank protruding from said side rails and a hook thereon, said shank, hook, side rails and bottom rail being in approximately a single plane, the improvement comprising a clamp for attachment of articles onto the coat hanger, said clamp being of wire construction and contained approximately in the same plane as the coat hanger, said clamp having a

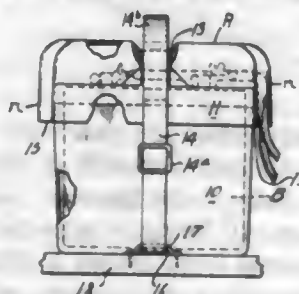
shank, a smoothly curved arm protruding from one end thereof, a second smoothly curved arm parallel to the first mentioned smoothly curved arm and connected at one end thereof to the first mentioned smoothly curved arm, additional smoothly curved arms similarly connected to the second mentioned smoothly curved arm in order to form a group of arms between the arms of which articles are adapted to be clamped, said shank being sufficiently short to support said clamp wholly above the bottom rail and within the space enclosed by the rails of said hanger, and means at the opposite end of said shank for attaching said shank to the coat hanger.

2,823,842
WORK BASKET
Florance A. Huff, Galeton, Colo.
Application March 15, 1956, Serial No. 571,683
5 Claims. (Cl. 223-107)



1. A basket of the type described comprising an open rectangular box-like frame, a removable cover enclosing the bottom and sides of the frame to form a container having an open top, arms upstanding from one side of the frame and terminating in hooks for engagement with a support, means disposed between the arms above the box-like frame for holding spools of thread and balls of yarn and the like sewing material, guide means disposed transversely between the arms and positioned above said foregoing means and through which the yarn and thread is guided as it is pulled off from the spools, said guide means including a straight brace positioned transversely between the arms and having right angular end flanges abutting the arms, and straps circumposed about the end flanges and the arms to fix the brace to the arms, said brace being bent medially of its ends to form an integral guide eye.

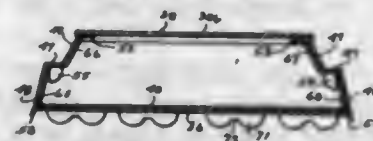
2,823,843
STORAGE BATTERY BOX
Robert S. Beverlin, Toledo, Ohio, assignor to The City Auto Stamping Company, Toledo, Ohio, a corporation of Ohio
Application April 26, 1957, Serial No. 655,354
6 Claims. (Cl. 224-49)



1. A battery box comprising a molded plastic box having side walls and an open top, a raised resilient

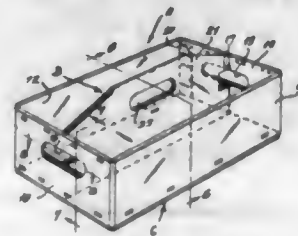
bottom wall for the box, said box being adapted to contain a storage battery seated in said resilient bottom wall with its upper portion projecting above the side walls, a cover for said box, integral shoulder means on said cover adapted to seat against the peripheral portion of the storage battery, an integral battery cable-receiving channel in a side portion of the cover having an opening at the bottom end and being closed at the upper end, flexible strap means extending about the bottom of the box and the cover thereby to clamp the battery in place, and an integral channel in the central portion of the cover receiving the strap thereby to enable the latter to urge the storage battery firmly against the resilient bottom wall of the box.

2,823,844
SIMULATED WHEELED TOY CARTON
William P. Frankenstein, Cincinnati, Ohio
Application April 17, 1951, Serial No. 221,499
2 Claims. (Cl. 229-8)



1. A carton simulating a piece of railroad rolling stock of the class described formed from a single blank including opposed side walls, opposed top and bottom, a glue flap from one side wall adhesively attached to the bottom providing a tube-like carton which may be folded flat with the side walls, top and bottom superimposed on one another as a knocked-down carton for shipment, end walls integrally, hingedly, attached to the ends of and upstanding from the bottom to and beneath the top closing the ends of the carton said top being of such length that the ends thereof respectively project beyond the end wall therebeneath, semi-circular projections from the side walls projecting below the bottom for supporting the carton, said side walls each having, at least, a similar end similarly provided with inclined and stepped portions intermediate its height, and said end wall at the ends of the side walls provided with inclined and stepped portions having portions for following the inclined and stepped portions of the side walls ends.

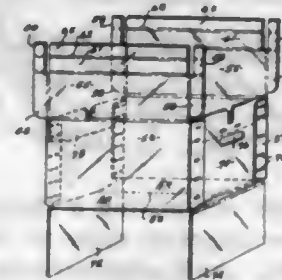
2,823,845
ARTICLE CASE
Paul Wasyluka, St. Louis, Mo., assignor, by mesne assignments, to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application December 1, 1951, Serial No. 259,379
5 Claims. (Cl. 229-15)



1. A carrying tray having a pair of opposing side walls and a pair of opposing end walls, and a separate reinforcing partition member with an integral bottom section, each of said end walls having an upper marginal flap foldably connected to the upper edge thereof, each of said flaps being positioned in spaced parallel relation to the inner face of said end wall, each of said upper marginal end wall flaps having a central vertical slot therein, said partition member having a pair of main panels foldably connected along their upper edge in back-to-back relation, the said foldable connection being flush with the outer faces of the main panels, each of said main

partition panels being provided at their vertical end edges with vertical scores defining the inner marginal of foldably connected end flaps, said vertical scores providing grooved recesses for receiving and firmly gripping the edges of said end wall flaps which define said vertical slots therein to maintain said partition main panels in upright rigid relation, said partition flaps being positioned between the said upper marginal end wall flaps and said end walls, each of said main partition panels being provided at its lower edge with a substantially right angular disposed foldably connected half-bottom panel member, each of said half bottom panel members being provided with relatively narrow upturned end flaps on the free end margins thereof, said bottom panel end flaps being positioned and secured in fixed relation between said end walls and said end wall flaps.

2,823,846
COLLAPSIBLE MULTI-TRIP CONTAINER
Walter C. George, St. Louis, Mo., assignor to Crown Zellerbach Corporation, San Francisco, Calif., a corporation of Nevada
Application November 7, 1955, Serial No. 545,362
6 Claims. (Cl. 229-23)

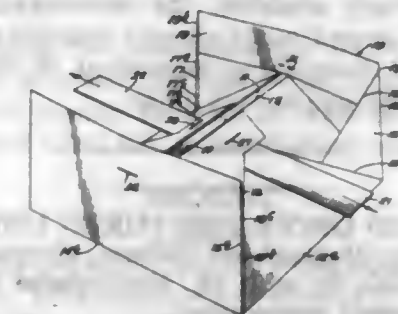


1. A heavy duty double bottom container substantially preassembled by the manufacturer and adapted to be collapsed in flat form for shipment; the container comprising a pair of separate end walls and a pair of side walls hinged to the side edges of a flat bottom member having a median longitudinal perforated score extending from side edge to side edge defining substantially identical outer bottom closure flap forming portions, each end wall having an inner bottom forming flap hinged to its lower edge, a handhole positioned in its upper margin and a reinforcing flap hinged to its upper end folded inwardly into at least a three-ply reinforcement across the inner face of the end wall above the handhole and secured thereto, the prefabricated end walls being secured in parallel relation to each other between the ends of the side walls by sealing flaps on the ends of the side walls folded inwardly in flat-wise relation to the outer face of the end walls with the bottom closure flaps thereof extending downwardly in substantially the plane of the end walls, the side walls having half cover flaps with reinforcing flanges on their outer edges extending upwardly in substantially the plane of the side walls, the prefabricated structure being adapted for shipment by severing the perforated score in the bottom member, folding the outer closure flaps thus released downwardly into substantially parallel relation with the side walls and collapsing the structure into flat form.

2,823,847
COLLAPSIBLE CONTAINER STRUCTURE
James F. Barnes, Chicago, Ill., and Elmer F. Rebholz, St. Louis, Mo., assignors to Foil Process Corporation, Van Nuys, Calif., a corporation of California
Application May 16, 1952, Serial No. 288,276
2 Claims. (Cl. 229-31)

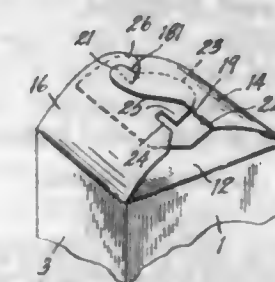
1. In a collapsible box structure formed of sheet material, the combination comprising a rectangular bottom having a first pair and a second pair of oppositely-disposed sides extending upwardly from said bottom and connected thereto along lines permitting said sides to be

folded toward said bottom, said first and second pairs of sides being connected to each other by means permitting said box structure to be collapsed in intact condition by folding said first pair onto said bottom and said second pair onto said first pair, said first pair of sides being dimensioned to fold onto said bottom in edge-overlapping relation, and said second pair of sides being dimensioned to fold onto said first pair of sides in edge-overlapping relation, said means including gussets extending from each end of said second pair and freely overlying the outer faces of said first pair, each gusset having one edge connected to the adjacent end edge of said second pair,



a second edge secured adjacent the adjacent outer face of said first pair along a line lying approximately on the line bisecting the adjacent lower corner of said adjacent outer face, and a third edge having a downward inclination and lying freely along said adjacent outer face, said second pair of sides folding into overlapping relation on top of said first pair of sides, and said first pair of sides having pull-tabs connected centrally to the outer face of each of said first pair and extending in free relation to a point near the bottom edge of each of said outer faces, whereby when said box structure is collapsed, said pull-tabs can be grasped with the hands and pulled outwardly to bring about the erection of said box structure.

2,823,848
COLLAPSIBLE CARTON
Merrill J. Coe, Kalamazoo, Mich., assignor to Sutherland Paper Company, Kalamazoo, Mich.
Application May 31, 1956, Serial No. 588,297
6 Claims. (Cl. 229-39)



1. A carton of rectangular section comprising hingedly connected side walls and end closure members, each end closure comprising a rectangular inner closure member hingedly connected to one side wall and dimensioned to close within the other side walls with its edges in side thrust sustaining relation thereto, an intermediate closure member hingedly connected to the side wall opposite to that to which said inner closure member is connected to fold upon said inner closure member, and opposed first and second outer closure members hingedly connected to the other opposed side walls and having overlapping portions when in closed position, the first outer closure member having a transversely extending slit curved outwardly toward the free end thereof, said slit having a hooked portion at one end reversely curving inwardly toward the hinge connection of said first closure member and a substantially straight extension at its other end, there being a flexing score line extending from the end of said straight portion to the adjacent edge of said first closure member, said slit defining a tab with a laterally

projecting curved tongue at one end thereof, the second outer closure member having a tab on its swinging edge disposable through said slit in said first outer closure member, there being a laterally opening slot at the base of said tab defining a tongue engageable with the inner edge of the straight portion of the slit in said first outer closure member with the tab of the second outer closure member inserted through said slit in said first outer closure member, the second outer closure member having a hooked tongue having a curved outer edge disposed at one side of said tab thereon and facing oppositely to and interlockingly engageable with said tongue on said first outer closure member, the interengaging parts of said first and second outer closure members coacting to prevent lateral disengaging movement of the outer closure members relative to each other.

2,823,849

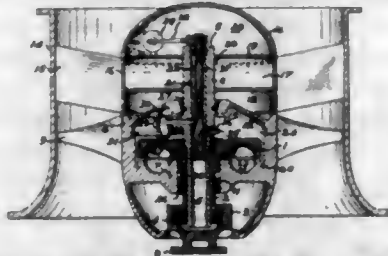
FLUID DRIVE FOR TURBO UNITS

Helmut Müller, Heidenhelm (Brenz), Germany, assignor to J. M. Volth, G. m. b. H., Heidenhelm (Brenz), Germany, a German corporation

Application May 17, 1954, Serial No. 430,370

Claims priority, application Germany May 15, 1953

9 Claims. (Cl. 230-11)



1. In a turbo unit such as a fan or blower and the like, having a running wheel mounted on a vertical hub, a housing for said hub, stationary guide blades supporting said tub housing, and a drive mounted inside said hub, said drive comprising a fluid coupling having a working chamber between the impeller and the turbine wheel thereof, an overhead reservoir for receiving coupling fluid therein, said reservoir being arranged above said hub within said hub housing; hollow shaft means centrally fixed in said overhead reservoir, said hollow shaft means supporting the rotary parts of said turbo unit and of said fluid coupling; and a connecting conduit from said overhead reservoir to said working chamber, said conduit leading through said hollow shaft means.

2,823,850

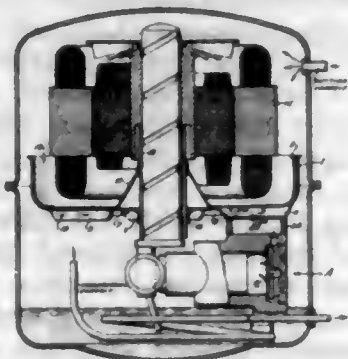
CARRIER FOR A MOTOR COMPRESSOR OF A REFRIGERATING MACHINE

Rudolf Hintze, Neuenhain über Bad Soden am Taunus, Germany, assignor to Stempel-Hermetik G. m. b. H., Frankfurt, Germany

Application August 2, 1955, Serial No. 525,929

Claims priority, application Germany August 5, 1954

12 Claims. (Cl. 230-58)



1. A carrier for the motor compressor of a hermetically sealed refrigerator machine comprising, in combination, two sheet metal members at least partly over-

lapping and joined fluid-tightly to each other, said sheet metal members respectively being formed with aligned tubular extensions extending away from each other; a bearing sleeve extending into and fixed to said tubular extensions and adapted to support a crank shaft for the compressor; and closed chamber means formed in part by at least one of said sheet metal members and adapted to be connected to the compressor and the condenser of the refrigerator machine for forming a noise-reducing chamber.

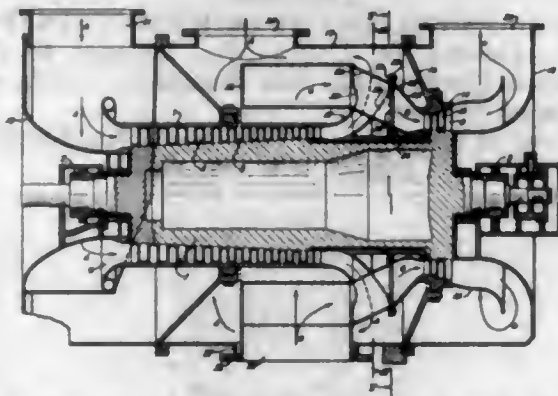
2,823,851

SUPERCHARGER

James R. Shields, Penn Township, Pa., assignor to Elliott Company, a corporation of Pennsylvania

Application September 8, 1955, Serial No. 533,058

7 Claims. (Cl. 230-116)



1. A supercharger comprising a rotatable shaft, bearings supporting the opposite ends of the shaft, turbine blades carried by the shaft adjacent one end, compressor blades carried by the shaft between its opposite end and the turbine blades, a compressor housing surrounding the compressor blades and having an air inlet near said opposite end of the shaft, said housing having an annular air outlet near the turbine blades, a turbine housing surrounding the turbine blades and having a gas outlet near the adjacent bearing, said turbine housing having an annular inlet near said air outlet, an infuser connected with said turbine inlet and including a plurality of circumferentially spaced gas tubes, an annular casing surrounding the shaft between the infuser and said compressor housing inlet and having an outlet communicating with the outer end of the infuser and also having an inlet, a diffuser connected with said compressor outlet and including a plurality of circumferentially spaced tubular air passages extending outward between the infuser tubes, a shell enclosing said casing and diffuser for receiving compressed air from the latter and having an outlet and a hot gas inlet, and means connecting said shell inlet with said casing inlet.

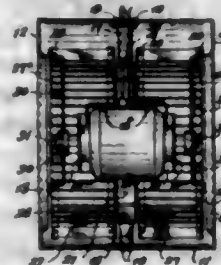
2,823,852

DIRECT DRIVE BLOWER UNIT

Norman G. Busch, Columbia Station, Ohio, assignor to Air Controls, Inc., Cleveland, Ohio, a corporation of Ohio

Application May 3, 1954, Serial No. 427,094

6 Claims. (Cl. 230-117)



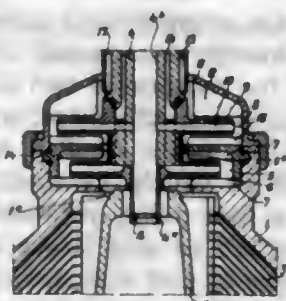
1. A direct drive air blower unit comprising, a casing including side walls having aligned inlet openings through

which air is drawn into the unit and an outlet opening in fluid communication with the area between said inlet openings, a circular support band axially disposed in said casing midway between said inlet openings with its axis co-axial with relation to the axis of said inlet openings, support means supporting said band in said casing in said position, a platform member connecting opposite walls of said support band, a motor mounted on said platform member and provided with drive shafts at its opposite ends, said drive shafts being axially aligned with said inlet openings, and a pair of identical blower wheels disposed in said casing and operatively connected to said motor, one blower wheel being operatively connected to the motor shaft on each side of said motor, each blower wheel encircling one side of said motor within said casing and extending longitudinally of the casing from a point substantially midway of the axial length of said motor to an adjacent inlet opening, providing substantially unobstructed flow of air throughout said casing.

2,823,853

CENTRIFUGAL SEPARATOR FOR PURIFYING LIQUIDS WHICH EMIT HARMFUL VAPORS
Walter Hoffmann, Lidings, Sweden, assignor to Aktiebolaget Separator, Stockholm, Sweden, a corporation of Sweden

Application February 1, 1955, Serial No. 485,487
Claims priority, application Sweden February 15, 1954
5 Claims. (Cl. 233—21)



1. A centrifugal separator for purifying liquids which emit harmful vapors at the separating temperature, which comprises a centrifugal bowl having a paring chamber for receiving purified liquid from the interior of the bowl, the bowl also having a sealing chamber outside the paring chamber, a paring device in said paring chamber for discharging purified liquid therefrom, and a sealing disc in the sealing chamber, the separator having an inlet for the material to be separated and also having a channel for feeding a sealing liquid into the sealing chamber, whereby the sealing liquid coats with said disc to seal the paring chamber, the separator also having a sealing liquid outlet leading from the sealing chamber to said inlet for the material to be separated.

2,823,854

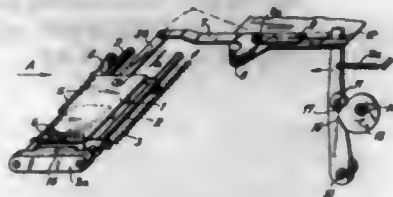
DAMPING DEVICE FOR CALCULATING MACHINES

Georg Walther, Gerstetten, Wurttemberg, Germany; Maria Marthe Selma Hermine Walther and Hildegard Helene Marianne Friedel Lina Erbe, both of Gerstetten, and Elisabeth Erika Anna Fahr, Gottmadingen, Germany, heirs of said Georg Walther, deceased

Application April 3, 1953, Serial No. 346,772
Claims priority, application Germany April 4, 1952
4 Claims. (Cl. 235—60)

1. In a calculating machine comprising, in combination with a pin carriage, series of pins provided in said carriage and being adapted to be adjusted into an operative position, racks for actuating an accumulator of the machine, feelers associated with said racks, means for

bringing said feelers into engagement with the adjusted pins, and a restoring rod returning said feelers into their initial position; and means advancing the opposite ends



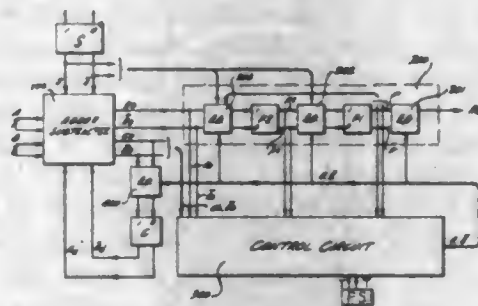
of said restoring rod non-uniformly when returning said feelers so as to place said rod at an angle relative to a vertical plane passing through at least two of said pins of equal figure value but different place values.

2,823,855

SERIAL ARITHMETIC UNITS FOR BINARY-CODED DECIMAL COMPUTERS

Eldred C. Nelson, Los Angeles, Calif., assignor, by mesne assignments, to Hughes Aircraft Company, a corporation of Delaware

Application November 26, 1952, Serial No. 322,665
8 Claims. (Cl. 235—61)



7. In a serial arithmetic unit for performing an arithmetic operation upon decimal digits in an excess-N code by producing a first binary electrical signal series corresponding to the true binary result of said operation, and then correcting said first signal series to produce a second binary electrical signal series corresponding to the result of said operation in said excess-N code: a shifting and correcting register including first and second flip-flops respectively producing first and second binary signal pairs, a first electrical gating circuit responsive to said first signal pair for producing said second signal series, a second electrical gating circuit interconnecting said flip-flops, a third electrical gating circuit connected to said second flip-flop and providing an input circuit for said register, and means for applying control signals to said electrical gating circuits for actuating said electrical gating circuits to shift in and correct said first signal series to produce said second signal series, said latter mentioned means including means responsive to said first signal series for generating said control signals.

2,823,856

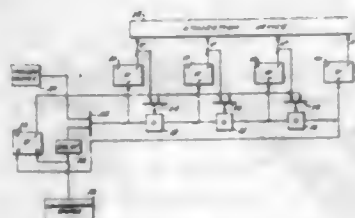
REVERSIBLE COUNTER

Grant W. Booth and Theodore P. Bothwell, Collingswood, N. J., assignors to Radio Corporation of America, a corporation of Delaware

Application March 23, 1956, Serial No. 573,509
18 Claims. (Cl. 235—61)

1. An impulse responsive circuit comprising a plurality of flip-flops, each of said flip-flops having at least one output and a trigger input, a plurality of coincidence means connected in cascade, successive ones of said means connected to and responsive to the preceding means, each of said means being additionally connected

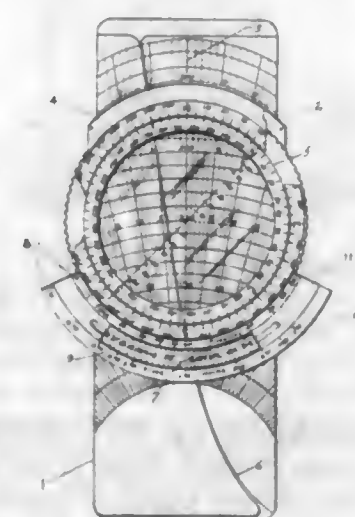
to and responsive to a different one of said flip-flop outputs, each of said flip-flop trigger inputs being connected



to and responsive to a different one of said coincidence means, and means for priming said coincidence means.

2,823,857

MECHANICAL DEAD RECKONING AND TIME-DISTANCE NAVIGATIONAL COMPUTER
Antonio Luis Chamico Heitor, Lisbon, Portugal, assignor to George Dale Dunlap, Annapolis, Md.
Application June 4, 1956, Serial No. 589,066
Claims priority, application Portugal November 19, 1955
9 Claims. (Cl. 235—61)



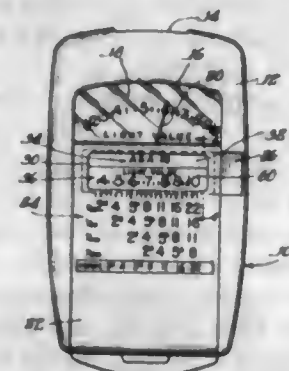
1. In a navigational computer of the type having a frame, a slide with polar coordinate lines thereon slidably mounted in said frame for movement toward and away from the origin of said polar coordinate lines, and a transparent compass rose rotatably mounted in said frame, a device for solving time and distance problems comprising: means defining a curved groove in said slide, said curvature being determined by a logarithmic function; means defining a slide rule base having a logarithmic scale thereon attached to said frame; a member slidably mounted in said slide rule base also having a logarithmic scale thereon; and means cooperating with said member and said groove whereby said member will be positioned in said slide rule base in relation to the position of said slide within said frame.

2,823,858

EXPOSURE METER COMPUTING DEVICE
Archle J. McMaster, Deerfield, Ill., assignor to G-M Laboratories Inc., Chicago, Ill., a corporation of Illinois
Application July 29, 1953, Serial No. 371,076
6 Claims. (Cl. 235—64.7)

1. In a photographic exposure meter having a casing and scale means for indicating light intensity over a substantially continuous range, the combination of means providing fixed scales on said casing bearing lens opening and shutter speed combinations, and means providing a narrow slideway on said casing, said slideway being open

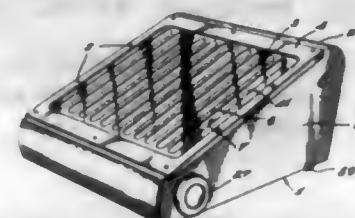
at one end for receiving an indicia bearing slide and forming an elongated window at the top for exposing the



indicia on said slide in relation to and for cooperation with said fixed scales.

2,823,859

REELING DEVICE
Robert Stock, Montreal, Quebec, Canada
Application March 6, 1953, Serial No. 340,857
7 Claims. (Cl. 235—71)



1. A reeling device comprising a casing, two reels of unequal diameter rotatively mounted inside said casing at the ends thereof for rotation in two directions, a sheet member having its ends respectively secured to and wound on said reels, braking means applied to the larger diameter reel, a shaft on which the smaller diameter reel is rigidly secured, a first pulley rotatable on said shaft, a second pulley secured to said larger diameter reel, at least one knob secured to said shaft for rotating the same, an endless belt trained on said pulleys and capable of slipping relatively to at least one of them, and clutch means for rigidly connecting said smaller diameter reel and said first pulley when said shaft is rotated in a direction to cause the winding of said sheet member on said larger diameter reel and for releasing said rigid connection between said smaller diameter reel and said first pulley when said shaft is rotated in a direction to cause the winding of said sheet member on said smaller diameter reel, whereby said smaller diameter reel will wind said flexible sheet member against the frictional resistance of said braking means against said larger diameter reel, and said larger diameter reel will wind said flexible sheet member against the friction exerted by the slipping of said belt on at least one of said pulleys.

2,823,860

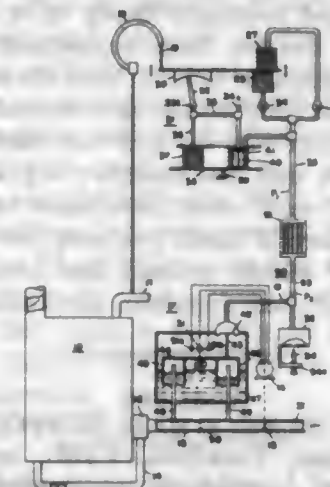
APPARATUS FOR MODIFYING A CONTROL OR MEASURING SIGNAL

Edward S. Bristol, Philadelphia, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application March 2, 1953, Serial No. 339,880
9 Claims. (Cl. 236—26)

1. A pneumatic control system comprising a balanceable control means including a non-linear flow-measuring device, a pneumatic control signal-producing source, means for automatically variably modifying in a selected non-linear manner the pneumatic control signal supplied to said balanceable control means from said signal-producing source, said means comprising two serially-connected flow restrictions having dissimilar flow-pressure characteristics flow-connected in the pneumatic system

between said control signal source and a constant reference pressure, said modified signal being derived from the flow connection between said two flow restrictions, and a feedback loop in said system extending between

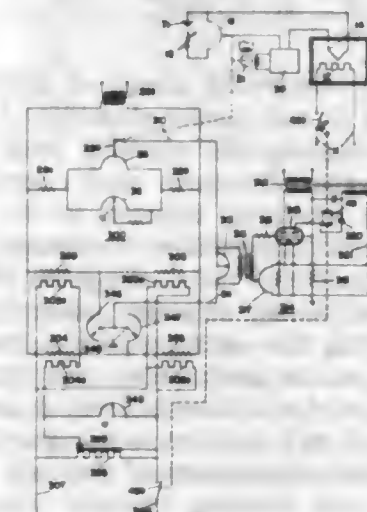


said balanceable control means and the first of said two serially-connected flow restrictions by way of said source and completed by the connection extending from between said two serially-connected flow restrictions and said balanceable control means.

2,823,861

CONTROL SYSTEMS WITH RATE OF APPROACH
Elwood T. Davis, Havertown, Pa., assignor to Leeds and Northrup Company, Philadelphia, Pa., a corporation of Pennsylvania

Application October 4, 1956, Serial No. 614,015
21 Claims. (Cl. 236—68)

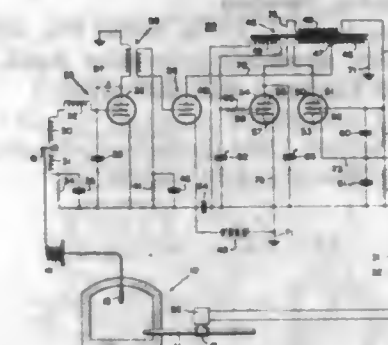


1. A control system comprising a final control element movable from one of two fixed positions to the other for varying the average magnitude of a control agent to regulate the value of the controlled variable to maintain it at a control point, circuit means for operating said control element from one of its said positions to the other and for varying the average time said element remains in one of its positions relative to the other over a range of values of said variable hereinafter referred to as the proportional band, said circuit means including a control means associated with said circuit means for shifting said proportional band in one direction as a function of the time integral of departure of said controlled variable in one direction from said control point and for shifting said proportional band in the opposite direction in accordance with the time integral of departure of said controlled variable in the opposite direction from said control point, and means operable regardless of the extent of departure of said controlled variable from said control point and in response to an increase above a predetermined value in the average time said element remains in one of its said positions materially to reduce the shaft of said proportional band by said control means.

2,823,862

ELECTRICAL PROPORTIONAL CONTROL APPARATUS EMPLOYING A FREQUENCY DISCRIMINATOR

Warren Moore, Jr., Philadelphia, Pa., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application November 28, 1952, Serial No. 323,070
16 Claims. (Cl. 236—78)

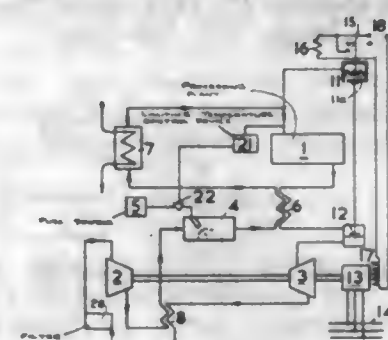


8. An electronic controller comprising, a variable frequency oscillator, a pair of tuning coils for said oscillator, a vane arranged for positioning between said coils and positioned by a condition responsive device, an amplifier connected to an output of said oscillator, an output circuit for said amplifier including a transformer input winding, a first control electrode controlled electronic device energized by said transformer input winding, an auxiliary winding electrically coupled to said transformer input winding, a second control electrode controlled electronic device energized by said auxiliary winding, a common output impedance connected to both of said electronic devices so that the current flow therethrough from said devices is in opposition, a frequency selective circuit connected to the control electrode of one of said devices so that said one device has its conduction varied with respect to the other in accordance with variations in the frequency variations of said oscillator, and a controller connected to said common output impedance for affecting the variable controlling the operation of said responsive device.

2,823,863

MEANS FOR SUPPLYING STERILIZED GAS UNDER PRESSURE

Sidney James Edgar Moyes, Farnborough, England, assignor to Power Jets (Research and Development) Limited, London, England, a British company
Application May 2, 1955, Serial No. 505,130
Claims priority, application Great Britain May 12, 1954
4 Claims. (Cl. 237—2)



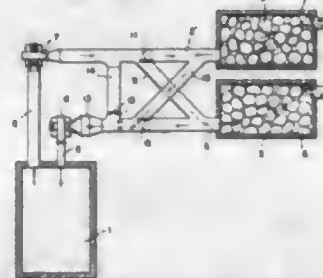
1. In combination, a processing plant and a power plant for supplying thereto pressurized process air which has been sterilized by heat, comprising a compressor for the process air, means for heating the compressed process air to a sterilizing temperature, a heat exchanger for transferring heat from the sterilized process air, upstream of the processing plant, to the outlet gas downstream of the processing plant, a gas turbine connected to receive reheated outlet gas and in driving connection with the compressor, valve means for controlling the flow of outlet

gas to the turbine and means for actuating said valve means responsively to the pressure of the process air at the inlet to the processing plant.

2,823,864

VENTILATION SYSTEMS FOR SHELTERS
Gustaf Filip Mattias Davidson, Bofors, and Gosta Erik Larsson, Hagersten, Sweden, assignors to Aktiebolaget Bahco, Stockholm, Sweden

Application April 2, 1954, Serial No. 420,674
Claims priority, application Sweden April 9, 1953
2 Claims. (Cl. 237-50)

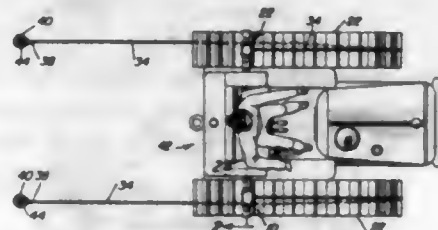


1. A shelter installation comprising, in combination, a shelter housing, a permanent air inlet duct and a permanent air outlet duct operably associated with said housing, first and second shock absorbing chambers each being filled with solid agglomerate material to absorb shock waves and each constituting a regenerative heat exchanger, a first conduit communicating directly with said inlet duct and the first one of said chambers, a second conduit communicating directly with said outlet duct and the second one of said chambers, first and second bypass conduits extending between said first conduit and said second conduit, each of said bypass conduits having valve means adjacent to a different one of said first and second conduits for selectively controlling the passage of air between said first and second conduits, said valve means being selectively movable between a valve opening and a valve closing position to control the passage of air from either of said chambers to said inlet duct and from said outlet duct to either of said chambers, said valves in said closed position being operative to direct air from said first chamber to said inlet duct and from said outlet duct to said second chamber, and said valves in the open position being operative to direct air from said second chamber to said inlet duct and from said outlet duct to said first chamber.

2,823,865

SELF TOWING DEVICE

Archle L. McClain, Leesville, La.
Application September 17, 1954, Serial No. 456,711
2 Claims. (Cl. 238-14)



1. A self towing device for track vehicles comprising a pair of generally S-shaped members, each of said S-shaped members including a flat intermediate portion with integral first and second hook portions at opposite ends thereof, said first hook portion being adapted to be engaged over an outer edge of a track cleat and being disposed outermost in depending relation and opening inwardly, said intermediate portion having a transverse axis extending between said hook portions, said first hook portion being connected to said intermediate portion along a line disposed normal to said transverse

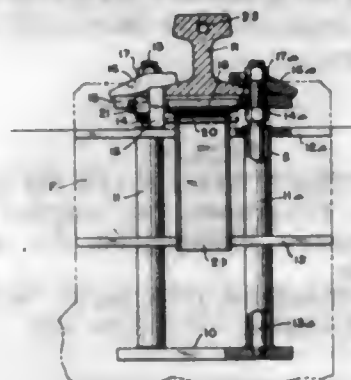
axis, said second hook portion being disposed innermost in upwardly projecting relation and opening outwardly, said second hook portion being connected to said intermediate portion along a line inclined to said transverse axis, said S-shaped members being of a left and right hand relation, a flexible loop connecting together said second hook portions, a flexible tow member connected to said loop for exerting a pull, said second hook portions diverging in a direction of pull on said tow member whereby a pull on said tow member urges said S-shaped members towards each other, releasable retaining means carried by said second hook portions for retaining said loop therein, and means on said first hook portions for retaining said S-shaped members on a track cleat.

2,823,866

ADJUSTABLE RAIL SUPPORT

James H. Jennison, Pasadena, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application June 1, 1955, Serial No. 512,593
2 Claims. (Cl. 238-281)
(Granted under Title 35, U. S. Code (1952), sec. 266)

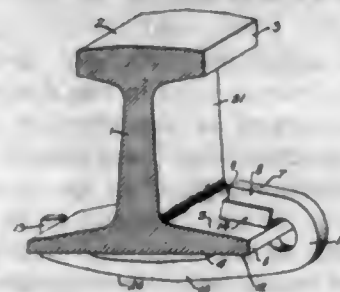


1. A rail joint comprising a pair of abutting rail sections, a plurality of rail sleeper structures for supporting and adjustably aligning the abutting ends of said rail sections, said sleeper structures each comprising an integral anchoring structure, adapted to be imbedded in foundation material at positions contiguous to the point of abutment of said rail ends, elongated rod means attached to said anchoring structure, clamping means for adjustably clamping the rail to said elongated rod means and thus to the anchoring structure, said clamping means comprising means for effecting vertical and rotational adjustment of the rail position and separate means for effecting horizontal adjustment of the rail position, the said elongated rods bending laterally when said horizontal adjustment is made whereby such horizontal adjustment may be made without loosening said clamping means.

2,823,867

SHIM FOR RAILROAD

Joseph Yeglnski, Greenfield, Mass.
Application May 4, 1956, Serial No. 582,846
1 Claim. (Cl. 238-328)



In combination, a unitary railroad rail anchor having an upper arm with a lower surface at its end and a railroad rail having a base with an upper inclined surface, there being a space between the respective contacting

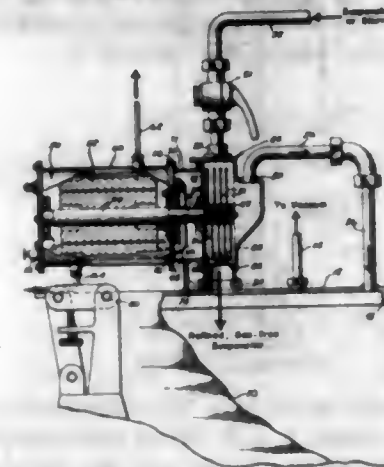
points of both the anchor and the rail, a shim device, said shim device having a rectangular shaped base portion lying between the said inclined surface of the rail and the lower surface of the end of the upper arm, a pair of rectangular sides in parallel vertical planes to said rectangular base and integral therewith, said vertical sides in contact with the vertical sides of the upper arm of the anchor, a rear vertical portion integral with said base and said sides and substantially perpendicular to said base, said base, said sides, and said rear vertical portion having substantially flat inner surfaces conforming in configuration for engagement with the complementary surfaces of said upper anchor arm, whereby the said base of the said shim exerts a pressure upon the upper arm of said anchor, causing all points of contact between said anchor and said rail to become in tight frictional engagement.

2,823,868

METHOD AND APPARATUS FOR COMMUNUTING SUSPENSIONS OF SOLID MATERIAL

John O. Scherer, Grosse Pointe, Mich., assignor to R. P. Scherer Corporation, Detroit, Mich., a corporation of Michigan

Application December 6, 1954, Serial No. 473,263
12 Claims. (Cl. 241-2)



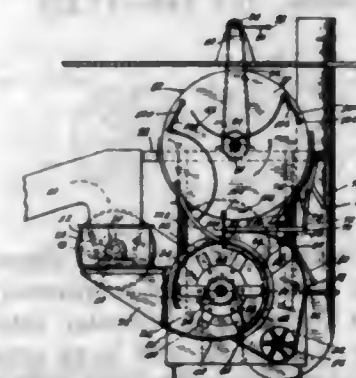
1. In an apparatus for continuously comminuting a suspension of solid material under a vacuum, comminuting mill having an inlet and an outlet opening, a receiving vessel communicating with said outlet opening connected to a source of vacuum, and a pressure equalizing line between the mill and the receiving vessel, and a shaft for driving the rotor of said mill, said shaft being enclosed in a chamber communicating with said receiving vessel.

2,823,869

SCREEN CHANGER FOR HAMMER MILLS

Robert J. Reese, Carmel, and Fred H. Bailey, Indianapolis, Ind.

Application January 23, 1956, Serial No. 560,674
14 Claims. (Cl. 241-89)



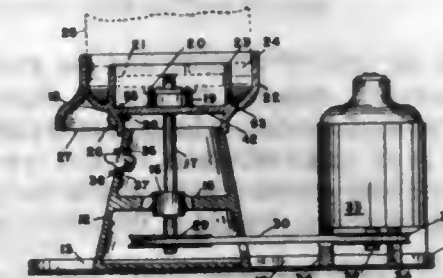
1. A hammer mill, comprising a grinding chamber, a rotor having a plurality of hammers attached thereto revolving in said chamber, an arcuate screen disposed along

the circumferential path of said hammers, means on said grinding chamber for releasably retaining a screen along said circumferential path, an inlet and outlet port communicating with said grinding chamber, a housing enclosing said mill, a removable top cover on said housing, and a rotatable screen-changing drum carrying a plurality of screens and cooperating with said mill for the selective insertion and extraction of screens into and out of said mill, and being adapted for the storage of unused screens.

2,823,870

ICE SHAVING MACHINE
David Davison, Baltimore, Md.

Application September 3, 1953, Serial No. 378,282
7 Claims. (Cl. 241-92)



1. A device for use in producing finely divided ice; said device including a hollow casing having its top and bottom edges arranged in parallel planes, a bell component carried by said casing, an ice shaving structure, means for driving said structure including a shaft, and means mounted on said shaft for rotation about a vertical axis; said component having a wall formed to provide a lower rim and a discharge spout, a partition cooperating with said rim to form a recess snugly receiving the upper extremity of said casing, a cylindrical wall cooperating with the first mentioned wall to form a trough for receiving the lower portion of a receptacle for holding ice to be shaved, and with said partition to form a compartment, surrounded by said trough and having a liquid tight bottom wall; said ice shaving structure comprising a body with disc-like top and bottom walls having their edges in close proximity to the inner surface of said cylindrical wall, spacing means maintaining said top and bottom walls in fixed relation with each other, top formations within the interior of the shaving structure body arranged to discharge toward said cylindrical wall and communicating one each with one of the openings in said cylindrical wall, a knife mounted at the edge of each of said openings and arranged to direct shaved ice through the opening associated therewith; said shaft mounting means including a pair of aligned journal elements, one in the interior of said casing and one extending through the partition of said bell component, said shaft extending through said elements and being secured to the body of said ice shaving structure; and said component having a passage therein placing the interior of said compartment in communication with said spout.

2,823,871

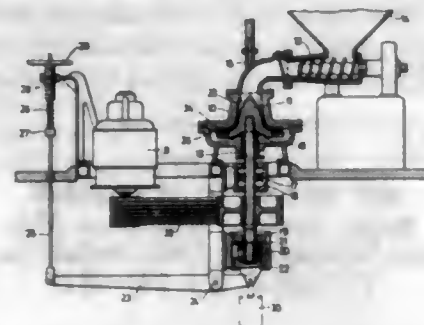
MULTIPLE STAGE MILL, WITH STEEPLY CONICAL SHAPE PREGRINDING ZONE AND FLAT DISK TERMINAL FINE GRINDING ZONE

Johan Olov Larsson, Gavle, Sweden

Application August 7, 1953, Serial No. 372,841
Claims priority, application Sweden August 8, 1952
1 Claim. (Cl. 241-162)

A grinding machine for wood chips or the like comprising stationary and rotatable grinding members which are axially displaceable and which between them define a pre-grinding zone tapering in cross-section and increasing in diameter in the direction of feed, and a fine-grinding zone positioned after said pre-grinding zone and extending transversely to the axis of rotation, said grinding

members being so shaped that the grinding surfaces in the pre-grinding zone merge smoothly with the grinding surfaces in the fine-grinding zone, the grinding surfaces of each of said members being conical with the grinding surface of the stationary member forming an angle of



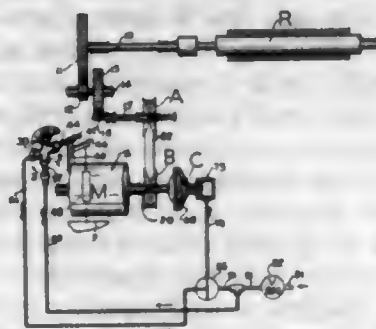
about 30° with the axis of rotation and the grinding surface of the rotatable member forming a slightly larger angle with the axis of rotation whereby said grinding surfaces converge at an angle of about 3°, and spiral-shaped ridges on each of said grinding members in the pre-grinding zone having decreasing height in the direction of feed.

2,823,872

APPARATUS FOR WINDING SHEET MATERIAL AT CONSTANT SURFACE SPEED AND AT CONSTANT TENSION

Theodore A. Dourdeville, Holden, Mass., assignor to David Gessner Company, Worcester, Mass., a corporation of Massachusetts

Application May 20, 1955, Serial No. 509,789
2 Claims. (Cl. 242-75.5)



1. In an apparatus for winding sheet material under substantially constant surface speed and tension and comprising a winding roll, a constant speed motor having a yielding mounted stator, and driving connections between said motor and roll, that improvement which comprises a fluid-controlled device in said connections for varying the speed ratio between said motor and said roll, and control means to continuously vary said speed ratio in inverse relation to the load on the motor by direct application of fluid pressure to said fluid-controlled device in said driving connections, and said control means comprising a device to supply a pressure-fluid to said fluid-controlled device, a restricted vent element in said supply device, and a load-responsive member movable to progressively close said vent element as the load on said motor shifts said stator.

2,823,873

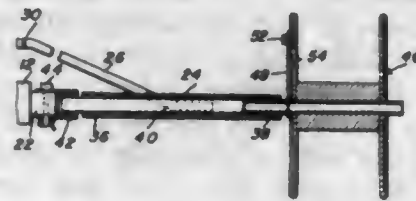
WIRE WINDING DEVICE

Everett E. Peterson, Alden, Iowa

Application April 9, 1954, Serial No. 422,020
1 Claim. (Cl. 242-86.5)

A wire winding device comprising a bearing sleeve, a winding shaft journaled through said sleeve and having its ends extending out of the ends of the sleeve, a collar fixed on one end of the winding shaft and attachable to a tractor power take-off shaft for drivingly connecting the power take-off shaft to the winding shaft, arm members rigidly secured to said sleeve and attachable to a

tractor to rigidly support the sleeve, a spool freely rotatable on the other end of the winding shaft, and a resilient torque transmitting rod extending radially from said winding shaft and having one end rigidly attached to the winding shaft and its other end fixedly attached to said spool at a point spaced radially from the axis of the spool.

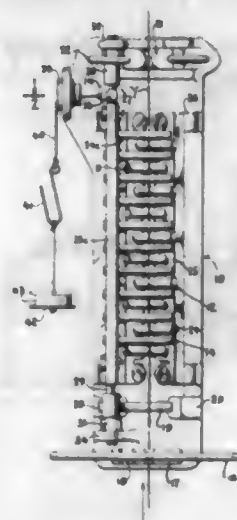


2,823,874

TENSION DEVICE

Harold C. Noe, Upper Montclair, N. J., assignor to Klidde Manufacturing Co., Inc., Bloomfield, N. J., a corporation of Delaware

Application August 20, 1956, Serial No. 604,953
5 Claims. (Cl. 242-154)



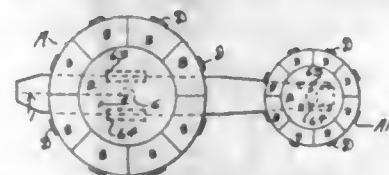
1. A tension device comprising a first row of spaced guide fingers and a second row of spaced guide fingers, the fingers of said rows being arranged alternately in side by side spaced apart relation and the fingers of one row extending cross-wise with respect to the fingers of the other row, a third row of spaced guide fingers mounted for pivotal movement with the fingers thereof arranged to pass between adjacent fingers of said first and second rows, and means for urging the fingers of said third row towards the crossing line of the fingers of said first and second rows.

2,823,875

CONVERTIBLE AIRCRAFT WITH JET-DRIVEN LIFTING ROTORS

Adolphe C. Peterson, Edina, Minn.

Application June 24, 1955, Serial No. 517,708
21 Claims. (Cl. 244-17.25)



18. An aircraft having a fuselage and thereon a pylon mounting on which a rotor unit is rotationally mounted, the said rotor unit including a circular interior airfoil section of relatively thin depth and large area internally of the circular periphery, the said rotor unit also including a plural number of arcuate airfoil elements circumferentially of the said interior airfoil section, means for retaining the said arcuate elements in their spaced locations circumferentially of the interior airfoil section and

for oscillation in unison of all said arcuate elements by the said retaining means and motor means in interconnection with said means for retaining to provide actuation motive power for said oscillation, the said oscillation providing for alternative conditions one in which all arcuate airfoil elements are similarly aligned with said interior airfoil section at zero angle of incidence thereto and one in which all the arcuate airfoil elements are similarly at an angle of incidence to the plane of said interior airfoil section for aerodynamic sustentation in rotation of the said rotor unit on said pylon mounting, and means for rotational propulsion of the said rotor unit, or alternatively translational propulsion of the aircraft.

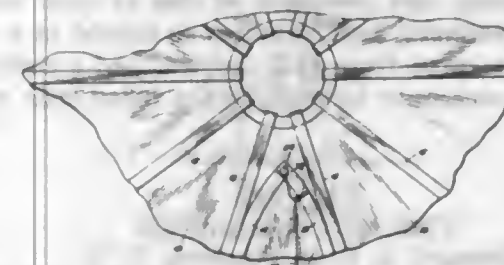
20. An aircraft having a fuselage and a rotor unit as specified in claim 18, the pylon mounting on the fuselage being pivotable on a horizontal axis, and motor actuation means between the pylon mounting and the fuselage for actuation of the pylon mounting with its rotor unit by oscillation on the said horizontal axis.

2,823,876

BALLOON RIP PANEL

Arnold E. Ebner, Victoria, Tex., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 10, 1955, Serial No. 493,578
7 Claims. (Cl. 244-31)



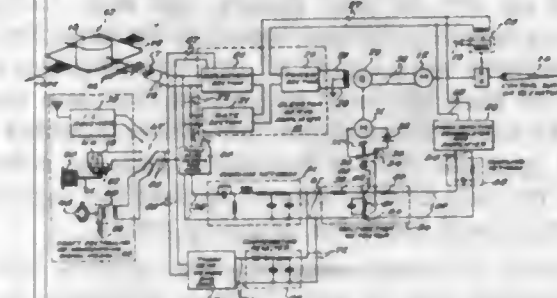
1. The combination of a balloon having a thin plastic gore of polyethylene or the like, a taped outline secured to the gore between its side seams and extending from a point near the upper end of the gore downward toward said seams, gaskets on opposite faces of the gore at said point, a bolt extending through said gaskets, gore and taped outline and having an eye at the inside of the balloon, a nut having a rounded outer end and cooperating with said bolt to clamp said gaskets, gore and taped outline at said point, and a pull line connected to said eye and extending through the bottom of the balloon and operative to rupture the gore in the pattern of the taped outline.

2,823,877

CONTROL SYSTEMS FOR DIRIGIBLE CRAFT

John J. Hess, Jr., Garden City, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware

Application June 10, 1954, Serial No. 435,780
20 Claims. (Cl. 244-77)



1. The combination in a control system for dirigible craft of the character normally functioning to maintain the craft at a predetermined reference attitude about an axis, a reversible servomotor operable to move the craft about the axis, craft controlling means providing an op-

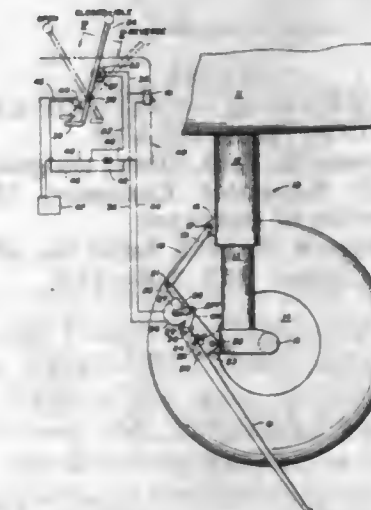
erating signal for the servomotor to modify effectively the normal reference provided by the control system, sensing means providing a signal in accordance with the actual motion of the craft about the axis, signal means for measuring the output of the servomotor, a receiver for the signal of said craft controlling means providing an output in accordance with the component of the output of the servomotor due to the inclusion in the system of the signal of said craft controlling means, means for detecting malfunctions providing an output for monitoring the system including means for comparing the signals of said output measuring means and motion sensing means in opposed relation, and means for modifying one of the signals of the comparing means in accordance with the output of said receiver so that the detecting means remains effective whenever malfunction occurs.

2,823,878

REVERSE THRUST LANDING CONTROL FOR AIRCRAFT

Richard A. Henson, Smithsburg, Md., assignor to Fairchild Engine and Airplane Corporation, a Maryland corporation

Application March 11, 1955, Serial No. 493,658
9 Claims. (Cl. 244-81)



1. Mechanism for controlling an aircraft having a power plant, a reverse thrust means, and a landing gear having a nut-cracker linkage, said mechanism comprising a control lever operatively associated with said power plant and with said reverse thrust means for the manual control thereof, and means including a probe device operatively carried by the said nut-cracker linkage of said landing gear and normally extending beneath said landing gear for engagement with the ground, said mechanism adapted to prevent manual movement of said control lever for said reverse thrust means until said probe device engages the ground in landing, said probe device operatively carried upon said linkage in such manner that engagement of the landing gear with the ground initiates retraction of said probe device.

2,823,879

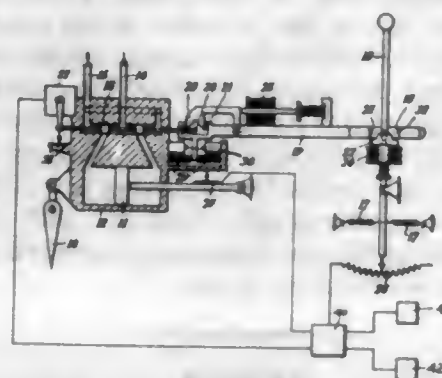
FLYING CONTROL SYSTEMS FOR AIRCRAFT

Charles Philip Smith, Ramsey, Isle of Man, and Stanley George Glaze, Brierley Hill, England, assignors to H. M. Hobson Limited, London, England, a company of Great Britain

Application November 16, 1955, Serial No. 547,252
Claims priority, application Great Britain
December 14, 1954
4 Claims. (Cl. 244-83)

1. A power operated flying control system for aircraft, comprising a control surface, a fluid pressure operated servomotor having an input member and an output member, said output member being connected to operate said control surface, an electro-mechanical transducer for

actuating said input member, a pilot's control member, an electrical signalling system operable by said control member to cause said transducer to actuate said input member and thereby to move said control surface to a position corresponding to the position of said control member, a normally inoperative mechanical linkage hav-

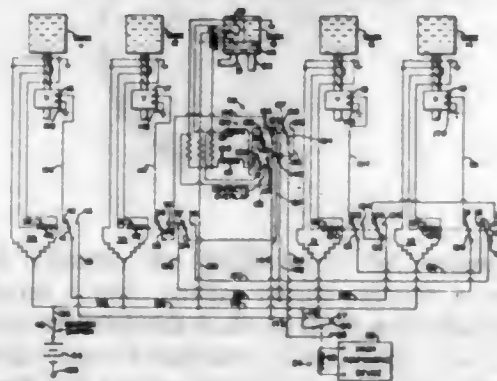


ing at its opposite ends lost motion connections with said control member and with said input member respectively and means operating automatically, in response to failure of said electrical system, to take up the lost motion at both ends of the linkage, thereby permitting of manual operation of the input member by the control member through said linkage.

2,823,880

AIRCRAFT FUEL LOAD CENTER OF GRAVITY CONTROL MEANS

Raymond L. Bergeson, St. Paul, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application March 10, 1955, Serial No. 493,426
11 Claims. (Cl. 244-135)



11. Control apparatus for use with an aircraft, comprising, a plurality of fuel tanks disposed throughout the aircraft, interconnecting conduit means whereby the fuel in said tanks can be drained to a main tank and then to the aircraft power means, scheduling means arranged to control the draining of fuel to the main tank from the remainder of said tanks in a predetermined sequence to maintain the center of gravity of the aircraft in a desired range, and liquid level responsive means associated with said main tank, said liquid level responsive means responsive to failure of any one of the tanks to drain into said main tank and arranged to modify the sequence of said scheduling means upon said failure.

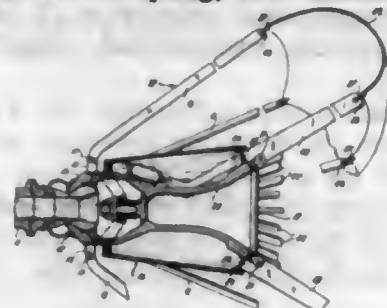
2,823,881

IMPROVED AERODYNAMIC DROGUE

Richard F. Patterson, Van Nuys, Calif.
Application December 15, 1955, Serial No. 553,276
43 Claims. (Cl. 244-135)

8. A refueling apparatus for inflight refueling comprising: support structure; a reel mounted on said support structure; a hose attached to said reel for extension and retraction from said support structure; a tubular storage device fixed to said support structure through which said hose is adapted to extend; a reception coupling fixed to

the end of said hose, adapted to receive a probe from a second structure; and having an external configuration capable of passing through said tubular storage device; and an aerodynamic drag device comprising a plurality of journal means spaced around and fixed to said reception coupling, a plurality of substantially rigid elongate members each having one end pivotally mounted on an associated journal means, a collapsible ring shaped drag structure fastened to the other ends of said members and when open holding said members in a position divergent from said coupling, said members being piv-



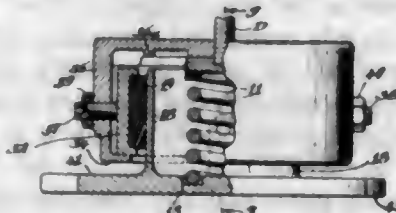
otable to a position wherein all of said members are substantially parallel and said drag structure being collapsible behind said coupling upon retraction and to permit retraction of said coupling and drag device into said tubular storage device.

41. An aerodynamic drag device comprising: a support; a plurality of relatively rigid elongate members; means mounting said members at one of their ends to said support enabling said members to extend in a divergent trailing manner from said support, and a collapsible ring shaped parachute fastened to the other ends of said members.

2,823,882

VIBRATION DAMPER

Bernard A. Ross, Flushing, N. Y.
Application December 30, 1953, Serial No. 401,191
2 Claims. (Cl. 248-21)



1. A vibration damper comprising a bottom fixed member having a vertically extending integral, and peripheral multi-faced abutment wall, the faces thereof being in angular relationship in excess of 90 degrees, a top load supporting member fitting over said bottom member and having a peripheral side wall extending downward in spaced relation to said abutment wall, internal means between said top and bottom members for resiliently supporting the load supporting member, said peripheral side wall having opposite inwardly directed flanges at the bottom edge, a pair of compression plates each movably supported on one of said flanges and each having recessed faces parallel with and opposing the respective faces of the abutment wall, blocks of resilient vibration damping material each mounted in each of the plate recessed faces of the compression plates, and means mounted in the side wall opposite each compression plate to adjustably compress the said blocks thereon against the corresponding abutment wall faces for damping action.

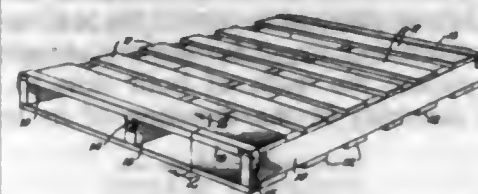
2,823,883

REINFORCEMENT FOR PALLETS

Albert Eugene Bourdon, Des Plaines, Ill.
Application January 10, 1955, Serial No. 480,681
3 Claims. (Cl. 248-120)

1. In combination with a pallet having a plurality of spaced parallel rails and cross slats secured over the rails

with the edges of the end slats lying substantially flush with the ends of the rails, a reinforcement comprising an elongated unitary strip of sheet metal of channel section having a top flange overlying the top edge portion of an end slat, a web overlying the outer edge of the end slat, and a bottom flange underlying the bottom edge portion



of the end slat and said reinforcing having flat tongues extending downward in engagement with the rails respectively and terminating above the bottoms of the rails, the bottom flange being cut away in registry with the rails to receive the ends of the rails, and fastenings extending through the tongues into the rails and securing the tongues to the rails.

2,823,884

CLOTHES DRYING RACK BRACKET

William A. Lagerstrom, Chicago, Ill.
Application January 8, 1954, Serial No. 402,990
1 Claim. (Cl. 248-207)

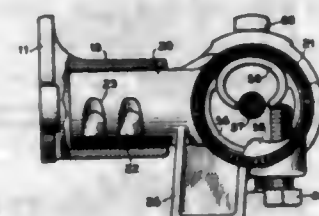


An article of the character described comprising an elongated body having a socket in one end and spaced parallel flanges integral with and extending outwardly longitudinally from the other body end defining a downwardly opening U-shaped support receiving jaw having its bight portion defined by said other body end, one of said flanges having a portion extending outwardly perpendicular thereto, and a lip on one side face of said body adjacent to the end having the socket to define with said perpendicularly extending portion a second U-shaped support receiving jaw having its bight portion defined by said body side face.

2,823,885

AWNING ARM BRACKET ASSEMBLY

Errol P. D'Azzo, Brooklyn, N. Y.
Application November 14, 1955, Serial No. 546,437
7 Claims. (Cl. 248-278)



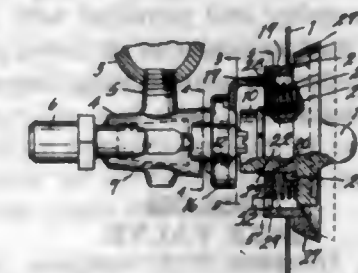
3. An awning arm bracket assembly, comprising a pair of separable sections, one of said sections having a base plate with a sleeve upstanding therefrom, said sleeve having a pair of threaded apertures disposed eccentrically therein; another of said sections comprising a post disposable in said sleeve, said post having pairs of recesses disposed thereon for engaging screws threaded in the apertures in said sleeve to adjust the post tele-

scopically and angularly with respect to said plate, and a hollow cylindrical member at right angles and integral with said post, said member having a threaded hole in the side thereof; and a pair of circular plates having upstanding arms on one side thereof for supporting a pivotable awning arm, and having a cam member on the other side of said one plate, said cam member extending into said cylindrical member for engagement with a bolt threaded through the side of said cylindrical member, whereby the awning arm is adjustable slantwise with respect to said base plate, said circular plates having centrally disposed apertures therein, there being a bolt passing through said centrally disposed apertures and said cylindrical member and carrying a nut for securing the circular plates to the cylindrical member.

2,823,886

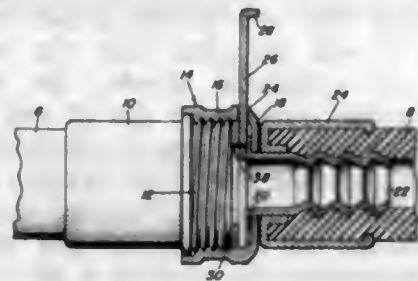
LOCKING MEANS FOR GAS VALVE

Gerald V. Jakeway and Miner S. Keeler II, Grand Rapids, Mich., assignors to Keeler Brass Company, Grand Rapids, Mich.
Application August 25, 1952, Serial No. 306,258
5 Claims. (Cl. 251-104)



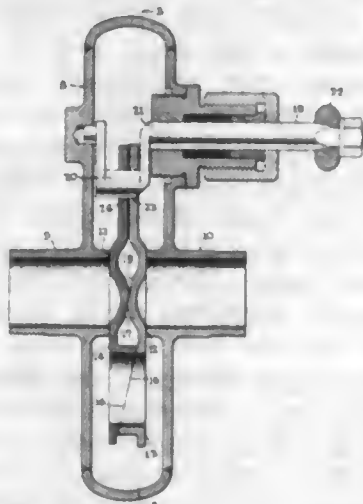
1. A gas valve comprising a valve body and coaxing valve rotatably mounted therein, a valve stem having a finger piece provided with a hub portion and a laterally projecting flange at the outer end of the hub portion, angularly spaced open and closed stops on said body member, a coaxing stop member on said stem engageable with said stops to limit the opening and closing movement of the valve, a bezel member having a grip portion surrounding said flange of said finger piece, and having a barrel portion spaced from and surrounding the hub portion of the finger piece and provided at its inner end with an inwardly projecting flange slidably and rotatably mounted on the said hub and having angularly spaced locking stop keeper openings, the hub portion of said finger piece having a peripheral groove therein, a split ring engaged in said groove for limiting the inward movement of the bezel member relative to the finger piece, a coil compression spring arranged between said bezel member flange and the flange on said finger piece to bias said bezel member to inward retracted position, a locking stop mounted on said valve body and provided with a forwardly projecting stop finger with which the said keeper openings in said bezel member may be selectively engaged in either a valve locking or valve unlocked position, a radially projecting stop lug on said hub, and a segmental stop on the flange of said bezel member disposed in the plane of said stop lug, one end of said segmental stop in the valve locking position of said bezel member engaging said stop lug on said hub in opposition to the limiting engagement between the stop member on said stem and said closed stop whereby in the valve locking position of the bezel member the segmental stop-hub stop lug engagement prevents an opening rotation of the valve and the stem stop member-closed body stop engagement prevents further closing rotation movement of the valve and movement of the bezel member to valve unlocked position locates the segmental stop out of the path of movement of the hub stop lug during valve opening movement.

2,823,887
HOSE OR PIPE COUPLING WITH CUT-OFF VALVE
 Joseph S. Osinski, Cheektowaga, N. Y.
 Application September 29, 1955, Serial No. 537,378
 1 Claim. (Cl. 251-148)



In combination, a hose coupling member having a tubular shank adapted to telescope retentively into the bore of a hose in a manner to be thus connected to said hose, said shank being flanged at one end, an internally screw-threaded female cup-shaped member swivelly mounted on the flanged end of said shank and adapted to detachably and accommodately receive a cooperating male coupling member, said cup-shaped member having an annular rim provided with a slot, a removable packing ring fitted into said cup-shaped member and provided with diametrically opposite grooves, and an imperforate valve plate slidably mounted in the grooves in said packing ring and also slidably mounted in said slot.

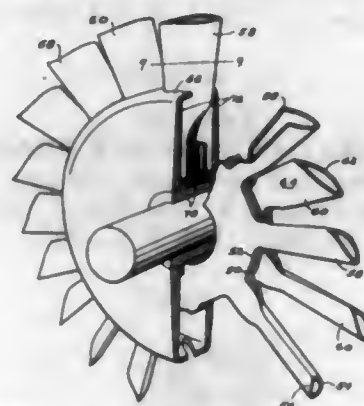
2,823,888
GATE VALVE
 Robert O. Wynn, Houston, Tex., assignor, by mesne assignments, to ACF Industries, Incorporated, a corporation of New Jersey
 Application July 9, 1953, Serial No. 366,981
 5 Claims. (Cl. 251-196)



1. A through conduit gate valve comprising: a housing forming a valve chamber having aligned ports provided with opposed parallel valve seats; an expansible valve gate assembly mounted for rectilinear movement between said seats to open and close the valve, said assembly including two ported abutting members having parallel outer sealing faces to engage the valve seats and complementary opposed inner faces each formed with at least one surface portion which is inclined with respect to said seats to form at least one set of wedging surfaces effective upon relative displacement therebetween in a direction parallel to the movement of said assembly, to expand said assembly normally of said seats and force said members oppositely into sealing engagement therewith; elongated horizontally positioned openings formed in each of the ported abutting members, portions of the walls defining said openings being transversely aligned when the sealing faces are out of engagement with the valve seats, and the walls of the opening in one of said members having at least a portion vertically displaced

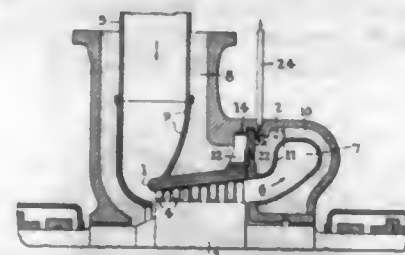
from the corresponding wall of the other opening when the sealing faces are in engagement with said valve seats, and a horizontal shaft rotatably mounted in the valve body and extending through one wall thereof, said shaft including an offset crank portion, said offset crank portion extending through said slots and being swingable about the axis of said shaft for engaging said displaced wall when in one position to retract the sealing faces from the valve seats and upon further movement to simultaneously engage the walls of both slots to move said gate valve assembly in the direction of its length.

2,823,889
ROTOR CONSTRUCTION AND FABRICATION
 Edward A. Stalker, Bay City, Mich., assignor to The Stalker Development Company, Bay City, Mich., a corporation of Michigan
 Application April 5, 1950, Serial No. 154,131
 6 Claims. (Cl. 253-39)



1. In combination in a rotor adapted for interchange of energy with a fluid, a plurality of blade plates each including a plurality of blades peripherally spaced thereabout, each said blade being formed integrally within its respective plate and twisted relative thereto to place each blade at a pitch angle, each said blade tapering in thickness along the span thereof, said plates being fixed axially in tandem with said blades interdigitating, and hub means positioned between said blades to restrain said blades from untwisting.

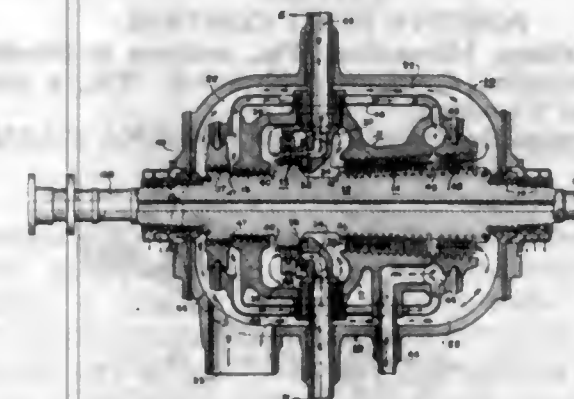
2,823,890
HOUSING FOR GAS OR STEAM TURBINES
 Konrad Oechslin, Zurich, Switzerland, assignor to Aktiengesellschaft fuer Technische Studien, Zurich, Switzerland, a corporation of Switzerland
 Application September 17, 1953, Serial No. 380,669
 Claims priority, application Switzerland
 September 27, 1952
 4 Claims. (Cl. 253-39)



1. A housing structure for high temperature elastic fluid turbines, comprising an external housing and a smaller internal housing arranged within said external housing coaxially therewith, whereby an intermediate space is afforded; insulating material filling the space between the two housings; a radially slotted flange rigidly connected at its inner margin to said internal housing, extending across said intermediate space in a plane normal to the turbine axis and engaging in a circumferential groove formed in the external housing; a plurality of one-piece rings in encircling relation with one another,

other, arranged coaxially with said flange and in juxtaposition thereto, there being an annular inter-ring clearance between successive rings, the innermost of said rings being sealed to the internal housing and the outermost of said rings engaging in a circumferential recess of the outer housing; and sealing means for each inter-ring clearance comprising a one-piece flexible annular sealing sheet bridging the corresponding clearance and being fixed in fluid tight relation to each of two juxtaposed rings.

2,823,891
STEAM TURBINE
 Merle S. Baker, Prospect Park, and Clarence C. Franck, Swarthmore, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
 Application May 20, 1953, Serial No. 356,268
 7 Claims. (Cl. 253-39.1)



1. In a turbine, an outer cylinder structure having elastic motive fluid inlet sleeves intermediate its ends and an exhaust outlet adjacent one end thereof, an inner cylinder structure mounted in said outer cylinder structure and receiving said inlet sleeves, said cylinder structures forming longitudinal passages therebetween, axially spaced impulse and reaction stator blade groups mounted in said inner cylinder structure, a turbine rotor mounted in said inner cylinder structure and carrying axially spaced impulse and reaction blading groups cooperating with the respective stator blade groups to constitute impulse and reaction elements of the turbine, a circumferential array of motive fluid nozzles communicating with said inlet sleeves and said impulse element and interposed between said impulse and reaction elements for initially supplying motive fluid in one direction to said impulse element, an annular nozzle chamber formed in said inner cylinder structure and in communication with said reaction element, and passages formed in said inner cylinder and disposed between the first-mentioned nozzles, said passages extending from the exhaust side of said impulse element to said annular nozzle chamber and serving to conduct motive fluid in the opposite direction from the exhaust side of said impulse element to said annular nozzle chamber, said reaction element being adapted to exhaust motive fluid at the end of said outer cylinder structure remote from said exhaust outlet for flow thereto over the axial extent of both turbine elements by way of said longitudinal passages.

2,823,892
TURBINE BUCKETS
 Dimitrios Gerdan and Stuart Wilder, Jr., Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application June 9, 1952, Serial No. 292,545
 24 Claims. (Cl. 253-39.15)

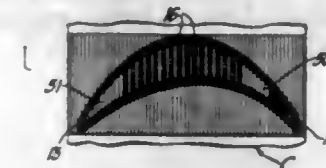
1. A fluid-directing element for turbomachines and the like, said element comprising a base portion for mounting the element and a blade portion extending from the base portion, the base portion comprising a stack of laminae, the laminae having registering openings therein

defining an air passage extending lengthwise of the base, some of said laminae extending into the blade portion to define a core therefor and being mutually spaced over at least part of the width of the blade portion to define air conduits communicating with the said passage and



extending lengthwise of the blade, the blade portion also comprising an external sheath united with the laminae extending thereto and with the base portion, the said passage including portions located so as to communicate with the interior of the blade sheath adjacent the leading and trailing edges thereof.

2,823,893
LAMINATED TURBINE BUCKETS
 Dimitrios Gerdan and Stuart Wilder, Jr., Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application June 9, 1952, Serial No. 292,546
 17 Claims. (Cl. 253-39.15)



2. A fluid-directing blade for turbomachines and the like, said blade having fluid-directing faces and comprising a number of physically united laminae each having extension in the directions lengthwise of the blade and from face to face of the blade, the edges of the laminae constituting elements of the fluid directing faces of the blade, some of said laminae, constituting a first set, extending unbroken from face to face of the blade, and others of said laminae, constituting a second set, defining openings through the centers of said other laminae extending lengthwise of the blade from end to end thereof providing passages extending longitudinally of the blade from end to end thereof, the laminae of the two sets alternating chordwise of the blade.

2,823,894
AIR-COOLED TURBINE BUCKETS
 Dimitrios Gerdan and Stuart Wilder, Jr., Indianapolis, Ind., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application June 9, 1952, Serial No. 292,547
 12 Claims. (Cl. 253-39.15)

1. A fluid-directing blade for turbomachines and the like, said blade having fluid-directing faces and comprising a number of laminae extending in the directions lengthwise of the blade and from face to face of the blade, at least some of said laminae defining a core for

the blade, the blade also comprising leading and trailing edge portions abutting the core and recessed adjacent the core to define with the core passages for a cooling medium extending lengthwise of the blade within the leading and trailing edge portions, the laminae of the



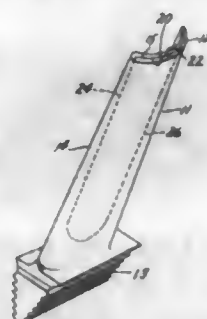
core being mutually spaced to define conduits for the cooling medium within the core lengthwise of the blade, the laminae adjacent the said passages being formed with openings to direct cooling medium from the conduits adjacent the last-mentioned laminae into the passages.

2,823,895

VIBRATION DAMPING BLADE

George K. Floroff, Hawthorne, N. J., assignor to United Aircraft Corporation, East Hartford, Conn., a corporation of Delaware

Application April 16, 1952, Serial No. 282,647
8 Claims. (Cl. 253-77)



1. A one piece blade for a turbine or compressor, said blade having inner surfaces forming a slit, said inner surfaces extending from the blade tip for a substantial portion of the blade length and further extending substantially the full chord dimension of said blade for a substantial portion of the blade length and said inner surfaces being contained within said blade, the said inner surfaces being in frictional engagement substantially throughout their entire area to provide friction damping of blade vibrations during operation.

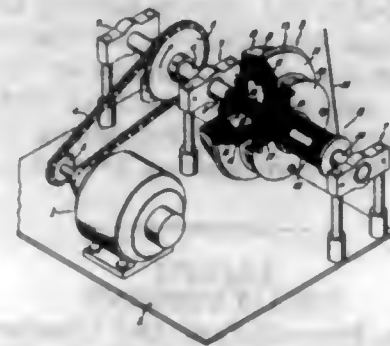
2,823,896

LIFTING AID

Charles N. Hood II, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 14, 1953, Serial No. 397,849
21 Claims. (Cl. 254-168)

1. A lifting aid comprising: driving means, hauling means, a slippable coupling between said driving and hauling means, and means operating said driving means at a speed providing a torque on said hauling means through said coupling effective only for counterbalancing a predetermined load on said hauling means by main-

taining 100% slip in said coupling, said coupling permitting arrestation of said hauling means and movement



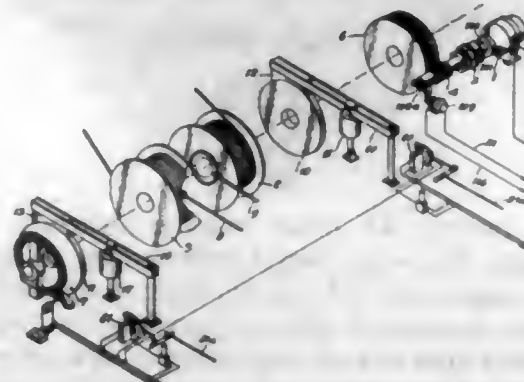
thereof opposite to said driving means without causing said driving means to operate under a stalled condition.

2,823,897

POSITIVE HOIST CONTROL

Joseph Kellogg, Milwaukee, Wis., assignor to Nordberg Manufacturing Company, Milwaukee, Wis., a corporation of Wisconsin

Application December 13, 1954, Serial No. 474,856
25 Claims. (Cl. 254-173)



1. In combination, a hoist drum and a motor for rotating said hoist drum in opposite directions at varying speeds, said motor having a power control means and a braking means therefor, said power control means including a movable control member having a range of movement corresponding to predetermined speeds of said motor and said hoist drum, initial movement of said movable control member away from a neutral position being effective to apply progressively decreasing braking effects on said drum through said braking means, and further movement being effective to apply progressively increasing power to said motor, a fluid motor for moving said movable control member through said range and a pilot control valve for said fluid motor, a movable control linkage for moving and thereby regulating said valve and thereby said fluid motor and said hoist drum, means responsive to the speed of said first named motor for regulating said linkage, means responsive to the position and movement of said movable control member for regulating said linkage, operator controlled means for moving said linkage, movement of said operator controlled means in a speed increasing direction in adjusting said linkage being opposed by the action of said motor speed responsive means and means responsive to the position of said movable control member in regulating said linkage.

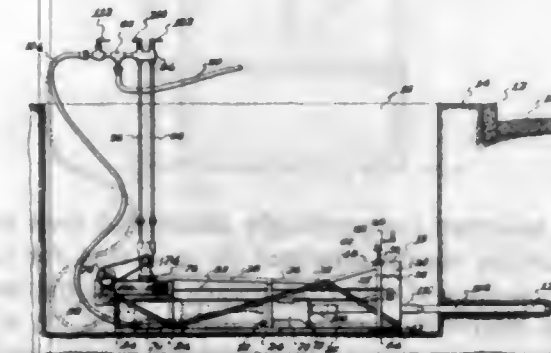
2,823,898

TUNNEL FORMING APPARATUS

James M. Bankston, Tulsa, Okla.
Application August 27, 1954, Serial No. 452,535
1 Claim. (Cl. 255-20)

An apparatus for forming underground substantially horizontal tunnels for the reception of pipes and the like; said apparatus comprising a stationary, horizontally disposed base frame, longitudinally extending, laterally

spaced guide tracks on the frame, a carriage having wheels rotatably disposed on the guide tracks for moving the carriage longitudinally of the frame, a base plate transversely underlying one end of the frame, rods upstanding from said plate at both sides of the frame, tubular means vertically carried by the sides of the frame and in which said rods are sleeved, a cross bar overlying the frame and connecting the upper ends of the rods, an adjusting screw threaded through the cross bar and rotatably seated on the frame for raising and lowering the one end of the frame relative to the base plate, shafts rotatably mounted transversely of the frame and adjacent the ends thereof, sprocket wheels fixed on the shafts, endless chains

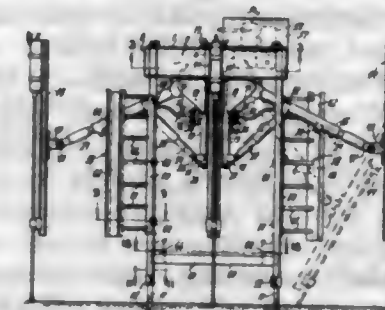


entrained over the sprocket wheels and connecting the shafts, means securing one reach of the chains to the carriage so that the carriage is reciprocated back and forth by the rotation of the chains, a reversible air motor mounted on the frame, drive means connecting the motor to one of the shafts, forward and reverse air pipes connected to the motor and upstanding therefrom, valve means connected to the upper ends of said pipes, an air hammer carried by the carriage and extending axially therefrom toward said one end of the frame, a flexible air hose arranged alongside the first named valve means and connected to the hammer, valve means connected to the hose and a detachable earth boring element attached to the extending end of the air hammer.

2,823,899

ROCK DRILLING MACHINE

Charles K. Bain, Bonne Terre, Mo.
Application May 8, 1952, Serial No. 286,719
5 Claims. (Cl. 255-51)

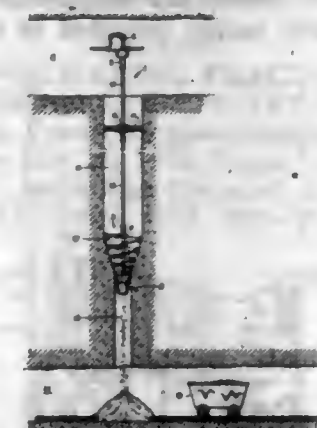


1. A drilling machine for use in sinking mine shafts, comprising, a frame having a top structure including upper and lower horizontal plates and a plurality of vertical web plates extending between and secured to said horizontal plates, a plurality of bearing tubes extending vertically between said upper and lower plates and secured thereto, and a plurality of drilling mechanisms swiveled one in each of said bearing tubes, each of said mechanisms including a bracket having a pivot tube journaled in one of said bearing tubes, an arm pivoted for vertical swinging movement on said bracket, a hydraulic jack on said bracket adjustable to support said arm in different positions on its pivot, flexible ducts passing within said pivot tube connected to supply hydraulic fluid to said jack, and a drill on the free end of said arm.

2,823,900

VERTICAL REAMER

Charles William Kandle, Chicago, Ill.
Application November 4, 1955, Serial No. 545,066
5 Claims. (Cl. 255-73)

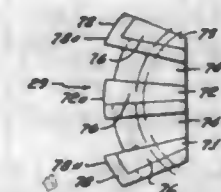


1. A drill for enlarging an existing vertical bore which is accessible at both upper and lower ends, which drill comprises a motor, a drill head having one end adapted to be drivingly connected to said motor, a tapered open cylindrical guide fixed to the other end of said drill head in the place of a lead screw and of a size to fit the bore to be enlarged, said drill head having a series of cutters arranged with respect to the axis of rotation of the drill to cut a series of annular steps from the existing bore at the upper end of the guide and of sizes increasing to that of the enlarged bore, said guide being hollow and having openings at both ends to allow the spoil which falls from cutting said steps to pass through the guide and through the remaining portion of the existing bore for removal at the lower end of the bore.

2,823,901

EXPANSIBLE ROTARY DRILLING TOOLS

Archer W. Kammerer, Fullerton, Calif., assignor of one-fifth to Archer W. Kammerer, Jr., and one-fifth to Jean K. Lamphere, Fullerton, Calif.
Application November 7, 1955, Serial No. 545,413
9 Claims. (Cl. 255-76)



1. In a rotary drill bit to be lowered in a well bore: a main body; cutter means mounted on said body for expansion laterally outward of said body; means for expanding said cutter means laterally outward of said body; said cutter means including a drag cutter structure having a plurality of depending teeth arcuately spaced from each other and having lower cutting faces lying in the same plane so that all teeth and lower faces are adapted for simultaneous operation upon a shoulder formed in the well bore which opposes the advance of said teeth; at least one of said teeth having an outer reaming surface extending radially outward to a substantially greater extent than the corresponding outer surface of another of said teeth.

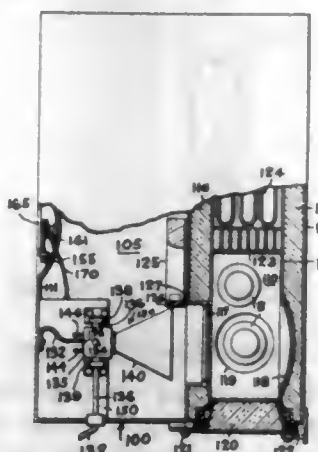
2,823,902

PORTABLE THERMOCABINET

William Reynolds, Media, Pa.
Application November 4, 1952, Serial No. 318,591
6 Claims. (Cl. 257-4)

5. A portable edible substance storage cabinet of the type herein described comprising a unitary cabinet structure, said cabinet being divided into two compartments,

one of said compartments comprising a refrigerated storage chamber, the other of said compartments comprising a chamber for supporting the refrigeration mechanism, refrigeration mechanism disposed in said latter chamber and including structure communicating with said refrigerated chamber to control the temperature therein, and a radiant energy heat motor mounted in said cabinet and



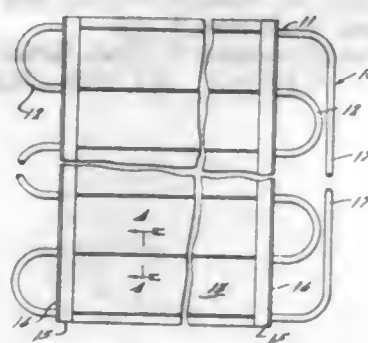
adapted to direct radiant heat towards and into a localized portion of said refrigerated chamber, said refrigeration mechanism being of the absorption type and including a boiler member, and means selectively controlling said radiant energy heat motor to direct heat in cooperation with said refrigeration mechanism into said boiler or said refrigerated chamber selectively.

2,823,903

CLINGED PLATE CONDENSER WITH MOUNTING RAILS

William A. Collins, Dowagiac, Mich., assignor to Rudy Manufacturing Company, Dowagiac, Mich., a corporation of Michigan

Application August 6, 1953, Serial No. 372,759
1 Claim. (Cl. 257—36)



A condenser formed of a metal plate having channel portions therein extending from one side edge to the other, straight portions of a sinuously formed tube disposed in said channel portions of the plate the entire length of the metal of which is clinched about said straight portions, and angle members extending along the vertical side edges of the plate and secured thereto for preventing the plate from spreading and the clinched metal from separating from the straight portions of the tube, one of the flanges of the angle members extending outwardly from the plane face of the plate to form supporting means for the condenser on a wall member thereby providing a chimney effect for the air passing therebetween.

2,823,904

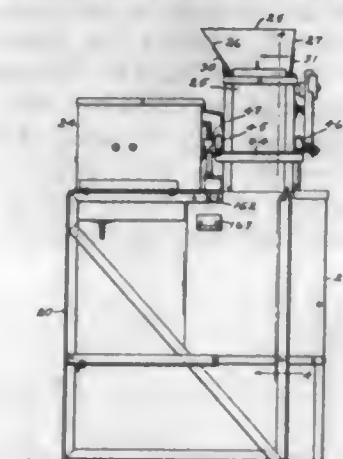
MATERIAL TREATING MACHINE

Wayne Gustafson, Moorhead, Minn.

Application October 14, 1955, Serial No. 540,483
6 Claims. (Cl. 259—24)

1. A seed treating machine comprising a housing, a mixing cylinder mounted upright in said housing adjacent the lower end thereof, a tube vertically supported

in said housing and terminating at its lower end between the upper and lower ends of said cylinder, a non-rotating seed distributing cone secured on the lower end portion of said tube, a disc within said cylinder, means supporting and rotating said disc below said tube, a fixed grain deflect-



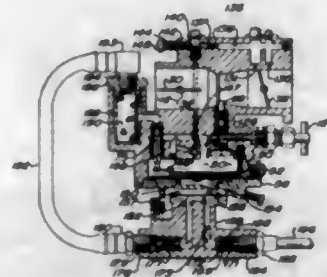
ing ring mounted concentrically about said cone and said disc, rotatable means mounted on said ring for scraping the inner surface of said ring, means for feeding seed onto said seed distributing cone, means actuated by said seed feeding means for moving said rotatable means, and means for feeding fluid through said tube onto said disc.

2,823,905

CHARGE FORMING AND FUEL FEEDING APPARATUS

Herbert K. Brown, Toledo, Ohio, assignor to The Tillotson Manufacturing Company, Toledo, Ohio, a corporation of Ohio

Application December 13, 1954, Serial No. 477,728
4 Claims. (Cl. 261—37)



1. A charge forming apparatus of the character disclosed in combination, a plurality of interconnected members, one of said members being formed with a mixing passage and an unvented fuel chamber, a first diaphragm forming a wall of said fuel chamber, orifice means for delivering fuel from said chamber into said mixing passage; a fuel pump supported entirely by and connected to said charge forming apparatus comprising a second diaphragm disposed between two of said members substantially parallel to said first diaphragm and to a plane intersecting the axis of said mixing passage, the regions of said members adjacent said second diaphragm being shaped to provide with said second diaphragm a fuel passage and a pulsing chamber, said pulsing chamber being arranged for communication with a source of pulsating fluid pressure for actuating said second diaphragm, a duct arranged to connect the fuel passage with a supply for conveying fuel from the source to said fuel passage, a fuel inlet formed in said member containing the mixing passage, a second duct connecting said fuel passage with said fuel inlet, a fuel control valve in said inlet, a lever in said fuel chamber fulcrumed upon said member formed with said mixing passage and having portions in operative engagement with said first diaphragm and said control valve, spring means biasing said lever in a direction to close said control valve, and valve means associated with each of said ducts for effecting flow of fuel from said

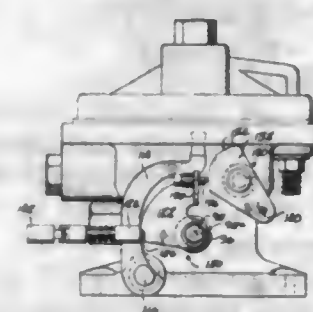
supply through said fuel passage under the influence of pulsating fluid pressure acting on said second diaphragm. said first diaphragm being actuated solely by aspiration of reduced pressure in said mixing passage for effecting fuel delivery from said fuel chamber through the orifice means into said mixing passage.

2,823,906

INTERNAL COMBUSTION ENGINE CARBURETOR

Victor W. Gideon, Chicago, Ill., assignor of one-fourth to James G. Culbertson

Application July 25, 1955, Serial No. 524,194
9 Claims. (Cl. 261—56)



1. In a carburetor, the combination of a housing having a generally annular passageway for axial flow of intake air from end to end thereof, throttle means at one end of said passageway for regulating the rate of air flow, a rotor journaled in said housing and having blades thereon disposed in said passageway to effect rotation of the rotor, said rotor having a plurality of minute fuel ejection ports therein opening outward for the emission of fuel under the impetus of centrifugal force imparted by rotation of said rotor and into air passing over said blades, means for supplying fuel through the interior of said rotor to said ports, means including a shutter assembly surrounding said rotor for by-passing variable proportions of the air flowing through said passageway around said rotor blades, and means including a cam and follower responsive to the position of said throttle means for smoothly adjusting said shutter assembly to thereby vary the rotational speed of said rotor relative to the rate of air intake to correctively adjust the ratio of air and fuel supplied by the carburetor.

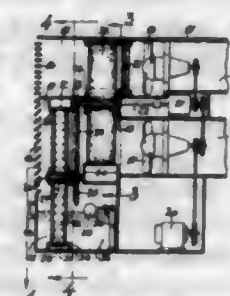
2,823,907

ROTATABLE EVAPORATIVE COOLER FOR AIR-CONDITIONING

Neal A. Pennington, Tucson, Ariz., assignor of one-fifth to Robert H. Henley, Tiptonville, Tenn., and one-fourth to Roger Sherman Hoar, South Milwaukee, Wis.

Application October 20, 1948, Serial No. 55,594, now Patent No. 2,563,415, dated August 7, 1951, which is a division of application Serial No. 640,792, January 12, 1946, now Patent No. 2,464,766, dated March 15, 1949. Divided and this application March 10, 1950, Serial No. 148,951

7 Claims. (Cl. 261—92)



1. A rotatable wheel-like casing, divided into sectors, and adapted to hold packing for use as an evaporative cooler for an air-conditioning unit, said casing having spokes, a hub, and a rim, all of substantially the same

width in an axial direction, and all having at each face of the casing flanges projecting into the sectors bounded thereby, the flanges of the spokes projecting in both directions therefrom, and the entire rim being imperforate.

2,823,908

MINING PLANER HAVING TRACTION ELEMENT BEHIND THE CONVEYOR

Wulff Rösler, Essen-Margaretenhoehe, Germany

Application July 28, 1954, Serial No. 446,190
Claims priority, application Germany August 22, 1953
11 Claims. (Cl. 262—8)



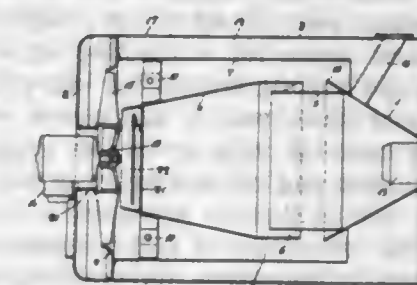
1. In a mining machine having a longitudinally extending conveyor and a mining planer cutter pulled back and forth in front of the conveyor by a flexible traction element, the improvement which comprises means defining a forward slide surface along the forward portion of the conveyor, means defining a rear slide surface along the back of the conveyor, a rearwardly facing guide surface defined on the planer cutter positioned in sliding engagement with said forward slide surface, a guide beam defining a forwardly facing guide surface positioned for moving back and forth along the back of said conveyor with said guide surface in sliding engagement with said rear slide surface, and a plate-like connecting member extending beneath the conveyor connecting the planer cutter and the guide beam.

2,823,909

OIL-FIRED HEAT GENERATORS

John Evert Sterling, Enköping, Sweden, assignor to Aktiebolaget Bahco, Stockholm, Sweden, a corporation of Sweden

Application March 11, 1955, Serial No. 493,770
Claims priority, application Sweden March 31, 1954
3 Claims. (Cl. 263—19)



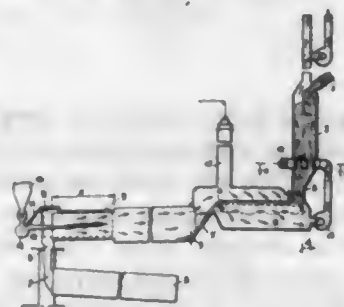
1. A liquid fuel burning heat generator for generating a mixture of combustion gases and air, said generator comprising an elongated outer casing of substantially circular cross-section, an elongated inner casing of substantially circular cross-section including a combustion chamber and disposed coaxially within the outer casing, said casings defining an annular space therebetween, said space constituting a mixing chamber, one end of the mixing chamber communicating with the atmosphere to form an inlet for fresh air, suction means communicating with the other end of the mixing chamber for drawing an air current through the said chamber in one direction

and conduit means connecting the combustion chamber with the mixing chamber and issuing into the latter chamber in a direction substantially opposite to that of the air current for drawing combustion gas into the mixing chamber by the suction of said air current, the air current and the gas current entering the mixing chamber in counter current whereby a turbulent mixing zone is formed causing an intimate mixture of air and gas, said inner casing comprising a cylindrical intermediate portion and an inwardly tapered portion posterior of the cylindrical portion as seen in the direction of the air flow, said tapered portion having a cylindrical extension overlapping the respective end of the intermediate portion and being radially spaced therefrom to form said gas conduit means.

2,823,910

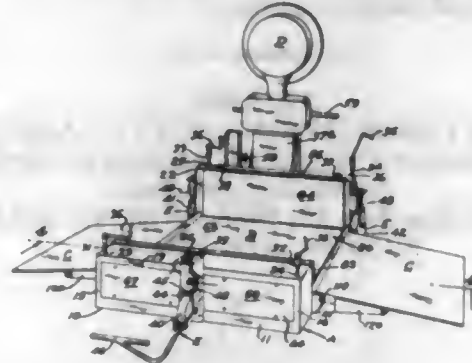
CEMENT FURNACE

Paolo Ravasio, Cisano Bergamasco, Italy, assignor to Ansaldo S. A., Società per Azioni, Genoa, Italy
Application May 27, 1953, Serial No. 357,833
Claims priority, application Italy June 20, 1952
4 Claims. (Cl. 263—32)



1. A plant for thermally treating a granular material, comprising, in combination, a heating chamber, means for heating air to a high temperature in said heating chamber, a ramp coupled to said heating chamber for guiding heated air upwardly and outwardly from the heating chamber, a substantially horizontal chamber coupled by said ramp to said heating chamber so as to be flowed through by said heating air and to convert the same into hot air having a lower temperature than said heating air, a substantially horizontal traveling grate arranged in said horizontal chamber so as to subdivide the same into an upper part and a lower part and thereby divide the flow of air received via said ramp, a substantially vertical tower having an upper end and a lower end, said lower end being connected with the other end of said horizontal chamber, said grate being arranged with one end thereof below said lower end of said tower, said upper end of said tower receiving the granular material in damp condition at a low temperature, and means for conducting hot air from said lower part of said horizontal chamber into said tower at a level above said lower end of said tower, whereby the damp granular material being at the low temperature travels from said upper end of said tower down to said lower end thereof and is thereby preheated by said hot air flowing from said lower part of said horizontal chamber through said conducting means, the granular material being thereafter transported by said horizontal grate through said horizontal chamber thereby subdividing the flow of hot air therein into an upper relatively hotter part and a lower relatively cooler part cooled by passing through the granular material being on said traveling grate, said granular material passing afterwards through said heating chamber where it is brought into contact with said heating air at the high temperature so that the granular material is gradually heated in said tower, said horizontal chamber, and said heating chamber in three consecutive steps at gradually increasing temperatures preventing the grains of the material from bursting and being pulverized.

2,823,911
PORTABLE HEAVY-DUTY WEIGHING SCALE
Leslie R. Murphy, Sacramento, Calif.
Application November 6, 1952, Serial No. 319,155
11 Claims. (Cl. 265—55)

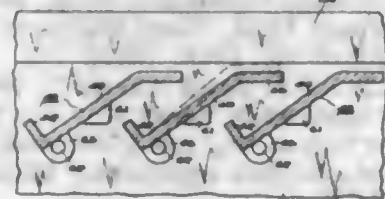


1. A portable heavy-duty scale including in combination a main frame having a rectangular base, a front housing at one end, and a rear housing at the other end; three wheels for supporting said frame, one wheel at each side of the rear housing and one wheel just forward of the center of the front housing; means for supporting said wheels in retractable relation to said frame comprising a yoke supporting each said wheel, said yoke having a hollow column extending upwardly therefrom, the lower end of said column being closed, said frame having a hollow cylinder to receive each column for sliding movement up and down; a hydraulic ram for retracting and projecting said wheels, including a ram cylinder and a piston in each said hollow cylinder bearing against said closed lower end of said column; a single pressure cylinder for powering simultaneously all said rams; and a single release valve for releasing the hydraulic pressure and retracting said wheels; a main lever system in the rear housing; an ancillary lever system in the front housing, a weighbridge supported by the levers in both said front and rear housings; rods extending beneath said weighbridge between the lever system in the rear housing and the lever system in the front housing to link these systems together; and weight indication means adjacent the rear housing actuated by said lever system.

2,823,912

SINTER COOLER

Wilfred C. Schofield, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware
Application December 29, 1954, Serial No. 478,354
2 Claims. (Cl. 266—21)



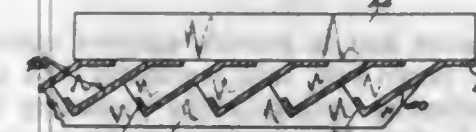
1. An apparatus for cooling sintered ore material comprising an endless track including upper and lower horizontally disposed flights; a series of connected pallets mounted for movement about said track; grate means adapted to support said sintered material on said pallets and permit cooling air to blow therethrough comprising a plurality of louvers, each of said louvers having, as it moves in a horizontal direction along said upper flight of said track, a flat portion disposed in a horizontal position substantially parallel to the line of movement of the sintered bed, a downwardly projecting intermediate portion disposed at an angle with the horizontal of approximately 35° to approximately 42° which is approximately the angle of repose of said sinter material said intermediate portion of each of said

louver bars having at its lower edge a lip extending upwardly toward said sinter bed and terminating at a point at which a line drawn upwardly from such point substantially parallel to said intermediate portion and at an angle, with respect to the horizontal, equal to the angle of repose of said sinter material does not intersect the flat portion of a next louver, said louver being pivotally mounted at a point adjacent the lower extremity of said intermediate portion; and a series of wind boxes positioned relative said pallets and opening thereto, said wind boxes being adapted to flow cooling air upwardly through the sintered material supported on said grate means.

2,823,913

SINTER COOLER

Russell A. Powell, Pittsburgh, Pa., assignor to Koppers Company, Inc., a corporation of Delaware
Application December 29, 1954, Serial No. 478,355
2 Claims. (Cl. 266—21)

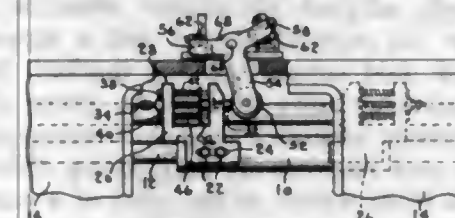


1. An apparatus for cooling sintered ore material comprising an endless track including upper and lower horizontally disposed flights; a series of connected pallets mounted for movement about said track; grate means adapted to support said sintered material on said pallets and permit cooling air to blow therethrough comprising a plurality of louvers, each of said louvers having, as it moves in a horizontal direction along said upper flight or said track, a flat portion disposed in a horizontal position substantially parallel to the line of movement of the sinter bed, a downwardly projecting intermediate portion disposed at an angle with the horizontal of approximately 35° to approximately 42° which is approximately the angle of repose of said sinter material said intermediate portion of each of said louver bars having at its lower edge a lip extending upwardly toward said sinter bed and terminating at a point at which a line drawn upwardly from such point substantially parallel to said intermediate portion and at an angle, with respect to the horizontal, equal to the angle of repose of said sinter material does not intersect the flat portion of a next louver; and a series of wind boxes positioned relative said pallets and opening thereto, said wind boxes being adapted to flow cooling air through the sintered material supported on said grate means.

2,823,914

APPARATUS FOR TIMING ASSEMBLY IN CORN CUTTING MACHINES

Paul N. Sweetman, Two Rivers, Wis., assignor to Schultz-Sweetman, Inc., Two Rivers, Wis., a corporation of Wisconsin
Application September 14, 1953, Serial No. 379,829
5 Claims. (Cl. 267—1)



1. An element of timing apparatus of the type employed in corn cutting machines, comprising, a trip bracket including two generally upright legs giving the

bracket a general U shape, a hole bored in one of the legs, a trip plunger slidably mounted in said hole and adapted to project from the hole, a hole in the other of said legs in alignment with the first hole, a rod connected to said plunger and slidably mounted in said hole in said other leg, a pair of guide rods fixed in said legs on opposed sides of said plunger and extending between the legs, a pressure plate slidably mounted on both of said guide rods and connected to said plunger, a spring mounted on each of the guide rods and compressed between said other leg and the pressure plate, the force of said springs acting through the plate to urge the plunger outwardly, means on said plunger rod for limiting and adjusting the movement of the plunger under influence of said springs.

2,823,915

SHOCK ABSORBERS

Christian Marie Lucien Louis Bourcier de Carbon, Neuilly-sur-Seine, France
Application May 7, 1954, Serial No. 428,298
Claims priority, application France May 21, 1953
4 Claims. (Cl. 267—8)

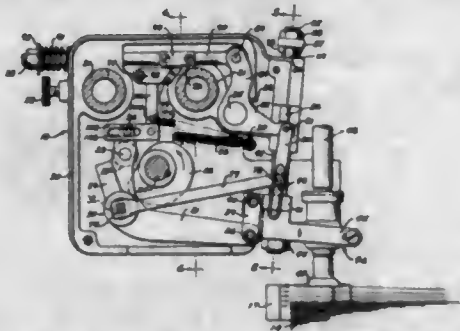


1. In a wheel suspension for vehicles, which includes suspension springs means for supporting the chassis of the vehicle upon the wheel mounting, a shock absorber of the direct acting telescoping type adapted to damp and cushion the relative movements of the chassis and wheel mounting without contributing in any substantial way to the support of the chassis; said shock absorber comprising, in combination, a cylindrical casing enclosing a cylindrical chamber and having a sealed closed upper end, means securing said cylinder to said chassis; a piston disposed for reciprocation in said chamber, a piston rod having its upper end fixed to said piston and extending from the piston downwardly through a packed opening in the lower end of the casing, means for securing the remote end of the piston to said wheel mounting; a liquid damping medium within said chamber but not completely filling it, the level of liquid being spaced below said sealed upper end, the piston adapted to move in said damping liquid and dividing said chamber into two portions of reciprocally variable capacity, by-passing means in conjunction with said piston for the passage of liquid from one of said chambers to the other as the piston reciprocates upon the occurrence of relative movement of said member, the entry of successive increments of the piston rod causing displacement of a corresponding volume of liquid damping fluid and thus raising the liquid level upon the occurrence of the compression stroke, and the withdrawal of the rod upon the rebound stroke having the opposite effect, a quantity of gaseous fluid occupying the space in the upper end of said chamber above the level of the working liquid damping medium, said gaseous fluid being under super-atmospheric pressure at all times whether or not the shock absorber is idle or under compression or rebound stroke and means provided in the immediate vicinity of the boundary surface between the working liquid and the high pressure gaseous body at the top of the chamber for minimizing foaming, said means comprising a relatively thin partition plate fixed at its margins to the walls of the cylinder in which the piston moves, at a point where it will lie but slightly below the minimum level of the liquid, said partition provided with a multiplicity of fine openings.

2,823,916

SHEET FEEDING APPARATUS

Joseph R. Wickland, Pearl River, N. Y., assignor, by
mesme assignments, to Miehle-Goss-Dexter, Incorporated,
a corporation of Delaware
Application November 22, 1955, Serial No. 548,381
20 Claims. (Cl. 271—30)

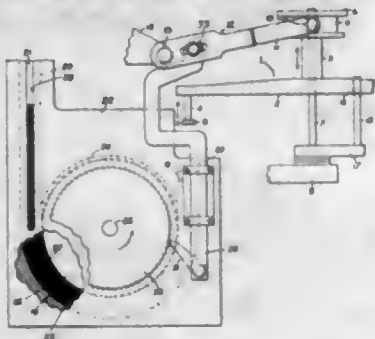


1. In a sheet feeder, a sheet separating mechanism comprising a housing fixed against vertical up and down movement, a cam shaft journaled in said housing, a sheet separating device pivotally mounted on said housing and operable from a position spaced from a supply of sheets toward the latter to grip the first sheet of said sheet supply and move at least a portion of said sheet facewise away from said sheet supply to said position, means including a cam fixed on said shaft for operating said sheet separating device, and means on said housing and controlled by said sheet supply and actuated variably in accordance with the location of said sheet supply from said sheet separating device in said position for controlling and determining the extent of movement of said sheet separating device toward said sheet supply.

2,823,917

PICK-UP DEVICE

Alfred R. Stahl, Garnet Lake, N. Y., assignor to General
Electric Company, a corporation of New York
Application November 18, 1953, Serial No. 392,901
12 Claims. (Cl. 271—43)



12. A device for picking up individual elements seriatim from a stack of such elements comprising a reciprocating member arranged for repeatedly engaging the top element of said stack to pick up such top element for removing the same, means for lifting said stack to raise the level thereof and for feeding elements to the bottom of said stack, and means operative when the level of said stack reaches a predetermined minimum level for actuating said lifting and feeding means.

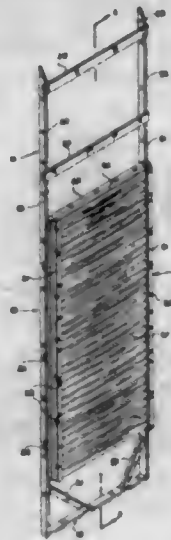
2,823,918

FINGER EXERCISER

Charles M. Lewis, New York, N. Y.
Application April 10, 1957, Serial No. 652,031
5 Claims. (Cl. 272—57)

1. Exercising apparatus of the kind described comprising a frame having spaced uprights with spaced crosspieces therebetween, a board assembly removably and adjustably mounted on said crosspieces, said assembly including a backing board and a front board, the face of the front board being formed with alternating

grooves and corrugations for engagement by the tips of the fingers of the user, said corrugations having upwardly slanting front faces and shoulders on the rear faces to prevent the finger tips of the user from sliding

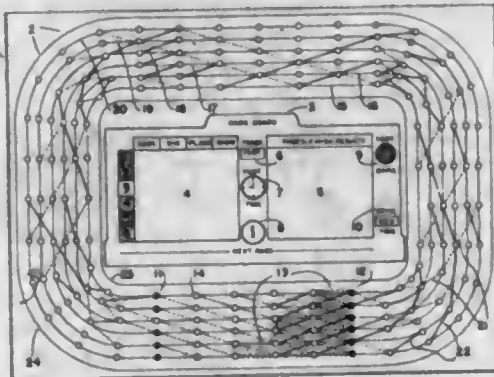


into the grooves and to provide anchors against which to press the finger tips, said removable and adjustable mounting including spaced hooks projecting from the rear of the backing plate and removably seated on the crosspieces.

2,823,919

RACING-GAME APPARATUS

Wilson L. Scruggs, Coral Gables, Fla.
Application May 12, 1950, Serial No. 161,529
12 Claims. (Cl. 273—134)



3. Game apparatus including, in combination, a race-track comprising parallel lanes extending lengthwise of the track, racing-pieces adapted to be moved along said lanes, said lanes including section marks for indicating steps in the moves of said racing-pieces, the number of said section marks being different for different lanes, said racing-pieces having characteristics by which they are readily distinguishable from each other, said track including a starting line having post positions for said racing-pieces, respectively, paths for connecting said lanes, said paths extending obliquely to said lanes therebetween and being irregularly distributed along said track and serving to indicate prescribed points in the lanes at which said racing-pieces may be moved from lane to lane obliquely forwardly by passage through said paths, a pack of cards adapted for chance selection of a card therefrom at the start of a race, and a support for the selected card, said support having marked thereon two fixed perpendicular rows of legends, those of one row being respectively identified with said racing-pieces, those of the other row respectively designating different finishing positions from which, at the start of a race, a player may select for a particular racing-piece a finishing position he anticipates therefor, said cards each being movable with respect to said legends and having marked thereon a table of data arranged in horizontal rows that are adapted for simultaneous alignment with the legends, re-

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spectively, of one of said fixed rows of legends, and arranged also in vertical columns that are adapted for simultaneous alignment with the legends, respectively, of the remaining fixed row of legends with said first-mentioned alignment in effect, on each card said data including various amounts each of which indicates, at the start of a race, odds then offered for a selection then made by a player, from said indicated finishing positions, of a finishing position for a racing-piece which, in the race, actually finishes in a position at least as advanced as that selected, said amounts differing from card to card, certain of said cards indicating different racing-pieces, respectively, as the favorite.

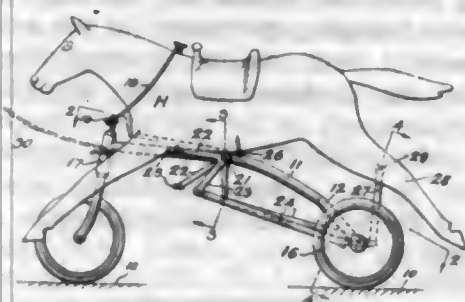
2,823,920

GALLOPING HOBBY HORSE

Harold B. Seger, Wheatridge, Colo.

Application January 31, 1955, Serial No. 484,951

3 Claims. (Cl. 280—1.196)



1. In combination: a frame, a forked steering post journaled in the forward end of the frame, a front steerable wheel mounted in the fork, a cross bar mounted on the upper end of the fork, a rear drive axle having opposed cranks journaled for rotation on the rear end of the frame, rear drive wheels mounted on the ends of the drive axle, a transverse element mounted intermediate the ends of the frame, pivots depending from opposite ends of the transverse element, crank means mounted on each of the pivots, a pedal on each of the crank means, connecting rods interconnecting each of the crank means with one of the opposed cranks on the drive axle to effect rotation thereof, a miniature horse body mounted on the transverse element for rocking movement relative to the frame, and link means connected between one of the opposed cranks on the drive axle and the horse body.

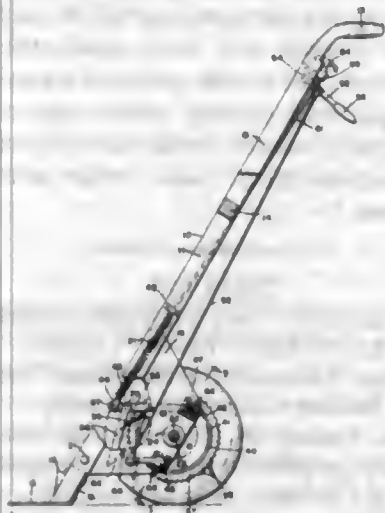
2,823,921

STAIR CLIMBING HAND TRUCKS

Alexander S. T. Lagaard, Minneapolis, Minn., assignor to Albert T. O'Neill and Gunnar H. Danielson, Lake City, Minn., tenants in common

Application March 1, 1955, Serial No. 491,289

4 Claims. (Cl. 280—5.2)



1. In a stair climbing hand truck a frame, supporting wheels, one at each side of said frame rotatably mounted

on said frame for independent rotation, a brake drum for each of said wheels, said drum having a cylindrical portion, a flange extending inwardly therefrom and disposed at the edge thereof adjacent said wheel and directly secured to the wheel, a second flange extending outwardly from said cylindrical portion and disposed at the opposite edge thereof, ratchet teeth on the outer periphery of said second flange and forming therewith a ratchet wheel, a shaft extending across said frame and rotatably mounted relative thereto, levers fast on said shaft at opposite ends thereof, pawls pivoted to said levers and engageable with said ratchet wheels, operating means connected to and serving to turn said shaft, brake shoes disposed within the cylindrical portions of said brake drums and engageable therewith and operating means for operating said brake shoes.

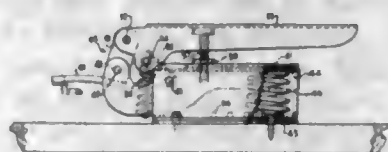
2,823,922

SAFETY BINDING FOR A SKI

Bernard E. Berlenbach, Mill Valley, Calif.

Application May 10, 1954, Serial No. 428,699

5 Claims. (Cl. 280—11.35)



1. A safety binding for a ski, comprising a housing having means for securing the same upon a ski, a lever pivoted in the front portion of the housing and having a rear end extending into the housing and a front end projecting forwardly of the housing, a heel anchoring member pivoted in the front end of the lever and having an arm projecting upwardly, a spring bearing on the rear end of the lever to urge the anchoring member downward, a handle having a front end pivoted to the upper end of said arm and having a rear end extending substantially horizontally over the housing in normal position, a link pivoted to the lever pivot, and a pivotal connection between the free end of the link and the handle and normally disposed approximately between the arm pivot and the lever pivot to provide a toggle joint adapted to be broken by an upward swing of either the anchoring member or the handle.

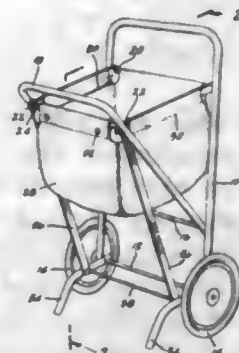
2,823,923

FOLDING LAUNDRY CART

Marvin G. Marquardt, Lemon Grove, Calif.

Application August 2, 1954, Serial No. 447,135

2 Claims. (Cl. 280—36)



2. A laundry cart comprising: a frame, a handle formed on one extremity of said frame, a pair of wheels mounted upon the opposite extremity of said frame, a second frame having one extremity pivotally mounted to said first mentioned frame, a pair of arms pivotally mounted upon one of said frames releasably engaging the other frame and spacing the free extremity of said second frame from said first mentioned frame, a laundry bag

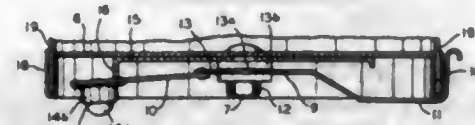
receiving said arms and releasably engaging each of said frames, a pair of outwardly and downwardly projecting legs pivotally mounted to said first mentioned frame, and bracing means interconnecting said legs and said second frame whereby said legs pivot with said second frame.

2,823,924

RETRACTABLE LOW FRICTION MEANS FOR MOVABLE BODIES

Robert D. Carmichael, Hampton, Ga., assignor to Southern States Equipment Corporation, a corporation of Georgia

Application December 15, 1955, Serial No. 553,291
3 Claims. (Cl. 280-44)



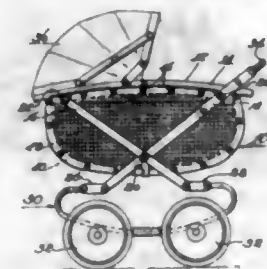
1. In combination, a container having a cavity formed adjacent the outside of the bottom wall thereof, support means rotatably mounted on the outside of said bottom wall and yieldable in a direction normal thereto, low friction means mounted on said support means and movable therewith between active and inactive positions, a manually operable element operably related with said support means for imparting limited rotary movement thereto, and guide means mounted on said bottom wall and disposed between said bottom wall and said support means, said support means being maintained in engagement with said guide means due to inherent bias of said support means irrespective of the relative positions of said guide means and said support means, said guide means being configured to cause said support means and said low friction means to move toward one of its positions and from the other position in coordination with movement of said manually operable element.

2,823,925

VENTILATED BABY CARRIAGE AND MEANS FOR CLOSING THE VENTILATOR

Lucille C. Withers, Berwyn, Ill.

Application September 28, 1953, Serial No. 382,597
3 Claims. (Cl. 280-47.38)



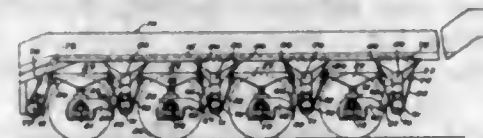
1. In a collapsible baby carriage of the character described including a plurality of side bars pivotally secured to each other on each side of the carriage, a U-shaped handle bar pivotally secured to said bars and extending upwardly thereof, a cab structure secured to said side bars, a running gear secured to said side bars and supporting said cab structure, said cab structure having a closed bottom, front and rear, said cab having a pair of opposed side members formed of a pliable reticulated material permitting the passage of air therethrough, and permitting the collapsing of said carriage, fastening elements secured to said side members, panel members adapted to be detachably secured to the fastening elements on the sides of said carriage and to cover and enclose said reticulated side members to enclose same and to prevent the passage of air therethrough.

2,823,926

SUSPENSION SYSTEM FOR ROAD VEHICLES

Ancil C. Stover, Louisville, Ky., assignor to William A. Eisenhauer, William P. Ellwood, Ida J. Eisenhauer, and Leigh E. Eisenhauer, copartners doing business as The Eisenhauer Manufacturing Company, Van Wert, Ohio

Application January 25, 1954, Serial No. 405,817
28 Claims. (Cl. 280-104.5)



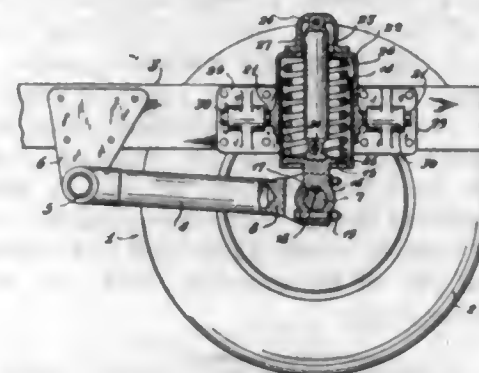
1. A vehicle comprising a sprung assembly, an unsprung assembly having an axle and ground engaging wheels carried by the axle, a bracket having arms bridging opposite sides of the axle intermediate the ends of said axle, bearings respectively supported by the arms and having a common axis extending perpendicular to the axle in a horizontal plane, an element secured to the axle having trunnions respectively journaled in the bearings to permit swinging movement of the axle in a substantially vertical plane, means for supporting the sprung assembly on the unsprung assembly including a beam extending transversely of the axle above the bracket, and means pivotally connecting the beam intermediate the ends thereof to the bracket permitting relative pivotal movement of the beam and bracket about an axis extending parallel to the axle.

2,823,927

TORQUE ARM TYPE OF A WHEEL SUSPENSION

Clifford S. Goby, Cleveland, Ohio, assignor of twenty-five percent to Frieda K. Schumacher, Cleveland, Ohio

Application January 7, 1954, Serial No. 402,751
3 Claims. (Cl. 280-124)



1. A wheel suspension comprising a frame, a torque arm, means pivotally securing said torque arm at one end thereof to said frame, a stub axle shaft, means journaling said stub axle shaft on said torque arm at a free end thereof, means for operatively supporting a wheel on said stub axle shaft to provide a wheel unit therewith, coil spring means having a housing therearound fixedly secured at one portion thereof to said wheel unit and forming a second unit with said stub axle shaft, and bracket means operatively secured to said frame and slidably engaging said spring means to permit movement of said spring means longitudinally of said frame with arcuate movement of said torque arm about said first-named means.

2,823,928

DEVICE FOR REMOVING FOREIGN BODIES FROM BETWEEN TWIN TIRES

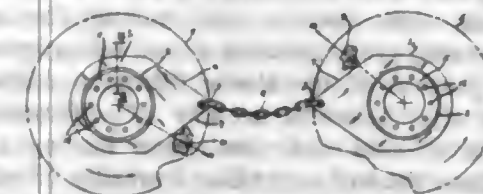
Gottfrid Otto Alexander Dahlstrom, Vancouver, British Columbia, Canada

Application August 10, 1956, Serial No. 603,337

Claims priority, application Canada August 15, 1955
4 Claims. (Cl. 280-158)

1. For use with a pair of closely-spaced coaxially-mounted vehicle wheels having tires thereon, a device for

removing foreign bodies from between the opposed side walls of said tires, said device comprising bearing means mounted on a member adapted for securing between said wheels for rotation therewith, said bearing means being coaxial with said wheels, a generally flat plate mounted on said bearing means by means of a generally circular boss portion of diameter not greater than approximately



that of the inner peripheries of the tires, said plate also having a triangular portion extending away from said boss portion by an amount approximately equal to the depth of said tires, and means secured to the apex of said triangular portion for attachment to a fixed part of the vehicle frame or to the apex of the triangular portion of a like device mounted between the tires of a second pair of closely spaced coaxially-mounted wheels of the vehicle.

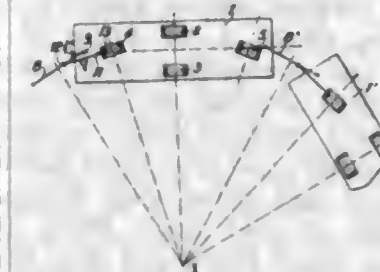
2,823,929

TRUCK STEERING HITCH

Jean Pasquali, Paris, France, assignor to Societe a Responsabilite Limitee dite: M. I. C. (Mecanique, Industrie, Chimie), Paris, France

Application May 24, 1955, Serial No. 510,712

Claims priority, application France May 31, 1954
3 Claims. (Cl. 280-444)



1. A freight truck adapted to form with other like trucks a train of trucks such that all the truck wheels will pass substantially along the same path, which comprises a truck body, a pair of coupling pins carried by said body with one of said pins positioned at the front portion of said body and the other at the rear portion of said body, said two pins being disposed symmetrically with respect to the transverse plane of symmetry of said body, a rigid axial coupler rod pivotally connected to the front coupling pin and adapted to connect the front coupling pin to the rear coupling pin of the preceding like truck, a pair of axially spaced-apart intermediate wheels having a fixed common axis located in the transverse plane of symmetry of the body between said coupling pins, front swivelling wheel means and rear swivelling wheel means, said front swivelling wheel means having a vertical axis disposed between said front pin and said intermediate wheels and said rear swivelling wheel means having a vertical axis disposed between said rear pin and said intermediate wheels with said pins and said vertical axes lying in a common vertical plane, and a guide bar fixed at one end to said front wheel means and slidably engageable with said coupler rod at its other end and adapted to cause the steering of said front swivelling wheel means to be controlled by the angular position of the coupler rod, whereby the axis of said front swivelling wheel means will constantly pass substantially through the intersection of the plane normal to and intermediate said coupler rod with the transverse plane symmetry of the body between said coupling pins.

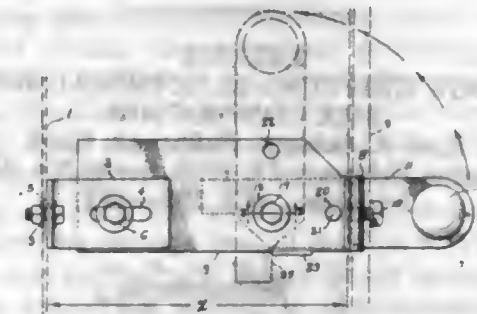
2,823,930

RETRACTABLE TRAILER HITCH

Charles L. Cooper, Aurora, Oreg.

Application September 20, 1954, Serial No. 457,093

2 Claims. (Cl. 280-491)



1. A trailer hitch for attachment to the frame and rear bumper of a vehicle comprising an L-shaped plate having a central longitudinal slot in each of its angularly disposed portions, a first bolt adapted to pass through one of said slots and fasten the plate to the frame, a coupling plate, a second bolt adapted to pass through said other slot and fasten the L plate to one end of the coupling plate, an arcuate portion on the other end of the coupling plate having a hole therein and adapted to conform to the rear bumper of the vehicle and be fastened thereto, a draw bar adapted to be moved into an operative position in alignment with the coupling plate and into a stowed position between the frame and the bumper at about 90° to the coupling plate, a tapered bolt for fastening one end of the draw bar to the coupling plate intermediate the latter's ends, said tapered bolt upstanding from the coupling plate, a coil spring mounted on the upstanding end of the bolt between the coupling plate and the free end of the bolt, a ball mounted on the other end of the draw bar, a depending lip along the forward side edge of the coupling plate adapted to be engaged by the side edges of the draw bar to act as a stop for said bar in its operative and stowed positions, holes in the draw bar and coupling plate adapted to register with each other when the bar is in either of its two positions, and a wing bolt for detachably connecting the bar and coupling plate to one another in either of said positions.

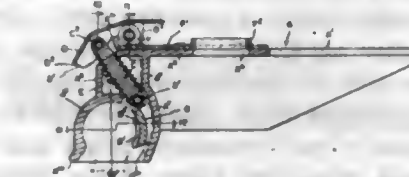
2,823,931

TRAILER COUPLING OF THE BALL AND SOCKET TYPE

Le Roy C. Schrader, Sturgis, Mich., assignor to Marvel Industries, Inc., Sturgis, Mich., a corporation of Michigan

Application November 7, 1955, Serial No. 545,158

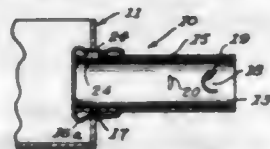
3 Claims. (Cl. 280-513)



1. In a trailer coupling of the ball and socket type, a draft member having at its forward end a rearwardly and downwardly facing segmental spherical socket portion limited in extent to not more than one-half of the sphere but extending below as well as above the horizontal plane of its center, a separate longitudinally movable member of tapering wedge form, one side of which and in one position thereof forms an extension of said socket to more than one-half the sphere, the other side being an eccentric arcuate curve, and a wall portion of said draft member in rear of and rigid with said socket portion having a similar arcuate curved surface in contact with that of said wedge and within the angle of fric-

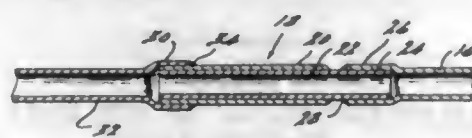
tion relative to displacement of said movable member by any draft stresses transmitted through said coupling and operating means for withdrawing said wedge longitudinally along said arcuate wall surface until the opening into said socket is equal to its internal diameter.

2,823,932
HOLE EDGE GRIPPING ELECTRICAL JUNCTION BOX CONNECTOR
Emil A. Schigut, Fallbrook, Calif.
Application February 23, 1955, Serial No. 490,049
2 Claims. (Cl. 285-162)



1. For use with an electric junction box provided with a conduit outlet opening in a face thereof, and an electric conduit, a connector for fastening said conduit in said outlet opening including, an open ended tube having a slot throughout its length, a plurality of resilient tongues formed integrally with one end of said tube, said tongues being turned to lie substantially parallel with said tube for a spaced distance from the end thereof, a pair of abutments formed integrally from said tube and projecting substantially radially outwardly from points on those edges defining the longitudinal slot in said tube, said abutments being located in spaced opposition adjacent the tongue supporting end of said tube with the extended ends thereof projecting outwardly to lie substantially in the same plane as the outer surfaces of said tongues, and means on the second end of said tube for engaging an electric conduit.

2,823,933
REFRIGERATING SYSTEM AND METHOD OF MAKING THE SAME
Charles E. Hickman and Allen L. Goldsmith, Adrian, Mich.
Application September 21, 1954, Serial No. 457,419
6 Claims. (Cl. 285-173)

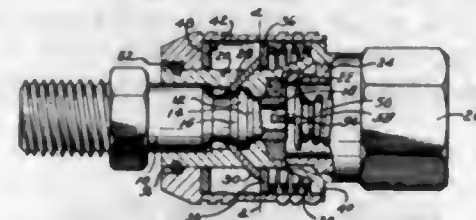


1. In a refrigeration system, a fluid conducting part formed of aluminum tubing and another fluid conducting part formed of tubing of a metal that can readily be soldered, a tubular fluid conducting transition piece connecting said tubing in fluid flow relationship and formed of a tubular layer of aluminum and a tubular layer of a readily solderable metal, a pressure tight joint integrally uniting the readily solderable tubular metal part of the transition piece and the tubing of the readily solderable metal, and a pressure tight joint integrally uniting the tubular aluminum of said transition piece and said aluminum tubing, said transition piece being formed of dissimilar wrought metals, metallurgically bonded together at their interface.

2,823,934
COUPLING WITH CAM WASHER FOR FLAT DETENTS
Donald W. Gorrell and Elwood F. Knapp, Bryan, Ohio, assignors to The Aro Equipment Corporation, Bryan, Ohio, a corporation of Ohio
Application November 2, 1953, Serial No. 389,618
1 Claim. (Cl. 285-277)

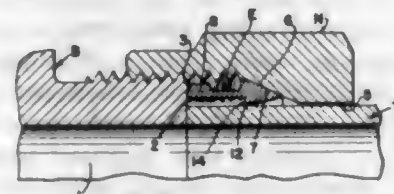
A quick fluid line coupler comprising, in combination, a nipple fitting having a radially outwardly extending

shoulder extending circumferentially therearound and defining therebehind a socket, a sleeve fitting adapted to receive said nipple fitting, a pair of spaced slots in said sleeve fitting inclined inwardly and toward the outer end thereof, an outwardly extending peripheral abutment shoulder on said sleeve fitting spaced from the outer end thereof a distance greater than the spacing of said slots from said outer end of the sleeve fitting, an actuating sleeve surrounding the portion of said sleeve fitting having slots therein and having the abutment shoulder thereon, said actuating sleeve being spaced from the slotted portion of the sleeve fitting to define an annular space therebetween, a pair of substantially flat jaws slidable in said slots and each having nipple-engaging portions thereof extending inwardly of said sleeve fitting, and forward and rearward control portions thereof extending outwardly of said sleeve into said annular space and located forwardly and rearwardly relative to the outer end of said sleeve fitting, a rearward control washer positioned in said annular space in engagement



with the rearward control portions of said flat jaws, a forward control washer positioned in said annular space abutting said actuating sleeve and engaging the forward control portions of said flat jaws and having inclined shoulders bent out of the plane of the washer and engaging edges of said jaws to cam them outwardly in said slots when said forward control washer is moved axially by said actuating sleeve, a coil spring in said annular space between said rearward control washer and said peripheral abutment shoulder on said sleeve fitting operating through said rearward control washer to normally bias the jaws inwardly, said jaws being slidable outwardly against the bias of said spring upon engagement thereof with the shoulder on said nipple fitting as said nipple fitting enters the sleeve fitting and then being operative to move inwardly into the socket behind the shoulder to grip the nipple fitting within the sleeve fitting, and movement of the actuating sleeve against the bias of the spring operating through the forward control washer to selectively move the jaws outwardly to permit release of said nipple fitting from the sleeve fitting.

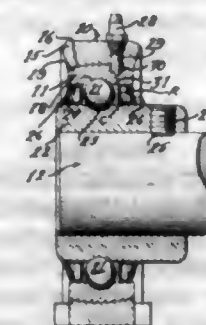
2,823,935
PIPE COUPLING WITH DEFORMABLE RING FOR FLARELESS PIPE
Paul D. Wurzbarger, Cleveland Heights, Ohio
Application January 23, 1953, Serial No. 332,952
2 Claims. (Cl. 285-342)



1. The tube coupling combination of a body having a rearwardly disposed end with which the tube is to be coupled for fluid communication, a coupling member associated with the body for forcible forward movement toward the body and having a bore encompassing the tube and having a forwardly facing forwardly and outwardly flaring substantially conical camming shoulder pitched at from about 25° to 35° to the axis of the member, a coupling element encompassing the tube between the body

and said shoulder and having a forward end engaging the body and a forwardly facing internally disposed and rearwardly relieved cutting edge closely adjacent the tube and remote from the forward end of the element and said element being adapted to be worked between the body and said shoulder with appreciable forward and inward tube cutting motion of said edge relative to the forward end of the element to cut a groove in the tube and turn up a ridge of appreciable size and into sealing engagement with the tube and the body, and means holding the tube against substantial forward motion while said coupling element is being worked, said coupling element comprising a rearward ring part embracing said cutting edge and engageable by said shoulder and movable thereby relative to said forward end and appreciably forwardly toward said end, and comprising a deformable axially and radially flexible portion joining and disposed between said end and said ring part and yieldably admitting motion of said ring part toward said end when said shoulder is forcibly moved toward the body, said ring part having a tapered bore adjacent and flaring rearwardly and outwardly from said edge and affording a relief angle for and behind said edge of about half the pitch of said shoulder and having an inner forwardly disposed and forwardly facing substantially radial surface intersecting the bore at said edge, said ring part being relatively axially inflexible in relation to said flexible portion and having an outer and rearwardly disposed inclined substantially conical bearing surface complementary and juxtaposed to said shoulder and pitched at substantially the same angle as said shoulder and slidably engageable therewith, said flexible portion having sufficient strength in resistance to forward motion of said ring part to first induce constriction of said cutting edge and cutting engagement with the tube under the forcible influence of said shoulder upon said bearing surface, and said flexible portion thereafter yielding both axially and radially with constriction of said cutting edge and forcibly yielding to forward axial motion of said ring part relative to the forward end of the element and to forward axial and inward radial motion of said cutting edge under the forcible influence of said shoulder upon said bearing surface whereby to cut a groove in the tube of appreciable length and depth and turn up a ridge of appreciable size.

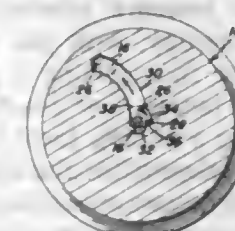
2,823,936
BEARING SEAL
Jullus E. Shafer, deceased, late of Chicago, Ill., by The Northern Trust Company, executor, Chicago, Ill., assignor to John H. Shafer and Olin J. Shafer, both of Park Ridge, J. Arthur Gross, Winnetka, and The Northern Trust Company, Chicago, Ill., a corporation of Illinois, as trustees
Original application December 27, 1949, Serial No. 135,051, now Patent No. 2,705,160, dated March 29, 1955. Divided and this application November 2, 1954, Serial No. 466,248
8 Claims. (Cl. 286-5)



1. In a bearing unit having a pair of bearing rings disposed one within the other and held in radially spaced apart relatively rotatable relation and against relative axial movement the improvements of a first sealing ring

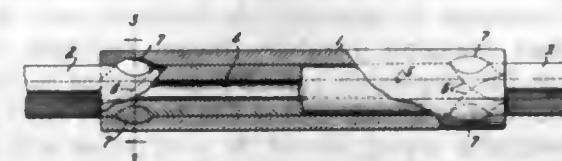
having a rim flange press fitted on the inner periphery of the outer bearing ring and a side wall portion extending radially inwardly from said rim flange and axially outward at an angle therewith into spaced relation from the inner bearing ring, a second sealing ring having a base press fitted on the outer periphery of the inner bearing ring and underlying the inner end of the side wall of the first sealing ring, said base projecting axially inward beyond the inner end of the first sealing ring to provide a shoulder acting as a finger for directing lubricant away from the gap between the base and inner end of the first sealing ring, said second sealing ring having a radially outward and axially inward extending finger flange overlying the side wall of the first sealing ring, and the outer end edge of said finger flange having an axially extending cylindrical surface in close-running clearance relation with an axially extending cylindrical surface on the inside of the outer bearing ring.

2,823,937
V-BELT PULLEY
Leo L. La Barre, Webster, N. Dak.
Application September 28, 1955, Serial No. 537,198
4 Claims. (Cl. 287-52)



1. A quick releasing pulley and shaft assembly comprising a shaft, a key carried by said shaft, a pulley mounted on said shaft, said pulley having a central opening in said pulley normally receiving said shaft, a key slot in said pulley receiving said key to form a drive connection between said pulley and said shaft, and an elongated extension of said central opening in said pulley, said extension being communicated directly with said key slot and extending away from said key slot, said opening, said key slot and said extension extending entirely through said pulley.

2,823,938
COUPLING FOR ROCK DRILL RODS
Carl Börje Eberman, Didrik Wilhelm Haglund, and Otto Jullus Waldemar Tenland, Sandviken, Sweden, assignors to Sandvikens Jernverks Aktiebolag, Sandviken, Sweden, a corporation of Sweden
Application July 3, 1952, Serial No. 297,132
Claims priority, application Sweden July 13, 1951
4 Claims. (Cl. 287-117)

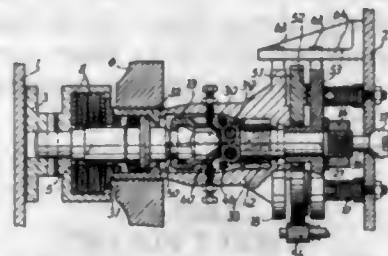


1. A percussion rock drill coupling comprising a sleeve having a cylindrical bore of uniform cross-section with helicoidal grooves in its inner surface adjacent its opposite ends and axially spaced from the middle of the length thereof, and cylindrical rod sections having substantially plane ends at right angles to the longitudinal axes thereof and having helicoidal ridges on their outer surfaces axially spaced from said plane ends, said ridges matching said grooves and being spaced from said plane ends a distance substantially equal to the distance of said grooves from the middle of said sleeve so that the plane ends of said rod sections are in contact in coupled position, the length of the inner surface of said sleeve between said

grooves being at least about one-seventh and not more than about six-sevenths of the length of the sleeve, and said grooves and ridges having a pitch angle greater than 30°.

2,823,939 APPARATUS FOR RELEASING COKE OVEN DOORS

Georg Henseleit, Essen, Germany, assignor, by mesne assignments, to Koppers Company, Inc., Pittsburgh, Pa., a corporation of Delaware
Application December 13, 1952, Serial No. 325,753
5 Claims. (Cl. 292—1)



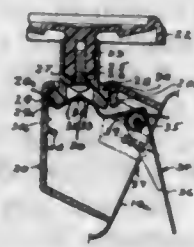
1. Fastener apparatus for a coke oven door comprising: latches slidably mounted on a support axially of a doorway, and provided with a spring member for exerting the total closure pressure between the latch and a door to be latched thereby, with the axial support provided with an element for exerting a pull on the spring member and keeper means for coaction with grasping means for transmitting a pulling force to the spring member through the axial support for the latch, two oppositely movable reciprocal pressure heads, a spring Cardan joint carriage structure supporting the heads, as a single unitary whole, a shaft rigidly secured axially to one of said pressure heads and slidably extending axially through the other of said two pressure heads, grasping elements pivotably mounted on the end of said shaft at a region beyond the other pressure head where the slidable shaft projects out of the same for coupling connection with keeper means on the axial supports for said latches, said grasping elements also having an abutting element in position to turn the grasping elements about their pivot into grasping engagement with a said keeper means when the unitary whole is pressed up against a said axial support for a latch on a coke oven door, said other pressure head having thrust member in position thereon for exerting an opposing thrust on the spring member for a said latch when the grasping means is in operative engagement with an axial support for a said latch for exerting a pull thereon, a rotatable member operable between said pressure heads with connections from said rotatable member to the pressure head for said thrust member, on the one hand, and to the pressure head for said door-part engaging member, on the other hand, for converting the rotary movement of said rotatable member into a straight line movement in opposite directions of said thrust and door-part engaging members, means operable from said carriage for imparting a rotary movement to said rotatable member, and said spring Cardan joint carriage structure normally urging one of the said thrust and door-part engaging members toward the other.

2,823,940 REFRIGERATOR DOOR SAFETY RELEASE

Herbert D. Squire, Galesburg, Ill., assignor to Midwest Manufacturing Corporation
Application October 31, 1956, Serial No. 619,445
12 Claims. (Cl. 292—92)

1. In combination, a casing having an opening in one wall thereof, an actuator pivotally mounted on the casing, an operator extending freely through said opening in the casing and terminating within the casing in a head which is larger than said opening and which at its inner end

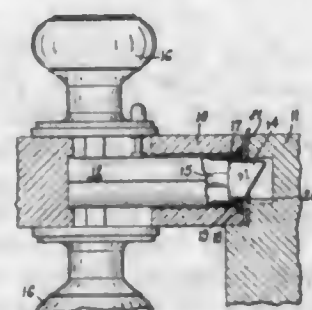
presents a recess facing away from said opening in the casing and defined by oppositely inclined surfaces which converge in a direction toward said opening in the casing, said actuator presenting a segment within the casing in confronting relation to the inner end of said head which



is seated in said recess bearing against said inclined surfaces, and spring means biasing the actuator to position said enlarged head on the operator in engagement with the inner side of said casing wall around said opening therein.

2,823,941 LATCH BOLT

Charles A. Ellis, Hamden, Conn., assignor to Sargent & Company, New Haven, Conn., a corporation of Connecticut
Application March 9, 1955, Serial No. 493,087
1 Claim. (Cl. 292—137)



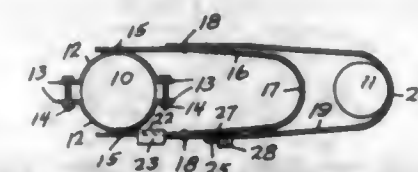
A latch bolt for doors comprising a bolt head adapted to cooperate with a strike plate, said head having front and back substantially parallel faces, an outer beveled face joining said front and back faces, and an inner face, a stem secured to the bolt head at its inner face, said stem being smaller than said face to leave a considerable portion of the latter exposed, a groove formed in the front, back and beveled faces of the head of a width less than that of the head to provide a side shoulder on each side of the groove, said groove being extended a short distance over the inner face of the head at both edges thereof and terminating in end shoulders spaced from the bolt stem, an insert of generally U-shaped form seated in said groove, the thickness of said insert being greater than the depth of the groove whereby the insert projects from the front, back and beveled faces of the bolt head to provide a wear surface to engage a door strike, said insert being provided with turned end portions at its free ends seated in said groove extensions and abutting against said end shoulders, said insert being of wear-resistant material having a low coefficient of friction and being resilient whereby it is held in place by its resilience and said shoulders.

2,823,942 WIRE GATE CLOSER

Carl H. Bichel, Wakefield, Nebr.
Application August 10, 1956, Serial No. 603,353
1 Claim. (Cl. 292—247)

A wire gate closer comprising a clamp for attachment to a stationary post, a hand operated substantially U-shaped member pivoted to said clamp, a further substantially U-shaped member pivoted to said hand operated member, the end of said further substantially U-shaped member being adapted to receive the top of a gate post

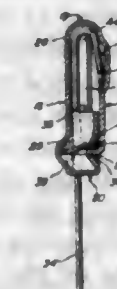
therein, whereby movement of said hand operated member will draw said gate post toward said stationary post, the pivoting point of said further U-shaped member to said hand operated member being substantially off-set from the pivoting point of said hand operated member and said clamp, said clamp including a pair of arcuate portions having extending ears, bolts received through said ears, said further substantially U-shaped member ex-



tending substantially beyond the end of said hand operated member, means for locking said U-shaped members together after said further U-shaped member is swung to gate closing position, including a weighted latch member pivoted to said further U-shaped member, said latch member having a slot, a flange secured to said hand operated member received in said slot when said gate is in closed position.

2,823,943 AUTOMATIC WIRE LOCK SEAL

Gilbert G. Canter and George G. Canter, New York, N. Y.
Application July 24, 1956, Serial No. 599,736
8 Claims. (Cl. 292—307)



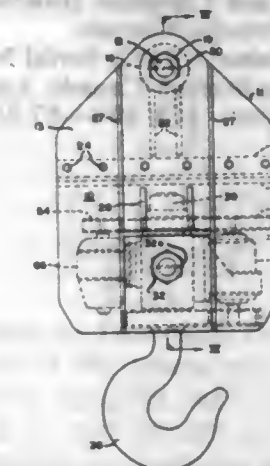
1. A seal comprising a sheet metal body and a flexible tie-wire associated therewith, said seal body including two interconnected sections bendable along a transverse line therebetween, said sections having means integral therewith for automatically locking them together when said two sections are brought together by bending along said transverse line, one of said sections having one longitudinal marginal portion thereof rolled inwardly thereupon to provide a tubular wire coupling member, said tie-wire having one end portion anchored to said one section and being adapted to be bent upon itself for insertion of its initially free end portion through said coupling member, said free end portion of said wire protruding across said transverse line and being received over the inner face of the other seal body section, whereby upon closure of said seal body by bending said sections along said transverse line said protruding end portion of said wire is reversely bent upon itself and crimped into interlocking relation with said coupling member to secure said wire against removal.

2,823,944 MOVABLE LOAD SUPPORTING DEVICE

John R. Anderson, Pittsburgh, and Daniel L. Janoff, Mount Lebanon Township, Allegheny County, Pa., assignors to Heppenstall Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 18, 1955, Serial No. 529,194
7 Claims. (Cl. 294—82)

1. In a motorized swivel hook device, in combination, a frame having spaced generally parallel side plates, a clevis pin engaging said side plates and extending between them to support said frame, a subframe between

said side plates having side arms normal to and engaging said side plates to support said subframe, said subframe having a vertical bore, a depending load supporting hook journaled in said subframe, said hook having a shank extending upwardly through said bore, anti-friction bearing means to prevent axial movement of said hook relative to said subframe, said hook being rotatable in said subframe about the axis of said shank, a positive speed reducer mounted on one face of said subframe generally midway between said side plates, said speed reducer having an output shaft extending vertically downwardly below said speed reducer, a horizontal drive gear affixed to said output shaft adjacent the



bottom of said shank, a horizontal driven pulley connected to the vertical input shaft of said speed reducer above said speed reducer, a horizontal driven gear having a hub connected to said shank, said driven gear being intermeshed with said drive gear, a motor mounted on the opposite face of said subframe generally midway between said side plates, said motor having an armature shaft extending vertically above said motor, a horizontal drive pulley connected to said armature shaft, said pulleys being in the same plane, and a belt connecting said pulleys, the distance between the reaches of said belt being sufficiently far apart to span parts of said subframe intersecting the plane of said pulleys.

2,823,945 WELL BIT RETRIEVING DEVICE

William Tillson, Ravenna, N. Y.
Application November 14, 1955, Serial No. 546,603
6 Claims. (Cl. 294—86)



1. A fishing tool for a flat well drill point having side wall cavities to receive a holding member to secure it in the shank of a drill, comprising a U-shaped hood having flat parallel side walls, one of which walls is provided with openings adapted to be brought into alignment with said cavities; means secured to the closed end of said hood by which it may be manipulated in a well by an operator above ground; a second U-shaped member, comprising the only essential locking means required to recover said point, having flat parallel side walls each of which terminates in a prong normally extending into said hood

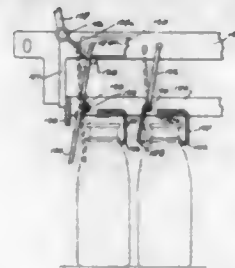
through said openings and adapted to engage said cavities, said locking means being pivotally mounted exteriorly of one side wall of said hood; biasing means for said locking means; and means extending from said locking means through said hood along said manipulating means to a zone above ground to indicate when said prongs have engaged said cavities and being operable from above ground by which said locking means can be actuated to retract said prongs from said hood.

2,823,946

AUTOMATIC CASE FILLING MACHINE

George Joseph Okulitch and Igor Zozulin, Vancouver, British Columbia, and Christian Handberg and George Falck, Toronto, Ontario, Canada

Application October 7, 1952, Serial No. 313,432
Claims priority, application Canada August 19, 1952
2 Claims. (Cl. 294—87.2)



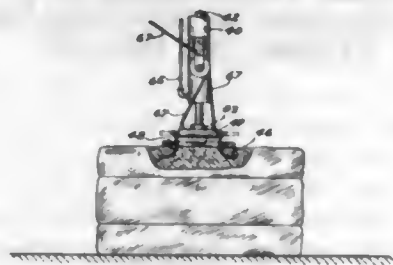
1. In a machine for placing containers in a case, a device for gripping the containers comprising a series of spaced, parallel, rigid jaw members, a series of spaced, parallel pivoted jaw members opposing said rigid members and pivoting towards or away from them, each series being aligned with the direction of delivery of the containers to the device, a set of downwardly extending tapered fingers pivoted on the same axis as the pivoted jaw members, said fingers adapted to pivot to take up a position between adjacent containers held in said gripping members, thereby forcing them apart laterally.

2,823,947

BALE LOADER

Reinhold Delzer, Douglas, N. Dak.

Application December 28, 1953, Serial No. 400,689
4 Claims. (Cl. 294—88)



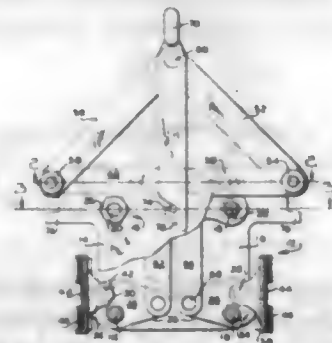
1. A mechanism for engaging a bale including an actuating cylinder, a pair of pistons each operably mounted in an opposite end of said cylinder, a hydraulic pipe connection from a source of hydraulic fluid under pressure open to the interior of said actuating cylinder at a side of at least one of said pistons opposite the other piston, a pair of piston rods each connected to one of said pistons and each extending outwardly from said actuating cylinder, a pair of arcuate bale prongs lying in a common plane and each pivotally mounted to an outer end of one of said piston rods, a pair of arms each integral with one of said bale prongs and each extending inwardly from one of said bale prongs in the plane of said prong to the center of a circle coincident with the arc of said prong, an otherwise unsupported spacing bar having opposite ends thereof pivotally mounted with respect to ends of said arm at the center of said circle coincident with said bale prong.

2,823,948

GRAB FOR LIFTING HOLLOW OBJECTS

Kenneth W. Horton, Watervliet, N. Y.

Application December 21, 1955, Serial No. 554,596
2 Claims. (Cl. 294—97)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. For a lifting device, a grab for releasably gripping the inside of a hollow object to be hoisted including a pair of rectangular side plates vertically insertable into the object and being fixedly joined in spaced lateral juxtaposition by stud bolts mounted between each of the top corners and each of the bottom corners of said side plates, lips extending outwardly from said top corners for engagement with the top of the object for limiting entrance of said grab thereinto, a bell crank lever pivotally mounted on each of said stud bolts mounted between said bottom corners, a jaw member pivotally mounted for a mechanical advantage to one end of each one of said bell crank levers for actuation thereby against the inside of the object with a force greater than that applied to said bell crank lever, a resilient shoe portion on each of said jaw members, a lined face portion on each of said shoe portions resiliently and frictionally engageable with the inside of the object when actuated thereagainst by said bell crank levers, and lever means engageable by the lifting device for hoisting said grab, said lever means being pivotally mounted to said bell crank levers for simultaneous actuation of said jaw members against the inside of the object with a greater force than that applied by the lifting device to said lever means when hoisting said grab.

2,823,949

ADJUSTING MEANS FOR THE FRONT SEAT OF AN AUTOMOTIVE VEHICLE

Richard J. Williams and Russell G. Heyl, Jr., Birmingham, Mich., assignors to American Metal Products Company, Detroit, Mich., a corporation of Michigan
Application December 21, 1953, Serial No. 399,404
12 Claims. (Cl. 296—65)



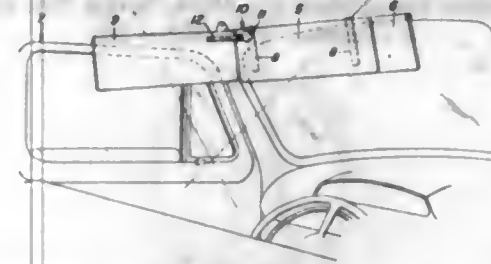
8. In a seat and back construction, track means having a stationary portion and a movable portion carried thereby, a seat supporting bracket carried by said movable portion, a slide bar carried by said stationary portion, releasable locking means supported between said movable portion and slide bar for locking said movable portion and bar for combined movement, a seat carried by said track means, a pivoted back carried by said seat, means operated by the movement of said pivoted back forwardly to disengage said locking means and permit said seat to move independently of the adjusted position of said slide bar, and means carried by said slide bar and the seat for securing the interruption of the return movement of the seat to its original adjusted position upon the return of the back to its initial position.

2,823,950

AUXILIARY VISOR

Earl R. Harris, La Crosse, Wis.

Application January 31, 1955, Serial No. 485,093
1 Claim. (Cl. 296—97)

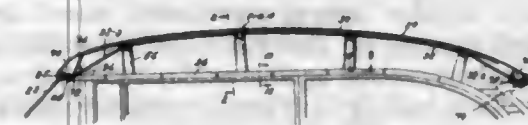


An auxiliary visor of the character described comprising: a substantially rectangular mounting plate, resilient clips on the back of said plate adjacent the ends thereof and engageable with the back of a standard visor for removably and slidably adjustably securing said plate on the front thereof, a shank on one of said clips passing through the plate, a ball on the shank adjacent the front of the plate, a glare shield, and a split socket on the shield operable on said ball for mounting said shield on said plate for universal adjustment.

2,823,951

HEAD LINER ASSEMBLY

Lloyd E. Stahl, Monroe, Mich., assignor to Woodall Industries, Inc., Detroit, Mich., a corporation of Michigan
Application November 26, 1957, Serial No. 697,181
16 Claims. (Cl. 296—137)



13. A head liner assembly for a motor vehicle body roof provided with abutments along opposite margins of the underside of the roof comprising, in combination: a plurality of resilient panel-matching and supporting strips sprung into arched shape upwardly against the roof with the end of the strips supported on said abutments tensioning the intermediate portions of the strips upwardly against the underside of the roof, said strips provided with oppositely opening longitudinally extending panel-receiving channels, a plurality of resilient board-like panels sprung into arched shape below the roof and between the strips and conforming in arched shape with that of the strips and with the opposite edges of the panels received and supported within the channels of the strips, said strips resiliently maintaining the panels in such arched shape and said panels maintaining the strips against relative displacement toward or away from each other providing a self-supporting resilient head liner assembly supported at opposite edges by said abutments and having its intermediate portion held upwardly and tensioned against the underside of the roof.

2,823,952

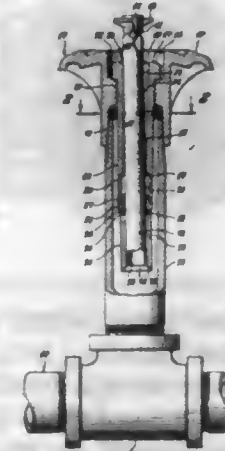
SPRINKLER HEAD AND NOZZLE

John O. Hruby, Jr., Burbank, Calif., assignor, by mesne assignments, to Rain Jet Corp., Los Angeles, Calif., a corporation

Application November 4, 1955, Serial No. 544,976
7 Claims. (Cl. 299—64)

1. A fluid discharge device comprising a body having an inside wall defining an open-ended passage extending through the body, one end of the passage defining a fluid discharge opening, an elongate stem arranged longitudinally in the passage, means spaced from said discharge opening defining a bearing face extending around the

passage and facing in a direction away from said discharge opening, said bearing face having an inside edge, means on the stem engageable with the bearing face preventing removal of the stem out from the passage and permitting free gyration of the stem in the passage in rolling contact with said inside edge, said inside wall of the body having a recess formed therein and located between said discharge opening and said bearing face and



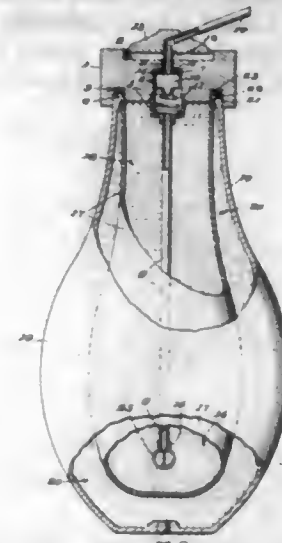
proximate said bearing face, there being a recess shoulder defining that end of the recess proximate the discharge opening, the recess shoulder facing toward said bearing face and serving to trap foreign particles carried in the fluid passing through the discharge device, and fluid passage means for imparting rotary motion to the fluid flowing in the body passage so as to gyrate the stem to roll around said inside edge with the stem being inclined with respect to the axis of the body passage.

2,823,953

LIQUID SPRAYING DEVICE

John R. McGeorge, Hagerstown, Ind.

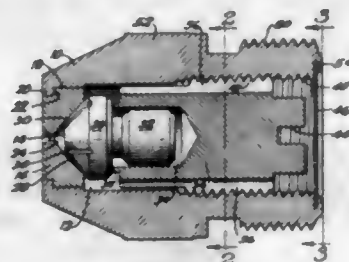
Application July 6, 1954, Serial No. 441,258
1 Claim. (Cl. 299—90)



A liquid spray device comprising a head having a valve chamber, the lower side of said head having a continuous groove surrounding and spaced from said valve chamber, the outer wall of said groove having a screw thread, a compressed-gas-containing shell having an open upper end, said open upper end having an external screw thread engaged with the aforesaid thread, a flexible liquid-containing bag within said shell, said bag having a continuous lateral flange lying upon the upper extremity of said shell within said groove, a gasket between said flange and the top wall of said groove, a liquid-conducting tube within said bag and extending to said valve chamber, a valve in said valve chamber having liquid discharge means terminating in a nozzle, and a push button operatively connected with said valve for opening the same.

2,823,954 UNITARY SPRAY NOZZLE AND FILTER ASSEMBLY

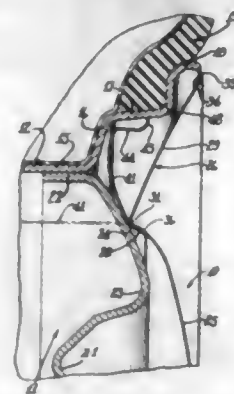
Eugene O. Olson, Des Moines, Iowa, assignor to Delavan Manufacturing Company, West Des Moines, Iowa, a corporation of Iowa
Application September 10, 1956, Serial No. 608,756
1 Claim. (Cl. 299—107)



A composite unitary spray nozzle and filter assembly for fuel oil and the like including in combination a housing having an axial bore therein terminating in a central discharge orifice, a distributor plug having a nose with grooves in the surface thereof for directing fuel oil flow through said orifice, means for minimizing clogging of the nozzle due to resident oil therein, said means comprising a screw pin positioned in said axial bore in supporting engagement with said distributor plug, said screw pin being shaped to substantially fill said bore and further to define a plurality of liquid flow passages between said screw pin and the wall of said bore, and a foraminous filter disc secured to the inlet end of the housing transverse to the direction of liquid flow, said filter disc having a plurality of uniformly-sized circular openings each approximately equal in size to one-half the depth of said grooves in said distributor plug to the end that clogging of said grooves due to the presence of foreign matter in said fuel oil is minimized.

2,823,955 WHEEL STRUCTURE

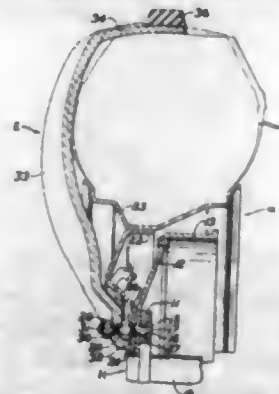
George Albert Lyon, Detroit, Mich.
Application March 4, 1953, Serial No. 340,183
16 Claims. (Cl. 301—37)



1. In a wheel structure including a multi-flanged tire rim having an intermediate generally axially extending flange and a load-sustaining body, a cover including an annular portion having an annular series of apertures and a circular portion having a series of generally radially outwardly extending retaining fingers respectively passing through said apertures for connecting said portions together, said fingers having ends formed to engage the intermediate flange for retaining the cover on the wheel structure, said annular portion concealing said fingers and having a radially and axially outwardly directed outer portion spaced from said tire rim, the outer edge of the annular cover portion having a pry-off edge engageable by a pry-off tool for flexing the fingers out of gripping engagement with the intermediate tire rim flange.

2,823,956 EMERGENCY WHEEL

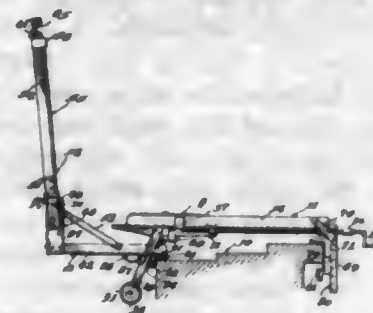
Harold Gray, Akron, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York
Application September 27, 1956, Serial No. 612,547
4 Claims. (Cl. 301—38)



1. An emergency wheel and road wheel and tire assembly comprising a hub, bolts extending through said hub, a road wheel having a central aperture to receive said hub and a circular row of apertures for receiving said bolts, road wheel nuts threaded on said bolts and clamping said road wheel to said hub, said road wheel having an axially outwardly extending lip bounding said central aperture, a one piece emergency wheel having a central aperture and a circular row of apertures aligned with said bolts, said emergency wheel having a generally axially inwardly directed lip bounding the central aperture and seated on said main wheel lip, and set of emergency nuts rotatably fixed in said circular row of emergency wheel apertures and threaded directly on said bolts and clampingly pressing said emergency wheel against said road wheel nuts, said road wheel nuts having polygonal wrench receiving surfaces and said nuts being entirely disposed between the road and emergency wheels.

2,823,957 PROTECTIVE STAND OR PLATFORM FOR WINDOWS

Shozaburo Otani, Chicago, Ill.
Application June 8, 1955, Serial No. 514,006
4 Claims. (Cl. 304—24)



1. A protective stand for supporting a workman at the exterior of a window opening having a sill, comprising an inner frame, a longitudinally adjustable carriage carried by the inner frame, a downwardly and outwardly projecting leg depending from each side of the carriage, an outer, supporting frame vertically adjustable on said legs and provided with clamping means adapted to engage the outer edge of the sill forwardly of said legs and held wedged by said legs in anchored position, a protective back guard adjustably carried by said outer, supporting frame upon which the workman stands, anchoring means carried by the inner end of said inner frame for anchoring the latter onto the inner end of the sill, and means on said inner frame for longitudinally adjusting said carriage, its legs and said outer, supporting frame in accordance with width of said sill.

2,823,958 LIFTING JACK

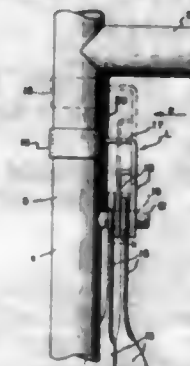
Claude W. Terry, Post, Tex.
Application December 18, 1956, Serial No. 629,017
2 Claims. (Cl. 304—29)



1. A lifting device comprising; a sleeve, a stem adjustably mounted in said sleeve and including a plate transversely mounted thereon, mechanical means for moving the stem relative to the sleeve, a plurality of legs each pivotally connected at their upper ends to said sleeve at a base of the parametral surface thereof, braces pivotally connected at one end thereof to said stem at the lower portion thereof, said braces being of a length which is only slightly less than the length of said legs, and connecting means connecting the lower end of said legs with the other ends of said braces whereby upon actuation of said mechanical means said lifting device may be raised a distance which is substantially equal to the length of said braces.

2,823,959 LOCKING DEVICE FOR SCAFFOLD ELEMENTS

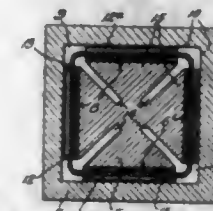
Charles C. Plimm, West Somerville, Mass.
Application December 21, 1955, Serial No. 554,474
2 Claims. (Cl. 304—40)



1. The combination with an elongated structural standard having a laterally projecting stud extending therefrom in spaced relation with an abutment on the standard, said stud being adapted to extend through an apertured structural brace element, of means for quickly locking said brace on said stud by gravity and releasing the same from locked position manually, said means comprising a collar in the form of a split ring surrounding said standard between said abutment and said stud for free to-and-fro limited slidable movement therebetween on said standard, said stud and abutment retaining said collar on the standard at all times, a plate secured to the collar and disposed in substantially parallel spaced relation with the said standard and having an extended end portion projecting below the plane of the collar and being bifurcated for a distance of its length to straddle the free end portion of said stud and to lie outwardly of and in opposition to the brace element on the stud to retain said brace, the split ends of said ring being separated, a guide rib carried by the standard extending longitudinally thereof and lying between the split ends of said ring to cooperate therewith for maintaining said plate at right angles to said stud and its bifurcated end in alignment with said stud.

2,823,960 DIE SETS FOR MACHINE PRESSES

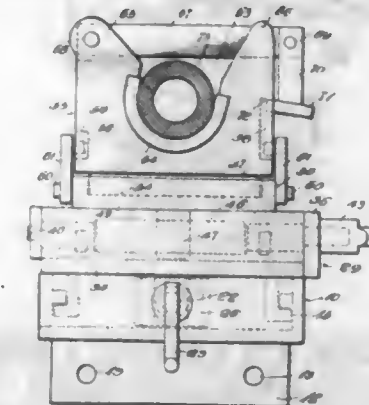
William J. Blazek, New Lexington, and James J. Strnad, Bedford, Ohio, assignors, by mesne assignments, to Lemco Products, Inc., Bedford, Ohio, a corporation of Ohio
Application August 26, 1955, Serial No. 530,857
9 Claims. (Cl. 308—6)



1. A die set comprising relatively movable, spaced and interfitted post and bushing members adapted for straight line motion and which are substantially polygonal in cross section in providing substantially flat, opposing and relatively spaced surfaces; a retainer structure conforming to the polygonal cross-sectional configuration of the space formed between said members, said structure including a plurality of independently movable bearing elements having simultaneous preloaded pressure contact with said opposing surfaces; and resilient means incorporated in at least one of said members and providing yielding displacement thereof in response to abnormal pressures applied to the bearing elements upon passing of the latter between portions of said opposing surfaces which are out of true geometrical relation to each other and in parallelism with post axes.

2,823,961 SADDLE BEARING

Frank W. Showalter, Dayton, Ohio, assignor to The American Envelope Company, West Carrollton, Ohio, a corporation of Ohio
Application September 21, 1953, Serial No. 381,370
5 Claims. (Cl. 308—15)

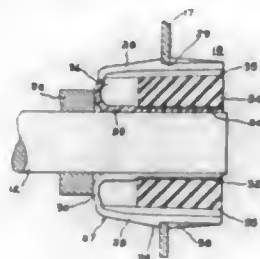


4. A device of the character described comprising a lower base, an upper base mounted upon said lower base, means carried by said lower base for longitudinally moving said upper base, a platform mounted on said upper base, means carried by said upper base for transversely moving said platform, an arbor-receiving bearing block mounted on said platform, an arbor retainer bar pivotally mounted on said bearing block and a latch carried by the outer end of said bar and engageable with said bearing block, said platform having a rounded depression in its upper face, and said bearing block having a rounded dependent portion receivable in said depression, said dependent portion having an axis extending in a vertical plane which is at right angles with respect to a vertical plane including the longitudinal axis of said bearing block, whereby said bearing block is tiltable with respect to its longitudinal axis.

2,823,962

**BEARING ASSEMBLY AND CLOTHES DRYER
EQUIPPED THEREWITH**

Richard H. Leonard, Louisville, Ky., assignor to General Electric Company, a corporation of New York
Application April 19, 1957, Serial No. 653,880
6 Claims. (Cl. 308—26)

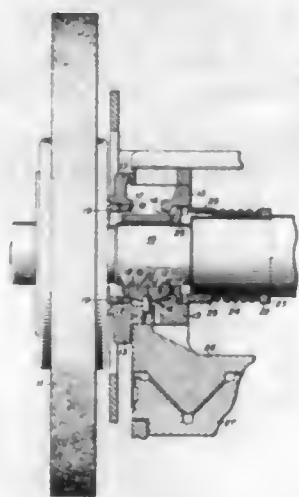


2. A vibration absorbing bearing assembly for supporting a rotating shaft, comprising a split bushing member including an inner sleeve for rotatably supporting said shaft and an outer portion for engaging a supporting member, a rigid ferrule surrounding said sleeve for holding said sleeve to a predetermined bearing diameter, and a resilient cylinder disposed between said ferrule and said outer portion of said bushing member for resiliently holding said outer portion in engagement with said supporting member.

2,823,963

ONE-PIECE RING BEARINGS

Harold E. Balsiger, Waynesboro, Pa., assignor to Landis Tool Company, Waynesboro, Pa., a corporation of Pennsylvania
Application December 22, 1954, Serial No. 476,996
4 Claims. (Cl. 308—73)

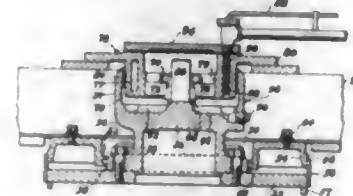


1. In combination with a bearing, a spindle rotatable in the bearing, said bearing comprising a solid ring-like member having peripherally spaced bearing segments and alternate flexible sections formed integral with the ends of adjacent bearing segments, and forming the sole connection therebetween, the clearance between the bearing segments and the rotatable spindle being initially in excess of that normally used for bearing purposes, each segment having on its outer face a contact portion disposed adjacent the trailing end on the segment, the outer faces of the contact portions being of increasing diameter transversely toward the center thereof, retaining means for engaging said outer faces of the contact portions, and means for adjusting said retaining means so as to rock the trailing end portions of the bearing segments into supporting contact with the spindle, and forcing the leading end portions thereof outwardly to provide a wedge-shaped clearance between the spindle and the bearing segments terminating in a substantially zero clearance at the trailing end portion through which lubricant is forced by the rotating spindle.

2,823,964

GUIDE BEARING

Glenn E. Flurschutz, Wellsville, N. Y., assignor to The Air Preheater Corporation, New York, N. Y., a corporation of New York
Application April 12, 1955, Serial No. 500,749
2 Claims. (Cl. 308—77)



1. A guide bearing assembly for restraining lateral movement of a rotor post or the like comprising; a bearing shaft supported axially from an end of a rotor post; a cylindrical housing member concentric with the bearing shaft and supported from the end of the rotor post to provide an annular space surrounding said bearing shaft; an anti-friction bearing positioned in said annular space inwardly embracing the bearing shaft and outwardly embraced by a cylindrical support housing, the remote end of said cylindrical support housing being laterally flanged to provide means supporting said housing independently of the bearing; duct means extending through the support housing to provide access for introducing a lubricant into the annular space occupied by said anti-friction bearing; an annular passageway extending substantially around said support housing to provide space for the passage of cooling fluid; and fin means formed in the base of the housing enclosing said annular space to agitate the lubricating medium and cause it to be thoroughly subjected to the cooling effects of the cooling fluid.

2,823,965
BEARING

Richard F. Harrington, Davenport, Iowa, assignor to Parkersburg-Aetna Corporation, Chicago, Ill., a corporation of West Virginia
Application July 20, 1955, Serial No. 523,217
7 Claims. (Cl. 308—187.1)



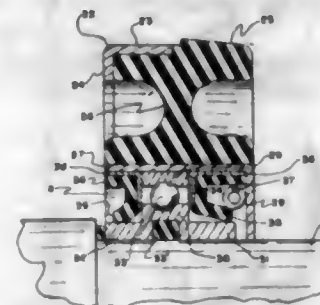
1. A bearing unit comprising an inner bearing race member adapted to receive a shaft or the like, annular means providing an outer bearing race surrounding said inner bearing race member, a plurality of anti-friction elements disposed between said inner and outer bearing races, said annular means including a pair of axially spaced annular wall sections extending inwardly from said outer bearing race and along opposite end surfaces of said inner member, said inner member having radially inwardly facing annular shoulders of predetermined diameter at said opposite end surfaces, said wall sections including radially outwardly facing annular surfaces having a diameter less than said predetermined diameter, and a pair of resilient seal rings respectively engaging said inwardly facing annular shoulders and adjacently disposed radially outwardly facing annular surfaces.

2,823,966

FLOATING SEAL

Noel S. Reynolds, St. Louis, Mo., assignor, by mesne assignments, to Federal-Mogul-Bower Bearings, Inc., Detroit, Mich., a corporation of Michigan
Original application July 2, 1953, Serial No. 365,702, now Patent No. 2,797,938, dated July 2, 1957. Divided and this application June 29, 1956, Serial No. 598,491

3 Claims. (Cl. 308—187.1)



1. In a seal for association with two relatively rotatable members having concentric cylindrical surfaces, said seal having a member of rubber or like material provided with an outer annular portion, an inner annular portion and a flexible connecting web portion, an annular support ring of rigid material secured to the outer portion of the rubber member and of an outer diameter to fit into the outer of the concentric cylindrical surfaces, said outer portion of the rubber member having a part of its material axially adjacent the supporting ring and provided with a peripheral surface inclined to the axis of the seal with its greatest diameter adjacent the support ring and of a diameter size slightly greater than the outer diameter of the support ring, an anti-friction bearing means of the ball type with inner and outer races carried by the inner portion of the rubber member and arranged to be positioned between it and the inner of the concentric cylindrical surfaces, and means for sealing the anti-friction bearing means.

2,823,967

BEARING

Richard F. Harrington, Davenport, Iowa, assignor to Parkersburg-Aetna Corporation, Chicago, Ill., a corporation of West Virginia
Application November 29, 1954, Serial No. 471,629
12 Claims. (Cl. 308—187.2)



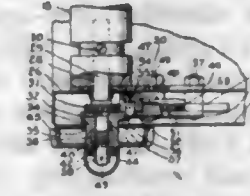
1. A bearing construction comprising an outer member, an inner member co-axial with and rotatable relative to said outer member and spaced therefrom at least in part, and a seal ring interposed between said members for retaining lubricant and excluding foreign matter, said ring being of thin and readily flexible resilient material and normally being flat and being flexed into a generally S-shaped configuration solely by engagement with said members, the inherent resiliency of said ring tending to return it to its initial shape and thereby maintaining intimate sealing contact with said members.

727 O. G.—41

2,823,968

PAPER TOWEL DISPENSERS

Moses M. Marcuse, New York, and Louis H. Morin, Bronx, N. Y., assignors to West Disinfecting Company, Long Island City, N. Y., a corporation of New York
Application January 19, 1955, Serial No. 482,809
11 Claims. (Cl. 312—39)

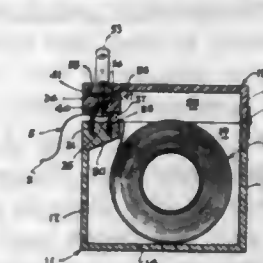


6. In dispensers of the character described, employing a feed roller for discharge of strip material from a dispenser, a feed control mechanism governing rotation of the feed roller in control of each discharge of strip material from the dispenser, said mechanism comprising a shaft extending into and coupled with the feed roller, said shaft having a key section, a gear integral with said shaft, said mechanism including a plate, a stud on said plate and including a disc head, a second gear rotatable on said stud and meshing with the first gear, key means movably supported in the second gear and having means normally maintaining said key means in operative engagement with said disc head so as to normally maintain the second gear against rotation, means freely rotatable on said shaft adjacent said first gear for operatively engaging said key means to move the same into inoperative position to free the second gear for rotation by said first gear in operation of rotating said feed roller, and said key means automatically moving into operative engagement with said disc head upon completion of one cycle of revolution of the second gear in controlling discharge of a length of strip material from the dispenser by said feed roller.

2,823,969

SEVERING FILM MATERIAL

Fred C. Traver and Craig S. Traver, Chicago, Ill.
Application July 21, 1955, Serial No. 523,506
1 Claim. (Cl. 312—39)

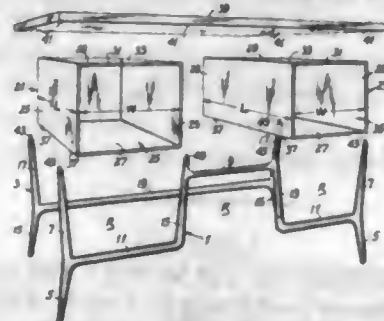


A dispenser for plastic film or like material that cannot be easily torn along a straight edge and comprising, means affording a box-like container member for holding a supply of said material in recessed relation therein and from which a sheet of said material of predetermined length may be withdrawn forwardly past and over the front edge portion thereof, a lid member pivotally attached to said container member and having a top wall, said lid member having means along the front edge portion thereof cooperating with the front edge portion of said container member when the lid member is at least partly closed on the container member affording a passageway in which a portion of said sheet of predetermined length can be disposed for severing, said lid member adjacent the front edge portion thereof having means affording a knife slot extended in a direction normal to the path of said material through said passageway, said knife slot having a first relatively wide horizontal portion and a second relatively narrow vertical portion, a knife including a flat guide shoe slidably mounted in the wide portion of said knife slot, said knife having a relatively narrow

blade and a cutting edge depending from the underside of said guide shoe and disposed in said vertical portion of said knife slot, said cutting edge being in line engagement with said sheet in said passageway when said lid is closed, spaced means extended along the front edge portion of said container member at said passageway and across which said sheet in said passageway can be stretched so as to establish free space below the line engagement of said cutting edge with said sheet as afore-said, spaced portions of the top wall of said lid overhanging marginal portions of said guide shoe for the length of the path of said knife to retain said knife in place, the spacing between said overhanging portions affording a channel below the plane of the upper face of the top wall of said lid, a collapsible pull tab pivotally attached to the upper side of said guide shoe opposite said blade, said pull tab being of less width and of not greater thickness than the width and depth respectively of said channel so as to be reposable entirely in said channel when the knife is not in use, and said lid member having an opening therein communicating with said knife slot and through which said knife is insertable and removable into and from said knife slot.

2,823,970 DESK

Wenceslao Sarmiento, Ladue, Mo., assignor to Bank Building & Equipment Corporation of America, St. Louis, Mo., a corporation of Delaware
Application January 23, 1956, Serial No. 560,781
4 Claims. (Cl. 312-194)



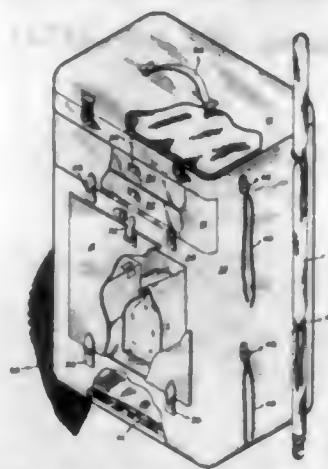
1. A desk comprising two chassis members, each consisting of a unitary subassembly constituted by end supports and stringer means, at least one subassembly being constituted by a unitary transverse box beam forming a self-sustaining hollow compartment open at the front and top, at least one of said stringers being of zigzag shape to form with one of its end members a recess having a lower portion at the elevation of the other stringer means for accepting one end of said box beam, said box beam resting upon and being supported by both stringers and forming a compartment for desk equipment such as drawers and the like, a top resting upon said box beam and enclosing its open top, said supports extending upward substantially to the top of the box beam, and attachments between the upper ends of said supports and said top adjacent the plane of support of said top on the box beam.

2,823,971 TACKLE BOX

Helen May Hoyt, Denver, Colo.
Application April 6, 1955, Serial No. 499,593
3 Claims. (Cl. 312-290)

1. In a fisherman's tackle box having means for attachment to the body of a user, the combination of a box-like container, a top for said container hinged for opening and arranged to expose the full-cross-sectional area of the container, a hinged door in a wall of said container adjacent to and opening in a direction away from said top, a lock pin for securing said hinged door in closed position and operable by said top whereby said hinged door may be locked when said top is closed and

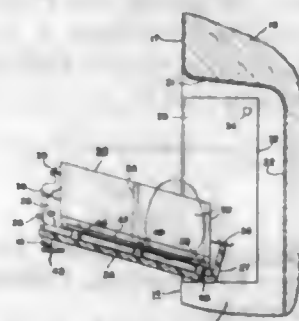
unlocked when said top is open, a plurality of drawers slidably mounted in said container in position to be enclosed by said hinged door when closed, a bottom closure for said container hinged for opening and arranged to open downwardly in the general direction of the opening of said top, said bottom closure closing a space in the



lowermost section of said container, and a game bag mounted in said space and arranged to extend downwardly in suspended position below said container when said bottom is open and arranged to be moved up into said space when the bottom closure is moved into closed position.

2,823,972 STORAGE COMPARTMENT ON REFRIGERATOR DOOR

Orson V. Saunders, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application June 20, 1955, Serial No. 516,459
2 Claims. (Cl. 312-311)

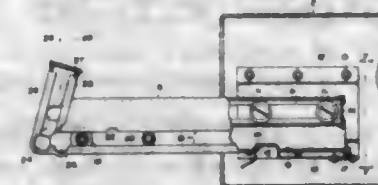


1. In a refrigerator provided with a refrigerated food chamber having an access opening, a door hingedly mounted upon said refrigerator for horizontal swinging movement relative thereto normally closing said chamber access opening, a panel on said door formed to provide a recess in the inner face thereof, a frame-like structure swingably carried by said door disposed in and extending substantially across said recess to provide without the aid of additional means a compartment therein communicating with the interior of said food chamber, said frame-like structure having tracks on the inner side thereof, a plurality of containers each having track receiving portions slidably engaging the tracks on said frame-like structure to removably mount the containers thereon in side by side relationship within the compartment on said door, a partition in one of said containers dividing same into open end egg storage cells disposed one above the other within said compartment with the open end of the cells normally facing said door panel to expose the eggs stored therein to cold air in said food chamber, means for pivotally mounting said frame-like structure upon said door for tilting same relative thereto, means for latching said frame-like structure in its compartment forming position and preventing tilting thereof during opening and closing swinging movements of said door, said latching means being accessible only upon

opening said chamber door to unlatch said frame-like structure and tilt same outwardly of the door recess into a substantially horizontal position, and said containers being selectively slidable away from said tilted frame-like structure with said open end of the cells in said one container upright to retain eggs therein.

2,823,973 CABINET FOR ELECTRONIC EQUIPMENT

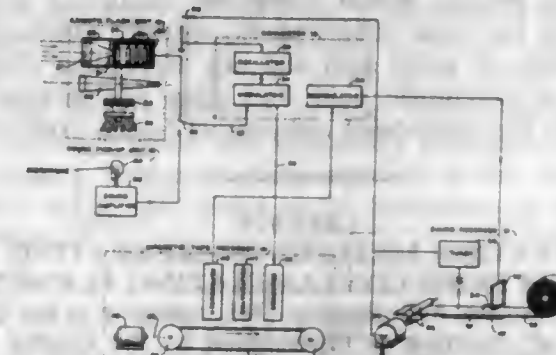
Vinton De Vere Carver and Marcus Liao, Fort Wayne, Ind., assignors to International Telephone and Telegraph Corporation
Application December 1, 1954, Serial No. 472,335
3 Claims. (Cl. 312-323)



1. In a cabinet mechanism, a slide comprising: an elongated support member having two oppositely facing longitudinally extending parallel channel-shaped tracks, and a third channel-shaped track joining the end of one of said parallel tracks and extending upwardly and rearwardly therefrom, each of said tracks having longitudinally extending parallel and transversely spaced-apart flanges respectively formed on its sides, the upper flange of said one parallel track having a first notch formed therein spaced from the junction of said one of said third tracks, the lower flange of said one parallel track having a second notch formed therein intermediate said first notch and said point of junction, said lower flange of said one parallel track and the flange of said third track joined thereto having a third notch formed at their point of junction.

2,823,974 FLASH-TO-SOUND RECORDING SYSTEM

Fred B. Daniels, New York, N. Y., assignor to the United States of America as represented by the Secretary of War
Application October 3, 1944, Serial No. 557,052
1 Claim. (Cl. 346-34)
(Granted under Title 35, U. S. Code (1952), sec. 266)



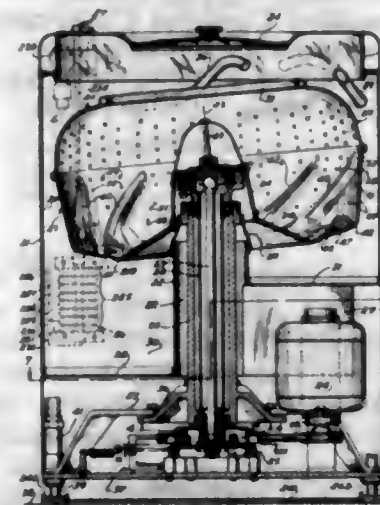
A flash-to-sound recording system for determining range between a source of flash and sound and said system, said system including a flash pick-up system pointing in the direction of anticipated flash, said pick-up system including a photo-electric cell and its amplifier, a modulator connected to said amplifier, an oscillator connected to said modulator, the frequency of said modulator being adjusted to act as a carrier for a signal impressed on said modulator by said amplifier, an end-less magnetic tape recorder including magnetic head recorder, reproducer and obliterator, said recorder being connected to the output of said modulator, a range recording means including a range recorder, a timer and a motor for moving a recording medium of said recorder, a sound pick-up unit, and a switch for disconnecting the photo-electric cell amplifier from said modulator and for connecting said sound pick-up unit to said modulator and for simultaneously starting said motor and said timer for recording timing signals on said recording medium and for transferring the flash and sound signals from said magnetic tape on said recording medium, whereby the range can be determined solely from the number of timer markings between the flash and sound signals all appearing on said medium.

CHEMICAL

2,823,975 WASHING MACHINE

James B. Kirby, West Richfield, Ohio, assignor to The Apex Electrical Manufacturing Co., as trustee, Cleveland, Ohio, a corporation of Ohio
Continuation of application Serial No. 619,849, October 2, 1945. This application April 5, 1954, Serial No. 421,097

29 Claims. (Cl. 8-159).



4. That method of washing and extracting in a symmetrical container which comprises moving the container

about a point on the central axis thereof to cause all other points on said axis to move in a circular path with a predetermined angular velocity whereby the container is progressively tilted to effect washing and thereafter rotating said container about said axis with substantially the same angular velocity to effect extraction.

2,823,976 RECOVERY OF THORIUM AND URANIUM VALUES FROM AQUEOUS SOLUTIONS

George D. Calkins, Worthington, Ohio, assignor to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application June 24, 1952
Serial No. 295,363

4 Claims. (Cl. 23-14.5)

1. A process for separation of uranium values from a mixture comprising values of uranium and of thorium, which comprises forming a carbonate solution of said values in which the carbonate is present in excess quantity and the pH value is 9.5, adding hydrogen peroxide to said solution whereby thorium values precipitate, and separating the precipitate from the aqueous solution containing uranium values.

2,823,977

METHOD OF DISSOLVING URANIUM METAL
Louis A. Slotin, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy CommissionNo Drawing. Application August 3, 1944
Serial No. 547,994

14 Claims. (Cl. 23—14.5)

13. The process which comprises dissolving uranium metal that has been subjected to neutron bombardment in a mixture of nitric acid and not more than about 10 percent of perchloric acid and then precipitating and recovering the short-lived radioactive fission products.

2,823,978

PRECIPITATION METHOD OF SEPARATING PLUTONIUM FROM CONTAMINATING ELEMENTS
Joseph B. Sutton, Wilmington, Del., assignor to the United States of America as represented by the United States Atomic Energy CommissionNo Drawing. Application May 23, 1947
Serial No. 750,176

6 Claims. (Cl. 23—14.5)

1. In a process for recovering plutonium from radioactive uranium fission products in aqueous solutions by decontamination steps including by-product carrier precipitation, the improvement which comprises introducing a preformed aqueous slurry of a hydroxide of a metal of group IV B into an aqueous acidic solution in which the acidity of the solution is between about 0.5 N and 1 N and which contains the plutonium in the hexavalent state, radioactive uranium fission products contaminant, and a by-product carrier precipitate and separating said metal hydroxide together with the by-product carrier precipitate.

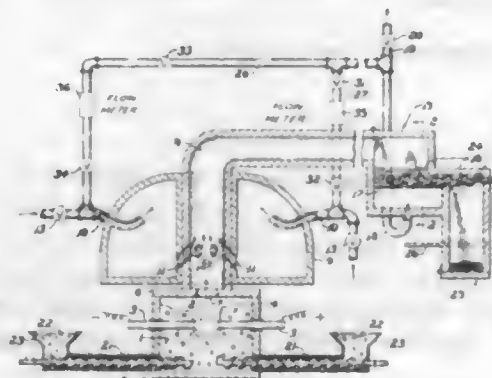
2,823,979

METHOD OF MAKING PIGMENT

Daniel S. Sears, Henrico County, Va., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

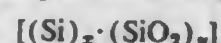
Application May 28, 1954, Serial No. 433,020

14 Claims. (Cl. 23—182)



11. In the method of making a particulate, solid product comprising silicon monoxide by reacting a silicon-containing material selected from the group consisting of silica, sand, quartz and mineral silicates at sufficiently elevated temperatures of at least about 1500 to 2000° C. in a first zone in the presence of a carbonaceous reducing agent to produce silicon-monoxide gas and then condensing said gas to obtain a solid, the improvement comprising continuously reacting said silicon-containing material and reducing agent to produce silicon monoxide gas, continuously delivering said silicon-monoxide gas to a second zone, continuously enveloping said silicon monoxide gas in said second zone with an essentially pure condensing gas inert to said silicon-monoxide gas to mix with said silicon-monoxide gas and form a gas stream exhibiting lamellar flow essentially free of turbulence, said silicon-monoxide gas cooling and condensing in the presence of said inert gas to form a particulate,

solid silicon-monoxide product having the general formula



where x and y are whole numbers and containing a substantial amount of fibers having an average particle length of from about 50 to 600 millimicrons, a surface area of from about 60 to 200 square meters per gram and a structure in which the ratio of width to length is from about 1:10 to 1:50, and continuously separating said solid silicon-monoxide product from said condensing gas.

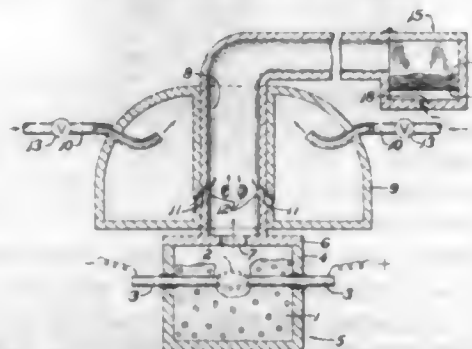
2,823,980

PIGMENT AND PROCESS FOR MAKING THE SAME

Daniel S. Sears, Henrico County, Va., assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

Application May 28, 1954, Serial No. 433,099

13 Claims. (Cl. 23—182)



3. In the method of making a condensed, particulate, solid product comprising a silicon monoxide by reacting a silicon containing material selected from the group consisting of silica, sand, quartz and mineral silicates at elevated temperatures to produce silicon monoxide gas and then condensing said silicon monoxide gas, the step comprising mixing under substantially non-turbulent condition said silicon monoxide gas with a condensing gas inert to said silicon monoxide gas and containing from about 0.5 to 9% by volume of said condensing gas of a treating gas selected from the group consisting of ammonia and an amine to condense said silicon monoxide gas to form a product comprising a condensed, particulate, solid nitrogen containing silicon monoxide, $(Si)_x \cdot (SiO_2)_y \cdot (N)_z$, where x and y are whole numbers and where z is a number such that the proportion of nitrogen is from about 1 to 8% by weight of said solid nitrogen containing silicon monoxide as determined by Kjeldahl analysis, and containing a substantial amount of fibers.

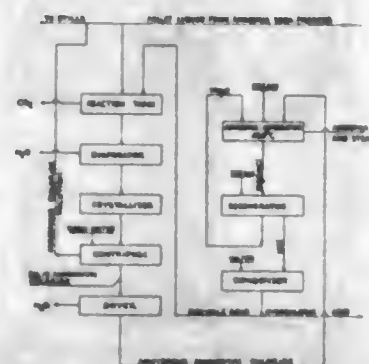
2,823,981

METHOD OF RECOVERING AMMONIA FROM AMMONIUM CHLORIDE

Charles H. Fuchsman, Corpus Christi, Tex., assignor to Columbia-Southern Chemical Corporation, Allegheny County, Pa., a corporation of Delaware

Application January 9, 1956, Serial No. 557,936

9 Claims. (Cl. 23—193)



1. A method of recovering ammonia from ammonium chloride which comprises passing a stream of steam over

magnesium oxide in contact with ammonium chloride at a temperature of 200 to 500° C. whereby to cause absorption of evolved HCl from the ammonium chloride and release of ammonia in vapor state, and withdrawing and condensing the resulting ammonia vapor-steam mixture whereby to produce an aqueous solution of ammonia, the amount of steam so passed over the magnesium oxide being in addition to any moisture generated by reaction in consequence of contact of magnesium oxide with ammonium chloride and being sufficient to establish a water vapor pressure over the magnesium oxide of at least 30 percent of the sum of partial pressures of water vapor and HCl in said atmosphere.

2,823,982

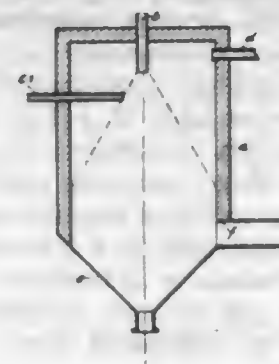
PRODUCTION OF FINELY DIVIDED METAL OXIDES

Otto Saladin, Schweizerhalle, and Walter Frey, Basel, Switzerland, assignors, by mesne assignments, to Fabriques de Produits Chimiques de Thann et de Mulhouse, Thann (Haut-Rhin), France, a corporation of France

Application February 11, 1949, Serial No. 75,886

Claims priority, application Switzerland February 20, 1948

13 Claims. (Cl. 23—202)



1. The method of producing a finely divided oxide of a metallic element from those in groups 3 and 4 of the periodic system that form volatile chlorides, which comprises continuously burning a mixture of a vaporized anhydrous chloride of said element and oxygen containing gas in a streaming flame thereof within an enveloping flame formed from a surrounding combustible gas stream having a substantially higher flame temperature than said mixture.

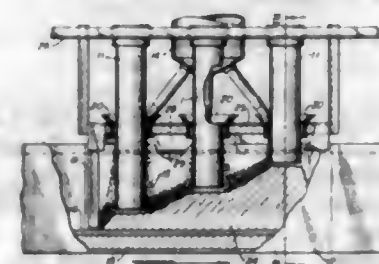
2,823,983

PROCESS FOR THE PRODUCTION OF METALLIC SILICON

Marvin J. Udy, Niagara Falls, N. Y., assignor to Strategic Udy Metallurgical and Chemical Processes, Ltd.

Application October 31, 1956, Serial No. 619,559

1 Claim. (Cl. 23—223.5)



Process for the production of silicon that comprises: supplying on a continuous basis from above, silicon-containing charge material to each of a plurality of contiguous arc-sustained high-temperature reaction zones maintained in substantially linear alignment within an electric arc furnace provided with a movable conveyor-type hearth; arc melting the charge material and continuously forming silicon within each of said high-temperature reaction zones; continuously moving the silicon

thus produced by means of the movable hearth away from the respective reaction zones in a substantially unidirectional flow along the linear path of said reaction zones for eventual recovery from said hearth outside the furnace; and maintaining the furnace electrodes and successive reaction zones in the direction of movement of silicon at ascending stepped operating levels within the furnace; whereby the silicon formed in one high-temperature reaction zone, in moving towards eventual recovery outside the furnace, is passed beneath successive contiguous reaction zones at distances removed from the direct influence of the high-temperatures of said successive zones and effectively insulated therefrom by overlying charge material supplied to and undergoing reaction within said zones in the formation of additional quantities of silicon.

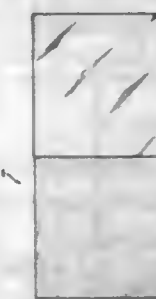
2,823,984

FLUORIDE ION INDICATOR AND PROCESS OF DEVELOPMENT

Radu A. W. Mavrodineanu, Yonkers, N. Y., assignor to Boyce Thompson Institute for Plant Research, Inc.

Application January 18, 1955, Serial No. 482,549

3 Claims. (Cl. 23—232)



1. The process of determining the presence of fluoride ions in a gas which comprises suspending in the gas an indicator having an absorbing surface initially impregnated with a nitrate of the group consisting of zirconium nitrate and thorium nitrate and thence impregnated with a dye that forms a lake with the nitrate, whereby said lake is concentrated primarily at the absorbing surface, a portion of said indicator being covered with a removable material which is impervious to the fluoride ions, removing the cover, and immersing the indicator in an acid solution to develop the color change resulting from the contact of fluoride ions with the exposed part of the indicator.

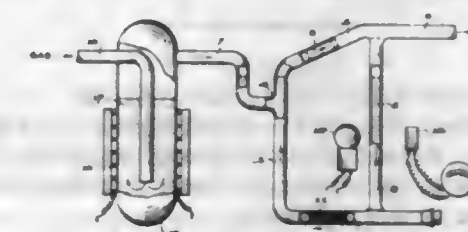
2,823,985

OXYGEN INDICATING APPARATUS

John P. Strange, Murrysville, Pa., assignor to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application March 25, 1954, Serial No. 418,544

1 Claim. (Cl. 23—254)

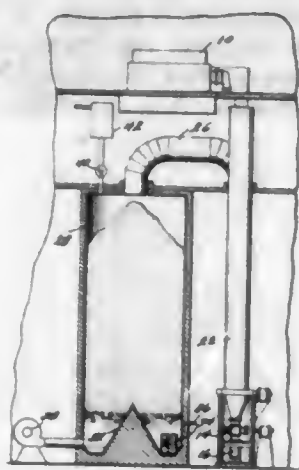


Oxygen indicating apparatus comprising means provided with a continuous tubular passage in the form of an upright supply section and an upright indicating section connected at top and bottom by crossing sections, the supply section having a gas inlet in its side, the top crossing section of the passage being inclined upward from said supply section to said indicating section, said passage being provided with a gas outlet beyond the

junction of said inclined crossing section and the indicating section, ammoniacal cuprous chloride solution filling said passage to a level above the gas inlet, means for continuously delivering sampling gas to said inlet to push slugs of said solution upward through said inclined section of the passage from the supply section to the indicating section, whereby oxygen in said gas will react with said solution and change said slugs into cupric chloride so that the solution in said indicating section will appear blue, and copper in the bottom crossing section of said passage for changing the cupric chloride back to cuprous chloride as the circulating solution flows past the copper.

2,823,986 APPARATUS FOR THE TREATMENT OF SLURRIES OF CHEMICAL REAGENTS

Elmer R. Burling and John P. Rich, Nashua, N. H.
Application October 19, 1951, Serial No. 252,122
4 Claims. (Cl. 23—260)

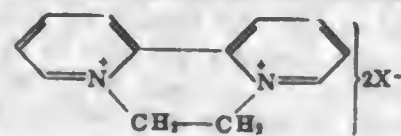


1. Apparatus for reacting a high density aqueous slurry of wood pulp with a volatile, corrosive reagent such as chlorine dioxide comprising: a thick stock pump for advancing a high density slurry; a mixer; a conduit connecting said pump to said mixer, said conduit being proportioned with reference to the delivery of said pump so as to form a gas tight plug of stock between the pump and the mixer; means for supplying a solution of volatile, corrosive reagent to said mixer; a primary vertical reaction tower receiving, at its base, a mixture of said slurry and said reagent from said mixer; a secondary vertical reaction tower; a conduit connecting the tops of the two towers whereby to deliver said slurry mixture from the primary tower to the secondary tower; said secondary tower having adjacent its base a plurality of nozzles for diluting the slurry mixture and an outlet for removing all of the dilute slurry mixture from the system at the base of the secondary tower.

2,823,987
NEW QUATERNARY SALTS
Richard J. Fielden, Ronald Frederick Homer, and Richard Lewis Jones, Manchester, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain
No Drawing. Application July 9, 1956
Serial No. 596,414

Claims priority, application Great Britain July 20, 1955
12 Claims. (Cl. 71—2.5)

1. Quaternary salts which are of the formula:



wherein X stands for an anionic radical.

2,823,988
COMPOSITE MATTER
Nicholas J. Grant, Winchester, Mass., and Claus G. Goetzel, Hastings-on-Hudson, N. Y., assignors to Sintercast Corporation of America, Yonkers, N. Y., a corporation of New York
No Drawing. Application September 15, 1955
Serial No. 534,626

14 Claims. (Cl. 75—5)

6. A method for producing reinforced metal products capable of sustaining high strength properties at elevated temperatures which comprises providing free flowing, finely divided composite particles ranging in size up to about five microns containing as essential ingredients a strong high-melting point hard and substantially insoluble refractory material as a slip and recovery inhibiting phase and a ductile metal of melting point about 1250° C. in integral relation therewith, whereby one constituent substantially coats the other so that when the metal coats the refractory material its thickness ranges from about 0.05 to one micron, and when the refractory material coats the ductile metal its thickness ranges up to about 0.3 micron, the amount of the hard refractory material ranging from about 0.5% to about 25% by volume of the total powder composition, shaping said powder mixture to a coherent body, sintering the shaped body at a temperature of at least about 1100° C. to not greater than about 5° below the point of incipient fusion under substantially non-reactive conditions to produce a substantially dense body, hot working said sintered body to reduce its cross-sectional area at least about 50% to eliminate substantially the voids in said body, and then fabricating said hot worked body into a heat resistant article of manufacture, said fabricated article being characterized by a microstructure having a substantially discontinuous and random dispersion of the finely divided slip and recovery inhibiting phase throughout the matrix of the reinforced metal.

2,823,989
AGENT FOR TREATING MOLTEN METALS
Alden J. Deyrup and John R. Ferron, Niagara Falls, N. Y., assignors to E. I. du Pont de Nemours & Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application July 22, 1953
Serial No. 369,711

10 Claims. (Cl. 75—58)

1. An article of manufacture for use in treating ferrous melts consisting essentially of a porous, refractory metal oxide in the form of integral lumps impregnated with at least one member of the group consisting of magnesium and sodium, the refractory metal oxide being substantially inert to ferrous melts and to the afore-said metals.

8. The method of making the article of claim 1 which comprises heating said metal with lumps of the porous, refractory metal oxide.

2,823,990
PROCESS FOR THE TREATMENT OF LEAD ORES
Josef Barwasser, Udo Esch, Werner Schwartz, and Hans Rausch, Frankfurt am Main, Germany, assignors to Metallgesellschaft Aktiengesellschaft, Frankfurt am Main, Germany
No Drawing. Application April 29, 1954
Serial No. 426,576

Claims priority, application Germany April 30, 1953
6 Claims. (Cl. 75—77)

1. In process for smelting sulfidic raw materials containing more than 40% of lead in the form of lead sulfide in admixture with soda and carbon the steps which comprise granulating an admixture of a lead ore concentrate with soda and carbon wetted with water of a temperature of 50 to 70° C., and smelting the resulting granulated admixture in a flame-fired rotary furnace at a temperature between 700° and 1000° C.

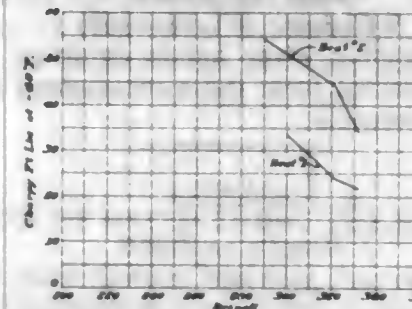
2,823,991
PROCESS FOR THE MANUFACTURE OF TITANIUM METAL
Jonas Kamlet, New York, N. Y., assignor to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia
No Drawing. Application June 23, 1954
Serial No. 438,873

12 Claims. (Cl. 75—84.4)

1. A process for the manufacture of titanium metal which comprises adding anhydrous alkali metal fluotitanate chosen from the group consisting of sodium fluotitanate, potassium fluotitanate, and mixtures thereof, to a body of molten sodium, with agitation of the reaction mixture, maintained under an atmosphere inert to titanium, at a temperature between 500° C. and 1300° C., there being at least four equivalents of sodium metal present for each mole of alkali metal fluotitanate, and thereafter separating the titanium metal formed from the by-product slag.

2,823,992
ALLOY STEELS
Wilbur T. Bolckcom, Allison Park, and William E. Knapp, Pittsburgh, Pa., assignors to American Metallurgical Products Company, Pittsburgh, Pa., a partnership of Pennsylvania
Application November 9, 1956, Serial No. 621,475

17 Claims. (Cl. 75—123)



1. An impact resisting steel alloy comprising about 0.1 to 1% carbon, about 0.2 to 6% manganese, about 0.1 to 0.75% silicon, nil to about 0.04% phosphorus, nil to about 0.04% sulphur, nil to about 5% of one or more of the group molybdenum, chromium and tungsten, nil to about 4% nickel, the residue from the treatment of the molten metal with about 0.0015 to 0.5% rare earth metals after reducing the total oxide to below 0.007% and the balance substantially iron with residual impurities in ordinary amounts.

2,823,993
STEEL ALLOY USABLE FOR VALVE SEATS AND THE LIKE

Gerhard Kubera, Blumberg, Baden, Germany, assignor to Alfred Teves, Maschinen- und Armaturenfabrik K. G., Frankfurt am Main, Germany
No Drawing. Application July 25, 1956
Serial No. 599,931

Claims priority, application Germany July 16, 1955
4 Claims. (Cl. 75—126)

1. As a novel composition of matter, a chrome-molybdenum steel comprising 0.7—0.8% carbon, 1.0—1.5% manganese, 18—20% chromium, 2.3—2.7% molybdenum, 0.4—0.6% vanadium, balance iron.

2,823,994
Al-Mg-Zn-ALLOY HAVING HIGH STRESS CORROSION RESISTANCE
Wilhelm Rosenkranz, Eichholz, Germany, assignor to Otto Fuchs K G, Metallwerke, Meinerzhagen, Westphalia, Germany
No Drawing. Application January 23, 1956
Serial No. 560,890

8 Claims. (Cl. 75—141)

1. An aluminum alloy consisting essentially of commercial aluminum and of between 4% and 12% zinc,

between 1.5% and 6% magnesium the combined quantity of zinc and magnesium amounting to at least 7.4%, between 0.1% and 4% silver and copper of which between 0.1% and 1% are silver, and an amount of at least one additional metal being selected from the group consisting of between 0.1% and 0.6% chromium, between 0.1% and 1.5% manganese, and between 0.03% and 0.15% vanadium.

2,823,995
ALUMINUM BASE ALLOY DIE CASTING
Edward V. Blackmun, Pittsburgh, Pa., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
No Drawing. Application September 28, 1955
Serial No. 537,283

4 Claims. (Cl. 75—148)

1. An aluminum base alloy die casting having a composition consisting essentially of, aluminum, 6 to 11% silicon, 0.1 to 0.6% chromium and 0.01 to 0.10% beryllium, with a maximum of 0.2% copper, 2% iron and 0.1% each of manganese, nickel, zinc and tin as impurities, said die casting in the as-cast condition being characterized by a minimum tensile strength of 41,000 p. s. i. and a minimum elongation of 5.0%.

2,823,996
MAGNESIUM ALLOY
Daniel Gardner, New York, N. Y.
No Drawing. Application August 3, 1953
Serial No. 372,170

1 Claim. (Cl. 75—168)

An alloy having the following composition:

	Percent
Magnesium	95.00
Titanium	.10
Silicon	4.60
Nickel	.15
Chromium	.15

2,823,997
PIGMENT, PAPER CONTAINING THE SAME AND METHOD OF PREPARATION

William L. Cralg, Westport, Conn., assignor to R. T. Vanderbilt Company, Inc., New York, N. Y., a corporation of New York
No Drawing. Application November 25, 1953
Serial No. 394,485

7 Claims. (Cl. 92—3)

1. A new composition of matter suitable for use as a pigment, said composition being a reaction product of aluminum sulfate and a highly-pigmented cellulosic pulp comprising swollen, hydrated and gelatinized cellulosic fibers and an amount of finely-divided pigment in excess of the dry weight of the fibers, and not exceeding about nine times the dry weight of the fibers, the finely-divided pigment being precipitated, hydrated calcium silicate, the calcium silicate being largely within the cellulosic fibers and also on and around said fibers, the calcium silicate within the fibers having been precipitated in situ therein by reaction of calcium chloride with sodium silicate while the calcium chloride is within the fibers while they are in a swollen, hydrated and gelatinized state, said highly-pigmented cellulosic pulp forming a pulp-like mass on admixture with water, said reaction product when dispersed in water to form a mixture containing 10 percent by weight of said reaction product yielding a mixture having a pH within the range 4 to 9.

2,823,998

PROCESS AND MATERIAL FOR PRODUCING PHOTOGRAPHIC MULTI-COLOR IMAGES
Jacob Joseph Jennen, Antwerp, Belgium, assignor to Gevaert Photo-Producten N. V., Mortsel, Belgium, a company of Belgium

No Drawing. Application December 12, 1950

Serial No. 200,491

Claims priority, application Great Britain

December 13, 1949

6 Claims. (Cl. 96—9)

1. Process for the production of a photographic multi-colored image, which comprises exposing to light a photographic material containing at least two silver halide emulsion layers sensitive to different regions of the visible spectrum, at least one of these layers containing a color coupler which is able to form, by reaction with the oxidation product of a primary aromatic amino developing agent, a dyestuff image undesirably absorbing in the blue region of the visible spectrum and more strongly absorbing in another part of the visible spectrum, and which color coupler by oxidation is converted into a blue-absorbing colored substance practically not absorbing in said other part of the visible spectrum, which process further comprises developing at least that layer containing said color coupler with a primary aromatic amino developing agent, and treating at least the remaining color coupler of this layer in an oxidizing bath, said color coupler containing a $-\text{NH}-\text{NH}-\text{CA}-$ group within a ring, wherein A is a member selected from the group consisting of O, NH, N linked to a hydrocarbon radical, and N linked to an acyl group.

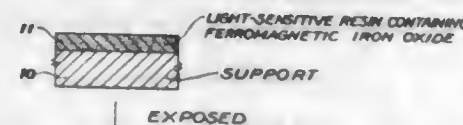
2,823,999

PHOTOMAGNETIC COMPOSITION AND PRINTING PROCESS

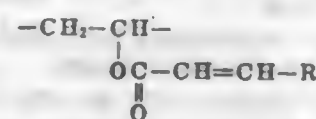
Franklin A. Hamm, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application January 7, 1955, Serial No. 480,487

8 Claims. (Cl. 96—35)



1. A photomechanical resist composition comprising a polymeric material of esters of polyvinyl alcohol containing at least 60 mol. percent of recurring structural units having the formula:



wherein R represents a monocyclic aryl group of the benzene series as a combined carrier and light-sensitive material, and a ferromagnetic iron oxide.

2,824,000

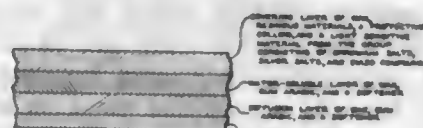
PHOTOGRAPHIC STENCIL PARTICULARLY FOR DIFFUSION PRINTING

Curt Eckardt, Nieder-Beerbach-Darmstadt, Germany

Application December 4, 1952, Serial No. 324,135

Claims priority, application Germany December 6, 1951

2 Claims. (Cl. 96—75)



1. Photographic stencil for diffusion printing, comprising, in combination, a backing consisting substantially of Yoshino paper, a diffusion layer on said backing, said

diffusion layer consisting of a first emulsion including wax, gum arabic, and a softener, an intermediate layer arranged on said diffusion layer opposite to said backing, said intermediate layer consisting of a second emulsion including wax, gum arabic, and a softener, a cover layer arranged on said intermediate layer opposite to said diffusion layer, said cover layer consisting of a third emulsion including wax and a substance selected from the group consisting of shellac and sandarac gum, a protective colloid selected from the group consisting of gum arabic, albumin and gelatin, said protective colloid being added to said emulsions so as to render the same water-soluble, and a light-sensitive substance selected from the group consisting of chromium salts, silver salts, and diazo compounds and added at least to said covering layer whereby said light-sensitive substance hardens upon exposure to light, whereas said layers may be washed out at the non-exposed parts thereof.

2,824,001

STABILIZED PHOTOGRAPHIC SILVER HALIDE EMULSIONS

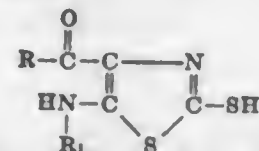
Charles F. H. Allen and John J. Sagura, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application January 16, 1956

Serial No. 559,097

9 Claims. (Cl. 96—109)

1. A photographic silver halide emulsion containing a compound selected from those represented by the following general formula:



wherein R represents a member selected from the group consisting of an alkoxyl group and an amino group, and R₁ represents a member selected from the group consisting of a hydrogen atom and a lower alkyl group.

2,824,002

METHOD OF PROVIDING A COFFEE PACKET

Earle F. Hiscock, Washington, D. C., assignor to Kip, Inc., Washington, D. C., a corporation of Delaware

Application April 9, 1952, Serial No. 281,354

1 Claim. (Cl. 99—77.1)



A method of providing coffee packets for use in brewing coffee in coffee makers consisting in providing a sheet of porous fabric of woven viscose rayon yarn having a plurality of areas of multiple relatively movable pocket providing thicknesses united to each other along bounding areas of woven yarn of single thicknesses, with said multiple thickness areas disposed in consecutive linear arrangement, desizing and rendering the fabric chemically inert as to taste by boiling in pure water for the removal of substantially all oils, sizing and other taste affecting plasticizers and materials, cutting said fabric adjacent to said areas of single thicknesses through the multiple thickness areas in the direction of the linear arrangement to open said pockets along

a margin of each of the same, and then severing the pockets one from another along intermediate connecting areas of single thicknesses.

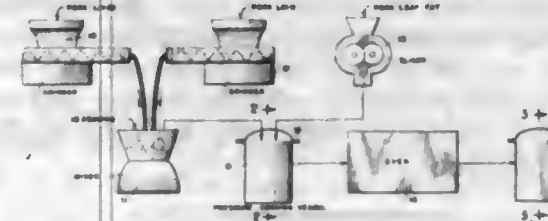
2,824,003

METHOD OF PREPARING A LIVER LOAF

Suzanne Schieber, Chicago, Ill.

Application March 2, 1955, Serial No. 491,688

4 Claims. (Cl. 99—107)



1. The method of producing a liver loaf, comprising building up a loaf by successively disposing a relatively thick layer of a mixture of finely-ground liver and finely-ground lean meat on a relatively thin layer formed of strips of unrendered animal fat, thereby obtaining a loaf having alternating layers of said mixture and said strips, and then heating the loaf thus obtained within an enclosed vessel, said heating being carried out at a temperature of approximately 250° F. for a period of between two to four hours, whereby a substantial portion of the fat in said strips has been rendered and dispersed into the layers of said mixture.

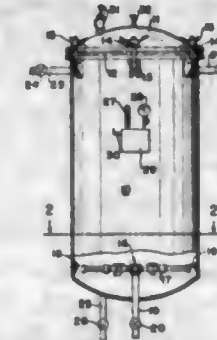
2,824,004

METHOD OF RECOVERING THE MEATS OF BIVALVES

Roderick D. Seal, Golden Meadow, La., assignor to Blue Channel Corporation, Port Royal, S. C., a corporation of Maryland

Application June 19, 1956, Serial No. 592,322

13 Claims. (Cl. 99—111)



1. A method of recovering the meats from bivalves, which comprises subjecting the bivalves to a relatively mild heat treatment, in which the bivalves are maintained at a temperature between about 130° F. and about 180° F. for a period of from 1 to about 8 minutes and until the shells of the bivalves open, then cooking the bivalves by subjecting them to a temperature in the range from about 220° F. to about 260° F. for a period from about 4 to about 25 minutes, subjecting the cooked bivalves in bulk to agitation to separate the meats from the shells, and removing the meats from contact with the shells.

2,824,005

METHOD OF RECOVERING THE MEATS OF BIVALVES

Lawrence W. Strasburger, Metairie, La., assignor to Blue Channel Corporation, Port Royal, S. C., a corporation of Maryland

Application June 19, 1956, Serial No. 592,354

6 Claims. (Cl. 99—111)

1. A method of recovering the meats from oysters and other bivalves, which comprises soaking the clean

raw bivalves for a period of from 3 to 8 minutes in a brine of a salinity of from about 10° to about 50° salinometer at about 60° F. and heated to a temperature



within the range from about 110° F. to about 160° F., and thereafter cooking the bivalves by exposing them to a temperature of from about 235° F. to about 260° F. for a period of from 4 to 20 minutes.

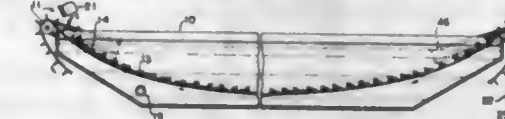
2,824,006

METHOD OF RECOVERING THE MEATS OF BIVALVES

Lawrence W. Strasburger and Victor W. Blereau, Metairie, La., assignors to Blue Channel Corporation, Port Royal, S. C., a corporation of Maryland

Application October 2, 1956, Serial No. 613,554

4 Claims. (Cl. 99—111)



1. A method of recovering the meats from bivalve molluscs, which comprises freezing the bivalves until the meats are solid, then cooking the bivalves by subjecting them to a temperature in the range from about 220° F. to about 260° F. for a period from about 4 to about 25 minutes, subjecting the cooked bivalves in bulk to agitation to free the meats from the shells, and separating the meats from the shells.

2,824,007

METHOD OF MAKING LOW SUGAR PECTINIC ACID GELS

Herbert Thal Leo and Clarence C. Taylor, Anaheim, Calif.

No Drawing. Application May 7, 1957

Serial No. 657,492

7 Claims. (Cl. 99—132)

1. The method of making a gel from a minimum methoxyl pectinic acid formed from pectin obtained from citrus peel by the action therein of a citrus peel-derived pectase carried to completion which comprises separately dissolving said pectinic acid in water in the presence of an alkali metal salt of an edible organic oxy acid and an alkali metal hexametaphosphate to produce a pectinic acid solution having a pH between 4.9 and 5.5 and a dissolved solids content of about 10–20% by weight, without boiling to concentrate the same forming an aqueous mass of an edible substance to be gelled, adding said pectinic acid solution to said aqueous mass at a temperature below the boiling point, and without heating to concentrate the resulting mixture adjusting the pH thereof between 2.75 and 4.0 to effect gelling thereof; the higher the dissolved solids content of said resulting mixture up to 65% total dissolved solids content the higher should be said adjusted pH between said limits of 2.75 to 4.0 and vice versa.

2,824,008

SALT SUBSTITUTE

Giulio C. Perri, Douglaston, and Kurt Ladenberg, Chappaqua, N. Y.

No Drawing. Application March 12, 1956

Serial No. 570,675

4 Claims. (Cl. 99—143)

1. An edible composition comprising, by weight, about 45 to 55 parts of potassium chloride, 30 to 40 parts of dipotassium succinate, and 10 to 20 parts of dipotassium fumarate.

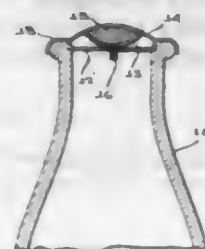
2,824,009 SUGAR COATED FOOD PRODUCTS AND METHOD OF MAKING THE SAME

Carl W. Lindow, Battle Creek, Mich., assignor of twenty-five percent to Ira Milton Jones, Milwaukee, Wis.
No Drawing. Application November 12, 1954
Serial No. 468,550
4 Claims. (Cl. 99—166)

1. A food product having a sugar coating comprised primarily of sucrose and in which the physical and chemical characteristics of the sucrose have been modified to substantially correspond to those of lactose by incorporation of the sucrose with an amount of lactose not less than about 3% to 4% of the sucrose (by weight).

2,824,010 FLAVOR-CONTAINING MILK CONTAINER TOP

Carl G. Pedersen, Triumph, Minn.
Application July 29, 1955, Serial No. 525,139
4 Claims. (Cl. 99—171)



1. In combination, a milk container, a removable hollow, flexible closure cap mounted on said container and a flexible dispensing receptacle containing relatively fluent food flavoring material mounted in said cap and having a depending, relatively restricted discharge spout extending through and below said cap and arranged to discharge said flavoring material into the container responsive to force exerted on said closure cap.

2,824,011 METHOD OF CLOTHING MEAT

Beverly E. Williams, Hillsborough, Calif., assignor, by mesne assignments, to Hodges Research and Development Company, Incorporated, New York, N. Y., a corporation of California
Application September 13, 1955, Serial No. 533,983
14 Claims. (Cl. 99—174)



1. The improvement in the treatment of edible skinned meat carcasses which comprises covering the skinned surface of the carcass with a woven cloth comprising at least a major proportion of ramie.

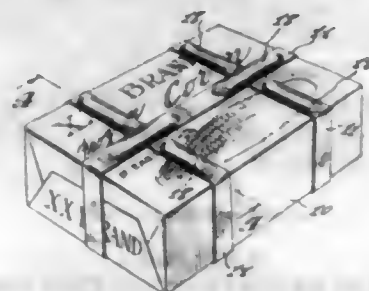
2,824,012 METHOD OF PREPARING PRESERVED PIMIENTOS

Harold K. McLaughlin, Ventura, Calif., assignor to Coastal Valley Canning Co., a corporation of California
No Drawing. Application August 8, 1956
Serial No. 602,922
5 Claims. (Cl. 99—186)

1. A method of processing pimientos to convert them into a preserved state for subsequent storage in sealed containers, comprising the following steps: peeling, cleaning, and dicing the pimientos; preheating the pimientos sufficiently to extract natural juice therefrom and effect the formation of a pumpable mixture; heating said mixture under flow conditions sufficiently to cause sterilization of said pimientos.

2,824,013 REFRIGERATION PACKAGE

Murray J. Lang, New York, N. Y., assignor to Refrigeration Package Spacers, Inc.
Application August 17, 1953, Serial No. 374,667
1 Claim. (Cl. 99—192)



The combination with frozen food packages of a first flat elongated flexible strip wrapped longitudinally about the package with the free ends thereof overlapping across one of the faces of the package and being secured together, said first strip being formed with three elevated areas across the central portion thereof, two of said areas being disposed across the opposite face of the package and the third of said areas being disposed across the end face of the package, and second and third flat elongated flexible strips wrapped laterally about the package with the free ends thereof overlapping across the first stated face of the package and being secured together, each of said second and third flat strips being formed with three elevated areas along the length thereof, two of said areas of each of said second and third strips being disposed across said opposite face of the package at substantially right angles to said first strip elevated areas, and the third of said second and third strip elevated areas being disposed across one side face of the package, said elevated areas serving to space individual food packages from each other when stacked vertically and laterally to permit circulation of refrigerated air therethrough.

2,824,014 PRESERVATION OF FRUIT JUICES

George Sperti, Cincinnati, Ohio, assignor to The Institutum Divi Thomae Foundation, Cincinnati, Ohio, a corporation of Ohio
No Drawing. Application January 19, 1954
Serial No. 405,049
9 Claims. (Cl. 99—218)

1. A process for the treatment of fruit juice which comprises continuously flowing freshly extracted juice in a layer $\frac{1}{32}$ " to $\frac{1}{8}$ " in thickness through an irradiation zone and subjecting the juice therein to ultraviolet radiation containing substantially no energy of wave lengths shorter than 2650 Å., the rate of flow of the juice being correlated with the length of said zone to provide an average

hold-up time of the juice in said zone of 3–15 seconds, total solids in the composition and the plasticizer being present in a proportion of 5 to 45% by weight of the total solids.

2,824,015 PURIFICATION OF ACYLATED POLYPEPTIDE COATING AIDS

John W. Gates, Jr., Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application May 27, 1955
Serial No. 511,800
3 Claims. (Cl. 106—135)

1. A method of refining a water soluble acylated polypeptide, the acyl of which comprises aliphatic acid radicals of 8–18 carbon atoms and the peptide group content of which is within the range of 1–10, the impurities of which include inorganic salts, which comprises incorporating in the acylated polypeptide an aqueous solution of gelatin in the proportion of 75–25% of the former and



25–75% of the latter, based on the solid weight of the mixture, chilling the resulting mixture to form a solid gel mass therefrom, dividing the mass into small units and washing with cold water to substantially reduce the salt content of the acylated polypeptide.

2,824,016 FILM-FORMING COMPOSITION WITH A TEREPHTHALAMIDE ESTER PLASTICIZER AND AN ARTICLE COATED THEREWITH

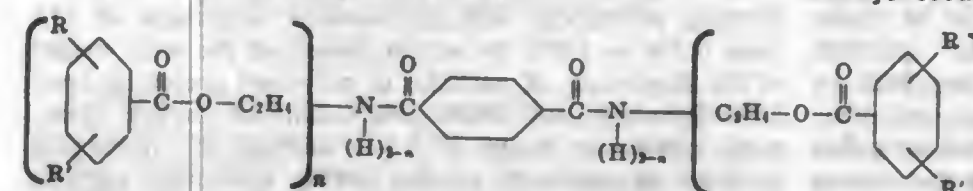
Ralph T. K. Cornwell, Rosemont, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application July 29, 1955
Serial No. 525,348
3 Claims. (Cl. 106—180)

1. A new composition of matter comprising (1) an organic polymeric film-forming material selected from the group consisting of thermoplastic resins, thermoplastic cellulose esters and ethers, thermosetting resins, and mixtures of thermoplastic and thermosetting resins, and (2) as a plasticizer the dipropionate of N,N'-bis (beta-hydroxyethyl) terephthalamide.

2,824,017 FILM-FORMING COMPOSITION WITH A TEREPHTHALAMIDE ESTER PLASTICIZER

Ralph T. K. Cornwell, Rosemont, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application July 29, 1955
Serial No. 525,349
6 Claims. (Cl. 106—180)

1. A composition of matter comprising (1) an organic plastic film-forming material selected from the group consisting of thermoplastic resins, thermoplastic cellulose esters and ethers, thermosetting resins, mixtures of thermoplastic and thermosetting resins and (2) as a plasticizer a compound having the formula

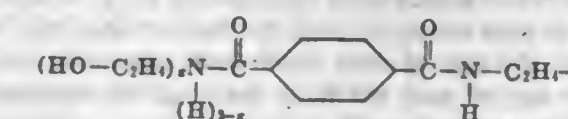


where n is 1 or 2 and R and R' are selected from the group consisting of hydrogen, halogen and alkyl groups of 1 to 6 carbon atoms, the film-forming material being present in a proportion of 40 to 95% by weight of the

2,824,018 FILM-FORMING COMPOSITION WITH A TEREPHTHALAMIDE ESTER PLASTICIZER

Ralph T. K. Cornwell, Rosemont, Pa., assignor to American Viscose Corporation, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application July 29, 1955
Serial No. 525,350
4 Claims. (Cl. 106—180)

1. A composition of matter comprising (1) an organic plastic film-forming material selected from the group consisting of thermoplastic resins, thermoplastic cellulose esters and ethers, thermosetting resins, mixtures of thermoplastic and thermosetting resins and (2) as a plasticizer a compound having the formula



wherein x is 1 or 2, said plasticizer being present in a proportion of 5 to 45% by weight of the total solids.

2,824,019 AN ORIENTED, HEAT-SET POLYETHYLENE TEREPHTHALATE FILM COATED WITH A PLASTICIZED NITROCELLULOSE RESIN CONTAINING A SULFONAMIDE-ALDEHYDE RESIN

David Ivan Sapper, Cheektowaga, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application January 17, 1956
Serial No. 559,747
6 Claims. (Cl. 117—7)

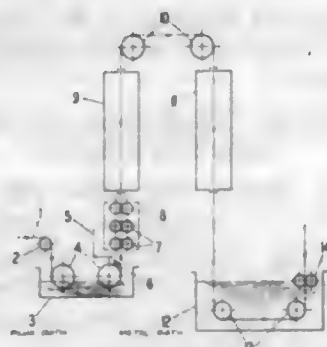
6. A process for preparing packaging film which comprises stretching a base film of polyethylene terephthalate 2.5 to 3.25 times its original dimension in at least one direction; heat-setting said polyethylene terephthalate film by holding it under tension at a temperature of 150° to 200° C.; coating said heat-set polyethylene terephthalate film with a composition comprising at least 25% nitrocellulose having a nitrogen content between 10.5% and 12.2%, at least 25% of plasticizer containing at least one compound selected from the group consisting of dibutyl phthalate, dicyclohexyl phthalate, benzyl butyl phthalate, cyclohexyl butyl phthalate, butyl phthalylbutyl glycolate, dibutyl sebacate, butyl benzoyl benzoate, dicyclohexyl

adipate, triphenyl phosphate, and tricresyl phosphate and more than 10% of an aryl sulfonamide-formaldehyde resin; and drying the coated film at a temperature of 100° to 120° C.

2,824,020

FLUXING AND COATING METAL STRIP

Nelson E. Cook and Samuel L. Norteman, Wheeling, W. Va., assignors to Wheeling Steel Corporation, Wheeling, W. Va., a corporation of Delaware
Application February 24, 1954, Serial No. 412,266
10 Claims. (Cl. 117—51)

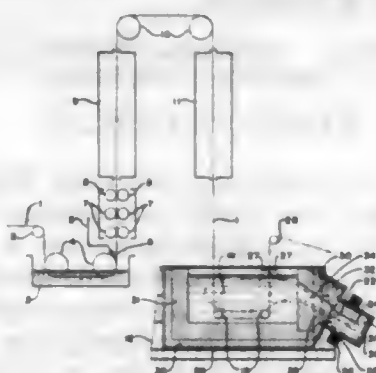


1. A method of applying flux to metal strip in preparation for immersing the metal strip in molten coating metal having a lower melting point than the metal of the strip and which molten coating metal reacts with the flux at the temperature of the molten coating metal comprising advancing the strip in the direction of its length in a path having a generally vertical reach in which the strip moves upwardly, applying flux to the strip adjacent the bottom of said reach, drying the flux on the strip before it reaches the top of said reach and advancing the strip from the top of said reach to the point of immersion in the molten coating metal.

2,824,021

METHOD OF COATING METAL WITH MOLTEN COATING METAL

Nelson E. Cook and Samuel L. Norteman, Wheeling, W. Va., assignors to Wheeling Steel Corporation, Wheeling, W. Va., a corporation of Delaware
Continuation of applications Serial Nos. 412,265 and 412,266, February 24, 1954. This application December 12, 1955, Serial No. 552,630
2 Claims. (Cl. 117—51)



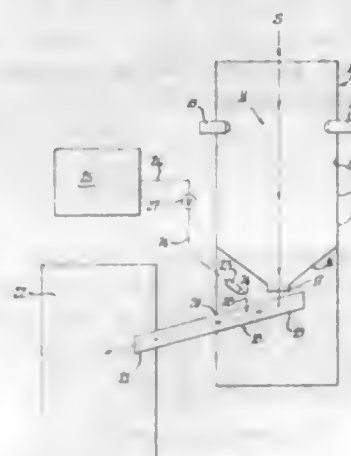
1. A method of tight coat hot dip galvanizing metal strip by use of a molten coating bath comprising molten zinc and at least one other molten metal admixed with the molten zinc to provide metal strip having a tight galvanized coating, which molten metals should be maintained thoroughly and uniformly admixed for optimum results, comprising stirring said molten coating bath by electric induction heating to maintain the zinc and other metal thoroughly admixed, applying to a metal strip flux which reacts with the metal other than zinc in the coating bath at the temperature of the molten coating metal, advancing the fluxed strip in the direction of its length into and through the molten coating metal at a speed such as to create a tendency for the molten coating metal in the vicinity of the point of entry thereto of the strip to be-

come relatively lean in the metal which reacts with the flux, the stirring of the molten coating metal by electric induction heating being at a rate counteracting said tendency of the molten coating metal in the vicinity of the point of entry thereto of the strip to become relatively lean in the metal which reacts with the flux due to rapid and thorough circulation of the molten coating metal.

2,824,022

LIGHT WEIGHT WATER RESISTANT AGGREGATE AND METHOD OF MAKING THE SAME

Glenn Sucetti, Grass Valley, Calif., assignor to Zonolite Company, Chicago, Ill., a corporation of Illinois
Application February 16, 1955, Serial No. 488,680
6 Claims. (Cl. 117—54)



1. A method for producing a light weight water-resistant aggregate, which comprises providing a bed of heat expanded light weight aggregate particles having a temperature of from about 300° to about 2100° F., and applying to said bed while the particles therein are within said temperature range an aqueous dispersion of a normally solid water-resistant material that is thermoplastic and flowable at temperatures within said temperature range, said dispersion being applied in a liquid state sufficiently dilute and in sufficient proportions that the water contained therein is volatilized by the sensible heat of said particles to effect a steam dispersion of said water-resistant material throughout said bed and each particle therein is coated with a continuous uniformly thin film of said water-resistant material of a thickness less than about 10 microns to produce non-coalescing particles having a substantially reduced capillary water uptake capacity.

2,824,023

PROCESS OF SIZING FILMS WITH POLYVINYL-ACETATE AND STARCH COMPOSITION

Thomas Franklin Banigan, Kenmore, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
No Drawing. Application December 13, 1955
Serial No. 552,732
5 Claims. (Cl. 117—65)

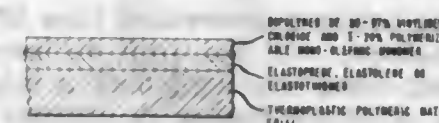
1. The process which comprises spraying the surfaces of flexible, nonfibrous films of organic, polymeric, film-forming substances with an aqueous dispersion of (1) from 0.5% to 1.0% by weight, based on the total weight of the dispersion, of particles of polyvinyl acetate at least 25%, by weight, of which have maximum particle diameters within the range of 0.5–1 micron, the remaining particles of polyvinyl acetate having maximum particle diameters of from 1–30 microns, and (2) from 0.25% to 1.0%, by weight of starch particles, having maximum diameters of not more than 30 microns, and thereafter drying the sprayed film at an elevated temperature sufficient to soften the polyvinyl acetate.

2,824,024

THERMOPLASTIC POLYMERIC FILMS

Aurelius Franklin Chapman, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application December 9, 1954, Serial No. 474,267
17 Claims. (Cl. 117—76)

1. A packaging film comprising a base film of thermoplastic polymeric material having at least one surface coated with a subcoating comprising an elastomer selected from the group consisting of elastoprene, elastolene and elastothimer, and a top coating comprising a copolymer

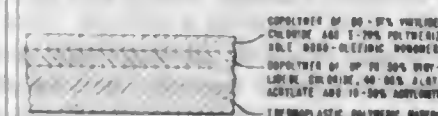


obtained from 80–97% vinylidene chloride and 3–20% of at least one other polymerizable mono-olefinic monomer copolymerizable therewith.

2,824,025

THERMOPLASTIC POLYMERIC FILMS

William Ernest McIntyre, Jr., Buffalo, N. Y., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application June 6, 1956, Serial No. 589,593
16 Claims. (Cl. 117—76)

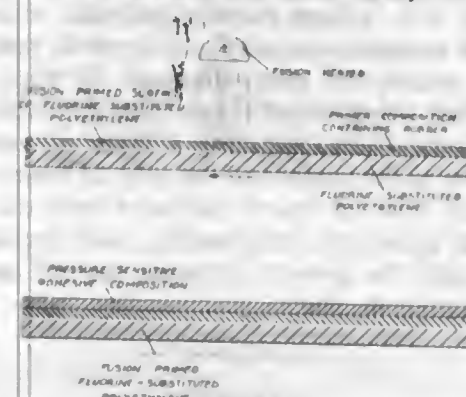


1. A base film of thermoplastic polymeric material having at least one surface coated with a subcoating comprising a copolymer obtained from up to 50% vinylidene chloride, 40–90% alkyl acrylate wherein the alkyl group contains at least two carbon atoms and 10–30% acrylonitrile and a top coating comprising a copolymer obtained from 80–97% vinylidene chloride and 3–20% of at least one other polymerizable mono-olefinic monomer copolymerizable therewith.

2,824,026

CHEMICALLY RESISTANT PRESSURE-SENSITIVE ADHESIVE TAPE AND METHOD OF MAKING THE SAME

Henry N. Homeyer, Woodbridge, and John J. McCarthy, New Haven, Conn., assignors to Connecticut Hard Rubber Company, New Haven, Conn., a corporation of Connecticut
Application November 22, 1954, Serial No. 470,533
16 Claims. (Cl. 117—122)



1. Pressure-sensitive film comprising a halogenated polyethylene backing with the surface primed with a rubber composition selected from the class consisting of natural and synthetic rubbers fused to the halogenated polyethylene, and a tacky pressure-sensitive adhesive composition firmly adherent to the fusion modified surface on one side only of the halogenated polyethylene and relatively nonadherent to the untreated surface thereof.

2,824,027

METHOD OF MAKING LOW RESISTANCE CONTACT WITH A LEAD DIOXIDE ELECTRODE

John C. Grigger, Springfield Township, Montgomery County, and Henry C. Miller, Hatfield, Pa., assignors to Pennsalt Chemicals Corporation, a corporation of Pennsylvania
Application September 15, 1955, Serial No. 534,617
3 Claims. (Cl. 117—212)



1. A method of making low resistance contact with a lead dioxide electrode, which comprises spraying silver onto a limited surface area of said electrode in a position arranged to be outside of the electrolyte in which the electrode is immersed and to form a coating in intimate adherent engagement with said surface area.

2,824,028

USE OF MAGNESIUM CARBONATE TRIHYDRATE IN A PRELIMING CARBONATION PROCESS

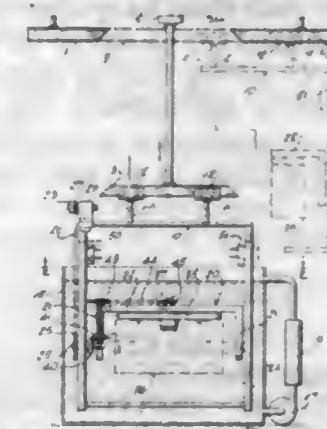
Alexander M. Zenzes, New York, N. Y.
No Drawing. Application January 26, 1954
Serial No. 406,355
3 Claims. (Cl. 127—50)

1. In a process of purifying a sugar-containing aqueous solution, the steps comprising adding to and mixing with a sugar-containing plant juice an amount of lime not substantially exceeding 0.6% of said juice calculated as calcium oxide at elevated temperature between room temperature and a temperature not exceeding about 60° C. thereby increasing the pH-value of the resulting prelimed sugar juice to a pH between about 10.0 and about 11.0, adding to said prelimed sugar juice reactive magnesium carbonate trihydrate in an amount sufficient to adjust the pH-value of the prelimed sugar juice to a pH between about 9.6 and about 10.0, agitating the resulting mixture until substantial decolorization is effected, and removing the precipitate formed.

2,824,029

METHOD AND APPARATUS FOR WASHING MACHINE PARTS

Marcel J. Zinty, New York, N. Y., assignor to Magnus Chemical Company, Inc., Garwood, N. J., a corporation of New York
Application March 16, 1956, Serial No. 571,935
7 Claims. (Cl. 134—23)



1. The method of washing a substantially cylindrical article having transversely opening cavities, which comprises immersing the article in a washing liquid and simultaneously rotating the article about its own axis, rotating the article about a second axis disposed at an angle to the axis of the article and bodily reciprocating the article.

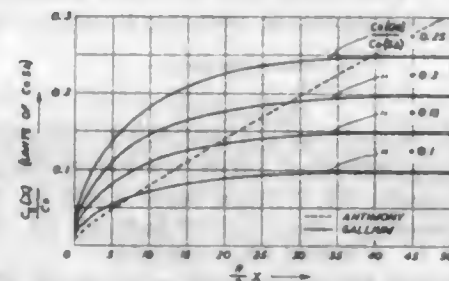
7. A washing machine comprising the combination with a tank for washing liquid, a support disposed above the

tank and means for reciprocating the support toward and from the bottom of the tank, of a chassis depending from the support within the tank, a rotatable carrier mounted on the chassis, means for rotating the carrier relatively to the chassis, a rotatable article platform mounted on the carrier, means for rotating the platform relatively to the carrier and vibrator means secured to the chassis.

2,824,030 METHOD OF PREPARING SEMICONDUCTIVE MATERIALS

John W. Rutter and William A. Tiller, Toronto, Ontario, Canada, assignors to Canadian Patents and Development Limited, Ottawa, Ontario, Canada, a Canadian company

Application July 21, 1955, Serial No. 523,597
5 Claims. (Cl. 148—1.5)



1. A method for preparing semiconductive material having regions of p-type and n-type semiconduction, comprising melting a body of semiconductive material containing substantially uniform solute concentrations $C_0(1)$ and $C_0(2)$ of two significant impurities 1 and 2 that have different coefficients of distribution k_1 and k_2 respectively in the said material, one of which impurities produces p-type and the other n-type semiconductive material, the initial concentration $C_0(1)$ of one impurity being less than the corresponding concentration $C_0(2)$ of the other impurity and the product $k_1C_0(1)$ being greater than the product $k_2C_0(2)$, applying a temperature gradient to a part of the length of the melt in the absence of convective mixing to cause linear solidification from one end to the other of the said part and to establish and maintain a liquid-solid interface having an adjacent layer of molten solute-rich material having concentrations $C_L(1)$ and $C_L(2)$ respectively of the said impurities whereby the concentrations $k_1C_L(1)$ and $k_2C_L(2)$ respectively in the solid produced are varied until steady-state concentrations $C_0(1)$ and $C_0(2)$ respectively of the said impurities are established in the solid, whereby the concentration of impurity 1 in the solidified material will first be greater than, then less than, the concentration of impurity 2, mixing the remaining, liquid, part of the melt to destroy the layer of solute-rich material at the interface and produce a uniformity of solute concentration in the liquid, and applying a temperature gradient to the said remaining part of the melt to cause linear solidification to proceed from the solid-liquid interface in the absence of convective mixing.

2,824,031 DIP PROCESS FOR FORMING TRANSPARENT SURFACE CONVERSION COATINGS ON ZINC, AND COMPOSITIONS FOR DIP SOLUTIONS

Jesse E. Stareck, Royal Oak, Mich., assignor, by mesne assignments, to Metal & Thermit Corporation, New York, N. Y., a corporation of New Jersey

No Drawing. Application April 20, 1954
Serial No. 424,786

8 Claims. (Cl. 148—6.21)

1. A process of coating zinc surfaces which comprises immersing a zinc-surfaced material in an aqueous solution of a plurality of compounds which provide the sub-

stances, and the amounts of said substances, hereinafter described, said compounds being selected from the group consisting of salts and acids, the entire amount of one of said substances being provided by at least one salt, said solution consisting essentially of the following said substances dissolved therein in the following amounts:

	Grams per liter
CrO_3	48.1 to 288.5
SO_4	5 to 60
NO_3	2 to 40
CH_3COO	Up to 80

said solution having a temperature from 60° to 130° F. and a pH between -0.3 and +1.0, the immersion of the said material being continued until a bright, colorless transparent protective coating is imparted to the zinc surface, and removing the material from the solution.

2,824,032 METHOD OF FORMING A MILK SAMPLING TUBE

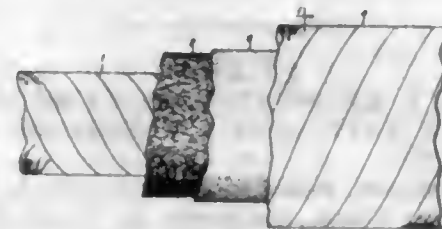
Ellis L. Rackleff, Eugene, Oreg.
Application July 27, 1954, Serial No. 446,067
3 Claims. (Cl. 154—83)



1. A method of making sampling tubes comprised of progressively forming a paper straw the total length of the desired tube, then forming a tubular liner of plastic material having the property of acquiring a substantial permanent expansion when heated, such as polystyrene, then placing said liner within one end of said straw, and then applying sterilizing heat to said straw and liner in the approximate range between 100° C. and 126° C.

2,824,033 PROCESS OF MANUFACTURING COMPOSITE PIPE

Chase Donaldson, Mount Vernon, N. Y.
Application March 1, 1955, Serial No. 491,519
4 Claims. (Cl. 154—83)



1. In a method of making a composite tubular pipe, the steps of forming at least two spirally wound tubes from a plurality of continuous tapes of fibrous materials impregnated with a heat curable resinous material, one of said tubes carrying a superposed layer of resin impregnated filler media, the outer diameter of such tube and its added layer being slightly less than the interior diameter of the other tube, applying a layer of heat curable resin adhesive to the surface of the tube of lesser diameter, inserting said tube of lesser diameter into the other of said tubes in telescopic relationship, and heating the assembly to unite the several elements thereof and to cure the resin matrix in situ.

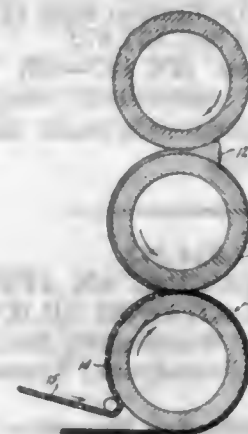
2,824,034 METHOD OF IMPREGNATING A FABRIC WITH POLYETHYLENE

Charles R. Worby, Eau Claire, Wis., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

Application September 13, 1955, Serial No. 533,975
4 Claims. (Cl. 154—102)

1. The method of impregnating a web with polyethylene, which comprises forming a softened film consisting

essentially of polyethylene on a roll heated to a temperature above the melting point of said polyethylene, advancing said web through a nip formed by said roll and an adjacent surface, said nip having just sufficient clearance



for said web and sufficient hot polyethylene to fill the interstices of said web, and applying a friction motion to said roll by rotating said roll at a greater speed than said surface and advancing said web through said nip to friction said polyethylene into said web.

2,824,035 PROCESS OF MAKING STIFFENED COMPOSITE FABRICS

Donald Finlayson, Maitland Walton Alford, and William Parkes Pfell, Spondon, near Derby, England, assignors to British Celanese Limited, a corporation of Great Britain

No Drawing. Application January 11, 1955
Serial No. 481,282

Claims priority, application Great Britain
January 12, 1954

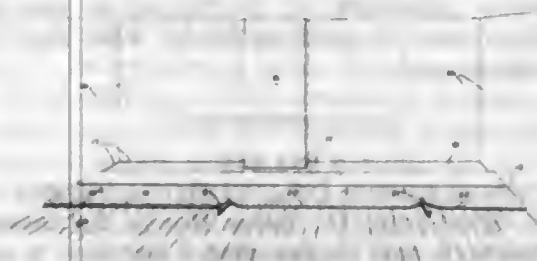
2 Claims. (Cl. 154—115)

1. The process which comprises forming a fabric laminate by bonding together under heat and pressure a non-thermoplastic fabric and a fabric containing high-acetyl cellulose acetate melt-spun fibres with the aid of a liquid that, at the pressing temperature, has a strong softening action on the cellulose acetate fibres, but not on the non-thermoplastic fibres, the cellulose acetate containing 60–62.5% of combined acetic acid, and the softening liquid comprising a major proportion of acetone and a minor proportion of a liquid selected from the class consisting of cyclohexanone, cyclopentanone and the methyl cyclohexanones.

2,824,036 METHOD OF ASSEMBLING AND LAYING A FLOOR COVERING

David Grant Dykeman and Edmund Joseph Turgeon, North York, Ontario, Canada

Application October 3, 1956, Serial No. 613,715
9 Claims. (Cl. 154—116)



1. In a method of assembling and laying strips of sponge sheeting having a fabric facing to provide a floor covering, the method of joining those edges of the strips which are to be adjacent to each other, including the steps of laying a first strip on a floor surface with its fabric facing presented upwardly; laying a second strip on top of the first strip in a predetermined position and

with its fabric facing mutually presented to the fabric facing of the first strip; marking a line on the then upwardly presented face of the second strip at a position at which it is desired to join the strips; stapling the two strips together along the said line at spaced intervals to provide a basting; further stapling the two strips together along the said line at closely spaced intervals intermediate the basting staples to form a stapled joint; trimming away that portion of the strips between the line of staples and the adjacent edge of the strips along a line substantially parallel to the line of staples and at a distance from the staples substantially equal to the thickness of one of the strips; moving the second strip to position the stapled joint over the first strip; spreading the first and second strips in opposite directions and in a direction lateral to the direction of the joint to cause the joint to flatten; applying a length of tape over the joint to mask the joint; and adhering the tape to the strips.

2,824,037 METHOD OF MAKING AN ADHESIVE AND METHOD OF MAKING A PAPER PRODUCT

Henry Dudley King, Chicago, Ill.

No Drawing. Application September 15, 1954
Serial No. 456,331

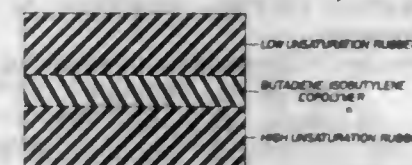
7 Claims. (Cl. 154—138)

6. The method of making a laminated paper product, comprising: preparing an aqueous flowable starch composition containing at least about 4% by weight of starch, and water in a ratio of about 3 parts by weight of water to about 1 to about 2 parts by weight of starch and a gelatinizing material; preliminarily heating said composition to an initial temperature sufficient to partially gelatinize and thicken said starch composition under the action of said starch gelatinizing material until the composition reaches a Bauer viscosity of about 20–40 seconds; adding to said thickened material while it is still flowable and without substantial cooling an inactivating agent for said starch gelatinizing material to stop substantially said gelatinizing by said starch gelatinizing material; then applying said heated thickened material to the paper laminates; substantially immediately pressing said laminates into intimate contact to form an assembly; and thereafter substantially immediately heating the assembly to a final starch gelatinizing temperature that is above said initial temperature to gelatinize the starch further toward complete gelatinization.

2,824,038 TRIPLY RUBBER LAMINATE AND METHOD OF MAKING THE SAME

Howard L. Wilson, Raritan Township, Middlesex County, and Samuel B. Robison, Westfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application April 29, 1952, Serial No. 285,072
16 Claims. (Cl. 154—139)



1. An article of manufacture comprising a body of a low temperature interpolymers of a major amount of isobutylene with a minor proportion of a conjugated diolefin, the interpolymers being characterized by a low unsaturation within the range of a Wijs iodine number between 0.5 and 10, a molecular weight above 20,000 and reactivity with a curing agent to yield an elastic product; a second body of a rubbery material, characterized by a high unsaturation within the range of a Wijs iodine num-

ber between that of GR-S synthetic rubber and 451, and reactivity with a curing agent; and a third, interposed body comprising a copolymer of interpolymers of isobutylene and butadiene, said copolymer prepared from an olefinic feed mixture having 50 to 750 parts of butadiene per 100 parts of isobutylene.

8. The method of uniting a solid isooolefin-diolefin interpolymers material, prepared by reacting together a major proportion of isobutylene and a minor proportion of a conjugated diolefin having from 4 to 8 carbon atoms, in the presence of a dissolved Friedel-Crafts catalyst, at a temperature between -40°C . and -160°C ., said interpolymers having a Wijs iodine number below 10, and a molecular weight greater than 20,000, to a high unsaturation, rubbery material having a Wijs iodine number between that of GR-S synthetic rubber and 451, which comprises interposing between the said two materials a layer comprising a copolymer of isobutylene and butadiene, said copolymer prepared from an olefinic feed mixture having 50 to 750 parts of butadiene per 100 parts of isobutylene.

2,824,039

FUNGICIDAL COMPOSITION

Kenneth S. Karsten, Westport, Conn., assignor to R. T. Vanderbilt Company, Inc., New York, N. Y., a corporation of New York

No Drawing. Application March 6, 1953

Serial No. 340,917

3 Claims. (Cl. 167—30)

1. A dry powdered fungicidal composition comprising at least about 25 percent by weight of sodium pentachlorophenolate and containing from about 0.5 to about 4 percent by weight of a highly aromatic hydrocarbon oil comprising methylated naphthalenes characterized by an unsulfonated residue not exceeding about 30 percent and an initial boiling point not less than about 350°F .

2,824,040

FUMIGANT COMPOSITION COMPRISING PETROLEUM ETHER AS A FLAMMABILITY DEPRESSANT AND METHOD OF PREPARING SAME

Edward J. Stanko, Mayfield Heights, and William J. Esselstyn, Painesville, Ohio, assignors to Diamond Alkali Company, Cleveland, Ohio, a corporation of Delaware

No Drawing. Application February 25, 1954

Serial No. 412,654

9 Claims. (Cl. 167—39)

1. A fumigant composition consisting essentially of a mixture of carbon tetrachloride as a major constituent, a lesser amount of carbon disulfide, and minor amounts of sulfur dioxide and petroleum ether.

2,824,041

PROCESS OF INDUCING HYPNOSIS BY UNSATURATED TERTIARY CARBINOLS

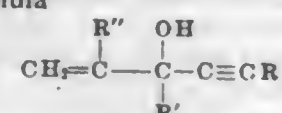
Abraham Bayley, Brooklyn, Morton Harfenist, Yonkers, and William M. McLamore, Flushing, N. Y., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application October 28, 1952

Serial No. 317,348

1 Claim. (Cl. 167—52)

A process for inducing hypnosis in an animal which comprises administering an effective amount of a compound of the formula



wherein R is an alkyl group containing between one and six carbon atoms, R' is selected from the group which consists of methyl and ethyl and R'' is selected from the group consisting of hydrogen and methyl.

2,824,042

COMPOSITION FOR PREPARATION OF BUROW'S SOLUTION

Walter G. Gibbons, Greenvale, James P. Jones, Flushing, William A. Messner, Bronx, and Marvin Weiss, Jackson Heights, N. Y.

No Drawing. Application June 18, 1954

Serial No. 437,872

11 Claims. (Cl. 167—58)

1. A pharmaceutical composition comprising dibasic aluminum acetate stabilized with boric acid, acetic acid and an alkali metal acetate.

2,824,043

METHOD OF PRODUCING AN ATMOSPHERE PROTECTIVE AGAINST SILICOSIS

John W. G. Hannon, Washington, Pa., assignor to McIntyre Research Foundation, Toronto, Ontario, Canada

No Drawing. Application November 18, 1954

Serial No. 469,821

5 Claims. (Cl. 167—72)

1. The method of neutralizing the lung fibrosis-producing properties of finely pulverized siliceous materials comprising projecting into a confined atmosphere, for inhalation into the human bronchial system, a powder comprising an aluminum oxide formed from pure metallic aluminum, the powder having a particle size such that substantially all of the particles are below 1.2 microns and the majority of the particles are 0.4 micron or less, said particles containing approximately 12 to 15% pure metallic aluminum.

2,824,044

PROCESS FOR THE MANUFACTURE OF 11-HYDROXY STEROID COMPOUNDS

Karl Miescher, Riehen, and Albert Wettstein and Friedrich Kahnt, Basel, Switzerland, assignors to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application May 21, 1951

Serial No. 227,533

Claims priority, application Switzerland May 26, 1950

12 Claims. (Cl. 195—51)

1. The method of introducing an 11-hydroxyl substituent into a steroid containing an 11-methylene group which comprises mixing said steroid with a brei made from the adrenal cortex and subjecting the resultant mixture to the action of oxygen.

2,824,045

MICROBIAL PRODUCTION OF FOLINIC ACID

David Hendlin, Elizabeth, N. J., assignor to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application March 19, 1954

Serial No. 417,511

9 Claims. (Cl. 195—96)

1. The process which comprises subjecting a compound of the group consisting of folic acid and N^{10} -formylfolic acid to the action of cells of a microorganism of the group consisting of *Streptococcus faecalis* and *Lactobacillus casei* to produce folinic acid, and recovering the folinic acid.

2,824,046

CONVERSION OF HYDROCARBONS

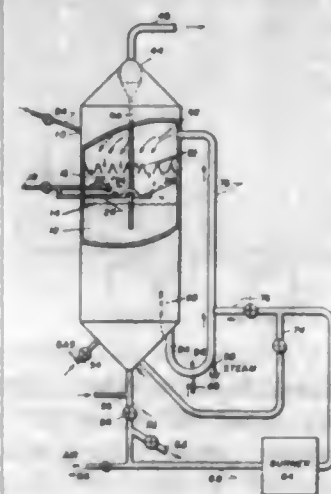
Charles N. Kimberlin, Jr., Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

Application May 20, 1953, Serial No. 356,130

2 Claims. (Cl. 196—55)

1. A process for coking heavy hydrocarbon oils containing extremely high boiling constituents which comprises maintaining a dense fluidized highly turbulent bed of finely divided substantially catalytically inert solids in a cracking zone at cracking temperature, introducing

sprays of preheated hydrocarbon oil feed into a mixing zone in the cracking zone above the level of said dense fluidized bed, said mixing zone comprising a suspension of hot solids less dense than said dense bed but more dense than a dilute phase, withdrawing some hot solids from said dense bed and passing the hot solids as a discrete stream to said mixing zone, distributing said discrete stream of solids in said mixing zone to increase the density of the mixture therein and to obtain better distribution of the oil feed on the solids, removing coke-



containing solids from said dense fluidized bed and passing them to an extraneous combustion zone to heat the solids to a temperature above that existing in said dense fluidized bed, returning at least part of the heated solids from said combustion zone to said dense fluidized bed to supply heat thereto, supplying another portion of said heated solids to said discrete stream of solids being passed from said dense bed to said mixing zone, passing vaporous reaction products upwardly through said mixing zone and removing them from above said mixing zone.

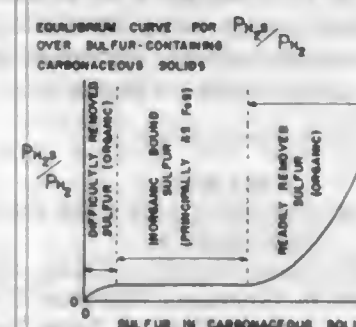
2,824,047

DESULFURIZATION OF CARBONACEOUS SOLID FUELS

Everett Gorin, George P. Curran, and James D. Batchelor, Pittsburgh, Pa., assignors to Pittsburgh Consolidation Coal Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application August 11, 1955, Serial No. 527,705

19 Claims. (Cl. 202—31)



1. The method of removing sulfur from particulate carbonized carbonaceous solids bearing an initial quantity of fixed carbon, which comprises preparing an intimate admixture of said carbonaceous solids and particulate acceptor solids which are capable of reacting with hydrogen sulfide to form solid sulfides in the presence of hydrogen gas at a temperature above 1100°F . and are capable of rejecting sulfide sulfur under oxidative conditions at elevated temperatures, subjecting said admixture to treatment at a temperature above 1100°F . in the presence of hydrogen gas until a portion of the initial sulfur has been removed from said carbonaceous solids, maintaining the quantity of fixed carbon of said carbonaceous solid in said admixture throughout said treatment at a value at least 90 percent of said initial quantity,

separating particulate acceptor solids containing solid sulfides from low sulfur carbonaceous solids, recovering low sulfur particulate carbonaceous solids as product containing at least 90 percent of said initial quantity of fixed carbon, subjecting said acceptor solids containing solid sulfides to elevated temperatures under oxidative conditions to eliminate therefrom sulfide sulfur, and recovering thus treated acceptor solids for reuse.

2,824,048

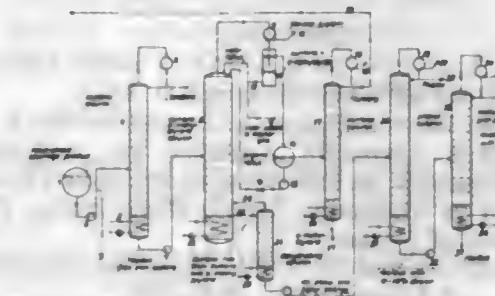
PROCESS FOR SEPARATING THE INGREDIENTS OF A REACTION MIXTURE OBTAINED BY THE OXIDATION OF CUMENE AND SUBSEQUENT CLEAVAGE OF THE HYDROPEROXIDE MIXTURE

Adolf Hupe, Frankfurt am Main, Julius Geller, Bad Homburg von der Höhe, Karl Friedrich Lang, Frankfurt am Main, Heinrich Schildwächter, Castrop-Rauxel, Erich Göschel, Neu Isenburg, near Frankfurt am Main, Franz Dostal, Frankfurt am Main, Oberrad, and Karl Heinz Koch, Frankfurt am Main, Germany, assignors to Rutgerswerke-Aktiengesellschaft, Frankfurt, Germany

Application November 1, 1954, Serial No. 465,994

Claims priority, application Germany November 4, 1953

23 Claims. (Cl. 202—42)



1. A process for separating the ingredients of a reaction mixture obtained by the oxidation of cumene and subsequent cleavage of the hydroperoxide mixture, said mixture containing acetone, cumene, α -methyl styrene, phenol, cumyl phenol, acetophenone and water, said process comprising freeing said reaction mixture, from acetone by fractional distillation, in which acetone is distilled off together with aldehydes as a top product of distillation; subjecting the residual mixture thus freed from acetone, to azeotropic fractional distillation in the presence of water under vacuum, at temperatures substantially below 100°C ., water being present in the sump liquid during the entire step of this fractional azeotropic distillation, in order to completely distill off cumene and α -methyl styrene in the form of a head product which is practically free from phenol, and consists of an azeotropic mixture of cumene, α -methyl styrene and water.

2,824,049

PROCESS FOR THE SEPARATION OF DECOMPOSITION PRODUCTS OF CUMENE HYDROPEROXIDE

Maurice Mainçon, Chatou, Maurice Fenoglio, Lyon, and André Pacoud, St.-Fons, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

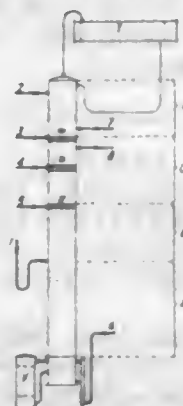
Application June 22, 1955, Serial No. 517,216

Claims priority, application France June 23, 1954

10 Claims. (Cl. 202—42)

1. A process for the separation of the decomposition products of cumene hydroperoxide containing phenol, acetone and other products including cumene, methylstyrene, dimethylphenyl carbinol and acetophenone which comprises continuously introducing said decomposition products at an intermediate point of a single distillation zone containing water, withdrawing substantially pure acetone from the head of the distillation zone, withdrawing a decantable mixture of the hydrocarbons and water

at a point between the head of the distillation zone and the point of the inlet of the feed mixtures, said hydrocarbons being substantially free from phenol, the water constituent of the said mixture being returned to the distillation zone after decantation, withdrawing dimethyl-

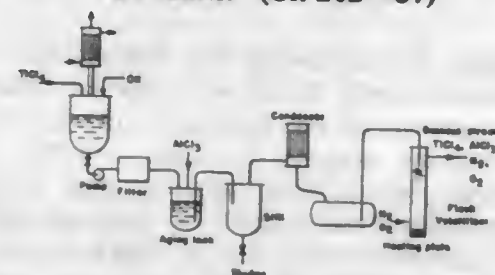


phenylcarbinol and acetophenone at points between the outlet of the hydrocarbons and the point of inlet of the feed mixture and withdrawing phenol substantially free from acetone, cumene and methylstyrene from the bottom of the distillation zone.

2,824,050

PREPARATION OF GASEOUS STREAMS COMPRISING TiCl_4 AND AlCl_3

Guy C. Marcot, Morris Plains, N. J., and Seldon P. Todd and Stephen A. Lamanna, Amherst, Va., assignors, by mesne assignments, to Fabriques de Produits Chimiques de Thann et de Mulhouse, Thann (Haut-Rhin), France, a corporation of France
Application August 25, 1954, Serial No. 452,222
8 Claims. (Cl. 202—57)



1. A method of forming a gaseous stream comprising titanium tetrachloride and aluminum trichloride in a predetermined substantially constant percentage between about 0.1 and 5% of the weight of the titanium tetrachloride from liquid titanium tetrachloride and from crude aluminum trichloride containing material which reacts with hot titanium tetrachloride to form a non-volatile floc, which comprises dissolving said crude aluminum trichloride in substantially said predetermined percentage in hot liquid titanium tetrachloride, aging the solution until formation of a non-volatile floc is substantially complete, substantially completely distilling the solution, condensing and combining the distillate to form a condensate containing substantially said predetermined percentage of aluminum trichloride, and continuously flash volatilizing said combined distillate to form said stream.

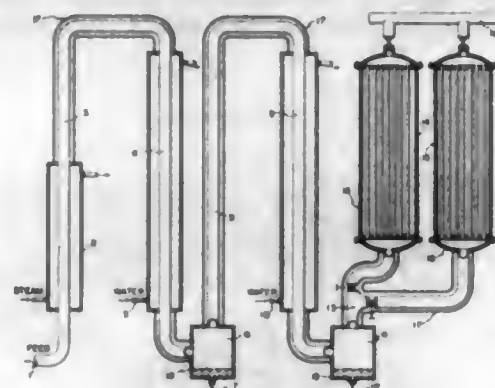
2,824,051

PREPARATION OF SUBSTANTIALLY ANHYDROUS FORMALDEHYDE BY A PARTIAL CONDENSATION PROCESS

Richard Oliver Elder, Orange, Tex., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware
Application September 16, 1954, Serial No. 456,561
2 Claims. (Cl. 202—69)

1. A process for producing substantially anhydrous formaldehyde comprising vaporizing a liquid feed solution containing 50–60% by weight of formaldehyde and 48–

38% by weight of water to form a vapor at an absolute pressure of one to two atmospheres and a temperature of 115°–130° C., partially condensing about 75% of said vapor to form a first vapor product and a first liquid product, removing the first liquid product, heating the first vapor product to a temperature of about 90°–105° C., partially condensing about 40% of said first vapor product to form a second liquid product and a second vapor prod-



uct, removing the second liquid product, heating the second vapor product to about 70° C. to 90° C., allowing the heated second vapor product to contact a surface maintained at about –20° C. to –15° C. and allowing some minor portion, but not more than about 20% of the contacting vapor to polymerize and recovering a third product containing at least 99.2% by weight of formaldehyde and not more than about 0.05% water.

2,824,052

PROCESS OF PREPARING FINELY DIVIDED IRON INCLUDING ELECTROLYSIS, WASHING, WET GRINDING, AND FLOTATION OF IMPURITIES

Friedrich W. Czech, Painesville, Ohio, assignor to Diamond Alkali Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application January 3, 1956

Serial No. 556,778

7 Claims. (Cl. 204—10)

1. The method of preparing a high quality, finely-divided iron which comprises electrolyzing soluble iron dissolved from an iron compound suspended in an electrolyte consisting essentially of an alkali metal hydroxide dissolved in water, thereby to form a loosely adhering deposit including iron at the cathode, removing the iron deposit and insoluble iron compounds associated therewith from the cathode, separating insoluble iron compounds from the thus-obtained electrodeposit by flotation and recovering therefrom finely-divided iron.

2,824,053

ELECTROLYTIC PRODUCTION OF DUCTILE CHROMIUM

Eugene Walner, Cleveland Heights, Ohio, assignor, by mesne assignments, to Horizons Titanium Corporation, Princeton, N. J., a corporation of New Jersey

No Drawing. Application October 17, 1955

Serial No. 541,067

3 Claims. (Cl. 204—64)

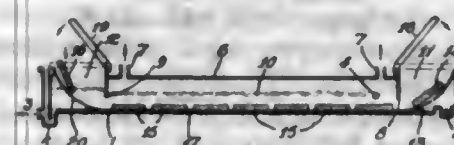
1. The method of preparing ductile chromium which comprises forming a fused salt bath consisting essentially of at least one alkali metal chloride, adding an ionizable double fluoride of an alkali metal and chromium to said fused bath in an amount between about 15% by weight and 35% by weight, maintaining the bath at a temperature between about 750° C. and 850° C., providing an inert atmosphere over the resulting melt, passing a direct current between an anode and a cathode to remove impurities including oxygen from the melt, replacing the cathode with a fresh cathode and maintaining a voltage and cathode current density below that at which free alkali metal forms at the cathode but above the minimum

necessary to effect the decomposition of the chromium compound in the bath, thereby depositing chromium in the form of ductile dendritic crystals on the cathode, and recovering the crystals of chromium from the cathode deposit.

2,824,054

PROCESS AND APPARATUS FOR THE MANUFACTURE OF SOLUTIONS OF ALKALI METAL HYDROXIDES

René A. Crabbe, Boltsfort-Brussels, Belgium, assignor to Solvay & Cie., Brussels, Belgium, a Belgian company
Application January 4, 1955, Serial No. 479,704
Claims priority, application Belgium January 6, 1954
11 Claims. (Cl. 204—99)



1. In a process for continuously producing an alkali metal hydroxide solution of uniform high concentration and purity by the decomposition of alkali metal amalgams in an elongated decomposition zone in the presence of a plurality of graphite cathode elements, said elements decreasing in activity from a first end of said elongated decomposition zone to a second end thereof, the steps which comprise removing from said second end of said zone the cathode element of least activity, introducing a fresh cathode element into said first end of said zone, and moving all of the cathode elements toward said second end of said decomposition zone a distance corresponding to that occupied by the cathode element removed.

2,824,055

MODIFIED TERTIARY ISOOLEFIN-DIOLEFIN COPOLYMERS

Frederick W. Lampe and Henry G. Schutze, Baytown, Tex., assignors, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware

No Drawing. Application August 25, 1955

Serial No. 530,639

10 Claims. (Cl. 204—163)

6. A process which comprises the steps of dissolving a copolymer of about 95 to 99.5 mol percent of a tertiary isooolefin with about 5 to 0.5 mol percent of a diolefin and carbon tetrabromide in an aromatic hydrocarbon solvent, exposing the resultant solution to actinic light having a wave length within the range of about 3,000 to 4,000 Å. to prepare a brominated tertiary isooolefin-diolefin polymer, and reacting said thus prepared brominated polymer in solution with monomeric styrene in the presence of a cross linking inhibiting amount of a chain transfer agent to prepare a graft polymer comprising polystyrene chains grafted on the isobutylene-isoprene copolymer.

2,824,056

REACTOR UNLOADING

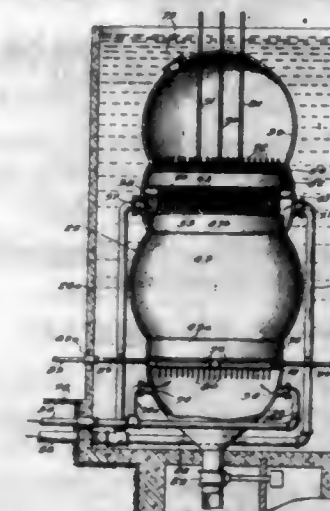
Miles C. Leverett, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission

Application October 11, 1945, Serial No. 621,687

1 Claim. (Cl. 204—193.2)

In a device for effecting a self-sustaining neutron chain reaction, a mass of graphite having vertical passages there-through, a plurality of graphite cartridges removably disposed in the passages and arranged one on top of another, the cross-sectional dimensions of the cartridges being slightly less than the diameter of the passages so that the cartridges substantially fill the passages, a heat extraction passage disposed longitudinally through each column

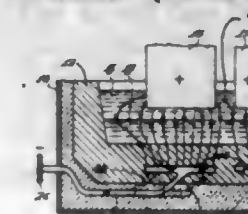
of cartridges, uranium bodies disposed in the cooling passages in the cartridges, a removable support under each column of cartridges, and means responsive to a predetermined rise of power output of the device for moving at least one of the supports out of supporting



2,824,057

ELECTROLYTIC REDUCTION CELL FOR PRODUCING ALUMINUM

Charles S. Thayer, Vancouver, Wash., assignor to Aluminum Company of America, Pittsburgh, Pa., a corporation of Pennsylvania
Application August 12, 1950, Serial No. 179,037
4 Claims. (Cl. 204—243)



1. An electrolytic cell for producing aluminum from its oxide which comprises a substantially rectangular open top shell having its side walls and bottom lined with an insulating material and a carbon bottom lining supported on the bottom insulating material to provide a cell cavity for confining a charge of fused electrolyte and underlying molten aluminum pool, at least two parallel rows of anodes depending downwardly into the cell cavity, said anodes being spaced from each other and the walls of said cell cavity, as well as being spaced on either side of the longitudinal center line of the cell, a cathode current-collector system comprising a substantially horizontal cathode bus bar disposed exterior to and adjacent each of two oppositely-disposed side walls of the shell parallel to the longitudinal center line of the cell, spaced cathode collector bars embedded in the carbon bottom lining in parallel disposition in respect to the bottom surfaces of the anodes, said embedded cathode collector bars each having current-collecting lengths disposed within and below the top surface of the carbon bottom lining and confined to substantially the downwardly projected area of an anode above the same, an electrical conductor for each embedded cathode collector bar connecting its respective cathode collector bar to one of the exterior cathode bus bars, the connection between each electrical conductor and its respective embedded cathode collector bar being within substantially the downwardly projected area of an anode above the same, and the electrical conductors being otherwise electrically insulated from the cell cavity and its contents.

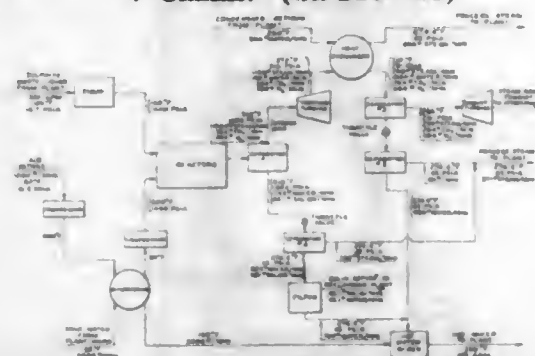
2,824,058

METHOD FOR THE CONTINUOUS SELF-SUSTAINING FLAMELESS OXIDATION OF COMBUSTIBLE MATERIALS

Frederick J. Zimmermann, Wausau, Wis., assignor to Sterling Drug Inc., New York, N. Y., a corporation of New York

Application December 14, 1953, Serial No. 397,959

7 Claims. (Cl. 210-63)



1. In a process for continuously oxidizing combustible materials dispersed in liquid water, the steps for capacity regulating which include: charging into a reaction zone a concentrated aqueous dispersion of combustible matter; introducing into said reaction zone a continuous feed of combustible materials dispersed in liquid water having a heat value concentration less than said reaction zone charge; introducing simultaneously into said reaction zone with said feed a continuous feed of an oxygen-containing gas in a stoichiometric amount to oxidize substantially completely all of said combustible materials in the feed; pressurizing said reaction zone to maintain at the temperature of the reaction at least some of the water therein in the liquid phase; varying the fuel value concentration of the charge in the reaction zone inversely proportional to the ratio of combustibles to water in the feed; regulating the introduction of feed and gas to said reaction zone at the rate of production of reaction products in the reaction zone to maintain the ratio of combustibles to water in the reaction zone; and, withdrawing reaction products, fixed gases and water vapor from said reaction zone equivalent to the rate of introduction of reactants in the feed to the reaction zone.

2,824,059

CORROSION INHIBITOR COMPOSITION AND METHOD OF PREVENTING CORROSION

Walter M. Chamot, Argo, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

No Drawing. Application February 8, 1954

Serial No. 408,987

8 Claims. (Cl. 252-8.55)

1. A corrosion inhibitor composition consisting essentially of in proportions by weight about 8-12% of a water and oil dispersible corrosion inhibiting material, about 8-12% of an unoxidized mineral wax, about 3-12% of a high molecular weight solid polyalkylene glycol dispersant, and a major proportion of a weighting material, in solid stick form.

2,824,060

BEARING COMPOSITIONS CONTAINING POLYTETRAFLUOROETHYLENE AND POLYTRIFLUOROCHLOROETHYLENE

Hobart S. White, Bethesda, Md., assignor to the United States of America as represented by the Secretary of the Navy

No Drawing. Application October 15, 1954

Serial No. 462,634

17 Claims. (Cl. 252-12.2)

(Granted under Title 35, U. S. Code (1952), sec. 266)

2. An oil- and grease-free bearing composition consisting of a mixture of polytrifluorochloroethylene having a molecular weight ranging from 76,000 to 110,000 to

the amount of 10 to 60% by weight and polytetrafluoroethylene having a molecular weight ranging from 500,000 to 10,000,000 to the amount of 10 to 80% by weight, and a filler selected from the group consisting of molybdenum, tungsten, glass and chromium tetrahydrate to the amount of 0 to 80% by weight.

2,824,061

METHOD OF OPERATING A REFRIGERATION SYSTEM USING A CHLORINE CONTAINING HALO-ALKANE AS A REFRIGERANT

James R. Davidson, Iselin, and William Seitz, Union, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application December 1, 1953

Serial No. 395,600

6 Claims. (Cl. 252-32.5)

1. In the method of operating a sealed mechanical compression-expansion-type refrigeration system using a chlorine-containing halo-alkane as a refrigerant and an essentially hydrocarbon lubricating oil for lubricating the internal moving parts thereof subject to friction, and wherein said refrigerant and oil come into contact with one another resulting in the formation of sludge and other degradation products, the improvement in accordance with which the formation of sludge and other degradation products is reduced which comprises lubricating said refrigeration system with a lubricating oil composition comprising a mineral lubricating oil base stock having an S. U. S. viscosity at 210° F. in the range of about 30 to 160 and a pour point below about -25° F. containing dissolved therein in the range of about 0.05 to 5% by weight of an alkali metal salt of a phosphoric acid ester containing at least 10 carbon atoms.

2,824,062

METAL SALTS OF PHOSPHORUS PENTASULFIDE-OLEFIN REACTION PRODUCTS

Lyle A. Hamilton, Pitman, Phillip S. Landis, Mickleton, and Francis M. Seger, Pitman, N. J., assignors to Socony Mobil Oil Company, Incorporated, a corporation of New York

No Drawing. Application December 30, 1953

Serial No. 401,412

8 Claims. (Cl. 252-32.7)

5. A mineral lubricating oil containing from about 0.5 to about 10 percent by weight of a metal-, phosphorus- and sulfur-containing product produced by the steps of (1) reacting (A) an olefinic hydrocarbon material having a continuous boiling range of from about 500° F. to about 1000° F., produced by the liquid-phase thermal cracking at a temperature of from about 700° F. to about 850° F., of a petrolatum filtrate characterized as follows: (a) consisting of from about 70 to about 90 weight percent of microcrystalline wax and the remainder lubricating oil, (b) having a specific gravity of from about 0.87 to about 0.88 and (c) not more than 20% thereof boiling below about 900° F. with (B) from about 5 to about 30 weight percent of phosphorus pentasulfide at a temperature of from about 100° C. to about 160° C. to form an acidic, phosphorus- and sulfur-containing product and (2) reacting the product of step 1 with a basically reacting metal salt of a metal selected from group II of the periodic table, to form a metal salt thereof.

2,824,063

LUBRICATING OILS CONTAINING A ZINC DITHIOPHOSPHATE AND NICKEL MAHOGANY SULFONATE

Guy M. Verley, Harvey, Ill., assignor to Sinclair Refining Company, New York, N. Y., a corporation of Maine

No Drawing. Application May 11, 1956

Serial No. 584,182

2 Claims. (Cl. 252-32.7)

1. A lubricating oil composition consisting essentially of a major amount of a mineral lubricating oil, an oil-

soluble nickel petroleum mahogany sulfonate sufficient to provide about 0.01 to 0.2 percent by weight of nickel, a zinc dithiophosphate diester in which the ester groups contain from about 4 to 20 carbon atoms, said dithiophosphate being oil-soluble and present in an amount to provide about 0.03 to 0.2 percent phosphorus, a small amount of sulfurized sperm oil sufficient to impart anti-wear properties and a small amount of basic barium petroleum mahogany sulfonate sufficient to impart a barium content of about 0.2 to 2.0 percent by weight.

2,824,064

HIGH STABILITY GREASES

John M. Musselman, Brecksville, and Charles H. Whitacre, South Euclid, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application April 2, 1954

Serial No. 420,748

15 Claims. (Cl. 252-41)

1. A grease having a high consistency stability and high oxidation stability, consisting essentially of a mineral oil of lubricating viscosity having a viscosity index of not over 87 and having dispersed therein by heating to a temperature not in excess of approximately 450° F. about 5 to 50% of a normal grease-forming metal soap of fatty acids having from 14 to 22 carbon atoms and an iodine value in the range of 55 to 77, the said normal fatty acid soaps being the sole fatty acid soaps in the grease, and being substantially free of glycerin and glycerin reaction products.

2,824,065

LITHIUM GREASES CONTAINING NAPHTHENYL DIESTERS

Samuel E. Jolly, Ridley Park, Pa., assignor to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

No Drawing. Application May 20, 1955

Serial No. 510,020

4 Claims. (Cl. 252-42)

1. A grease comprising a synthetic lubricant base composed of esters of dicarboxylic acids and comprising at least 10% of a naphthenyl diester of a dicarboxylic acid, and sufficient lithium soap of a soap-forming fatty material to thicken said lubricant base.

2,824,066

SODIUM SOAP THICKENED SOLVENT EXTRACTED HIGH VISCOSITY INDEX OIL

John M. Musselman, Brecksville, and Cyril P. Nunley, Cleveland Heights, Ohio, assignors to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio

No Drawing. Application September 28, 1953

Serial No. 382,845

5 Claims. (Cl. 252-42.1)

1. A multi-purpose lubricating grease consisting essentially of from about 60 to about 97% by weight of a solvent-extracted mineral oil having a viscosity of about 100 to 2000 S. U. at 100° F., a pour point at least as low as about 10° F., a viscosity index of at least 85, and an aniline point of at least 100° C., said oil being thickened with the sodium soap of a fatty acid in the amount of about 3 to about 40% by weight of the grease, the fatty acid being composed of at least 80% by weight of C₁₈ and higher acids, less than 20% by weight of C₁₆ acids

2,824,067

SULFURIZED LOW POLYUNSATURATED OILS AND LUBRICANTS CONTAINING THEM

John E. Farbak and Paul Gibson, Chicago, Ill., assignors to Swift & Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application July 19, 1950

Serial No. 174,782

6 Claims. (Cl. 252-48.6)

1. A sulfurized fatty triglyceride oil comprising a partially hydrogenated unsaturated animal oil, having a polyunsaturate content of no more than about 5 percent, a pour point of about 30° to 40° F., a color not in excess of about 6 N. P. A., and a sulfur content of about 10 to 18 percent.

2,824,068

ADDITIVE-CONTAINING OIL COMPOSITIONS AND THE LIKE

Hollis L. Leland, Cranford, Eric O. Forster, Hillside, and Carroll L. Knapp, Jr., Cranford, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application November 17, 1953, Serial No. 392,644

9 Claims. (Cl. 252-49.9)

1. A lubricating composition comprising a major proportion of an essentially hydrocarbon oil and about 0.01 to 20% by weight, based on the total composition, of a saturated heterocyclic secondary amine phosphate containing about 5 to 24 carbon atoms and having the formula:



wherein X is selected from the group consisting of hydrogen, amine radicals of piperidine and amine radicals of alkyl substituted piperidine, at least one X being an amine radical.

2,824,069

CLEANER FOR AUTOMOTIVE COOLING SYSTEM

Walter Alan Hall, Springfield, Pa., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application October 5, 1955

Serial No. 538,805

1 Claim. (Cl. 252-138)

An aqueous detergent concentrate adaptable as a cleaner for an automotive cooling system on dilution to 20 to 60 times its original volume, comprising the following approximate composition:

	Parts by weight
Water	56.25
Potassium hydroxide, 85%	13.20
Phosphoric acid, 85%	6.85
Chromic anhydride	2.15
Potassium silicate solution containing 12.6% K ₂ O and 26.5% SiO ₂	17.75
Sodium salt of the polymeric reaction product of naphthalene sulfonic acid and formaldehyde	3.80
	100.00

2,824,070 PROTECTIVE PREPARATION AGAINST MUSTARD VAPOR

Benjamin H. Adams, Harry Frahm, and William R. McGee, United States Navy, assignors to the United States of America as represented by the Secretary of War

No Drawing. Application November 3, 1942
Serial No. 464,432

2 Claims. (Cl. 252-182)

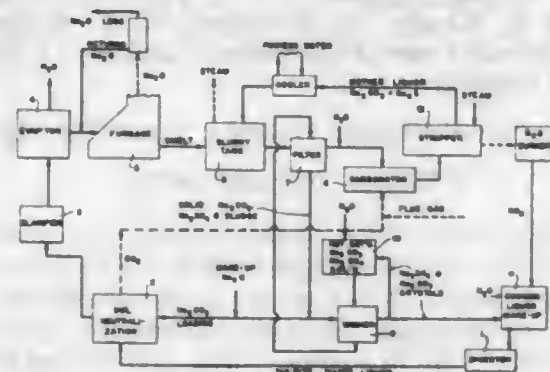
(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A composition of matter having substantially the following composition in parts by weight:

Sym dichlor bis (2,4,6 trichlorophenyl) urea powder	20.50
Magnesium oxide (heavy)	2.25
Rosin	1.50
Carbon tetrachloride (commercial)	75.75

2,824,071 RECOVERY OF CHEMICALS IN WOOD PULP PREPARATION

Kenneth Russell Gray, Hartzell Lance Crosby, and John Charles Steinberg, Shelton, Wash., assignors to Rayonier Incorporated, Shelton, Wash., a corporation of Delaware

Application May 13, 1953, Serial No. 354,735
9 Claims. (Cl. 252-183)



1. In recovering chemicals and heat from soda-base acid-sulfite waste liquor, the improvement which comprises evaporating the liquor and burning the concentrate in a furnace to form a smelt, adding to the smelt stripped aqueous liquor from the process to form a slurry of sodium carbonate crystals in a concentrated solution of sodium sulfide, separating sodium carbonate crystals from the slurry, circulating part of the sodium carbonate crystals back to the waste liquor to flux the contained chemicals and lower the melting temperature of the smelt, directing the other part of the sodium carbonate to soda-base acid-sulfite liquor make-up, subjecting the concentrated sodium sulfide solution to carbonation and steam stripping to form hydrogen sulfide and said stripped aqueous liquor, oxidizing the hydrogen sulfide to sulfur dioxide, reacting the sulfur dioxide with the sodium carbonate to make up the soda-base acid-sulfite liquor, said carbonation being carried out at a temperature above 50° C. under a pressure of at least 16 pounds per square inch absolute and said stripping being carried out under a vacuum of from 5 to 29 inches of mercury.

2,824,072 GERMANIUM-ACTIVATED PHOSPHOR

Keith H. Butler, Marblehead, Mass., assignor to Sylvia Electric Products Inc., Salem, Mass., a corporation of Massachusetts

No Drawing. Application March 17, 1951

Serial No. 216,253

2 Claims. (Cl. 252-301.4)

1. A germanium-activated calcium phosphate phosphor, in which the ratio of the number of gram-atoms of calcium to the number of gram-moles of the phos-

phate radical is less than 3.00/2.00 but greater than 2.70/2.00, and in which the germanium is divalent and its content is between about 0.002 gram-atom and 0.2 gram-atoms to two gram moles of phosphate radical.

2,824,073 METHOD OF PRODUCING TITANIUM-PHOS- PHORIC ACID CATALYST

Paul N. Rylander, Jr., Chicago, Ill., and Wilford J. Zimmerschied, Crown Point, Ind., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application September 9, 1953

Serial No. 379,290

6 Claims. (Cl. 252-435)

1. A process for the preparation of a self-supporting solid material which is a catalyst for the polymerization of propylene, which process comprises heating reagents consisting essentially of titanium dioxide and triphosphoric acid in a weight ratio between about 0.1 and about 2 at a temperature between about 240° C. and about 600° C. in order to effect an exothermic, water-producing reaction.

2,824,074 FLUID ALUMINA-MOLYBDENUM OXIDE REFORMING CATALYST

Robert P. Sieg, Berkeley, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application May 18, 1953, Serial No. 355,576

4 Claims. (Cl. 252-447)

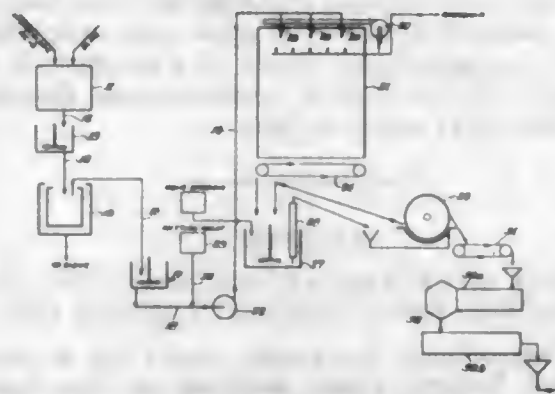
1. Fluidizable catalyst particles characterized by greatly enhanced attrition resistance and process life, containing alumina and molybdenum oxide and containing from about 0.5 to 15% by weight of crystalline graphite particles uniformly dispersed throughout each catalyst particle.

2,824,075 PREPARATION OF GEL CATALYST

Leslie E. Thompson, Weeks, La., Howard F. Reeves, Jr., Chattanooga, Tenn., and Salem F. Belt, North Texas City, Tex., assignors to Morton Salt Company, Chicago, Ill., a corporation of Illinois

Application November 3, 1952, Serial No. 318,414

8 Claims. (Cl. 252-448)



1. The method of producing gel catalyst for use in fluid catalytic cracking of petroleum which comprises reacting basic blast furnace slag with a mineral acid at a temperature not substantially in excess of 220° F. to form a hydrosol having a pH of 0.2-1.6, removing undissolved matter from the hydrosol, dispersing said hydrosol in the form of fine droplets at a high point in a vertically elongated zone, introducing ammonia gas at an intermediate point in said zone to coagulate said droplets, collecting the resulting particles at the bottom of said zone, aging said particles, mixing said particles with water containing sufficient ammonia to form a slurry having a pH between about 3 and about 6, separating said particles from said slurry, predrying the resulting particles, treating the resulting dried product with

a reducing agent, washing the thus treated particles to remove soluble salts therefrom, and then drying the resulting product.

2,824,076 PREPARATION OF ODOR-FREE CELLULAR POLY- VINYLCHLORIDE WITH DINITROSOPENTA- METHYLENETETRAMINE

Mack F. Fuller, Woodbury, N. J., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application December 21, 1953

Serial No. 399,577

4 Claims. (Cl. 260-2.5)

1. A process of preparing a substantially colorless, odor free, open cell polyvinylchloride sponge which comprises expanding polyvinylchloride by heating in an environment which is maintained at a temperature between about 120° and 170° C. at atmospheric pressure with about 4 to 8 parts of dinitrosopentamethylenetetramine per hundred parts of the polyvinylchloride resin in the presence of a slightly alkaline organic material from the class consisting of urea and tris-(hydroxymethyl) aminomethane and a weakly ionized acid from the class consisting of boric acid and citric acid, said slightly alkaline organic material being present in an amount of at least about one part by weight per part of dinitrosopentamethylenetetramine and said weakly ionized acid being present in an amount of from about 0.25 to about 2.0 parts by weight per part of dinitrosopentamethylenetetramine.

2,824,077 PROCESS FOR POLYMERIZING A PROLAMINE AND AN ACRYLIC ACID, THE PRODUCT OBTAINED THEREBY, AND A PHOTOGRAPHIC EMULSION CONTAINING SAME

William J. Priest, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application March 26, 1953

Serial No. 344,890

8 Claims. (Cl. 260-8)

1. The process for forming a gelatin substitute for photographic applications comprising polymerizing a prolamine selected from the class consisting of zein, gliadin, and hordein in the presence of a per compound polymerizing catalyst with a vinyl compound selected from the class consisting of acrylic acid, methacrylic acid, and itaconic acid.

2,824,078 EPOXY RESIN-AMINE PITCH COMPOSITION AND PROCESS OF MAKING SAME

Charles Mellick, Chicago, Ill., assignor to Dearborn Chemical Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application November 23, 1954

Serial No. 470,819

11 Claims. (Cl. 260-28)

1. A composition comprising, in substantial amounts, (a) epoxide resin resulting from the reaction of a polyhydric phenol free from reactive groups other than phenolic hydroxyl groups with an excess of a compound of the class consisting of aliphatic diepoxide and aliphatic epihalohydrin, such compound being free from reactive groups other than epoxide, halogen and alcoholic hydroxyl groups and (b) condensate resulting from the reaction of a polyamine wherein the amino groups are of the class consisting of primary and secondary amino groups with fatty acid pitch in a ratio such that for each molar equivalent of pitch based on its saponification value there is one molar equivalent of a reactive amino group in the polyamine plus the molar equivalent of at least two additional amine hydrogen atoms; wherein the weight ratio of (a):(b) ranges from 1:10 to 10:1.

2,824,079 VINYL CHLORIDE POLYMER COMPOSITION CON- TAINING PHENYL SALICYLATE AND A BIS- PHENOL

Wilbur F. Fischer, Cranford, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application June 8, 1954

Serial No. 435,350

6 Claims. (Cl. 260-31.8)

1. A plastic composition of matter comprising a resinous vinyl chloride polymer, a neutral branched chain alkyl ester, having 7 to 13 carbon atoms per alkyl group, of a polybasic acid, and 0.01 to 5% by weight of polymer each of phenyl salicylate and a bisphenol stabilizer having the formula R-X-R', wherein X is selected from the group consisting of 2,2-alkylidene groups having 3 to 6 carbon atoms, 3,3-alkylidene groups having 5 to 7 carbon atoms, sulfur, and sulfoxide; and wherein R and R' are selected from the group consisting of hydroxyphenyl radicals, monochlorinated hydroxyphenyl radicals and monoalkyl substituted hydroxyphenyl radicals having 1 to 3 carbon atoms per alkyl group.

2,824,080 MIXTURES OF HYDROXY PHENONES AND ESTERS OF SALICYLIC ACID IN RESINS AS INHIBITORS OF DISCOLORATION BY LIGHT

Elmer H. Haux, Pittsburgh, Pa., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania

No Drawing. Application March 1, 1954

Serial No. 413,467

6 Claims. (Cl. 260-45.4)

1. A hard, resinous product characterized by outstanding resistance to the harmful effects of light, comprising an interpolymers of (A) a polyester of a dihydric alcohol and an alpha, beta-ethylenically unsaturated dicarboxylic acid, and (B) a monomer containing a CH₂=C< group, said interpolymers having incorporated therein (1) an ester of salicylic acid wherein the salicylic acid is esterified through the carboxyl group and (2) a hydroxy substituted phenone in which a hydroxyl group is in the ortho position to the ketonic carbonyl group of the phenone.

2,824,081 POLYVINYL CHLORIDE COMPOSITIONS CON- TAINING A UREA-LOWER ALKYL MONOPHOS- PHATE REACTION PRODUCT AS A LIGHT STA- BILIZER

Marvin A. McCall and Richard L. McConnell, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application November 17, 1955

Serial No. 547,544

5 Claims. (Cl. 260-45.9)

1. A polyvinyl chloride composition stabilized against deterioration by light by a content of from 0.1% to 10% by weight, based on the weight of polyvinyl chloride, of the reaction product prepared by heating 1 mol of a lower alkyl mono-ester of orthophosphoric acid with 2 mols of urea.

2,824,082 PROCESS FOR CURING POLYEPOXIDES AND RESULTING PRODUCTS

Herbert A. Newey, Lafayette, Calif., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware

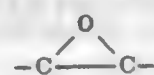
No Drawing. Application October 10, 1955

Serial No. 539,676

14 Claims. (Cl. 260-47)

1. A process for producing a resinified product which

comprises mixing and reacting a polyepoxide having



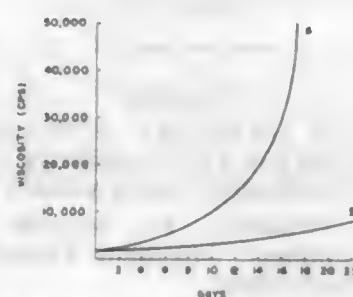
epoxy equivalency greater than 1.0 with a polyamino-substituted pyridine of the group consisting of diamino-pyridines and diaminoalkylpyridines wherein the alkyl group contains from 1 to 6 carbon atoms.

2,824,083

COMPOSITIONS CONTAINING BF₃ COMPLEXES AND THEIR USE AS CURING AGENTS FOR POLYEPOXIDES

Harvey L. Parry, Maplewood, N. J., and William A. Hubbard, Evanston, Ill., assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application December 27, 1955, Serial No. 555,604
9 Claims. (Cl. 260-47)



1. A process for resinifying polyepoxides which comprises mixing and reacting a polyepoxide having a



epoxy equivalency greater than 1.0 with a mixture of (1) an addition product of BF₃ and a member of the group consisting of amines, amides, ethers and phenols, and (2) a liquid aliphatic polyhydric alcohol having a molecular weight above 100.

2,824,084

LIGHT-SENSITIVE, UNSATURATED POLYMERIC MALEIC AND ACRYLIC DERIVATIVES

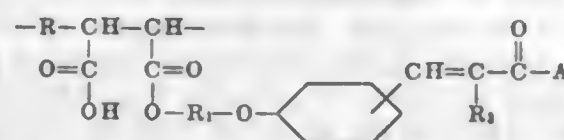
Cornelius C. Unruh and Donald A. Smith, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application May 26, 1955

Serial No. 511,417

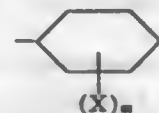
16 Claims. (Cl. 260-64)

1. A resinous polymer consisting of from about 20% to substantially 100% by weight of the recurring structural unit:

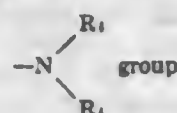


wherein R represents a member selected from the group consisting of a styrene unit, a vinyl ester unit, an isopropenyl ester unit, an alkyl acrylate unit, an alkyl methacrylate unit, a vinyl alkyl ether unit and an ethylene unit and wherein in each instance the alkyl group contains from 1 to 4 carbon atoms, R₁ represents an alkylene group containing from 2 to 3 carbon atoms, R₂ represents a member selected from the group consisting of an atom of hydrogen, an alkyl group containing from 1 to 4 carbon atoms, a nitro group, a cyano group and a —COOR₃ group, and A represents a monovalent group selected from the group consisting of an —OH group, a —R₄ group, an —OR₄ group, a —COOR₄ group, a

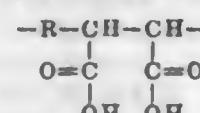
—CH=CH—C₆H₄—OR₄ group, a —C₆H₄—C₆H₅ group and the group



wherein m is a whole number of from 1 to 2 and X represents a member selected from the group consisting of a hydrogen atom, a halogen atom, a nitro group, a cyano group, an —R₄ group, an —OR₄ group, a —COOH group, a —COOR₄ group, a —CONH₂ group and an



and wherein R₄ in each instance represents an alkyl group containing from 1 to 4 carbon atoms, the remainder of the molecule to make a total of 100% being composed of the recurring structural unit:



wherein R has the above definition.

2,824,085

FLAME RESISTANT POLYESTER RESINS PREPARED FROM REACTION OF A POLY (ALKYLENE) MALEATE AND A DIALKYL HYDROGEN PHOSPHITE

William Cummings, North Woodbury, Conn., assignor to United States Rubber Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application May 18, 1954

Serial No. 430,727

3 Claims. (Cl. 260-75)

1. A method of making a phosphorus-bound fusible alkyd product which when cross-linked with a copolymerizable ethylenic compound containing the CH₂=C< group provides a flame-resistant infusible copolymer resin which comprises reacting 1 mole proportion of an unsaturated alkyd selected from the class consisting of glycol polyesters of alpha-unsaturated dicarboxylic acids and mixtures of such acids with dicarboxylic acids free of polymerizable unsaturation, with from 0.2 to 0.7 mole proportion of a phosphite of the general formula



where R is a radical selected from the group consisting of alkyl, aralkyl, and cycloalkyl to provide in the alkyd from 0.5 to about 7 percent by weight of chemically-bound phosphorus.

2,824,086

POLYMERS FROM REACTION OF 3-AMINO-1,2,4-TRIAZOLE WITH ORGANIC DIISOCYANATES OR CARBONATES

Edmund B. Towne, John W. Wellman, and Joseph B. Dickey, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

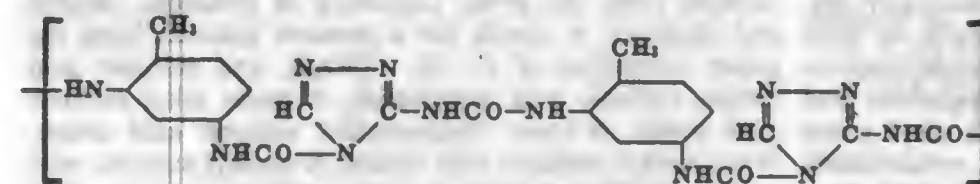
No Drawing. Application October 31, 1955

Serial No. 544,052

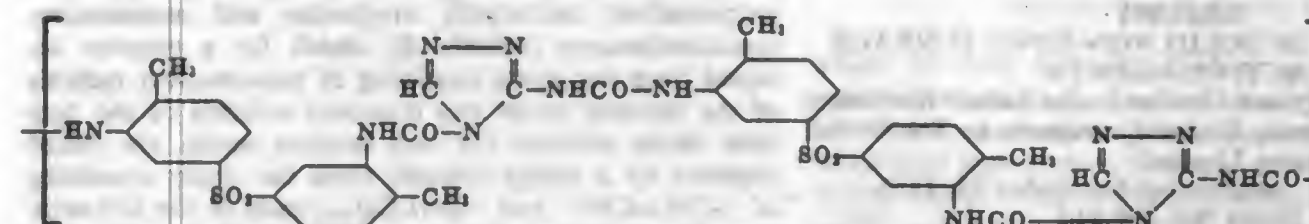
10 Claims. (Cl. 260-77.5)

1. A resinous polymer selected from the group con-

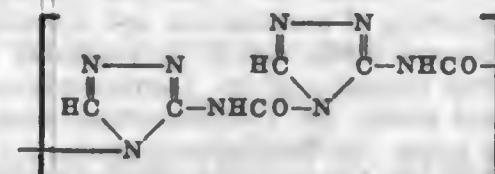
sisting of (1) a resinous polymer consisting of the recurring structural unit:



(2) a resinous polymer consisting of the recurring structural unit:



and (3) a resinous polymer consisting of the recurring structural unit:



wherein n represents a whole number.

2,824,087

LIGHT-SENSITIVE RHODANINE ESTERS OF MALEIC ANHYDRIDE COPOLYMERS

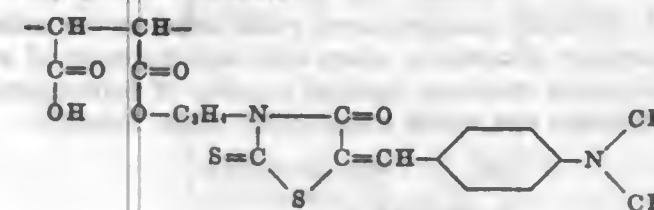
John J. Sagura and Cornelius C. Unruh, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 16, 1956

Serial No. 604,342

14 Claims. (Cl. 260-78.5)

1. A resinous styrene-maleic anhydride copolymer of from 1/4 to 1 mole of maleic anhydride to each mole of styrene and having at least 30% of the maleic anhydride groups converted to ester groups represented by the following general formula:



2,824,088

TRIARYLAMINO-TRIAZINES AND PROCESS FOR THEIR MANUFACTURE

Robert Neher, Binningen, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

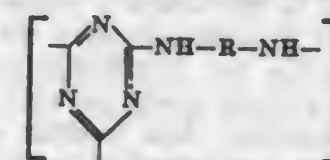
No Drawing. Application October 5, 1954

Serial No. 460,518

Claims priority, application Switzerland October 14, 1953

17 Claims. (Cl. 260-79.3)

1. Triarylamino-triazines of the formula



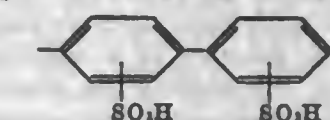
in which all the triazine rings are bound to one another by —NH—R—NH— radicals and every triazine ring

727 O. G.—42

carbon atom not bound to another triazine ring by such a radical is bound to a radical of the formula



wherein R represents a radical of the formula



and wherein n represents a whole number such that the molecular weight of the compound is within the range of 10⁴ to 10⁶.

2,824,089

HYDROCARBON CONVERSION (GROUP 6a METAL OXIDE AND AIR, INITIATOR)

Edwin F. Peters, Lansing, and Bernard L. Evering, Chicago, Ill., assignors to Standard Oil Company, Chicago, Ill., a corporation of Indiana

No Drawing. Application April 28, 1955

Serial No. 504,684

14 Claims. (Cl. 260-88.1)

7. A process for the polymerization of a charging stock comprising essentially at least one monoolefinic hydrocarbon having 2 to 4 carbon atoms, inclusive, per molecule to produce a high molecular weight resin, which process comprises contacting said charging stock with a catalyst comprising a minor proportion of an oxide of a metal of group 6a extended upon a major proportion of an inert, solid supporting material and with a co-catalyst which is a trihydrocarbon aluminum, each catalyst component being present in an operative proportion of at least about 0.001% by weight, based on the weight of said monoolefinic hydrocarbon, effecting said contacting under superatmospheric pressure at a suitable polymerization temperature between about 50° C. and about 230° C. and recovering said resin so produced.

2,824,090

POLYMERIZATION OF α-OLEFINS WITH A CATALYST MIXTURE OF AN ORTHOTITANATE AND AN ALKYL ALUMINUM HALIDE

Marvin B. Edwards and Hugh J. Hagemeyer, Jr., Longview, Tex., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application December 27, 1955

Serial No. 555,229

18 Claims. (Cl. 260-88.1)

1. In the polymerization of at least one aliphatic C₃-C₁₀ α-monoolefin to form solid polymer, the improvement which comprises effecting the polymerization at 20-130° C. in the presence of a catalytic mixture of a tetraalkyl orthotitanate wherein each alkyl group con-

tains 8-13 carbon atoms and alkyl aluminum halide wherein each alkyl group contains 2-12 carbon atoms.

14. As a catalyst for polymerization of normally gaseous α -monoolefins, a mixture in a molar ratio of from 1:4 to 32:1 of at least one alkyl aluminum halide from the group consisting of dialkyl aluminum monohalides and monoalkyl aluminum dihalides wherein each alkyl group contains 2-12 carbon atoms and a tetraalkyl orthotitanate wherein each alkyl group contains 8-13 carbon atoms.

2,824,091

PRODUCTION OF SOLID NON-IONIC SURFACE ACTIVE AGENTS

Dennis Henry Desty and Charles Leslie Arthur Harbourn, Sunbury-on-Thames, England, assignors to The British Petroleum Company Limited

No Drawing. Application December 21, 1953

Serial No. 399,614

Claims priority, application Great Britain

December 31, 1952

11 Claims. (Cl. 260-96.5)

1. A process for the production of non-ionic surface active agents in solid form which comprises treating a non-ionic surface active agent having, in the molecule a chain of ethylene oxide units, with an excess by weight of solid urea, in the presence of a reaction diluent and a reaction activator, maintaining the mixture until urea adduct formation has taken place and separating the solid product, the pH of the reaction mixture, when tested as an aqueous solution containing 1% by weight of said agent, being initially within the range 2.5-7.0.

2,824,092

PROCESS OF PREPARATION OF A GELATIN-CARBOXYMETHYL CELLULOSE COMPLEX

Robert E. Thompson, Chicago, Ill.

No Drawing. Application January 4, 1955

Serial No. 479,869

2 Claims. (Cl. 260-117)

1. In a method of preparing a glycoprotein, the steps of combining a carboxymethyl cellulose and gelatin in aqueous solution at a pH of from 3.5 to 6.5, diluting said aqueous solution with water to precipitate a complex composed of a carboxymethyl cellulose component and a gelatin component, and separating the resulting precipitate from the aqueous solution.

2,824,093

AZO DYESTUFFS

Jakob Benz, Basel, and Walter Wehrli, Riehen, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

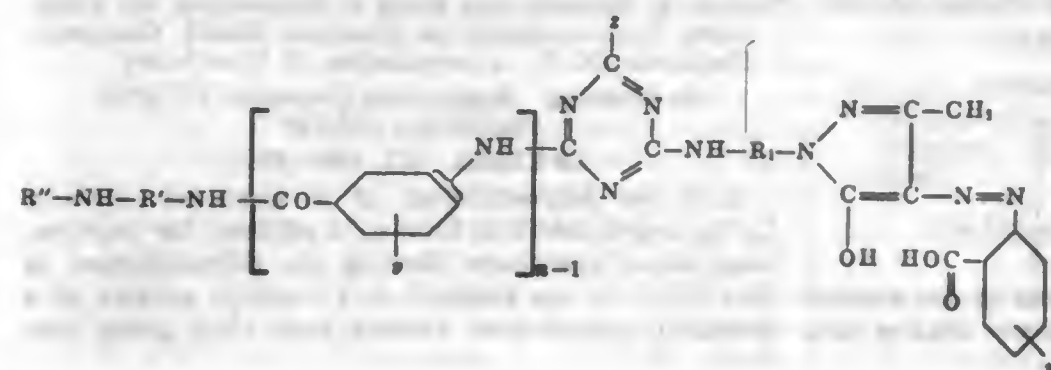
No Drawing. Application September 28, 1953

Serial No. 382,834

Claims priority, application Switzerland October 3, 1952

8 Claims. (Cl. 260-146)

1. A member selected from the group consisting of azo dyestuffs which correspond to the formula



and complex copper compounds thereof, wherein n stands for one of the numerals 1 and 2; v stands for a member selected from the group consisting of hydrogen, methyl and methoxy; w stands for a member selected from the group consisting of H, Cl, $-\text{SO}_2\text{H}$, and sulfonic acid amide, sulfonic acid morpholide, N-lower alkyl sulfonic acid amide, N-lower hydroxyalkyl sulfonic acid amide, N-cycloalkyl sulfonic acid amide, N-alkyl sulfonic acid amide and N-aryl sulfonic acid amide groups; z stands for a member selected from the group consisting of Cl, OH, NH_2 , lower alkylamino, lower hydroxyalkylamino, mononuclear carbocyclic arylamino and monoamino-monoazobenzene radicals; R_1 stands for a member selected from the group consisting of mononuclear radicals of the benzene series and binuclear radicals of the benzene series wherein the two benzene nuclei are linked together by a bridge selected from the group consisting of $-\text{CH}=\text{CH}-$ and $-\text{NH}\cdot\text{CO}\cdot$, each of the last-mentioned two benzene nuclei containing a sulfonic acid group in ortho-position to the said bridge when the latter is $-\text{CH}=\text{CH}-$; R' stands for a member selected from the group consisting of mononuclear and binuclear radicals of the benzene series; and R'' is a member selected from the group consisting of the 1-aminoanthraquinone-2-sulfonic acid group, the 1-aminoanthraquinone-2,5-disulfonic acid group, the 1-aminoanthraquinone-2,6-disulfonic acid group, the 1-aminoanthraquinone-2,7-disulfonic acid group, the 1-aminoanthraquinone-2,8-disulfonic acid group, the 1-amino-6-chloroanthraquinone-2-sulfonic acid group, the 1-amino-7-chloroanthraquinone-2-sulfonic acid group and the 1-amino-6,7-dichloroanthraquinone-2-sulfonic acid group, the R'' group being connected in the 4-position of the anthraquinone nucleus to the adjacent $-\text{NH}\cdot\text{R}'\cdot\text{NH}\cdot$ group.

2,824,094

CHROMIUM CONTAINING AZO DYESTUFFS

Hans Ackermann, Riehen, near Basel, and Guido Schetty, Basel, Switzerland, assignors to J. R. Geigy A. G., Basel, Switzerland, a Swiss firm

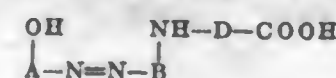
No Drawing. Application September 27, 1955

Serial No. 537,055

Claims priority, application Switzerland October 8, 1954

7 Claims. (Cl. 260-146)

1. A chromiferous compound which contains one atom of chromium in complex union with one molecule of an unsulphonated monoazo dyestuff capable of forming tricyclic chelates and which corresponds to the formula:

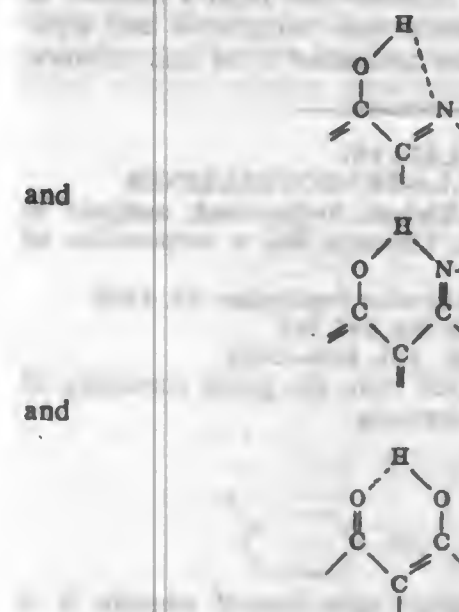


wherein A represents a radical of the benzene series containing the hydroxyl group in o-position to the azo group, B represents a radical of the naphthalene series bound to the azo group in 1-position and containing the



radical in 2-position, D represents an o-phenylene radical, and with one molecule of a coordinative divalent complex

former containing a metallizable structure selected from the group consisting of structures of the formulae:



and of the tautomeric forms thereof.

2,824,095

METAL-CONTAINING AZO DYESTUFFS

Reinhard Neier, Basel, and Charles Petitjean and Walter Wehrli, Riehen, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz Trust

No Drawing. Application January 18, 1954

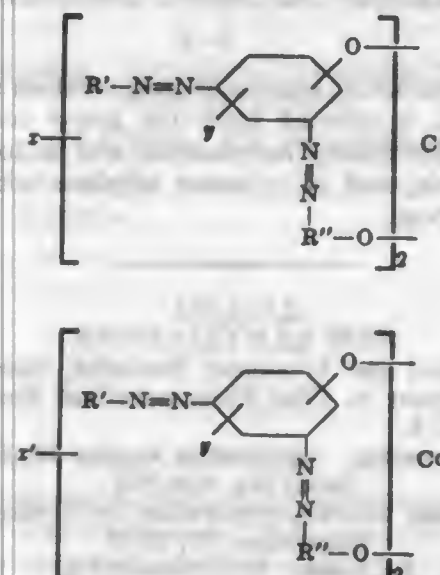
Serial No. 404,811

Claims priority, application Switzerland

September 4, 1951

6 Claims. (Cl. 260-148)

1. A member selected from the class consisting of metal-containing azo dyestuffs corresponding to one of the formulae



wherein R' stands for a member selected from the group consisting of the radicals of diazo components of the benzene and naphthalene series, $R''\text{-O-}$ stands for a member selected from the group consisting of the radicals of coupling components of the hydroxybenzene, hydroxynaphthalene, 5-pyrazolone, acetoacetylaminobenzene, acetoacetylaminobenzene and acetoacetylaminonaphthalene series, x stands for at least one group selected from the class consisting of the carboxylic acid, acylamino, methylsulfonyl and sulfonamide groups, x' stands for at least one group selected from the class consisting of the sulfonic acid, carboxylic acid, acylamino, methylsulfonyl and sulfonamide groups, and y stands for a member selected from the group consisting of hydrogen and lower alkyl, and wherein each -O- atom is in ortho-position to an $-\text{N}=\text{N}-$ group.

2,824,096

TRICYANOVINYLLARYLENEAZOARYLENE COMPOUNDS

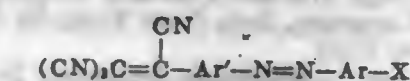
Richard E. Heckert, East Grandview, Va., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application July 13, 1954

Serial No. 443,143

5 Claims. (Cl. 260-192)

1. Compound of formula



where Ar and Ar' are divalent carbocyclic aromatic radicals selected from the class consisting of arylene radicals which are exclusively hydrocarbon and auxochrome-substituted hydrocarbon arylene, said auxochrome substituents being $-\text{Cl}$, $-\text{NRR}'$, $-\text{NHR}$, $-\text{NH}_2$, $-\text{OR}$, $-\text{OH}$, $-\text{SO}_2\text{H}$ and $-\text{COOH}$, where R and R' represent lower alkyl radicals, and X is from the group consisting of hydroxyl and amino radicals.

2,824,097

IMPROVING THE COLOR OF DICARBOXYLIC ACID ESTERS OF CELLULOSE

Carl J. Malm, and Carlton L. Crane, Rochester, N. Y., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

No Drawing. Application August 26, 1955

Serial No. 530,903

3 Claims. (Cl. 260-225)

1. A method of improving the color of a cellulose ester having only lower fatty acid radicals and dicarboxylic acid radicals which comprises treating the cellulose ester in water susceptible form with an aqueous solution of a water soluble permanganate of .05-1% concentration to impart a uniform brown color to the cellulose ester and subsequently treating the wet cellulose ester with an aqueous solution of a reducing acid whereby the product obtained exhibits a considerably improved color when dissolved in organic solvent over that which it previously had.

2,824,098

POWDER PRECIPITATION OF CELLULOSE ESTERS OF FATTY ACIDS OF 3-4 CARBON ATOMS

Frank M. Volberg and Melvin D. Martin, Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

Application February 4, 1955, Serial No. 486,186

7 Claims. (Cl. 260-230)

1. A method of precipitating in a continuous manner cellulose esters of fatty acids of 2-4 carbon atoms having a content of fatty acid radicals of 3-4 carbon atoms of more than 15% from their solutions in mixed fatty acids in which acetic acid constitutes at least 25% of the acid, which comprises continuously introducing a solution of the cellulose ester in mixed fatty acid into one of a series of chambers wherein the entire volume therein is highly agitated and is maintained by the continuous addition of aqueous acid at an acid concentration selected from the range of 3-12% below the break point of the cellulose ester solution, except in the areas immediately adjacent the intakes in the chamber for the solution and for the aqueous acid, to maintain the selected acid concentration, whereby a slurry is formed, continuously passing the so-formed slurry to the next of the series of chambers in which the entire volume therein is highly agitated and is maintained by the continuous addition of aqueous acid at an acid concentration below, but not more than 12% below, the acid concentration value of the preceding chamber, except immediately adjacent the intakes thereof, and further continuously passing the slurry along the series of chambers in which the acid concentration is further diminished until the slurry can be withdrawn from

the last chamber of the series and the solid particles therein be separated from the liquid in which those particles are suspended so as to obtain the cellulose ester in the form of a mass of uniform, readily washable powder.

2,824,099

PROCESS OF MAKING A STARCH-COMPLEX PIGMENT AND THE PRODUCT THEREOF

William L. Craig, Westport, Conn., assignor to R. T. Vanderbilt Company, Inc., New York, N. Y., a corporation of New York

No Drawing. Application September 24, 1953

Serial No. 382,193

7 Claims. (Cl. 260—233.3)

2. A new composition of matter suitable for use as a pigment, said composition being a reaction product of aluminum sulfate and a precipitate formed by reacting in aqueous admixture a soluble silicate and a calcium halide-starch complex, said reaction product when dispersed in water to form a mixture containing 10 percent by weight of said reaction product yielding a mixture having a pH within the range 3.5 to 10.

2,824,100

PROCESS FOR PREPARATION OF STEROID SUBSTANCES

Alan Gibson Long, Greenford, and John Selwyn Hunt, South Ruislip, England, assignors to G. N. R. D. Patent Holdings Limited, London, England, a British company

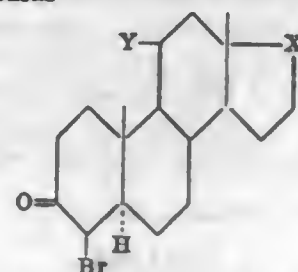
No Drawing. Application June 22, 1954

Serial No. 438,593

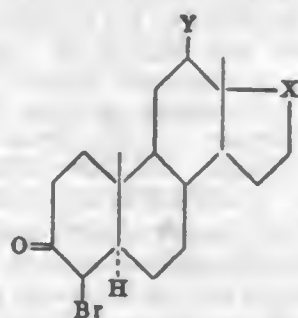
Claims priority, application Great Britain June 29, 1953

12 Claims. (Cl. 260—239.55)

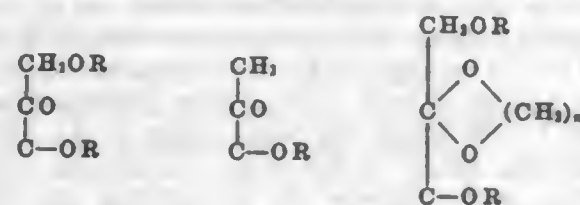
1. A process for the preparation of compounds selected from the group consisting of compounds having the general formulas



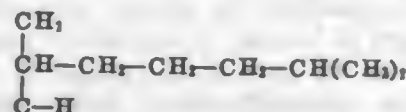
and



where X is selected from the group consisting of



and



in which R is selected from the group consisting of a hydrogen atom and an acyl group derived from a lower alkanic acid having 2-5 carbon atoms and n is a number greater than one and less than 4 and Y is selected from the group consisting of hydrogen and oxygen atoms, comprising reacting the corresponding 2:4-dibromo com-

pound with a reducing agent incapable of reducing the 3-keto group under conditions of the reaction to remove one atom equivalent of bromine and form a mixture of 4-monobromo and 2-monobromo compounds and separating said 4-monobromo compound from said mixture.

2,824,101

3-ANILINO-2H,1,4-BENZOTHAZINES

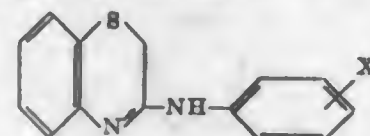
Markus Zimmermann, Riehen, Switzerland, assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application September 13, 1956

Serial No. 609,541

6 Claims. (Cl. 260—243)

1. A compound selected from the group consisting of compounds having the formula



and non-toxic acid addition salts thereof wherein X is selected from the group consisting of hydrogen, halogen, hydroxy, (lower alkyl)COO— and lower alkoxy.

2,824,102

AMINOALKYL-2H,1,4-BENZOTHAZIN-3(4H)-ONES

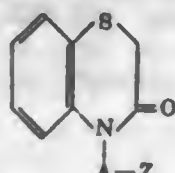
Markus Zimmermann, Riehen, Switzerland, assignor to G. D. Searle & Co., Chicago, Ill., a corporation of Delaware

No Drawing. Application September 13, 1956

Serial No. 609,542

6 Claims. (Cl. 260—243)

1. A compound selected from the group consisting of compounds having the formula



and pharmaceutically acceptable acid addition salts thereof wherein Z is selected from the group consisting of pyrrolidino, piperidino, morpholino, and di(lower)alkyl-amino radicals, and A is lower alkylene containing at least two carbons.

2,824,103

NEW 1,3,5-TRIAZINES

Albrecht Hueni and Alexander Staehelin, Basel, Switzerland, assignors to Ciba Pharmaceutical Products Inc., Summit, N. J.

No Drawing. Application August 30, 1956

Serial No. 606,978

Claims priority, application Switzerland

September 27, 1955

5 Claims. (Cl. 260—249.6)

1. A member selected from the group consisting of 2-hydrazino-4,6-bis-diethylamino-1,3,5-triazine and therapeutically useful acid addition salts thereof.

2,824,104

PROCESS FOR THE PRODUCTION OF MELAMINE

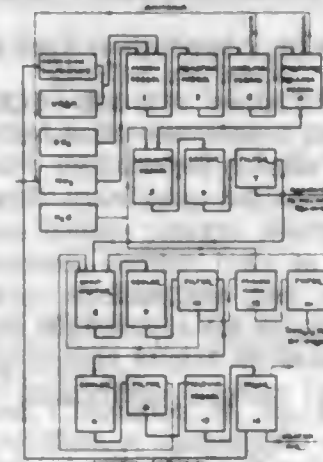
Joseph Newton Robinson and Frederick John Leslie Miller, Trail, British Columbia, Basil McDonnell, Rossland, British Columbia, and John Frederick Villiers-Fisher, Trail, British Columbia, Canada, assignors to The Consolidated Mining and Smelting Company of Canada Limited, Montreal, Quebec, Canada, a corporation of Canada

Application February 2, 1956, Serial No. 563,132

8 Claims. (Cl. 260—249.7)

1. In a process for the production of melamine by reacting urea, sulphur dioxide and added ammonia in a re-

action zone maintained at a temperature above about 260° C. and under a superatmospheric pressure of ammonia, the improvement which comprises the steps of conducting the reaction in a circulating stream of molten guanidine sulphamate until a reaction product is formed which contains sulphur, ammonium sulphate and at least



about 30% of the theoretical yield of melamine, withdrawing reaction product from the reaction zone as a suspension in molten guanidine sulphamate, separately recovering melamine, ammonium sulphate and guanidine sulphamate from the reaction product, and re-cycling at least part of the so-recovered guanidine sulphamate as the circulating stream passing to the reaction zone.

2,824,105

STABILIZATION OF POLYMERIZABLE HETEROCYCLIC NITROGEN COMPOUNDS

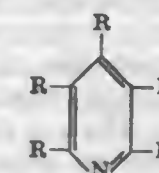
Warren L. Smith and Mack F. Potts, Bartlesville, Okla., and Paul S. Hudson, Iowa City, Iowa, assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application November 17, 1952

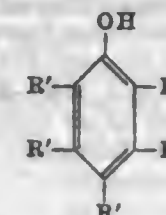
Serial No. 321,041

12 Claims. (Cl. 260—290)

1. A polymerizable heterocyclic nitrogen compound having the formula



where R is selected from the group consisting of hydrogen, alkyl, vinyl, and isopropenyl (alpha-methylvinyl) groups, at least one and not more than two of said groups being selected from the group consisting of vinyl and isopropenyl groups, the total number of carbon atoms in the alkyl groups being not greater than 12 containing a stabilizing amount of a dinitrochlorophenol having the formula



where R' is selected from the group consisting of hydrogen, chloro- and nitro-groups wherein one R' group is a chloro- and two R' groups are nitro-groups.

2,824,106

QUATERNARY TROPEINE COMPOUNDS AND A PROCESS OF MAKING SAME

Karl Zelle, Franz Adickes, and Helmut Wick, Ingelheim, Germany, assignors to C. H. Boehringer Sohn, Ingelheim, Germany

Application March 1, 1955, Serial No. 491,447

Claims priority, application Germany March 3, 1954

6 Claims. (Cl. 260—292)

5. N-alkyl atropinium halogenide selected from the group consisting of the chloride, bromide, and iodide, its alkyl radical having 7 to 11 carbon atoms.

2,824,107

METHOD FOR MAKING METAL PHTHALOCYANINE PIGMENTS

Edwin B. Newton and Henry J. Kehe, Akron, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application September 28, 1954

Serial No. 458,948

10 Claims. (Cl. 260—314.5)

1. The method for producing metal phthalocyanine pigments which comprises heating in the presence of an inert organic high boiling point solvent a phthalocyanine forming metal donor reagent selected from the group consisting of copper, nickel, iron, cobalt, vanadium, tin, chromium, lead, aluminum, cadmium, magnesium and zinc and their salts, a phthalocyanine forming material selected from the group consisting of phthalic acid, phthalic anhydride, the methyl and ethyl esters of phthalic acid and phthalic anhydride and their mono-, di-, tri- and tetra-bromo and -chloro and alkoxy derivatives and mixtures thereof, a phthalocyanine nitrogen donor selected from the group consisting of urea, biuret, guanidine, guanylurea, dicyandiamide and cyanuric acid and at least a minor molar amount, computed as metallic ions and as compared to the other reactants present and sufficient to catalyze the phthalocyanine reaction to form said pigment, of at least one hydrated mineral acid digested oxide at least partially soluble in said nitrogen donor and of an element selected from the group consisting of titanium and zirconium and mixtures thereof to a temperature and for a time sufficient to form a phthalocyanine pigment.

2,824,108

METHOD FOR MAKING METAL PHTHALOCYANINE PIGMENTS

Henry J. Kehe and Edwin B. Newton, Akron, Ohio, assignors to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application September 28, 1954

Serial No. 458,970

10 Claims. (Cl. 260—314.5)

1. The method producing metal phthalocyanine pigments which comprises heating in the presence of an inert organic high boiling point solvent a phthalocyanine forming metal donor reagent selected from the group consisting of copper, nickel, iron, cobalt, vanadium, tin, chromium, lead, aluminum, cadmium, magnesium and zinc and their salts, a phthalocyanine forming material selected from the group consisting of phthalic acid, phthalic anhydride, the methyl and ethyl esters of phthalic acid and phthalic anhydride and their mono-, di-, tri- and tetra-bromo and -chloro and alkoxy derivatives and mixtures thereof, a phthalocyanine nitrogen donor selected from the group consisting of urea, biuret, guanidine, guanylurea, dicyandiamide and cyanuric acid and at least a minor molar amount computed as metallic ions and as compared to the other reactants present and sufficient to catalyze the phthalocyanine reaction to form said pigment of at least one freshly prepared essentially anion-free hydrated oxide gel of an element selected from the group

consisting of titanium and zirconium and mixtures thereof to a temperature and for a time sufficient to form a phthalocyanine pigment.

2,824,109

PROCESS FOR THE PRODUCTION OF 4-AMINO-PHTHAL-IMIDE-5-SULFONIC ACID

Berthold Blenert and Fritz Baumann, Leverkusen-Bayerwerk, and Heinrich Vollmann, Leverkusen, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application August 5, 1954

Serial No. 448,138

Claims priority, application Germany August 7, 1953

3 Claims. (Cl. 260-326)

1. 4-amino-phthalimide-5-sulfonic acid.

2,824,110

5-HYDROXY PYRROLONE-2

Edward G. Howard, Jr., Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application June 16, 1953

Serial No. 362,149

7 Claims. (Cl. 260-326.3)

1. A 5-hydroxy-2(5H)pyrrolone having on each of the 4- and 5-carbons a monovalent hydrocarbon radical of up to 10 carbon atoms each, which may be joined together, having on the ring nitrogen a member of the group consisting of hydrogen and monovalent hydrocarbon radicals of up to 10 carbon atoms; and having on the 3-carbon a substituent selected from the group consisting of quaternary onium and inium salts, carboxyl, and groups hydrolyzable thereto linked directly from the carbon of said group to said 3-carbon of the pyrrolone nucleus.

2,824,111

PYRROLIDINES

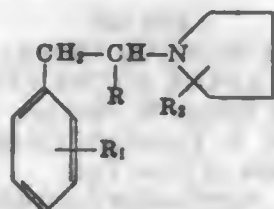
Richard V. Heinzelman, Kalamazoo Township, Kalamazoo County, Mich., assignor to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 12, 1952

Serial No. 320,123

18 Claims. (Cl. 260-326.5)

1. A compound selected from the group consisting of (a) pyrrolidines of the formula:



wherein R is a lower-alkyl group, R₁ is a lower-alkoxy group, and R₂ is a member selected from the group consisting of hydrogen, phenyl and mono- and di-lower-alkyl radicals, said lower-alkyl and said lower-alkoxy radicals containing from one to eight carbon atoms inclusive, and (b) non-toxic acid addition and quaternary ammonium salts selected from the group consisting of lower-alkyl and benzyl halides.

2,824,112

PRODUCTION OF ALPHA CHLOROSTYRENE OXIDE

William A. McMin, Jr., Brookline, Mass., assignor to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application September 24, 1956

Serial No. 611,769

5 Claims. (Cl. 260-348)

1. The process of producing alpha chlorostyrene oxide which comprises reacting at a temperature below about

10° C. styrene oxide and chlorine in carbon tetrachloride solvent, said reaction mixture being subjected to the catalytic effect of ultraviolet light rays.

2,824,113

QUATERNARY AMMONIUM PHOSPHITES

John D. Zech, Wilmington, Del., assignor to Atlas Powder Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 6, 1953

Serial No. 347,145

10 Claims. (Cl. 260-413)

1. A quaternary ammonium alkyl hydrogen phosphite wherein the said alkyl is lower alkyl, wherein one of the radicals attached to the quaternary nitrogen atom is a monovalent lipophilic organic radical selected from the group consisting of alkyl radicals containing from 10 to 20 carbon atoms, fatty-acyl radicals containing from 11 to 21 carbon atoms in the acyl residue and from 1 to 10 oxy-alkylene groups of 2 to 3 carbon atoms each, and substituted benzyl radicals conforming to the formula



wherein R represents an alkyl radical containing from 8 to 16 carbon atoms and x is from 0 to 1, and wherein the remaining 3 radicals attached to the quaternary nitrogen atom are lower alkyl.

2,824,114

WATER SOLUBLE GROUP IV-A METAL ESTERS OF AMINO ALCOHOLS AND THEIR PREPARATION

Charles O. Bostwick, Stanton, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 9, 1952

Serial No. 308,720

20 Claims. (Cl. 260-429.3)

1. A water soluble group IV-A metal ester of an amino hydroxy compound selected from the group consisting of a beta amino alcohol, a gamma amino alcohol, and an ortho amino phenol.

11. A process for producing a water soluble amino ester of a metal from group IV-A of the periodic table which comprises reacting an organic ester selected from the group consisting of ortho and condensed ortho esters of said metal, said ortho ester corresponding to the formula Me(OR)₄ wherein Me consists of said metal and R is an organic radical selected from the group consisting of alkyl, cycloalkyl, aryl, and aralkyl, with an amino hydroxy compound selected from the group consisting of a beta amino alcohol, a gamma amino alcohol, and an ortho amino phenol, and recovering the resulting amino ester from the reaction products.

2,824,115

TITANIUM AND ZIRCONIUM ORGANIC COMPOUNDS

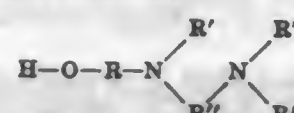
Harry H. Beacham, Plainfield, and Daniel F. Herman, Orange, N. J., assignors to National Lead Company, New York, N. Y., a corporation of New Jersey

No Drawing. Application November 9, 1954

Serial No. 467,875

6 Claims. (Cl. 260-429.5)

1. A water soluble ester of an element from the group consisting of titanium and zirconium with an aminoalcohol having the general formula:



in which the R groups are selected from the group consist-

ing of ethylene and lower alkyl-substituted ethylene radicals, at least one of the R' groups is selected from the group consisting of β-hydroxy-lower alkyl and β-amino-lower alkyl radicals and the remaining R' groups are selected from the group consisting of β-hydroxy-lower alkyl and β-amino-lower alkyl radicals and hydrogen, and R'' is selected from the group consisting of divalent alkylene radicals containing from 1 to 3 carbon atoms and divalent alkylene amine radicals representable by the formula:



where n is from 1 to 2 and X is selected from the group consisting of hydrogen, lower alkyl hydrocarbon groups containing from 1 to 3 carbon atoms, β-hydroxy-lower alkyl and β-amino-lower alkyl radicals.

2,824,116

SYNTHESIS OF HYDROCARBONS WITH A CATALYST CONTAINING LEAD DEPOSITED FROM A TETRAALKYL LEAD

Thomas P. Wilson, Charleston, W. Va., assignor to Union Carbide Corporation, a corporation of New York

No Drawing. Application November 16, 1954

Serial No. 469,309

4 Claims. (Cl. 260-449.6)

3. Process for the synthesis of hydrocarbons which comprises depositing lead in greater than trace amounts from the vapors of tetraalkyl lead at a temperature above the decomposition point of said tetraalkyl lead on an iron base synthesis catalyst, passing over the catalyst thus treated a gaseous mixture of carbon monoxide and hydrogen at synthesis conditions of temperature and pressure to cause the formation of a mixture of hydrocarbons in which the C₂ to C₄ fraction is predominantly olefinic.

2,824,117

PROCESS FOR THE PRODUCTION OF 1,4-DIISOCYANATOBENZENE

Alols Gemassmer, Köln-Stammheim, Germany, assignor to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 19, 1954

Serial No. 411,550

Claims priority, application Germany February 20, 1953

2 Claims. (Cl. 260-453)

1. Process for the production of 1,4-diisocyanatobenzene, which comprises adding a suspension of p-phenylene diamine in an inert solvent to a solution of phosgene in an inert solvent at a temperature within the range of 0 to 10° C., treating the reaction mixture thus obtained with phosgene at first, for a period of 1 to 4 hours, at a temperature within the range of 80 to 90° C., and then, for a period of 1 to 4 hours, at a temperature within the range of 115 to 125° C., and recovering 1,4-diisocyanatobenzene.

2,824,118

SYNTHESIS OF ALIPHATIC DINITRILES AND DIAMINES

Charles E. Frank and John F. Nobis, Cincinnati, and John R. Leebick, Miami, Ohio, assignors to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia

No Drawing. Application June 17, 1954

Serial No. 437,595

16 Claims. (Cl. 260-465.2)

1. As a novel composition of matter, a mixture of isomeric saturated aliphatic primary diamines having at least 10 carbon atoms per molecule and all the diamines in said mixture having the same number of carbon atoms and in which the amino groups are separated by at least six carbon atoms and which mixture is further charac-

terized by containing, in major amount, isomeric diamines containing at least one C₂ saturated branch chain.

3. As a novel composition of matter, a mixture of isomeric saturated aliphatic dinitriles having at least 10 carbon atoms per molecule and all the dinitriles in said mixture having the same number of carbon atoms and in which the cyano groups are separated by at least four carbon atoms and which mixture is further characterized by containing, in major amount isomeric dinitriles containing at least one C₂ saturated branch chain.

2,824,119

POLYMERIC OXIDATION PRODUCT OF AN OLEFIN AND AN ARAKANE AND PROCESS

James H. Gardner, Weston, Nat. C. Robertson, Wellesley, and Charles I. Tewksbury, Chestnut Hill, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

Application September 13, 1955, Serial No. 534,025

4 Claims. (Cl. 260-469)

1. The process of producing polymeric material with an average molecular weight above 100 which comprises the steps of introducing a normally gaseous olefin into a liquid alkyl aromatic solvent, passing an elemental-oxygen-containing gas into said solvent while the solvent is held under a pressure above 300 p. s. i. to oxidize and polymerize said olefin to polymeric material, maintaining said solvent at a temperature above about 130° C. while said olefin and elemental-oxygen-containing gas are introduced therein, separating from the solvent a polymeric material containing above about 25 percent by weight of phenyl groups derived from the solvent and oxygenated functional groups selected from the class consisting of hydroxy, carbonyl, carboxy, alkoxy, and ester groups.

4. A polymeric material having an average molecular weight in excess of 100 resulting from the reaction between an elemental-oxygen-containing gas, propylene and toluene at a pressure above 300 p. s. i. and at a temperature above about 130° C., said polymeric material being comprised of above about 25 percent by weight of phenyl groups derived from the toluene and oxygenated functional groups selected from the class consisting of hydroxy, carbonyl, carboxy, alkoxy and ester groups.

2,824,120

PRODUCTION OF PHENYLGLUTARIC ACID

Jay S. Buckley, Jr., Groton, and Rudolph G. Berg, Noank, Conn., assignors to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware

No Drawing. Application October 13, 1955

Serial No. 540,338

6 Claims. (Cl. 260-475)

4. The process for preparing α-phenylglutaric acid which comprises the steps of mixing a lower alkyl ester of phenylacetic acid with 3-15 mole percent of a 1,4-addition catalyst, adding thereto from 1/2 to 1 1/2 moles of a lower alkyl ester of acrylic acid per mole of lower alkyl ester of phenylacetic acid at a temperature substantially in the range of -40° C. to +60° C., recovering α-phenylglutaric diester, and hydrolizing recovered diester.

2,824,121

PROCESS FOR PREPARATION OF OXY ALKYLIDENE COMPOUNDS

Leonard Nicholl, Nyack, Peter J. Tarslo, Stony Point, and Herbert Blohm, Garnerville, N. Y., assignors to Kay-Fries Chemicals Inc., West Haverstraw, N. Y., a corporation of New York

No Drawing. Application November 4, 1954

Serial No. 466,947

10 Claims. (Cl. 260-484)

1. A process for the preparation of oxy alkylidene compounds which comprises reacting a compound con-

taining a methylene group activated by a strongly negative radical which is selected from the group consisting of CN, CO, COOR and CO.COOR, in which R is selected from the group consisting of alkyl, aryl and aralkyl radicals with an ester of an ortho acid belonging to the group consisting of lower fatty acids having a carbon content of C₁-C₈ and benzoic acid under the influence of a weakly acid compound as catalyst.

2,824,122

PURIFICATION OF ALPHA, OMEGA ALKANEDIOIC ACIDS BY PARTIAL ESTERIFICATION
Vincent P. Kucski, Park Forest, Ill., assignor to The C. P. Hall Company, Akron, Ohio, a corporation of Ohio

Application May 24, 1955, Serial No. 510,770
7 Claims. (Cl. 260-485)

1. The process of esterifying a less polar alpha, omega-alkanedioic acid in the presence of a more polar alpha, omega-alkanedioic acid in an aqueous solution, with an alcohol in an immiscible layer in contact with the aqueous layer, which comprises effecting partial esterification with loss of water, the less polar acid thereby esterifying in preference to the more polar acid and the partial ester of said less polar acid as formed dissolving into the alcohol layer, separating the layers, and thereafter effecting more complete esterification of the less polar acid.

2,824,123

SEPARATION OF DICARBOXYLIC ACIDS
Vincent P. Kucski, Park Forest, Ill., assignor to The C. P. Hall Company of Illinois, Chicago, Ill., a corporation of Ohio

Application February 17, 1956, Serial No. 566,173
8 Claims. (Cl. 260-485)

1. The process of obtaining an alpha, omega-alkanedioic acid ester of high purity from a mixture containing adjacent homologs of such acids each containing 2 to 10 carbon atoms, which process comprises esterifying the mixture with methanol, distilling the resulting diesters and collecting a fraction which is essentially a binary mixture of two adjacent ester homologs, and then crystallizing one of the two ester homologs from a liquid system containing this binary mixture by cooling the system to a temperature just above the temperature at which a eutectic mixture of the two ester homologs crystallizes from the system, and thereby obtaining one of the esters.

2,824,124

PROCESS OF OXIDATIVELY POLYMERIZING ETHYLENE IN THE PRESENCE OF METHYL FORMATE

Nat C. Robertson, Wellesley, Charles I. Tewksbury, Chestnut Hill, and Albert Di Nardo, Jamaica Plain, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application December 29, 1955
Serial No. 556,057

9 Claims. (Cl. 260-497)

1. In the non-catalytic production of oxygenated polymeric materials of ethylene containing a substantial quantity of ester groups, the process which comprises reacting in a reactor ethylene and elemental oxygen in the presence of a substantial quantity of methyl formate at a temperature above about 170° C., introducing ethylene into the reactor at a rate to maintain therein ethylene partial pressures between about 500 to 5000 p. s. i., continuously introducing elemental oxygen at a rate of at least one standard cubic foot per hour per cubic foot of reactor, continuing the oxidative polymerization until oxygenated polymeric materials of ethylene with an average molecular weight above 200 and containing a substantial quantity of ester groups are obtained, and recovering said polymeric materials.

2,824,125

MANUFACTURE OF SULFONATE CONCENTRATE OF LOW SALT CONTENT

Evan E. Davis, Jr., Drexel Hill, Willard K. Parcells, Chester, and George S. Rostron, Springfield, Pa., assignors to Sun Oil Company, Philadelphia, Pa., a corporation of New Jersey

Application January 31, 1956, Serial No. 562,416

4 Claims. (Cl. 260-504)

1. A process for the manufacture of essentially salt-free mahogany sulfonate which comprises treating a petroleum fraction of lubricating viscosity with a sulfonating agent, recovering a sour oil containing mahogany sulfonic acids, mixing the sour oil without prior neutralization thereof with at least 50% of its volume of a solvent selected from the group consisting of substantially anhydrous glycerine and ethylene glycol and with sufficient concentrated caustic soda solution to neutralize the acidic components of the sour oil, stratifying the mixture into three immiscible layers and recovering essentially salt-free mahogany sulfonate from the middle layer.

2,824,126

MANUFACTURE OF SULFONATES FROM PETROLEUM OILS

Ulric B. Bray, Pasadena, Calif., assignor to Bray Oil Company, Los Angeles, Calif., a limited partnership

Application April 16, 1956, Serial No. 578,424

16 Claims. (Cl. 260-504)

1. A process of preparing oil-soluble sulfonates from hydrocarbon oils, including: treating a mineral lubricating oil fraction with strong sulfuric acid, thereby yielding a solution consisting principally of large proportions of hydrocarbon oil and mahogany acids and appreciable green acid; removing acid sludge from the solution; treating such solution with ammonia to form ammonium mahogany sulfonates and ammonium green acid sulfonates containing small amounts of inorganic sulfates and sulfites; forming a liquid mixture consisting essentially of said oil, sulfonates, sulfates and sulfites, at least 10 parts by volume of water per 100 parts by volume of said oil and sulfonates combined, and at least 5 parts by volume per 100 parts by volume of said oil and sulfonates combined of a partially water-soluble, hydrocarbon-oil-soluble oxygen-containing emulsion-breaking solvent compound in liquid form soluble in the oil in the presence of the water and containing three to eight carbon atoms per molecule and selected from the class consisting of alcohols, ketones, ethers, esters and glycols, the amounts of water, oil and organic solvent producing at least two separable phases including a water phase and an ammonium sulfonate-in-oil phase; and separating and recovering said ammonium sulfonate-in-oil phase.

2,824,127

PROCESS FOR THE PREPARATION OF META DIALKYLAMINOBENZOIC ACIDS

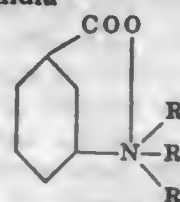
Paul D. Dreyfuss, Cincinnati, Ohio, assignor to Toms River-Cincinnati Chemical Corporation, a corporation of Delaware

No Drawing. Application February 21, 1955

Serial No. 489,765

6 Claims. (Cl. 260-518)

1. A method of preparing meta dialkylaminobenzoic acid, which comprises reacting together compounds corresponding to the formula



and R'-NH₂, wherein R stands for alkyl with a maxi-

mum of two carbon atoms and R' stands for a member selected from the group consisting of H, NH₂, and lower alkyl by heating a mixture containing the same in a closed vessel to a temperature of 80 to 200° C.

2,824,128

PREPARATION OF PHENOLIC ETHYLENEDIAMINEPOLYCARBOXYLIC ACIDS

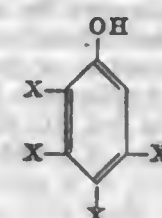
Martin Dexter, Cranston, R. I., assignor to Gelgy Chemical Corporation, New York, N. Y., a corporation of Delaware

No Drawing. Application February 3, 1956

Serial No. 563,183

3 Claims. (Cl. 260-519)

1. A process for the preparation of an ethylene-bis-(α -imino-hydroxyphenylacetic acid), which comprises reacting, at a temperature between about 70° and about 100° C. and at a pH between about 8 and about 10, a compound of the formula



wherein X is selected from the group consisting of H, alkyl, chlorine, carboxyl and sulfo, with ethylenediamine and with a member selected from the group consisting of sodium glyoxylate and sodium dichloroacetate.

2,824,129

PROCESS FOR THE PRODUCTION OF AROMATIC HYDROXYCARBOXYLIC ACIDS

Herbert Nordt, Julius Wehn, and Detlef Delfs, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application April 22, 1955

Serial No. 503,336

Claims priority, application Germany April 26, 1954

5 Claims. (Cl. 260-521)

1. In the process for the production of aromatic hydroxy carboxylic acids in which an alkali salt of an aromatic hydroxy compound is carboxylated by reaction with carbon dioxide, the improvement which comprises effecting the reaction between the alkali salt of the aromatic hydroxy compound and the carbon dioxide at a temperature between about 100-245° C. in the presence of a phenol as a solvent and with a carbon dioxide pressure of at least about 50 atmospheres.

2,824,130

PRODUCTION OF ALPHA HYDROXYISOBUTYRIC ACID

Nat C. Robertson, Wellesley, and Thomas R. Steadman, Waban, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application April 23, 1956

Serial No. 579,712

5 Claims. (Cl. 260-531)

1. A process for the production of alpha hydroxyisobutyric acid which comprises oxidizing in a closed system isobutylene glycol with an aqueous alkali metal hydroxide solution having an alkali metal hydroxide concentration in excess of 10 percent at a temperature between about 200° C. and 300° C., said alkali metal hydroxide being used in at least the stoichiometric amount required to selectively oxidize the primary hydroxyl group.

727 O. G.-43

2,824,131

PRODUCTION OF HIGH MOLECULAR WEIGHT ALCOHOLS FROM ETHYLENE AND OXYGEN

Albert Di Nardo, Jamaica Plain, James H. Gardner, Weston, Nat C. Robertson, Wellesley, and Charles I. Tewksbury, Chestnut Hill, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application December 29, 1955

Serial No. 556,078

7 Claims. (Cl. 260-533)

1. In the production of high-molecular-weight alcohols, the process which comprises reacting ethylene and elemental oxygen in a reactor at temperatures above about 180° C., introducing ethylene into the reactor at a rate to maintain therein ethylene partial pressures between about 500 and 5000 p. s. i., continuously introducing elemental oxygen at a rate of between about one and twenty-five standard cubic feet per hour per cubic foot of reactor, continuing the oxidation and polymerization until oxygenated polymeric materials of ethylene with an average molecular weight above 200 and containing between about 5 and 25 percent oxygen are obtained, and reducing substantially all of the reducible functional groups of the polymeric material resulting from the reaction to hydroxy groups to produce alcohols.

2,824,132

α -METHYL METHIONINE AND SALTS THEREOF

Alexander R. Matzuk, Colonia, Karl Pfister III, Westfield, and Edward F. Rogers, Middletown, N. J., assignors to Merck & Co., Inc., Rahway, N. J., a corporation of New Jersey

No Drawing. Application August 3, 1954

Serial No. 447,656

3 Claims. (Cl. 260-534)

1. A compound from the group consisting of α -methyl methionine, mineral acid salts of α -methyl methionine, alkali metal salts of α -methyl methionine, and alkaline earth metal salts of α -methyl methionine.

2,824,133

MONOHYDRATE OF ALPHA METHOXYISOBUTYRIC ACID

Elizabeth A. McElhill, Cambridge, Mass., assignor, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application July 29, 1955

Serial No. 525,401

1 Claim. (Cl. 260-535)

The chemical compound, the monohydrate of alpha methoxyisobutyric acid, a solid with a melting point on the order of about 43° C.-44° C.

2,824,134

SEPARATION OF AZELAIC ACID FROM MIXTURES CONTAINING SUBERIC AND AZELAIC ACIDS, ETC.

Norman C. Hill, Akron, Ohio, and Vincent P. Kucski, Park Forest, Ill., assignors to The C. P. Hall Company, Akron, Ohio, a corporation of Ohio

Application May 24, 1955, Serial No. 510,723

9 Claims. (Cl. 260-537)

1. In the process of producing azelaic acid from aqueous reaction product obtained from the oxidation of source material of the class consisting of saturated and unsaturated acyclic hydrocarbons and oxygen-containing derivatives thereof which hydrocarbons and derivatives contain at least 10 carbon atoms in a straight saturated chain, which aqueous product contains inorganic impurities, smaller amounts of succinic, glutaric, adipic, and pimelic acids, and larger amounts of suberic, azelaic, and sebacic acids, together with some monocarboxylic acids, the steps of cooling this aqueous phase

to yield a crystalline product containing primarily suberic, azelaic, and sebacic acids, together with smaller amounts of succinic and adipic acids, dissolving this crystalline product in a non-polar to slightly polar solvent to crystallize out succinic and adipic acids at a relatively high temperature and cooling down to a relatively low temperature and separating suberic, azelaic, and sebacic acids as a separate fraction while retaining some monocarboxylic acids in solution, dissolving said separate fraction in a non-polar to slightly polar solvent, cooling the resulting solution to separate a substantial amount of the suberic acid while retaining some suberic acid and a substantial amount of azelaic acid in solution, and then on further cooling separating the azelaic acid in a separate fraction without separating more than a minor amount of suberic acid, while retaining most of the sebacic acid in solution, and then crystallizing said azelaic acid fraction from water.

2,824,135

PURIFICATION OF DICARBOXYLIC ACIDS
Geraldine B. Corcoran, Chicago, Ill., assignor to The C. P. Hall Co. of Illinois, Chicago, Ill., a corporation of Ohio

No Drawing. Application May 24, 1955

Serial No. 510,867

3 Claims. (Cl. 260-537)

1. The process of purifying the suberic acid in a crystalline mass composed essentially of suberic and azelaic acids, which comprises dissolving the mass in nitric acid of at least 15 percent concentration at a temperature of at least 70° C. and then, by cooling, obtaining a concentrated solution and then on further cooling to a temperature not below 35° C. crystallizing the suberic acid therefrom while retaining a substantial amount of the azelaic acid dissolved in the nitric acid.

2,824,136

PREPARATION OF ORGANIC SULFENYL BROMIDES
Joseph Nils Ospenson, Concord, Calif., assignor to California Spray-Chemical Corporation, Richmond, Calif., a corporation of Delaware

No Drawing. Application October 14, 1955

Serial No. 540,628

4 Claims. (Cl. 260-543)

1. The process for the production of an organo sulfenyl bromide which comprises reacting an organo sulfenyl chloride, in which the sulfenyl chloride radical is at least the primary reactive group, with an aqueous solution of concentrated hydrobromic acid and recovering the resulting organo sulfenyl bromide.

2,824,137

METHODS OF PREPARING SECONDARY AROMATIC AMINES
Roger E. Morris, Cuyahoga Falls, Ohio, assignor to The B. F. Goodrich Company, New York, N. Y., a corporation of New York

No Drawing. Application October 24, 1955

Serial No. 542,525

7 Claims. (Cl. 260-576)

1. A method of preparing secondary aromatic amines comprising reacting a primary aromatic amine selected from the class consisting of mono- and diamino, mono- and bicyclic primary amines with a phenol selected from the class consisting of mono- and polyhydric mono- and bicyclic phenols in liquid phase, at an elevated temperature and in the presence of a catalyst having the generic formula $Ti(X)_n$, in which X represents a member selected from the class consisting of an —OH radical of hydrated titanium oxide, a halide radical, a sulfate radical, a lower alkoxy radical and an acyl radical of aliphatic fatty acids

having from 1 to 18 carbon atoms and mixtures thereof, n is a number from 2 to 4 and the sum of the valences of the X groups is equal to the valence of titanium.

2,824,138

PINONYL ALCOHOL
Vernon P. Wystrach, Noroton Heights, and Richard K. Madison, Stamford, Conn., assignors to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application December 21, 1956

Serial No. 629,775

3 Claims. (Cl. 260-586)

1. 2,2-dimethyl-3-acetylcyclobutane-ethanol.

2,824,139

FLUOROCHLORO KETONES AND METHODS FOR THE PREPARATION THEREOF

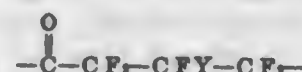
William S. Barnhart, Cranford, and Joseph L. Zollinger, Bloomfield, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application June 24, 1955

Serial No. 517,927

14 Claims. (Cl. 260-592)

1. A ketone derivative of a perchlorofluorocarboxylic acid having not more than two carboxyl groups, said ketone having at least one chlorine atom and a



group wherein Y is selected from the group consisting of hydrogen and chlorine.

2,824,140

PRODUCTION OF HIGH-MOLECULAR-WEIGHT KETONES

James H. Gardner, Weston, Mass., assignor, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware

No Drawing. Application February 1, 1956

Serial No. 562,665

9 Claims. (Cl. 260-597)

1. A process for the production of high-molecular-weight ketones which comprises reacting ethylene in a reactor at temperatures between about room temperature and 100° C. with acetaldehyde and elemental oxygen, there being present during the reaction a quantity of acetaldehyde sufficient to form high-molecular-weight ketones containing on the average at least one acetyl group per molecule, introducing ethylene into said reactor at a rate to maintain therein ethylene partial pressures between about 500 p. s. i. and 5000 p. s. i., continuously introducing elemental oxygen at a rate of at least one standard cubic foot per hour per cubic foot of reactor, and recovering high-molecular-weight ketones.

2,824,141

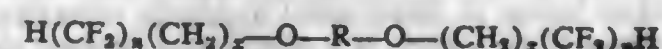
FLUOROETHERS
William A. Zisman, Washington, D. C., and Jacques G. O'Rear, Prince Georges County, Md., assignors to the United States of America as represented by the Secretary of the Navy

No Drawing. Application January 6, 1954

Serial No. 402,607

2 Claims. (Cl. 260-615)

(Granted under Title 35, U. S. Code (1952), sec. 266)
1. Fluoroethers of the general formula:



wherein R is an alkylene radical, n is an integer from 2 to 20 and x is an integer from 1 to 3.

2,824,142

PROCESS OF PRODUCING ALCOHOLS BY OXIDATIVELY POLYMERIZING ETHYLENE AND SUBSEQUENTLY HYDROGENATING

James H. Gardner, Cambridge, Nat. C. Robertson, Wellesley, and Albert Di Nardo, Jamaica Plain, Mass., assignors, by mesne assignments, to Escambia Chemical Corporation, Pace, Fla., a corporation of Delaware
Application December 30, 1953, Serial No. 401,346
4 Claims. (Cl. 260-638)

1. The process which comprises the steps of dissolving propylene in an organic solvent selected from the group consisting of inert nonalkylated aromatic and inert aliphatic compounds, passing an elemental-oxygen-containing gas into said solution while the solution is held under pressure to oxidize and polymerize said propylene to a liquid polymeric material, maintaining said solution at a temperature above about 130° C. while said gas passes therethrough, said polymeric material being moderately unsaturated, the majority of said material containing at least two propylene residues per molecule, there being, on the average, at least one oxygenated functional group for each molecule, said functional group being from the class consisting of hydroxy, carbonyl, carboxy, alkoxy and ester groups, and reducing substantially all of the reducible functional groups of the polymeric material resulting from the reaction to hydroxy groups to produce alcohols having a carbon number greater than three.

2,824,143

PRODUCTION OF LANOLIN ALCOHOLS
Waldo C. Ault and Abner Eisner, Glenside, and John T. Scanlan, Philadelphia, Pa., assignors to the United States of America as represented by the Secretary of Agriculture

No Drawing. Application January 13, 1955

Serial No. 481,723

6 Claims. (Cl. 260-638)

(Granted under Title 35, U. S. Code (1952), sec. 266)
1. The process of producing lanolin alcohols which comprises treating lanolin with sodium and a reducing alcohol in an inert organic solvent to produce a reaction mixture comprising the alkoxides of the lanolin alcohols and the sodium salts of acids present in the original lanolin, hydrolyzing said reaction mixture to produce a hydrolysis mixture comprising lanolin alcohols and said sodium salts of acids present in the original lanolin, separating the lanolin alcohols and sodium salts from said hydrolysis mixture, washing the separated mixture of lanolin alcohols and sodium salts with an aqueous solution of a barium salt to produce a mixture comprising lanolin alcohols and barium salts of acids present in the original lanolin, and recovering lanolin alcohols from the washed mixture.

2,824,144

PROCESS FOR THE PREPARATION OF ω-BROMOSTYRENE AND 4-METHYL-ω-BROMOSTYRENE
Muus Gerrit Jan Beets and Emanuel Alexander Drukker, Hilversum, Netherlands, assignors to N. V. Polak & Schwarz's Essencfabrieken, Hilversum, Netherlands, a limited-liability company under Netherlands laws

No Drawing. Application May 26, 1953

Serial No. 357,925

Claims priority, application Netherlands May 31, 1952
7 Claims. (Cl. 260-651)

1. A process for the preparation of a compound selected from the group consisting of ω-bromostyrene and 4-methyl-ω-bromostyrene, comprising the steps of treating a compound correspondingly selected from the group consisting of styrene bromohydrin and 4-methylstyrene bromohydrin with a non-alkaline dehydrating agent at temperatures of at least 100° C., continuing the treatment under high vacuum and distilling at a temperature of at least about 205° C. to withdraw one mol of water from said treated compound.

2,824,145

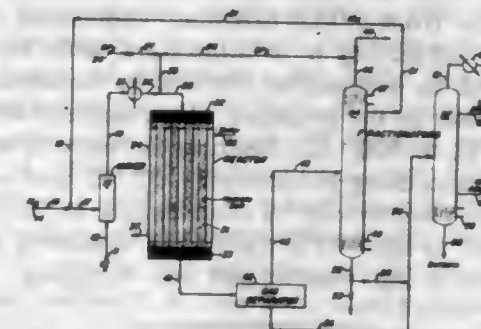
CATALYTIC PROCESS FOR THE PREPARATION OF LONG CHAIN ALKYL AROMATIC COMPOUNDS

Marvin A. McCall and Harry W. Coover, Jr., Kingsport, Tenn., assignors to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey
No Drawing. Application December 14, 1955
Serial No. 552,990
15 Claims. (Cl. 260-671)

1. The method of producing a long chain alkyl aromatic hydrocarbon which comprises reacting an aromatic hydrocarbon with an α-monoolefin in the presence of a catalytic mixture of a compound of the formula R_mAlX_n , wherein R is a member of the group consisting of hydrogen, phenyl and alkyl groups of 1-12 carbon atoms, X is a halogen atom, and m and n are integers not greater than 2, one of the integers m and n always being 1 and the other always being 2, and a titanium halide containing at least three halogen atoms, said titanium halide being present in molar excess over said R_mAlX_n compound.

2,824,146

ALKYLATION PROCESS USING METAL PYROPHOSPHATE HYDRATE-BF₃ CATALYST
Joe T. Kelly, Dickinson, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application July 16, 1956, Serial No. 597,918
15 Claims. (Cl. 260-671)



1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal pyrophosphate salt containing water of hydration, said metal forming an ion from the class consisting of aluminum, beryllium, cadmium, cobaltous, cuprous, ferrous, ferric, manganous, nickelous, stannic, thorium, titanium, zinc and zirconium, and (ii) BF₃, said BF₃ being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30° C. and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,147

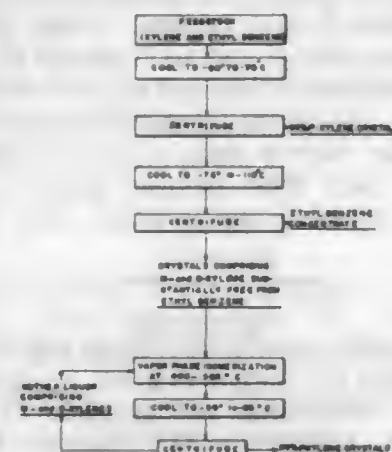
SEPARATION OF XYLENES
Robert Reid Coats and Gilbert Arthur Williams, Norton-on-Tees, England, assignors to Imperial Chemical Industries Limited, London, England, a corporation of Great Britain

Application March 8, 1955, Serial No. 492,857

Claims priority, application Great Britain March 21, 1949
2 Claims. (Cl. 260-674)

1. A continuous process for the production of paraxylene substantially free from ethyl benzene, and simultaneously an ethyl benzene concentrate, from xylene

feedstock containing para-xylene and ethyl benzene, and wherein the separation of said materials is effected solely by a crystallization technique, which comprises subjecting the feedstock to a temperature within the range of from -60°C. to -75°C. whereby crystals of para-xylene are precipitated, separating these crystals by centrifuging whereby there is obtained para-xylene of not less than 95% purity, subjecting the resulting mother liquor to a temperature below -75°C. and not below -110°C. whereby mixed xylene crystals rich in meta- and ortho-xylenes are precipitated, centrifuging the mixture whereby there are obtained an ethyl benzene con-



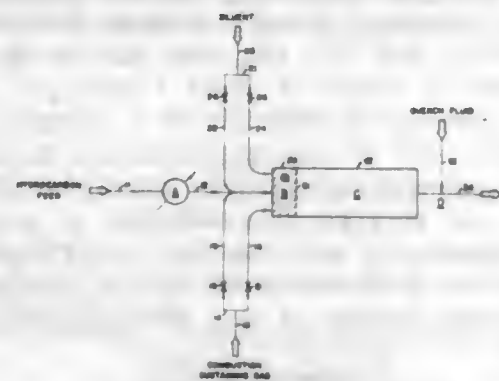
centrate containing a predominant proportion of ethyl benzene and a minor proportion of xylenes and a crystalline fraction rich in meta- and ortho-xylenes and substantially free from ethyl benzene, vaporizing this last fraction and subjecting it in admixture with an isomerizate obtained as hereinafter defined to isomerization in the vapor phase in the presence of an isomerization catalyst at 400°C. to 500°C. , freezing out para-xylene from the product by cooling to between -55°C. and -85°C. , separating the para-xylene by centrifuging to yield further para-xylene of at least 95% purity and obtaining a mother liquor, which is the isomerizate for recycling.

2,824,148

PREPARATION OF OLEFINS

Aloysius Ignatius Marie Keulemans and Arien Kwantes, Amsterdam, Netherlands, assignors to Shell Development Company, New York, N. Y., a corporation of Delaware

Application May 17, 1954, Serial No. 430,404
Claims priority, application Netherlands May 20, 1953
9 Claims. (Cl. 260-683)



1. A process for preparing olefins by cracking high boiling hydrocarbons while suppressing side reactions which comprises passing a high boiling hydrocarbon mixture containing less than 25% by weight of aromatics together with a minor proportion of combustion sustaining gas through a relatively small heating zone containing a bed of particulate oxidation-promoting solid under conditions for essentially complete combustion of a portion of the hydrocarbon mixture and for quickly raising the temperature thereof to at least 500°C. , and immediately thereafter passing the resulting mixture effluent

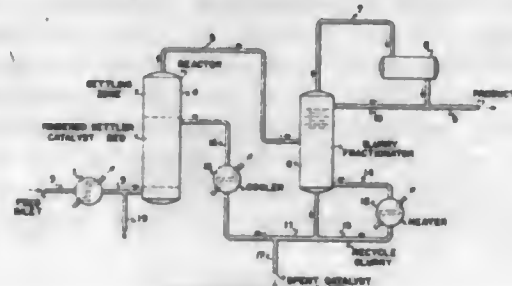
from the heating zone through an unobstructed cracking zone whose capacity is at least eight times that of said heating zone for a short residence time therein wherein essentially only thermal cracking conditions are maintained, cooling the effluent cracked products from the cracking zone below cracking temperature, and recovering olefins from the product.

2,824,149

OLEFIN POLYMERIZATION CATALYST AND PROCESS

Eugene S. Corner, Maplewood, and Charles S. Lynch, Plainfield, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
Original application July 31, 1951, Serial No. 239,524, now Patent No. 2,778,804, dated January 22, 1957. Divided and this application December 8, 1953, Serial No. 396,842

7 Claims. (Cl. 260-683.15)

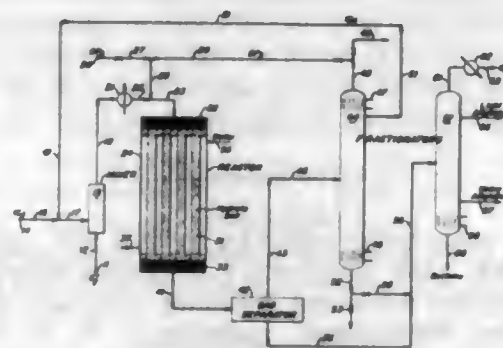


1. The process of polymerizing olefins in which a finely divided catalyst comprising a phosphoric acid impregnated on silica gel is maintained as a suspension in a fluid comprising said olefins under polymerization temperature and pressure conditions, said catalyst being prepared by forming an intimate mixture comprising a silica hydrogel containing from about 50 to about 90% water by weight and a phosphoric acid and heat treating the mixture to form a substantially dry, active catalyst.

2,824,150

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application April 30, 1956, Serial No. 581,496
16 Claims. (Cl. 260-683.44)



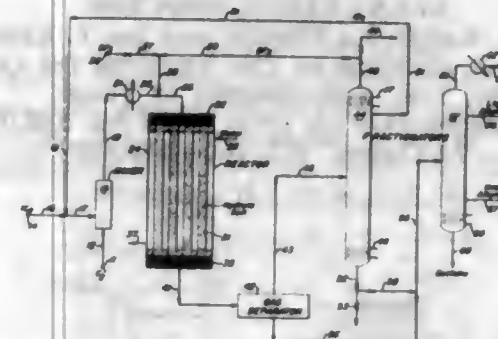
1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal sulfate salt containing water of hydration, the metal ion of said salt being from the class consisting of beryllium, cadmium, cerous, magnesium, vanadyl, and a mixture of rare earth, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C. and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a

substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,151

ALKYLATION PROCESS

Joe T. Kelly, Dickinson, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application April 30, 1956, Serial No. 581,506
14 Claims. (Cl. 260-683.44)

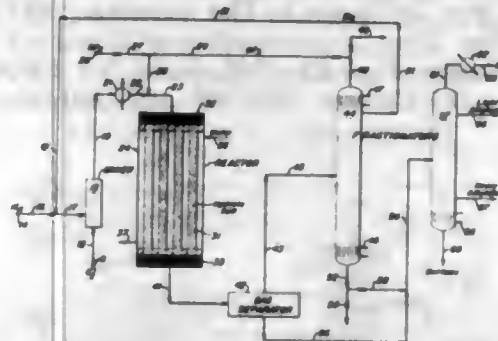


1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal stannate salt containing water of hydration, the metal ion of said salt being from the class consisting of bismuth, cadmium, calcium, cobaltous, ferric, magnesium, manganese and nickelous, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C. and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,152

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application May 7, 1956, Serial No. 583,130
11 Claims. (Cl. 260-683.44)



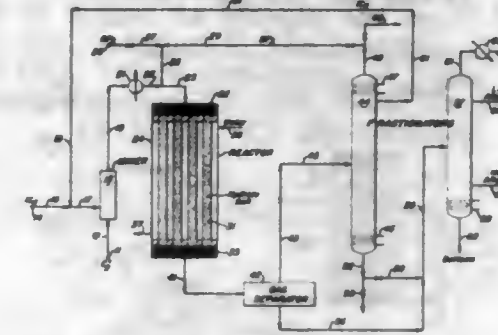
1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal silicate salt containing water of hydration, the metal ion of said salt being from the class consisting of cobaltous, cupric, magnesium and nickelous, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about

-30°C. and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,153

ALKYLATION PROCESS

Joe T. Kelly, Dickinson, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application May 22, 1956, Serial No. 586,409
13 Claims. (Cl. 260-683.44)

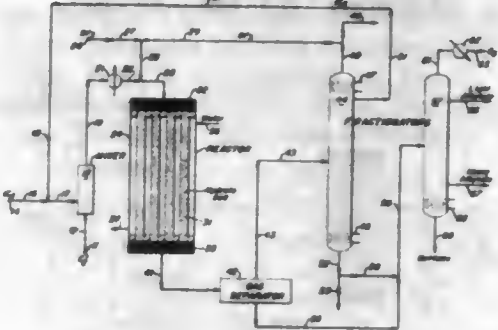


1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal orthophosphate salt containing water of hydration, the metal ion of said salt being from the class consisting of aluminum and magnesium, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C. and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,154

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application May 22, 1956, Serial No. 586,410
13 Claims. (Cl. 260-683.44)



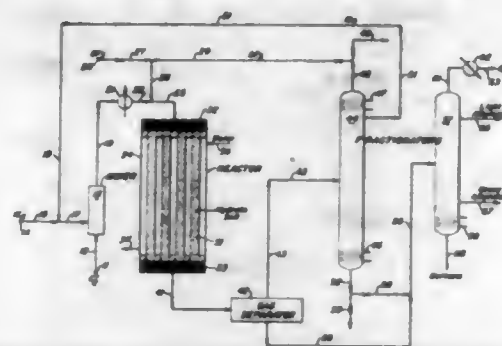
1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal tripolyphosphate salt containing water of hydration, the metal ion of said salt being from the class consisting of aluminum, cobaltous, ferric and manganese, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of

water of hydration in said salt, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,155

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application May 22, 1956, Serial No. 586,582
14 Claims. (Cl. 260-683.44)

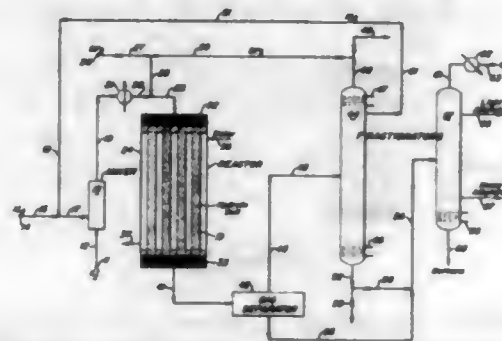


1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal pyroarsenate salt containing water of hydration, the metal ion of said salt being from the class consisting of cadmium, cobaltous, ferric, magnesium, nickelous and stannic and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,156

ALKYLATION PROCESS

Joe T. Kelly, Dickinson, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application May 22, 1956, Serial No. 586,611
12 Claims. (Cl. 260-683.44)



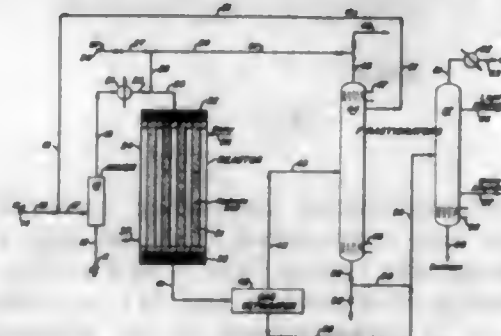
1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal arsenate salt containing water of hydration, the metal ion of said salt being from the class consisting of cobaltous and magnesium,

and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,157

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application May 29, 1956, Serial No. 588,073
14 Claims. (Cl. 260-683.44)

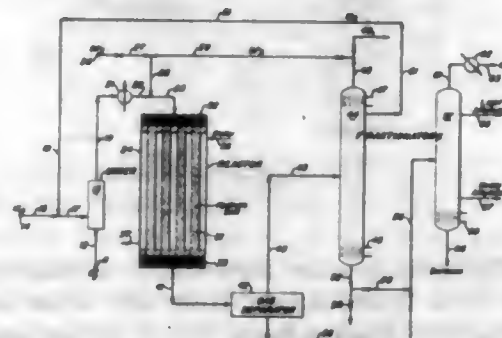


1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal salt containing water of hydration, said metal salt being from the class consisting of cobalt borate, aluminum pentaborate and nickelous pentaborate, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,158

ALKYLATION PROCESS

Joe T. Kelly, Dickinson, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application June 13, 1956, Serial No. 591,040
13 Claims. (Cl. 260-683.44)



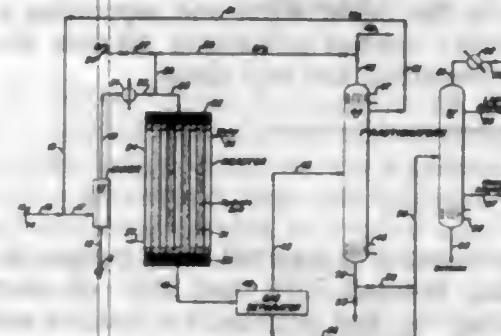
1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal pyroantimonate salt containing water of hydration, the metal ion of said salt

being from the class consisting of cadmium, ferric, magnesium, mercury, nickelous and potassium dihydrogen and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,159

ALKYLATION PROCESS

Joe T. Kelly, Dickinson, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application June 13, 1956, Serial No. 591,223
13 Claims. (Cl. 260-683.44)

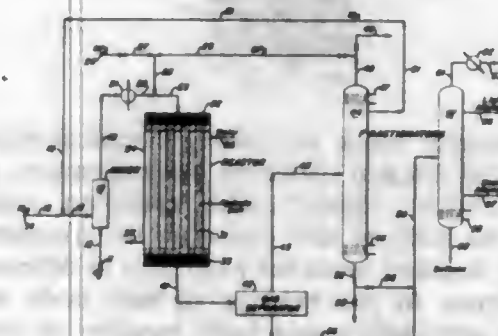


1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a metal molybdate salt containing water of hydration, the metal ion of said salt being from the class consisting of cobaltous and ferric, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,160

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application June 13, 1956, Serial No. 591,224
13 Claims. (Cl. 260-683.44)



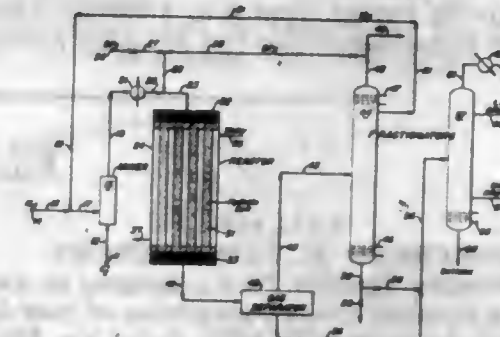
1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst

comprising essentially (i) a metal tungstate salt containing water of hydration, the metal ion of said salt being from the class consisting of aluminum, cobaltous, and nickelous, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,161

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application June 13, 1956, Serial No. 591,225
12 Claims. (Cl. 260-683.44)

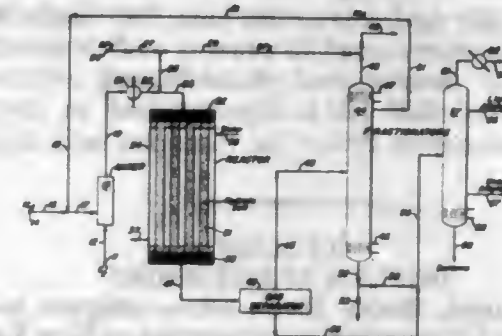


1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a promoter containing water of hydration selected from the class consisting of borotungstic acid, cadmium borotungstate and nickel borotungstate, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said promoter, at a temperature between about -30°C . and a temperature substantially below the temperature at which said promoter decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,162

ALKYLATION PROCESS

Harmon M. Knight, La Marque, and Joe T. Kelly, Dickinson, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas
Application July 6, 1956, Serial No. 596,341
9 Claims. (Cl. 260-683.44)



1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having

from 2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) phosphomolybdic acid containing water of hydration, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said acid, at a temperature between about -30°C . and a temperature substantially below the temperature at which said hydrate decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

2,824,163

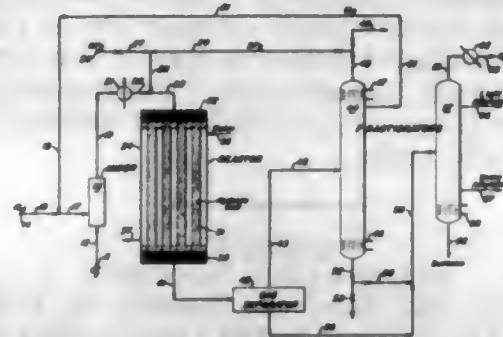
ALKYLATION PROCESS

Joe T. Kelly, Dickinson, and Harmon M. Knight, La Marque, Tex., assignors to The American Oil Company, Texas City, Tex., a corporation of Texas

Application July 6, 1956, Serial No. 596,359
9 Claims. (Cl. 260—683.44)

1. An alkylation process comprising contacting (a) an alkylatable feed hydrocarbon from the class consisting of (1) isoparaffin having from 4 to 8 carbon atoms and (2) aromatic hydrocarbon and (b) an olefin having from

2 to 12 carbon atoms, in the presence of a catalyst comprising essentially (i) a nickel silicomolybdate containing water of hydration, and (ii) BF_3 , said BF_3 being present in an amount in excess of about 1 mole per mole of water of hydration in said salt, at a temperature between about



-30°C . and a temperature substantially below the temperature at which said hydrate salt decomposes, and at a pressure sufficient to maintain a substantial portion of said reactants in the liquid state, and separating a hydrocarbon product mixture containing alkylate product of said feed hydrocarbon and said olefin.

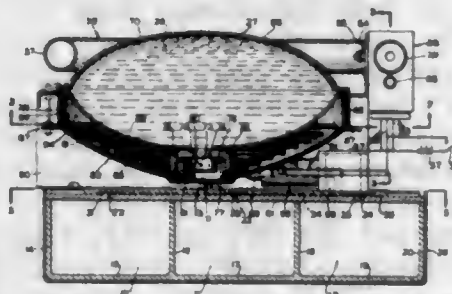
ELECTRICAL

2,824,164

DEFERRED ACTION BATTERY

Hubert F. Bauman, Raleigh, N. C., assignor to American Machine & Foundry Co., a corporation of New Jersey

Application September 23, 1955, Serial No. 536,122
10 Claims. (Cl. 136—90)



1. A filling device for filling a deferred action battery of the type having a plurality of cell compartments with orifices for receiving stored electrolyte therethrough to fill said compartments when said battery is placed into service, comprising an electrolyte tank filled with electrolyte, an electrolyte distributor plate having a plurality of interconnected channels in registry with the orifices in the cell compartments, a conduit connecting said electrolyte tank to said electrolyte distributor plate for discharging electrolyte from said tank into said channels, a source of gas pressure having connections to said tank, rupturable diaphragm valve means disposed between said gas source and said connections for discharging said gas into said tank, a flexible diaphragm mounted in said tank and disposed adjacent said gas connections for displacing said electrolyte from said tank to cause it to flow into the cell compartments through said channels and orifices when the pressure of said gas is released, and an electrically energized detonating device for rupturing said diaphragm valve means.

2,824,165

DUPLEX ELECTRODES

Paul A. Marsal, Rocky River, Ohio, assignor to Union Carbide Corporation, a corporation of New York

Application November 17, 1953, Serial No. 392,750
12 Claims. (Cl. 136—122)

1. A method of producing duplex electrodes for primary galvanic cells, comprising intimately mixing a finely divided electro-negative material with a thermoplastic

resin; said electro-negative material being present in proportions ranging between 75% and 95% of aforesaid mixture; confining this first mixture in a mold of suitable shape and size; compression molding said mixture under a predetermined pressure, at the molding temperature of

Plastic Matrix With Electro-negative Particles



Plastic Matrix With Electro-positive Particles

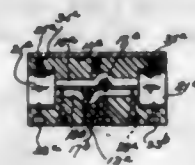
the resin; next placing in the same mold a second mixture comprising between 5% and 20% of a thermoplastic resin and 80% to 95% of a finely divided electro-positive material, and compression bonding said second mixture to said first compressed mixture under a substantially higher pressure at the molding temperature of the resin.

2,824,166

SOLDERLESS ELECTRICAL CONNECTORS AND JUNCTION BLOCKS

Ernest Madaras and John Madaras, Chicago, Ill.

Application June 25, 1953, Serial No. 364,068
2 Claims. (Cl. 174—59)



2. A connector block for joining electrical wires comprising a solid integral dielectric body member, pairs of internal electrical tubular wire receiving conductors molded in the body of said dielectric body member having radially disposed branches extending to different positions proximate to the exterior of said body member, there being openings in said body member to communicate with said radially disposed branches of said electrical conductors, sleeves in said last named openings to receive steel protective electric wire covers therein, a metallic grounding plate associated with said body member for electrical connection to said sleeves to provide a common ground therebetween, and external pointed screw threaded

wire insulation piercing means projecting through a surface of said body member to engage the insulated wire ends in said internal electrical tubular wire receiving conductors and the steel protective electric wire covers for physically and electrically securing external electrical wires to said internal electrical tubular wire receiving conductors in said body member.

2,824,167

LOCKING DEVICE FOR OUTLET BOX

Arthur G. Bauer, Baldwin, N. Y.

Application October 25, 1955, Serial No. 542,705
2 Claims. (Cl. 174—63)



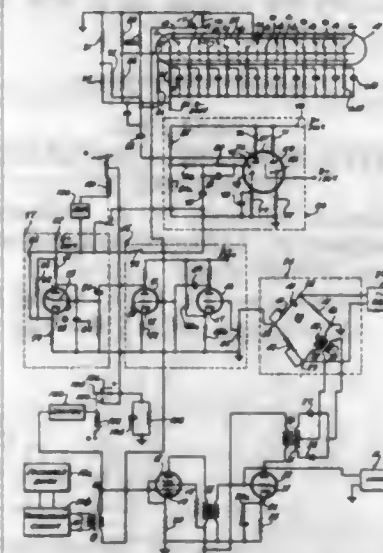
1. A locking device for securing an electrical outlet box to a pair of captively and slideably disposed support arms comprising a clamp having a cylindrical configuration and a curved dome and provided with a pair of lateral apertures adapted to receive said support arms therethrough, said dome having a screw threaded aperture therein, a stud having a cylindrical configuration and a flat top having an aperture therein, said stud having a pair of opposed skirts each having a flange disposed outwardly at its base, and adapted to engage and clamp said outlet box to said support arms when slidingly forced upon the dome of the clamp, said stud further having a pair of opposed locking skirts disposed between said flanged skirts and adapted to engage and lock said captively held support arms and screw means disposed through said aperture of said stud and into said screw threaded clamp aperture for securing said stud to said clamp and for slidably forcing said skirt flanges on said dome to effect a simultaneous locking and clamping movement of said locking and flanged skirts, respectively, when said screw is tightened in said screw-threaded aperture of said clamp.

2,824,168

AUTOMATIC GAIN OR FREQUENCY CONTROL

Kenneth R. McConnell and Peter R. Marzan, New York, N. Y., assignors to Times Facsimile Corporation, New York, N. Y., a corporation of New York

Application September 20, 1954, Serial No. 456,992
26 Claims. (Cl. 178—6.6)



1. An automatic stabilizing arrangement of the kind described comprising, in combination, a source of mes-

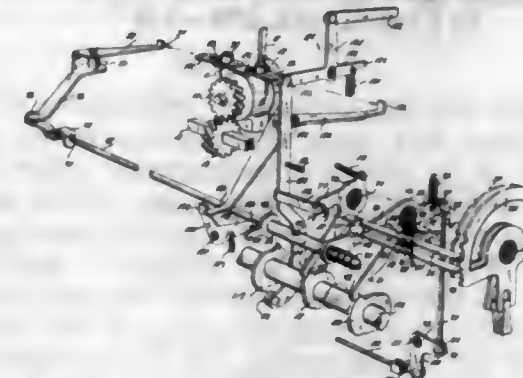
sage signals to be stabilized, means for generating reference signals to replace the message signals during predetermined periods, an adjustable gain device, a comparator device connected to the output of said adjustable gain device, means under the control of said comparator device for producing a series of pulses when the reference signal is not at the optimum level at the comparator, a counting tube, means to apply said pulses to step the discharge in said counting tube to successive settings, means under control of the counting tube for varying the gain of the adjustable gain device until the output at said comparator reaches the desired value and means for disabling said pulse-counting tube to maintain the adjustable gain device at a fixed gain at least until the next control period.

2,824,169

AUTOMATIC CARRIAGE RETURN AND LINE FEED MECHANISM

Hilding A. Anderson, Lake Zurich, Ill., assignor to Klein-schmidt Laboratories, Inc., Deerfield, Ill., a corporation of Delaware

Application April 29, 1954, Serial No. 426,357
16 Claims. (Cl. 178—23)



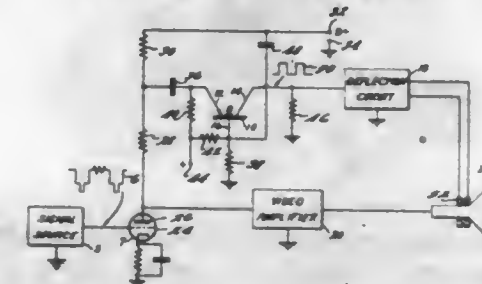
1. In a telegraph machine: a selector mechanism adapted to convert received electrical signals into mechanical movement; a recording medium; a movable carriage; means carried by said carriage and controlled by said selector mechanism to record characters upon said medium in accordance with the received signals; means for normally moving said carriage one character space for each recording operation; a first means responsive to a specific received signal for returning said carriage to its starting position; a second means responsive to a different specific received signal for advancing said recording medium to start a new line; mechanical initiating means for enabling said first means and second means to respond to any received signal between the time the carriage reaches an end of line position and when it reaches a start of line position.

2,824,170

SEMI-CONDUCTOR SIGNAL PROCESSING CIRCUITS

Hunter C. Goodrich, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application November 26, 1954, Serial No. 471,435
The terminal fifteen years of the term of the patent to be granted has been disclaimed
8 Claims. (Cl. 178—69.5)



1. In a television signal separator circuit for separating synchronizing signal information from an applied

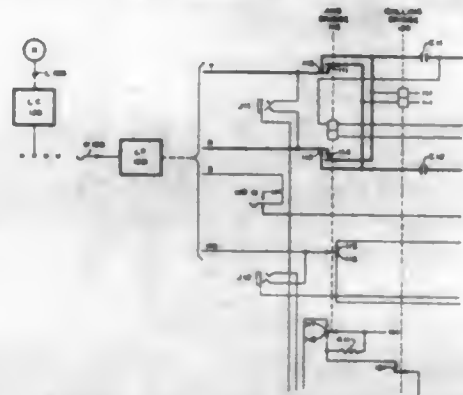
video input signal, the combination with a signal amplifying device having at least an input and an output electrode, of means providing a source of potential connected with said output electrode, means for applying said video input signal to said input electrode, a semi-conductor device including an input, an output and a common electrode, and operative to separate said synchronizing signal information from said applied input signal, means connecting the output electrode of said signal amplifying device with the input electrode of said semi-conductor device, and means providing a signal conductive coupling connection between the common electrode of said semi-conductor device and said source of potential to effect suppression of undesired alternating current components for said separator circuit.

2,824,171

CONNECTOR CIRCUIT FOR USE IN A TELEPHONE SYSTEM

Ernest H. Gatzert, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application April 25, 1955, Serial No. 503,661
10 Claims. (Cl. 179-7.1)



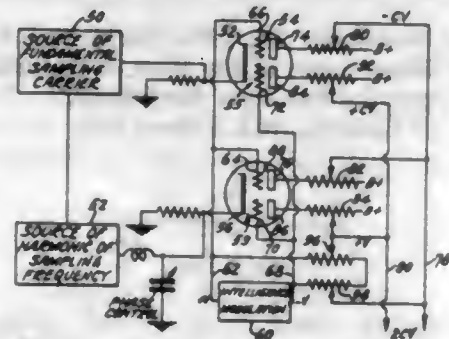
1. In a telephone system, a connector for extending a connection to a called line and a station on said called line, a relay, means comprising said relay for detecting a busy condition on said called line to prevent the completion of said connection, means operative in the event said called line is in idle condition for completing said connection, means for opening said connection within said connector, means comprising said relay for preparing said opening means for operation, and means operative in response to the transmission of an off-hook signal from said called line station to said connector for operating said relay to render said preparing means operative.

2,824,172

SAMPLING APPARATUS

William H. Cherry, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware

Application August 14, 1950, Serial No. 179,197
20 Claims. (Cl. 179-15)



14. In a color television receiver, the combination including: means to receive a carrier wave of a given frequency and a given phase relative to the phase of a reference wave of said given frequency and having a fixed phase, said received carrier wave being modulated by an

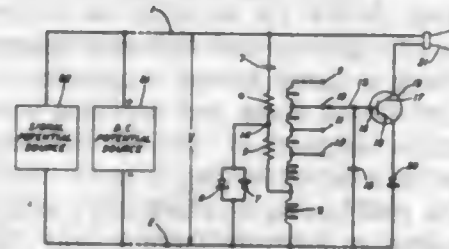
intelligence bearing signal and having an alternating current component and a direct current component; a source of a modulating wave having said given frequency and a desired phase relative to said given carrier wave phase and to said fixed reference wave phase; a modulator; means to impress said received carrier wave and said modulating wave concurrently upon said modulator so as to derive from said modulator at least a portion of said intelligence bearing signal including the alternating current component of said carrier wave; and means linearly bypassing said modulator to derive at least another portion of said intelligence bearing signal including the direct current component of said carrier wave.

2,824,173

TRANSISTOR SELECTIVE RINGING, DIALING, AND PARTY IDENTIFICATION CIRCUIT

Larned A. Meacham, New Providence, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 18, 1954, Serial No. 469,802
21 Claims. (Cl. 179-81)



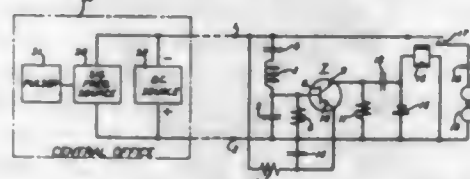
1. A subscriber set for carrying out the signaling functions of ringing, dialing, and party identification in a multiparty telephone system comprising a pair of conductors, a filter network tuned to a given frequency connected to said pair of conductors, a transistor amplifier connected to said filter network, bias means in circuit with said transistor amplifier whereby said transistor amplifier is responsive only to signals of said given frequency, transducer means connected to said transistor amplifier and responsive to the operation thereof to produce an audible ringing signal, means connected to said pair of conductors for generating digit signals of a plurality of frequencies, each frequency being indicative of a particular digit, a party pulse generator connected to said pair of conductors and utilizing an element of said filter network for generating an identification signal of said given frequency, and switching means controlled by said digit signal generating means for rendering said party pulse generator operative whereby operation of said digit generating means causes two signals to be produced simultaneously, one a signal to identify the calling party and the other a signal to identify the digit.

2,824,174

SELECTIVE RINGING CIRCUIT USING A TRANSISTOR

Erwin W. Holman, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 18, 1954, Serial No. 469,605
15 Claims. (Cl. 179-86)



1. In a multiparty telephone system in which operating, signaling, and ringing power at suitable potentials is sup-

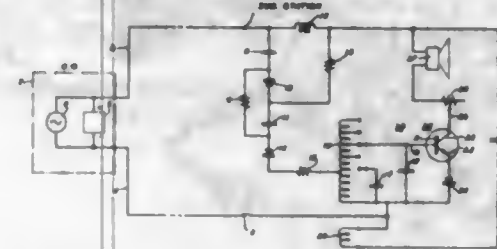
plied from a central office, a selective ringing circuit comprising a pair of conductors connecting the ringing circuit to the central office, filter means tuned to a predetermined signaling frequency connected across said pair of conductors, ringer means comprising a ringer control relay having a pair of normally open contacts, transistor means comprising a base electrode, a collector electrode and an emitter electrode, said base electrode being connected to said filter means, and said collector electrode being connected to said ringer means, means for applying positive potential to said base electrode from said central office, means for applying negative potential to said emitter electrode from said central office, rectifying means connected across said ringer control relay, and a capacitance and a ringer connected in series with said pair of normally-open contacts of said relay across said pair of conductors, whereby signals of said predetermined frequency transmitted from the central office are amplified by said transistor means and rectified by said rectifier means to operate said relay, thereby closing said normally open contacts and applying ring power to said ringer.

2,824,175

SELECTIVE RINGING CIRCUITS

Larned A. Meacham, New Providence, and Fred West, Chatham, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application November 18, 1954, Serial No. 469,633
12 Claims. (Cl. 179-86)



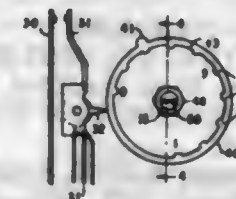
1. In a station set for use in a multiparty telephone system, a ringing circuit comprising a pair of conductors, a filter network connected to said pair of conductors, said filter network being tuned to a predetermined ringing signal frequency, signal amplifying and transducing means connected to said filter network responsive to ringing signals of said predetermined frequency received therefrom, and current limiter means connected in series relationship with said filter network for limiting the amplitude of the input signals applied thereto to aid the filter network in preventing response of the transducing means to signals other than the signals of said predetermined frequency.

2,824,176

CALLING DEVICE IDENTIFICATION CAM ASSEMBLY

Joseph M. Hartz, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application October 16, 1956, Serial No. 616,204
5 Claims. (Cl. 179-90)



1. In a dialing device, an impulse generator comprising a rotatable shaft, a finger wheel mounted at one extremity of said shaft for manually rotating said shaft, a mounting plate mounted near the other extremity of said

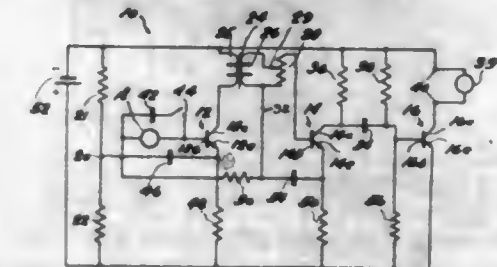
shaft and rotatable with said shaft, a slot in the end of said shaft, a cam adjustably supported on said mounting plate, means for clamping said cam to said mounting plate, said clamping means having perforations in the center thereof, said perforations being segments of a circle separated by a bar, said bar engaging the slot of said shaft to prevent rotation about said shaft of said clamping means.

2,824,177

HEARING AID AMPLIFIER

Satoshi T. Tado, Chicago, Ill., assignor to Martin Hearing Aid Company, Chicago, Ill., a corporation of Illinois

Application October 11, 1955, Serial No. 539,844
2 Claims. (Cl. 179-107)



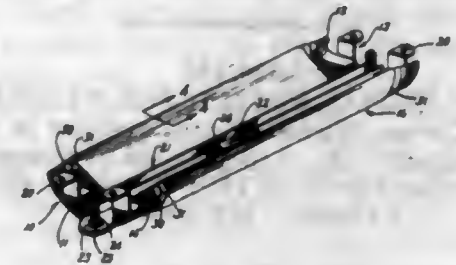
1. In an amplifier for hearing aids and having at least a first and second transistor stage with transformer coupling means therebetween, a source of D. C., a single voltage divider across said source, the stages each having at least one transistor therein, said transistors each having a base, a collector and an emitter, with the emitters of each transistor connected to one end of said voltage divider, and the collectors of each transistor connected to a second end of said voltage divider, the first collector having a part of said transformer coupling means in its connection and the second collector having a load in its connection, each of the bases having a current path between it and a tap between the ends of said voltage divider, the path of the first base having an audio translating device therein, the path of the second base having resistance means therein, said transformer coupling means having a primary winding and a secondary winding, and said part thereof comprising said primary winding, said resistance means including a potentiometer having a resistance unit all of which is connected in said path of the second base, said potentiometer including a sliding contact to provide volume control for said amplifier by adjustment thereof along said resistance unit, and the said secondary winding being connected between the said contact and one end of said resistance unit.

2,824,178

TRANSDUCERS

Lloyd J. Bobb, Glenside, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application April 26, 1954, Serial No. 425,607
11 Claims. (Cl. 179-111)



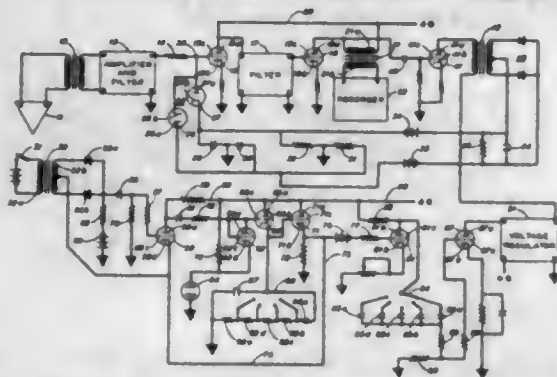
1. In an electro-acoustic transducer: a foraminous, electrically conductive, relatively rigid backing plate having a concave side and a convex side; a sleeve-like, continuous membranous diaphragm disposed about said backing plate, closely encircling said convex side, extending across said concave side and spaced therefrom; an elec-

trically conductive layer on said diaphragm; and relatively rigid means for tensioning said diaphragm, confronting the concave side of said backing plate, and depressing said diaphragm toward said concave side to cause said diaphragm to bear forcibly against said backing plate and provide frictional force maintaining the position of said diaphragm.

2,824,179

APPARATUS FOR AMPLIFYING SEISMIC SIGNALS
Aubra E. Tilley, Fullerton, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application June 16, 1954, Serial No. 437,253
5 Claims. (Cl. 179-171)



3. Apparatus for controlling the amplification of an electrical signal which is generated by a seismic detector in response to the actuation of a source of seismic energy comprising first amplifying means connected to said detector for amplifying said signal, second amplifying means, a variable impedance network connected between said first amplifying means and said second amplifying means for controlling the portion of the output of said first amplifying means which is transmitted to said second amplifying means, a capacitor for controlling the impedance of said variable impedance network, amplitude responsive means connected to said second amplifying means for controlling the charging of said capacitor in response to variations in the output of said second amplifying means to maintain the amplitude of the output of said second amplifying means within predetermined limits, pulse generating means responsive to actuation of said source of seismic energy for producing a first electrical pulse having an amplitude varying with time, means for generating a reference voltage, means for comparing the amplitude of said first pulse with the amplitude of said reference voltage to produce a second electrical pulse of predetermined duration when the amplitude of said first pulse attains a predetermined value corresponding to a predetermined time after actuation of said source of seismic energy, and means for impressing said second pulse on said amplitude-responsive means to prevent said capacitor from charging, whereby the impedance of said network is increased to substantially a maximum value to amplify said signal with substantially full amplification during occurrence of said second pulse.

2,824,180

TURN SIGNAL SWITCH FOR VEHICLES
Horace N. Carver, Wichita, Kans., assignor to Miro-Flex Company, Inc., a corporation of Kansas
Application March 10, 1955, Serial No. 493,525
4 Claims. (Cl. 200-16)



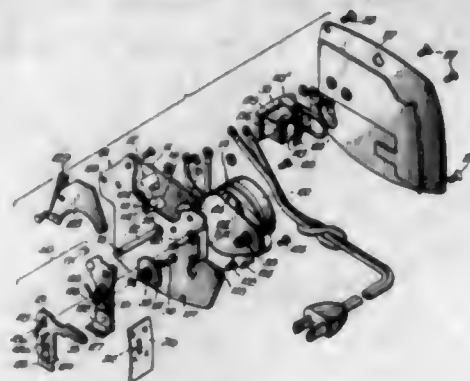
1. A turn signal switch for a vehicle, comprising: a switch housing; an actuator slidable within the housing;

a terminal carrier having a plurality of terminals mounted thereon, one for connection with each of two front and two rear signaling elements; a pair of contacts carried by said terminal carrier, each adapted for connection with a power source, one of said contacts being adapted for connection in series with a brake switch on the vehicle, and the other of said contacts being adapted for connection in series with a flasher unit; a spring arm secured to each terminal, the spring arms secured to the rear signaling element terminals being biased to make an electrical connection with said one contact, and the other spring arms being biased out of electrical juncture with said other contact, said actuator having an electrical insulating portion selectively slidable against said spring arms to move the arms directly into and out of electrical juncture with said contacts to effect desired flashing of said signaling elements.

2,824,181

AUTOMATIC AND MANUAL CONTROL TIME SWITCH

William P. Gallagher, Anthony Dan Stolle, and Paul G. Bleik, Chicago, Ill., assignors to International Register Company, Chicago, Ill., a corporation of Illinois
Application November 12, 1953, Serial No. 391,464
18 Claims. (Cl. 200-35)



1. In a time switch adapted for automatic and manual control, the combination of switch contacts, a switch actuator operable in one direction of movement to close said switch contacts and operable in the other direction of movement to open said switch contacts, automatic time control mechanism for automatically operating said switch actuator to close and to open said switch contacts at preset times, said automatic time control mechanism comprising a time driven dial and a plurality of tripping lugs adjustably carried thereby for automatically operating said switch actuator at said preset times, and manual control mechanism for manually operating said switch actuator and operable to super-impose a manual control over the automatic control thereof, said manual control mechanism comprising means operative to actuate said switch actuator to restore said switch contacts to closed position immediately after said automatic control mechanism has automatically moved them to open position, and to retain said switch contacts in closed position until they are again actuated to open position by said automatic control mechanism.

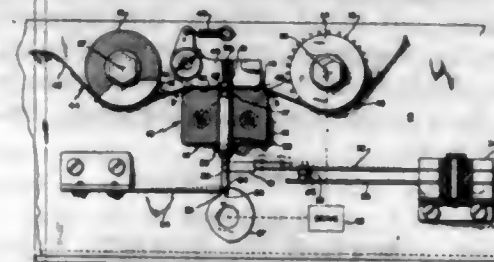
2,824,182

PNEUMATOELECTRIC RECORD SENSING DEVICE
Harry Long Lambert, West Hartford, Conn., assignor to Royal McBee Corporation, New York, N. Y., a corporation of New York

Application January 9, 1957, Serial No. 633,202
6 Claims. (Cl. 200-46)

1. A pneumatoelectric perforated tape reading unit for sensing the presence or absence of perforations in a perforated tape comprising a reading head body, a plurality of vertical piston chambers within said body, a plurality of pistons within said chambers, a plurality of aligned

openings connecting said chambers to the atmosphere, resilient means adapted to bias said pistons to the bottom of their strokes, means for overcoming said bias and for periodically moving said pistons to the top of their strokes, normally closed circuit means including switch contacts associated with said resilient means, and means operatively connecting said resilient means to said pistons, whereby movement of said pistons to the



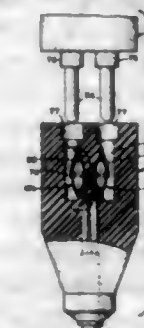
top of their strokes opens associated circuit means, said pistons remaining substantially at the top of their strokes if no tape perforations are opposite openings in the reading head thereby maintaining said circuit means opened, and said resilient means urging said pistons to the bottom of their strokes if tape perforations are opposite openings in the reading head thereby closing said switch contacts.

2,824,183

CABLE CONNECTORS OR COUPLERS EMBODYING NOVEL CIRCUIT MAKING AND BREAKING DEVICES

Anthony D. Marasco, Norwalk, and James A. Blake, Cornwall Bridge, Conn., assignors to J. B. Nottingham & Co., Inc., New York, N. Y., a corporation of New York

Application October 31, 1955, Serial No. 543,682
26 Claims. (Cl. 200-51.09)



12. A connector of the character stated, comprising a body of insulation material, said body having an elongate socket for slidably receiving a current conducting pin or jack, a sleeve lining the major portion of the socket from the inner end thereof outwardly and in which said pin or jack is slidably engageable, a circuit make and break unit in the socket at the inner end of said sleeve and comprising a compressible envelope having two spaced hermetically sealed together walls, spaced opposed contacts carried by said walls within the envelope, terminals carried externally on said walls and each electrically connected to a contact, one of said contacts being exposed in the socket in a position to be engaged by a pin or jack, the envelope wall carrying said one contact being resilient and adapted to be compressed by the inserted pin or jack to effect engagement of said contact elements, and a current conductor electrically connected with the other terminal and embedded with the latter in the insulation body.

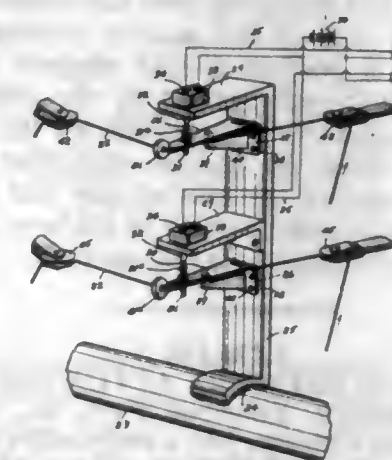
2,824,184

SWITCH ACTUATING MECHANISM FOR HAY BALERS

James E. Mandelco, Roachdale, Ind.

Application April 29, 1957, Serial No. 655,879
3 Claims. (Cl. 200-61.18)

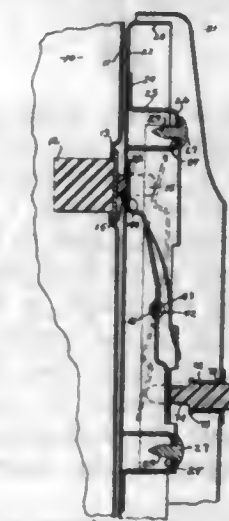
1. In a baler including a bale chamber, a material compressing plunger reciprocal therein and banding wire feed-



sociated with said wire and with said push button for actuating said switch each time the wire is tensioned by the compression of the material, said means comprising a pivotal member mounted on the frame in proximity to said push button and including an eye at one end for reception of the wire, said member being pivoted into operable engagement with said push button upon the tensioning of said wire.

2,824,185

OVEN SWITCH
Don C. Sevey, Abingdon, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois
Application June 11, 1956, Serial No. 590,459
2 Claims. (Cl. 200-61.81)



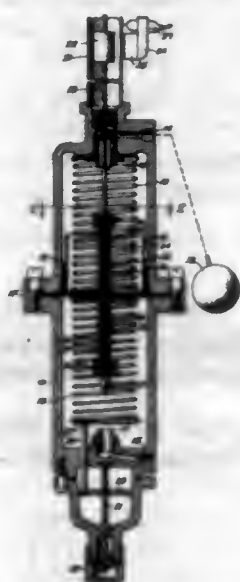
2. In a range having an oven and a door therefor which has spaced inner and outer panels, the inner panel having an opening therein, an electrically energized light source in said oven, a switch connected to control the energization of said light source and having an operator positioned to project into said opening in the inner panel of the door, the improvement which comprises a support bracket disposed between the inner and outer panels of the door, an elongated lever pivotally mounted between its ends on said bracket, said lever at one side of its pivot presenting a portion which extends across said opening in the inner panel of the door for engagement with the switch operator thereat, said bracket having an outer wall disposed outwardly from the pivot for the lever, said outer wall on the bracket having an opening therein at the opposite side of the pivot for the lever, a leaf spring having an offset end engaging said

outer wall of the bracket adjacent said opening therein, said leaf spring extending inward through said opening and engaging the lever at said one side of its pivot to bias said portion of the lever toward the inner panel of the door, said outer wall of the bracket having an additional opening therein, a plunger separate from the lever slidably mounted in the outer panel of the door and at its inner end projecting into said additional opening in the outer wall of the support bracket, and said lever presenting a portion at said opposite side of its pivot at said additional opening in the outer wall of the support bracket for engagement by the inner end of the plunger when the plunger is pushed inward to pivot the lever against the bias of said leaf spring and move said first-mentioned portion of the lever away from said opening in the inner panel of the door.

2,824,186

FLUID PRESSURE ACTUATOR

Benjamin L. Binford, Elmwood Park, Ill., assignor to Magnetrol, Inc., Chicago, Ill., a corporation of Illinois
Application July 18, 1955, Serial No. 522,475
8 Claims. (Cl. 200-83)

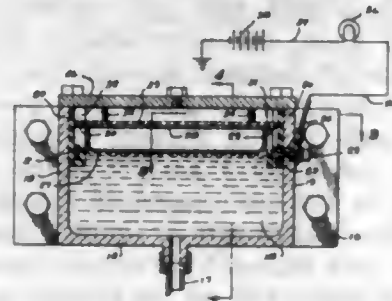


1. A fluid pressure actuator comprising an elongated tubular housing adapted to be connected adjacent its opposite ends to sources of reference fluid pressure and fluid pressure to be measured respectively, a flexible diaphragm in the housing intermediate its ends to be urged in one direction by the difference in the fluid pressures, a spring in the housing urging the diaphragm in the other direction, a zero adjusting spring in the housing urging the diaphragm in said one direction and being weaker than the first named spring, means to adjust the adjusting spring thereby to adjust the zero setting of the actuator, and control means operated by movement of the diaphragm.

2,824,187

HYDRAULIC BRAKE SAFETY SIGNAL

Mac E. Fanning, Bokoshe, Okla.
Application October 15, 1954, Serial No. 462,529
1 Claim. (Cl. 200-84)



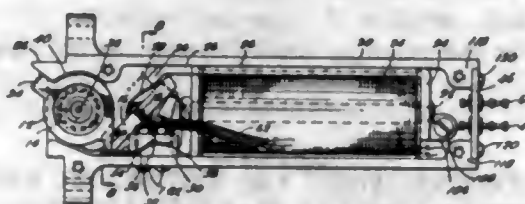
A switch device comprising a float chamber having imperforate walls, a pair of vertically grooved insulators

secured to the upper portion of opposing side walls of said float chamber adjacent the inside surfaces of said side walls, respective stationary contacts mounted on said insulators, a conductive float member movably disposed in said float chamber, said chamber having a top cover, a plurality of spaced coil springs mounted between said float member and top cover, and respective horizontal contact flanges on the upper portions of the opposite ends of said float member and being slidably interengaged with the grooves in the insulators, said contact flanges being arranged to conductively engage said stationary contacts when the fluid in the float chamber drops below a predetermined level.

2,824,188

MAGNETIC DEVICE

Alfred Skrobisch, New York, N. Y., assignor to Allard Instrument Corp., New York, N. Y., a corporation of New York
Application January 21, 1955, Serial No. 483,260
11 Claims. (Cl. 200-87)



2. A sensitive magnetic device comprising a balanced rotor, a rotor spring biasing the rotor in one direction, a stop ledge on the inner face of the rotor, a balanced armature pivoted between its ends and having one edge movable into and out of the path of the stop ledge, said armature being approximately tangential to the rotor, a magnet coil and frame for establishing a magnetic circuit through the armature, and an armature spring normally biasing the armature toward the rotor and in a direction to open the magnetic circuit, whereby energization of the coil turns the armature against the force of the spring and so moves the edge of the armature away from the stop ledge in order to release the rotor for movement by the rotor spring, the magnet frame terminating in pole pieces, one of which is disposed on one side of one end of the armature, and the other edge of which is disposed on the other side of the other end of the armature, and the exposed end of the armature cooperating with the stop ledge of the rotor as aforesaid, whereby energization of the coil turns the armature.

2,824,189

ELECTRO-MAGNETIC SWITCHING DEVICE

John S. Zimmer, Waynesboro, Va., assignor to General Electric Company, a corporation of New York
Application October 17, 1955, Serial No. 540,722
1 Claim. (Cl. 200-104)



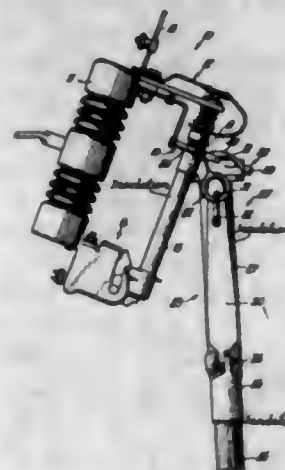
A relay comprising a contact supporting member, a pair of legs extending normally to said supporting member, a

crosspiece of magnetic material secured to said legs and extending in a plane parallel to said contact supporting member, a pair of cores, each mounted on said crosspiece and extending toward said contact supporting structure, a coil on each core, a shaft fixedly secured to said crosspiece between said cores and extending toward said contact supporting member, an armature member freely rotatably mounted on said shaft for rotation in a plane perpendicular to the axis thereof, said armature having balanced arms extending in opposite directions toward said cores, a coil spring having one end secured to said crosspiece and encompassing said shaft and its other end secured to the armature adjacent the center thereof whereby said armature is supported on said shaft and biased away from said cores solely by said spring, a plurality of contacts mounted on said contact supporting member, said contacts having movable and stationary members, and contact actuating members symmetrically mounted on said armature member engaging said movable contact members.

2,824,190

CIRCUIT INTERRUPTER CONSTRUCTION

John J. Mikos, Highland Park, Ill., assignor to S & C Electric Company, Chicago, Ill., a corporation of Delaware
Application March 14, 1956, Serial No. 571,472
14 Claims. (Cl. 200-114)



1. In a circuit interrupter for opening a high voltage circuit isolating device such as a disconnecting fuse, disconnecting switch or the like, normally carrying line current and having a normally energized terminal contact member and a current carrying member movable into and out of engagement therewith comprising, in combination, an insulating housing enclosing circuit interrupter means; a first terminal carried by said housing including a bushing secured thereto, a laterally extending contact member for engaging said normally energized terminal contact member including an arcuate portion overlying said bushing, and means detachably clamping said arcuate portion to the lateral circumferential surface of said bushing; and a second terminal carried by said housing and movable relative to said first terminal having a prong extending generally parallel to said laterally extending contact member for engaging said current carrying member and moving it out of engagement with said contact member on movement apart of said terminals.

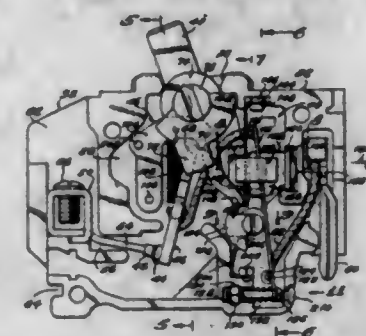
2,824,191

CIRCUIT BREAKERS

Paul M. Christensen, West Orange, N. J., assignor to Federal Electric Products Company, a corporation of Delaware
Application February 5, 1953, Serial No. 335,217
25 Claims. (Cl. 200-116)

1. In a circuit breaker having a stationary contact, a movable contact engageable with and disengageable therefrom, releasably restrained mechanism operable

upon release thereof to effect disengagement of said contacts, and trip means for effecting release of said mechanism upon overload, said trip means comprising a latch member in latch engagement with said mechanism, a part carried by said latch member, and a cur-

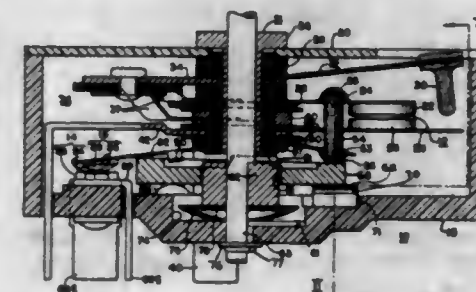


rent-responsive control element operable upon said part for disengaging said latch member from said mechanism, said part being U-shaped and said control element being disposed between the arms thereof, said arms being oppositely flanged for engagement of said element.

2,824,192

THERMALLY ACTUATED SWITCH

Anthony B. Marmo, Mansfield, Ohio, assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 5, 1956, Serial No. 614,170
10 Claims. (Cl. 200-122)



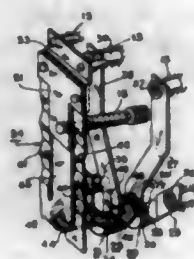
1. A thermal cycling switch structure comprising a pair of relatively movable switch contacts and a pair of electrically conducting resilient arms supporting the contacts, a first bimetal strip having a fixed end and a portion deflectible upon heating and cooling of the strip to actuate one of said arms to respectively open and close the contacts, a heat storage bar of good heat conducting material having one end adjacent the fixed end of the bimetal strip in good heat conducting relationship therewith, the other end of the bar extending in spaced relationship with the bimetal strip, an electrical resistance heater supported in good heat transfer relationship with the latter end of the bar, means for connecting the heater in series with said contacts and an electrical load to be controlled by the contacts, each of the arms and the adjacent ends of the bar and strip being clamped together in stacked relationship, said arms being electrically separated in the stack, a member engageable with the other of said arms for adjusting the temperature of the bimetal strip at which said contacts are actuated, and means for adjusting said member comprising a manually adjustable cam and a second bimetal strip, the cam providing adjustment of said switch to change the percentage of closed contact time during its cycling operation, the second bimetal strip adjusting said switch to compensate for changes in temperature ambient the first bimetal strip, the deflectible portion of said first bimetal strip being so constructed and arranged relative the heat storage bar as to separate the contacts primarily in response to heat conducted to the strip from said bar and to lag the temperature changes of said other end of the bar during heating and cooling thereof.

2,824,193

THERMOSTAT APPARATUS

Frank Rosen, Pittsford, N. Y., and David M. Rosenberg, Meadville, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application July 31, 1956, Serial No. 601,252
5 Claims. (Cl. 200—138)



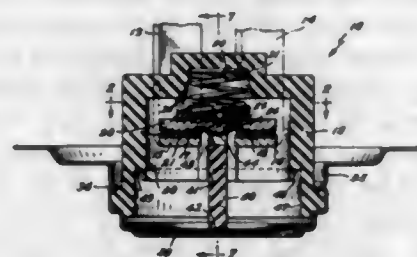
2. A thermostatic switch structure comprising a base, a switch having a pair of cooperating contacts supported by said base, a snap acting bimetal member carried by said base for actuating said switch, said switch including a spring arm having a fixed end and a free end carrying one of said contacts, a rigid electrically insulating link connected between a snap acting portion of said bimetal and said spring arm and movable in one direction to actuate the latter, said spring arm being biased into engagement with one end of said link to prevent lost motion therebetween and said link engaging said arm intermediate the fixed and free ends thereof, the other end of said link having integral therewith spaced surfaces engaging opposite faces of the bimetal member, said surfaces being offset transversely relative said direction of movement of the link to impart a twist to the bimetal member for precluding lost motion between the member and said link.

2,824,194

SWITCH STRUCTURES

John O. Moorhead, Attleboro, Mass., assignor to Metals & Controls Corporation, Attleboro, Mass., a corporation of Massachusetts

Application August 1, 1956, Serial No. 601,501
4 Claims. (Cl. 200—138)



1. In combination, a pair of spaced electrical contacts, a bridging, electrical contact member movable in opposite directions into and out of engagement with said spaced contacts, said bridging contact member having a first surface convexly curved along a plane intersecting said bridging contact member and said spaced contacts, a transfer member having a flat surface movable against said convexly curved surface substantially midway between said spaced contacts to move said bridging contact member away from said spaced contacts in one of said opposite directions, an additional member providing a third surface convexly curved about an axis, said axis and the mutually engaged portions of said first and flat surfaces lying in a common plane, means resiliently biasing said additional member against pivotal movement and in the other of said opposite directions, and said bridging contact member providing two spaced corners engaging said third surface, one at each side of and adjacent to said common plane, whereby said bridging contact member presses with substantially equal force on

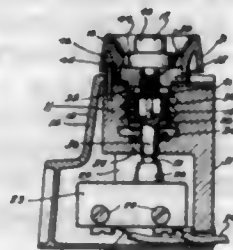
each of said spaced contacts when engaged therewith and is prevented from pivotal movement relative to said third surface only when separated from said spaced contacts.

2,824,195

ELECTRICAL THERMOSTAT

Samuel G. Eskin, Chicago, Ill., assignor to The Dole Valve Company, Chicago, Ill., a corporation of Illinois

Application May 3, 1955, Serial No. 505,671
2 Claims. (Cl. 200—140)



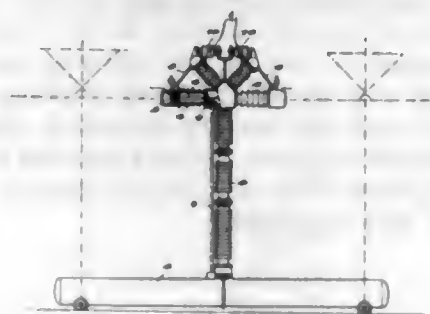
1. In an electrical thermostat particularly adapted for air conditioners and the like, a body, a switch on said body adapted to make and break a main line circuit, said switch having a depressible button for operating the same, a knob on the outside of said body having a central recessed portion opening to the outside of said body and having a core threaded within said body and having an open central portion in communication with said recessed portion, a plunger slidably guided in said body and movable within said open central portion of said core, a spring biasing said plunger in a retracted position with respect to said open central portion of said core, and a thermal element carried by said knob having a casing recessed within said recessed portion in contact with the air on the outside of said body, a cylinder threaded within said core and a piston extensible from said cylinder within the open portion of said core and having engagement with said plunger, said operating button, plunger and piston all being in axial alignment to provide a direct driving connection to said button for operating the same upon extension of said piston with respect to said cylinder upon predetermined rises in temperature.

2,824,196

GAS-BLAST CIRCUIT BREAKER WITH MULTIPLE BREAK

Hans Thommen, Baden, Switzerland, assignor to Aktiengesellschaft Brown, Boveri & Cie, Baden, Switzerland, a joint-stock company

Application February 15, 1956, Serial No. 565,738
Claims priority, application Switzerland February 16, 1955
8 Claims. (Cl. 200—145)



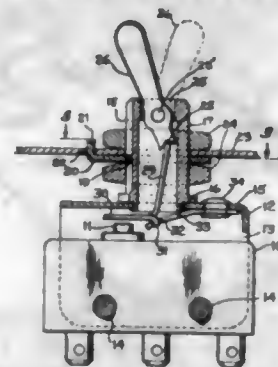
1. In a multiple-break gas-blast circuit breaker having stationary air-blast interrupter units with rotatably movable structural impedance units electrically connected in parallel thereto and isolating disconnect switches electrically connected in series therewith, the invention comprising actuating means for opening the disconnect switches, said actuating means including said rotatably movable structural impedance units.

2,824,197

TOGGLE SWITCHES

Walter Bolek, Downers Grove, Ill., assignor to Electro-Snap Switch & Mfg. Co., Chicago, Ill., a corporation of Illinois

Application September 28, 1954, Serial No. 458,875
2 Claims. (Cl. 200—172)



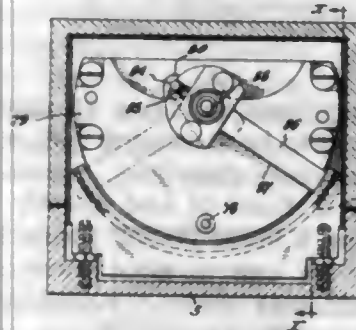
1. A toggle switch comprising a mounting yoke adapted to receive and support a switch unit having a movable plunger, a hollow bushing carried by the yoke, means for connecting said bushing to a mounting plate, a toggle lever pivoted to said bushing adjacent the outer open end thereof, an arm having one end portion yieldably bearing against an end portion of the toggle lever at a point eccentric with respect to its pivot point and having an opposite end portion disposed in an angular direction for engagement with said plunger, a spring plate in the plane of said angularly extending portion, said spring plate having a pair of oppositely disposed slots formed in one end portion thereof and said arm having a pair of spaced lugs at the point of junction with said angularly extending portion and said lugs fitted into said slots to provide hinge connection between the spring plate and said arm, and means for connecting said spring plate to said mounting plate.

2,824,198

PROGRAM TIMER

William O. Bennett, Jr., Bayside, N. Y., and Walter A. Fitz Maurice, New Milford, and William W. Mutter, Fair Lawn, N. J., assignors to Bulova Watch Company Inc., New York, N. Y., a corporation of New York

Application May 22, 1953, Serial No. 356,668
2 Claims. (Cl. 201—48)



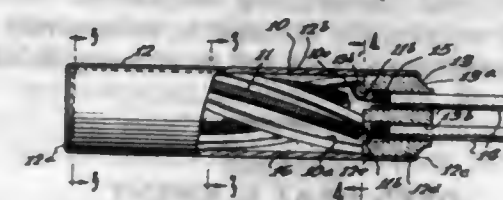
1. A timing device for initiating a plurality of operations at precise instants of time, comprising a base member, a controlled speed source of motive power carried by said base, a camshaft carried by said base and provided with a pair of cams thereon and rotatable by said motive power, a pivoted member engaging both of said cams and positively driven thereby at a variable speed in both directions about its pivot by rotation of said cams, a potentiometer carried by said base and having its winding arcuately disposed relative to the axis of rotation of said camshaft, and a wiping arm connected to said pivoted member and movable by the latter during its variable speed movement outwardly and back over said arcuately disposed potentiometer winding to cause a variable voltage curve in the electrical circuits in which the potentiometer is included.

2,824,199

ELECTRICAL HEATING ELEMENT

Donald W. Browne, Des Plaines, Ill., assignor to Acra Electric Corporation, a corporation of Illinois

Application April 4, 1955, Serial No. 498,934
1 Claim. (Cl. 201—67)



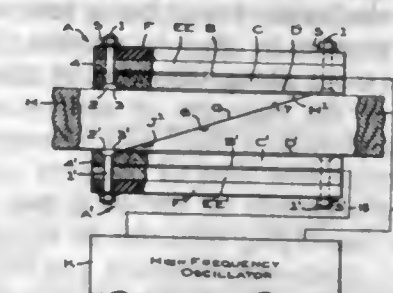
An electrical heating element of the character described, comprising: a tubular jacket; a heating coil in said jacket and comprising at least two longitudinally extending electrical coil portions; and an elongated insulating core for carrying the heating coil in the jacket and having an axial mid-portion and peripheral, longitudinally extending lands defining at least two grooves and extending laterally outwardly to engage the jacket and divide the interior of said jacket into a plurality of insulated separate, longitudinally extending compartments, one coil portion being received in each compartment, said heating coil having a connecting portion extending transversely between two compartments at one end thereof whereby said coil is wound around the core lengthwise thereof.

2,824,200

COMPOSITE ELECTRODE HEAT STORAGE APPLICATOR

Jollus W. Mann and George F. Russell, Tacoma, Wash.

Application March 18, 1954, Serial No. 417,068
4 Claims. (Cl. 219—10.53)



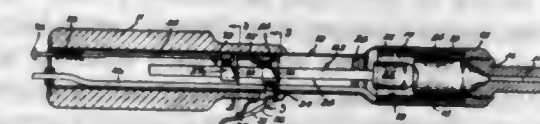
4. A composite electrode comprising an idling electrode and a live electrode paralleling each other; a uniformly thick layer of a fixed high loss dielectric material interposed between the two electrodes; and means for holding the two electrodes and the layer of high loss dielectric material in intimate contact with each other while preventing galvanic connection between the two electrodes; said live electrode being connectable to a source of high frequency alternating current.

2,824,201

SOLDERING IRON HAVING A SOLDER CARTRIDGE

Robert R. McDaniel, Spokane, Wash.

Application March 10, 1955, Serial No. 493,402
3 Claims. (Cl. 219—27)



1. A soldering iron comprising a tubular body having a handle at one end and a receiving cavity at the opposed end; an apertured tip disposed at the cavity end of said body and venting said cavity; a solder cartridge disposed in said cavity; an electric element encircling said cavity and adapted to heat said cartridge and tip sufficiently

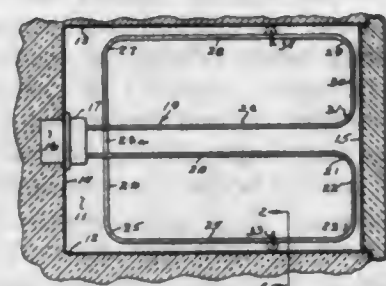
to fuse said solder; a reciprocal rod within the body; a unidirectional rod-gripping mechanism carried by said body and operably associated with said rod to normally permit rectilinear movement of said rod in one direction only, for ejecting solder from said cavity; and a second unidirectional rod-gripping mechanism carried by said rod and reciprocally actuable to successively impart rectilinear movement to said rod in said one direction.

2,824,202

OVEN HEAT ELEMENT

Elmo E. Aylor, Galesburg, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill., a corporation of Illinois

Application May 31, 1956, Serial No. 588,370
4 Claims. (Cl. 219—35)

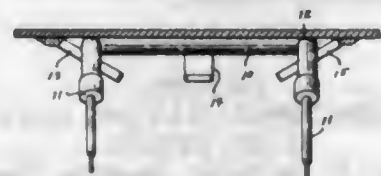


1. A heating unit for an electric oven wherein there is an electrical connector for connection to an electrical power source at the back of the oven compartment, said heating unit comprising a heating element for connection to said electrical connector comprising a first pair of forwardly extending elongated segments which are substantially parallel to each other, each of the segments of said first pair at the forward ends being bent outward and extending away from each other to provide a second pair of segments to extend along the front of the oven compartment, each of the segments of said second pair being bent back to provide a third pair of segments to extend along the respective sides of the oven compartment, and each of the segments of the third pair being bent back to provide converging segments to extend along the back of the oven compartment which join each other between said first pair of segments adjacent the back ends of said first pair of segments.

2,824,203

ELECTRICAL HEATING UNIT AND MEANS FOR HOLDING THE SAME

Clifford D. Wilson, Conrad, Iowa
Application May 9, 1955, Serial No. 506,940
4 Claims. (Cl. 219—37)

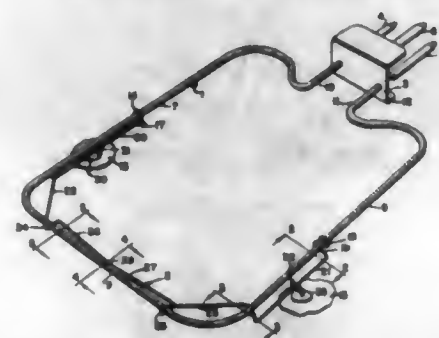


1. In a device of the class described, a base having a surface, two spaced apart bar fingers extending from said base at an angle and toward each other, a circular U-shaped tubular heating unit having two non-connected free ends and having spring characteristics detachably resting between said surface of said base and said angularly extending bar fingers; said circular U-shaped tubular heating unit having its two free ends compressible toward each other for removal from or placement under said bar fingers, and a flexible electrical lead wire extending from each free end of said U-shaped tubular heating unit.

2,824,204

HEATER ELEMENT SUPPORT

Hugh W. Reno and Elmo E. Aylor, Galesburg, Ill., assignors to Midwest Manufacturing Corporation
Application May 23, 1955, Serial No. 510,280
11 Claims. (Cl. 219—37)

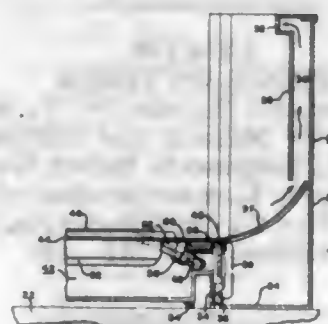


9. The combination of an electrical heating element having side and front portions, and a support for said heating element comprising a first portion which presents an upwardly facing shoulder on which the side portion of the heating element rests, and a second portion connected to said first portion and extending beneath the front portion of the heating element in engagement therewith, said second portion having a front segment which extends contiguous to the front of said front portion of the heating element and a back segment which engages the back of said front portion of the heating element.

2,824,205

DOMESTIC APPLIANCE

Carl A. Stickel, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application December 27, 1955, Serial No. 555,335
9 Claims. (Cl. 219—37)



1. A kitchen appliance including an upwardly extending support adapted to be associated with a work surface and to extend upwardly therefrom, a unit normally extending upwardly in front of and directly adjacent said support and having a lower pivotal connection with said support to allow the unit to pivot forwardly onto said work surface, said unit being provided with a surface heater, and a thermally controlled stop means cooperating with said unit and support to prevent the return of said unit to its upwardly extending position adjacent said support as long as said surface heater is hot.

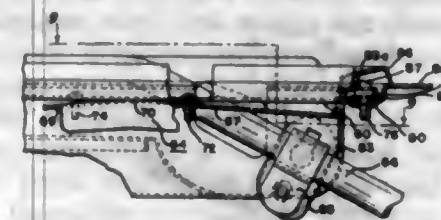
2,824,206

DOMESTIC APPLIANCE

Harold M. Snyder, Springfield, and Byron L. Brucken, Dayton, Ohio, assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application February 21, 1957, Serial No. 641,686
10 Claims. (Cl. 219—37)

9. In electrical heating apparatus, a cooking top having an opening, an electric heating unit in said opening, a bracket having a narrow portion engaging said cooking top and tiltable with respect thereto around said narrow portion, a pair of screws engaging said cooking top and having a threaded engagement with said

bracket at opposite sides of said narrow portion whereby said bracket is adjusted in its tilting movement by said

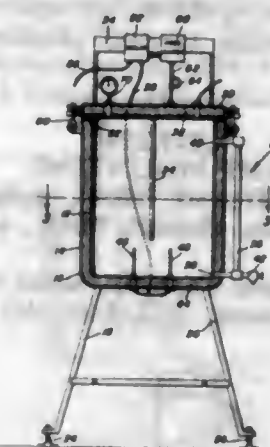


screws, and means pivotally connecting said heating unit to said bracket.

2,824,207

ELECTRIC STEAM BOILER

Armin C. Beiermann, Wayne, Nebr.
Application December 31, 1956, Serial No. 631,833
1 Claim. (Cl. 219—38)

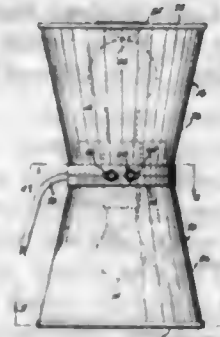


A boiler for use in extracting honey comprising a steam tight receptacle, at least one electric immersion heating element secured to the base of said receptacle and extending into said receptacle, said receptacle having a removable top, a source of electrical power, a support carried by said top, a pressure control switch mounted on said support, a conduit connected to said pressure control switch and extending through said top to communicate said pressure control switch with the interior of said receptacle, a relay on said support controlling flow of electrical power from said source to said heating element, said relay being connected to said pressure control switch and being controlled thereby, and a plurality of outlet conduits secured to said top and communicating with the interior of said receptacle, said top having a corrosion inhibiting magnesium rod secured thereto and depending down into said receptacle.

2,824,208

COMBINATION VAPORIZING LAMP AND NIGHT LIGHT

George C. Bauer, Bayville, N. Y.
Application November 10, 1955, Serial No. 546,030
2 Claims. (Cl. 219—45)



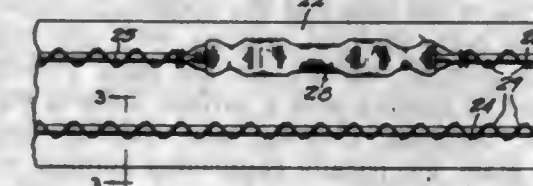
1. A vaporizer comprising a disc-like socket base including a lamp socket projecting therefrom; a shield mem-

ber extending from said base about the socket; a removable plate covering the shield member and having a center opening; a cup for receiving a vaporizable compound removably engageable in the center opening; a lamp engaged in said socket; and means for energizing the lamp, said base comprising back-to-back, flat, peripherally registering plates having inner surfaces in face-to-face contact, said inner surfaces having confronting recesses providing communicating cavities receiving the lamp-engaging means, the lamp socket projecting from one of the plates with its interior in communication with said cavities.

2,824,209

STRIP HEATER

Herbert O. Leibold, South Bend, Ind., assignor to Welcraft Products Co., Inc., New Carlisle, Ind., a corporation of Indiana
Application July 20, 1956, Serial No. 599,203
8 Claims. (Cl. 219—46)



1. A strip heater adapted to be wound around a conduit, comprising a flexible carrier strip, a two-part flexible electric heating element having an insulation enclosure, a thermostat electrically connected between said parts of said heating element, an electrically insulating flexible sheath encasing said thermostat and joined at its ends to said heating element enclosure, and means connecting said element to said strip said thermostat being located intermediate the length of said strip for response to the temperature of said conduit.

2,824,210

PROCESS AND APPARATUS FOR CARRYING OUT TECHNICAL PROCESSES BY GLOW DISCHARGES

Hans Bueck, Zurich, Switzerland, assignor to Elektro-physikalische Anstalt Bernhard Berghaus, Vaduz, Liechtenstein
Application May 27, 1954, Serial No. 432,805
Claims priority, application Switzerland May 28, 1953
12 Claims. (Cl. 219—50)

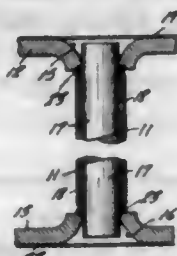


1. Apparatus for the simultaneous treatment of a plurality of metallic articles with an electric glow discharge, comprising a chamber including an outer wall and means providing an inner wall spaced from the outer wall to form an intervening space for receiving said articles, and a plurality of means secured in one of the walls and arranged symmetrically about the central axis of such wall for supporting said articles, whereby the articles to be treated may be mounted on said wall prior to assembly of the latter with the other wall to form the sealed glow discharge chamber.

2,824,211

RESISTANCE WELDING

Howard E. Roberts, Palos Verdes Estates, Calif., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application July 6, 1955, Serial No. 520,178
6 Claims. (Cl. 219—104)

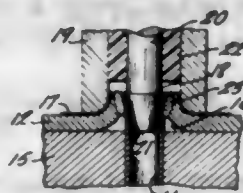


1. A method of welding a thin walled metal tube to a thicker metal plate comprising the steps of forming in the plate an opening having a diameter substantially equal to the inner tube diameter, inserting a nonconductive alignment rod in the tube and the opening to support the tube and the plate in fixed relation with one tube end engaging an annular surface on the plate closely surrounding and in contact with a surface defining the interior of the opening, abutting one welding electrode against the plate, electrically connecting another welding electrode to the tube, passing a high density welding current between the welding electrodes to soften and fuse the metal at the abutment of the tube and the plate, and relatively moving the plate and the tube together to forge the fused metal.

2,824,212

RESISTANCE WELDING METHODS AND APPARATUS

Howard E. Roberts, Palos Verdes Estates, Calif., assignor to Fairchild Engine and Airplane Corporation, Hagerstown, Md., a corporation of Maryland
Application October 19, 1955, Serial No. 541,470
5 Claims. (Cl. 219—117)



1. A method of welding a thin walled metal tube to a thicker metal plate comprising the steps of punching the plate to form an orifice extending from the plate with its mouth defined by substantially parallel wall sections of a diameter substantially equal to the outer tube diameter, supporting the tube and the plate in fixed relation with one end of the tube positioned in the orifice, urging a tapered welding electrode into the end of the tube, and passing a high density welding current between the welding electrode and the plate substantially perpendicular to the tube wall.

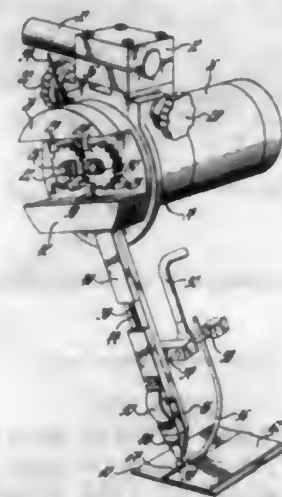
2,824,213

CONSUMABLE ELECTRODE WELDING METHOD AND MECHANISM

Thomas W. Shearer, Jr., Auburn Heights, and Arthur F. Hessler, Detroit, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 30, 1956, Serial No. 619,216
11 Claims. (Cl. 219—130)

1. An electrode feed and guide mechanism for a consumable welding electrode used in an automatic arc welding process, said mechanism including a feeder head and an electrode guide, said head having a pair of drivable

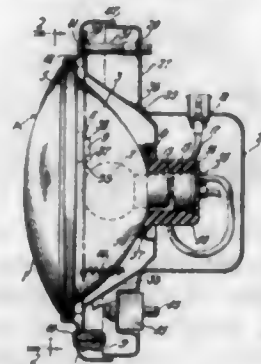
intermeshed spur gears in spaced relation and adapted to receive said electrode intermediate said gears, said gears



2,824,214

LAMP MOUNTING

Ralph H. Bertsche, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 13, 1953, Serial No. 374,079
9 Claims. (Cl. 240—41)

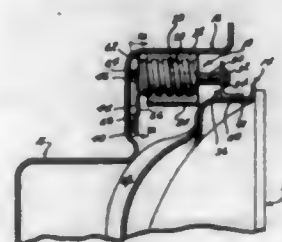


1. In a lamp, the combination of a lighting unit within a lamp casing, said lighting unit comprising a reflector, lens and light source within said reflector, said light source having a plurality of terminals projecting through the back of said reflector, means for mounting said unit within the lamp casing, resilient means positioned on the rear portion only of said reflector and around said terminals in sealing relationship therewith, a laterally extending flange formed on said resilient means and contacting only said reflector, and means formed on said first mentioned means and bearing on said flange to urge it into sealing contact with said reflector, said lamp casing being non-resilient and extending over only the reflector portion of said lighting unit.

2,824,215

HEADLIGHT ADJUSTMENT

Chester R. Goff, Walnut Ridge, Ark.
Application July 24, 1956, Serial No. 599,794
3 Claims. (Cl. 240—41.6)



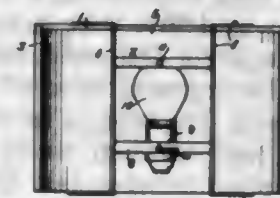
3. In a device of the type described, including a lamp carrier member; a frame member; first means carried

by the frame member and coacting therewith for imparting forward and rearward reactive thrusts; and second means engaging said first means for forward and rearward relative displacement therebetween, said second means being operatively connected to said lamp carrier member for imparting tilting movements thereto, the improvement comprising in combination, an arm radially extending from one of said means and being jointly rotatable therewith; a sheathed actuating cable; means for pulling and pushing one end of said cable; the other end of said cable being operatively connected to said arm remotely from its axis of rotation whereby pulling and pushing of said cable impart rocking motions of less than 180° to said one means having the arm, which motions are reacted to by said means engaging therewith to thereby tilt the lamp carrier.

2,824,216

LAMP

Francis P. Brennan, Chicago, Ill.
Application November 26, 1954, Serial No. 471,324
3 Claims. (Cl. 240—73)

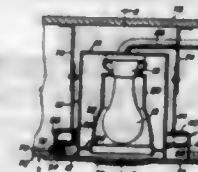


1. A lamp shade in the form of a rigid, vertical panel and a single detachable liner on the rear side of the panel, the vertical marginal portions of the panel being folded back to form two channels in which the ends of the liner are seated; the panel being a segment of a cylinder, being opaque and being perforated for the passage of light therethrough; and the liner being translucent and following the curvature of the panel when engaged in the channels and being sufficiently elastic to permit flexing thereof, without stressing it beyond the elastic limit, in attaching it to and detaching it from the panel.

2,824,217

ELECTRICAL LIGHTING FIXTURE

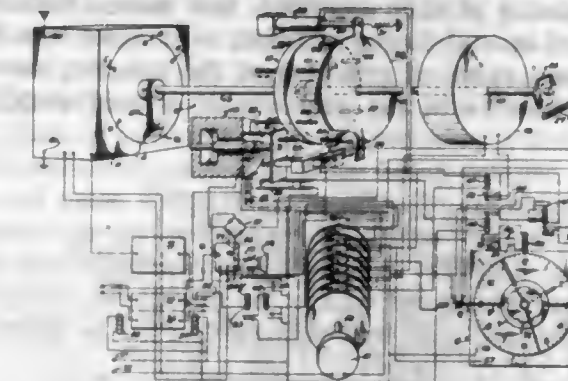
John J. Karole, Ridgefield Park, N. J.
Application February 5, 1957, Serial No. 639,154
6 Claims. (Cl. 240—78)



3. A light fixture comprising a lamp holding casing having a lower open end, an angle member embracing the lower end of the lamp holding casing, said angle member being angular in cross-section and including first and second continuous flanges, the first flange including an inner edge having a plurality of spaced slots therein, the material of said first flange between adjacent slots being permanently attached to the outer surface of the lamp holding casing at the lower end of the said lamp holding casing, said second flange including a lower edge remote from said first flange and substantially flush with the lower end of said lamp holding casing, and said first flange being located between the ends of said lamp holding casing.

2,824,218

AUTOMATIC RADIO CONTROL FOR CLOCKS
Theodore R. Gilliland, Ramey Air Force Base, Puerto Rico, assignor to the United States of America as represented by the Secretary of Commerce
Application May 22, 1956, Serial No. 588,205
21 Claims. (Cl. 250—2)

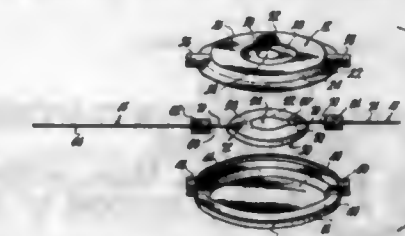


1. A radio-controlled clock comprising time measuring means, receiver means for receiving time signals at various frequencies, adjusting means for periodically correcting said measuring means in accordance with said signals and means for periodically sampling said signals and automatically applying to said adjusting means the most suitable of said various frequency signals.

2,824,219

PIEZOELECTRIC CRYSTAL ASSEMBLY

George F. Fisher, Parkville, and Howard E. Dillon, Kansas City North, Mo., assignors to Midland Manufacturing Co., Inc., Kansas City, Kans.
Application November 8, 1954, Serial No. 467,342
1 Claim. (Cl. 310—9.4)



A piezoelectric crystal assembly comprising a pair of opposed, generally circular, pan-like sections each having a cavity therein; means interconnecting the sections in opposed relationship to present a housing having a chamber therewithin; a piezoelectric crystal element within the chamber; a plurality of electrode coatings on the element; a conductor for each electrode coating respectively extending from the exterior of the housing into the chamber thereof; and structure for each of said conductors respectively securing the same to the element for supporting the latter in spaced relationship to the sections, said structures each being conductive and in electrical contacting relationship with the corresponding one of said coatings, one of said sections being provided substantially centrally thereof with an initially open aperture for the depositing of material on the element from outside the housing and with means including a closure member of configuration complementary to the aperture for sealing said aperture after said depositing of material upon the element has been completed.

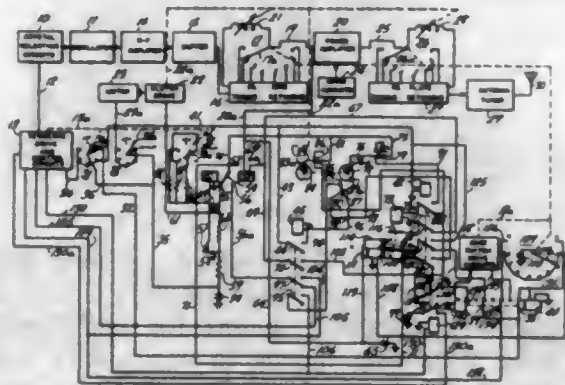
2,824,220

RADIO TRANSMITTER TUNER

William H. Epperson, Coral Gables, Fla., assignor to Aeronautical Communications Equipment, Inc., Miami, Fla., a corporation of Florida
Application November 25, 1953, Serial No. 394,331
9 Claims. (Cl. 250—17)

4. Apparatus for tuning the power amplifier of a multi-channel radio transmitter to a predetermined chan-

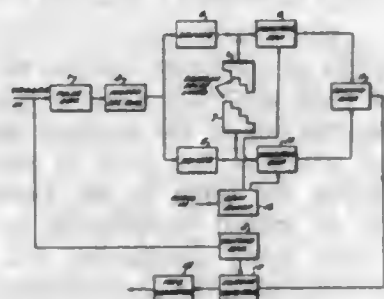
nel comprising a plurality of first networks adapted to broadly tune the grid circuit of the power amplifier when inserted therein, a first tuning element in the grid circuit of said amplifier, a plurality of second networks adapted to broadly tune the plate circuit of said amplifier when inserted therein, a second tuning element in the plate circuit of said amplifier, first means including said first and second tuning elements responsive to a first predetermined value of grid current for inserting one of said first networks in the grid circuit of said amplifier



and one of said second networks in the plate circuit of said amplifier for broadly tuning said amplifier to said predetermined channel, second means responsive to a plurality of sequentially decreasing values of grid current to adjust said first and second tuning elements for further tuning said amplifier to said predetermined channel, and means responsive to shifting of said transmitter from one channel to said predetermined channel for placing said first and second means in operative condition.

2,824,221 SIGNAL GENERATOR FOR CLUTTER SIMULATION

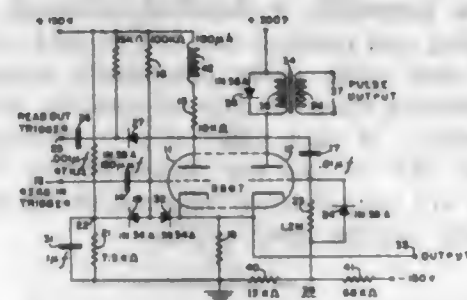
Robert C. Hilliard, Beverly Farms, Mass., assignor to the United States of America as represented by the Secretary of the Air Force
Application March 12, 1953, Serial No. 341,885
8 Claims. (Cl. 250-27)



7. A signal generator comprising a source of short duration electrical pulses, an acoustic delay line consisting of a block of acoustic wave transmitting material having a flat surface and a coextensive oppositely disposed irregular surface comprising a plurality of planar surfaces parallel to said flat surface and at different distances therefrom, an electromechanical transducer acoustically coupled to said delay line over the entire area of said flat surface for simultaneously energizing the plurality of parallel acoustic paths established between said flat surface and said planar surfaces, and means for electrically coupling said source of pulses and an output circuit to said transducer, the acoustic coupling between said transducer and said delay line introducing a sufficient mismatch therebetween to cause multiple reflections to occur between said flat surface and said planar surfaces.

2,824,222 DIGIT STORAGE CIRCUIT

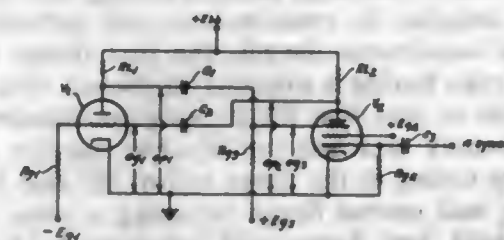
William M. Furlow, Jr., Arlington, Va., assignor to the United States of America as represented by the Secretary of the Navy
Application February 26, 1954, Serial No. 412,965
3 Claims. (Cl. 250-27)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. A digit storage circuit comprising first and second electron tubes, the first of which is normally conducting; each of said tubes having at least a cathode, a control grid and a plate electrode; said tubes having a common cathode load impedance; output terminals connected across said cathode load impedance; a first time constant circuit connected to said first tube grid; said first time constant circuit including a first condenser for applying a negative read-in pulse representative of a binary indication to the grid of said first tube; a second time constant circuit; said second time constant circuit including a second condenser connected between said first tube plate and said second tube grid and a grid leak resistor connected to said second tube grid; a voltage source; means connecting said first and second tubes to said source of voltage such that the maximum tube current in said first tube is less than the maximum tube current in said second tube; biasing means having a voltage output of a magnitude in the vicinity of and less than the cut-off grid voltage of said first tube when said second tube conducts, unidirectional means interconnecting said biasing means and said first tube grid such that the voltage on said first tube grid is limited to the magnitude of said biasing means output; said first time constant circuit being adapted to control the time duration requisite to return said first tube grid to the magnitude of said biasing means output following a negative read-in pulse to said first tube grid; the time constant of said second time constant circuit being greater than the time constant of said first time constant circuit; and read-out pulse means connected to said second tube grid and operative to stop conduction in said second tube, and to produce an output voltage indication, when said second tube is conducting.

2,824,223 PENTODE-TRIODE PLATE-COUPLED ONE-SHOT MULTIVIBRATOR

Richardson Phelps, Jr., United States Navy, assignor to the United States of America as represented by the Secretary of the Navy
Application March 30, 1954, Serial No. 419,940
10 Claims. (Cl. 250-27)
(Granted under Title 35, U. S. Code (1952), sec. 266)

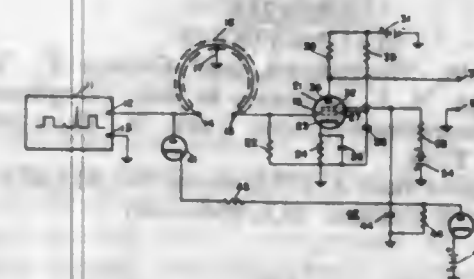


1. A multivibrator circuit comprising a first electronic tube having a cathode, plate, and grid, a second electronic tube having a cathode, plate, control grid, screen

grid, and suppressor grid, said electronic tubes being cathode coupled to ground and being plate coupled through load resistors to a positive voltage, said screen grid being connected to a positive voltage, said suppressor grid being coupled to the plate of the first electronic tube through a capacitor, said grid of the first electronic tube being coupled to the plate of the second electronic tube through a capacitor, means for applying a negative voltage to the grid of the first electronic tube, means for applying a positive voltage to the suppressor grid, and means for applying a relatively low negative voltage to the control grid when it is desired to actuate the multivibrator.

2,824,224 TELEVISION SYNCHRONIZING CIRCUIT

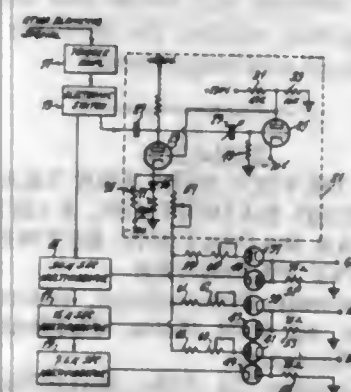
Norman C. Fulmer, Pearl River, N. Y., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware
Application April 14, 1954, Serial No. 423,092
6 Claims. (Cl. 250-27)



1. An electrical circuit comprising an electronic tube having a signal-input grid, a gating grid, and an output electrode, a source of pulse signals of a given polarity connected electrically to said signal-input grid, said pulse signals being subject to having undesired noise signals included therewith, and an integrating circuit connected between said source and said gating grid for integrating said input signal and applying said integrating signal to said gating grid in said given polarity.

2,824,225 BAR SIGNAL GENERATOR

Arch C. Luther, Jr., Merchantville, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application April 29, 1954, Serial No. 426,484
4 Claims. (Cl. 250-27)

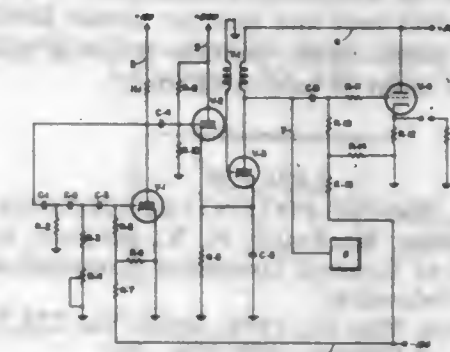


1. A device for generating bar signals for testing color television apparatus having a plurality of color channels, said device comprising a means for developing triggering pulses, a first pulse generating circuit, a second pulse generating circuit, means connected to both said first and second pulse generating circuits for switching said triggering pulses alternately and at a fixed rate into said first pulse generating circuit and said second pulse generating circuit, said first pulse generating circuit comprising a plurality of multivibrators corresponding to the plurality of color channels in said color television apparatus, said plurality of multivibrators being operative in response to

said triggering pulses to generate output pulses representative of the plurality of colors, said second pulse generating circuit comprising a multivibrator which is operative in response to said triggering pulses to generate pulses representative of white bars, said switching means operating to actuate said first and second pulse generating circuits alternately such that only one of said pulse generating circuits is operative to produce pulses during any given interval, a plurality of output circuits corresponding to the plurality of color channels of color television apparatus, each of said output circuits including a first diode and a second diode, said first diode being coupled to the first of said pulse generating circuits, said second diode being coupled to the second of said pulse generating circuits, said diodes being operative to pass the pulse outputs from the pulse generating circuits to the corresponding color channels of said color television apparatus.

2,824,226 OSCILLATOR SYSTEM

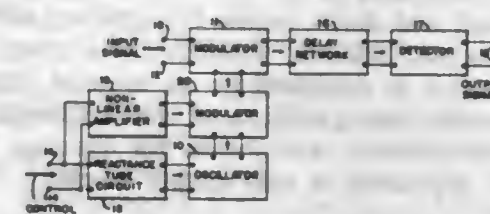
Robert Olsen, East Meadow, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application April 30, 1954, Serial No. 426,948
4 Claims. (Cl. 250-27)



1. A pulse forming circuit comprising a single swing blocking oscillator which is designed and arranged to periodically produce a pulse having a relatively large overshoot; a normally deenergized power supply unit; means responsive to the leading edge of the pulse for energizing the power supply unit; and means responsive to the pulse overshoot for producing a delayed synchronizing signal.

2,824,227 VARIABLE DELAY SYSTEM

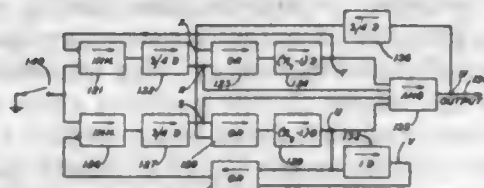
Donald Richman, Fresh Meadows, N. Y., assignor to Hazeltine Research, Inc., Chicago, Ill., a corporation of Illinois
Application December 21, 1954, Serial No. 476,637
15 Claims. (Cl. 250-27)



1. A variable delay system for varying the time delay of an input signal in accordance with a control signal, the system comprising: circuit means for encoding the input signal as modulation of a carrier signal; circuit means responsive to the control signal for determining the instantaneous frequency of the carrier signal; and circuit means responsive to the modulated carrier signal for producing an output signal having a time delay determined by the instantaneous frequency of the carrier signal.

2,824,228

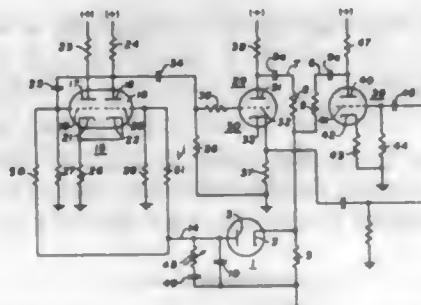
PULSE TRAIN MODIFICATION CIRCUITS
Robert L. Carmichael, Stanhope, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application December 30, 1954, Serial No. 478,666
11 Claims. (Cl. 250-27)



7. In combination, an inhibit unit having an inhibiting input terminal, a source of recurring electrical signals coupled to said inhibit unit, control means for enabling said inhibit unit to produce output pulses corresponding to said recurring signals in the absence of pulses applied to said inhibiting input terminal, a circuit delay loop connected between the output and the inhibiting input terminals of said inhibit unit, an AND unit, and circuit means independent of said enabling means for applying control pulses to all of the input leads of said AND unit, said circuit means including a circuit for connecting all of the pulses from one point in said delay loop to one input of said AND unit and another circuit for connecting all of the pulses from another point in said delay loop to another input of said AND unit.

2,824,229

DIRECT CURRENT POTENTIAL GENERATOR
Joseph W. Gratian, Rochester, N. Y., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware
Application May 11, 1951, Serial No. 225,784
3 Claims. (Cl. 250-36)



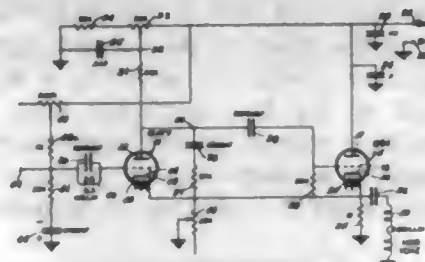
1. A potential generator comprising a diode having an anode and a cathode, a source of reference pulses, a source of square waves connected to said cathode, an output circuit connected to said anode, said circuit including a capacitor, means for biasing said diode to a normally non-conducting condition, means utilizing said square waves for overcoming said bias and charging said capacitor through said diode, means for applying said reference pulses to said cathode, whereby the average charge of said capacitor is modified by an amount dependent upon the relative time positions of said reference pulses and said square waves, and means for filtering the potential wave appearing in said output circuit.

2,824,230

SWEEP CIRCUIT
George H. Fathauer, Decatur, Ill., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application August 2, 1954, Serial No. 447,335
4 Claims. (Cl. 250-36)

1. In a sweep circuit for applying a current wave of saw-tooth form to an inductive impedance, a control circuit arranged to start in an initial condition and then apply an increasing current through the inductive impedance, and a timer circuit comprising a discharge device

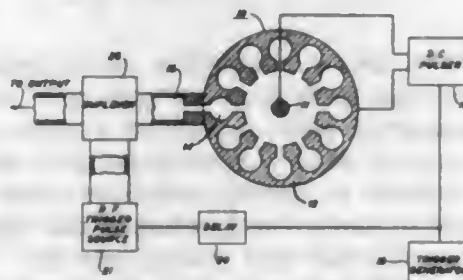
having an anode, a cathode and a control grid, means for applying a positive potential to said anode relative to said cathode, means for coupling said device to said control circuit for causing restoration of said control circuit



to its initial condition on conduction of said device, a capacitor, means coupling said capacitor in series between said control grid and one side of the inductive impedance, and means coupling said cathode to the other side of the inductive impedance.

2,824,231
MAGNETRONS

Joseph Feinstein, Morristown, and George C. Turrell, South Orange, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application June 3, 1955, Serial No. 513,073
8 Claims. (Cl. 250-36)



1. An electrical circuit comprising a magnetron having a cold cathode and an anode, means for applying a first direct current pulse between said anode and cathode to pulse said magnetron, means for applying a second pulse of radio frequency energy to said magnetron to create a radio frequency field in the vicinity of said cathode, and means for determining the time relationship between said first and second pulses so the said pulse of radio frequency energy is applied to said magnetron during build-up of the voltage between said anode and cathode and just before said voltage has reached the level for the described mode of oscillation of said magnetron.

2,824,232

METHOD AND DEVICE FOR THE TRANSMISSION OF HIGH SPEED RADIATION, PARTICULARLY CORPUSCULAR RADIATION, BETWEEN SPACES OF DIFFERENT PRESSURE

Karl Heinz Steigerwald, Heidenheim, Württemberg, Germany, assignor to Carl Zeiss, Heidenheim (Brenz), Württemberg, Germany
Application October 24, 1956, Serial No. 618,087
Claims priority, application Germany October 29, 1955
8 Claims. (Cl. 250-49.5)

8. Arrangement for transmitting high-speed radiation, particularly corpuscular radiation, through spaces of different pressures, including means forming three chambers one next to the other, namely a high vacuum chamber, an intermediate subatmospheric pressure chamber and an atmospheric pressure chamber, two walls separating said chambers from each other, an aperture in each of said walls, said apertures being arranged in alignment with one another, a movable member in said intermediate subatmospheric pressure chamber having an aperture adapted to be moved into registration with said apertures in said

2,824,234

METHOD AND MEANS FOR RADIATION DOSIMETRY

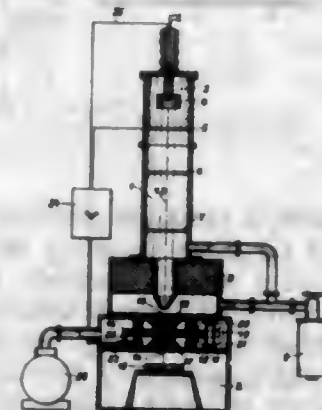
John W. Schulte, Los Alamos, and John F. Suttle, Albuquerque, N. Mex., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application August 4, 1953

Serial No. 382,495

5 Claims. (Cl. 250-83)

5. A gamma radiation and X-radiation dosimetric system comprising a sealed inert container disposed in which is a mixture of a purified halogenated hydrocarbon selected from the class consisting of chloroform, bromoform, tetrachloroethane and 1,1,2-trichloroethane, and a minor quantity of a sensitizer chosen from the class consisting of oxygen, benzoyl peroxide, sodium peroxide, and nitrobenzene, the quantity of sensitizer being at least about 10^{-8} moles per cubic centimeter of halogenated hydrocarbon, the total amount of sensitizer depending on the range in amount of radiation to be measured.

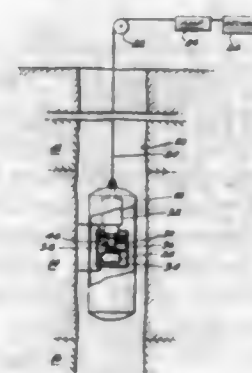


two apertures, the aperture in the wall separating the atmospheric pressure chamber from the intermediate sub-atmospheric chamber being in communication with lateral passages through which compressed air is forced in a direction toward the atmospheric pressure chamber so that the pressure at the edge of the intermediate sub-atmospheric pressure chamber is reduced, means for continuously maintaining a high vacuum in said high vacuum chamber, and means for continuously maintaining a predetermined low pressure in said intermediate subatmospheric pressure chamber.

2,824,233

CONTROLLING SCINTILLOMETER TEMPERATURE

Gerhard Herzog, Houston, Tex., assignor to The Texas Company, New York, N. Y., a corporation of Delaware
Application December 29, 1951, Serial No. 264,203
13 Claims. (Cl. 250-71)



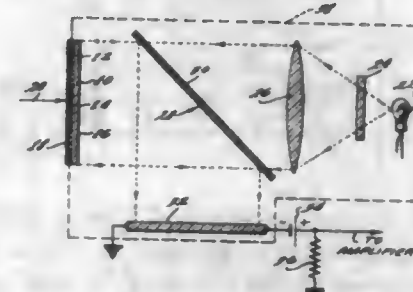
8. A device for measuring penetrative radiation at elevated temperature in a bore hole comprising a scintillation detector having a luminophor and a temperature sensitive photo-cathode tube, and means for maintaining a predetermined temperature in a zone around said tube, said means comprising a receptacle substantially enclosing said tube and a substance in said receptacle adapted to be frozen just prior to the radiation measuring operation and having the property of remaining solid at normal room temperature and melting during the said radiation measuring operation whereby the heat of fusion of the substance is utilized to maintain said predetermined temperature in said photo-cathode tube.

727 O. G.-44

2,824,235

INFRA-RED RADIATION DETECTOR

Edwin E. Hahn, Jr., and Melvin L. Schultz, Princeton, N. J., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application November 30, 1954, Serial No. 471,946
8 Claims. (Cl. 250-83.3)



1. Apparatus for detecting infra-red energy to which said apparatus is exposed comprising a first slab of photo-conductive material having an optical transmission characteristic that varies with temperature, a mirror coating on one side of said slab, an infra-red energy absorbing material on said mirror coating, a source of light radiation, means to direct said radiation from said source through said slab to said mirror coating, a second slab of photo-conductive material positioned to receive said radiation reflected through said first slab by said mirror coating, said first slab upon exposure to infra-red energy directed towards said infra-red energy absorbing material changing in temperature and in optical transmission in proportion to the magnitude of infra-red energy absorbed thereby, and means coupled to said second slab to derive signals proportional to said reflected radiation received thereby.

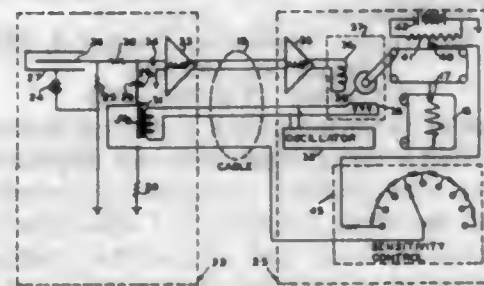
2,824,236

SENSITIVITY ADJUSTMENT FOR RADIO-ACTIVITY WELL LOGGING

Gilbert Swift, Tulsa, Okla., assignor to Well Surveys, Incorporated, a corporation of Delaware
Application May 10, 1954, Serial No. 428,411
11 Claims. (Cl. 250-83.6)

7. In an electrical measuring system having sensitivity controlled by the resistance in a sensitivity control circuit, a computer for changes in sensitivity comprising means to test the sensitivity of the system, a uniformly wound sensitivity control resistor, a movable contact adapted slidably to contact said resistor, means for electrically connecting said movable contact and one end of said resistor in said sensitivity control circuit to put the resistance therebetween in said sensitivity control circuit, an adjustable scale logarithmically graduated, an indicating

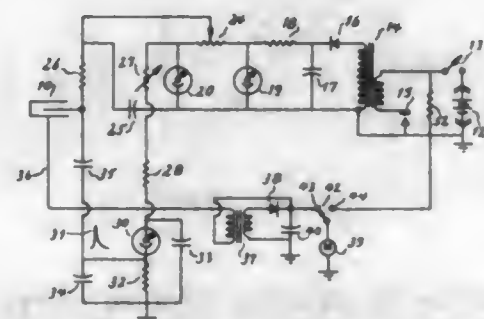
means associated with said scale for indicating sensitivity, cam means for coupling said indicating means to said movable contact whereby equal increments of indicating means position correspond to equal ratios of sensitivity,



and means for adjusting the position of the scale without simultaneously changing the adjustment of said indicating means and without simultaneously changing the adjustment of said movable contact in order to adjust the indication in accordance with tested sensitivity.

2,824,237 GASEOUS DISCHARGE TUBE DETECTOR CIRCUITS

Anton B. Witzel, Elmhurst, and Frank E. Trainor, North Lake City, Ill., assignors to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application July 23, 1954, Serial No. 445,374
19 Claims. (Cl. 250-83.6)

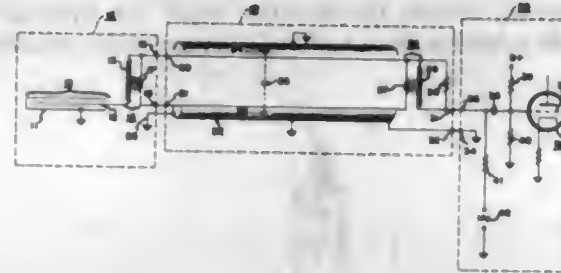


18. An ionizing radiation detector circuit including a radiation detector tube having at least an anode and cathode; a supply potential, subject to voltage variations, connected to said anode; and a power pulse source; circuit means including impedance connecting said source to said anode, a pulse coupling circuit including a capacitor connecting said pulse source to said anode, superimposing said pulses on said supply potential, said tube being responsive to radiations coinciding with said power pulses to discharge and produce output signal pulses and responsive to variations in supply voltage to vary the amplitude of said signal pulses, said capacitor discharging with said tube lowering the anode potential of said tube below its operating voltage level for a time period determined by the time constant of said impedance and capacitor, a compensating circuit connected to an output electrode of said tube, said compensating circuit including an over-damped output transformer responsive to said signal pulses producing oscillations of at least one cycle, wherein each half cycle is of substantially longer time duration than said signal pulse, a unidirectional impedance, circuit means connecting said unidirectional impedance to said output transformer for conducting on the negative half cycle, the positive half cycle applied to the output electrode effectively decreasing the voltage across said anode and output electrode proportional to the amplitude of said oscillations, said tube being responsive to said positive half cycles of said oscillation during the time period exceeding a predetermined amplitude to cut off said tube and decrease the amplitude of said signal pulses during the remaining time period of said positive half cycle.

2,824,238 RADIATION DETECTION PULSE TRANSLATING CIRCUIT

Donald D. Stellmacher, Los Angeles, Calif., assignor to Hoffman Electronics Corporation, a corporation of California

Application October 3, 1955, Serial No. 538,208
6 Claims. (Cl. 250-83.6)

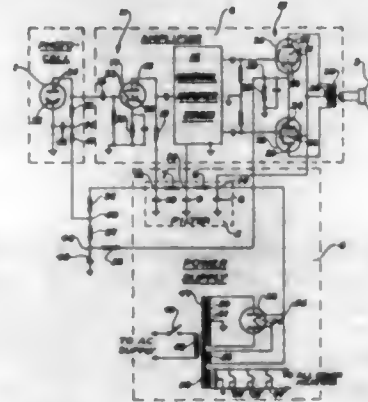


1. In combination, a radiation detection device having a housing adapted for direct coupling to a common reference potential and a central electrode; first and second transformers each having a primary winding and a secondary winding, each of said windings being provided with first and second end terminals; a first wire high voltage lead intercoupling all of said first terminals of said windings; said second end terminal of said first transformer primary winding being coupled to said central electrode of said radiation detection device; a second wire lead intercoupling said second end terminal of said first transformer secondary winding and said second end terminal of said second transformer primary winding; a shield surrounding said wire leads and maintained at said common reference potential; a first output terminal coupled to said second end terminal of said second transformer secondary winding; and a second output terminal maintained at said common reference potential, said first and second output terminals being adapted for coupling to a circuit providing a high D. C. potential.

2,824,239 PHOTOCELL VOLTAGE SUPPLY

Howard C. Fairbanks, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a corporation of New Jersey

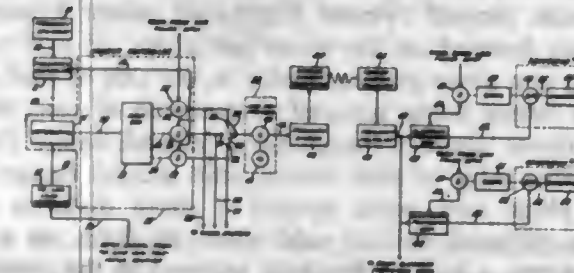
Application November 16, 1954, Serial No. 469,155
4 Claims. (Cl. 250-214)



1. In combination with an electronic amplifier including a power output tube having an indirectly heated cathode, and a power supply for applying D. C. operating potentials to said amplifier and including a rectifier tube of the filament cathode type whereby upon the application of power to the input of said power supply said rectifier will become conductive before said output tube, said amplifier including a cathode resistor in series with said output tube between its cathode and the negative side of said power supply, a photocell connected to the input of said amplifier and including an anode, and means for applying a positive potential to the anode of said photocell comprising a resistance voltage divider connected between the positive side of said power supply and

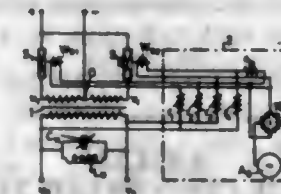
the cathode end of said resistor, and a direct current connection from said photocell anode to an intermediate point on said voltage divider.

2,824,240
ELECTRIC POWER CONTROL SYSTEM
Edward E. Lynch, Wakefield, Mass., and John J. Larew, Scotia, N. Y., assignors to General Electric Company, a corporation of New York
Application November 30, 1953, Serial No. 395,022
23 Claims. (Cl. 307-57)



13. An electric power control system for controlling the generation of a power system comprising means for comparing the system frequency with a standard frequency to produce rotation of a first shaft at a speed proportional to the difference therebetween, means for comparing a signal proportional to the actual load on the line means interconnecting said power system with a signal proportional to a prescheduled load thereon to produce rotation of a second shaft at a speed proportional to the difference between said signals, a mechanical differential connected to said first and second shafts for producing rotation of a third shaft at a speed proportional to the algebraic sum of the speeds of rotation of said first and second shafts, means for rotating a fourth shaft at a speed proportionate to the speed of rotation of said third shaft, means for producing an electrical control signal whose frequency varies from said system frequency in accordance with the speed and direction of rotation of said fourth shaft, means for varying the frequency of the control signal to produce a modified control signal, means for comparing said modified control signal frequency and said system frequency to produce an output proportional to the difference therebetween, and means for varying the generation of said power system in response to said output to tend to maintain said system frequency at its standard value and said tie line load at its prescheduled value.

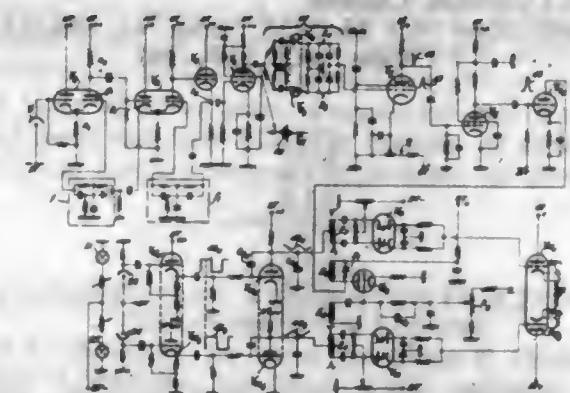
2,824,241
ELECTRIC POWER TRANSLATING APPARATUS OF LOW LOSSES AND LOW WATTESS POWER
Wilhelm Kafka, Tennenlohe, near Erlangen, and Georg Siehling and Manfred Tschermak, Erlangen, Germany, assignors to Siemens-Schuckertwerke Aktiengesellschaft, Erlangen, Germany, a corporation of Germany
Application April 5, 1955, Serial No. 499,416
Claims priority, application Germany April 7, 1954
19 Claims. (Cl. 307-149)



2. Electric power translating apparatus, of low losses and low wattless power, comprising voltage supply means, a load circuit connected between said supply means and having a power consuming load and a static switching device connected with each other, said static device having a resistance continuously variable between a substantially insulating maximum and a power-current

conducting minimum to make and break the load circuit and having a break moment time-displaceable independently of the voltage, and said device having periodic control means for controlling said resistance to chop said voltage at the control-means frequency into individual voltage sections, and means for controlling the ratio of the make and break intervals of said static device to adjust the median values of said individual voltage sections in accordance with the desired time characteristic of the translated voltage of said load means, and filter means connected with said load circuit for suppressing upper harmonics.

2,824,242
CONTROL CIRCUIT FOR POSITIONING
AN OBJECT
René J. Hardy, Le Chesnay, and Yves L. Le Port, Triel, France, assignors to Drivomatic (Société à Responsabilité Limitée), Paris, France, a French company
Application December 19, 1955, Serial No. 554,067
Claims priority, application France January 19, 1955
13 Claims. (Cl. 307-149)

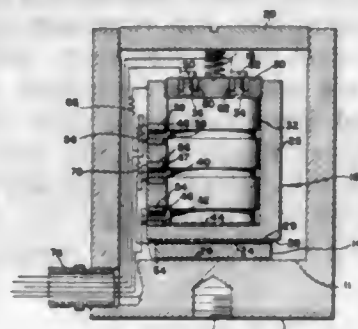


1. A control circuit comprising, means for producing a periodical reference voltage, a pair of rectifiers, means for applying said reference voltage to opposite-polarity electrodes of said rectifiers in cophasal relation; means for integrating and combining the outputs from the remaining electrodes of said rectifiers to produce a combined integrated output that is substantially zero, means adapted for generating a signal at a variable instant within a cycle period of said reference voltage, means for deriving from said signal a pair of pulses of positive and negative polarity respectively and having a constant magnitude greater in absolute value than the crest value of said reference voltage, and means for applying said positive and negative pulses to the positive and negative one, respectively, of said first mentioned rectifier electrodes, whereby there is obtained a combined integrated output voltage corresponding to the instantaneous value of said reference voltage at the instant of occurrence of said signal within said cycle period.

2,824,243
COMPRESSION TYPE ACCELEROMETER
Homer I. Sargeant, Torrance, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application June 1, 1956, Serial No. 588,920
3 Claims. (Cl. 310-8.1)

1. An accelerometer of the type which produces a low impedance electrical output signal in response to acceleration, comprising in combination, a housing having a rigid base member, a pressure-sensitive element secured to said base member for producing an electrical output signal in response to a variation in compression, and a signal amplifier and socket adapted to compress said pressure-sensitive element against said base member and to provide a variation in the compression of said pressure-sensitive element in response to the acceleration of said base

member, said amplifier having signal input and output circuits, said signal input circuit being connected to said



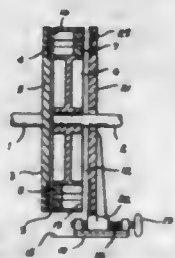
pressure-sensitive elements for deriving an output signal therefrom.

2,824,244

MAGNETIC BRAKE CONTROLLED MAGNETIC COUPLINGS

Igor V. Zozulin, Vancouver, British Columbia, Canada, assignor to Tormag Transmissions Limited, Vancouver, British Columbia, Canada

Application May 16, 1955, Serial No. 508,611
7 Claims. (Cl. 310-96)



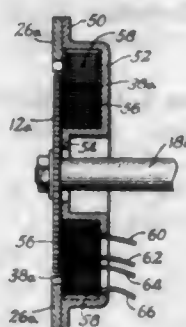
1. A magnetic brake controlled magnetic coupling comprising a drive rotor and a driven rotor mounted upon aligned shafts and a non-rotative annular member mounted concentrically with the drive and driven rotors, said drive rotor having an annulus of magnetic material to form an armature, said non-rotative member being an armature, said driven rotor having an annulus of permanent magnets, some of said magnets having their pole pieces facing the drive rotor armature and separated by a predetermined air gap therefrom and others of said magnets having their pole pieces facing towards the non-rotative armature and spaced therefrom, the spacing of the magnets from their armatures being such that flux flows simultaneously from the first-mentioned magnets to the drive armature and from the second-mentioned magnets to the non-rotative armature.

2,824,245

SIGNAL GENERATING APPARATUS

John H. Trevitt, Bridgeport, Conn., assignor to Dictaphone Corporation, Bridgeport, Conn., a corporation of New York

Application January 16, 1956, Serial No. 559,159
1 Claim. (Cl. 310-168)



Tone generating apparatus comprising, in combination, a wheel of magnetic material, the peripheral surface of said wheel being notched with a plurality of uniformly

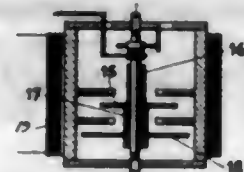
spaced-apart and sharp-edged teeth, a ring of magnetic material encircling said wheel, the inner surface of said ring being correspondingly notched with a plurality of uniformly spaced-apart and sharp-edged teeth, the number of teeth on said wheel and said ring being identical, an electric motor for driving said wheel relative to said ring, a housing surrounding said motor, a rotor shaft for said motor having one end thereof extending out through said housing, means for securing said shaft to the center of said wheel, an annular casing of magnetic material, said casing being mounted coaxially with said shaft between said wheel and said motor housing, said casing being open on the side thereof remote from said motor housing, a first flange formed on the outer periphery of said casing and lying in a plane perpendicular to the axis of said shaft, said first flange being secured to one side of said ring in tight intimate contact therewith, a second flange formed on the inner edge of said casing, said second flange lying in said plane and being spaced a small distance away from the adjacent side of said wheel to form an air-gap therebetween, a pair of brackets secured to the outer surface of said motor housing and fastened at their remote ends to said annular casing to hold said casing and said ring in fixed position relative to said wheel, an annular coil mounted within said casing, a first pair of lead wires for said coil, said lead wires being connected directly to a source of direct current so as to produce unidirectional flux through the magnetic circuit formed by said casing and said ring and said wheel, and a second pair of lead wires, said second pair of wires being coupled to said first pair of wires through a D.C. blocking capacitor and arranged to transmit to a load the alternating-current signal developed in said coil by the changes in intensity of said flux resulting from rotation of said wheel relative to said ring.

2,824,246

INSTRUMENT FOR MEASURING A VACUUM

Robert Keller, Geneva, Switzerland, assignor to Gerätebau-Anstalt Balzers, a company of Liechtenstein

Application May 9, 1955, Serial No. 507,044
Claims priority, application Switzerland May 19, 1954
11 Claims. (Cl. 313-54)



1. A vacuum manometer adapted to be fitted into a recipient containing a rarified gas and comprising in combination: electrodes of opposite polarity arranged in juxtaposition to and electrically insulated from one another, a radioactive substance conductively connected to one of the said electrodes and emitting radioactive radiation into the said rarified gas, and measuring means metering the electrostatic potential difference between the said electrodes establishing an equilibrium between the charging effect of the radioactive radiation of the said substance and the discharging effect of the ionisation caused by the said radiation as a measure for the pressure of the said rarified gas.

2,824,247

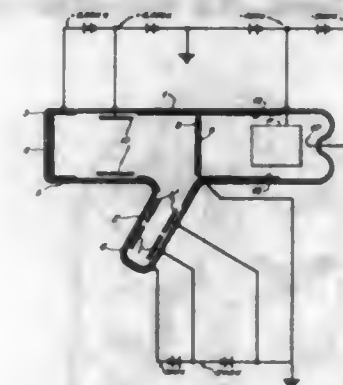
IMAGE CONVERTER TUBES

Constantin S. Szegho and William O. Reed, Chicago, Ill., assignors to The Rauland Corporation, Chicago, Ill., a corporation of Illinois

Application February 19, 1948, Serial No. 9,497
4 Claims. (Cl. 313-65)

1. An electronic storage device comprising an evacuated envelope having a cylindrical body with a branch opening into the central part of the body, a fluorescent

screen on one end of the cylinder, a source of electrons in the other end of the cylinder, a storage electrode in the cylinder adjacent the branch opening, said storage electrode having a metal mesh facing said source and an insulator deposited on it facing the fluorescent screen,



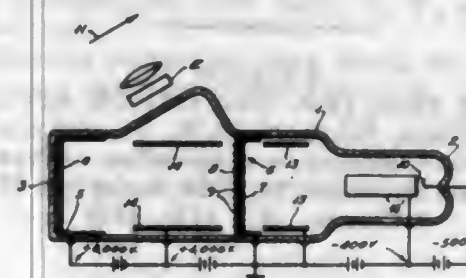
means to accelerate and focus the electron stream passing through the mesh onto the fluorescent screen, a photocathode in the branch and means for accelerating and focusing the output of the photocathode on the insulator.

2,824,248

IMAGE CONVERTER TUBES

Constantin S. Szegho and William O. Reed, Chicago, Ill., assignors to The Rauland Corporation, Chicago, Ill., a corporation of Illinois

Application February 19, 1948, Serial No. 9,496
4 Claims. (Cl. 313-66)



4. An electronic storage device comprising an evacuated envelope having a cylindrical body with a closed end and a hollow branch opening into the other end, a fluorescent screen on the inside of the closed end, an aluminum film covering the fluorescent screen and contacting with the adjacent side walls of the cylinder, a storage electrode parallel with the screen and positioned midway in the cylinder, said storage electrode comprising a perforated metal mesh facing the branch end having of the order of 160,000 holes per square inch, a layer of insulating material on the surface of the metal mesh facing the fluorescent screen, a mosaic of insulated photoelectric particles on the layer of insulating material, an electron source within the branch for flooding the metal mesh with a beam of electrons, and a window in the side wall of the envelope exposing the mosaic to radiation from an outside source.

2,824,249

STORAGE GRID FOR DIRECT-VIEWING STORAGE TUBES

Siegfried Hansen, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application February 9, 1954, Serial No. 409,025
8 Claims. (Cl. 313-68)

1. In a direct-viewing storage tube including a source of electrons, a storage grid assembly comprising an electroformed nickel mesh having first and second sides supported to expose said first side to said electrons and a light transparency of 40%, an annular metallic ring

for supporting said mesh, said ring being attached to the periphery of said mesh on said first side thereof; a coating of dielectric material having secondary electron emission characteristics disposed uniformly over said second side of said mesh and overhanging the interstices thereof to the extent that said light transparency is reduced by 50% to expose portions of the surface of said coating of dielectric material within the interstices of said mesh to said source of electrons without completely coating said mesh on said first side, a layer of insulating material disposed around said annular ring on the outer surface there-



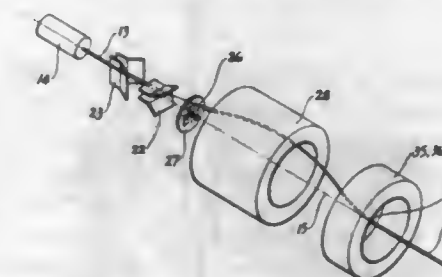
of and extending in over said second side of said mesh to overlap said coating of dielectric material; a thin layer of silver paste on said layer of insulating material, said layer being disposed on the outer surface of said annular ring and extending in over the second side of said mesh; and a thin continuous layer of aluminum coated on the entire portion of that surface of said coating of dielectric material which would be illuminated by parallel light directed perpendicularly toward said second side and on the portion of the layer of silver paste disposed on said second side of said mesh whereby said thin coating of aluminum is in electrical contact with said thin layer of silver paste.

2,824,250

CATHODE RAY APPARATUS UTILIZING CONVERGENCE MEANS

Joseph T. McNaney, La Mesa, and Omer F. Hamann and James H. Redman, San Diego, Calif., assignors to General Dynamics Corporation, San Diego, Calif., a corporation of Delaware

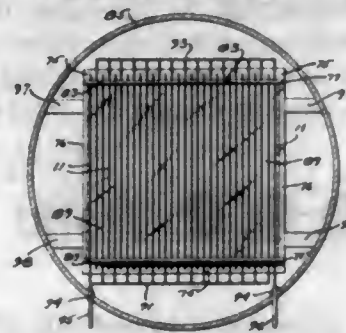
Application May 12, 1955, Serial No. 507,856
6 Claims. (Cl. 313-77)



1. In an evacuated container having a target at one end and a source of electrons at the other end for projecting a beam of electrons toward the target and substantially along a longitudinal axis of said container, a beam-shaping member positioned along said axis for altering the cross-sectional shape of the beam in accordance with a selected portion of the beam-shaping member through which the electron beam is projected, said beam emerging from said member on a divergent path from said axis, a first deflection means substantially symmetrically disposed about said axis and positioned intermediate said source and said member for deflecting the electron beam along two directions from said axis and causing the beam to pass sequentially through selected portions of the beam-shaping member, a convergence means capable of substantially redirecting and focusing the beam, said convergence means being adapted to cause said beam to be influenced from said divergent path to converge with the axis and focus the beam's cross section at a predetermined focus point on the axis with minimal beam cross section at said point and a second deflection means substantially adjacent said predetermined focus point for directing the shaped beam toward predetermined locations on the target.

2,824,251

METHOD AND APPARATUS FOR FABRICATING GRID STRUCTURES FOR CATHODE-RAY TUBES
Howard R. Patterson, Oakland, Calif., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
Application January 14, 1953, Serial No. 331,200
6 Claims. (Cl. 313-78)

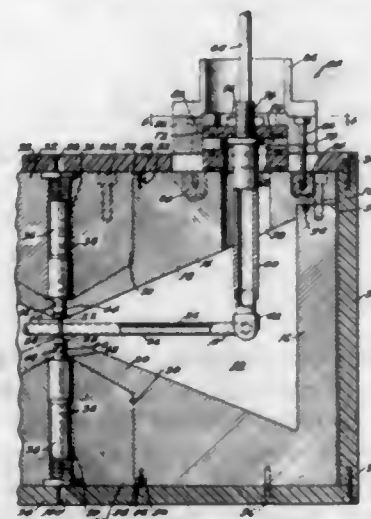


1. A grid electrode structure for assembly into a cathode-ray tube comprising a metal frame having its edges define a central window area, a plurality of metal grid wires strung between the edges of the frame, said grid wires having a coefficient of linear expansion which is higher than that of the frame so that with heating during tube bake-out the frame and the wires expand to different degrees, means to anchor the wires permanently to the frame edges in insulated relationship to each other, and means to establish electrical connection to the wires.

2,824,252

IONIZATION CHAMBER

William C. Redman, Hinsdale, and Francis R. Shonka, Riverside, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application April 12, 1954, Serial No. 422,703
9 Claims. (Cl. 313-93)

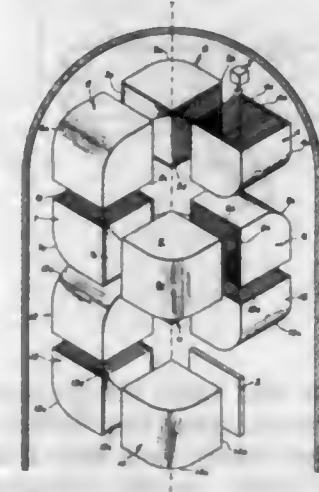


1. An ionization chamber for measuring the radioactivity of localized portions of elongated bodies, said chamber comprising electrodes and an ionization cavity, characterized by the construction wherein the chamber has as an outer electrode a cylindrical conducting side wall and conical conducting end walls having spaced apices and as an inner electrode a hollow electrically conducting tube extending into the cavity and having the inner end thereof uniformly perforated and bent to substantially the form of a circle coaxial with the outer electrode, and there is provided a thin-walled insulating conduit extending through both end walls and connecting the apices, at least a portion of each of said end walls surrounding the conduit being of radiation absorbing material to shield the cavity from radiations emanating from longitudinal portions of an elongated body within the conduit other than the longitudinal portion between the walls.

2,824,253

ELECTRON MULTIPLIER

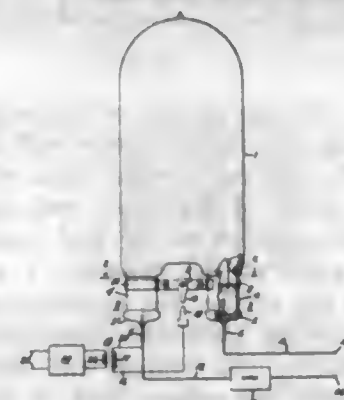
Samuel G. Fong and Hans W. G. Salinger, Fort Wayne, Ind., assignors to International Telephone and Telegraph Corporation
Application November 24, 1953, Serial No. 394,124
7 Claims. (Cl. 313-105)



1. A multi-stage electron multiplier tube comprising a series of at least four spaced, secondary-emissive electrodes, three of said electrodes being spaced apart horizontally, the fourth electrode being spaced vertically from said three electrodes and in electron-receiving registry with one of said three electrodes, all of said electrodes including means for defining successive electron beam paths therebetween.

2,824,254

POOL-TYPE ELECTRIC DISCHARGE APPARATUS
William C. White, Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application December 10, 1954, Serial No. 474,342
3 Claims. (Cl. 313-165)



1. An electric discharge device comprising a generally cylindrical envelope, a pair of thin-walled hollow cylindrical ceramic members extending in spaced relation from the lower end of said envelope, a pair of liquid electrodes comprising a body of mercury retained within each of said members and a conductor surrounding each of said ceramic members at the surface level of the mercury therein and cooperating with the said members to provide the starting electrodes of said device.

2,824,255

AUXILIARY ELECTRODE AND SHIELD FOR A LOW PRESSURE DISCHARGE DEVICE

George R. Mistler, West Orange, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 28, 1952, Serial No. 322,995
2 Claims. (Cl. 313-216)

1. A low pressure discharge device of the positive column type comprising a vitreous envelope, oppositely

disposed electrode mounts hermetically sealed to the ends of said envelope, and an ionizable medium in said envelope for initiating and sustaining a discharge, said ionizable medium comprising an inert gaseous fill at low pressure admixed with mercury vapor; at least one of said electrode mounts comprising a stem having a pair of leading-in conductors, a filamentary electrode having

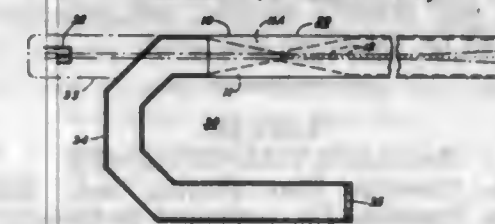


conductive connections to said conductors and a pair of L-shaped anodes of sheet material adjacent and about said electrode, and having conductive connections to said conductors, the ends of said filamentary electrode extending beyond said connections of said filamentary electrode and each protruding through a hole in one leg of one of said anodes.

2,824,256

BACKWARD WAVE TUBE

John R. Pierce, Berkeley Heights, and Willis H. Yocom, Chatham, N. J., assignors to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application August 24, 1954, Serial No. 451,731
7 Claims. (Cl. 315-3.5)



5. In a device which utilizes the interaction between a charged particle beam and an electromagnetic wave for amplifying the wave, means for forming a beam of charged particles and for projecting said beam along a predetermined path, and a slow wave circuit for propagating an electromagnetic wave in coupling relation with said beam, said slow wave circuit comprising a conductively bounded wave guiding path and a succession of wirelike elements extending across said path, successive elements of the succession extending parallel to each other and being spaced apart in the direction of wave propagation along said path, said slow wave circuit being characterized in that the cross section of its conductively bounded wave guiding path includes a first region having a predetermined transverse dimension and a second region having a larger transverse dimension measured in the same direction as said predetermined transverse dimension and further characterized in that the succession of wirelike elements extends across said wave path in the region of its larger transverse dimension.

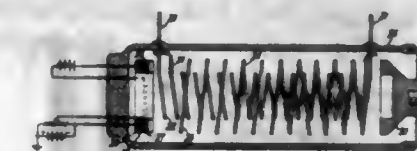
2,824,257

TRAVELING WAVE TUBE

Garland M. Branch, Jr., Schenectady, N. Y., assignor to General Electric Company, a corporation of New York
Application March 3, 1953, Serial No. 340,074
4 Claims. (Cl. 315-3.6)

1. A slow wave transmitting structure comprising an inner conductive helix and coextensive outer conductive

helix of a larger diameter concentric therewith, said outer helix having the same but oppositely directed helix pitch angle, conductive means of limited circumferential ex-

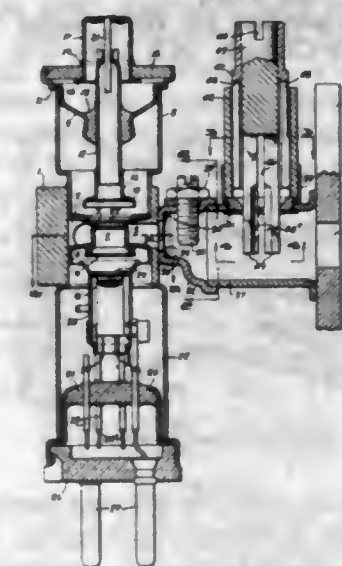


tent positioned between and along the length of said helices coupling the helices in parallel, said means comprising radial segments connected between selected facing turns of said helices.

2,824,258

HIGH FREQUENCY CAVITY RESONATOR TUNER STRUCTURE

Donald L. Snow, Palo Alto, and Peter H. Kafitz, Mountain View, Calif., assignors to Varian Associates, San Carlos, Calif., a corporation of California
Application July 14, 1955, Serial No. 521,947
19 Claims. (Cl. 315-5.21)



13. A reflex klystron including a vacuum envelope having a cathode means therein for producing a beam of electrons, a re-entrant cavity resonator internal of the vacuum envelope and positioned in the beam path for interaction therewith, said internal cavity resonator having an iris opening leading therefrom, a second cavity resonator coupled to the first cavity resonator at the iris opening, a wave energy permeable member vacuum sealing the internal cavity resonator from the second or external cavity resonator, and a tuner assembly for tuning the reflex klystron extending within said external cavity resonator, said tuner assembly comprising a movable capacitive post tuner member extending through an opening into the external cavity resonator for capacitive interaction with one of the wall surfaces of said external cavity resonator, the tuner post being split into a plurality of segments at its inner end, the segments being tensioned outwardly so as to bear with a frictional pressure upon the bearing surface of said opening.

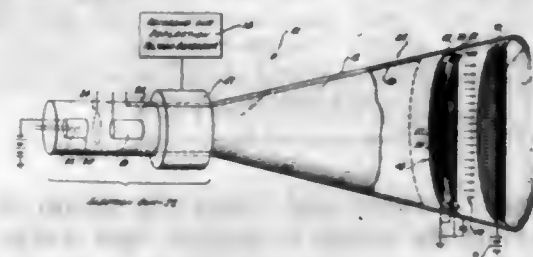
2,824,259

VIRTUAL FLOOD-ELECTRON SOURCE

Henry M. Smith, Pacific Palisades, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application June 6, 1955, Serial No. 513,221
7 Claims. (Cl. 315-12)

1. In a cathode-ray type storage tube having an evacuated envelope, and a storage electrode within the envelope, a writing beam gun adapted to scan the storage electrode, an annular cathode disposed within the envelope, two metallic grids disposed one on each side of

said annular cathode, means for directing electrons emitted from said annular cathode radially inward into the space between said metallic grids, and an attracting electrode disposed between one of said metallic grids and

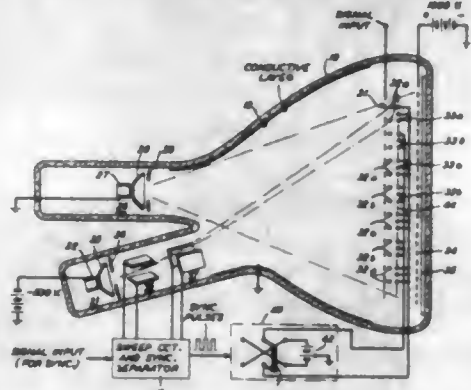


the storage electrode for accelerating the electrons directed into the space between said grids toward the storage electrode and for collecting secondary electrons liberated from the storage electrode.

2,824,260

DIRECT VIEW STORAGE TUBE

Cassius C. Cutler, Gillette, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application September 12, 1956, Serial No. 609,383
14 Claims. (Cl. 315-13)

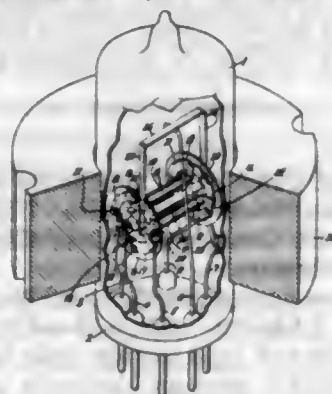


4. A cathode ray tube for viewing successively stored images comprising a storage grid having a plurality of storage elements divided into two groups, a luminescent screen on one side of said storage grid, first electron gun means on the other side of said storage grid for scanning the storage elements thereof, second electron gun means for projecting a flooding beam simultaneously past all said storage elements, first control electrode means positioned between one group of said storage elements and said luminescent screen, and second control electrode means positioned between the other group of said storage elements and said luminescent screen.

2,824,261

MAGNETRON DEVICE

Philip H. Peters, Jr., Schenectady, and Donald A. Wilbur, Albany, N. Y., assignors to General Electric Company, a corporation of New York
Application April 26, 1955, Serial No. 504,050
6 Claims. (Cl. 315-39.73)



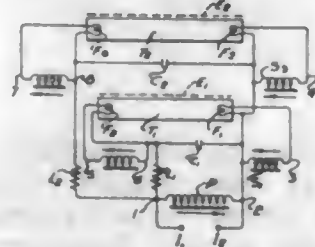
1. In a magnetron, the combination comprising a plurality of elongated anode segments arranged in a cylin-

dric array, a pair of conducting end rings, alternate anode segments being connected at one end thereof to one of said rings and the remaining anode segments being connected at the opposite ends thereof to the other of said rings, each of said rings having a gap therein and a generally U-shaped conductor having each arm thereof connected to a different one of said rings adjacent the gap therein.

2,824,262

ELECTRIC CIRCUIT ARRANGEMENTS FOR OPERATING ELECTRIC DISCHARGE LAMPS

Julius Cates, Wembley, England, assignor to General Electric Company, a corporation of New York
Application July 26, 1951, Serial No. 238,627
3 Claims. (Cl. 315-97)

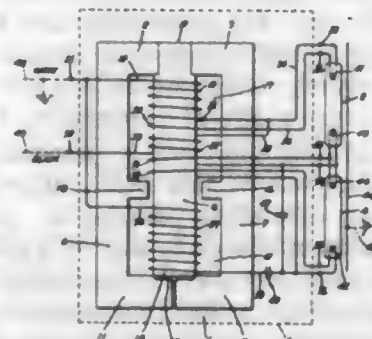


1. An electric circuit comprising a gaseous discharge lamp having a pair of thermionic filamentary electrodes, a transformer having a primary winding and a pair of secondary windings, said primary winding having a pair of input leads for connection to a source of alternating current, each said secondary winding having a pair of output leads and being connected by said output leads immediately across a respective one of said filamentary electrodes, means connecting one of said output leads of each secondary winding to a respective one of said input leads, said secondary windings both being wound in voltage opposition to said primary winding, and impedance means in said circuit for ballasting said lamp.

2,824,263

BALLAST TRANSFORMER

Charles E. Strecker, Fort Wayne, Ind., and Daniel Lovinger, Danville, Ill., assignors to General Electric Company, a corporation of New York
Application February 9, 1954, Serial No. 409,242
6 Claims. (Cl. 315-138)



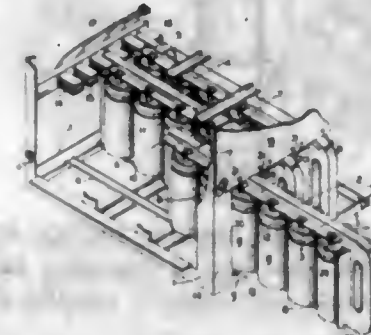
1. Ballast apparatus for starting and operating arc discharge devices comprising a housing, a high reactance transformer within said housing having a primary winding and a secondary winding, an autotransformer connection internal said housing between one end of said primary winding and one end of said secondary winding, said windings being wound in voltage aiding relationship, means including a first input lead connected to said autotransformer connection and extending external said housing for making a grounded connection to an alternating current source, a second input lead connected to the other end of said primary winding and extending external said housing for making an ungrounded connection to said alternating current source, a tap on said primary winding, and a pair of output leads respectively con-

nected to said tap and to the other end of said secondary winding and extending external said housing for connection across at least one arc discharge device, the voltage appearing between either output lead and said first input lead being less than that developed between said output leads.

2,824,264

ELECTRICAL CAPACITOR ASSEMBLY

John A. Anastopoulos, Lowell, Mass., assignor to General Electric Company, a corporation of New York
Application September 13, 1956, Serial No. 609,585
6 Claims. (Cl. 317-99)

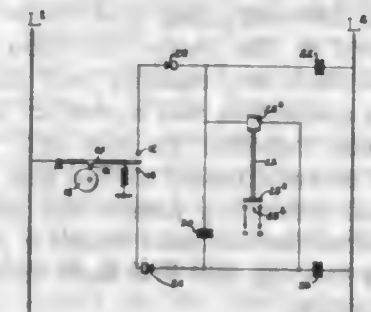


1. An assembly for the mounting and electrical connection of a plurality of capacitors each having a body portion of a predetermined height and a pair of spaced electrical terminals projecting beyond said body portion from one end thereof, comprising a flat and substantially rectangular holding tray of insulating material having a substantially rectangular window therethrough, said capacitors being disposed within said tray window each with one of said terminals on one side of said tray and the other of said terminals on the other side of said tray, a pair of elongated conducting bus bars disposed one on each side of said flat tray, means fastening said one terminals to one of said bus bars and the other of said terminals to the other of said bus bars, a support rack including a pair of parallel guide members positioned and shaped to receive edges of said tray and to guide sliding movements of said tray in said rack, and insulated electrical connecting means mounted on said rack to engage and make electrical connection with said bus bars when said tray occupies a predetermined sliding position in said rack.

2,824,265

ELECTRICAL SPEED DETECTION SYSTEM

Edwin W. Seeger, Wauwatosa, Wis., assignor to Cutler-Hammer, Inc., Milwaukee, Wis., a corporation of Delaware
Application December 22, 1952, Serial No. 327,328
3 Claims. (Cl. 317-151)



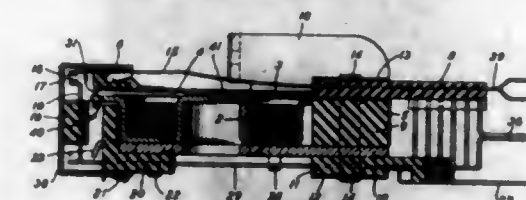
1. A system for detecting a given speed in a variable speed device, comprising, an alternating current source of supply, a pair of rectifiers, means to connect said rectifiers alternately to one side of said source at a frequency proportional to the speed of said device, an electro-re-actuator to one side of said source at a frequency alternately to the other side of said source and to said rectifiers to be charged individually through a respectively asso-

727 O. G.-45

2,824,266

RELAYS

Hubert K. Krantz, Rockville Centre, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application February 25, 1955, Serial No. 490,567
10 Claims. (Cl. 317-165)

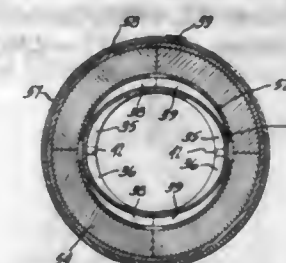


1. An electromagnetic device comprising a magnetic core having an inner pole-piece and an outer pole-piece encompassing and spaced from said inner pole-piece, an energizing coil for said core, an armature extending across and spaced from opposite portions of said outer pole-piece, said armature having an intermediate portion in juxtaposition to said inner pole-piece, and means mounting said armature adjacent one of said opposite portions for rocking movement relative to said pole-pieces, said armature being sufficiently flexible to bow concave upwardly with respect to said pole-pieces when said coil is energized; thereby causing contact between said armature and said pole-pieces to be effected progressively across said pole-pieces.

2,824,267

DEFLECTION YOKE FOR MULTI-BEAM CATHODE RAY TUBE

William H. Barkow, Pennsauken Township, Camden County, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application November 2, 1953, Serial No. 389,578
5 Claims. (Cl. 317-200)



1. A deflection yoke for a cathode ray tube comprising, horizontal and vertical beam deflection windings having respective pairs of coils, the coils of each winding being oppositely disposed to one another about a central axis and the coils of one winding having a substantially 90° angular position about said central axis relative to the corresponding coils of the other winding, each of the coils of said windings having side conductors extending substantially parallel to said central axis, said side conductors being grouped circumferentially around said central axis with a conductor distribution varying from a relatively small percentage of the total side conductors at one circumferential coil extremity to a larger percentage of the total side conductors at the other circumferential coil extremity, one of said windings overlying the other so that at least portions of the adjacent inner and outer surfaces of the respective windings are coextensive, first corresponding angular portions of said respective adjacent surfaces lying on first respective circular arcs about a first longitudinal axis at respective radial distances having a predetermined difference, and second corresponding angu-

lar portions of said respective adjacent surfaces lying on second respective arcs about a second longitudinal axis at respective radial distances having said predetermined difference, whereby said adjacent coextensive surfaces are substantially parallel.

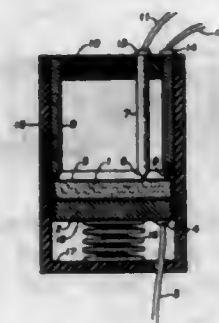
2,824,268

SEMI-CONDUCTIVE DEVICE

Newton H. Odell, Bethlehem, Pa., assignor, by mesne assignments, to General Dynamics Corporation, a corporation of Delaware

Application October 21, 1953, Serial No. 387,377

7 Claims. (Cl. 317-235)



1. In a semi-conductive device, the combination of a body of semi-conductive material and first, second and third electrodes, each in contact with said body; said first electrode having area-contact characteristics relative to said body; said second electrode having substantially point-contact characteristics relative to said body; and said third electrode having a contact part having line-contact characteristics relative to said body, the contact part of said third electrode being oriented on said body such that some portions of said contact part are closer, measured over the surface of said body, to said second electrode than other portions of said contact part.

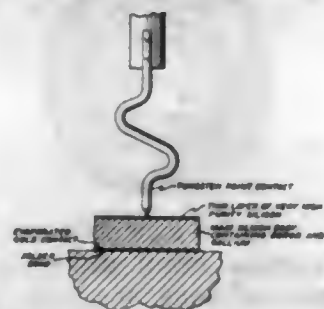
2,824,269

SILICON TRANSLATING DEVICES AND SILICON ALLOYS THEREFOR

Russell S. Ohl, Fair Haven, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application January 17, 1956, Serial No. 559,753

6 Claims. (Cl. 317-236)



1. A ternary alloy of silicon comprising about .02 weight percent of boron, about .13 weight percent of gallium, and the remainder high purity silicon.

2,824,270

TANK UNIT MOUNTING MEANS

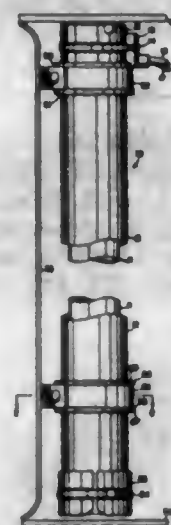
John Edward Anderson, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application March 15, 1954, Serial No. 416,201

5 Claims. (Cl. 317-246)

1. A capacitance type tank unit comprising inner and outer tubular capacitor plates rigidly mounted and insulated from each other, an insulative mounting ring on the outer surface of said outer plate and having an annular surface defined by a pair of shoulders to form an annular recess, a substantially triangular spring in said

annular recess engaging said annular surface at three points substantially equally spaced about said annular recess, and a circular mounting clamp having a circum-



ference greater than said annular surface and less than said annular recess, said spring engaging said mounting clamp at three points substantially equally spaced about said circular clamp.

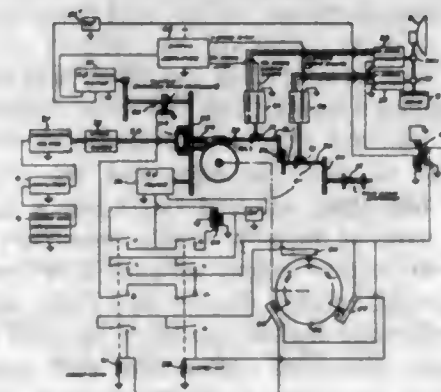
2,824,271

SYNCHRONIZATION SYSTEM

Melvin F. Anderson, Reseda, and Maurice Franco, Pacoima, Calif., assignors to the United States of America as represented by the Secretary of the Air Force

Application October 5, 1956, Serial No. 614,330

3 Claims. (Cl. 318-85)



1. In a synchronization system, a first shaft, means for driving said first shaft at constant speed, a second rotating shaft, a variable speed reversible motor, means coupling said motor to said first shaft for algebraically adding a speed proportional to said motor speed to the constant speed of said first shaft, means associated with said first and second shafts for producing an error signal when the rotational phase of the first shaft is different from that of the second shaft, said error signal indicating the direction of the phase difference, means responsive to said error signal for energizing said motor for rotation at such speed and in the proper direction to bring the speed of the first shaft into equality with that of the second shaft, means coupled to said motor for measuring the rotational distance travelled by said first shaft due to said motor, and means coupled to said first shaft and associated with said measuring means and operative when said measured rotational distance equals a predetermined value for rapidly rotating said first shaft through an equal and opposite distance.

2,824,272

ROTARY ELECTRIC MACHINE

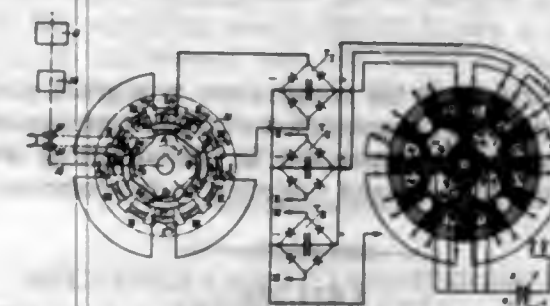
Aristide Eugene Delaporte, Paris, France

Application January 9, 1956, Serial No. 558,098

5 Claims. (Cl. 318-197)

1. A rotary electric machine comprising a motor having a stator and a rotor, each comprising an assembly of

regularly spaced armatures of a permeable metal, each armature having a yoke parallel with the axis of said motor and a radial pole piece at each end of said yoke, the pole pieces of said rotor and stator facing each other and constituting two radial crowns, inductive windings arranged around said pole pieces, the windings of said stator constituting several phases, with the windings of the same phase being connected in series, means for energizing the windings of said rotor and creating continuous opposite polarities on said two crowns of the rotor,



said machine comprising also a rotating electromagnetic switch having a rotor and a stator, the rotor of said switch comprising pole pieces and inductive windings, means for energizing said windings and creating at the same moment the same polarity on said pole pieces, means for rotating said rotor, the stator of said switch comprising radial pole pieces with inductive windings associated into phases, and means for feeding the windings of each phase of the stator of said motor from the windings of a corresponding phase of the stator of said rotating electromagnetic switch.

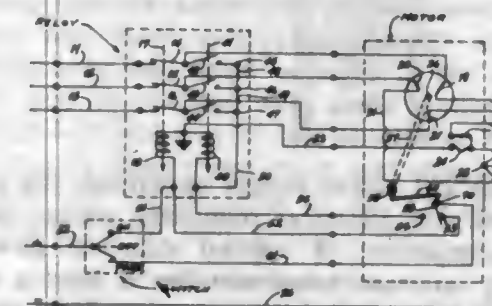
2,824,273

AUTOMATIC MOTOR CONTROL CIRCUIT

Ralph B. Tiney, Clayton, and Joseph F. Cuba, St. Louis, Mo., assignors to Alco Valve Company, University City, Mo., a corporation of Missouri

Application October 19, 1953, Serial No. 386,786

2 Claims. (Cl. 318-212)



1. A control circuit in a three-phase alternating current motor for stopping said motor in a preselected stop position, said control circuit including a control switch adapted to be connected to a direct current power supply, and a relay for connecting a three-phase alternating current power supply to said motor, said switch being further adapted to be connected to a park position for stopping said motor in the preselected stop position, said park position completing a circuit through a switch-operated means responsive to the rotational position of said motor for interrupting the alternating current supplied to said motor and introducing into said motor a direct current to dynamically brake said motor in said stop position, and means for positively preventing connection of the direct current power supply to the alternating current power supply when the direct current is introduced to the motor, said means including contact means being movable between a first position where the alternating current supply is connected to the motor and is opened from the direct current supply and a second position where the alternating current supply is opened from the motor and the direct current supply which are connected together.

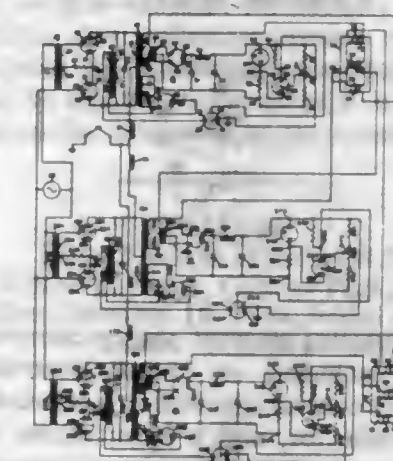
2,824,274

ELECTRIC TRANSLATING SYSTEM

William J. Holt, Jr., Garland, Tex., assignor to Vaco Mfg. Co., Inc., Garland, Tex.

Application December 15, 1952, Serial No. 326,009

11 Claims. (Cl. 321-27)



1. An electric translating system for transmitting energy from a direct supply circuit to an alternating load circuit comprising, a plurality of inverters connected in parallel between said supply circuit and said load circuit, each of said inverters having a voltage regulating means, the voltage regulating means of one of said inverters being responsive to the voltage of said load circuit to maintain constant the voltage of said load circuit; current balance sensing means for detecting variations in the ratio between the amounts of current transmitted to the load circuit by one of the said inverters and individually every one of the remainder of said inverters, said voltage regulating means of every one of the remainder of said inverters being controlled by its associated current balance sensing means to maintain substantially constant the ratios between the amounts of current transmitted to the load circuit by said one of said inverters and individually every one of the remainder of said inverters.

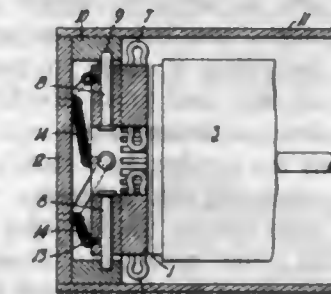
2,824,275

ELECTRIC GENERATOR AND REGULATOR

William Kober, Fairport, N. Y.

Continuation of application Serial No. 216,713, March 21, 1951. This application June 29, 1956, Serial No. 595,572

14 Claims. (Cl. 322-27)



1. In an electric generator having an armature, permanent magnet field producing means, one of said armature and said field producing means being mounted for rotation about a predetermined axis, said armature and said field producing means being separated in the direction of said axis of rotation to define an axial air gap therebetween, and means supporting one of said armature and said field producing means for movement relative to the other thereof along said axis automatically in response to variations in the torque force between said armature and said field producing means produced upon varying the electrical load on said generator, said supporting means causing such relative axial motion to vary the length of said air gap in a direction to maintain the output voltage of said generator substantially constant despite such changes in the electrical loading thereof.

2,824,276

CURRENT CONTROL REGULATOR

Harvey Stump, Conoga Park, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware

Application May 4, 1955, Serial No. 505,889

8 Claims. (Cl. 323—4)



1. A self-regulating current source comprising: a current generator including an output electrode, an input electrode, and a control electrode; a transistor including an emitter, a collector, and a base; means for selecting the operating curve of said transistor connected between said emitter and said base; a load impedance device connected between said transistor and a point of fixed potential; and said transistor being connected between said input and control electrodes of said current generator, whereby variations of the voltage drop across said transistor are used to automatically control the current flowing through said current generator to maintain the current flowing through said load impedance device at a predetermined level irrespective of changes of the impedance of said load impedance device.

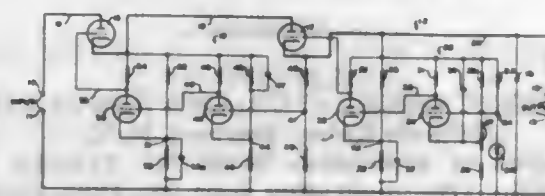
2,824,277

VOLTAGE REGULATOR

John P. Greening, Bartlesville, Okla., assignor to Phillips Petroleum Company, a corporation of Delaware

Application September 24, 1953, Serial No. 382,114

9 Claims. (Cl. 323—23)



1. A voltage regulator comprising, in combination, a positive supply line, a negative supply line, a pair of voltage regulator tubes connected in series in one of said lines, each tube including at least an anode, a cathode, and a control electrode, said tubes dividing said one line into an input section, an intermediate section, and an output section, means for producing a steady reference voltage, means for comparing said reference voltage with the voltage between said output section and said other supply line to provide a first resultant voltage, means applying said resultant voltage to the control electrode of one of said tubes, means for comparing the voltage between said intermediate section and said other supply line with the voltage between said output section and said other supply line to produce a second resultant voltage, and means for applying said second resultant voltage to the control electrode of the other of said tubes.

2,824,278

LIQUID LEVEL SENSING APPARATUS

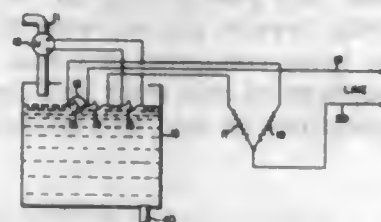
Donald C. Johnston, Richfield, Minn., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application October 1, 1954, Serial No. 459,702

8 Claims. (Cl. 323—69)

1. Control apparatus comprising, a bridge network having a reference negative temperature coefficient im-

pedance which is shielded so as to be affected only by ambient temperature and having an unshielded sensing negative temperature coefficient impedance, said impedances being connected in adjacent legs of the bridge network, each of said impedances being mounted so as to



be subjected each to the temperature at a given position, and an unshielded compensation negative temperature coefficient impedance connected in the detecting branch of the bridge network and subjected to the common temperature.

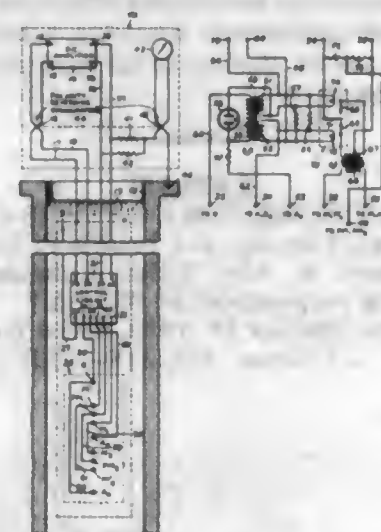
2,824,279

CONTROL CIRCUIT FOR ELECTRICAL LOGGING APPARATUS

Maurice C. Ferre and Arthur H. E. Herrald, Ridgefield, Conn., assignors, by mesne assignments, to Schlumberger Well Surveying Corporation, Houston, Tex., a corporation of Texas

Application January 19, 1953, Serial No. 331,938

10 Claims. (Cl. 324—1)



1. In electrical power supply apparatus, the combination of nonlinear electrical regulating means for maintaining a component of applied electrical power at a substantially constant amplitude for at least a range of variations in said applied power and at least two linear circuit elements, circuit means for operatively coupling said nonlinear electrical regulating means and said linear circuit elements in an electrical bridge relation having apices forming two diagonals with the linear circuit elements in alternate arms of the bridge and said nonlinear electrical regulating means coupled in the remaining alternate arms of the bridge, input circuit means connected to two opposite apices forming one diagonal of said bridge and adapted to receive applied electric power having a variable component, first output circuit means connected in parallel with said nonlinear electrical regulating means for providing power having a component of substantially constant amplitude over an operating range of amplitudes of the variable component of said applied electric power, and second output circuit means connected to the two apices of said bridge forming the second diagonal thereof for providing power having a component varying substantially in accordance with the variable component of said applied power.

4. In well logging apparatus, the combination of a plurality of electrodes mounted in fixed relation for movement through a well spaced apart longitudinally with respect to the axis of the well, electrical energy source means

responsive to the potential difference between two of said electrodes for providing a power output having a component varying in accordance with said potential difference, input circuit means connected to receive the power output from said source means, first output circuit means connected to one of said electrodes and to ground, nonlinear circuit means common to said input circuit means and first output circuit means for providing power having a component of substantially constant amplitude to said one electrode, second output circuit means connected in series with said input circuit means and to another of said electrodes for supplying power thereto having a component varying in accordance with the variable component of said applied power, and means for obtaining indications of the potential difference between a reference point and a point in the vicinity of said two electrodes.

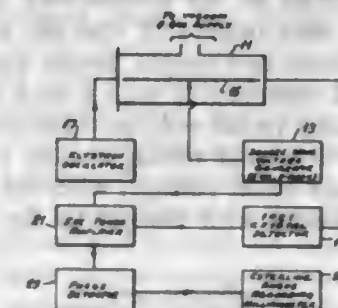
2,824,280

RECTANGULAR TRANSMISSION LINE ABSORPTION CELL

Yardley Beers, Bronx, N. Y., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application August 16, 1954, Serial No. 450,283

9 Claims. (Cl. 324—58.5)



8. In combination, a rectangular wave-guide absorption cell having an electrode centrally located therein and insulated therefrom, a gas in said absorption cell, a source of radio-frequency voltage, a source of Stark voltage, a decoupling network connected to said sources of radio-frequency and Stark voltages for jointly applying said radio frequency and Stark voltages to the electrode of said cell, and abbreviated wave guide section having the same cross-sectional area of said absorption cell, a spring contact in said abbreviated guide and adapted for direct connection with the electrode of said cell, and detecting means connected to said spring contact.

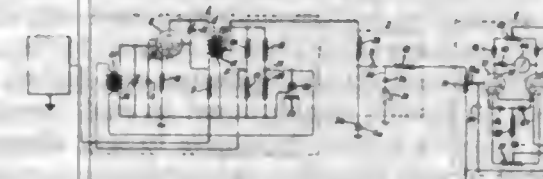
2,824,281

METHOD AND APPARATUS FOR MEASURING THICKNESS

Richard R. Radnor, Lynnfield Center, Mass., assignor to General Electric Company, a corporation of New York

Application February 26, 1954, Serial No. 412,783

4 Claims. (Cl. 324—61)



3. A gauge for measuring the thickness of a thin non-conducting coating applied over a conducting base and having a spot of conducting paint of predetermined size applied thereon to form with said conducting base an equivalent parallel plate capacitor, comprising oscillator means for providing a source of constant frequency oscillations, probe means connected to the output of said oscillator means and including a voltage supply circuit having a terminal for contacting the conducting spot to

apply a constant frequency voltage across the equivalent capacitor, the voltage supply circuit of said probe means providing a resistor which is large in size as compared to the impedance of the equivalent capacitor so that the current passing through the resistor is substantially unchanged when the voltage supply circuit is connected to pass current serially through the resistor and the equivalent capacitor, and voltmeter means having its input connected across the equivalent capacitor to receive the signal across the equivalent capacitor to indicate voltage proportional to the thickness of the coating.

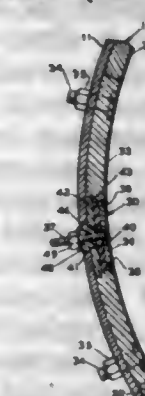
2,824,282

ELECTRODE ASSEMBLY

Milton E. Posey, College Park, Ga.

Application February 10, 1954, Serial No. 409,340

5 Claims. (Cl. 324—65)



3. In a mixer of the class having a stationary casing provided with a sectional lining and rotary stirring blades wherein a moisture control device measures the electrical resistance of the material contained therein, the combination with said moisture control device of an electrode assembly, said electrode assembly being characterized by a concave base plate fixed to the inside of said casing and forming a part of the lining thereof, a disc-shaped electrode head recessed in said base plate, the surface of said electrode head being concave and conforming to the concave surface of said base plate, insulating material surrounding the opposite surface and peripheral edge of said electrode head, a stem projecting from said electrode head through said insulating material, a disc of larger diameter than said electrode head recessed in the other side of said base plate, a portion of said disc abutting said insulating material, an insulating collar in the central portion of said disc through which said stem projects, said collar projecting through a hole in said casing, and means connected to said stem urging said disc against said head.

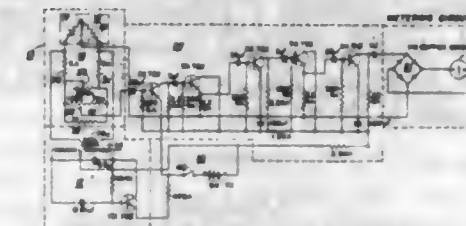
2,824,283

CORROSION METER

Lynn E. Ellison, Crystal Lake, Ill., assignor to The Pure Oil Company, Chicago, Ill., a corporation of Ohio

Application December 31, 1956, Serial No. 631,697

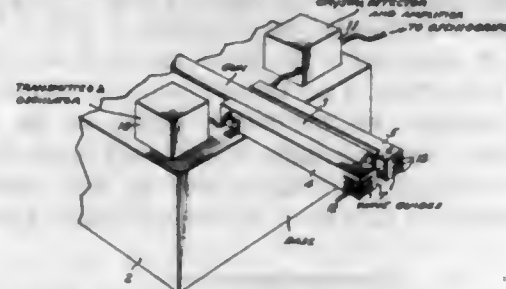
8 Claims. (Cl. 324—65)



1. In a corrosion meter for measuring the corrosion rate of a corrosion-testing unit comprising a first, temperature-compensated, resistance element serially connected to a second, corrosion-susceptible, strip-like, resistance element having the same composition as said first element, and three electrical conductors consisting of first

and second electrical conductors respectively connected to the terminal ends of said resistance elements and a third conductor connected to the intermediate junction between said resistance elements, thereby forming a first resistance branch of an electrical bridge, an electronic network consisting of a second resistance branch of an electrical bridge; means for cooperating with said conductors whereby said first resistance branch can be connected in parallel with said second resistance branch forming an electrical bridge; a power source of 70-110 cycle alternating current, energized by an electrical battery, inductively coupled to said second resistance branch to supply sufficient voltage to energize said bridge; a transistorized amplifier having a 75-90 decibel gain, electrically coupled between said resistance branches to amplify any electrical signal produced by the electrical unbalancing of said bridge; and a metering circuit consisting of a full-wave rectifier for converting the output signal from said amplifier to direct current, and an electrical meter for making visibly manifest the direct current flow, said second resistance branch having a total resistance of less than the impedance input of said amplifier and comprising first and second resistors having a third resistor serially connected intermediate thereto whereby the voltage drop across said third resistor at electrical balance of said bridge is substantially the same as the voltage drop across said first, corrosion-susceptible, resistance element of the corrosion-testing unit when the resistance of said element is increased by about 25%, a precision potentiometer having high resolution connected in parallel across said third resistor whereby fine adjustments can be made to effect the electrical balance of said electrical bridge, a multiturn millidial for adjusting said potentiometer, and a calibrating, variable resistor connected in parallel across said third resistor.

2,824,284
MICROWAVE-REGISTERING OF PROJECTILE POSITION AND VELOCITY IN GUNS
Thomas H. Johnson, Brookhaven, N. Y.
Application October 3, 1947, Serial No. 777,841
6 Claims. (Cl. 324-70)
(Granted under Title 35, U. S. Code (1952), sec. 266)

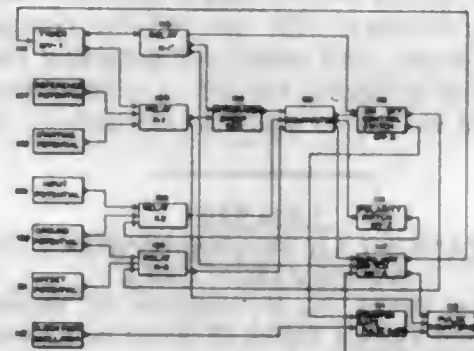


1. An apparatus for measuring the velocity of a projectile in a gun barrel comprising a microwave generator, a waveguide disposed in contiguous relation to said gun barrel and connected to said generator to conduct microwave energy, a second waveguide disposed in contiguous relation to said barrel to receive and transmit said energy, said gun barrel forming a cylindrical hollow resonator the electrical length of which is determined by the position of said projectile, and means connected to said second waveguide to detect said energy.

2,824,285
DIGITAL VOLTMETER
John M. Hunt, Hillcrest, Binghamton, N. Y., assignor to Link Aviation, Inc., Binghamton, N. Y., a corporation of New York
Application August 1, 1956, Serial No. 601,481
11 Claims. (Cl. 324-99)

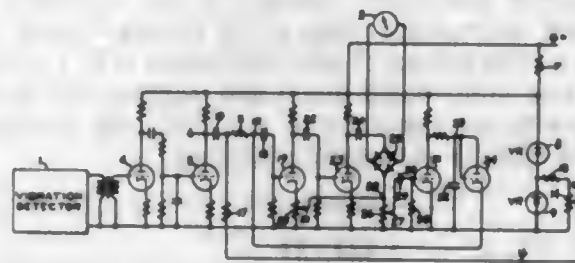
2. Direct voltage measuring apparatus comprising in combination a linear integrator operable over a range of

voltages between a material positive value and a material negative value, said integrator having a sweep characteristic of given algebraic sign of change of voltage as a function of time, means to generate a gate function comprising a voltage step equal to a given voltage to be measured plus an offset voltage to compensate for finite stepping time, a comparator responsive to the algebraic sum of any two voltages impressed thereon to generate an output pulse whenever the said algebraic sum is zero, means to impress



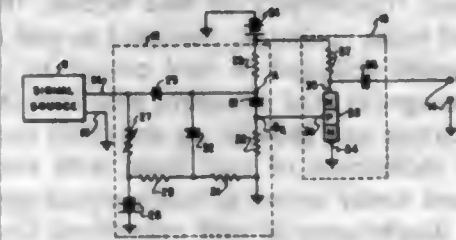
upon the input circuit of the comparator simultaneously the output of the said integrator and the said gate function voltage, whereby two output pulses are generated in succession by said comparator with a time interval therebetween proportional to the voltage difference represented by said gate function, and timing means prearranged to compensate for said offset voltage, whereby the apparatus is made direct-reading with respect to the given voltage to be measured.

2,824,286
SCALE COMPRESSING CIRCUIT
Wesley S. Burt, Lynnfield Center, Mass., assignor to General Electric Company, a corporation of New York
Application December 20, 1952, Serial No. 327,115
6 Claims. (Cl. 324-132)



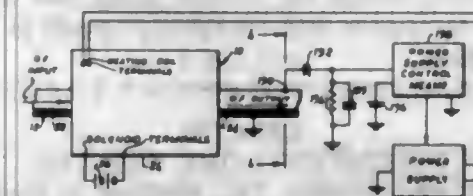
2. Electrical measuring apparatus comprising a measuring instrument producing alternating electric signals having amplitudes linearly proportional to measured quantities, an alternating voltage amplifier, means for rectifying the alternating voltage output of said amplifier, a direct current instrument coupled to respond to the direct current output of said rectifying means and having a response which is linearly proportional to said direct current output, detector means responsive to said alternating voltage output of said amplifier and producing a unidirectional output voltage proportional to said alternating voltage output of said amplifier, a source of unidirectional voltage, means adding said unidirectional voltage from said source to said alternating electric signals, voltage limiting means limiting instantaneous values of said alternating electric signals plus said unidirectional signals from said source to voltages in excess of said unidirectional output voltage from said detector means, and means applying the alternating voltage component of said excess voltages to said amplifier.

2,824,287
SIGNAL-AMPLITUDE TO PULSE-DURATION CONVERTER
Jack Stuart Green, Los Angeles, Roland George Semrad, Inglewood, and Arthur H. Nichols, Los Angeles, Calif., assignors to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application May 13, 1955, Serial No. 508,114
14 Claims. (Cl. 332-1)



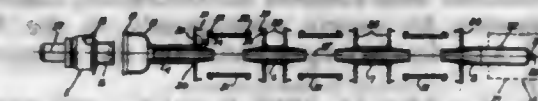
1. A signal-amplitude to pulse-duration converter circuit for developing an output pulse whose duration is directly proportional to the amplitude of an applied input signal comprising: an input signal source for developing the input signal; a differentiating sweep generator including charge storage means having first and second terminals, circuit means connected between said first terminal and a common terminal point for discharging said storage means, a source of biasing potential, an impedance element connected between said second terminal and said source of biasing potential, rectifying means connected between said second terminal and said input signal source; and a junction transistor amplifier for producing an output pulse that is proportional to the charging current to said storage means and having an input and an output circuit, said input circuit being connected between said first terminal and said common terminal point for conducting a portion of the charging current to said charging means through said input circuit.

2,824,288
FERRITE ROTATOR
Samuel Sensiper, Los Angeles, Calif., assignor to Hughes Aircraft Company, Culver City, Calif., a corporation of Delaware
Application May 2, 1955, Serial No. 505,328
5 Claims. (Cl. 333-17)



1. A rotator for rotating the plane of polarization of a linearly polarized electromagnetic wave comprising a waveguide, a ferrite body disposed within said waveguide, means for producing a unidirectional axial magnetic field through said ferrite body, means for heating said ferrite body to decrease the saturation magnetization of said ferrite body, whereby the frequency at which maximum attenuation occurs within said ferrite body may be reduced to a value below the operating frequency of said rotator, probe means inserted into said waveguide and disposed adjacent to the output end of said waveguide for detecting electromagnetic energy therein, means connected to said probe means for deriving a voltage proportional to the difference between the actual angle of rotation of said wave and a predetermined angle of rotation, and means coupled to said probe means for controlling said means for heating said ferrite body in response to changes in said voltage.

2,824,289
DRIFT TUBE FOR KLYSTRON
Clayton E. Murdock, Millbrae, Calif., assignor to Eitel-McCallough, Inc., San Bruno, Calif., a corporation of California
Application July 20, 1954, Serial No. 444,426
3 Claims. (Cl. 333-83)



1. In a klystron having a drift tube including a series of metal sections with gaps therebetween, a plurality of resonators each including a pair of metal end walls and an insulating cylinder therebetween, the several pairs of end walls each being fixed to the drift tube sections at opposite sides of a different one of said gaps so that two walls of adjacent resonators together with an interconnecting drift tube section form a structurally integral unit, the improvement comprising a ring-shaped metal flange fixed to each end wall and being in an overlapping externally concentric relationship with respect to the associated insulating cylinder, a cup-shaped ring-like metal end flange fixed to each insulating cylinder and being in an overlapping externally concentric relationship with respect to the associated insulating cylinder and nesting closely within the associated ring-shaped metal flange supported on the adjacent end wall with the edges of said ring-shaped flange and cup-shaped flange in registration, fused metallic bonds uniting the registering and nested edges of the engaged flanges, and a spacer ring supported on each end wall and axially aligned in cross-section with the length of the associated cylinder wall and mechanically coupled to the associated end of the insulating cylinder.

2,824,290
MULTI-CONTACT DUPLICATE ENGAGING CONNECTOR
Lee A. Archer, Wheaton, Joseph E. Bartnicki, Chicago, Jack R. Tinsman, Park Ridge, and George H. Feustel, Chicago, Ill., assignors to The Pyle-National Company, Chicago, Ill., a corporation of Illinois
Application September 23, 1954, Serial No. 457,937
4 Claims. (Cl. 339-49)



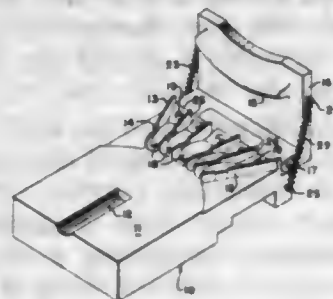
1. An electrical connector comprising a shell-like outer body member composed of sheet metal, at least one male contact and at least one female contact member carried within said outer body member, the outer ends of the male members and the entry ends of said female members being substantially coplanar, said outer body member having an integral outwardly extending annular flange portion of increased diameter, an inner shell-like body member secured in telescoping relation within said outer body member, means holding said contact members in position within said inner body member, a resilient ring received in tight engagement between said inner body member and said annular flange portion, a sleeve movable axially of said outer body portion and having an end portion adapted to engage said annular flange portion to thereby limit the extent of its axial movement in one direction, a stop ring on said outer body member, the axial distance between said annular flange portion and said stop ring being at least twice the axial length of said annular flange portion, a plurality of spaced inwardly extending helical ribs formed in said sleeve, and a plurality of spaced outwardly extending helical ribs on said annular flange portion, said ribs being arranged to

abut each other when said connector is engaged with another connector of identical configuration to provide an adjustable locking means for a pair of said connectors.

2,824,291

ADAPTER FOR ELECTRON DISCHARGE TUBE
Mark L. McLean and Herbert F. Overmier, Emporium, Pa., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application May 16, 1955, Serial No. 508,833
4 Claims. (Cl. 339—174)



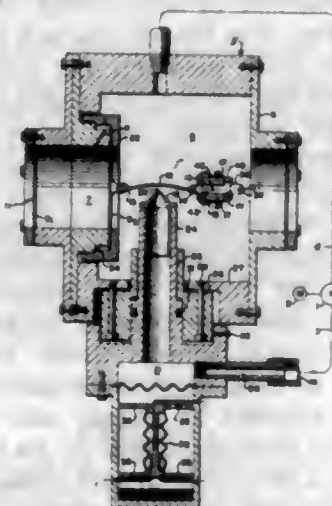
4. An adapter for use with an electron tube having flexible lead-in wires comprising a base having a semi-cylindrical recessed portion therein of the same configuration as the envelope of said tube to receive and retain the tube under test, a plurality of resilient contact elements secured to and arranged on said base arcuately with respect to said recessed portion, each of said contact elements having a convex surface for receiving and engaging one of said flexible leads, a spring urged clamping member pivotally secured to said base and movable from an open position to a closed position selectively at will for clamping the leads to the resilient contact elements at the convex surfaces thereof when the member is in said closed position, and extensible spring means pivotally secured at the ends thereof to said member and said base respectively in a manner to yieldably maintain the member in each of said positions selectively as the member is moved thereinto, said base and clamping member being composed of rigid insulating material.

2,824,292

HYDRAULIC POWER AMPLIFIER

Walter P. Christoph, Riverdale, Md., assignor to the United States of America as represented by the Secretary of the Navy

Application February 29, 1956, Serial No. 568,685
8 Claims. (Cl. 340—13)
(Granted under Title 35, U. S. Code (1952), sec. 266)



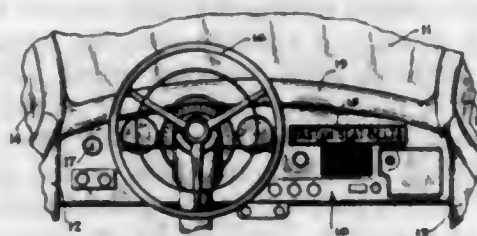
1. A hydraulic power amplifier of the character disclosed comprising a housing providing a pair of fluid filled chambers, one of said chambers being of generally cylindrical configuration, a pair of compliant closure members

disposed to substantially close the opposite ends of said cylindrical chamber, an inlet and outlet to the other of said chambers, fluid nozzle means in fluid communication with said inlet, a source of fluid under pressure for application to said nozzle means and connected in a closed hydraulic circuit relation with said outlet, a thin flexible band connected at one end to one of said compliant closure members for flexural movement therewith and disposed with the mid portion thereof in close spaced adjacency to and transversely of said nozzle, the other end of said band being resiliently mounted to said housing, and detector means disposed in said circuit in a manner to measure changes in fluid pressures with flow in said closed hydraulic circuit and provide an amplified output correlative to the movement of said band with respect to said nozzle means under sound pressure signal applications to one of the diaphragms of said cylindrical chamber.

2,824,293

SAFETY DEVICES

Walter J. Melnhardt, Chicago, Ill.
Application April 5, 1956, Serial No. 576,431
7 Claims. (Cl. 340—52)

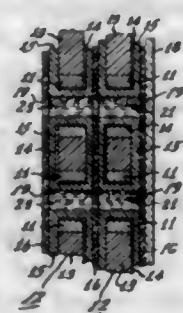


1. A warning signal system for an automotive vehicle equipped with safety belts comprising: an electrically actuated signal indicator for warning a passenger in said vehicle that the safety belt should be fastened; a normally open energizing circuit coupled to said signal indicator; instantaneous-contact switch means for closing said instantaneous-contact switch means in response to occurrence of a predetermined operating condition in the normal operation of said vehicle; means for closing said energizing circuit; means energized from said energizing circuit to establish a holding circuit for effectively maintaining said energizing circuit in closed condition; and manually operable normally-closed switch means interposed in circuit between said holding circuit means and said energizing circuit for de-energizing said holding circuit means to restore said energizing circuit to its normal open condition.

2,824,294

MAGNETIC CORE ARRAYS

Julian Saltz, Philadelphia, Pa., assignor to Radio Corporation of America, a corporation of Delaware
Application December 31, 1954, Serial No. 479,038
13 Claims. (Cl. 340—174)



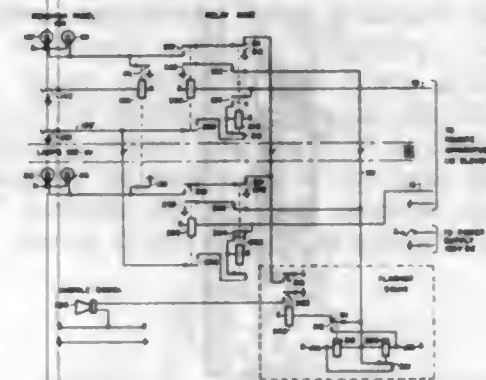
1. In a system, the combination comprising an array of magnetic cores and access lines linking said cores, said access lines comprising an electrical conductive material deposited in its liquid state through said cores in rows, whereby each row of said conductive material forms one access line.

2,824,295

ANNUNCIATOR SYSTEM

Edward J. Zaruba, Villa Park, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application February 13, 1956, Serial No. 565,029
2 Claims. (Cl. 340—213)



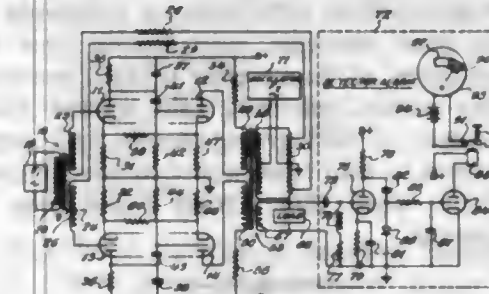
1. An annunciator system for power plants or the like comprising lamps and an audible signal operative for indicating the existence of an abnormal condition in a remote plant apparatus, a first relay, a second relay and a pulsing relay; a first circuit completed for operating said first relay in case abnormal conditions exist in said remote apparatus, means operated by said first relay for operating said pulsing relay, means responsive to the operation of said first relay to prepare a circuit to said lamps, a first contact means responsive to the operation of said pulsing relay for flashing said lamps over said prepared circuit, a second contact means responsive to the operation of said pulsing relay for operating said audible signal in a pulsating manner, a second circuit prepared responsive to the operation of said first relay, an attendant's acknowledging means momentarily operated to complete said second circuit to operate said second relay, a locking circuit for locking up said second relay to said first circuit only during the existence of said abnormal conditions in said remote plant apparatus, means operated by said second relay to restore said pulsing relay for disabling said first and second contact means in order to stop the flashing of said lamps and said audible signal, means responsive to the operation of said second relay for steadily lighting said lamps, said locking circuit opened to restore said second relay in response to the restoration of said remote apparatus to its normal condition for automatically extinguishing said lamps.

2,824,296

REDUNDANT FAIL-PROOF AMPLIFIER AND ALARM

Herbert Hecht, Wantagh, N. Y., and Christopher Pottle, New Haven, Conn., assignors to Sperry Rand Corporation, a corporation of Delaware

Application September 20, 1955, Serial No. 535,459
12 Claims. (Cl. 340—253)



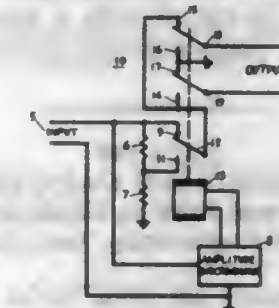
1. In combination, a dual-path amplifier having input means for receiving an alternating voltage signal of a first frequency for amplification, an output for said amplifier, means coupled to said amplifier for supplying alternating voltages to the dual paths thereof at a second frequency appreciably different from said first frequency, the phase

relationship of the voltages of said second frequency applied to the dual paths being predetermined for cancellation at said output under conditions of equal amplification through the dual paths of said amplifier, and detector means coupled to said output of said amplifier and responsive to voltages of said second frequency, said detector means being adapted to provide an alarm in response to a net voltage at said second frequency at said amplifier resulting from a malfunction at one or the other of said amplifier paths.

2,824,297

AUTOMATIC SCALE-CHANGING APPARATUS
Conrad S. Josias, Mineola, and Eugene K. Plofker, Yonkers, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application March 27, 1956, Serial No. 574,346
19 Claims. (Cl. 340—253)



1. Automatic scale-changing apparatus comprising first means responsive to a particular parameter of a signal applied as an input thereto for producing an output having a magnitude which is a function of the magnitude of said particular parameter, and second means coupled to said first means and responsive to the magnitude of said particular parameter for changing the function between the magnitudes of the output of said first means and said particular parameter from a first given function to a second given function whenever the magnitude of said particular parameter exceeds a certain discrete value, said particular parameter being the amplitude of said signal applied as an input to said first means, said first means including third means responsive to the amplitude of said input signal for producing a first output having a selected direction of signal travel and an amplitude which is a first proportion of the amplitude of said input signal and a second output having an opposite direction of signal travel and an amplitude which is a second proportion of the amplitude of said input signal, said second proportion being smaller than said first proportion, and switch means between said first means and said second means for reversing the direction of output signal travel in said second means, said switch means being coupled to said third means for selectively applying said first and second outputs of said third means as the output of said first means, and wherein said second means includes fourth means coupled to said switch means, said fourth means including an amplitude discriminating means having said input signal applied as an input thereto for switching said switch means from its first normal position to its second position whenever the amplitude of said input signal exceeds said certain discrete value of magnitude.

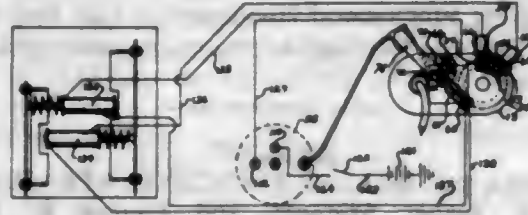
2,824,298

VEHICLE SPEED INDICATING DEVICE

Aubrey C. Ross, Birmingham, Ala.
Application December 5, 1956, Serial No. 626,524
14 Claims. (Cl. 340—264)

1. A vehicle speed indicating device comprising a centrifugal governor, means rotating said governor in response to the speed of the vehicle, a first pair of electrical contacts operatively connected to said governor whereby they are closed when the governor rotates above a

predetermined speed, a second pair of electrical contacts operatively connected to said governor whereby they are closed when the governor rotates at a higher predetermined speed than the speed at which said first pair of contacts are initially closed, signal means in circuit with said first pair of contacts, other signal means in circuit



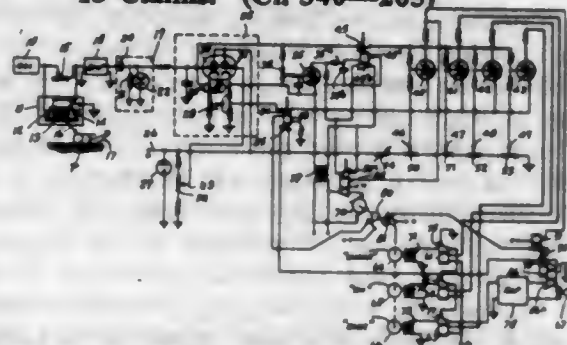
with said second pair of contacts, and means supplying current to the circuits connecting said first and second pairs of contacts to their respective signal means at predetermined distances of travel of said vehicle whereby each signal means in circuit with a pair of closed contacts is actuated at predetermined distances of travel of the vehicle.

2,824,299

MEASURING GAUGES

Malcolm P. Haines and John D. Ewell, Indianapolis, Ind., assignors to Merz Engineering, Inc., Indianapolis, Ind., a corporation

Application January 26, 1956, Serial No. 561,472
13 Claims. (Cl. 340-265)



1. A measuring device comprising an oscillator, a modulator coupled to the oscillator, a stylus, said modulator being coupled to and responsive to displacement of said stylus from a reference position to modulate the amplitude of the output of the oscillator in accordance with said displacement, means to rectify the modulated oscillator output; a bridge circuit having two adjacent variable impedance branches responsive to applied voltages; a reference voltage source, said reference source and the rectified oscillator output being applied, respectively, to said branches so that one diagonal of the bridge will show a voltage when the applied voltages are unlike; a plurality of grid-controlled gas discharge tubes, means applying progressively different grid-cathode biases to each tube, a circuit connecting all grid-cathodes in parallel across said diagonal; a plurality of distinctive sound recordings and a loud speaker, and a plurality of relays responsive, respectively, to said tubes for selectively coupling one of said recordings to said speaker.

2,824,300

CLOSURE ALARM DEVICE

Samuel Rand, New Orleans, La.
Application July 11, 1956, Serial No. 597,210
7 Claims. (Cl. 340-274)

1. In burglar alarm apparatus adapted for use with an electrically operable alarm unit of the type including an electrically energizable alarm and electrical supply circuitry therefor including a normally open-circuited contact arm controlling the electrical supply to said alarm and accessible for manipulation from externally of the alarm unit, the combination comprising movable actuator means adapted to be positioned adjacent the contact arm and adjacent a relatively movable closure, resilient

means for continuously urging said actuator means into contact-closing engagement with said contact arm, detent means for releasably holding said actuator means in a restrained condition out of engagement with said contact arm, and release means adapted to be fixed to the movable closure and selectively extendable therefrom into juxtaposed relation with said detent means to be intercepted by said detent means during relative movement of said closure and disengage said detent means from restraining relation with said actuator means to release the latter to engage and force said contact arm to alarm-energizing condition.

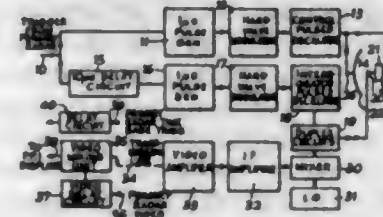


2,824,301

SECONDARY RADAR SYSTEMS

Derek Alfred Levell, West Hendon, London, and Kenneth Ernest Harris, New Barnet, England, assignors to A. C. Cossor Limited, Highbury Grove, London, England, a British company

Application May 1, 1953, Serial No. 352,322
Claims priority, application Great Britain May 9, 1952
4 Claims. (Cl. 343-6.5)



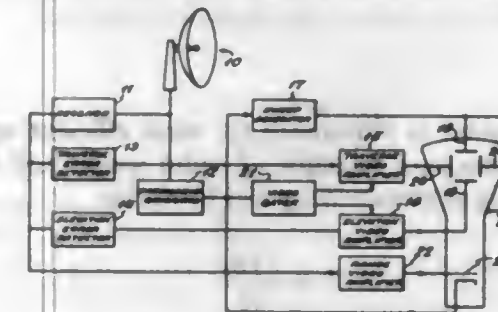
1. A transponder for use in a secondary radar system employing recurrent pairs of pulses of radio frequency energy, said transponder including a radio transmitter and a radio receiver for receiving said pulses at an input thereof, said radio receiver comprising a charge storage means, means coupling said input to said charge storage means to apply each of said first pulses to said charge storage means, a discharge circuit for said storage means, suppression means in said discharge circuit responsive to said first pulses to render said discharge circuit inoperative for a first predetermined time interval after each actuation thereof, gating means, means coupling said input to said gating means, means coupling said suppression means to said gating means to open said gating means for a second predetermined time interval following each of the said first time intervals, said second time intervals including the times of occurrence of said second pulses at said gating means, whereby said second pulses can pass to the output of said gating means, and means coupling said output to said transmitter to render said transmitter operative when said second pulses pass through said gating means.

2,824,302

CATHODE RAY TUBE INDICATOR SYSTEM
William O. Poor, Hempstead, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application January 4, 1954, Serial No. 402,189
5 Claims. (Cl. 343-11)

1. In an object locating system including receiving means, said means being directionally sensitive to pro-

duce signals respectively dependent upon the displacement in elevation and traverse of the source of each received signal with respect to a reference axis of said receiving means; an indicating apparatus comprising, a cathode ray tube assembly having means for deflecting the electron beam of said tube in first and second degrees of freedom, respectively, sweep generator means coupled to said last-named means for supplying a sweep voltage thereto, means coupled to said sweep generator means for recurrently actuating said sweep generator at known time intervals, means responsive to said received signals for indicating on said cathode ray tube the respective time of reception of each said received signals relative to said known timed deflection, means coupled to said

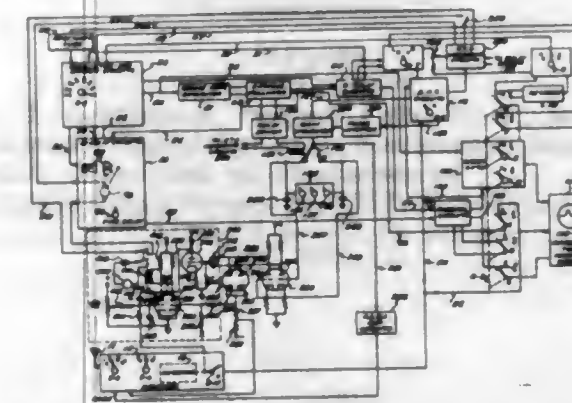


deflecting means of said cathode ray tube assembly for response during alternate sweeps to deflect said electron beam in a direction and for a magnitude corresponding to each said elevational displacement signal in synchronism with the respective indication of each received signal, means responsive during the remaining alternate sweeps of said generator means to deflect said electron beam in a direction and for a magnitude corresponding to each said traverse displacement signal in synchronism with the respective indication of each said received signal, whereby the spatial disposition of the source of each received signal in elevation and traverse with respect to said reference axis are independently and simultaneously displayed on said cathode ray tube.

2,824,303

AUTOMATIC SYNCHRONIZATION INDICATOR AND CONTROL CIRCUITS FOR HYPERBOLIC NAVIGATION RECEIVERS

Roger B. Williams, Jr., Glen Head, N. Y., assignor to Sperry Rand Corporation, a corporation of Delaware
Application February 1, 1954, Serial No. 407,353
14 Claims. (Cl. 343-103)



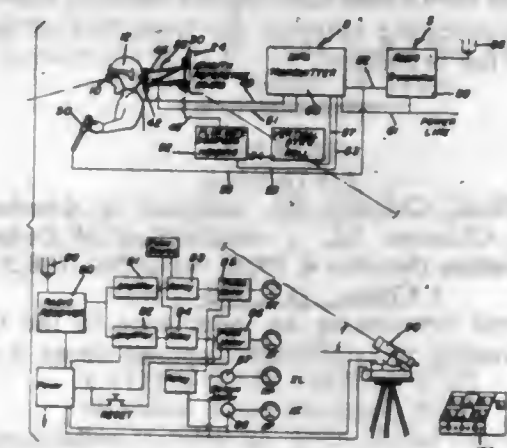
1. A hyperbolic navigation receiver responsive to recurrent A pulses transmitted from a master station and to recurrent B pulses transmitted from a slave station, oscillator means coupled to the output of said receiver and adapted to be synchronized to said received A pulses, variable delay means coupled to the output of said oscillator means for producing delayed output pulses adapted to be synchronized to said received B pulses, first responsive means jointly coupled to the output of said receiver and said oscillator means for producing a first out-

put control voltage upon the coincidence of said received A pulses and said oscillator output voltage, second responsive means jointly coupled to the output of said receiver and said variable delay means for producing a second output control voltage upon the coincidence of said received B pulses and the output pulses from said variable delay means, and means coupled to the output of said first and second responsive means and responsive to said first and second output control voltages for indicating the absence of one of said control voltages.

2,824,304

METHOD AND APPARATUS FOR LOCATING TARGETS BY OBSERVATIONS MADE BY AN AIRBORNE OBSERVER

Lloyd G. Dorsett, Norman, Okla., assignor to Dorsett Laboratories, Inc., Norman, Okla., a corporation of Oklahoma
Application November 4, 1953, Serial No. 390,237
14 Claims. (Cl. 343-112)

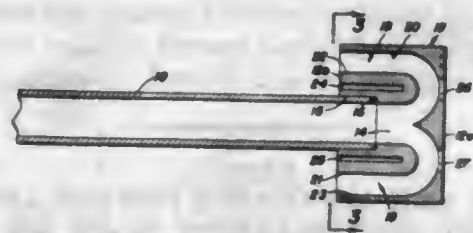


1. In a target locating system including a ground observation station and an air observation station located in an aircraft, equipped with sight means adapted to be pointed on the target, the position of which determines the azimuth or the target relatively to the aircraft heading, means for determining the depression angle of the target relatively to the aircraft, associated with said sight means, means for determining the aircraft position relatively to the ground observation station, including means for determining the azimuth and elevation of the aircraft relatively to said ground observation station, signal means for transmitting and receiving signals in the ground observation and air observation stations, to produce a simultaneous observation of the azimuth and depression angle of the aircraft relatively to the aircraft and of the altitude, azimuth and elevation of the aircraft relatively to the ground station, said air-borne sight means including means for translating the values corresponding to the azimuth position of the sight and to the depression angle of the same into electrical impulses, means including a gyroscopic means for producing electric impulses in accordance with the spatial position of the aircraft, a data transmitter unit for registering and combining the impulses and a radio transmitter, said data transmitter transmitting the combined pulses to the radio transmitter, means for controlling the transmission of combined impulses to the radio transmitter manually controlled by an observer keeping the sight means directed towards the target, signal means associated with said data transmitter to produce a radio transmitted signal, the observer when operating the control means thus simultaneously producing a transmission of a radio signal, and a transmission of the impulses corresponding to the azimuth position and the depression angle at the moment of signal transmission corrected for the spatial position of the aircraft to the ground station.

2,824,305

MICROWAVE ANTENNA FEED

Richard F. Ohlemacher, Mishawaka, Ind., assignor to the United States of America as represented by the Secretary of the Navy
Application September 30, 1954, Serial No. 459,564
5 Claims. (Cl. 343-776)



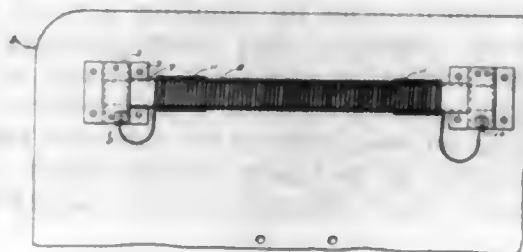
1. A feed for microwave directive antenna systems, including a body for installation on a waveguide and having front and rear faces, said body having a central opening in its rear face receiving an end of said waveguide, said opening extending forwardly from the rear face and having diverging rearwardly directed branches terminating in emitter openings, slots in the body between the emitter openings and the central opening for defining chokes, and a slot communicating between the front face of the body and each of the branches.

2,824,306
ANTENNA

Ernest R. Pfaff, Chicago, Ill., assignor to Admiral Corporation, Chicago, Ill., a corporation of Delaware
Application October 4, 1950, Serial No. 188,375
1 Claim. (Cl. 343-788)

An antenna comprising an inductance in the form of a helical winding of conductor disposed about a core of

ferrite wherein the conductor is spaced from the core a distance such that the maximum permeability for the helix is retained and dielectric absorption by the core



to the conductor is minimized for most efficient operation of the antenna as a receptor of radio waves and wherein the spacing is determined by the formulae

$$S = \frac{D^3}{K}$$

where S equals the spacing from the inner periphery of the conductor to the outer periphery of the core; D is the diameter of the core and K is a factor determined empirically by measuring one or more antennas constructed for optimum performance and equals

$$\frac{D^3}{S}$$

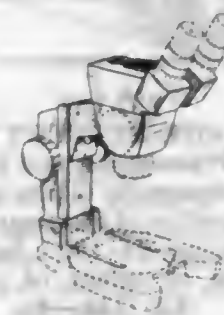
DESIGNS

FEBRUARY 18, 1958

182,097

MICROSCOPE

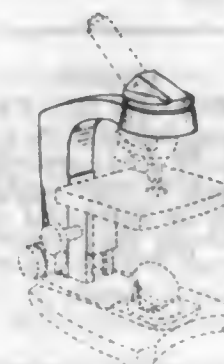
John T. Armbruster, Niagara Falls, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application February 26, 1957, Serial No. 44,990
Term of patent 14 years
(Cl. D57-1)



182,098

MICROSCOPE

John T. Armbruster, Niagara Falls, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application February 26, 1957, Serial No. 44,991
Term of patent 14 years
(Cl. D57-1)



182,099

MICROSCOPE

John T. Armbruster, Niagara Falls, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application February 26, 1957, Serial No. 44,992
Term of patent 14 years
(Cl. D57-1)



182,100

EXPANSIBLE CHAIN FOR A BRACELET OR SIMILAR ARTICLE

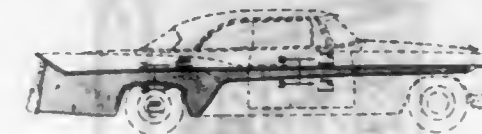
Karl C. Augenstein, Cranston, R. I., assignor to Spedel Corporation, Providence, R. I., a corporation of Rhode Island
Application April 29, 1957, Serial No. 45,939
Term of patent 14 years
(Cl. D45-4)



182,101

AUTOMOBILE

Harry T. Bannister, Huntington Woods, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
Application June 11, 1956, Serial No. 41,847
Term of patent 14 years
(Cl. D14-3)



182,102

LADY'S HAIR ORNAMENT

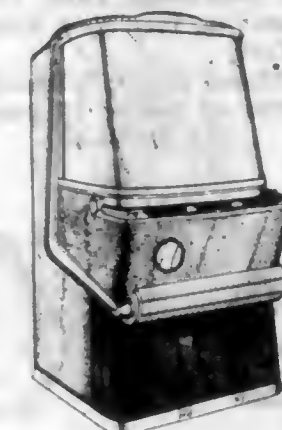
Siegfried Behr, Flushing, N. Y.
Application October 25, 1956, Serial No. 43,519
Term of patent 3 1/2 years
(Cl. D86-10)



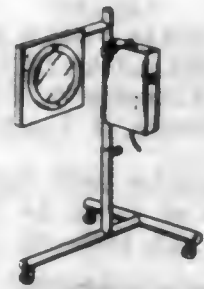
182,103

PHONOGRAPH CABINET

Melvin H. Boldt, Glenview, Ill., assignor to AMI Incorporated, Grand Rapids, Mich., a corporation of Delaware
Application May 1, 1957, Serial No. 45,960
Term of patent 14 years
(Cl. D56-4)



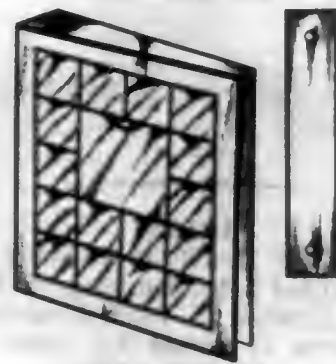
182,104
COIN OPERATED SHAVER STAND
 John L. Carmichael, San Diego, Calif.
 Application February 1, 1957, Serial No. 44,695
 Term of patent 3½ years
 (Cl. D4—3)



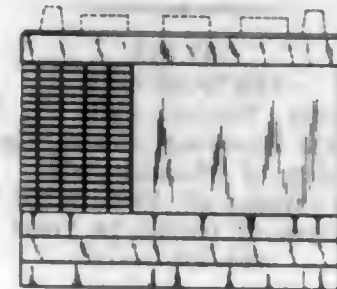
182,108
COMBINED VEHICLE GRILLE AND HEAD LAMP GUARD
 Frank J. Faulhaber, New York, N. Y.
 Application May 7, 1956, Serial No. 41,374
 Term of patent 14 years
 (Cl. D14—6)



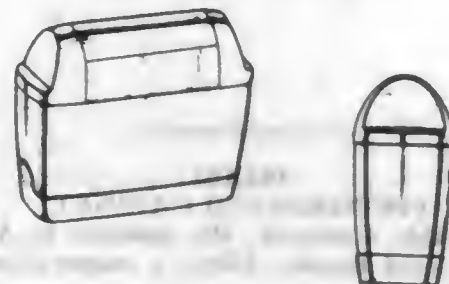
182,105
LOOSE LEAF RING BINDER WITH LIPPED PHOTO COMPARTMENTS
 Herbert S. Chase, Woodmere, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
 Application June 19, 1957, Serial No. 46,640
 Term of patent 7 years
 (Cl. D6—2)



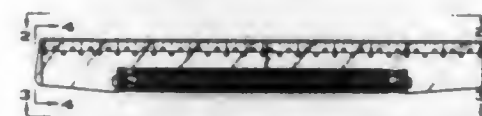
182,109
STORAGE BATTERY CASE
 Ronald M. Flandt, Wauwatosa, and Roy E. Hennen, Milwaukee, Wis., assignors to Globe-Union Inc., Milwaukee, Wis., a corporation of Delaware
 Application January 28, 1957, Serial No. 44,633
 Term of patent 14 years
 (Cl. D26—6)



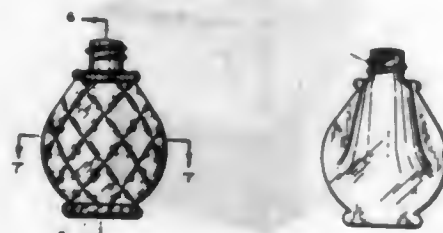
182,106
ELECTRIC SHAVER
 Ross E. Cornwell, Jr., Chicago, and Robert O. Ernest, Oak Park, Ill., assignors to Sunbeam Corporation, Chicago, Ill., a corporation of Illinois
 Application May 21, 1956, Serial No. 41,575
 Term of patent 14 years
 (Cl. D22—3)



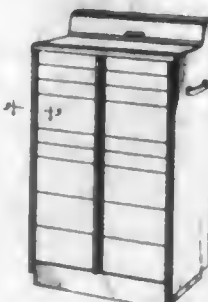
182,110
ROLLER RULER
 Jack Fairchild Fleming, Summit, N. J., assignor to Sterling Plastics Co., Union, N. J., a corporation of New Jersey
 Application July 5, 1957, Serial No. 46,854
 Term of patent 14 years
 (Cl. D52—1)



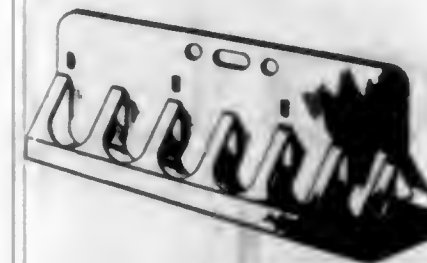
182,107
BOTTLE
 Henri Colonna de Giovellina, Paris, France, assignor to The French Glass Co., Inc., New York, N. Y., a corporation of New York
 Application March 20, 1957, Serial No. 45,342
 Term of patent 14 years
 (Cl. D58—6)



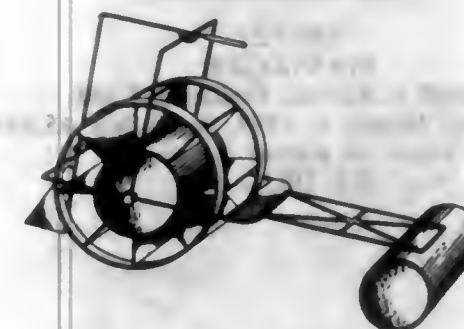
182,111
DENTAL CABINET
 James D. Floria, Milwaukee, Wis., assignor to Hamilton Manufacturing Company, Two Rivers, Wis., a corporation of Wisconsin
 Application August 10, 1956, Serial No. 42,572
 Term of patent 14 years
 (Cl. D24—1)



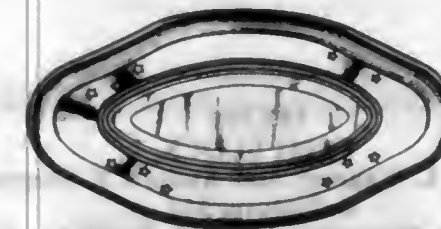
182,112
BOTTLE CARRIER OR THE LIKE
 Morris A. Frankel, Teaneck Township, Bergen County, N. J.
 Application February 10, 1955, Serial No. 34,441
 Term of patent 14 years
 (Cl. D58—5)



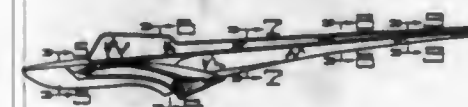
182,113
WATER CRAFT
 Woodrow Friddell, Chattanooga, Tenn.
 Application February 5, 1957, Serial No. 44,759
 Term of patent 14 years
 (Cl. D71—1)



182,114
DISH OR SIMILAR ARTICLE OF HOLLOWWARE
 Erich Fritsch, Clinton, and David Rauch, Worcester, Mass., assignors to Van Brode Milling Co., Inc., Clinton, Mass., a corporation of Massachusetts
 Application February 6, 1956, Serial No. 40,041
 Term of patent 7 years
 (Cl. D44—15)



182,115
HOOD ORNAMENT FOR AN AUTOMOBILE
 Charles F. Gitschlag, Jr., St. Clair Shores, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
 Application June 11, 1956, Serial No. 41,858
 Term of patent 7 years
 (Cl. D14—18)



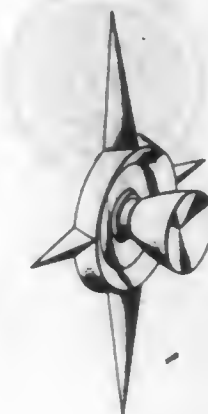
182,116
CLEANING SPONGE
 Harry Z. Gray, Lebanon, Ohio
 Application September 21, 1956, Serial No. 43,034
 Term of patent 14 years
 (Cl. D9—2)



182,117
HAIR DRYER
 Donald W. Haarman, Bloomington, Ill.
 Application April 15, 1957, Serial No. 45,744
 Term of patent 14 years
 (Cl. D86—10)



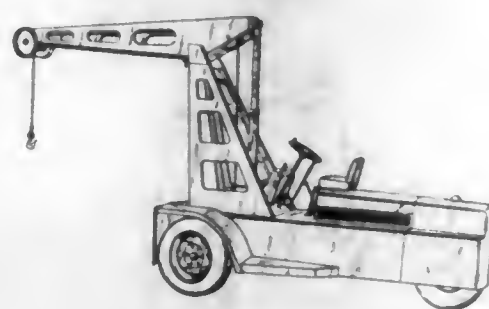
182,118
COMBINED DOOR KNOB AND ESCUTCHEON
 Carl C. Hillgren, Newport Beach, Calif., assignor to Hillgren Manufacturing Company, Huntington Park, Calif., a corporation of California
 Application October 8, 1956, Serial No. 43,257
 Term of patent 14 years
 (Cl. D50—6)



182,119
COMBINED KNOB AND ESCUTCHEON
 Carl C. Hillgren, Newport Beach, Calif., assignor to Hillgren Manufacturing Company, Huntington Park, Calif., a corporation of California
 Application October 8, 1956, Serial No. 43,263
 Term of patent 14 years
 (Cl. D50—6)



182,120
YARD CRANE
 Arthur H. Huebner, Portland, Oreg., and Henry Dreyfuss, Pasadena, Calif., assignors to Hyster Company, Portland, Oreg., a corporation of Oregon
 Application March 15, 1956, Serial No. 40,635
 Term of patent 14 years
 (Cl. D14—3)



182,121
SPOON OR SIMILAR ARTICLE
 Kae E. Jones, New York, N. Y., assignor to Welling Ware, Inc., New York, N. Y., a corporation of New York
 Application March 13, 1957, Serial No. 45,248
 Term of patent 14 years
 (Cl. D54—12)



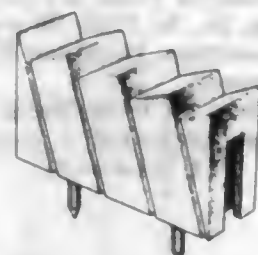
182,122
SPOON OR SIMILAR ARTICLE
 Kae E. Jones, New York, N. Y., assignor to Welling Ware, Inc., New York, N. Y., a corporation of New York
 Application April 22, 1957, Serial No. 45,814
 Term of patent 14 years
 (Cl. D54—12)



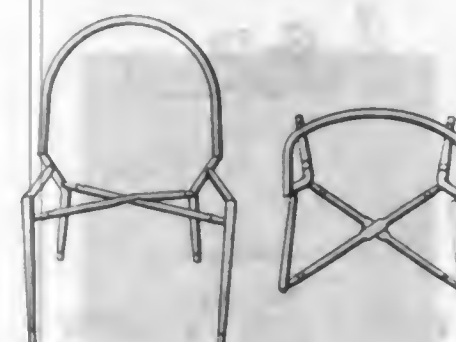
182,123
MASSAGER
 Martell J. Kaliski, Oakland, Calif.
 Application March 4, 1957, Serial No. 45,098
 Term of patent 14 years
 (Cl. D83—1)



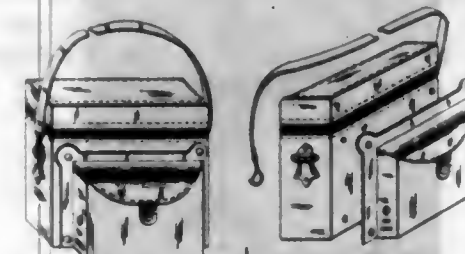
182,124
TRIM BLOCK
 Anthony L. Kearney and Andrew P. Magnani, Baltimore, Md.
 Application November 23, 1956, Serial No. 43,900
 Term of patent 14 years
 (Cl. D18—2)



182,125
CHAIR FRAME
 John Kolbe, Warsaw, Ind., assignor to Arnolt Corporation, Warsaw, Ind., a corporation of Indiana
 Application July 8, 1957, Serial No. 46,856
 Term of patent 14 years
 (Cl. D15—1)



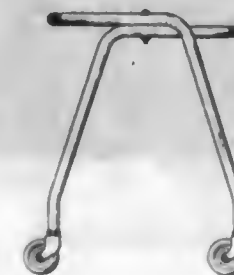
182,126
CAMERA BAG HOLDER
 Saul Kontoff, Rockaway, N. J., and Irving Rubin, Hewlett Harbor, N. Y.
 Application April 29, 1957, Serial No. 45,945
 Term of patent 7 years
 (Cl. D61—1)



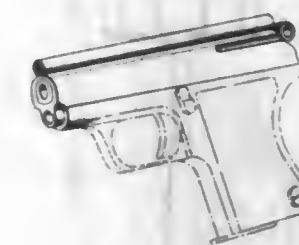
182,127
WINDSHIELD WIPER UNIT
 Fred A. Krohm, Hobart, Ind., assignor to The Anderson Company, a corporation of Indiana
 Application July 6, 1954, Serial No. 31,287
 Term of patent 14 years
 (Cl. D14—6)



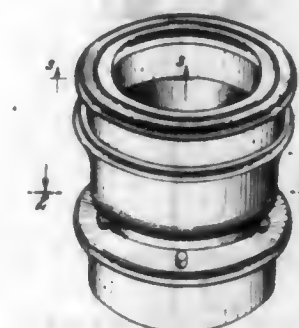
182,128
FOUR-WHEELED CART
 Karl O. Larson, St. Paul, Minn.
 Application February 14, 1957, Serial No. 44,875
 Term of patent 7 years
 (Cl. D14—3)



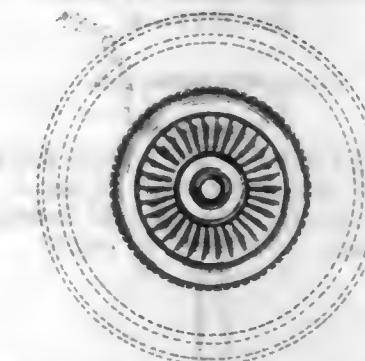
182,129
PISTOL
 William Andrew Little, Ottawa, Ontario, Canada
 Application May 4, 1956, Serial No. 41,344
 Term of patent 3½ years
 (Cl. D30—1)



182,130
FLOWER POT
 Frank Luipersbek, Bronx, N. Y.
 Application August 28, 1956, Serial No. 42,750
 Term of patent 14 years
 (Cl. D35—3)



182,131
WHEEL COVER OR SIMILAR ARTICLE
 George Albert Lyon, Detroit, Mich.
 Application September 23, 1955, Serial No. 38,077
 Term of patent 14 years
 (Cl. D14—30)



182,132

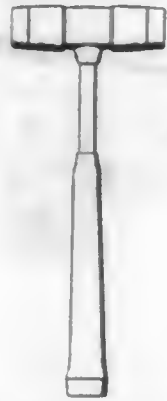
SOFT FACED HAMMER

Strother C. MacMinn, Los Angeles, Calif., assignor to New Plastic Corporation, Los Angeles, Calif., a corporation of Delaware

Application August 16, 1956, Serial No. 42,636

Term of patent 14 years

(Cl. D93—4)



182,133

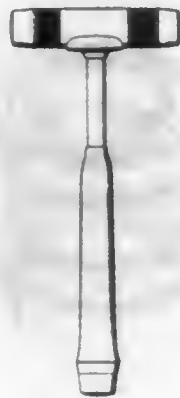
SOFT FACED HAMMER

Strother C. MacMinn, Los Angeles, Calif., assignor to New Plastic Corporation, Los Angeles, Calif., a corporation of Delaware

Application August 16, 1956, Serial No. 42,637

Term of patent 14 years

(Cl. D93—4)



182,134

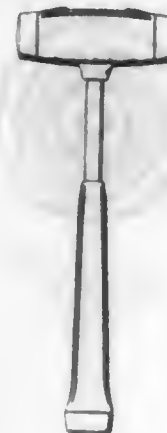
SOFT FACED HAMMER

Strother C. MacMinn, Los Angeles, Calif., assignor to New Plastic Corporation, Los Angeles, Calif., a corporation of Delaware

Application August 16, 1956, Serial No. 42,638

Term of patent 14 years

(Cl. D93—4)



182,135

EXHAUST HEADER FOR AUTOMOBILES

Kenneth Maynard and Paul E. Hansen, Los Angeles, Calif.

Application August 23, 1954, Serial No. 31,972

Term of patent 14 years

(Cl. D14—6)



182,136

PUFFED TEXTILE FABRIC

Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York

Application March 11, 1957, Serial No. 45,186

Term of patent 14 years

(Cl. D92—1)



182,137

PUFFED TEXTILE FABRIC

Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York

Application March 11, 1957, Serial No. 45,189

Term of patent 14 years

(Cl. D92—1)



182,138

PUFFED TEXTILE FABRIC

Douglas D. McCord, New York, N. Y., assignor to Chicopee Mills, Inc., a corporation of New York

Application March 12, 1957, Serial No. 45,219

Term of patent 14 years

(Cl. D92—1)



182,139

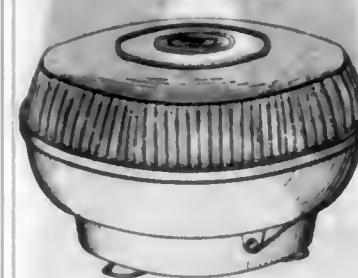
WATER POWERED ABRADING MACHINE

Marvin P. Middlemark, Rego Park, N. Y.

Application June 18, 1957, Serial No. 46,630

Term of patent 14 years

(Cl. D37—1)



182,140

MERCHANDISE DISPLAY SIGN

Arthur E. Molke, Minneapolis, Minn., assignor to Pacific Gamble Robinson Company, Minneapolis, Minn., a corporation of Delaware

Application September 10, 1956, Serial No. 42,878

Term of patent 7 years

(Cl. D1—12)



182,141

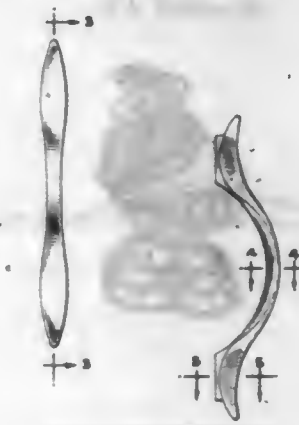
PULL

John R. Morgan, Northbrook, Ill., assignor to Amerock Corporation, Rockford, Ill., a corporation of Illinois

Application April 4, 1957, Serial No. 45,592

Term of patent 14 years

(Cl. D10—8)



182,142

COMBINED PULL AND CATCH

John R. Morgan, Northbrook, Ill., assignor to Amerock Corporation, Rockford, Ill., a corporation of Illinois

Application April 4, 1957, Serial No. 45,593

Term of patent 14 years

(Cl. D10—8)



182,143

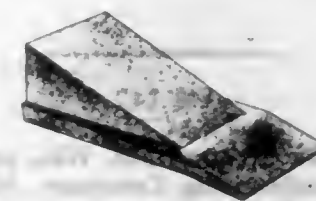
EXCAVATING TOOTH

Gerald A. M. Petersen, Santa Clara, Calif.

Application January 31, 1956, Serial No. 39,974

Term of patent 14 years

(Cl. D41—1)



182,144

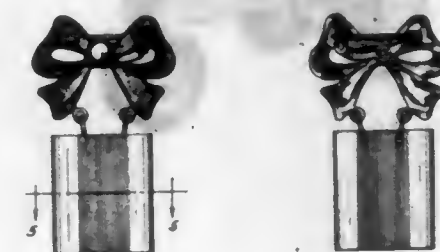
HOLDER FOR A PAIR OF EYEGLASSES

Anne A. Pretz, Cleveland, Ohio

Application May 23, 1957, Serial No. 46,313

Term of patent 14 years

(Cl. D57—1)



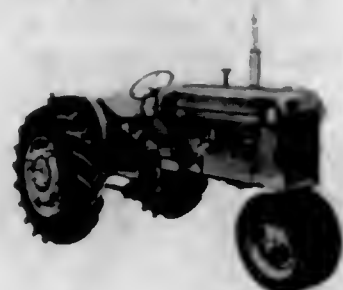
182,145
TABLE LIGHTER OR SIMILAR ARTICLE
 Sidney Ruback, New York, N. Y.
 Application May 14, 1957, Serial No. 46,154
 Term of patent 7 years
 (Cl. D48—27)



182,146
GUN REST
 Albert E. Sharp, New Canaan, Conn.
 Application September 29, 1954, Serial No. 32,480
 Term of patent 14 years
 (Cl. D30—1)



182,147
TRACTOR
 Walter F. Strehlow, Wauwatosa, Wis., assignor to Allis-Chalmers Manufacturing Company, Milwaukee, Wis., a corporation of Delaware
 Application December 31, 1956, Serial No. 44,372
 Term of patent 14 years
 (Cl. D14—3)



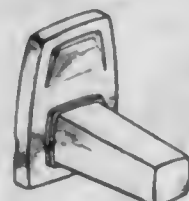
182,148
BABY BIB
 Phyllis A. Turner, Dover, Del., assignor to International Latex Corporation, Dover, Del., a corporation of Delaware
 Application September 25, 1956, Serial No. 43,075
 Term of patent 14 years
 (Cl. D3—26)



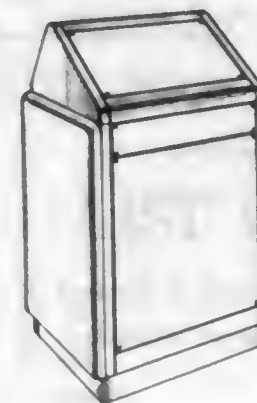
182,149
BABY BIB
 Phyllis A. Turner, Dover, Del., assignor to International Latex Corporation, Dover, Del., a corporation of Delaware
 Application September 25, 1956, Serial No. 43,077
 Term of patent 14 years
 (Cl. D3—26)



182,150
MOUNTING BRACKET FOR BATHROOM FIXTURES
 Andrew J. Unetic, Santa Ana, Calif., assignor, by mesne assignments, to The Yale and Towne Manufacturing Company, New York, N. Y., a corporation of Connecticut
 Application March 4, 1957, Serial No. 45,085
 Term of patent 14 years
 (Cl. D4—3)



182,151
ELECTRONIC CABINET
 James G. Wells, Chicago, and Herbert C. Golz, Aurora, Ill., assignors to Elgin Metalformers Corporation, Elgin, Ill., a corporation of Illinois
 Application May 25, 1956, Serial No. 41,644
 Term of patent 14 years
 (Cl. D26—5)



182,152
HYDRAULIC CRANE UNIT
 Glenn J. Wicke and Robert M. Anrig, Ottawa, Kans., assignors to H. & M. Manufacturing Co., Inc., Ottawa, Kans., a corporation of Kansas
 Application March 18, 1957, Serial No. 45,300
 Term of patent 7 years
 (Cl. D41—1)



LIST OF REISSUE PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 18TH DAY OF FEBRUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

Day, Luther V., to B. O. Warren. Sod cutter. Re. 24,432, 2-18-58, Cl. 97—226.
Lavery, Charles A., to National Tank Co. Separation of liquid phases in gas contactor towers. Re. 24,433, 2-18-58, Cl. 261—3.
Miller, Walter W., to United Specialties Co. Starter ignition switch. Re. 24,434, 2-18-58, Cl. 200—11.
National Tank Co.: See—
Lavery, Charles A. Re. 24,433.
United Specialties Co.: See—
Miller, Walter W. Re. 24,434.
Warren, B. O.: See—
Day, Luther V. Re. 24,432.

LIST OF PLANT PATENTEES

Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,683, 2-18-58, Cl. 47—61.
Boerner, Eugene S., to Jackson & Perkins Co. Rose plant. 1,684, 2-18-58, Cl. 47—61.
Fey, Wilhelm: See—
Neumann, Erich. 1,685.
Jackson & Perkins Co.: See—
Boerner, Eugene S. 1,683.
Boerner, Eugene S. 1,684.
Neumann, Erich, to W. Fey. Red desert apple tree. 1,685, 2-18-58, Cl. 47—62.

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A M I Inc.: See—
Boldt, Melvin H. 182,103.
Allis Chalmers Mfg. Co.: See—
Strehlow, Walter F. 182,147.
American Optical Co.: See—
Armbruster, John T. 182,097.
Armbruster, John T. 182,098.
Armbruster, John T. 182,099.
Amerok Corp.: See—
Morgan, John R. 182,141.
Morgan, John R. 182,142.
Anderson Co., The: See—
Krohn, Fred A. 182,127.
Anrig, Robert M.: See—
Wicke, Glenn J., and Anrig. 182,152.
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Armbruster, John T., to American Optical Co. Microscope. 182,098, 2-18-58, Cl. D57—1.
Armbruster, John T., to American Optical Co. Microscope. 182,099, 2-18-58, Cl. D57—1.
Arnolt Corp.: See—
Kolbe, John. 182,125.
Augenstein, Karl C., to Spidel Corp. Expandable chain for a bracelet or similar article. 182,100, 2-18-58, Cl. D45—4.
Bannister, Harry T., to Chrysler Corp. Automobile. 182,101, 2-18-58, Cl. D14—3.
Behr, Siegfried. Lady's hair ornament. 182,102, 2-18-58, Cl. D86—3.
Boldt, Melvin H., to A M I Inc. Phonograph cabinet. 182,103, 2-18-58, Cl. D56—4.
Cahn, Bernard Co., Inc.: See—
Chase, Herbert S. 182,105.
Carmichael, John L. Coin operated shaver stand. 182,104, 2-18-58, Cl. D4—3.
Chase, Herbert S., to Bernard Cahn Co., Inc. Loose leaf ring binder with lipped photo compartments. 182,105, 2-18-58, Cl. D6—2.
Chicopee Mills, Inc.: See—
McCord, Douglas D. 182,136.
McCord, Douglas D. 182,137.
McCord, Douglas D. 182,138.
Chrysler Corp.: See—
Bannister, Harry T. 182,101.
Gitschlag, Charles F., Jr. 182,115.
Cornwell, Ross E., Jr., and R. O. Ernest, to Sunbeam Corp. Electric shaver. 182,106, 2-18-58, Cl. D22—3.
De Giovelina, Henri C., to The French Glass Co., Inc. Bottle. 182,107, 2-18-58, Cl. D58—6.
Dreyfuss, Henry: See—
Huebner, Arthur H., and Dreyfuss. 182,120.
Elgin Metalformers Corp.: See—
Wells, James G., and Goiz. 182,151.
Ernest, Robert O.: See—
Cornwell, Ross E., Jr., and Ernest. 182,106.
Faulhaber, Frank J. Combined vehicle grille and head lamp guard. 182,108, 2-18-58, Cl. D14—6.
Flandt, Ronald M., and R. E. Hennen, to Globe-Union Inc. Storage battery case. 182,109, 2-18-58, Cl. D26—6.
Fleming, Jack F., to Sterling Plastics Co. Roller ruler. 182,110, 2-18-58, Cl. D52—1.
Florida, James D., to Hamilton Mfg. Co. Dental cabinet. 182,111, 2-18-58, Cl. D24—1.
Frankel, Morris A. Bottle carrier or the like. 182,112, 2-18-58, Cl. D58—5.
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Fridell, Woodrow. Water craft. 182,113, 2-18-58, Cl. D71—1.
Fritsch, Erich, and D. Rauch, to Van Brode Milling Co., Inc. Dish or similar article of hollowware. 182,114, 2-18-58, Cl. D44—15.
Gitschlag, Charles F., Jr., to Chrysler Corp. Hood ornament for an automobile. 182,115, 2-18-58, Cl. D14—18.
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Goiz, Herbert C.: See—
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Hansen, Paul E.: See—
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Hennen, Roy E.: See—
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Hillgren, Carl C., to Hillgren Mfg. Co. Combined door knob and escutcheon. 182,118, 2-18-58, Cl. D50—6.
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Hillgren, Carl C. 182,118.
Hillgren, Carl C. 182,119.
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Turner, Phyllis A. 182,149.
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Jones, Kae E., to Welling Ware, Inc. Spoon or similar article. 182,122, 2-18-58, Cl. D54—12.
Kallekl, Martell J. Massager. 182,123, 2-18-58, Cl. D83—1.
Kearney, Anthony L., and A. P. Magnani. Trim block. 182,124, 2-18-58, Cl. D18—2.
Kolbe, John, to Arnolt Corp. Chair frame. 182,125, 2-18-58, Cl. D18—1.
Kontoff, Saul, and I. Rubin. Camera bag holder. 182,126, 2-18-58, Cl. D61—1.
Krohn, Fred A., to The Anderson Co. Windshield wiper unit. 182,127, 2-18-58, Cl. D14—6.
Larson, Karl O. Four-wheeled cart. 182,128, 2-18-58, Cl. D14—3.
Little, William A. Pistol. 182,129, 2-18-58, Cl. D30—1.
Lupersbek, Frank. Flower pot. 182,130, 2-18-58, Cl. D35—3.
Lyon, George A. Wheel cover or similar article. 182,131, 2-18-58, Cl. D14—30.
MacMinn, Strother C., to New Plastic Corp. Soft faced ham-mer. 182,132, 2-18-58, Cl. D93—4.
MacMinn, Strother C., to New Plastic Corp. Soft faced ham-mer. 182,133, 2-18-58, Cl. D93—4.
MacMinn, Strother C., to New Plastic Corp. Soft faced ham-mer. 182,134, 2-18-58, Cl. D93—4.
Magnani, Andrew P.: See—
Kearney, Anthony L., and Magnani. 182,124.

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- Maynard, Kenneth, and P. E. Hansen. Exhaust header for automobiles. 182,135, 2-18-58, Cl. D14-6.
- McCord, Douglas D., to Chicopee Mills, Inc. Puffed textile fabric. 182,136, 2-18-58, Cl. D92-1.
- McCord, Douglas D., to Chicopee Mills, Inc. Puffed textile fabric. 182,137, 2-18-58, Cl. D92-1.
- McCord, Douglas D., to Chicopee Mills, Inc. Puffed textile fabric. 182,138, 2-18-58, Cl. D92-1.
- Middlemark, Marvin P. Water powered abrading machine. 182,139, 2-18-58, Cl. D37-1.
- Molke, Arthur E., to Pacific Gamble Robinson Co. Merchandise display sign. 182,140, 2-18-58, Cl. D1-12.
- Morgan, John R., to Amerock Corp. Pull. 182,141, 2-18-58, Cl. D10-8.
- Morgan, John R., to Amerock Corp. Combined pull and catch. 182,142, 2-18-58, Cl. D10-8.
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 MacMinn, Strother C. 182,133.
 MacMinn, Strother C. 182,134.
- Pacific Gamble Robinson Co.: See—
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- Petersen, Gerald A. M. Excavating tooth. 182,143, 2-18-58, Cl. D41-1.
- Pretz, Anne A. Holder for a pair of eyeglasses. 182,144, 2-18-58, Cl. D57-1.
- Rauch, David: See—
 Fritsch, Erich, and Rauch. 182,114.
- Rubeck, Sidney. Table lighter or similar article. 182,145, 2-18-58, Cl. D48-27.
- Rubin, Irving: See—
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- Sharp, Albert E. Gun rest. 182,146, 2-18-58, Cl. D30-1.
- Spidel Corp.: See—
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- Sterling Plastics Co.: See—
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- Strehlow, Walter F., to Allis Chalmers Mfg. Co. Tractor. 182,147, 2-18-58, Cl. D14-3.
- Sunbeam Corp.: See—
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- Turner, Phyllis A., to International Latex Corp. Baby bib. 182,148, 2-18-58, Cl. D3-26.
- Turner, Phyllis A., to International Latex Corp. Baby bib. 182,149, 2-18-58, Cl. D3-26.
- Unetic, Andrew J., to The Yale and Towne Mfg. Co. Mounting bracket for bathroom fixtures. 182,150, 2-18-58, Cl. D4-3.
- Van Brode Milling Co., Inc.: See—
 Fritsch, Erich, and Rauch. 182,114.
- Wellington Ware, Inc.: See—
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 Jones, Kae E. 182,122.
- Wells, James G., and H. C. Gols, to Elgin Metalformers Corp. Electronic cabinet. 182,151, 2-18-58, Cl. D26-5.
- Wicke, Glenn J., and R. M. Anrig, to H. & M. Mfg. Co., Inc. Hydraulic crane unit. 182,152, 2-18-58, Cl. D41-1.
- Yale and Towne Mfg. Co., The: See—
 Unetic, Andrew J. 182,150.

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LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED ON THE 18TH DAY OF FEBRUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

- ACF Industries, Inc.: See—
Wynn, Robert O. 2,823,888.
- ARO Equipment Corp.: See—
Zwayer, Robert E. 2,823,775.
- Abdo, Roger J., to Wade, Wenger & Associates, Inc. Brush mop. 2,823,400, 2-18-58, Cl. 15-124.
- Abeln, James M.: See—
Anderson, Harry V. 2,823,437.
- Ackermann, Hans, and G. Schetty, to J. R. Geigy, A. G. Azo dyestuffs. 2,824,094, 2-18-58, Cl. 260-146.
- Acme Visible Records, Inc.: See—
Gray, Walter W. 2,823,582.
Watson, William J. 2,823,536.
- Acra Electric Corp.: See—
Browne, Donald W. 2,824,199.
- Adams, Benjamin H., H. Frahm, and W. R. McGee, to the United States of America as represented by the Secretary of War. Protective preparation against mustard vapor. 2,824,070, 2-18-58, Cl. 252-182.
- Adams, L. Ltd.: See—
Voss, Waldemar E. 2,823,543.
- Adickes, Franz: See—
Zelle, Karl, Adickes, and Wick. 2,824,106.
- Admiral Corp.: See—
Aten, Ralph W., Silvey, and Miller. 2,823,663.
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- Coffman, James V., to The Patterson Foundry & Machine Co. Swing gate for processing vessels. 2,823,825, 2-18-58, Cl. 220-87.
- Cohn, Arthur D. Container. 2,823,723, 2-18-58, Cl. 150-10.
- Colner, Leonard. Tucking assembly for sewing machines. 2,823,931, 2-18-58, Cl. 112-132.
- Cole, Arthur D. Air control device for a building having air conditioning. 2,823,600, 2-18-58, Cl. 98-116.
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- Cornwell, Ralph T. K., to American Viscose Corp. Film-forming composition with a terephthalamide ester plasticizer. 2,824,017, 2-18-58, Cl. 106-180.
- Cornwell, Ralph T. K., to American Viscose Corp. Film-forming composition with a terephthalamide ester plasticizer. 2,824,018, 2-18-58, Cl. 106-180.
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- Crabbe, René A., to Solvay & Cie. Process and apparatus for the manufacture of solutions of alkali metal hydroxides. 2,824,054, 2-18-58, Cl. 204-99.
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- Electro-Snap Switch & Mfg. Co.: See—
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- Elliott Co.: See—
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- Ellison, Lynn E., to The Pure Oil Co. Corrosion meter. 2,824,283, 2-18-58, Cl. 324-65.
- Ellwood, William F.: See—
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- Erickson, Charles E. Sportsman's life preserver garment. 2,823,396, 2-18-58, Cl. 9-20.
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- Fielden, Richard J., R. F. Homer, and R. L. Jones, to Imperial Chemical Industries Ltd. New quaternary salts. 2,823,987, 2-18-58, Cl. 71—2.5.
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- Fisher, George F., and H. E. Dillon, to Midland Mfg. Co., Inc. Piezoelectric crystal assembly. 2,824,219, 2-18-58, Cl. 250—94.
- Fitter, Charles F., to Eastman Kodak Co. Continuous optical copier. 2,823,579, 2-18-58, Cl. 2—24.
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- Frankenstein, William P. Simulated wheeled toy cart. 2,823,844, 2-18-58, Cl. 229—8.
- Frater, George G., and W. O. Johnson, to G. B. Lewis Co. Separable plastic panel box. 2,823,821, 2-18-58, Cl. 220—4.
- Frater, Milton A. Nesting and stacking container. 2,823,828, 2-18-58, Cl. 220—97.
- Frater, Milton A. Nesting and stacking container. 2,823,829, 2-18-58, Cl. 220—97.
- Fraser, Harvey J., to Olin Mathieson Chemical Corp. Blasting cap packages. 2,823,610, 2-18-58, Cl. 102—28.
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- Gamble, Lafayette. Emergency braking attachment for motor trucks and the like. 2,823,769, 2-18-58, Cl. 188—2.
- Gangell, Lawrence J. Automobile trash disposal. 2,823,799, 2-18-58, Cl. 209—83.
- Gannett, Wright K. Autofocus mechanism. 2,823,580, 2-18-58, Cl. 88—24.
- Garasimowicz, John D., to The Singer Mfg. Co. Needle-bar jogging mechanisms for sewing machines. 2,823,632, 2-18-58, Cl. 112—158.
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- Gibbons, Walter G., J. P. Jones, W. A. Meener, and M. Weiss. Composition for preparation of Burrow's solution. 2,824,042, 2-18-58, Cl. 167—58.
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- Gill, Ray H., to The B. F. Goodrich Co. Tubeless tire valve and rim assembly. 2,823,724, 2-18-58, Cl. 182—427.
- Gilliland, Theodore R., to the United States of America as represented by the Secretary of Commerce. Automatic radio control for clocks. 2,824,218, 2-18-58, Cl. 250—2.
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- Gordon, Thurlow M., Jr., and H. L. Taylor, Jr. Methods of exposing motion picture film and of projecting motion pictures. 2,823,578, 2-18-58, Cl. 82—16.6.
- Gorin, Everett, G. P. Curran, and J. D. Batchelor, to Pittsburgh Consolidation Coal Co. Desulfurization of carbonaceous solid fuel. 2,824,047, 2-18-58, Cl. 202—31.
- Gorrell, Donald W., and E. F. Knapp, to The Aero Equipment Corp. Coupling with cam washer for flat detents. 2,823,984, 2-18-58, Cl. 285—277.
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- Grant, James B. Doorway construction. 2,823,429, 2-18-58, Cl. 20—16.
- Grant, Nicholas J., and C. G. Goetz, to Sintercast Corp. of America. Composite matter. 2,823,988, 2-18-58, Cl. 75—5.
- Graswick, Carl A. Windrower having stalk bending means. 2,823,510, 2-18-58, Cl. 56—192.
- Gratan, Joseph W., to General Dynamics Corp. Direct current potential generator. 2,824,229, 2-18-58, Cl. 250—36.
- Gray, Harold, to The B. F. Goodrich Co. Emergency wheel. 2,823,956, 2-18-58, Cl. 301—38.
- Gray, John W., and I. A. Greenwood, Jr., to the United States of America as represented by the Secretary of War. Bombing system. 2,823,585, 2-18-58, Cl. 89—1.5.
- Gray, Kenneth R., M. L. Crosby, and J. C. Steinberg, to Rayonier Inc. Recovery of chemicals in wood pulp preparation. 2,824,071, 2-18-58, Cl. 252—183.
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- Green, Jack S., R. G. Semrad, and A. H. Nichols, to Hughes Aircraft Co. Signal-amplitude to pulse-duration converter. 2,824,287, 2-18-58, Cl. 832—1.
- Greenfield, Harry. Door template. 2,823,462, 2-18-58, Cl. 33—194.
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- Gardner, James H., N. C. Robertson, and A. Di Nardo, to Escambia Chemical Corp. Process of producing alcohols by oxidatively polymerizing ethylene and subsequently hydrogenating. 2,824,142, 2-18-58, Cl. 260—638.
- Garellick, Judith J., to Pulmosan Safety Equipment Corp. Respirator. 2,823,671, 2-18-58, Cl. 128—146.
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Grigger, John C., and H. C. Miller, to Pennsalt Chemicals Corp. Method of making low resistance contact with a lead dioxide electrode. 2,824,027, 2-18-58, Cl. 117-212.

Grogg, William, Jr., to The Quaker Oats Co. Wafer transfer mechanism. 2,823,780, 2-18-58, Cl. 198-20.

Gross, Calvin W. Portable skid type conveyor. 2,823,780, 2-18-58, Cl. 193-41.

Gross, J. Arthur: See—

Shaffer, Julius E. 2,823,936.

Gustafson, Wayne. Material treating machine. 2,823,904, 2-18-58, Cl. 250-24.

Guthart, Joseph: See—

Littman, Jacob H., and Guthart. 2,823,719.

Haberland, Frederick C., to Borg-Warner Corp. Pump with pressure loaded bushings. 2,823,615, 2-18-58, Cl. 103-126.

Hagfeldt, Lydia A. Foldable crib. 2,823,390, 2-18-58, Cl. 5-99.

Hagemann, Julius, to the United States of America as represented by the Secretary of the Navy. Underwater vehicle with bottom-regulated diving control. 2,823,635, 2-18-58, Cl. 114-10.

Hagemeyer, Hugh J., Jr.: See—

Edwards, Marvin B., and Hagemeyer. 2,824,090.

Haglund, Dildrik W.: See—

Eberman, Carl B., Haglund, and Tenland. 2,823,938.

Hahn, Edwin E., Jr., and A. L. Schultz, to the United States of America as represented by the Secretary of the Navy. Infra-red radiation detector. 2,824,235, 2-18-58, Cl. 250-83.3.

Haines, Malcolm P., and J. D. Ewell, to Mera Engineering, Inc. Measuring gauges. 2,824,299, 2-18-58, Cl. 340-265.

Hall, C. P., Co., The: See—

Hill, Norman C., and Kucski. 2,824,134.

Kucski, Vincent P. 2,824,122.

Hall, C. P., Co. of Illinois, The: See—

Corcoran, Geraldine B. 2,824,135.

Kucski, Vincent P. 2,824,123.

Hall, Cecil E., to Neutro-Gear, Inc. Door-operated safety device for motor vehicles having push-button controlled transmissions. 2,823,755, 2-18-58, Cl. 180-82.

Hall, Walter A., to E. I. du Pont de Nemours and Co. Cleaner for automotive cooling system. 2,824,069, 2-18-58, Cl. 252-138.

Hallpike, Charles S., and L. Blackmore, to National Research Development Corp. Apparatus for illuminating and inspecting cavities. 2,823,606, 2-18-58, Cl. 128-9.

Hamann, Omer F.: See—

McNaney, Joseph T., Hamann, and Redman. 2,824,250.

Hamilton, Joseph K.: See—

Arbuckle, Robert M., and Hamilton. 2,823,492.

Hamilton, Lyle A., P. S. Landis, and F. M. Seger, to Socony Mobil Oil Co., Inc. Metal salts of phosphorus pentasulfide-olefin reaction products. 2,824,062, 2-18-58, Cl. 252-32.7.

Hamilton Watch Co.: See—

Le Van, James O. 2,823,512.

Hamm, Franklin A., to Eastman Kodak Co. Photomagnetic composition and printing process. 2,823,999, 2-18-58, Cl. 90-35.

Handberg, Christian: See—

Okulitch, George J., Zozulin, Handberg, and Falck. 2,823,946.

Hannon, John W. G., to McIntyre Research Foundation. Method of producing an atmosphere protective against silicosis. 2,824,043, 2-18-58, Cl. 107-72.

Hannoversche Maschinenbau-Aktiengesellschaft vormals Georg Egestorff (Hanomag): See—

Haverlender, Karl. 2,823,552.

Hansen, Siegfried, to Hughes Aircraft Co. Storage grid for direct-viewing storage tubes. 2,824,249, 2-18-58, Cl. 313-68.

Harbourn, Charles L. A.: See—

Deaty, Dennis H., and Harbourn. 2,824,901.

Hardy, Rene J., and Y. L. Le Port, to Drivomatic (Société à Responsabilité Limitée). Control circuit for positioning an object. 2,824,242, 2-18-58, Cl. 307-149.

Harfenist, Morton: See—

Bavley, Abraham, Harfenist, and McLamore. 2,824,041.

Harian, Avery S., to Industrial Filtration Co. Vacuum filter. 2,823,606, 2-18-58, Cl. 210-387.

Harp, Ray S., and H. P. Heinisch. Controllable multiple driving mechanism. 2,823,500, 2-18-58, Cl. 74-722.

Harrington, Richard F., to Parkersburg-Aetna Corp. Sprocket idler. 2,823,553, 2-18-58, Cl. 74-243.

Harrington, Richard F., to Parkersburg-Aetna Corp. Bearing. 2,823,965, 2-18-58, Cl. 308-187.1.

Harrington, Richard F., to Parkersburg-Aetna Corp. Bearing. 2,823,967, 2-18-58, Cl. 308-187.2.

Harris, Earl R. Auxiliary visor. 2,823,950, 2-18-58, Cl. 290-97.

Harris, Kenneth E.: See—

Levell, Derek A., and Harris. 2,824,301.

Harris, Sterling G.: See—

Seal, Roderick D., and Harris. 2,823,414.

Harrison, Arthur V.: See—

Dionak, Casimer G. 2,823,432.

Harrison Cropsaver Co.: See—

Beaty, Clarence E. 2,823,511.

Hartz, Joseph M., to General Telephone Laboratories, Inc. Calling device identification cam assembly. 2,824,176, 2-18-58, Cl. 179-90.

Haux, Elmer H., to Pittsburgh Plate Glass Co. Mixtures of hydroxy phenones and esters of salicylic acid in resins as inhibitors of discoloration by light. 2,824,080, 2-18-58, Cl. 240-45.4.

Havens, Byron L., and J. J. Lentz, to the United States of America as represented by the Secretary of War. Bomb release computing system. 2,823,580, 2-18-58, Cl. 80-1.5.

Haverlender, Karl, to Hannoversche Maschinenbau-Aktiengesellschaft vormals Georg Egestorff (Hanomag). Speed-change gear unit for motor-vehicles, especially tractors. 2,823,552, 2-18-58, Cl. 74-15.66.

Hazeltine Research, Inc.: See—

Richman, Donald. 2,824,227.

Healy, Donald V. Electro-hydraulic servo valve. 2,823,689, 2-18-58, Cl. 137-52.

Hecht, Herbert, and C. Pottle, to Sperry Rand Corp. Redundant fail-proof amplifier and alarm. 2,824,296, 2-18-58, Cl. 340-253.

Heckert, Richard E., to E. I. du Pont de Nemours and Co. Tricyanovinylaryleneazobenzene compounds. 2,824,096, 2-18-58, Cl. 200-192.

Hedback, Tore J., and G. G. Lundman, to Aktiebolaget Svenska Maskinverken. Method and means for heat exchange between flowing media, preferably for remote heating systems. 2,823,650, 2-18-58, Cl. 122-32.

Heftl, Martin. Escalator adapted to follow a curved path. 2,823,785, 2-18-58, Cl. 198-17.

Helges, Russell W., and W. R. Reed, to Armstrong Cork Co. Manufacture of cork composition products. 2,823,420, 2-18-58, Cl. 18-48.

Hein, George N., Jr., to Becton, Dickinson and Co. Lancet. 2,823,677, 2-18-58, Cl. 128-314.

Heinisch, Harold P.: See—

Harp, Ray S., and Heinisch. 2,823,500.

Heinle, Carl W., to American Can Co. Flexible dispensing nozzle with supporting closure. 2,823,837, 2-18-58, Cl. 222-546.

Heinzelman, Richard V., to The Upjohn Co. Pyrrolidines. 2,824,111, 2-18-58, Cl. 200-326.5.

Heitor, Antonio L. C., to G. D. Dunlop. Mechanical dead reckoning and time-distance navigational computer. 2,823,857, 2-18-58, Cl. 235-61.

Helvern, James O., to General Motors Corp. Actuating mechanism for a friction brake. 2,823,770, 2-18-58, Cl. 188-72.

Hempel, Herbert W. Sprinkler system connection for sprinkler head. 2,823,807, 2-18-58, Cl. 210-532.

Hempill, Co.: See—

St. Pierre, Paul L., and Wawonek. 2,823,529.

Henderson, John K., R. B. Rose, and C. M. Stout, to The Dow Chemical Co. Method of treating wells. 2,823,753, 2-18-58, Cl. 160-20.

Hendlin, David, to Merck & Co., Inc. Microbial production of folinic acid. 2,824,045, 2-18-58, Cl. 195-96.

Henley, Robert H.: See—

Pennington, Neal A. 2,823,907.

Hennings, Frederick R., to Gilman Engineering & Mfg. Corp. Parts feeder ribbon. 2,823,789, 2-18-58, Cl. 108-131.

Henseleit, George, to Koppers Co., Inc. Apparatus for reheating coke oven doors. 2,823,939, 2-18-58, Cl. 292-1.

Henson, Richard A., to Fairchild Engine and Airplane Corp. Reverse thrust landing control for aircraft. 2,823,878, 2-18-58, Cl. 244-81.

Heppenstall Co.: See—

Anderson, John R., and Janoff. 2,823,944.

Herbster, George B., to Herbster-Schmiller, Inc. Combination heat exchange head and combustion chamber. 2,823,658, 2-18-58, Cl. 126-91.

Herbster-Schmiller, Inc.: See—

Herbster, George B. 2,823,658.

Heredia, Francisco M. F., to Patentes Talgo, S. A. Railway train. 2,823,623, 2-18-58, Cl. 105-3.

Herman, Daniel F.: See—

Beacham, Harry H., and Herman. 2,824,115.

Herod, Henry N. Musical instrument. 2,823,571, 2-18-58, Cl. 84-384.

Herrald, Arthur H. E.: See—

Ferre, Maurice C., and Herrald. 2,824,279.

Hertrich, Joseph, to The Western States Machine Co. Sugar centrifugal charging apparatus. 2,823,805, 2-18-58, Cl. 210-360.

Hersog, Gerhard, to The Texas Co. Controlling scintillometer temperature. 2,824,233, 2-18-58, Cl. 250-71.

Heiselmeier, Fred H.: See—

Holzboog, Walter H., and Heiselmeier. 2,823,600.

Hess, John J., Jr., to Sperry Rand Corp. Control systems for dirigible craft. 2,823,877, 2-18-58, Cl. 244-77.

Hessler, Arthur F.: See—

Shearer, Thomas W., Jr., and Hessler. 2,824,218.

Heyl, Russell G., Jr.: See—

Williams, Richard J., and Heyl. 2,823,949.

Hickman, Carl V.: See—

Chadwick, George A., Grouard, Sihler, Hickman, and Wertman. 2,823,587.

Hickman, Charles E., and A. L. Goldsmith. Refrigerating system and method of making the same. 2,823,933, 2-18-58, Cl. 285-173.

Hill, Justin D., to The Lawrence Paper Co. Load retaining doors. 2,823,745, 2-18-58, Cl. 160-368.

Hill, Norman C., and V. P. Kucski, to C. P. Hall Co. Separation of aselaic acid from mixtures containing suberic and aselaic acids, etc. 2,824,134, 2-18-58, Cl. 280-537.

Hilliard, Robert C., to the United States of America as represented by the Secretary of the Air Force. Signal generator for clutter simulation. 2,824,221, 2-18-58, Cl. 230-27.

Hindl, Edmen. Rifle rack. 2,823,808, 2-18-58, Cl. 211-84.

Hintze, Rudolf, to Stempel-Hermetik G. m. b. H. Carrier for a motor compressor of a refrigerating machine. 2,823,850, 2-18-58, Cl. 230-58.

Hipsley, William B.: See—

Webb, William A., and Hipsley. 2,823,588.

Hlaseck, Earle F., to Kip, Inc. Method of providing a coffee packet. 2,824,002, 2-18-58, Cl. 99-77.1.

Hitchcock, Donald F.: See—

Evans, Jesse L., and Hitchcock. 2,823,664.

Hoar, Roger S.: See—

Pennington, Neal A. 2,823,907.

Hobson, H. M., Ltd.: See—

Smith, Charles P., and Glaze. 2,823,879.

Hodges Research and Development Co., Inc.: See—

Williams, Beverly E. 2,824,011.

Hoerr, Burkhardt R.: See—

Kersh, Ronald C., and Hoerr. 2,823,539.

Hoffman Electronics Corp.: See—

Stellmacher, Donald D. 2,824,238.

Hoffmann, Walter, to Aktiebolaget Separator. Centrifugal separator for purifying liquids which emit harmful vapors. 2,823,853, 2-18-58, Cl. 233-21.

Holden, Herbert, to Beloit Iron Works. Suction roll for paper-making machines. 2,823,593, 2-18-58, Cl. 92-53.

Holland-Rantos Co., Inc.: See—

Kunnas, Eric, Jr. 2,823,669.

Holman, Erwin W., to Bell Telephone Laboratories, Inc. Selective ringing circuit using a translator. 2,824,174, 2-18-58, Cl. 179-86.

Holsclaw, Charles H. Trailer tilting arrangement. 2,823,817, 2-18-58, Cl. 214-576.

Holstein, Alvin W.: See—

Ridings, Clements A., Holstein, and Marr. 2,823,782.

Holt, William J., Jr., to Varo Mfg. Co., Inc. Electric translating system. 2,824,274, 2-18-58, Cl. 821-27.

Holzboog, Walter H., and F. H. Heiselmeier, to Magic Chef Food Giant Markets, Inc. Cooking range. 2,823,660, 2-18-58, Cl. 126-190.

Homer, Ronald F.: See—

Fielden, Richard J., Homer, and Jones. 2,823,987.

Homeyer, Henry N., and J. J. McCarthy, to Connecticut Hard Rubber Co. Chemically resistant pressure-sensitive adhesive tape and method of making the same. 2,824,026, 2-18-58, Cl. 117-122.

Hood, Charles N., II, to General Electric Co. Lifting aid. 2,823,986, 2-18-58, Cl. 254-168.

Hoover Co., The: See—

Duff, Jack E. 2,823,761.

Hope-Page Engineering Corp.: See—

Page, Rory E. 2,823,670.

Hopkins, George M.: See—

Parham, Hester J. 2,823,706.

Hopkins, Richard J.: See—

Barrett, Arthur L., and Hopkins. 2,823,791.

Horgen, Helge. Auto-generators of hot gases under pressure, and in particular in free piston auto-generators. 2,823,654, 2-18-58, Cl. 123-46.

Horizons Titanium Corp.: See—

Walner, Eugene. 2,824,053.

Horrocks, Walter E. Weatherstrip and flashing structures. 2,823,431, 2-18-58, Cl. 20-89.

Horton, Kenneth W. Grab for lifting hollow objects. 2,823,948, 2-18-58, Cl. 294-97.

Hosking, Paul C., to Stewart-Warner Corp. Wheel spinner unit. 2,823,547, 2-18-58, Cl. 74-16.

Hotchner, Harold. Illuminated sign character. 2,823,474, 2-18-58, Cl. 40-130.

Howard, Edward G., Jr., to E. I. du Pont de Nemours and Co. 5-hydroxy pyrrolone-2. 2,824,110, 2-18-58, Cl. 260-326.3.

Hoyt, Helen M. Tackle box. 2,823,971, 2-18-58, Cl. 312-290.

Hruby, John O., Jr., to Rain Jet Corp. Sprinkler head and nozzle. 2,823,952, 2-18-58, Cl. 299-84.

Hubbard, William A.: See—

Parry, Harvey L., and Hubbard. 2,824,083.

Hubl, Johann: See—

Moeltner, Ernst F. W., and Hubl. 2,823,831.

Hudson, Paul S.: See—

Smith, Warren L., Potts, and Hudson. 2,824,105.

Huenl, Albrecht, and A. Staehelin, to Ciba Pharmaceutical Products Inc. New 1,8,5-triazines. 2,824,103, 2-18-58, Cl. 260-249.6.

Huff, Florence A. Work basket. 2,823,842, 2-18-58, Cl. 223-107.

Hughes Aircraft Co.: See—

Green, Jack S., Semrad, and Nichols. 2,824,287.

Hansen, Siegfried. 2,824,249.

Nelson, Eldred C. 2,823,855.

Sargeant, Homer I. 2,824,243.

Sensiper, Samuel. 2,824,286.

Smith, Henry M. 2,824,259.

Stump, Harvey. 2,824,276.

Hughes, Lee E.: See—

Miller, Elmer J., Budd, and Hughes. 2,823,442.

Humbarger, Frank F., to Union Carbide Corp. Method of fabricating files and the like. 2,823,562, 2-18-58, Cl. 76-24.

Humphrey, John H. Adjustable chairs. 2,823,732, 2-18-58, Cl. 165-116.

Hunt, John M., to Link Aviation, Inc. Digital voltmeter. 2,824,285, 2-18-58, Cl. 324-99.

Hunt, John S.: See—

Long, Alan G., and Hunt. 2,824,100.

Hunter, James, Machine Co.: See—

Warner, Donald S. 2,823,535.

Hupe, Adolf, J. Geller, K. F. Lang, H. Schildwächter, E. Gschel, F. Dostal, and K. H. Koch, to Rutgerswerke-Aktiengesellschaft. Process for separating the ingredients of a reaction mixture obtained by the oxidation of cumene and subsequent cleavage of the hydroperoxide mixture. 2,824,048, 2-18-58, Cl. 202-42.

Hyman, Richard M., to Owens Brush Co. Two-piece toothbrush. 2,823,404, 2-18-58, Cl. 15-145.

Imperial Chemical Industries Ltd.: See—

Coats, Robert R., and Williams. 2,824,147.

Fielden, Richard J., Homer, and Jones. 2,823,987.

Industrial Filtration Co.: See—

Harian, Avery S. 2,823,806.

Institute of Gas Technology, The: See—

Eakin, Bert E., and Ellington. 2,823,523.

Institutum Divi Thomae Foundation, The: See—

Sperli, George. 2,824,014.

International Laundry Machinery Co.: See—

Zimarik, John, and Zarrs. 2,823,602.

International Register Co.: See—

Gallagher, William P., Stolle, and Blielik. 2,824,181.

International Telephone and Telegraph Corp.: See—

Carver, Vinton D., and Liao. 2,823,973.

Pong, Samuel G., and Salingor. 2,824,253.

Irving, George E., to R. L. Parsons. Double sickle mower. 2,823,500, 2-18-58, Cl. 56-25.

Isaac, Sadie M. Adjustable frame cornice support. 2,823,743, 2-18-58, Cl. 160-39.

Ivers-Lee Co.: See—

Volckering, Lloyd I., O'Meara, and Lefebvre. 2,823,798.

J. y L. Cervello: See—

Bach, José C. 2,823,836.

Jackson, Herbert P. Match book. 2,823,793, 2-18-58, Cl. 208-29.

Jacobs, Chester C., to General Motors Corp. Automobile seat trim. 2,823,735, 2-18-58, Cl. 153-182.

Jacobs, Gilbert C., to Everbrite Electric Signs, Inc. Display signs. 2,823,473, 2-18-58, Cl. 40-125.

Jakeway, Gerald V., and M. S. Keeler, II, to Keeler Brass Co. Locking means for gas valve. 2,823,886, 2-18-58, Cl. 251-104.

Janoff, Daniel L.: See—

Anderson, John R., and Janoff. 2,823,944.

Jefferson Lake Sulphur Co.: See—

Miller, Ernest B. 2,823,764.

Jenn, Louis J. Ventilator. 2,823,598, 2-18-58, Cl. 98-43.

Jennen, Jacob J., to Gevaert Photo-Producten N. V. Process and material for producing photographic multi-color images. 2,823,998, 2-18-58, Cl. 06-9.

Jennings, Alethea A. Sleeve pressing pad. 2,823,471, 2-18-58, Cl. 38-141.

Jennings Machine Corp.: See—

Morgan, Harry W. 2,823,787.

Jennison, James H., to the United States of America as represented by the Secretary of the Navy. Adjustable rail support. 2,823,866, 2-18-58, Cl. 238-281.

Johannessen, Vaughn L., and D. B. Sweely, to Western Electric Co., Inc. Apparatus for broaching articles. 2,823,592, 2-18-58, Cl. 90-33.

Johns-Manville Corp.: See—

Powell, Edward R. 2,823,416.

Johnson, Clarence R., 1/2 to J. Szallar. Fountain pen. 2,823,645, 2-18-58, Cl. 120-42.03.

Johnson, Harold D., E. W. Babcock, and J. F. Mougin, to Philco Corp. One-way clutch. 2,823,779, 2-18-58, Cl. 192-105.

Johnson & Johnson: See—

Davies, Thomas P., and Sullivan. 2,823,444.

Schladermundt, Peter, and Dennerlein. 2,823,672.

Schladermundt, Peter, and Dennerlein. 2,823,673.

Johnson, Norman G., G. A. Noddin, and M. E. Swanson, to E. I. du Pont de Nemours and Co. Device for seismic prospecting. 2,823,609, 2-18-58, Cl. 102-27.

Johnson, Roland: See—

Needham, Edward R., and Johnson. 2,823,575.

Needham, Edward R., and Johnson. 2,823,576.

Johnson, Thomas H. Microwave-registering of projectile position and velocity in guns. 2,824,284, 2-18-58, Cl. 324-70.

Johnson, Wallace C.: See—

Vistain, James E., Jr., and Johnson. 2,823,639.

Johnson, Wesley O.: See—

Frater, George G., and Johnson. 2,823,821.

Johnson, Donald C., to Minneapolis-Honeywell Regulator Co. Liquid level sensing apparatus. 2,824,278, 2-18-58, Cl. 323-69.

Jolly, Samuel E., to Sun Oil Co. Lithium greases containing naphthyl diesters. 2,824,065, 2-18-58, Cl. 252-42.

Jones, Ira M.: See—

Lindow, Carl W. 2,824,009.

Jones, James P.: See—

Gibbons, Walter G., Jones, Messner, and Welas. 2,824,042.

Jones, Richard L.: See—

Fielden, Richard J., Homer, and Jones. 2,823,987.

Jones, Troy L. Mop holder. 2,823,405, 2-18-58, Cl. 15-153.

Josias, Conrad S., and E. K. Plofker, to the United States of America as represented by the Secretary of the Navy. Automatic scale-changing apparatus. 2,824,297, 2-18-58, Cl. 340-253.

Joy Mfg. Co.: See—

Barrett, Arthur L., and Hopkins. 2,823,791.

Kaftiz, Peter H.: See—

Snow, Donald L., and Kaftiz. 2,824,258.

Kafka, Wilhelm G., Schilling, and M. Tachernak, to Siemens-Schuckertwerke Aktiengesellschaft. Electric power translating apparatus of low losses and low wattless power. 2,824,241, 2-18-58, Cl. 307-149.

Kahnt, Friedrich: See—

Miescher, Karl, Weiststein, and Kahnt. 2,824,044.

Kaiser Metal Products, Inc.: See—

Craddock, William D., and Cudhea. 2,823,591.

Kaley, Robert C., to De Walt Inc. Adjustable splitter blade assembly for saws. 2,823,711, 2-18-58, Cl. 143-159.

Kamlet, Jonas, to National Distillers and Chemical Corp. Process for the manufacture of titanium metal. 2,823,991, 2-18-58, Cl. 75-84.4.

Kammerer, Archer W., 1/2 to A. W. Kammerer, Jr., and 1/2 to J. K. Lamphere. Expandable rotary drilling tools. 2,823,901, 2-18-58, Cl. 255-78.

Kammerer, Archer W., Jr.: See—

Kammerer, Archer W. 2,823,901.

Kandle, Charles W. Vertical reamer. 2,823,900, 2-18-58, Cl. 255-73.

Karalus, Lew W. Safety pin attachment. 2,823,436, 2-18-58, Cl. 24-150.

Karole, John J. Electrical lighting fixture. 2,824,217, 2-18-58, Cl. 240-78.

Karsten, Kenneth S., to R. T. Vanderbilt Co., Inc. Fungicidal composition. 2,823,039, 2-18-58, Cl. 167-30.

Kay-Fries Chemicals Inc.: See—
Nicholl, Leonard, Trasio, and Blohm. 2,824,121.
Kaye, Emmanuel: See—
Arnot, Alfred E. R. 2,823,621.
Keeler Brass Co.: See—
Jakeway, Gerald V., and Keeler. 2,823,886.
Keeler, Miner S., II.: See—
Jakeway, Gerald V., and Keeler. 2,823,886.
Kehe, Henry J.: See—
Newton, Edwin B., and Kehe. 2,824,107.
Kehe, Henry J., and E. B. Newton, to The B. F. Goodrich Co. Method for making metal phthalocyanine pigments. 2,824,108, 2-18-58, Cl. 260—314.5.
Keller, Robert, to Geratebau-Anstalt Baisers. Instrument for measuring a vacuum. 2,824,246, 2-18-58, Cl. 313—54.
Kellogg, Joseph, to Nordberg Mfg. Co. Positive hold control. 2,823,897, 2-18-58, Cl. 284—173.
Kellogg, M. W. Co., The: See—
Mader, Charles K. 2,823,652.
Kelly, Joe T.: See—
Knight, Harmon M., and Kelly. 2,824,150.
Knight, Harmon M., and Kelly. 2,824,152.
Knight, Harmon M., and Kelly. 2,824,154.
Knight, Harmon M., and Kelly. 2,824,155.
Knight, Harmon M., and Kelly. 2,824,157.
Knight, Harmon M., and Kelly. 2,824,160.
Knight, Harmon M., and Kelly. 2,824,161.
Knight, Harmon M., and Kelly. 2,824,162.
Kelly, Joe T., and H. M. Knight, to The American Oil Co. Alkylation process using metal pyrophosphate hydrate-BF₃ catalyst. 2,824,146, 2-18-58, Cl. 260—671.
Kelly, Joe T., and H. M. Knight, to The American Oil Co. Alkylation process. 2,824,151, 2-18-58, Cl. 260—683.44.
Kelly, Joe T., and H. M. Knight, to The American Oil Co. Alkylation process. 2,824,153, 2-18-58, Cl. 260—683.44.
Kelly, Joe T., and H. M. Knight, to The American Oil Co. Alkylation process. 2,824,156, 2-18-58, Cl. 260—683.44.
Kelly, Joe T., and H. M. Knight, to The American Oil Co. Alkylation process. 2,824,158, 2-18-58, Cl. 260—683.44.
Kelly, Joe T., and H. M. Knight, to The American Oil Co. Alkylation process. 2,824,159, 2-18-58, Cl. 260—683.44.
Kelsey, Cndwader W. Rotary soil working device. 2,823,597, 2-18-58, Cl. 97—40.
Kendall, Robert A., to Vancouver Plywood Co. Tongue and groove plywood. 2,823,433, 2-18-58, Cl. 20—92.
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Stehling, Ralph J. 2,823,642.
Stehling, Ralph J., to The Chas. H. Stehling Co. Pasting plate paste spraying apparatus. 2,823,642, 2-18-58, Cl. 118-323.
Steigerwald, Karl H., to C. Zeiss. Method and device for the transmission of high speed radiation, particularly corpuscular radiation, between spaces of different pressure. 2,824,232, 2-18-58, Cl. 250-49.5.
Steinbach, John D. Heating pad. 2,823,665, 2-18-58, Cl. 126-265.
Steinberg, John C.: See—
Gray, Kenneth R., Crosby, and Steinberg. 2,824,071.
Stellmacher, Donald D., to Hoffman Electronics Corp. Radiation detection pulse translating circuit. 2,824,238, 2-18-58, Cl. 250-83.6.
Stempel-Hermelik G. m. b. H.: See—
Hintze, Rudolf. 2,823,850.
Sterling Drug Inc.: See—
Zimmermann, Frederick J. 2,834,058.
Sterling, John M., to Aktiebolaget Babco. Oil-fired heat generators. 2,823,909, 2-18-58, Cl. 263-19.
Stewart, Harold A. Painting accessories. 2,823,399, 2-18-58, Cl. 15-121.3.
Stewart, Kenneth M. Door closer or the like. 2,823,413, 2-18-58, Cl. 16-76.

Stewart-Warner Corp.: See—
Hoeking, Paul C. 2,823,547.
Stickel, Carl A., to General Motors Corp. Domestic appliance. 2,824,205, 2-18-58, Cl. 219-37.
Stickelber, Merlin A., to Stickelber & Sons, Inc. Cooling means for package seals. 2,823,729, 2-18-58, Cl. 184-42.
Stickelber & Sons, Inc.: See—
Stickelber, Merlin A. 2,823,729.
Still, August J. Ventilator. 2,823,599, 2-18-58, Cl. 98-68.
Stilrup, Frank A. Film negative supporting frame. 2,823,596, 2-18-58, Cl. 95-100.
Stock, Robert. Reeling device. 2,823,850, 2-18-58, Cl. 235-71.
Stokes, Konrad H., and R. C. Whitehead, Jr., to Minneapolis-Honeywell Regulator Co. Controller. 2,823,688, 2-18-58, Cl. 137-79.
Stolle, Anthony D.: See—
Gallagher, William P., Stolle, and Bielik. 2,824,181.
Stoner, David D. Parking lift. 2,823,810, 2-18-58, Cl. 214-16.1.
Stout, Caleb M.: See—
Henderson, John K., Rosene, and Stout. 2,823,753.
Stover, Ancil C., to W. A. Eisenhauer, W. P. Ellwood, I. J. Eisenhauer, and L. E. Eisenhauer, d. b. a. The Eisenhauer Mfg. Co. Suspension system for road vehicles. 2,823,929, 2-18-58, Cl. 280-104.5.
Strange, John P., to Mine Safety Appliances Co. Oxygen indicating apparatus. 2,823,985, 2-18-58, Cl. 23-254.
Strasburger, Lawrence W., to Blue Channel Corp. Method of recovering the meats of bivalves. 2,824,006, 2-18-58, Cl. 99-111.
Strategic-Udy Metallurgical and Chemical Processes, Ltd.: See—
Udy, Marvin J. 2,823,983.
Strecker, Charles E., and D. Lovinger, to General Electric Co. Ballast transformer. 2,824,263, 2-18-58, Cl. 315-138.
Strnad, James J.: See—
Blazek, William J., and Strnad. 2,823,960.
Strohl, Harrison A., Sr., to Mensies Engineering Co. Recovery of coal. 2,823,801, 2-18-58, Cl. 209-159.
Stump, Harvey, to Hughes Aircraft Co. Current control regulator. 2,824,276, 2-18-58, Cl. 323-4.
Stump, John A., to United States of America as represented by the Secretary of the Air Force. Reflector for viewing marker wheel. 2,823,584, 2-18-58, Cl. 88-85.
Succetti, Glenn, to Zonolite Co. Light weight water resistant aggregate and method of making the same. 2,824,022, 2-18-58, Cl. 117-54.
Suhm, Stephen G. Mobile supporting carriage for automatic washing machines and the like. 2,823,451, 2-18-58, Cl. 29-288.
Sullivan, Denis B.: See—
Davies, Thomas P., and Sullivan. 2,823,444.
Summerer, William H., to Admiral Corp. Antennae clip. 2,823,438, 2-18-58, Cl. 24-261.
Sun Oil Co.: See—
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Jolly, Samuel E. 2,824,065.
Sundstrand Machine Tool Co.: See—
Swanson, Fred R., and Erikson. 2,823,590.
Sutherland Paper Co.: See—
Coe, Merrill J. 2,823,848.
Suttle, John F.: See—
Schulte, John W., and Suttle. 2,824,234.
Sutton, John B., to United States of America as represented by the United States Atomic Energy Commission. Precipitation method of separating plutonium from the contaminating elements. 2,823,978, 2-18-58, Cl. 23-14.5.
Suzuki, Seichi. Automatic card stripper. 2,823,423, 2-18-58, Cl. 19-109.
Svec, Emil F., and K. J. Staller, to Flexigrip Inc. Sliderless fastener closure. 2,823,720, 2-18-58, Cl. 150-3.
Svec, Emil F., and K. J. Staller, to Flexigrip Inc. Sliderless fastener closure. 2,823,721, 2-18-58, Cl. 150-3.
Swann, James S., to Standard Railway Equipment Mfg. Co. Inside lining sheet for freight car. 2,823,624, 2-18-58, Cl. 105-423.
Swanson, Fred R., and C. F. Erikson, to Sundstrand Machine Tool Co. Machine tool. 2,823,590, 2-18-58, Cl. 90-13.
Swanson, Merrill E.: See—
Johnson, Norman G., Noddin, and Swanson. 2,823,609.
Swanson Tool and Machine Products, Inc.: See—
Merchant, Chester O. 2,823,820.
Sweely, Donald B.: See—
Johannessen, Vaughn L., and Sweely. 2,823,592.
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Farbak, John E., and Gibson. 2,824,067.
Swift, Gilbert, to Well Surveys, Inc. Sensitivity adjustment for radioactivity well logging. 2,824,236, 2-18-58, Cl. 250-83.6.
Sylvan Electric Products Inc.: See—
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Doron, Richard S., and Yeo. 2,823,815.
Szallar, Joseph: See—
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Saggio, Constantin S., and W. O. Reed, to The Rauland Corp. Image converter tubes. 2,824,247, 2-18-58, Cl. 313-65.
Szegeh, Constantin S., and W. O. Reed, to The Rauland Corp. Image converter tubes. 2,824,248, 2-18-58, Cl. 313-66.
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Tado, Satoshi T., to Martin Hearing Aid Co. Hearing aid amplifier. 2,824,177, 2-18-58, Cl. 179-107.
Taylor, Charles R. Lubricator. 2,823,768, 2-18-58, Cl. 184-7.
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Taylor, Howard L., Jr.: See—
Gordon, Thurlow M., Jr., and Taylor. 2,823,578.
Temple, Hiram E., to Capital Products Corp. Proofer. 2,823,811, 2-18-58, Cl. 214-16.4.
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Terry, Claude W. Lifting jack. 2,823,958, 2-18-58, Cl. 304-29.
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Tewksbury, Charles I.: See—
Di Nardo, Albert, Gardner, Robertson, and Tewksbury. 2,824,181.
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Thayer, Charles S., to Aluminum Co. of America. Electrolytic reduction cell for producing aluminum. 2,824,057, 2-18-58, Cl. 204-243.
Thayer, Richard P., to the United States of America as represented by the Secretary of the Army. Base for shell case. 2,823,611, 2-18-58, Cl. 102-44.
Thomas, David P., to Watervus Co. Hydraulic hydrant disassembly wrench. 2,823,450, 2-18-58, Cl. 29-240.
Thompson, Hans, to Aktiengesellschaft Brown, Boveri & Cie. Gas-blast circuit breaker with multiple break. 2,824,196, 2-18-58, Cl. 200-145.
Thompson, Claude H. Combined throttle and brake control for automobiles. 2,823,774, 2-18-58, Cl. 192-3.
Thompson, Leslie E., H. F. Reeves, Jr., and S. F. Belt, to Morton Salt Co. Preparation of gel catalyst. 2,824,075, 2-18-58, Cl. 252-44.8.
Thompson Products, Inc.: See—
Anderson, Robert J., Gennert, and Lepley. 2,823,685.
Anderson, Robert J., Gennert, and Lepley. 2,823,686.
Fathauer, George H. 2,824,230.
Murray, John F. 2,823,518.
Thompson, Robert E. Process of preparation of a gelatin-carboxymethyl cellulose complex. 2,824,092, 2-18-58, Cl. 260-117.
Thornberry, John H., to Raso Inc. Multiple burner control. 2,823,741, 2-18-58, Cl. 158-123.
Tiller, William A.: See—
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Tilley, Aubra E., to California Research Corp. Apparatus for amplifying seismic signals. 2,824,179, 2-18-58, Cl. 179-171.
Tillotson Mfg. Co., The: See—
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Tillson, William. Well bit retrieving device. 2,823,945, 2-18-58, Cl. 294-86.
Tilney, Ralph B., and J. F. Cuba, to Alco Valve Co. Automatic motor control circuit. 2,824,273, 2-18-58, Cl. 318-212.
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Tinsman, Jack L.: See—
Archer, Lee A., Bartnicki, Tinsman, and Feustel. 2,824,290.
Tiedell, Earl N. Hay baler tying needle guide. 2,823,601, 2-18-58, Cl. 100-19.
Tobey, Leon H., to Bloomer Bros. Co. Machine for filling and closing cartons. 2,823,501, 2-18-58, Cl. 53-76.
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Toledo Scale Co.: See—
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Toma River-Cincinnati Chemical Corp.: See—
Dreyfuss, Paul D. 2,824,127.
Tormag Transmissions Ltd.: See—
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Towne, Edmund B., J. W. Wellman, and J. B. Dickey, to Eastman Kodak Co. Polymers from reaction of 3-amino-1,2,4-triazole with organic diisocyanates or carbonates. 2,824,086, 2-18-58, Cl. 260-77.5.
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Tratsch, Walter A.: See—
Patscher, William A., and Tratsch. 2,823,783.
Traumuller, Erhard. Fishhooks. 2,823,485, 2-18-58, Cl. 43-43.16.
Traver, Craig S.: See—
Traver, Fred C., and C. S. 2,823,969.
Traver, Fred C., and C. S. Severing film material. 2,823,969, 2-18-58, Cl. 312-39.
Trevitt, John H., to Dictaphone Corp. Signal generating apparatus. 2,824,245, 2-18-58, Cl. 310-188.
Trico Products Corp.: See—
Oshel, John R. 2,823,407.
Trinca, Frederick. Locking devices. 2,823,725, 2-18-58, Cl. 152-431.
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Kafka, Wilhelm, Sichling, and Tschermak. 2,824,241.
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Dykeman, David G., and Turgeon. 2,824,036.
Turrell, George C.: See—
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Udy, Marvin J., to Strategic-Udy Metallurgical and Chemical Processes, Ltd. Process for the production of metallic silicon. 2,823,983, 2-18-58, Cl. 23-223.5.

Umstott, Harold F., to The Firestone Tire & Rubber Co. Automatic width controller. 2,823,443, 2-18-58, Cl. 26-63.

Union Carbide Corp.: See—

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Humbarger, Frank F. 2,823,562.

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Wilson, Thomas P. 2,824,116.

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United-Carr Fastener Corp.: See—

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Calkins, George D. 2,823,976.

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Redman, William C., and Shonka. 2,824,252.

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United States Rubber Co.: See—

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Cunningham, Marlon M. 2,823,722.

Worby, Charles R. 2,824,034.

Unruh, Cornelius C.: See—

Sagura, John J., and Unruh. 2,824,087.

Unruh, Cornelius C., and D. A. Smith, to Eastman Kodak Co. Light-sensitive, unsaturated polymeric maleic and acrylic derivatives. 2,824,084, 2-18-58, Cl. 260-64.

Upjohn Co., The: See—

Heinzelman, Richard V. 2,824,111.

Uthoff, Robert D.: See—

Buckman, John B., and Uthoff. 2,823,549.

Utz, Hans. Lifting jack. 2,823,551, 2-18-58, Cl. 74-141.5.

Valois, Léon. Pantograph. 2,823,456, 2-18-58, Cl. 33-23.

Van Buren, Harold S., Jr., to United-Carr Fastener Corp. Fastening device. 2,823,434, 2-18-58, Cl. 24-3.

Van Court, Carl P., H. E. Kinsman, and C. N. Skinner. Indistable splint. 2,823,668, 2-18-58, Cl. 128-87.

Vancouver Plywood Co.: See—

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Vandamme, Louis, and L. Rouyer, to Moulinage et Retorderie de Chavancos. Apparatus for producing curled yarn. 2,823,513, 2-18-58, Cl. 57-34.

Vandamme, Louis, and L. Rouyer, to Moulinage et Retorderie de Chavancos. Apparatus for producing curled yarn. 2,823,514, 2-18-58, Cl. 57-34.

Van den Busche, Hendrik K. D., and H. B. Wieringa, said van den Busche, to said Wieringa. Drawing pencil holders. 2,823,644, 2-18-58, Cl. 120-22.

Vanderbilt, R. T. Co., Inc.: See—

Craig, William L. 2,823,997.

Craig, William L. 2,824,099.

Karsten, Kenneth S. 2,824,039.

Vandercok, David D., and G. D. Robar, to Vandercok & Sons, Inc. Lock-up bar assembly. 2,823,608, 2-18-58, Cl. 101-390.

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Van Gelder, Harold. Sweet corn cutter. 2,823,716, 2-18-58, Cl. 146-4.

Vanity Fair Mills, Inc.: See—

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Vaskonis, John W., and O. Bradley. Flange fastening clip for spools. 2,823,573, 2-18-58, Cl. 85-40.

Verley, Guy M., to Sinclair Refining Co. Lubricating oils containing a zinc dithiophosphate and nickel mahogany sulfonate. 2,824,063, 2-18-58, Cl. 252-82.7.

Villiers-Fisher, John F.: See—

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Vistain, James E., Jr., and W. C. Johnson, to Admiral Corp. Tuning indicator. 2,823,639, 2-18-58, Cl. 116-124.4.

Vogt, Clarence W. Method of and apparatus for wrapping soft substances. 2,823,499, 2-18-58, Cl. 53-14.

Vogt, Clarence W. Desk type tape holder and dispenser. 2,823,750, 2-18-58, Cl. 164-84.51.

Volth, J. M., G. m. b. H.: See—

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Volberg, Frank M., and M. D. Martin, to Eastman Kodak Co. Powder precipitation of cellulose esters of fatty acids of 3-4 carbon atoms. 2,824,098, 2-18-58, Cl. 260-230.

Volckening, Lloyd I., J. R. O'Meara, and F. J. Lefebvre, to Ivers-Lee Co. Covered package with initially sealed but releasable tuck closure flap. 2,823,798, 2-18-58, Cl. 206-65.

Vollmann, Heinrich: See—

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Von Roll, L. A. G.: See—

Ludin, Werner, and Blon. 2,823,742.

Voss, Waldemar E., to L. Adams Ltd. Fluid pressure responsive unit. 2,823,543, 2-18-58, Cl. 73-411.

Vrana, Rudolf J. Cigarette sleeve. 2,823,679, 2-18-58, Cl. 131-174.

Wade, Wenger & Associates, Inc.: See—

Abdo, Roger J. 2,823,400.

Wagner, Frank. Hand press with die bracing structure. 2,823,726, 2-18-58, Cl. 153-21.

Wagner, John S., to Kimball Mfg. Corp. Ski binding. 2,823,397, Cl. 9-21.

Walner, Eugene, to Horizons Titanium Corp. Electrolytic production of ductile chromium. 2,824,053, 2-18-58, Cl. 204-64.

Waller, Fred, and W. M. MacLaury. Linked holders for lantern slides. 2,823,472, 2-18-58, Cl. 40-64.

Walraven, George M., and M. K. Kuehl, to Snap-On Tools Corp. Compression gauge for internal combustion engines and the like. 2,823,542, 2-18-58, Cl. 73-116.

Walter, Hellmuth, to Worthington Corp. Method and arrangement of apparatus for oil recovery. 2,823,752, 2-18-58, Cl. 106-11.

Walter, Stephen M. Excavating tool combined with a fire arm. 2,823,481, 2-18-58, Cl. 42-93.

Walther, Georg, deceased; M. M. S. H. Walther, H. H. M. F. L. Erbe, and E. E. A. Fahr, heirs of said G. Walther. Damping device for calculating machines. 2,823,854, 2-18-58, Cl. 235-60.

Walther, Maria M. S. H.: See—

Walther, Georg. 2,823,854.

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Adams, Benjamin H., Frahm, and McGee. 2,824,070.

Daniels, Fred B. 2,823,974.

Gray, John W., and Greenwood. 2,823,585.

Havens, Byron L., and Lents. 2,823,586.

Warner, Donald S., to James Hunter Machine Co. Automatic locking means for squeeze rolls and the like. 2,823,535, 2-18-58, Cl. 68-258.

Warner Electric Brake & Clutch Co.: See—

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Wasyluka, Paul, to Crown Zellerbach Corp. Article case. 2,823,845, 2-18-58, Cl. 229-15.

Waterous Co.: See—

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Watkins, Willis T., to Parmelee Plastics Co. Attaching structure for spectacle frame side shields. 2,823,385, 2-18-58, Cl. 2-13.

Watson, William J., to Acme Visible Records, Inc. Safe door locking mechanism. 2,823,536, 2-18-58, Cl. 70-1.5.

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Waynesboro Publishing Corp.: See—

Butcher, Ernest E., and Spillman. 2,823,607.

Webb, William A., and W. B. Hipsley. Ammunition booster. 2,823,588, 2-18-58, Cl. 69-33.

Webb, William P., to California Research Corp. Auto-ignition method. 2,823,515, 2-18-58, Cl. 60-85.4.

Wehn, Julius: See—

Nordt, Herbert, Wehn, and Delfa. 2,824,129.

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Benz, Jakob, and Wehrli. 2,824,093.

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Weller, Edward W., to J. C. Busch Co. Measuring instruments. 2,823,460, 2-18-58, Cl. 33-174.

Weisbecker, Frank G., deceased; M. Weisbecker, executrix. Needle bar assembly and method of knitting. 2,823,028, 2-18-58, Cl. 66-5.

Weisbecker, Mary: See—

Weisbecker, Frank G. 2,823,528.

Weiss, Marvin: See—

Gibbons, Walter G., Jones, Messner, and Weiss. 2,824,042.

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Welcraft Products Co., Inc.: See—

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Well Surveys, Inc.: See—

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Weller, William R.: See—

McFadden, William D., and Weller. 2,823,595.

Wellman, John W.: See—

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Wertman, David: See—

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Meacham, Larned A., and West. 2,824,175.

Western Electric Co., Inc.: See—

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McCoy, Clarence E. 2,823,812.

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Westinghouse Electric Corp.: See—

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Baker, Merle S., and Franck. 2,823,891.

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Marmo, Anthony B. 2,824,192.

May, Frederick T. 2,823,809.

Meyer, Arthur P., and Denison. 2,823,633.

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Rehberg, Richard A. 2,823,747.

Rosen, Frank, and Rosenberg. 2,824,193.

Semar, Harold W., and Short. 2,823,558.

Wettstein, Albert: See—

Miescher, Karl, Wettstein, and Kahnt. 2,824,044.

Wetzler, Justin J., to The Englander Co., Inc. Structure for furniture and the like. 2,823,734, 2-18-58, Cl. 155-181.

Wheeling Steel Corp.: See—

Cook, Nelson E., and Norteman. 2,823,641.

Cook, Nelson E., and Norteman. 2,824,020.

Cook, Nelson E., and Norteman. 2,824,021.

Whitacre, Charles H.: See—

Musselman, John M., and Whitacre. 2,824,064.

Whitbeck, Roland A. Apparatus for applying liquid to, and drying, metal stock. 2,823,640, 2-18-58, Cl. 118-64.

White, Hobart S., to the United States of America as represented by the Secretary of the Navy. Bearing compositions containing polytetrafluoroethylene and polytrifluoroethylene. 2,824,080, 2-18-58, Cl. 252-12.2.

White, William C., to General Electric Co. Pool-type electric discharge apparatus. 2,824,254, 2-18-58, Cl. 313-165.

Whitehead, Robert C., Jr.: See—

Stokes, Konrad H., and Whitehead. 2,823,688.

Whitney, Ralph H., to Owens-Illinois Glass Co. Ball and socket plastic fitting. 2,823,403, 2-18-58, Cl. 15-132.7.

Wick, Helmut: See—

Zelle, Karl, Adickes, and Wick. 2,824,108.

Wickland, Joseph R., to Miehle-Goss-Dexter, Inc. Sheet feeding apparatus. 2,823,916, 2-18-58, Cl. 271-30.

Wieringa, Hendrik B.: See—

Van den Busche, Hendrik K. D., and Wieringa. 2,823,644.

Wilbur, Donald A.: See—

Peters, Philip H., Jr., and Wilbur. 2,824,261.

Wilder, Stuart, Jr.: See—

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Gerdan, Dimitrios, and Wilder. 2,823,893.

Gerdan, Dimitrios, and Wilder. 2,823,894.

Willard, Henry F. Lamp shade. 2,823,477, 2-18-58, Cl. 40-131.

Williams, Beverly E., to Hodges Research and Development Co., Inc. Method of clothing meat. 2,824,011, 2-18-58, Cl. 99-174.

Williams, Chester I. Dummy she-bolt. 2,823,441, 2-18-58, Cl. 25-131.

Williams, Gilbert A.: See—

Coats, Robert R., and Williams. 2,824,147.

Williams, Richard J., and R. G. Heyl, Jr., to American Metal Products Co. Adjusting means for the front seat of an automotive vehicle. 2,823,949, 2-18-58, Cl. 290-65.

Williams, Roger B., Jr., to Sperry Rand Corp. Automatic synchronization indicator and control circuits for hyperbolic navigation receivers. 2,824,303, 2-18-58, Cl. 343-103.

Willis Oil Tool Co.: See—

Willis, Robert S. 2,823,099.

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Wilson, Broadus, deceased; M. Wilson and R. E. Long, executors of said B. Wilson. Apparatus for plastering. 2,823,618, 2-18-58, Cl. 103-150.

Wilson, Clifford D. Electrical heating unit and means for holding the same. 2,824,203, 2-18-58, Cl. 219-37.

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Stahl, Lloyd E. 2,823,951.

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Wursburger, Paul D. Pipe coupling with deformable ring for seamless pipe. 2,823,935, 2-18-58, Cl. 285-342.

Wynn, Robert O., to ACF Industries, Inc. Gate valve. 2,823,888, 2-18-58, Cl. 251-190.

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Zisman, William A., and J. G. O'Rear, to the United States of America as represented by the Secretary of the Navy. Fluorethers. 2,824,141, 2-18-58, Cl. 260-615.

Zollinger, Joseph L.: See—

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183: 2,824,071 301.4: 2,824,072 435: 2,824,073 447: 2,824,074 448: 2,824,075 253— 30: 2,823,889 39.1: 2,823,891 39.15: 2,823,892 2,823,893 2,823,894 77: 2,823,895 168: 2,823,896 173: 2,823,897 30: 2,823,898 61: 2,823,899 73: 2,823,900 76: 2,823,901 257— 4: 2,823,902 36: 2,823,903 259— 24: 2,823,904 260— 2.5: 2,824,076 8: 2,824,077 28: 2,824,078 31.8: 2,824,079 45.4: 2,824,080 45.9: 2,824,081 47: 2,824,082 2,824,083 64: 2,824,084 75: 2,824,085 77.5: 2,824,086 78.5: 2,824,087 79.3: 2,824,088 88.1: 2,824,089 96.5: 2,824,091 117: 2,824,092 146: 2,824,093 2,824,094 148: 2,824,095 192: 2,824,096 225: 2,824,097 230: 2,824,098 233.3: 2,824,099 239.55: 2,824,100 243: 2,824,101 2,824,102 249.6: 2,824,103 249.7: 2,824,104 200: 2,824,105 202: 2,824,106 314.5: 2,824,107 2,824,108 326: 2,824,109 326.3: 2,824,110	260— 326.5: 2,824,111 348: 2,824,112 413: 2,824,113 429.3: 2,824,114 429.5: 2,824,115 449.6: 2,824,116 453: 2,824,117 465.2: 2,824,118 469: 2,824,119 475: 2,824,120 484: 2,824,121 485: 2,824,122 2,824,123 497: 2,824,124 504: 2,824,125 2,824,126 518: 2,824,127 519: 2,824,128 521: 2,824,129 531: 2,824,130 533: 2,824,131 534: 2,824,132 535: 2,824,133 537: 2,824,134 2,824,135 543: 2,824,136 576: 2,824,137 586: 2,824,138 592: 2,824,139 597: 2,824,140 615: 2,824,141 638: 2,824,142 2,824,143 651: 2,824,144 671: 2,824,145 2,824,146 674: 2,824,147 683: 2,824,148 683.15: 2,824,149 683.44: 2,824,150 2,824,151 2,824,152 2,824,153 2,824,154 2,824,155 2,824,156 2,824,157 2,824,158 2,824,159 2,824,160 2,824,161 2,824,162 2,824,163 261— 3: Re.24,433 37: 2,823,905 56: 2,823,906 92: 2,823,907 262— 8: 2,823,908 263— 19: 2,823,909 32: 2,823,910 265— 55: 2,823,911 266— 21: 2,823,912 2,823,913 267— 1: 2,823,914	267— 8: 2,823,915 271— 30: 2,823,916 43: 2,823,917 272— 57: 2,823,918 273— 134: 2,823,919 280— 1.196: 2,823,920 5.2: 2,823,921 11.35: 2,823,922 36: 2,823,923 44: 2,823,924 47.38: 2,823,925 104.5: 2,823,926 124: 2,823,927 158: 2,823,928 444: 2,823,929 491: 2,823,930 513: 2,823,931 285— 162: 2,823,932 173: 2,823,933 277: 2,823,934 342: 2,823,935 5: 2,823,936 52: 2,823,937 117: 2,823,938 1: 2,823,939 92: 2,823,940 137: 2,823,941 247: 2,823,942 307: 2,823,943 82: 2,823,944 96: 2,823,945 87.2: 2,823,946 88: 2,823,947 97: 2,823,948 296— 65: 2,823,949 97: 2,823,950 137: 2,823,951 299— 64: 2,823,952 90: 2,823,953 107: 2,823,954 301— 37: 2,823,955 38: 2,823,956 24: 2,823,957 29: 2,823,958 40: 2,823,959 57: 2,824,240 149: 2,824,241 2,824,242 6: 2,823,960 15: 2,823,961 26: 2,823,962 73: 2,823,963 77: 2,823,964 187.1: 2,823,965 187.2: 2,823,966 187.3: 2,823,967 310— 8.1: 2,824,243 9.4: 2,824,244 96: 2,824,245 168: 2,824,246 312— 39: 2,823,968 2,823,969 194: 2,823,970 290: 2,823,971	312— 311: 2,823,972 323: 2,823,973 313— 54: 2,824,246 65: 2,824,247 66: 2,824,248 68: 2,824,249 77: 2,824,250 78: 2,824,251 93: 2,824,252 105: 2,824,253 165: 2,824,254 216: 2,824,255 315— 3.5: 2,824,256 3.6: 2,824,257 5.21: 2,824,258 12: 2,824,259 13: 2,824,260 39.73: 2,824,261 97: 2,824,262 138: 2,824,263 99: 2,824,264 151: 2,824,265 165: 2,824,266 200: 2,824,267 235: 2,824,268 236: 2,824,269 246: 2,824,270 318— 85: 2,824,271 197: 2,824,272 212: 2,824,273 321— 27: 2,824,274 322— 27: 2,824,275 323— 4: 2,824,276 23: 2,824,277 69: 2,824,278 324— 1: 2,824,279 58.5: 2,824,280 61: 2,824,281 65: 2,824,282 2,824,283 70: 2,824,284 99: 2,824,285 132: 2,824,286 332— 1: 2,824,287 333— 17: 2,824,288 63: 2,824,289 339— 49: 2,824,290 174: 2,824,291 13: 2,824,292 52: 2,824,293 174: 2,824,294 213: 2,824,295 253: 2,824,296 2,824,297 264: 2,824,298 265: 2,824,299 274: 2,824,300 343— 6.5: 2,824,301 11: 2,824,302 103: 2,824,303 112: 2,824,304 776: 2,824,305 788: 2,824,306 346— 34: 2,823,974
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CLASSIFICATION OF DESIGNS

D 1— 12: Des. 182,140 D 3— 26: Des. 182,143 Des. 182,149 D 4— 3: Des. 182,104 Des. 182,150 D 6— 2: Des. 182,105 D 9— 2: Des. 182,116 D 10— 8: Des. 182,141 Des. 182,142 D 14— 3: Des. 182,101	D 14— 3: Des. 182,120 Des. 182,128 Des. 182,147 6: Des. 182,108 Des. 182,127 Des. 182,135 18: Des. 182,115 30: Des. 182,131 D 15— 1: Des. 182,125 D 18— 2: Des. 182,124	D 22— 3: Des. 182,106 D 24— 1: Des. 182,111 D 26— 5: Des. 182,151 6: Des. 182,109 D 30— 1: Des. 182,129 Des. 182,146 D 35— 3: Des. 182,130 D 37— 1: Des. 182,139 D 41— 1: Des. 182,143	Des. 182,152 D 44— 15: Des. 182,114 D 45— 4: Des. 182,100 D 48— 27: Des. 182,145 D 50— 6: Des. 182,118 Des. 182,119 D 52— 1: Des. 182,110 D 54— 12: Des. 182,121 Des. 182,122	D 56— 4: Des. 182,103 D 57— 1: Des. 182,097 Des. 182,098 Des. 182,099 Des. 182,144 D 58— 5: Des. 182,112 6: Des. 182,107 D 61— 1: Des. 182,126 D 71— 1: Des. 182,113	D 63— 1: Des. 182,123 D 66— 10: Des. 182,102 Des. 182,117 D 69— 1: Des. 182,136 Des. 182,137 Des. 182,138 D 68— 4: Des. 182,132 Des. 182,133 Des. 182,134
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TRADEMARKS
NOTICES

Trademark Suits

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 27,102 (ZENITH M. W. H. CO. AND DESIGN), Marshall-Wells Hardware Co., Hardware, machines, and miscellaneous goods; TM 171,007 (ZENITH AND DESIGN), Marshall-Wells Co., Laundry washing machines and wringers; TM 302,320, same, Refrigerators; TM 534,713, same, Electric domestic vacuum cleaners; TM 580,840, same, Laundry washing machines and laundry dryers; TM 608,654, same, Electrically operated dish washers and electrically operated garbage disposers, sink type, filed Jan. 10, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c51, *Zenith Radio Corp. v. Marshall-Wells Co.*

TM 171,007. (See TM 27,102.)

TM 324,111 (DESIGN FOR BOLTING CLOTH), Schweizerische Seldengazefabrik A. G., Bolting cloth and stencil cloth; TM 327,002, same, filed May 8, 1957, D. C., S. D. N. Y., Doc. 120/143 *Motrac Corp. v. Tobler, Ernst & Traber, Inc. et al.* Notice of voluntary discontinuance and dismissal Jan. 13, 1958.

TM 327,002. (See TM 324,111.)

TM 347,467 (ESSO), Standard Oil Co. of New Jersey, Refined, semirefined, and unrefined oils made from petroleum, etc.; TM 592,544 (K. A. R. S. INC. KEYSTONE "COVERS THE COUNTRY" CARS TRUCKS TRAILERS AND DESIGN), Keystone Auto Rental Service, Inc., filed Jan. 16, 1958, D. C. N. J. (Newark), Doc. 51/58, *Esso Standard Oil Co. v. The Stick-Rhine Co.*

TM 302,320. (See TM 27,102.)

TM 302,436 (FAINTEX), Stuart-Chase Co., Smelling salts and for cloth-covered friable glass ampoules, the vapours of which, when inhaled, have the same effect as smelling salts, filed Jan. 15, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c78, *Stuart-Chase Corp. v. Medical Supply Co., Inc.*

TM 430,924 (E & J), E. & J. Manufacturing Co., Resuscitators, oxygenators, and cases especially designed and adapted to ship and carry said resuscitators and oxygenators, filed July 27, 1954, D. C., S. D. Calif. (Los Angeles), Doc. 16949-T, *E. & J. Manufacturing Co. v. Everest & Jennings, Inc.* Trademark held valid and infringed; defendants restrained from use of trademark "E & J"; counterclaim dismissed (notice Jan. 10, 1958).

TM 501,203 (MAYFLOWER), Aero Mayflower Transit Co., Trucking and hauling, filed Jan. 10, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18375, *Aero Manufacturing Transit Co. v. Joseph Lieberman et al.*

TM 534,713. (See TM 27,102.)

TM 550,395. (See TM 550,668.)

TM 550,668 (COQUETTE), Boris Smoler & Sons, Inc., Misses' and women's dresses; TM 550,395 (LITTLE COQUETTE), same, Children's dresses, filed Jan. 6, 1958, D. C., S. D. N. Y., Doc. 128/281, *Boris Smoler & Sons, Inc. v. Coquette Frocks, Inc.*

TM 561,144 (TEENA PAIGE), Epstein Garment Co., Inc., Ladies' dresses, filed Jan. 9, 1958, D. C., S. D. N. Y., Doc. 128/352, *Teena Paige Fashions, Inc. v. Tina Fashions, Inc.*

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1957

Total number of applications awaiting action (excluding renewals and Sec. 12 (c))..... 11,274
Date of oldest new application..... May 8, 1957
Date of oldest amended application..... May 14, 1957

J. H. MERCHANT, Director, Trademark Examining Operation		Oldest Application	
TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION		New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation			
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50.....		5-8-57	5-14-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200.....		7-17-57	9-5-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks.....		6-18-57	6-17-57
Renewals (All Classes).....		11-18-57	12-16-57
Sec. 12 (c) Publications (All Classes).....		10-3-57	

Applications Filed During the Month of December 1957—1,703

Registrations Issued..... 282—No. 658,370 to No. 658,651
Renewals Issued..... 47

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

TM 562,280 (PROX BONNIE BLUE), Proxite Products, Inc., Laundry bluing; TM 640,544 (BONNIE), same, Bleach ammonia, plastic starch, and disinfectant, filed Jan. 10, 1958, D. C., S. D. N. Y., Doc. 128/363, Proxite Products, Inc. v. Bonnie Brite Products Corp. et al.

TM 580,840. (See TM 27,102.)

TM 592,544. (See TM 347,467.)

TM 604,546 (I'M A DILLY), D & F Enterprises, Ice cream bars and ice milk bars; TM 608,408 (DILLY), same; TM

626,312 (DESIGN FOR ICE CREAM BAR), same, filed Aug. 22, 1957, D. C., E. D. Mo. (St. Louis), Doc. 57c435(3), National Dairy Queen Development Co. v. Southern Foods, Inc. Final judgment and decree; plaintiff granted equitable relief Dec. 19, 1957.

TM 608,408. (See TM 604,546.)

TM 608,654. (See TM 27,102.)

TM 626,312. (See TM 604,546.)

TM 640,544. (See TM 562,280.)

MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5. As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 683,193. Floyd County Coal Company, Incorporated, Charleston, W. Va. Filed Mar. 10, 1955.

REX ELK HORN

No claim is made to the words "Elk Horn" apart from the mark as shown.

For Coal.

First use Feb. 16, 1955.

SN 17,347. Essex Wire Corporation, Fort Wayne, Ind. Filed Oct. 12, 1956.



For Plastic Shapes in the Form of Tubing, Elongated Strips, Sheets, and the Like Having a Particular Cross-Section for Use as Moldings, Gaskets, Seals, Packings, Fluid Conducting Hose, Garden Hose, and the Like.

First use on or about Aug. 28, 1945.

SN 22,417. Camden Fibre Mills, Inc., Philadelphia, Pa. Filed Jan. 11, 1957.

THERMALOFT

For Batting.

First use Dec. 11, 1956.

SN 28,104. Godfrey L. Cabot, Inc., Boston, Mass. Filed Apr. 15, 1957.

BOB WHITE

For Wollastonite.

First use Feb. 8, 1957.

SN 30,128. Karg Brothers, Inc., Johnstown, N. Y. Filed May 1, 1957. Sec. 2(f).



Owner of Reg. No. 350,153.

For Leather.

First use May 28, 1936.

SN 30,152. Essex Wire Corporation, Fort Wayne, Ind. Filed May 16, 1957.

DENSFOAM

For Foamed Plastic Sheets, Forms, Slabs, Shapes, and Moulded Shapes, for Use in the Manufacture of Various Articles.

First use on or about Jan. 10, 1957.

SN 32,473. The Danielson Manufacturing Company, Danielson, Conn. Filed June 24, 1957.

DANCO

For Plastic Tubes, Rods, Sheets, and Shapes.
First use in 1952 on shapes.

SN 32,874. Armour and Company, Chicago, Ill. Filed July 1, 1957.

LUCCIA

For Upper Leather.
First use Feb. 22, 1957.

SN 32,875. Armour and Company, Chicago, Ill. Filed July 1, 1957.

MELHER

For Upper Leather.
First use Sept. 19, 1952.

SN 32,877. Armour and Company, Chicago, Ill. Filed July 1, 1957.

BUCKSHOT

For Upper Leather.
First use Aug. 22, 1956.

SN 32,878. Armour and Company, Chicago, Ill. Filed July 1, 1957.

ARMORITA

For Upper Leather.
First use Oct. 23, 1954.

SN 32,879. Armour and Company, Chicago, Ill. Filed July 1, 1957.

LONGEVITY

For Leather Splits.
First use Sept. 16, 1949.

SN 32,880. Armour and Company, Chicago, Ill. Filed July 1, 1957.

MILAN

For Upper Leather.
First use Mar. 9, 1957.

SN 32,882. Armour and Company, Chicago, Ill. Filed July 1, 1957.

QUILL

For Upper Leather.
First use Feb. 12, 1957.

SN 32,883. Armour and Company, Chicago, Ill. Filed July 1, 1957.

GEISHA

For Upper Leather.
First use Jan. 14, 1957.

SN 32,884. Armour and Company, Chicago, Ill. Filed July 1, 1957.

SCUFFETTE

For Leather Splits.
First use Mar. 9, 1956.

SN 33,197. Armour and Company, Chicago, Ill. Filed July 1, 1957.

WILLOWIST

For Upper Leather.
First use Apr. 6, 1956.

SN 34,185. Style Stone, Inc., Cleveland, Ohio. Filed July 22, 1957.



For Granular Incombustible Material Used as Bed for Solid Fuel Fires.
First use June 15, 1957.

Class 2—Receptacles

SN 23,827. Richford Corporation, Oceanside, N. Y. Filed Feb. 5, 1957.

TOUCH-N-FLO

For Cosmetic Dispensers.
First use in or about 1949.

SN 25,903. Tedlee Plastics, Inc., New York, N. Y. Filed Mar. 11, 1957.

STO-AIDS

For Plastic Storage and Protective Covers for Articles of Clothing, Furniture, and Appliances.
First use Feb. 4, 1957.

Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 25,630. Neevel Manufacturing Company, Kansas City, Mo. Filed Mar. 6, 1957.

SKI-LINE

For Luggage—Namely, Train Cases, Overnight Cases, and Pullman Cases.
First use on or about Mar. 16, 1948.

SN 33,517. Pyramid Leather Goods Co., Inc., New York, N. Y. Filed July 5, 1957.

Little Princess

For Children's Handbags.
First use Jan. 1, 1937.

Class 4—Abrasives and Polishing Materials

SN 25,505. Rene Saporta, d. b. a. Ge-Halin Products, New York, N. Y. Filed Mar. 5, 1957.

GE-HALIN

For Cleansing Polish.
First use in March 1954.

Class 5—Adhesives

SN 31,689. S & F Chemical Co., Inc., Nashville, Tenn. Filed June 10, 1957.

ULTRAGRIP

For Shoe Sole Attaching Cement.
First use May 7, 1957.

Class 6—Chemicals and Chemical Compositions

SN 685,168. Cenol Company, Inc., Chicago, Ill. Filed Apr. 8, 1955.

BUG BLAST

For Insecticides.
First use May 1, 1948, or prior thereto.

SN 4,401. Techkote Company Incorporated, Inglewood, Calif. Filed Mar. 12, 1956.

NET-LIFE

For Chemical Compounds for Preservative Treatment of Fish Nets and Fishing Lines.
First use Mar. 21, 1947.

SN 9,400. John Rork, Brooklyn, N. Y. Filed May 31, 1956.



The words "Marine Aquarium," "Brine Shrimp," "Fish Tonic," and "Salts" are disclaimed apart from the mark as shown.

For Chemical Salts Compound for Making Synthetic Sea Water To Preserve Marine Life in Aquarium Tanks.
First use Sept. 12, 1953.

SN 10,744. American Cyanamid Company, New York, N. Y. Filed Nov. 20, 1957.

ACCO

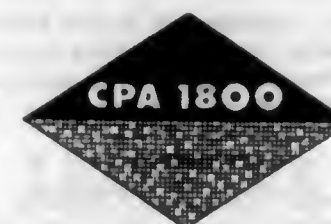
Owner of Reg. No. 539,913.
For Rosin Size.
First use April 1937.

SN 12,746. Quinn Drug and Chemical Company, Greenwood, Miss. Filed July 24, 1956.



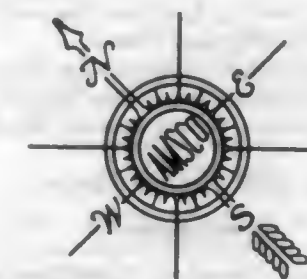
For Insecticides.
First use 1943.

SN 14,442. Diamond Alkali Company, Cleveland, Ohio. Filed Aug. 23, 1956.



The drawing is lined for yellow. Owner of Reg. No. 564,419. For Chromium Plating Additive for Use in the Metal Finishing Industry.
First use May 10, 1956.

SN 21,665. American Mineral Spirits Company, Chicago, Ill. Filed Dec. 27, 1956.



For Hydrocarbon and Chlorinated Solvents, Alcohols, Esters, Ketones, Plasticizers, Glycols, Nitrogen Derivatives, Organic Acids, Anhydrides, Aldehydes, and Glycol Ethers.
First use April 1936.

SN 23,064. Laton, Inc., Merrick, N. Y. Filed Jan. 23, 1957.

LATON

For Non-Slip Coating Preparation for Shoes and the Like.
First use Sept. 17, 1956.

SN 24,966. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTAPLAST

For Dyestuffs.
First use Feb. 11, 1957.

SN 24,967. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTACET

For Dyestuffs.
First use Feb. 11, 1957.

SN 24,968. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTACID

For Dyestuffs.
First use Feb. 11, 1957.

SN 24,972. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTASOL

For Dyestuffs.
First use Feb. 11, 1957.

SN 24,974. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTATEX

For Dyestuffs.
First use Feb. 11, 1957.

SN 24,975. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTATONE

For Dyestuffs.
First use Feb. 11, 1957.

SN 24,976. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTAGEN

For Dyestuffs.
First use Feb. 11, 1957.

SN 24,977. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTAVAT

For Dyestuffs.
First use Feb. 11, 1957.

SN 26,063. Fransol, Societe Anonyme, Paris, France. Filed Mar. 13, 1957.

FRANSIL

Priority claimed under Sec. 44(d) on French Reg. No. 459,993, dated Sept. 27, 1956 (Seine); Natl. Inst. No. 79,333. For Dispersed Silica, More Particularly, for Use as a Filler for Rubber and Plastic Material, and as a Thermal Insulator.

SN 26,064. Fransol, Societe Anonyme, Paris, France. Filed Mar. 13, 1957.

CALOSIL

Priority claimed under Sec. 44(d) on French Reg. No. 459,992, dated Sept. 27, 1956 (Seine); Natl. Inst. No. 79,332. For Dispersed Silica, More Particularly, for Use as a Filler for Rubber and Plastic Material, and as a Thermal Insulator.

SN 26,723. Petro-Tex Chemical Corporation, Houston, Tex. Filed Mar. 22, 1957.



Owner of Reg. No. 634,721. For Chemicals Derived From Petroleum or Natural Gas, Used in the Manufacture of Rubber and Other Chemical Compositions.
First use Oct. 22, 1956.

SN 27,168. Atlas Powder Company, Wilmington, Del. Filed Mar. 29, 1957.

THERMAFLOW

For Reinforced Polyester Plastic Molding Compound.
First use Oct. 17, 1952.

SN 27,413. Atlas Powder Company, Wilmington, Del. Filed Apr. 3, 1957.

ATLAC

Owner of Reg. No. 548,807.
For Reinforced Polyester Plastic Molding Compound.
First use Mar. 20, 1957.

SN 27,414. Atlas Powder Company, Wilmington, Del. Filed Apr. 3, 1957.

ATLAC THERMAFLOW

Owner of Reg. No. 548,807.
For Reinforced Polyester Plastic Molding Compound.
First use Mar. 20, 1957.

SN 27,430. Robert W. Gabler, d. b. a. The House of Gabler, Chambersburg, Pa. Filed Apr. 3, 1957.

Paris Spray

For Spray Type Room or Space Deodorizers.
First use Mar. 20, 1954.

SN 27,645. United States Rubber Company, New York, N. Y. Filed Apr. 5, 1957.

THIONEB

For Agricultural Fungicide.
First use Mar. 6, 1957.

SN 29,298. Ozark-Mahoning Company, Tulsa, Okla. Filed May 2, 1957. Sec. 2(f).

FP

For Compositions Containing Combined Phosphorus and Fluorine—Namely, Fluorophosphoric Acids and Fluorophosphates.
First use July 15, 1948.

SN 29,698. Cesalpina S. p. A., Milan, Italy. Filed May 9, 1957.



Owner of Italian Reg. No. 73,700, dated Mar. 27, 1947.
For Sizing Product for Textile Industry.

SN 31,063. Alginate Industries Limited, London, England. Filed May 31, 1957.

MANUTEX

Owner of British Reg. No. 671,588, dated July 30, 1948.
For Chemical Substances Used for the Sizing of Textile Yarns in the Course of Manufacture.

SN 31,664. Jefferson Chemical Company, Inc., Houston, Tex. Filed June 10, 1957.

ETHOWAX

For Polyethylene Glycol.
First use on or about Mar. 27, 1957.

SN 31,705. The Tanatex Chemical Corporation, Kearny, N. J. Filed June 10, 1957.

CAROLID

For Compounds Instrumental in the Fixation of Coloring Matters Upon Fibres—Namely, Dyeing Assistants and Leveling, Exhausting, Penetrating, Wetting, and Dispersing Agents.
First use May 20, 1957.

SN 31,908. Diamond Black Leaf Company, Cleveland, Ohio, to Diamond Alkali Company, Cleveland, Ohio. Filed June 13, 1957.



The lines in the drawing indicate the color red. Owner of Reg. Nos. 628,508, 630,682, and others.

For Pesticides, Including Insecticides, Fungicides, Rodenticides, Algicides, Parasiticides, Nematocides, Herbicides, and Ovicides for Agricultural, Horticultural, Household, and Sanitary Uses.

First use Sept. 17, 1956, on rodenticides.

SN 32,227. American Chemical Paint Company, Ambler, Pa. Filed June 19, 1957.

FUMASOL

For Rodenticide.
First use Apr. 25, 1957.

SN 32,339. Ross & Rowe, Inc., New York, N. Y. Filed June 20, 1957.

R & R 551

For Wetting Agent To Be Added to the Pigment of a Water Base Paint, a Dispersing Agent for Finely Ground Barium Titanate and a Finishing Agent for Rayon and Cotton Knit Goods.

First use Nov. 12, 1951.

SN 33,150. Hardy Salt Company, St. Louis, Mo. Filed July 3, 1957. Sec. 2(f).

HARDY

For Sodium Chloride and Sodium Chloride Containing Mixtures for Chemical and Industrial Uses.
First use in December 1914.

SN 33,710. Heyden Newport Chemical Corporation, New York, N. Y. Filed July 15, 1957.

NUOPLAZ

For Plasticizers for Plastics, Paints, and Lacquers.
First use July 1, 1957.

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SN 33,861. California Spray-Chemical Corporation, Richmond, Calif. Filed July 17, 1957.

PHALTAN

For Agriculture Fungicide.
First use May 22, 1957.

SN 33,909. Reichhold Chemicals, Inc., Detroit, Mich. Filed July 17, 1957.

DIARON

For Melamine-Formaldehyde Resins in Powdered Form.
First use June 18, 1957.

SN 34,114. The Borden Company, New York, N. Y. Filed July 22, 1957.

LEMOFLEX

For Internally Plasticized Polyvinyl Alcohol.
First use Mar. 29, 1957.

SN 34,553. Potter-McCune Company, McKeesport, Pa. Filed July 29, 1957.

JUS-RITE

For Laundry Starch.
First use April 1950.

SN 38,031. The Dow Chemical Company, Midland, Mich. Filed Sept. 30, 1957.

TYRIL

For Thermoplastic Resins Comprising Polymers and Copolymers of Vinyl Aromatic Compound.
First use Sept. 6, 1957.

Class 7 — Cordage

SN 32,474. The Danielson Manufacturing Company, Danielson, Conn. Filed June 24, 1957.

DANCO

For Plastic Covered Metal Core Cable and Strand.
First use in 1947.

Class 8 — Smokers' Articles, Not Including Tobacco Products

SN 31,865. Rogers Imports Inc., New York, N. Y. Filed June 12, 1957.

CROYDEN

For Pipes.
First use Sept. 1, 1956.

Class 9 — Explosives, Firearms, Equipments, and Projectiles

SN 23,080. Olin Mathieson Chemical Corporation, East Alton, Ill. Filed Jan. 23, 1957.

PACKAGED POWER

For Gas Generating Cartridges.
First use about Sept. 1, 1954.

Class 10 — Fertilizers

SN 22,506. Bryan Chemical Company, Baltimore, Md. Filed Jan. 14, 1957.

*Garden
Joy*

For Liquid Fertilizer (Plant Food).
First use Dec. 1, 1956.

Class 12 — Construction Materials

SN 17,393. Modiglass Fibers, Inc., Lancaster, Ohio, by change of name from Modigliani Glass Fibers, Inc. Filed Oct. 12, 1956.

GLASWOOD

For Wood and Plywood Building Panels With an Outer Surface Lamination of Glass Filament Mat Bonded Thereto.
First use Sept. 19, 1956.

SN 23,085. The Panelboard Mfg. Co., Inc., Englewood, N. J. Filed Jan. 23, 1957.



The lines denote shading.
For Floor Tiles and Wall Covering Composed of Tempered Hard Board With Baked on Melanite Finish.
First use Oct. 15, 1951.
Subj. to Intf. with SN 24,132.

SN 24,132. The Dodge Cork Company, Incorporated, Lancaster, Pa. Filed Feb. 11, 1957.

Pearlstone

For Cork Tile.
First use Oct. 3, 1951.
Subj. to Intf. with SN 23,085.

SN 26,489. Ramode, Inc., Cleveland, Ohio. Filed Mar. 19, 1957.



For Rigid Awnings, Canopies, Patios, and Carports.
First use Mar. 4, 1957; April 1946 as to "Ramode."

SN 26,715. Malco, Inc., Rock Island, Ill. Filed Mar. 22, 1957.

MALCO

For Aluminum Storm and Screen Doors and Windows.
First use Feb. 25, 1957.

SN 27,255. AA Wire Products Company, Chicago, Ill. Filed Apr. 1, 1957. SN 30,907. Hubbard & Company, Pittsburgh, Pa. Filed May 28, 1957.

CORNER-LOK

For Masonry Reinforcing Wall Bonds.
First use Oct. 26, 1955.

SN 27,259. ACF Industries, Incorporated, New York, N. Y. Filed Apr. 1, 1957.

KEY

Owner of Reg. Nos. 141,584, 546,910, and others.
For Gasket, Thread, and Joint Sealing Compounds.
First use Feb. 21, 1920.

SN 29,135. Carolina Forest Products, Inc., Wilmington, N. C. Filed Apr. 30, 1957.

FLAKE-BOND

For Medium Density Wood Particle Composition Boards.
First use Apr. 10, 1957.

SN 34,769. Bitulac, Limited, Newcastle-on-Tyne, England. Filed Aug. 1, 1957.

BITULASTEEL

Owner of British Reg. No. 759,130, dated Nov. 1, 1956.
For Bituminous Compositions Reinforced With Expanded Steel, the Bituminous Compositions Predominating, for Surfacing Steel Decks, Tank Tops, and the Like Surfaces.

SN 35,004. Russell Reinforced Plastics Corporation, Lindenhurst, N. Y. Filed Aug. 5, 1957.

CHROMOCCEL TROPIGLAS

Owner of Reg. No. 608,186.
For Tinted, Glass Fiber Reinforced, Plastic Panels and Slats Utilized in Wall Openings of Buildings and Wall Sections or Partitions.
First use Feb. 6, 1957.

SN 35,874. National Gypsum Company, Buffalo, N. Y. Filed Aug. 20, 1957.

WIRETITE

For Lath Clip.
First use about Sept. 22, 1955.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 27,308. Hanover Associates, Inc., West Orange, N. J. Filed Apr. 1, 1957.

GOTTA-GO

For Portable Commodes With Disposable Plastic Bags, and in Which the Transporting Cartons Form the Toilet Seats or Bases.
First use Dec. 11, 1956.

SN 27,826. Van Brode Sales Co., Inc., Clinton, Mass. Filed Apr. 9, 1957. Sec. 2(f).

HANDI-HOOK

Owner of Reg. No. 553,681.
For Hanger Hooks for Hanging Suits, Handbags, and Similar Articles.
First use Aug. 14, 1950.

SN 30,907. Hubbard & Company, Pittsburgh, Pa. Filed May 28, 1957.



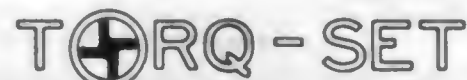
For Bolts, Anchors, Anchor Rods, Eye Nuts, Wood Strain Insulators, Wall Straps, and Clevises.
First use in January 1947 on bolts and anchor rods.

SN 30,908. The Independent Nail & Packing Company, Inc., Bridgewater, Mass. Filed May 28, 1957.



For Nails, Screws, and Metal Fasteners.
First use Feb. 11, 1957.

SN 33,670. American Screw Company, Willimantic, Conn. Filed July 15, 1957.



Owner of Reg. No. 645,014.
For Screws, Bolts, Studs, Rivets, and Allied Fasteners.
First use July 8, 1955.

Class 14—Metals and Metal Castings and Forgings

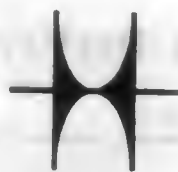
SN 30,470. Bauer Alphabets Inc., New York, N. Y. Filed May 22, 1957. Sec. 2(f).

BAUER "THE TYPES OF TODAY AND TOMORROW"

Owner of Reg. No. 285,618.
For Printing Type.
First use May 12, 1930.

Class 15—Oils and Greases

SN 22,615. Hamilton Watch Company, Lancaster, Pa. Filed Jan. 15, 1957.



For Lubricating Oil and Greases for Delicate Instruments.
First use Jan. 10, 1957.

SN 28,378. The Pure Oil Company, Chicago, Ill. Filed Apr. 17, 1957.

POCOTEMP

Owner of Reg. No. 502,269.
For Lubricating Grease.
First use on or about May 13, 1954.

SN 28,670. Wells Petroleum Company, Chicago, Ill. Filed Apr. 22, 1957. SN 29,322. R. T. Vanderbilt Company, Inc., New York, N. Y. Filed May 2, 1957.

WELCO

For Lubricating Oils, Greases, and Gasoline.
First use July 5, 1955.

SN 30,442. The Plowman Company, Garden City, N. Y. Filed May 21, 1957.

BLUE BAY

For Lubricants—Namely, Lubricating Oils for Internal Combustion Engines Including Marine Engines, Outboard Motors, and Diesel Engines.
First use Apr. 1, 1957.

SN 32,236. Curtis Manufacturing Company, Cleveland, Ohio. Filed June 19, 1957.

Cen-Pe-Co Diesel-Klenz

The words "Diesel-Klenz" are disclaimed separate and apart from the mark as shown. Owner of Reg. Nos. 201,328, 567,671, and others.

For Diesel Fuel Additive That Inhibits the Formation of Gum and Varnish Deposits While in Bulk Storage and Removes Gum and Varnish Deposits That Form in the Fuel Injection System and in the Upper Ring Zone of the Cylinder in Addition to Keeping This Area Clean of Deposits, and Also Prevents the Sticking of Fuel Injection Systems.
First use Apr. 5, 1957.

SN 33,129. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

BRILLOL

For White Mineral Oil.
First use Aug. 17, 1934.

Class 16—Protective and Decorative Coatings

SN 6,251. Grand Rapids Paint and Enamel Company, Grand Rapids, Mich. Filed Apr. 12, 1956.

DUTCH KRAFT

The term "Nu-Plastic-Seal" is disclaimed apart from the mark as shown. Owner of Reg. No. 430,196.
For Plastic Varnish.
First use Mar. 2, 1946.

SN 21,088. Red Hand Compositions Company, Inc., New York, N. Y. Filed Dec. 14, 1956.

METABOND

For Underwater Paint.
First use Feb. 1, 1956.

TM 727 O. G.—6



For Chemical Compound To Increase Luster and Leveling of Paints, Coating Material in the Nature of Paint To Protect Rubber Goods From Sunlight Deterioration and Dryers, Stabilizers, and Accelerators for Paints.
First use June 1940 on above coating material.

SN 38,617. Lamco Chemical Co., Inc., Boston, Mass. Filed Oct. 9, 1957.

LAMCO PREVENT-O-SLIP

For Protective Floor Surfacing Preparations, Having Cleaning and Anti-Skidding Properties.
First use in September 1956.

SN 38,638. F. E. Schundler & Co. Inc., Joliet, Ill. Filed Oct. 9, 1957.

DUX BAC

For Preparation for Waterproofing or Sealing Floors and Other Surfaces.
First use in or about January 1927.

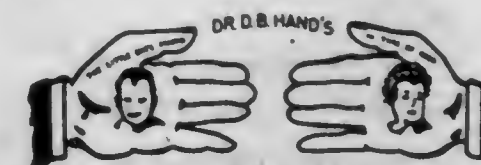
SN 38,660. Maintenance, Inc., Wooster, Ohio. Filed Sept. 26, 1957.



Owner of Reg. No. 562,493.
For Plastic and Elastomeric Resin Coatings for Concrete Floors and Structures To Inhibit or Prevent Surface Dusting, Water Penetration, and Chemical Attack.
First use Aug. 1, 1956.

Class 18—Medicines and Pharmaceutical Preparations

SN 2,877. Hand Medicine Company, New York, N. Y. Filed Feb. 17, 1956.



Owner of Reg. Nos. 95,267 and 200,696.
For Teething Lotion for Treating Gums, Cough Medicine, Astringent Mixture for the Treatment of Diarrhea, Colic Mixture, and Physic.
First use Nov. 1, 1884.

SN 8,744. Carter Products, Inc., New York, N. Y. Filed May 22, 1956.

WALLEX

Owner of Reg. No. 418,267.
For Sedative Preparation Which Helps To Relieve Tension, Nervousness, Headaches, Fatigue, Depression, and Sleeplessness.
First use Mar. 7, 1956.

SN 10,447. John P. U. McLeod, M. D., d. b. a. Bio-Factor Laboratories, Marshville, N. C. Filed June 18, 1956.

BIO-FACTOR

For Prescription and Non-Prescription Pharmaceuticals.
First use on or about Feb. 10, 1956.

SN 19,084. American Cyanamid Company, New York, N. Y. Filed Oct. 23, 1957.

SYMBICIN

Owner of Reg. No. 585,550.
For Antibiotic.
First use Oct. 30, 1956.

SN 21,555. Isaac D. Kinley, d. b. a. Kinley Laboratories, Pittsburgh, Pa. Filed Dec. 24, 1956.

METHACET

For Anti-Pain Tablets.
First use Dec. 16, 1955.

SN 28,743. American Cyanamid Company, New York, N. Y. Filed Apr. 24, 1957.

PATHOLON

Owner of Reg. Nos. 565,960 and 580,827.
For Anticholinergic Compound.
First use Apr. 5, 1957.

SN 29,783. Walter Birnstiel, Gstaad, Canton Bern, Switzerland. Filed May 10, 1957.

FRIGOPLASMA

Owner of Swiss Reg. No. 157,399, dated Aug. 4, 1955.
For Pharmaceutical Specialties—Namely, Poultices To Be Applied in Cold State.

SN 31,449. Alonso Ancira, d. b. a. Romero Drug Company, San Antonio, Tex. Filed June 6, 1957.

CANARY PILLS

The word "Pills" is disclaimed apart from the mark as shown. Owner of Reg. No. 184,218.
For Laxative Pills.
First use June 1, 1920.

SN 31,645. Durex Products, Inc., New York, N. Y. Filed June 10, 1957.

DURAFOAM

Owner of Reg. No. 309,111.
For Vaginal Foaming Tablets.
First use Oct. 29, 1953.

SN 32,116. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed June 17, 1957.

LINODOXINA

For Chemo-Therapeutic Preparation for the Lowering of Blood Cholesterol.
First use June 11, 1957.

SN 32,755. Holland-Rantos Company, Inc., New York, N. Y. Filed June 27, 1957.

Koromex 

Owner of Reg. No. 213,756.
For Antiseptic Medical Jelly for Vaginal Use.
First use June 4, 1957.

SN 33,044. Bernhoff Laboratories, Inc., d. b. a. Bernhoff Laboratories, Bremerton, Wash. Filed July 2, 1957.

PREPAR

For Medicinal Preparation for Use as a Pre-Natal or Post-Natal Dietary Supplement Containing Vitamins, Iron, and Calcium Lactate.
First use Oct. 12, 1954.

SN 33,371. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed July 8, 1957.

LINODOXINE

For Chemo-Therapeutic Preparation for the Lowering of Blood Cholesterol.
First use July 2, 1957.

SN 33,575. G. D. Searle & Co., Skokie, Ill. Filed July 11, 1957.

PROZANCHOL

Owner of Reg. Nos. 654,369 and 655,740.
For Pharmaceutical Preparation for the Treatment of Gastro-Intestinal and Hepato-Biliary Dysfunction.
First use Mar. 15, 1957.

SN 33,938. Armour and Company, Chicago, Ill. Filed July 18, 1957.

ACTHAR-PRO

Owner of Reg. Nos. 563,816 and 560,890.
For Adrenocorticotrophic Hormone Preparations.
First use June 24, 1957.

SN 34,771. Carter Products, Inc., New York, N. Y. Filed Aug. 1, 1957.

MILPATH

For Medicinal Preparation for Hypermotility of the Gastro-Intestinal Canal.
First use May 17, 1957.

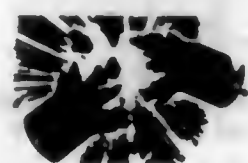
SN 35,085. Carter Products, Inc., New York, N. Y. Filed Aug. 7, 1957.

PROCALMADINE

For Sedative to Relieve Tension, Nervousness, and Sleeplessness.
First use July 1, 1957.

SN 35,194. Lester Y. Heller, Pottstown, Pa. Filed Aug. 8, 1957.

WHAM



For Ointment.
First use May 24, 1957.

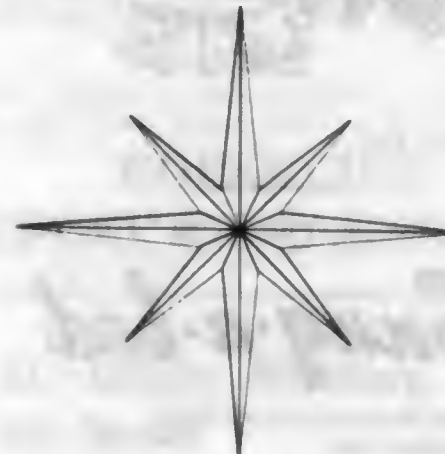
SN 36,558. The Apinol Corporation, Wilmington, N. C. Filed Sept. 3, 1957.

APINOL

For Preparation for the Relief of Cuts, Burns, and Bruises, and Insect Repellent.
First use 1907.

Class 19—Vehicles

SN 17,900. Ford Motor Company, Dearborn, Mich. Filed Oct. 22, 1956.



Owner of Reg. No. 606,637.
For Automobiles.
First use Sept. 14, 1955.

SN 18,497. Cory Corporation, Chicago, Ill. Filed Oct. 31, 1956.

AUTOPAK

For Attachment for Sun Visors of Automobiles Having Pockets and Slots Retaining Articles Useful in Travelling.
First use Oct. 22, 1956.

SN 23,897. Daimler-Benz Aktiengesellschaft, Stuttgart, Germany. Filed Feb. 6, 1957.



Owner of Reg. Nos. 100,959, 278,454, and others; and German Reg. No. 501,970, dated May 3, 1938.
For (Based on Use in Commerce) Automobiles, Motor Trucks, and Parts Thereof and Ski-Holders for Use on Automobiles and Rear-View Mirrors.

For (Based on German Registration) Vehicles for Use on Land, in the Air and in the Water, and Parts of All of Such Goods.
First use in 1932; in commerce in 1932.

SN 24,151. Ford Motor Company, Dearborn, Mich. Filed Feb. 11, 1957.

RANCH WAGON

For Automobiles.
First use Feb. 1, 1932.

SN 28,215. John C. Weaver, d. b. a. Rough-N-It Products Co., Overland Park, Kans. Filed Apr. 15, 1957.

ROUGH-N-IT

For Canvas Covers for the Rear of Station Wagons.
First use Feb. 1, 1957.

SN 28,565. A. J. Industries Corporation, Delavan, Wis. Filed Apr. 22, 1957.

TRUNKARRIER

For Luggage Carriers for Automobiles.
First use June 15, 1956.

SN 31,673. Marine Plastics, Inc., Fort Worth, Tex. Filed June 10, 1957.



For Outboard Motor Boats.
First use Jan. 10, 1956.

SN 31,700. Sicard Industries Inc., Watertown, N. Y. Filed June 10, 1957.

SANIVAN

Owner of Reg. No. 423,046.
For Motor-Operated Vehicular Closed Carriers—Namely, Garbage Collectors.
First use Feb. 10, 1943.

SN 31,756. Fleetform Corporation, Fort Worth, Tex. Filed June 11, 1957.

FLEETFORM

For Boats.
First use June 23, 1956.

SN 31,765. Hartman Trailer Manufacturing Company, Perkasie, Pa. Filed June 11, 1957. Sec. 2(f).

HARTMAN

Owner of Reg. No. 544,440.
For Utility Trailers for Use in Hauling Horses and Cattle.
First use on or about Aug. 20, 1947.

SN 32,024. The Frank F. Taylor Company, Norwood, Cincinnati, Ohio. Filed June 14, 1957.

GO-BI-BI

For Child's Strollers.
First use May 23, 1957.

SN 32,025. The Frank F. Taylor Company, Norwood, Cincinnati, Ohio. Filed June 14, 1957.

PROMENADER

For Child's Strollers.
First use May 23, 1957.

SN 32,199. Midas, Inc., Chicago, Ill. Filed June 18, 1957.

MIDAS

Owner of Reg. No. 641,711.
For Automotive Glass Panes—Namely, Windshields, Side Windows, and Rear Windows.
First use Apr. 19, 1957.

SN 32,751. General Motors Corporation, Detroit, Mich. Filed June 27, 1957.

IMPALA

For Automobiles.
First use Jan. 18, 1956.

SN 32,752. General Motors Corporation, Detroit, Mich. Filed June 27, 1957.

BISCAYNE

For Automobiles.
First use Jan. 20, 1955.

SN 32,753. General Motors Corporation, Detroit, Mich. Filed June 27, 1957.

BROOKWOOD

For Automobiles.
First use Apr. 30, 1957.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 21,864. Borg-Warner Corporation, Chicago, Ill. Filed Dec. 31, 1956.



Owner of Reg. Nos. 331,212, 625,230, and others.
For Electrical Motors for Aircraft, Agricultural, and Industrial Uses; Switches Actuated by Motor Driven Pressure Switches at Predetermined Pressures for Aircraft, Agricultural, and Industrial Uses; and Parts of the Aforesaid Goods for Replacement and Repair.
First use Feb. 3, 1956.

SN 27,214. Machlett Laboratories, Incorporated, Springdale, Conn. Filed Mar. 29, 1957.

DYNAPULSE

For Electronic Tubes and Controlling Apparatus for Controlling the Operation of X-Ray Tubes.
First use on or about Nov. 1, 1956.

SN 30,187. Packard Bell Electronics Corporation, Los Angeles, Calif. Filed May 16, 1957.

SIGALERT

For Emergency Communication System Comprised of a Combination Radio Receiver, Tape Recorder, Loud Speaker, and Alarm.
First use Mar. 18, 1957.

SN 30,753. Charles L. Dick, Kent, Wash. Filed May 27, 1957.



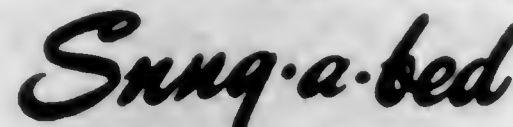
For Infra-Red Heating Appliances, Food Warmers, Electric Cooking Devices, and Industrial Heating Devices.
First use Apr. 8, 1955.

SN 33,288. Signalite Incorporated, Neptune, N. J. Filed July 5, 1957.



For Lamps.
First use June 5, 1957.

SN 33,532. Candace, Inc., Chicago, Ill. Filed July 11, 1957.



For Electrically Heated Mattress Pads.
First use December 1949.

SN 33,554. Wm. A. Holmin Corporation, Rockford, Ill. Filed July 11, 1957.

VOICE GUN

For Portable Loud-Speaker and Microphone Units With Electronic Amplifiers.
First use June 25, 1957.

Class 22—Games, Toys, and Sporting Goods

SN 12,442. Mattel, Incorporated, Los Angeles, Calif. Filed July 19, 1956.

LITTLE BURP

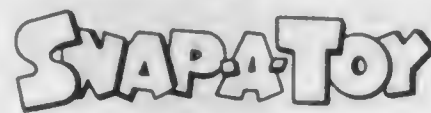
For Toy Cap Gun.
First use June 1, 1956.

SN 27,041. Mount Vernon Manufacturing Corp., New York, N. Y. Filed Mar. 27, 1957.



For Toy Guns and Holsters Therefor.
First use Feb. 28, 1957.

SN 30,068. David Damast, Riverdale, N. Y. Filed May 15, 1957.



For Separable Plastic Block Toy Kits.
First use Jan. 24, 1957.

SN 31,737. Hull Pottery Co., Crooksville, Ohio. Filed June 10, 1957.



No claim is made to the term "Pig" apart from the mark in its entirety.
For Toy Banks.
First use May 27, 1957.

SN 32,439. Totsy Manufacturing Co., Inc., Springfield, Mass. Filed June 25, 1957.

TOTSY-TEENA

For Dolls and Doll's Clothing.
First use May 1, 1957.

SN 33,456. William M. Van Der Veer, d. b. a. Billy Van, San Diego, Calif. Filed July 12, 1957.

ROPERCISE

For Exercise Apparatus—a Rope Specially Constructed for Performing Strength, Health, and Muscle-Building Exercises.
First use May 7, 1948.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 19,360. Addressograph-Multigraph Corporation, Cleveland, Ohio. Filed Nov. 20, 1956.



The word "Cardwriter" is disclaimed apart from the mark as shown. Owner of Reg. Nos. 343,106, 627,540, and others.
For Typewriting and Composing Machines.
First use Sept. 18, 1956.

SN 30,367. Seaboard Equipment Company, Inc., New York, N. Y. Filed May 20, 1957.

SUPERTEC

For Parts and Accessories for Road Building Machinery and Engines, Agricultural Machinery and Engines and Automotive Engines—Namely, Undercarriage Parts for Tractors, Power-Shovels and Cranes as Sprockets, Idlers, Chains, Links, Tracks, Grousers, Grouser Bolts and Nuts, Rollers, Pins, Bushings, Shafts, Seals, Bellows, Brake Linings, Clutches, Gear and Pinions; Blades and Cutting Edges for Bulldozers, Motor-graders, and Scrapers; Pistons, Rings, Liners, Valves, Fuel Injectors, Oil Filters, Gaskets, Clutches, Brake Linings, and Bearings for Diesel and Gasoline Engines.
First use Apr. 26, 1957.

SN 30,706. Acro-Feed Industries, Inc., Detroit, Mich. Filed May 27, 1957.

ACRO-FEED

For Automatic Bar Stock Feeders for Screw Machines.
First use Mar. 5, 1956.

SN 30,833. The Rawlplug Company Limited, London, England. Filed May 27, 1957.

DURIUM

Owner of British Reg. No. 662,232, dated Sept. 5, 1947.
For Masonry Hand Drills and Bits.

SN 31,490. Imperial Knife Associated Companies, Inc., Providence, R. I. Filed June 6, 1957.

HERITAGE

For Stainless Steel Flatware Including Knives, Forks, and Spoons.
First use May 15, 1957.

SN 32,646. Mohawk Engineering Corporation, North Adams, Mass. Filed May 13, 1957.



For Garden Tractors.
First use Feb. 22, 1957.

SN 34,653. Addo Machine Company, Inc., New York, N. Y. Filed July 31, 1957.



For Office Machines—Namely, Duplicating Machines and Typewriters, and Parts Thereof.
First use Mar. 1, 1957.

SN 35,008. Scully-Jones and Company, Chicago, Ill. Filed Aug. 5, 1957.

SAFE-TORQUE

For Tool Drivers.
First use on about Mar. 8, 1954.

SN 35,105. Leje & Thurne Aktiebolag, Stockholm, Sweden. Filed Aug. 7, 1957.

CELLOFLOT

Owner of Swedish Reg. No. 81,357, dated Nov. 2, 1956.
For Flotation Apparatus Particularly for Separating Fibres from Fibre Suspensions.

SN 35,112. Montgomery Elevator Company, Moline, Ill. Filed Aug. 7, 1957. Sec. 2(f).

MONTGOMERY

Owner of Reg. Nos. 621,744, 640,491, and 640,803.
For Hydraulic Elevator Machines and Controllers for Such Machines.
First use May 12, 1952.

SN 35,151. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Aug. 8, 1957.

METEOR

For Lawn Mowers and Parts Thereof.
First use Dec. 22, 1937.

SN 35,204. Precision Flexopress Corporation, Cincinnati, Ohio. Filed Aug. 8, 1957.

FLEXOPRESS

For Punch Presses.
First use in or about January 1937.

SN 38,469. Lamson Corporation, Syracuse, N. Y. Filed Oct. 7, 1957.

AIRTUBE

For Pneumatic Tube Systems for Transporting Messages, Punch Cards, Small Tools, Laboratory Samples, or Other Small Articles From One Point to Any Other.
First use Dec. 23, 1955.

SN 38,471. Lamson Corporation, Syracuse, N. Y. Filed Oct. 7, 1957.

BOOKVEYOR

For Conveyors for Books, Papers, Periodicals, Sheet Music and the Like.
First use Mar. 9, 1956.

SN 38,529. Dale K. Chowning, d. b. a. Miracle Magnet Company, Mountain View, Mo. Filed Oct. 8, 1957.

MIRACLE MAGNET

For Nut Drivers.
First use Sept. 14, 1957.

SN 38,615. The International Silver Company, Meriden, Conn. Filed Oct. 9, 1957.

PANORAMA

For Stainless Steel Flatware—Namely, Knives, Forks, and Spoons.
First use Oct. 2, 1957.

SN 38,671. Chi-Co, Inc., Northfield, Ohio. Filed Oct. 10, 1957.

Chi-co

For Collets.
First use June 1, 1942.

SN 38,754. The International Silver Company, Meriden, Conn. Filed Oct. 11, 1957.

HIALEAH

For Stainless Steel Flatware—Namely, Knives, Forks, and Spoons.
First use Oct. 7, 1957.

SN 38,845. Oxwall Tool Co., Ltd., New York, N. Y. Filed Oct. 14, 1957.

POWER MASTER

For Hand Tools, Such as Screw-Drivers.
First use Aug. 8, 1957.

SN 38,875. The Torrington Manufacturing Company, Torrington, Conn. Filed Oct. 14, 1957.

VERTI-SLIDE

For Wire Forming Machines.
First use on or about Sept. 25, 1957.

SN 38,936. Modern Devices, Libertyville, Ill. Filed Oct. 15, 1957.

FEEDVISION

For Infeed Grinding Attachments for Centerless Grinding Machines.
First use on or about Mar. 22, 1957.

SN 38,938. Munster, Simms & Company Limited, Belfast, Northern Ireland. Filed Oct. 15, 1957.

WHALE

For Bilge Pumps, Fresh Water Pumps, Tap Pumps, and Galley Pumps.
First use Dec. 31, 1945; in commerce Apr. 13, 1950.

Class 24—Laundry Appliances and Machines

SN 33,159. The James Company of Hickory, N. C., Inc., Hickory, N. C. Filed July 3, 1957.

FULLINE

For Ironing Board Covers.
First use May 15, 1957.

Class 26—Measuring and Scientific Appliances

SN 16,121. Hauman Instruments Company, Inc., Watertown, Mass. Filed Sept. 21, 1956.

RECHARGE-A-MATIC

For Flash Lighting Apparatus for Use With Cameras.
First use July 15, 1956.

SN 16,465. Optische Werke G. Rodenstock, Munich, Germany. Filed Sept. 23, 1957.

APO-RONAR

Owner of German Reg. No. 682,725, dated Oct. 13, 1955.
For Photographic and Cinematographic Lenses, Cameras, and Projectors, Lenses for Reproduction Instruments and Enlarging Cameras, Condensers, Optical Lenses, Fieldglasses, Spectacles, Folders, Spectacle Lenses, Magnifiers, Reading Glasses.

SN 16,467. Optische Werke G. Rodenstock, Munich, Germany. Filed Sept. 23, 1957.

ROTELAR

Owner of German Reg. No. 660,868, dated July 31, 1954.
For Photographic Lenses and Cameras, Taking Lenses for Cine Cameras, Projector Lenses, Condensers, Optical Lenses, Field Glasses, Prism Binoculars, Opera Glasses, Ophthalmological Instruments, Projection Instruments and Cine Cameras, Spectacles, Folders, Spectacle Lenses, Magnifiers, Reading Glasses.

SN 16,468. Optische Werke G. Rodenstock, Munich, Germany. Filed Sept. 23, 1957.

EURYGON

Owner of German Reg. No. 685,515, dated Dec. 14, 1955.
For Camera and Cine Camera Lenses; Field Glasses; Spectacles, Folders, Spectacle Lenses; Reproduction and Projector Lenses; Condensers; Optical Lenses; Magnifiers, Reading Glasses.

SN 16,470. Optische Werke G. Rodenstock, Munich, Germany. Filed Sept. 23, 1957.

RONAR

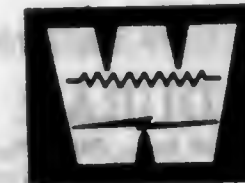
Owner of German Reg. No. 69,366, dated May 18, 1904.
For Photographic Objectives, Cameras, Telescopes, Prism Binoculars.

SN 23,527. The Wayne Pump Company, Salisbury, Md. Filed Jan. 30, 1957.

SOLORAMIC

For Measuring Fluid Dispensing Pumps.
First use Jan. 10, 1957.

SN 24,014. Waters Manufacturing, Inc., South Sudbury, Mass. Filed Feb. 7, 1957.



For Diode Curve Tracer, Precision Angle Setter, Incremental Inductance Bridge, Cathode Interface Impedance Bridge, Linearity Bridge, Potentiometer Analyzer, and Slide Wire Standard.
First use Feb. 19, 1953.

SN 24,766. Engineering Specialty Company, Salt Lake City, Utah. Filed Feb. 20, 1957.

ENSCO

For Sine Wave Oscillators, Low Frequency and Square Wave Generators, and Pulse Generators.
First use Mar. 1, 1955.

SN 25,722. OPTOMECHANISMS, Inc., Mineola, N. Y. Filed Mar. 7, 1957.

OPTO MECHANISMS

Applicant disclaims the term "Mechanisms."
For Optical and Electronic Instruments and Components—Namely, Instruments for Measuring and Recording Elapsed Time, Velocity, Distance and Angular Position Utilizing Optical Components or Means, Theodolites, Projectors, Cameras, and Radiant Energy Detectors or Measuring Devices.
First use May 16, 1956.

SN 27,038. Monsanto Chemical Company, St. Louis, Mo. Filed Mar. 27, 1957.

SPRAY-RATER

For Measuring Device for Calibrating the Rate of Application of Various Types of Liquid Sprays Such as Herbicides, Insecticides, and Liquid Fertilizers.
First use Feb. 5, 1957.

SN 27,065. Elgin Softener Corporation, Elgin, Ill. Filed Mar. 28, 1957.

Elgin

Owner of Reg. Nos. 264,017 and 634,582.
For Acid Measuring Equipment and Chemical Feeders for Delivering a Measured or Proportional Amount of Chemical Substance, Hydrometers for Measuring the Specific Gravity of Liquids, Water Softener Control Valves Incorporating Automatic Timers for Timing Rinse.
First use August 1924.

SN 27,895. Sargent-Raymont Co., Palo Alto, Calif. Filed Apr. 10, 1957.

GARD

For Gamma Ray Detectors.
First use on or about Dec. 11, 1956.

SN 30,268. Francis J. Rinderer, d. b. a. Rinco Instrument Company, Greenville, Ill. Filed May 17, 1957.

RINCO

For Laboratory Instruments—Namely, Fraction Collectors, Rotary Film Liquid-Liquid Extractors, and Rotating Evaporators.
First use Apr. 7, 1957.

SN 42,571. Gebrüder Wirgin, Wiesbaden, Germany. Filed Dec. 18, 1957.

Edixa

For Cameras and Parts Thereof.
First use Nov. 12, 1953; in commerce Nov. 12, 1953.
Subj. to Intf. with SN 26,323.

Class 27—Horological Instruments

SN 26,076. Fabrique de Montres Zila S. A., La Heutte, Switzerland. Filed Mar. 13, 1957.

ZILA

Owner of Swiss Reg. No. 101,545, dated Feb. 20, 1942.
For Watches and Parts of Watches.

Class 28—Jewelry and Precious-Metal Ware

SN 29,837. The Stieff Company, Baltimore, Md. Filed May 10, 1957.

DIAMOND STAR

For Hollow Ware, and Flat Ware, All Made of Sterling Silver or Solid Gold.
First use Apr. 11, 1957.

Class 29—Brooms, Brushes, and Dusters

SN 12,709. Cotton Specialty Co., Inc., Chicago, Ill. Filed July 24, 1956.



For Mops.
First use Apr. 29, 1953.

SN 24,620. Otis Company, San Francisco, Calif. Filed Feb. 18, 1957.

RAYO

For Mops and Mopheads.
First use May 28, 1956.

SN 29,679. Whitestone Products Co. Inc., Brooklyn, N. Y. Filed May 8, 1957.

DABS

For All-Purpose Wiping Cloths.
First use Mar. 1, 1957.

Class 30—Crockery, Earthenware, and Porcelain

SN 23,125. Chalfonte Products Corporation, Brooklyn, N. Y. Filed Jan. 24, 1957.



For Dinnerware of China and Earthenware.
First use Nov. 15, 1953.

SN 35,177. Krister Porzellan-Manufaktur Aktiengesellschaft, Marktredwitz, Bavaria, Germany. Filed Aug. 8, 1957.



The word "Germany" is disclaimed apart from the mark as shown. Owner of German Reg. No. 690,351, dated May 4, 1956.

For Articles Made of Porcelain as House and Kitchen Utensils—Namely, Dinner Sets, Coffee Sets, Tea Sets, After Dinner Coffee Service, Chocolate Sets, Bowls, Vases; Articles Made of Glazed Earthenware as House and Kitchen Utensils—Namely, Dinner Sets, Coffee Sets, Tea Sets, After Dinner Coffee Service, Chocolate Sets, Bowls, Vases.

Class 32—Furniture and Upholstery

SN 8,836. Diamond Bros. Company, Trenton, N. J. Filed May 23, 1956.

MAGIO "V" SEATING

The word "Seating" is disclaimed apart from the mark as shown.

For Living Room and Office Furniture—Namely, Upholstered Sofas, Sofa Beds, Bed Davenports, Chair Beds, Arm Chairs, and Swivel Chairs.
First use Oct. 1, 1955.

SN 28,559. The Toledo Plate & Window Glass Company, Toledo, Ohio. Filed Apr. 19, 1957.

TRI-COP-R

For Mirrors.
First use Feb. 1, 1957.

SN 36,287. Drexel Furniture Company, Drexel, N. C. Filed Aug. 27, 1957.

CASA DEL SOL

The words "Casa Del Sol" mean "house of the sun." For Bedroom, Dining Room, and Living Room Furniture—Namely, Dressers, Mirrors, Tables, Chests, Beds, Benches, Night Stands, Buffets, Decks, Cabinets, Servers, Chairs, Desks, Bookcases, Cupboards, Ottomans, Loveseats, and Sofas.
First use July 1957.

SN 38,530. Drexel Furniture Company, Drexel, N. C. Filed Oct. 8, 1957.

SYMMETRY

For Bedroom Furniture—Namely, Dressers, Mirrors, Chests, Beds, and Night Stands.
First use Sept. 13, 1957.

Class 33—Glassware

SN 17,366. Jenaer Glaswerk Schott & Gen., Mainz, Germany. Filed Oct. 12, 1956.

DURAN

For Glass Tubes, Glass Rods, Glass Plates.
First use 1937; in commerce Oct. 4, 1937.

SN 35,145. Wheaton Glass Company, Millville, N. J. Filed Aug. 7, 1957.

GOLD BAND

For Score Break Ampules Made of Glass.
First use Dec. 10, 1956.

Class 34—Heating, Lighting, and Ventilating Apparatus

SN 12,890. The W. M. Kellogg Company, New York, N. Y. Filed July 26, 1956.

ORTHOFLOW

For Large Steel Processing Vessels of Welded Construction for Use as Reactor Vessels, Converter Vessels, Catalyst Regeneration Vessels and Similar Vessels and Tanks in the Fluid Catalytic Cracking of Petroleum Hydrocarbons, in the Fluid Catalytic Hydroforming of Petroleum Hydrocarbons and Similar Processes.
First use Feb. 28, 1955.

SN 13,108. Western-Holly Appliance Company, Culver City, Calif. Filed July 30, 1956.

KOOK-CENTER

For Cooking Ranges.
First use June 5, 1956.

SN 23,089. The Exitaire Company, Pacoima, Calif. Filed Feb. 26, 1957.

EXITAIRE

For Power Roof Exhausters.
First use Oct. 15, 1956.

Class 36—Musical Instruments and Supplies

SN 22,847. Robert G. Kimble, d. b. a. Kimbo Records, Mountain View, N. J. Filed Jan. 18, 1957.



Applicant disclaims the words "Records," "Trademark," "Belleville," and "New Jersey" apart from the mark as shown. For Phonograph Records of the Grooved Type, Especially Phonograph Records for Use in Dance Instruction.
First use Apr. 12, 1954.

Class 37—Paper and Stationery

SN 32,387. L. & C. Hardtmuth, Inc., Bloomsbury, N. J. Filed June 21, 1957.

EJECTO

For Pencils and Lead Holders.
First use May 28, 1957.

Class 38—Prints and Publications

SN 17,543. Beer Distributor Publishing Corp., Stamford, Conn. Filed Oct. 16, 1956. Sec. 2(f).

BEER DISTRIBUTOR

For Trade Magazine.
First use Mar. 27, 1935.

SN 20,267. HMH Publishing Co., Inc., Chicago, Ill. Filed Dec. 3, 1956.

PLAYBOY'S PLAYMATE OF THE MONTH

Owner of Reg. No. 600,018.
For Feature in the Magazine "Playboy," Published Monthly.
First use Dec. 15, 1953.

SN 20,825. Davidson Publishing Company, Duluth, Minn. Filed Dec. 11, 1956. Sec. 2(f).

DINER DRIVE-IN

For Magazine.
First use in May 1955.

SN 28,079. The Upjohn Company, Kalamazoo, Mich. Filed Apr. 12, 1957.

FILMSCOPE

Owner of Reg. Nos. 395,782, 613,595, and 639,393.
For Series of Educational Motion Pictures.
First use Feb. 15, 1957.

SN 30,179. McGraw-Hill Publishing Company, Inc., New York, N. Y. Filed May 16, 1957.

READER FEEDBACK

For Periodical Reports on Advertising Studies.
First use Apr. 8, 1957.

SN 31,520. Time, Incorporated, New York, N. Y. Filed June 8, 1957.

FORTUNE FILMS

No claim is made to the term "Films" apart from the mark shown.

For Motion Picture Film, Sound Film, Combined Sound and Motion Picture Films, and Motion Picture Films for Use in Connection With Synchronized Apparatus for Simultaneously Reproducing Coordinated Light and Sound Effect.
First use May 2, 1957.

SN 35,563. The Associated Press, New York, N. Y. Filed Aug. 15, 1957.

THE POWER OF FAITH

For Column or Section in Newspapers and Magazines Appearing From Time to Time.
First use Aug. 3, 1957.

SN 35,674. George Newnes, Limited, London, England. Filed Aug. 16, 1957.

WIDE WORLD

For Monthly Magazine.
First use April 1898; in commerce 1898.

SN 35,772. Hercules Powder Company, Wilmington, Del. Filed Aug. 19, 1957.

PLASTICS HI-LITES

For Periodical, Published Quarterly.
First use July 1, 1957.

Class 39—Clothing

SN 690,643. Puritan Mills, Inc., Roanoke, Va. Filed July 1, 1955.



For Nightwear—Namely, Gowns and Pajamas.
First use at least as early as 1918.

SN 11,014. Chester Laurie Ltd., New York, N. Y. Filed June 26, 1956.

SAINT-LAURIE

For Men's Clothing—Namely, Suits and Sport Jackets.
First use June 1, 1956.

SN 21,941. Primrose Foundations, Inc., New York, N. Y. Filed Dec. 31, 1956.

PRIMROSE

For Foundation Garments—Namely, Brassieres, Corsets, Corsets, Bandeaux, Girdles, and Garter Belts.
First use Jan. 17, 1935.
Subj. to Intf. with SN 24,662.

SN 23,232. Julius Grossman, Inc., New York, N. Y. Filed Jan. 25, 1957.

JULIUS GROSSMAN

Owner of Reg. Nos. 305,845 and 517,717.
For Women's Shoes, High and Low Models, of Leather, Fabrics, and Combinations of Leather and Fabrics, and Also Including Corrective Models and Novelty Patterns of Such Shoes in All Styles.
First use on or about 1890.

SN 24,290. Stanley Lingerie Corporation, Brooklyn, N. Y. Filed Feb. 12, 1957.

Hide-n-Seek

For Panties With Elastic Legs and Band Legs.
First use on or about May 15, 1954.

SN 24,662. East Tennessee Undergarment Co., Inc., d. b. a. Primrose Undergarment Co., New York, N. Y. Filed Feb. 19, 1957.



No registration rights are claimed for the word "Undies" apart from the mark shown.

For Ladies' and Children's Panties.

First use May 1, 1935.

Subj. to Intf. with SN 21,941.

SN 24,886. Vanity Fair Mills, Inc., Reading, Pa. Filed Feb. 21, 1957.

BECKY SHARP

For Underwear, Lingerie, and Sleeping Garments for Women and Misses—Namely, Vests, Panties, Briefs, Chemises, Bandeaux or Brassieres, Slips, Petticoats, Lounging Robes, Lounging Pajamas, Negligees, Bed Jackets, Nightgowns, and Sleeping Pajamas.

First use Jan. 22, 1957.

SN 25,393. A. Brod, Inc., New York, N. Y. Filed Mar. 4, 1957.

Toppettes
by **BROD**

For Hats.

First use Nov. 14, 1955.

SN 25,451. Onita Specialty Co., Inc., Brooklyn, N. Y. Filed Mar. 4, 1957.



The word "Originals" is disclaimed apart from the mark as shown.

For Pajamas, Shorty Pajamas, Housecoats, Dusters, Slacks, Pedal Pushers, Outer Shorts, Robes, Torreador Pants, Halters, Jackets, Cabana Sets, Blouses, Shorty Gowns, Shorty Shorts, Polo Shirts, Play Suits, and Coveralls for Sub-Teen Girls.

First use Nov. 6, 1956.

SN 26,948. Le Roy Knitted Sportswear, Inc., Los Angeles, Calif. Filed Mar. 26, 1957.

Cali-Mere

For Lady's Knitted Sweater.
First use Oct. 1, 1956.

SN 28,363. Margit Sportswear, Incorporated, St. Louis, Mo. Filed Apr. 17, 1957.

COUNTRY SET

For Ladies' Dresses.

First use Apr. 1, 1957.

SN 29,462. Lynn's Fashions, Inc., New York, N. Y. Filed May 6, 1957.

Wendy Willow

For Ladies' Coats.

First use Apr. 1, 1957.

SN 29,913. Jamie Togs, Inc., New York, N. Y. Filed May 13, 1957.



For Women's Sport Dresses, Skirts, Shorts, Polo Shirts, Beach Robes, and Bathing Suits.
First use Mar. 20, 1957.

SN 29,962. Gene Shelly, Los Angeles, Calif. Filed May 13, 1957.

GENE SHELLY

For Ladies' Apparel—Namely, Ladies' Suits.
First use Apr. 1, 1946.

SN 30,796. Leonora, Inc., New York, N. Y. Filed May 27, 1957. Sec. 2(f).

**MISS LEONORA GOWN
OF THE MONTH**

For Sleeping Gowns and Slips.
First use Oct. 20, 1939.

SN 31,019. Meco Knitting Mills, Inc., Brooklyn, N. Y. Filed May 29, 1957.

SARA MYA

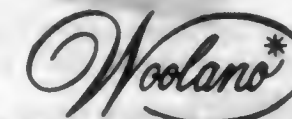
For Ladies' Sweaters.
First use Apr. 26, 1957.

SN 31,340. Montgomery Ward & Co., Incorporated, Chicago, Ill. Filed June 4, 1957.

CAROL BRENT

For Women's Slips, Nightgowns, Pajamas, Bedjackets, Panties, Brassieres, Foundations and Full-Fashioned and Seamless Hosiery, and Children's, Girls', and Misses' Hosiery.
First use July 1, 1941.

SN 31,849. Elias Sayour Co., Inc., New York, N. Y. Filed June 10, 1957.



For Women's, Misses', and Children's Housecoats, Dresses, Negligees, Blouses, and Bed Jackets, Being Made at Least in Part of Wool.
First use Oct. 25, 1956.

SN 32,215. Suitline, Inc., New York, N. Y. Filed June 18, 1957.

COATIME

For Women's Coats.
First use in April 1957.

SN 32,242. Formald Co., Boston, Mass. Filed June 19, 1957.

ESCAPADE

For Brassieres.
First use May 28, 1957.

SN 33,118. Bianchini, Ferler, Inc., New York, N. Y. Filed July 3, 1957. Sec. 2(f).

Bianchini

For Neckties.
First use Aug. 17, 1949.

SN 33,374. Roos Bros., Inc., San Francisco, Calif. Filed July 8, 1957.

CASTLEROCK

For Men's Suits and Coats.
First use Jan. 1, 1930.

SN 33,422. Lamm Brothers, Inc., Baltimore, Md. Filed July 9, 1957.

Irideste

For Men's and Boys' Raincoats.
First use Mar. 29, 1957.

SN 33,508. Standard Garments, Inc., Baltimore, Md. Filed July 10, 1957.

"Camera Classics"

For Men's and Boys' Shirts.
First use July 1, 1953.

Packard

For Boots and Shoes of Leather, Fabric, or Combinations Thereof.
First use about Apr. 1, 1889.

Class 40—Fancy Goods, Furnishings, and Notions

SN 10,584. Consolidated Trimming Corporation, New York, N. Y. Filed June 20, 1956.

TIME SAVER

For Upholstery and Drapery Trimmings—Namely, Tape, Edging, Trimming Strip, Piping Cord, Weighted Cord and Tape, Ruffle, Braid, Binding, and Fringe.
First use April 1955.

SN 30,960. Standard Pyroxoloid Corporation, Leominster, Mass. Filed May 28, 1957.

Elegant Lady

For Dresser Sets Comprising Mirrors, Combs, and Brushes.
First use Apr. 23, 1957.

SN 30,961. Standard Pyroxoloid Corporation, Leominster, Mass. Filed May 28, 1957.

Elegant Miss

For Dresser Sets Comprising Mirrors, Combs, and Brushes.
First use Apr. 23, 1957.

Class 42—Knitted, Netted, and Textile Fabrics, and Substitutes Therefor

SN 25,531. Flamingo Fabrics Corp., New York, N. Y. Filed Mar. 5, 1957.

SILKROME STRIPES

Applicant disclaims the word "Stripes" apart from the mark as shown on the drawing.
For Textile Fabrics of Cotton, Wool, and Synthetic Fibres.
First use Feb. 11, 1957.

SN 31,536. E. Albrecht & Son Company, d. b. a. Albrecht Furs, St. Paul, Minn. Filed June 7, 1957.

MIMIX

For Fabric Which Simulates Fur.
First use Mar. 10, 1956.

SN 32,852. Robert G. Reed Co., Inc., Boston, Mass. Filed June 28, 1957.

REEDSTWEEDS

For Woolen Blend Piece Goods.
First use June 14, 1957.

Class 43—Thread and Yarn

SN 32,859. Standard Thread Co., Inc., New York, N. Y. Filed June 28, 1957.

PARKWAY

For Thread.
First use May 31, 1956.

Class 44—Dental, Medical, and Surgical Appliances

SN 20,858. Sanborn Company, Cambridge, Mass. Filed Dec. 11, 1956.

VISO-SCOPE

Owner of Reg. No. 433,791.
For Oscilloscope Equipment for Indicating Physiological and Other Phenomena, Amplifiers, and Cathode-Ray Display Apparatus for Such Indicating Purposes Including Scanning and Related Circuits.
First use in December 1954.

SN 30,332. J. E. Hanger, Inc., Washington, D. C. Filed May 20, 1957.



Owner of Reg. Nos. 139,545 and 289,717.
For Prosthetic Appliances—Namely, Artificial Limbs.
First use Jan. 1, 1956; in 1861 as to "Hanger."

SN 30,703. Youngs Rubber Corporation, New York, N. Y. Filed May 24, 1957.

GUARDIAN

Owner of Reg. Nos. 620,018 and 620,019.
For Prophylactic Rubber Articles for the Prevention of Disease.
First use Dec. 22, 1954.

Class 45—Soft Drinks and Carbonated Waters

SN 14,413. Seminole Flavor Company, Chattanooga, Tenn. Filed Aug. 22, 1956.



Owner of Reg. No. 645,811.
For Soft Drinks and Concentrates for Making the Same.
First use Aug. 10, 1956.

Class 46—Foods and Ingredients of Foods

SN 7,080. Douglass Candies, Wildwood, N. J. Filed Apr. 25, 1956. Sec. 2(f).

DOUGLASS

For Candy.
First use in 1920.

SN 19,451. The Great Western Sugar Company, Denver, Colo. Filed Nov. 19, 1956.



The portrait shown is that of Monica Moye, whose consent is of record.
For Monosodium Glutamate, Used To Intensify the Natural Flavor of Foods.
First use Oct. 18, 1956.

SN 20,294. Peanut Fluf Company, Detroit, Mich., to Sunshine Biscuits, Inc., Long Island City, N. Y. Filed Dec. 3, 1956.

FLUF

For Foamed Peanut Butter.
First use Jan. 12, 1956.

SN 25,861. IXL Food Company, San Leandro, Calif. Filed Mar. 11, 1957. SN 31,821. Chalet Suzanne Foods, Inc., Lake Wales, Fla. Filed June 12, 1957.



Owner of Reg. Nos. 259,805, 510,842, and 542,209.
For Canned Lasagne.
First use June 15, 1956.

SN 27,322. Kraft Foods Company, Chicago, Ill., now by merger National Dairy Products Corporation. Filed Apr. 1, 1957.

HARVEST MOON

For Cheese, Cheese Spread, Sandwich Spread, Mayonnaise, Salad Dressing, Thousand Island Dressing, and French Dressing.
First use in April 1936, on mayonnaise, sandwich spread, and salad dressing.

SN 27,770. Berelson, Inc., San Francisco, Calif. Filed Apr. 9, 1957. Sec. 2(f).



Owner of Reg. No. 558,174.
For Canned Fish, Frozen Fresh Fish, and Frozen Fresh Shellfish.
First use June 10, 1950, on canned fish.

SN 28,102. Bush Bros. & Company, Inc., Dandridge, Tenn. Filed Apr. 13, 1957.

MARKET BASKET

For Canned Vegetables, and Canned Pork and Beans.
First use in 1950.

SN 29,764. Tollbia Cheese Manufacturing Corporation, Fond du Lac, Wis. Filed May 9, 1957.

OREGANELLA

For Cheese.
First use Mar. 19, 1957.

SN 31,084. Pride of Virginia Poultry Corporation, New Market, Va. Filed June 10, 1957.

PRIDE OF VIRGINIA

For Fresh and Frozen Chickens, Turkeys, and Other Fowl, Whole and in Cut Up Parts.
First use July 1, 1948.

SN 31,755. Farmbilt Mills, Inc., Cuero, Tex. Filed June 11, 1957.



Exclusive use of the words "Feeds" and "Farm Proven" is disclaimed apart from the mark as shown.
For Animal Feeds—Namely, Feed for Poultry, Dairy, and Swine.
First use Sept. 27, 1954.

CHALET SUZANNE

For Canned Soup.
First use Nov. 4, 1956.

SN 31,984. H. P. Hood & Sons, Inc., d. b. a. H. P. Hood & Sons, Dunedin, Fla. Filed June 14, 1957.

SOUTHERN SUN

For Canned Concentrated Orange Juice.
First use Feb. 1, 1957.

SN 32,671. Falcon Packing Company Inc., New York, N. Y. Filed June 26, 1957.

RICARDO

For Bottled Olives, Bottled Cherries, Bottled Onions, and Bottled Edible Olive Oil.
First use Jan. 1, 1929.

SN 32,979. Pandol & Sons, Delano, Calif. Filed July 1, 1957.

3 BROTHERS

For Fresh Fruits, Fresh Melons, and Fresh Vegetables.
First use in 1942.

SN 35,007. B. Schwartz & Co., Chicago, Ill. Filed Aug. 5, 1957.

DOH-FRI

For Blended Vegetable and Animal Fat Shortening.
First use May 29, 1957.

SN 35,332. Cracker-Mate Cheese Company, Washington, Ind. Filed Aug. 12, 1957.

CRACKER-MATE

For Cheese.
First use on or about Mar. 15, 1957.

SN 35,684. Safeway Stores, Incorporated, Oakland, Calif. Filed Aug. 16, 1957. Sec. 2(f).

HAWTHORNE

Owner of Reg. No. 562,466.
For Bacon.
First use Apr. 30, 1951.

SN 37,330. Gioia Macaroni Company, Inc., Buffalo, N. Y. Filed Sept. 4, 1957. Sec. 2(f).



For Macaroni and Egg Noodle Products, Canned Vegetables, Olive Oil, Canned Tuna Fish, Cheese, and Spaghetti Sauce.
First use in 1910.

SN 38,884. J. Berk, Inc., New York, N. Y. Filed June 20, 1957. Sec. 2(f).
 SN 21,571. Profile Company, Inc., Fort Lauderdale, Fla. Filed Dec. 24, 1956.

BERK'S

Owner of Reg. Nos. 555,167 and 536,806.
 For Coffee.
 First use Oct. 1, 1948.

Class 49—Distilled Alcoholic Liquors

SN 31,877. H. Stone & Co. Ltd., Philadelphia, Pa. Filed June 12, 1957.

DUNFIFE

For Whiskey.
 First use Jan. 8, 1946.

Class 50—Merchandise Not Otherwise Classified

SN 32,828. Leatherflex Products, Inc., Newark, N. J. Filed June 28, 1957.

UNIFLEX

For Composition Sheet Material Used for Making Shoes, Brief Cases, Handbags, Jewelry Cases, and Eyeglass Cases.
 First use May 27, 1957.

SN 35,300. Schenley Industries, Inc., New York, N. Y. Filed Aug. 9, 1957.

"PROTECT-O-POUR"

For Combination Sealing and Pouring Device for Alcoholic and Other Beverages.
 First use June 17, 1957.

Class 51—Cosmetics and Toilet Preparations

SN 14,197. John Robert Powers Products Co. Inc., New York, N. Y. Filed Aug. 20, 1956.

John Robert Powers

Consent of John Robert Powers is of record. Owner of Reg. No. 529,077.

For Cosmetic Skin Creams; Cosmetic Skin Lotions; Astringent; Eye Oil; Mascara; Cologne; Perfume; Eyebrow Pencils; Skin Freshener; Fluid Rouge; Fluid Eye Shadow; Lipstick; Face Powder; a Cosmetic in Stick Form for Hiding Blemishes, Dark Circles, Sag Lines, Scars, Scratches, Bruises, Freckles, Blotches, Discolorations, Broken Veins, and Birth Marks.
 First use Jan. 5, 1948, on skin creams and lotions.

SN 20,050. Perfemme Incorporated, New York, N. Y. Filed Nov. 28, 1956.

Perfemme

For Perfumes, Cologne, Solid Perfumes, and Cream Perfumes.
 First use Nov. 20, 1956.

SN 21,571. Profile Company, Inc., Fort Lauderdale, Fla. Filed Dec. 24, 1956.

Profile

For Skin Lotion.
 First use Oct. 2, 1956.

SN 21,861. Main R. Bocher, New York, N. Y. Filed Dec. 31, 1956.

JARDIN BLANC

For Perfumes and Toilet Waters.
 First use Oct. 16, 1947.

SN 22,154. Charles Antell, Inc., Baltimore, Md. Filed Jan. 7, 1957.

LANOLIN BEAUTY

No claim is made to the word "Lanolin," except in the combination shown in the drawing.
 For Liquid Preparation Containing Lanolin for Use as a Cleanser, Emollient, and Make-Up Base for the Skin.
 First use May 16, 1955.

SN 23,170. Para Laboratories, New York, N. Y. Filed Jan. 24, 1957.

OLD WESTERN

For Toiletries—Namely, Bubble Bath, Hair Pomade, Hair Tonic, Deodorants, Face Creams, Cologne, and Perfumes.
 First use Jan. 2, 1957.

SN 25,569. Shulton, Inc., Clifton, N. J. Filed Mar. 5, 1957.

DESERT DRI

For Body Deodorant.
 First use Feb. 19, 1957.

SN 29,142. Day-Baldwin, Inc., Irvington, N. J. Filed June 20, 1957.

CYL-DENT

For Dentifrice.
 First use Apr. 12, 1948.

SN 29,387. The Realistic Company, d. b. a. Reavis Sales Company, Cincinnati, Ohio. Filed May 3, 1957.

R-WAVE

For Hair Curling Lotion.
 First use in or about September 1951.

SN 33,375. Ray E. Schubert, d. b. a. Checker Co., Hamden, Conn. Filed July 8, 1957. Sec. 2(f).

Checker

Owner of Reg. No. 558,566.
 For Dentifrice in the Form of Tooth Paste.
 First use on or about Oct. 3, 1949.

SN 33,884. Joe Lowe Corporation, New York, N. Y. Filed July 17, 1957.

POPSICLE

For Body Powder, Toilet Water, and Lipstick.
 First use spring of 1936.

SN 34,319. Norman W. Siebras, d. b. a. Lady Lennox Co., Memphis, Tenn. Filed July 24, 1957.

LADY LENNOX

Owner of Reg. Nos. 413,489 and 640,148.
 For Hair Coloring, Shampoo, Stain Remover, and Hair Sticks or Touch Up Pencils.
 First use Mar. 17, 1932, on hair coloring.

Class 52—Detergents and Soaps

SN 21,939. Plunkett Chemical Company, Chicago, Ill. Filed Dec. 31, 1956.

SAK

For Combination Soap and Cleanser.
 First use Nov. 26, 1948.

SN 22,939. Reta L. McInnes, d. b. a. King Manufacturing Company, Flint, Mich. Filed Jan. 22, 1957.

NU BOL

For Toilet Bowl Cleaner.
 First use Nov. 28, 1956.

SERVICE MARKS**Class 107—Education and Entertainment**

SN 29,402. The Theatre Guild, New York, N. Y. Filed May 3, 1957.



Owner of Reg. Nos. 192,663 and 192,736.
 For Entertainment Services Rendered in Producing Plays for Presentation on the Stage and in Recordings, Producing

Programs for Television Broadcasts and Recordings Thereof, and Conducting Theatre Ticket Subscription Systems and Tours of Theatrical Companies, and for Educational Services in Conducting Programs and Workshops Dealing With the Creation and Presentation of Stage and Television Productions.
 First use 1929.

COLLECTIVE MEMBERSHIP MARKS**Class 200**

SN 30,545. American Association of Fund-Raising Counsel, Inc., New York, N. Y. Filed May 23, 1957.



For Indicating Membership in Applicant.
 First use in August 1954.

CERTIFICATION MARKS**Class B—Services**

SN 687,333. Orville H. Emmons, d. b. a. Emmons Walker, Dover, Mass. Filed May 11, 1955.



The certification mark is used by persons authorized by applicant to certify the quality of the services that they render.
 For Motel and Cottage Accommodations.
 First use Jan. 10, 1955.

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

Class 1—Raw or Partly Prepared Materials

- 658,370. HAVEN. Herbert Victor Nootbaar, d. b. a. H. V. Nootbaar & Co. SN 5,061. Pub. 12-3-57. Filed 4-2-56.
- 658,371. MEXI-KETS. Charcoal Specialties, Inc. SN 11,840. Pub. 12-3-57. Filed 7-10-56.
- 658,372. LEADER. Leader Dogs for the Blind. SN 12,038. Pub. 12-3-57. Filed 7-12-56.
- 658,373. KINGSCROST KX. Northrup, King & Co. SN 13,378. Pub. 12-3-57. Filed 8-3-56.
- 658,374. RO-GEL. Rotary Mud Co., Inc. SN 17,034. Pub. 12-3-57. Filed 10-5-56.
- 658,375. CARRICLAY. Magnet Cove Barium Corporation. SN 17,184. Pub. 12-3-57. Filed 10-9-56.
- 658,376. NU-GRO. Erich Gedallus. SN 20,026. Pub. 12-3-57. Filed 11-28-56.
- 658,377. RHAPSODIE. Hermann Holtkamp. SN 21,808. Pub. 12-3-57. Filed 12-28-56.
- 658,378. NOPCOFOAM. Nopco Chemical Company. SN 24,063. Pub. 12-3-57. Filed 2-8-57.
- 658,379. HEART-O'-GOLD. Inter-State Nurseries, Incorporated. SN 24,441. Pub. 12-3-57. Filed 2-14-57.
- 658,380. GREEN MAGIC. Star Florist & Nurseries Inc. SN 24,806. Pub. 12-3-57. Filed 2-20-57.
- 658,381. KAYSOY. Archer-Daniels-Midland Company. SN 24,822. Pub. 12-3-57. Filed 2-21-57.
- 658,382. STEROLIT. Minerals & Chemicals Corporation of America. SN 25,263. Pub. 12-3-57. Filed 2-28-57.
- 658,383. TREVORTON. The Philadelphia and Reading Corporation. SN 26,019. Pub. 12-3-57. Filed 3-12-57.
- 658,384. PHILTAN. J. Brooksbank, Limited. SN 28,487. Pub. 12-3-57. Filed 4-19-57.
- 658,385. INTER-STATE NURSERIES ETC. AND DESIGN. Inter-State Nurseries, Incorporated. SN 28,787. Pub. 12-3-57. Filed 4-24-57.
- 658,386. DU PONT AND DESIGN. E. I. du Pont de Nemours and Company. SN 28,931. Pub. 12-3-57. Filed 4-26-57.
- 658,387. GAY BLADE. Lawn & Grass Seeds, Inc. SN 30,173. Pub. 12-3-57. Filed 5-16-57.
- 658,388. PARK ROYAL. Lawn & Grass Seeds, Inc. SN 30,174. Pub. 12-3-57. Filed 5-16-57.
- 658,389. INFINITON. Havig Industries, Inc. SN 30,247. Pub. 12-3-57. Filed 5-17-57.
- 658,390. DORCOLOR. Farbenfabriken Bayer Aktiengesellschaft. SN 30,316. Pub. 12-3-57. Filed 5-20-57.
- 658,391. BACTIVITY. Michigan Peat, Inc. SN 31,772. Pub. 12-3-57. Filed 6-11-57.

Class 2—Receptacles

- 658,392. THE REEL McKOY AND DESIGN. Marjorie D. Nash, d. b. a. Broadway Contracting Co. SN 21,825. Pub. 12-3-57. Filed 12-28-56.
- 658,393. ZIP-LIP ETC. AND DESIGN. Kennedy Car Liner and Bag Company Incorporated. SN 22,551. Pub. 9-3-57. Filed 1-14-57.
- 658,394. CUTISIN. Cutisin, Vyroba Umelych Strev, Narodni Podnik. SN 27,782. Pub. 12-3-57. Filed 4-9-57.
- 658,395. PADDY WASTE. William N. Ball. SN 28,427. Pub. 12-3-57. Filed 4-18-57.
- 658,396. AMAZON. Bloomer Bros. Company. SN 29,268. Pub. 12-3-57. Filed 5-2-57.

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Class 3—Baggage, Animal Equipments, Portfolios, and Pocketbooks

- 658,397. SWANKIT. Swank, Inc. SN 30,612. Pub. 12-3-57. Filed 5-23-57.
- 658,398. CIRC-ZIP. Cavanaugh. SN 32,372. Pub. 12-3-57. Filed 6-21-57.

Class 6—Chemicals and Chemical Compositions

- 658,399. HEIKO. Heine & Co. SN 098,355. Pub. 12-3-57. Filed 11-16-55.
- 658,400. PROVALENT. Socony Mobil Oil Company, Inc. SN 6,863. Pub. 12-3-57. Filed 4-20-56.
- 658,401. ACRAGLAS. Frank Royce Brownell II, d. b. a. "Bob Brownell's." SN 19,414. Pub. 12-3-57. Filed 11-19-56.
- 658,402. DOWZENE. The Dow Chemical Company. SN 20,022. Pub. 12-3-57. Filed 11-28-56.
- 658,403. I-TWO. S. B. Penick and Company. SN 21,388. Pub. 12-3-57. Filed 12-20-56.
- 658,404. ERCEPOL. Ruhrchemie Aktiengesellschaft. SN 21,735. Pub. 12-3-57. Filed 12-27-56.
- 658,405. UDEX. The Dow Chemical Company. SN 21,792. Pub. 12-3-57. Filed 12-28-56.
- 658,406. 20 MULE TEAM. United States Borax & Chemical Corporation. SN 22,145. Pub. 12-3-57. Filed 1-4-57.
- 658,407. DEARCIDE. Dearborn Chemical Company. SN 22,065. Pub. 12-3-57. Filed 1-16-57.
- 658,408. KILL-KO. Rigo Manufacturing Company. SN 22,836. Pub. 12-3-57. Filed 1-18-57.
- 658,409. REPRESENTATION OF 20 MULE TEAM. United States Borax & Chemical Corporation. SN 23,434. Pub. 12-3-57. Filed 1-29-57.
- 658,410. FARMINGDALE. Farmingdale Garden Laboratories, Inc. SN 23,781. Pub. 12-3-57. Filed 2-5-57.
- 658,411. ELGON. Röhm & Haas, G. m. b. H. SN 24,003. Pub. 12-3-57. Filed 2-7-57.
- 658,412. LAM-KILL. Mattie Y. Lamb, d. b. a. Lamb Products Company. SN 27,108. Pub. 12-3-57. Filed 3-28-57.
- 658,413. NEUSTRENE. The Humko Company, now by merger National Dairy Products Corporation. SN 29,214. Pub. 12-3-57. Filed 5-1-57.
- 658,414. CONOCO ETC. AND DESIGN. Continental Oil Company. SN 29,273. Pub. 12-3-57. Filed 5-2-57.
- 658,415. STERIBULB. Ben Venue Laboratories, Inc. SN 29,571. Pub. 12-3-57. Filed 5-7-57.
- 658,416. LUCITE. E. I. du Pont de Nemours and Company. SN 30,073. Pub. 12-3-57. Filed 5-15-57.
- 658,417. BALCOM'S WEED BUTCHER ETC. AND DESIGN. Balcom Industries, Inc. SN 30,218. Pub. 12-3-57. Filed 5-17-57.
- 658,418. BI-PLATE. Hyland Laboratories. SN 31,219. Pub. 12-3-57. Filed 6-3-57.
- 658,419. PCN. The Seymour Manufacturing Company. SN 31,271. Pub. 12-3-57. Filed 6-3-57.
- 658,420. SOLCARBO. General Aniline and Film Corporation. SN 31,724. Pub. 12-3-57. Filed 5-17-57.

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Class 7—Cordage

- 658,421. DORCOLOR. Farbenfabriken Bayer Aktiengesellschaft. SN 30,319. Pub. 12-3-57. Filed 5-20-57.

Class 8—Smokers' Articles, Not Including Tobacco Products

- 658,422. FILTO AND DESIGN. Robert L. Smith, d. b. a. R. L. Smith Enterprises. SN 31,419. Pub. 12-3-57. Filed 6-5-57.

Class 9—Explosives, Firearms, Equipments, and Projectiles

- 658,423. SINGLE-SIX. Sturm, Ruger & Company, Inc. SN 22,639. Pub. 12-3-57. Filed 1-15-57.

Class 10—Fertilizers

- 658,424. MICA-GROW. The Federal Foundry Supply Co., d. b. a. The Wyodak Chemical Div. SN 26,800. Pub. 12-3-57. Filed 3-25-57.

- 658,425. OZARK MAHONING AND DESIGN. Ozark-Mahoning Company. SN 28,725. Pub. 12-3-57. Filed 4-23-57.

- 658,426. BACTIVITY. Michigan Peat, Inc. SN 31,773. Pub. 12-3-57. Filed 6-11-57.

- 658,427. SOILKIX. Utah Poultry & Farmers Cooperative. SN 31,964. Pub. 12-3-57. Filed 6-13-57.

Class 11—Inks and Inking Materials

- 658,428. VELVETEX. Rarolite Chemical Co. Inc. SN 19,064. Pub. 12-3-57. Filed 11-9-56.

- 658,429. CHEVRON. Standard Oil Company of California. SN 31,041. Pub. 12-3-57. Filed 5-29-57.

- 658,430. ROTO-GLO. Sun Chemical Corporation. SN 31,162. Pub. 12-3-57. Filed 5-31-57.

- 658,431. SNAPDRI. Sun Chemical Corporation. SN 31,163. Pub. 12-3-57. Filed 5-31-57.

- 658,432. FLENO-GLO. Sun Chemical Corporation. SN 31,164. Pub. 12-3-57. Filed 5-31-57.

Class 12—Construction Materials

- 658,433. PERFO-ROUND. Cascade Plywood Corporation. SN 24,238. Pub. 12-3-57. Filed 2-12-57.

- 658,434. PERFO-SQUARE. Cascade Plywood Corporation. SN 24,239. Pub. 12-3-57. Filed 2-12-57.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

- 658,435. PERMA-KLENE. Roberts Manufacturing Co. SN 23,829. Pub. 12-3-57. Filed 2-5-57.

- 658,436. FIVE STAR. Van Waters & Rogers, Inc. SN 29,676. Pub. 12-3-57. Filed 5-8-57.

Class 15—Oils and Greases

- 658,437. ROCO. Richfield Oil Corporation. SN 625,921. CONCURRENT USE. Pub. 12-3-57. Filed 3-4-52.

- 658,438. BLACK-MASTER. Redex Inc. SN 29,303. Pub. 12-3-57. Filed 5-2-57.

Class 16—Protective and Decorative Coatings

- 658,439. GERM-PROOF FILM. Camel Lead Color & Chemical Products Mfg. Corp., to Camel Color & Paint Corp. SN 12,153. Pub. 12-3-57. Filed 7-16-56.

- 658,440. KRYLYAR AND DESIGN. Robinco, Inc. SN 21,391. Pub. 12-3-57. Filed 12-20-56.

- 658,441. SPARVAR AND DESIGN. Robinco, Inc. SN 21,392. Pub. 12-3-57. Filed 12-20-56.

- 658,442. ERCEPOL. Ruhrchemie Aktiengesellschaft. SN 21,734. Pub. 12-3-57. Filed 12-27-56.

- 658,443. IMPACT. Lawter Chemicals, Inc. SN 21,820. Pub. 12-3-57. Filed 12-28-56.

- 658,444. PLASMOTEX. Joseph V. Slavick, d. b. a. Plasmotex Corp. SN 32,213. Pub. 12-3-57. Filed 6-18-57.

- 658,445. AMBREX AND DESIGN. American Dyewood Company. SN 33,392. Pub. 12-3-57. Filed 7-9-57.

Class 17—Tobacco Products

- 658,446. ZUBAN. Rupert Tobacco Corporation (Proprietary) Ltd. SN 19,620. Pub. 12-3-57. Filed 11-20-56.

- 658,447. PAUL REVERE. Rembrandt Tobacco Corporation (Overseas) Limited. SN 24,631. Pub. 12-3-57. Filed 2-18-57.

- 658,448. OASIS. Liggett and Myers Tobacco Company. SN 29,806. Pub. 12-3-57. Filed 5-10-57.

Class 18—Medicines and Pharmaceutical Preparations

- 658,449. APISERUM. Josephine Grasser. SN 4,320. Pub. 12-3-57. Filed 3-12-56.

- 658,450. DIBETOL. R. S. Arles & Associates, Inc. SN 20,006. Pub. 12-3-57. Filed 11-28-56.

- 658,451. VITA-27. Nu-Vita, Incorporated. SN 24,183. Pub. 12-3-57. Filed 2-11-57.

- 658,452. COLDENE. Joseph E. Seagram & Sons, Inc. SN 27,059. Pub. 12-3-57. Filed 3-27-57.

- 658,453. BANAUSEA. Amfre-Grant, Inc. SN 30,711. Pub. 12-3-57. Filed 5-27-57.

- 658,454. DUENTRIC. Smith Kline & French Laboratories. SN 31,514. Pub. 12-3-57. Filed 6-6-57.

Class 20—Linoleum and Oiled Cloth

- 658,455. VINYLURE. Carthage Mills Incorporated. SN 27,181. Pub. 12-3-57. Filed 5-27-57.

- 658,456. BERYLSTONE. Congoleum-Nairn Inc. SN 30,066. Pub. 12-3-57. Filed 5-15-57.

- 658,457. FLORAN. Congoleum-Nairn Inc. SN 30,230. Pub. 12-3-57. Filed 5-17-57.

- 658,458. CORK-GLO. Bonafide Mills, Inc. SN 31,190. Pub. 12-3-57. Filed 6-3-57.

- 658,459. BONNY TWEED AND DESIGN. Bonafide Mills, Inc. SN 32,167. Pub. 12-3-57. Filed 6-18-57.

Class 21—Electrical Apparatus, Machines, and Supplies

- 658,460. NATIONAL. Sunroc Corporation. SN 9,606. Pub. 12-3-57. Filed 6-4-56.
- 658,461. SKYCEIL. Silvray Lighting, Inc. SN 10,353. Pub. 2-19-57. Filed 6-15-56.
- 658,462. FERRANTI. Ferranti Electric, Inc. SN 14,061. Pub. 12-3-57. Filed 8-16-56.
- 658,463. NORTH AND DESIGN. North Electric Company. SN 16,618. Pub. 12-3-57. Filed 9-28-56.
- 658,464. SYNCROSTEP. General Railway Signal Company. SN 20,263. Pub. 12-3-57. Filed 12-3-56.
- 658,465. ELECTRO-START. Magic Hostess Corporation. SN 26,560. Pub. 12-3-57. Filed 3-20-57.
- 658,466. B & G. Bell & Gossett Company. SN 29,005. Pub. 12-3-57. Filed 4-29-57.
- 658,467. UNIRING. Burndy Corporation. SN 29,018. Pub. 12-3-57. Filed 4-29-57.
- 658,468. HYRING. Burndy Corporation. SN 29,019. Pub. 12-3-57. Filed 4-29-57.
- 658,469. SEALINK. Burndy Corporation. SN 29,020. Pub. 12-3-57. Filed 4-29-57.
- 658,470. STAPIN. Burndy Corporation. SN 29,021. Pub. 12-3-57. Filed 4-29-57.
- 658,471. THERMOLUG. Burndy Corporation. SN 29,024. Pub. 12-3-57. Filed 4-29-57.
- 658,472. KINECURE. Circuit Manufacturing Company, Inc. SN 29,198. Pub. 12-3-57. Filed 5-1-57.
- 658,473. DYNAVERTER. Aircraft Radio Corporation. SN 29,409. Pub. 12-3-57. Filed 5-6-57.
- 658,474. MAGNA-RAIL. Eriea Manufacturing Co. SN 29,445. Pub. 12-3-57. Filed 5-6-57.
- 658,475. FASTOLET. The Fast-Lok Manufacturing Company. SN 29,577. Pub. 12-3-57. Filed 5-7-57.
- 658,476. DOW CORNING AND DESIGN. Dow Corning Corporation, Incorporated. SN 34,410. Pub. 12-3-57. Filed 7-26-57.

Class 22—Games, Toys, and Sporting Goods

- 658,477. MARLON. Ben M. Ichiyasu, d. b. a. Momoi Company. SN 9,914. Pub. 12-3-57. Filed 5-10-56.
- 658,478. QUE VEE. Qvale & Associates, Inc. SN 19,512. Pub. 12-3-57. Filed 11-19-56.
- 658,479. LIVLON. Ben M. Ichiyasu, d. b. a. Momoi Company. SN 20,839. Pub. 12-3-57. Filed 12-11-56.
- 658,480. MOMOI HI-TEST BRAND. Ben M. Ichiyasu, d. b. a. Momoi Company. SN 24,895. Pub. 12-3-57. Filed 2-25-57.
- 658,481. GINGER DOLL-MATE. Cosmopolitan Doll and Toy Corp. SN 27,776. Pub. 12-3-57. Filed 4-9-57.
- 658,482. THUNDER BOLT. Kroydon Company, Inc. SN 28,866. Pub. 12-3-57. Filed 4-25-57.
- 658,483. REMINDER GRIP AND DESIGN. Wilson Sporting Goods Co. SN 29,121. Pub. 12-3-57. Filed 4-29-57.
- 658,484. KID-O. Climax Industries. SN 31,197. Pub. 12-3-57. Filed 6-3-57.
- 658,485. LIGHTFOOT. The Flour City Ornamental Iron Company, d. b. a. Aluma Craft Boat Company. SN 31,206. Pub. 12-3-57. Filed 6-3-57.
- 658,486. SEABLUE. Paddock of Texas, Inc. SN 31,253. Pub. 12-3-57. Filed 6-3-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 658,487. POLYGRAPH VICTORIA V AND DESIGN. Veb Druckmaschinenwerk Victoria. SN 6,077. Pub. 12-3-57. Filed 4-9-56.

- 658,488. KWIK-KUT. R. Hoe & Co., Inc. SN 14,742. Pub. 12-25-56. Filed 8-28-56.
- 658,489. KOMPACTOR. The Buffalo-Springfield Roller Company, to Koehring Company. SN 19,643. Pub. 6-4-57. Filed 11-21-56.
- 658,490. SAGEM AND DESIGN. Societe d'Applications Generales d'Electricite et de Mecanique (Sagem). SN 21,753. Pub. 12-3-57. Filed 12-27-56.
- 658,491. FEDSPEC. Smith-Wolf Co., Inc. SN 21,833. Pub. 12-3-57. Filed 12-28-56.
- 658,492. SCISS-O-MATIC. Ginsberg Machine Co., Inc. SN 32,245. Pub. 12-3-57. Filed 6-19-57.
- 658,493. AEROLITE. Dille & McGuire Manufacturing Company. SN 37,782. Pub. 12-3-57. Filed 9-25-57.

Class 26—Measuring and Scientific Appliances

- 658,494. SUNSCOPE. Roland L. Bruenner, d. b. a. Optical Industries. SN 4,281. Pub. 12-3-57. Filed 3-12-56.
- 658,495. SOLROL. Bernard J. Connon, d. b. a. Solrol Manufacturing Company. SN 10,401. Pub. 12-3-57. Filed 6-18-56.
- 658,496. NOMINAR. Paramount Trading and Sales Corporation. SN 12,963. Pub. 12-3-57. Filed 7-27-56.
- 658,497. NOMIGAR. Paramount Trading and Sales Corporation. SN 12,965. Pub. 12-3-57. Filed 7-27-56.
- 658,498. IMAGON. Optische Werke G. Rodenstock. SN 16,466. Pub. 12-3-57. Filed 9-23-57.
- 658,499. REDAP. Philco Corporation. SN 17,961. Pub. 12-3-57. Filed 10-22-56.
- 658,500. ELECTRONIC DESIGN. Hycon Electronics, Inc. SN 20,753. Pub. 12-3-57. Filed 12-10-56.
- 658,501. MIKEMASTER. W. E. Carroll, d. b. a. Size Control Company. SN 24,660. Pub. 12-3-57. Filed 2-19-57.
- 658,502. BAROID AND DESIGN. National Lead Company. SN 24,708. Pub. 12-3-57. Filed 2-19-57.
- 658,503. KL AND DESIGN. Kittell-Lacy, Inc. SN 26,281. Pub. 12-3-57. Filed 3-15-57.
- 658,504. RYCOM. Railway Communications, Inc. SN 26,295. Pub. 12-3-57. Filed 3-15-57.
- 658,505. RAINBOW. Kabushiki-Kaisha Mitauboshi. SN 26,832. Pub. 12-3-57. Filed 3-25-57.

Class 29—Brooms, Brushes, and Dusters

- 658,506. PIXALL. Harriet M. Stachowiak, d. b. a. Stach Products Co. SN 19,197. Pub. 12-3-57. Filed 11-13-56.

Class 31—Filters and Refrigerators

- 658,507. SERVUE AND DESIGN. Barr Manufacturing Company. SN 666,824. Pub. 1-18-55. Filed 5-21-54.
- 658,508. CATALINA. White Stores, Inc. SN 16,388. Pub. 12-3-57. Filed 9-25-56.

Class 32—Furniture and Upholstery

- 658,509. VICTOR. Victor Wood Products Company. SN 4,864. Pub. 1-1-57. Filed 3-19-56.
- 658,510. TOURICAMP. International Touri Camp Organisation Reg. Trust. SN 23,873. Pub. 12-3-57. Filed 1-7-57.
- 658,511. ADD-A-TABLE. W. H. Metz, Inc. SN 30,100. Pub. 12-3-57. Filed 5-15-57.
- 658,512. MODU-LOOP. No-Sag Spring Company. SN 33,991. Pub. 12-3-57. Filed 7-18-57.

Class 38—Prints and Publications

- 658,513. THERMO ELECTRO PEDIC. Winfred-Eldridge Corporation. SN 34,831. Pub. 12-3-57. Filed 8-1-57.
- 658,514. FANCHER. The Fancher Furniture Company. SN 34,848. Pub. 12-3-57. Filed 8-2-57.

Class 33—Glassware

- 658,515. U AND DESIGN. Ustecke Sklarny, Narodni Podnik. SN 30,968. Pub. 12-3-57. Filed 5-28-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

- 658,516. POWAIR-X-HAUSTER. The G. C. Breidert Co. SN 29,596. Pub. 12-3-57. Filed 5-8-57.

Class 36—Musical Instruments and Supplies

- 658,517. CINEMA. De Saimont. SN 32,065. Pub. 12-3-57. Filed 6-17-57.
- 658,518. Q-R-S. Imperial Industrial Company. SN 33,520. Pub. 12-3-57. Filed 6-13-57.

Class 37—Paper and Stationery

- 658,519. CM CHECK-MATE ETC. AND DESIGN. Check-Mate Company, to Eugene F. Iannerone, d. b. a. Checkmate Company. SN 693,013. Pub. 12-3-57. Filed 8-15-55.
- 658,520. MICHIGAN WOLVERINE OFFSET. Michigan Paper Company, now by merger and change of name to Hamilton Paper Company. SN 1,970. Pub. 12-3-57. Filed 2-2-56.
- 658,521. VUEPAK. Monsanto Chemical Company. SN 8,869. Pub. 12-3-57. Filed 5-23-56.
- 658,522. TECHNICOLOR. Technicolor Corporation. SN 12,542. Pub. 12-3-57. Filed 7-20-56.
- 658,523. 20TH CENTURY COLLECTION. Imperial Paper and Color Corporation. SN 13,039. Pub. 12-3-57. Filed 7-30-56.
- 658,524. LADY CHARMIN. Charmin Paper Mills, Inc., to The Charmin Paper Products Company. SN 15,945. Pub. 12-3-57. Filed 9-19-56.
- 658,525. KRAFTSMAN. West Virginia Pulp & Paper Company. SN 25,738. Pub. 12-3-57. Filed 3-7-57.
- 658,526. LA-CEAL. Ames Safety Envelope Company. SN 26,235. Pub. 12-3-57. Filed 3-15-57.
- 658,527. POLARGLO. Geo. A. Whiting Paper Co. SN 26,517. Pub. 12-3-57. Filed 3-19-57.
- 658,528. ROYAL GIFT AND DESIGN. Harvey Hanson. SN 26,816. Pub. 12-3-57. Filed 3-25-57.
- 658,529. POTOMAC. The Mead Corporation. SN 26,952. Pub. 12-3-57. Filed 3-26-57.
- 658,530. WV AND DESIGN. West Virginia Pulp and Paper Company. SN 27,650. Pub. 12-3-57. Filed 4-5-57.
- 658,531. "MICRO-SLIDE." Elman Labels, Inc. SN 28,129. Pub. 12-3-57. Filed 4-15-57.
- 658,532. BRITE-PAK. West Virginia Pulp and Paper Company. SN 28,982. Pub. 12-3-57. Filed 4-26-57.
- 658,533. ARCTIC. The Central Ohio Paper Company. SN 29,138. Pub. 12-3-57. Filed 4-30-57.
- 658,534. HERITAGE. The Parker Pen Company. SN 29,477. Pub. 12-3-57. Filed 5-6-57.
- 658,535. PARAGLOSS. Nashua Corporation. SN 29,648. Pub. 12-3-57. Filed 5-8-57.
- 658,536. BRIGHTEX. Brightwater Paper Company. SN 29,695. Pub. 12-3-57. Filed 5-9-57.
- 658,537. NOKUT. United Paper Company. SN 30,123. Pub. 12-3-57. Filed 5-15-57.

- 658,538. LIVESTOCK & DAIRY TOPICS. Sunbeam Corporation. SN 697,052. Pub. 12-3-57. Filed 10-24-55.
- 658,539. CONTACT FOUNDRY NEWSLETTER AND DESIGN. The Penton Publishing Company. SN 10,549. Pub. 12-3-57. Filed 6-10-56.
- 658,540. X CITEMENT IN PICTURES. Anything Goes, Inc. SN 11,218. Pub. 12-3-57. Filed 6-29-56.
- 658,541. QA. Qvale & Associates, Inc. SN 19,511. Pub. 12-3-57. Filed 11-19-56.
- 658,542. EUC AND DESIGN. Electrical Utilities Company. SN 25,082. Pub. 12-3-57. Filed 2-26-57.
- 658,543. MY WEEKLY READER CRUISE AND DESIGN. Wesleyan University. SN 25,136. Pub. 12-3-57. Filed 2-26-57.
- 658,544. NEWS FOR DAIRY CO-OPS. National Milk Producers Federation. SN 25,626. Pub. 12-3-57. Filed 3-6-57.
- 658,545. RMI ROCKET AND DESIGN. Reaction Motors, Inc. SN 26,493. Pub. 12-3-57. Filed 3-10-57.
- 658,546. THE GIST. Wesleyan University. SN 26,660. Pub. 12-3-57. Filed 3-21-57.
- 658,547. HOLIDAY ABROAD. Société Anonyme Belge d'Exploitation de la Navigation Aérienne (Sabena Belgian World Airlines). SN 26,738. Pub. 12-3-57. Filed 3-22-57.

Class 39—Clothing

- 658,548. THREE DOTS AND DESIGN. Indiana Rayon Corporation. SN 698,381. Pub. 12-3-57. Filed 11-16-55.
- 658,549. SAN MARCO. Cluett, Peabody & Co., Inc. SN 1,343. Pub. 12-3-57. Filed 1-24-56.
- 658,550. DIOR. Comptoir de l'Industrie Cotonniere, Etablissements Boussac, Societe a Responsabilite Limitee. SN 4,290. Pub. 12-3-57. Filed 3-12-56.
- 658,551. NOBELLA. Cotra Corporation. SN 6,905. Pub. 12-3-57. Filed 4-23-56.
- 658,552. HERITAGE. Heritage Shirtmakers, Inc. SN 8,130. Pub. 12-3-57. Filed 5-11-56.
- 658,553. GLOIRE AND DESIGN. Gaspard & Sona Limited. SN 9,139. Pub. 12-3-57. Filed 6-28-56.
- 658,554. FUR-A-LURE. Peter Freund Knitting Mills, Inc. SN 11,567. Pub. 12-3-57. Filed 7-5-56.
- 658,555. ROBICELLI. Grossman Clothing Co. SN 17,462. Pub. 12-3-57. Filed 10-15-56.
- 658,556. HECHTON. The Hecht Company. SN 19,889. Pub. 12-3-57. Filed 11-20-56.
- 658,557. LADY LENOX. First National Stores Inc. SN 22,171. Pub. 12-3-57. Filed 1-7-57.
- 658,558. DOVETOE. Andrew Geller, Inc. SN 24,846. Pub. 12-3-57. Filed 2-21-57.
- 658,559. CAPTIVATOR. Famous-Sternberg, Inc. SN 25,528. Pub. 12-3-57. Filed 3-5-57.
- 658,560. MOJUD. Mojud Co., Inc. SN 25,878. Pub. 12-3-57. Filed 3-11-57.
- 658,561. SHARON JAY. Sharon-Jay Togs, Inc. SN 26,021. Pub. 12-3-57. Filed 3-12-57.
- 658,562. SAFTI FLEX. Robert M. Fredricks Corporation. SN 26,455. Pub. 12-3-57. Filed 3-19-57.
- 658,563. ELASTO GOOD YEAR CREPE AND DESIGN. The Goodyear Tire & Rubber Company. SN 26,814. Pub. 12-3-57. Filed 3-25-57.
- 658,564. FOOTLIFTER AND DESIGN. Silas Frank Hussey. SN 26,942. Pub. 12-3-57. Filed 3-26-57.
- 658,565. IT'S AN ED VOLIN MATERNITY AND DESIGN. Ed Volin Company, Inc. SN 26,989. Pub. 12-3-57. Filed 3-26-57.
- 658,566. WRIGHT ARCH PRESERVER SHOES. E. T. Wright & Co., Inc. SN 27,653. Pub. 12-3-57. Filed 4-5-57.
- 658,567. BURBERRYS PRORSUM AND DESIGN. Burberrys Limited. SN 27,843. Pub. 12-3-57. Filed 4-10-57.

- 658,568. SWIPPERS. Arnold Shoe Products Company, Inc. SN 27,924. Pub. 12-3-57. Filed 4-11-57.
- 658,569. TOPLIN AND DESIGN. Rael-Brook Ltd. SN 27,976. Pub. 12-3-57. Filed 4-11-57.
- 658,570. CRADE-L-CREPE. Durkee-Atwood Company. SN 28,039. Pub. 12-3-57. Filed 4-12-57.
- 658,571. THE BANKERS HAT. Truly Yours Best Hat Co. Inc. SN 28,077. Pub. 12-3-57. Filed 4-12-57.
- 658,572. LITTLE SUSAN AND DESIGN. Little Susan Inc. SN 28,163. Pub. 12-3-57. Filed 4-15-57.
- 658,573. ROYAL. United States Rubber Company. SN 28,739. Pub. 12-3-57. Filed 4-23-57.
- 658,574. LE GRAND. Joseph H. Cohen & Sons, Inc. SN 28,764. Pub. 12-3-57. Filed 4-24-57.
- 658,575. SUPERMODE. M. K. M. Knitting Mills, Inc. SN 28,877. Pub. 12-3-57. Filed 4-25-57.
- 658,576. POCONO. Barnard Hosiery Co., Inc. SN 28,918. Pub. 12-3-57. Filed 4-26-57.
- 658,577. "GIRL FRIDAY." Bear Brand Hosiery Co. SN 28,995. Pub. 12-3-57. Filed 4-29-57.
- 658,578. CONFIDENCE. Barrow Manufacturing Company, Inc. SN 29,191. Pub. 12-3-57. Filed 5-1-57.
- 658,579. CHAUGS. Bates Shoe Company. SN 29,194. Pub. 12-3-57. Filed 5-1-57.
- 658,580. AQUA MODES. United States Rubber Company. SN 29,768. Pub. 12-3-57. Filed 5-9-57.
- 658,581. CRYSTELLA. Joseph A. Kaplan & Sons, Inc. SN 30,589. Pub. 12-3-57. Filed 5-23-57.
- 658,582. SIR PRIZE AND DESIGN. Washington Mills Company. SN 30,614. Pub. 12-3-57. Filed 5-23-57.
- 658,583. DEVONSHIRE. S. Makransky & Sons, Inc. SN 30,799. Pub. 12-3-57. Filed 5-27-57.
- 658,584. AQUASOL. S. H. Whyman Limited. SN 30,974. Pub. 12-3-57. Filed 5-28-57.
- 658,585. WINKS. Brown Durrell Co. SN 30,989. Pub. 12-3-57. Filed 5-29-57.
- 658,586. CONVERTIBLE. Norjac Manufacturing Corp. SN 22,830. Pub. 12-3-57. Filed 1-18-57.
- 658,590. RITZ. Ray Skrmetta. SN 22,223. Pub. 12-3-57. Filed 1-7-57.
- 658,600. STAHL-MEYER AND DESIGN. Stahl-Meyer, Inc. SN 22,225. Pub. 12-3-57. Filed 1-7-57.
- 658,601. MAGNOLOR. Suffolk Biological Development Corp. SN 22,775. Pub. 12-3-57. Filed 1-17-57.
- 658,602. HI CLASS. Lucky Stores, Inc. SN 27,326. Pub. 12-3-57. Filed 4-1-57.
- 658,603. SNACK BAR. Tillamook County Creamery Association. SN 32,026. Pub. 12-3-57. Filed 6-14-57.
- 658,604. "DUBONNET" AND DESIGN. Dubonnet Wine Corporation. SN 19,115. Pub. 12-3-57. Filed 11-13-56.
- 658,605. CRIBARI. Alta Vineyards Company, d. b. a. B. Cribari & Sons. SN 21,615. Pub. 12-3-57. Filed 12-26-56.
- 658,606. PAISANO AND DESIGN. E. & J. Gallo Winery. SN 29,899. Pub. 12-3-57. Filed 5-13-57.
- 658,607. DREWRY'S GENUINE BOCK BEER AND DESIGN. Drewrys Ltd. U. S. A., Inc. SN 13,200. Pub. 12-3-57. Filed 8-1-56.
- 658,608. RHUM BARBANCOURT ETC. AND DESIGN. Rhum Barbancourt, Successeurs de Paul Gardere & Co. SN 16,745. Pub. 12-3-57. Filed 10-1-56.
- 658,609. BONNIE LASSIE. Schenley Distillers, Inc. SN 28,643. Pub. 12-3-57. Filed 4-22-57.
- 658,610. IVAN. The Old Joe Distillery Company. SN 29,547. Pub. 12-3-57. Filed 5-7-57.
- 658,611. DON Q AND DESIGN. Destileria Serralles, Inc. SN 30,875. Pub. 12-3-57. Filed 5-8-57.
- 658,612. KENTUCKY BRED. Park & Tilford Distillers Corporation. SN 30,941. Pub. 12-3-57. Filed 5-28-57.

Class 47—Wines**Class 48—Malt Beverages and Liquors****Class 49—Distilled Alcoholic Liquors****Class 50—Merchandise Not Otherwise Classified****Class 52—Detergents and Soaps****Class 44—Dental, Medical, and Surgical Appliances****Class 46—Foods and Ingredients of Foods**

- 658,587. N AND MAN AND FISH DESIGN. Mogens Canning Co. A/S. SN 677,631. Pub. 12-3-57. Filed 12-1-54.
- 658,588. FUL DOG DINNER. Eureka Mills, Inc. SN 697,775. Pub. 12-3-57. Filed 11-7-55.
- 658,589. STELLA'S. Stella Baking Co. SN 699,259. Pub. 12-3-57. Filed 12-1-55.
- 658,590. MI-PET. Middle West Pet Foods, Inc. SN 1,708. Pub. 12-3-57. Filed 1-30-56.
- 658,591. ORCOVAN AND DESIGN. The Liquid Carbonic Corporation. SN 5,307. Pub. 12-3-57. Filed 3-27-56.
- 658,592. SD STELLA D'ORO PAN D'ORO AND DESIGN. Stella D'Oro Biscuit Co. Inc. SN 7,774. Pub. 12-3-57. Filed 5-7-56.
- 658,593. MEZONA. Tyler & Nicholson, d. b. a. Tyler & Nicholson Ranch. SN 14,709. Pub. 12-3-57. Filed 8-27-56.
- 658,594. RAGAMUFFIN. Holleb & Company. SN 16,442. Pub. 12-3-57. Filed 9-26-56.
- 658,595. GINOS ETC. AND DESIGN. W. H. Bellini Cheese Corporation. SN 16,661. Pub. 12-3-57. Filed 10-1-56.
- 658,596. DEL-VALLEY. Consolidated Dressed Beef Company, Inc. SN 20,711. Pub. 12-3-57. Filed 12-10-56.
- 658,597. ITALIANETTE. The Frenchette Co., Inc. SN 21,898. Pub. 12-3-57. Filed 12-31-56.
- 658,598. PRIDE OF NEW ORLEANS. Ray Skrmetta. SN 22,222. Pub. 12-3-57. Filed 1-7-57.

- 658,622. EVEREADY. Union Carbide Corporation. SN 34,312. Pub. 12-3-57. Filed 7-24-57.
- 658,623. PRESTONE. Union Carbide Corporation. SN 34,313. Pub. 12-3-57. Filed 7-24-57.

Service Marks**Class 100—Miscellaneous**

- 658,624. MHI ETC. AND DESIGN. The Material Handling Institute, Inc. SN 5,734. Pub. 12-3-57. Filed 4-3-56.

Class 101—Advertising and Business

- 658,625. F. A. C. T. S. ETC. AND DESIGN. Ed Gibbs, Inc. SN 3,676. Pub. 12-3-57. Filed 3-1-56.
- 658,626. APPRECIATION ADVERTISING. Alan-Randal Co., Inc. SN 10,649. Pub. 12-3-57. Filed 10-1-56.
- 658,627. HOBBY SHOWCASE. Association of Twin Cities Hobby Retailers Incorporated. SN 28,016. Pub. 12-3-57. Filed 4-12-57.

Class 102—Insurance and Financial

- 658,628. THE MAN WITH THE PLAN. The Employers' Liability Assurance Corporation, Ltd., d. b. a. The Employers' Group of Insurance Companies. SN 700,212. Pub. 12-3-57. Filed 12-19-55.
- 658,629. CHECKMASTER. Checkmaster Inc. SN 23,385. Pub. 12-3-57. Filed 1-29-57.
- 658,630. TIME IS MONEY ETC. AND DESIGN. Isellin-Jefferson Financial Company, Inc., SN 28,255. Pub. 12-3-57. Filed 4-16-57.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 32—Furniture and Upholstery

- 658,640. The American Furniture Company, Bateville, Ind. SN 14,118. Filed P. R. 8-17-56. Am. S. R. 10-2-57.

FURNITURE OF TIMELESS BEAUTY

For Desks, Chests of Drawers, Wood Chairs, Wood Tables, Wood Dining Furniture, Upholstered and Non-Upholstered, Cabinets for Household Use (Break-Front Cabinets), Beds and Bunk Beds, Vanities, Night Stands, and Combination Bed and Chest.

First use July 24, 1956.

- 658,641. Cel-U-Dex Corporation, Brooklyn, N. Y. SN 25,157. Filed P. R. 2-27-57. Am. S. R. 10-24-57.

SHEL-FILE

For Metal Filing Trays and Cabinets for Filing Papers and Records.

First use May 1, 1955.

Class 103—Construction and Repair

- 658,631. SPECTRA-GRAPH. Caran Engineering Corporation. SN 20,823. Pub. 12-3-57. Filed 12-11-56.
- 658,632. PEACE IN THE PIPELINE. William M. McCabe, d. b. a. The Hydraulics Company. SN 25,142. Pub. 12-3-57. Filed 2-27-57.
- 658,633. REPRESENTATION OF AN AUTOMOBILE. Southern Saw Service Inc. SN 27,637. Pub. 12-3-57. Filed 4-5-57.

Class 105—Transportation and Storage

- 658,634. L & N TOTE ETC. AND DESIGN. Louisville and Nashville Railroad Company. SN 4,552. Pub. 12-3-57. Filed 3-14-56.
- 658,635. GIFTRAVEL BY GARBER AND DESIGN. Garber's Travel Service, Inc., d. b. a. Garber's Travel Service. SN 24,339. Pub. 12-3-57. Filed 2-13-57.
- 658,636. THE RESCUER. Hospital Ambulance Oxygen & Equipment Company, Inc. SN 27,799. Pub. 12-3-57. Filed 4-9-57.

Class 106—Material Treatment

- 658,637. ALUMI-SPRA. Chicago Metallizing Corporation. SN 23,289. Pub. 12-3-57. Filed 1-28-57.

Class 107—Education and Entertainment

- 658,638. NATIONAL CHEMICAL EXPOSITION AND DESIGN. The Chicago Section of the American Chemical Society. SN 23,983. Pub. 12-3-57. Filed 2-7-57.
- 658,639. THE COURT OF PUBLIC OPINION. Sol M. Linowitz. SN 27,031. Pub. 12-3-57. Filed 3-27-57.

Class 34—Heating, Lighting, and Ventilating Apparatus

- 658,642. The Coleman Company, Inc., Wichita, Kans. SN 2,407. Filed P. R. 2-10-56. Am. S. R. 7-22-57.

HOT & CLEAN

For Water Heaters.

First use Jan. 20, 1956.

- 658,643. The Williamson Company, Cincinnati, Ohio. SN 21,486. Filed P. R. 12-21-56. Am. S. R. 12-11-57.

Seal-Tite

For Duct, Pipe, and Fittings.

First use Nov. 18, 1956.

Class 36—Musical Instruments and Supplies

- 658,644. M. Hohner, Inc., New York, N. Y. SN 17,280. Filed P. R. 10-11-56. Am. S. R. 10-15-57.

INSTRUCTOR

For Harmonicas.

First use Oct. 5, 1956.

658,645. Gaveau & Cie, Paris, France. SN 20,614. Filed P. R. 12-7-56. Am. S. R. 7-19-57.

GAVEAU

Owner of French Reg. No. 459,033, dated July 12, 1956 (Seine); Natl. Inst. No. 76,708.

For Pianos, Harpsichords, Xylophones, Harmoniums, Organs, Harps, Accordions, Clarinets, Trumpets, Horns, Saxophones, Flutes, Oboes, Violins, Cellos, and Guitars.

Class 44—Dental, Medical, and Surgical Appliances

658,646. The American White Cross Laboratories, Inc., New Rochelle, N. Y. SN 17,691. Filed P. R. 10-18-56. Am. S. R. 12-16-57.

CLEAR-BANDS

For Surgical Dressings, Prepared Bandages, Adhesive Tape, Surgical Gauze.

First use Sept. 1, 1956.

658,647. The American White Cross Laboratories, Inc., New Rochelle, N. Y. SN 18,217. Filed P. R. 10-26-56. Am. S. R. 12-16-57.

FLESH TAPE

For Adhesive Bandages, Prepared Cut Bandages, and Surgical Dressings.

First use July 15, 1956.

Class 50—Merchandise Not Otherwise Classified

658,648. Robert W. Hoffman, Sterling, Ill. SN 10,881. Filed P. R. 6-25-56. Am. S. R. 12-11-57.

KIL DAT RAT

For Rat and Mice Baiting Stations.

First use Apr. 5, 1956.

TRADEMARK REGISTRATIONS RENEWED

120,716. ORO. Cl. 46. 3-5-18.
120,787. S. Cl. 15. 3-5-18.
121,475. RAVENS AND DESIGN. Cl. 42. 4-30-18.
348,939. APPELLA AND DESIGN. Cl. 46. 8-17-37.
349,707. MASTER FOLLOW THE MASTER AND DESIGN. Cl. 36. 8-31-37.
350,783. KENTUCKY CHARM. Cl. 49. 10-5-37.
352,055. CONTROLEUR. Cl. 39. 11-16-37.
352,168. SPEED NUT DIVISION SPEED NUTS AND DESIGN. Cl. 13. 11-23-37.
352,197. SPEED NUTS AND DESIGN. Cl. 13. 11-23-37.
352,406. EDEN. Cl. 6. 11-30-37.
352,465. RATTLER. Cl. 7. 11-30-37.
352,913. CEL-O-SHEEN. Cl. 42. 12-14-37.
352,931. WHISPERWATE AND DESIGN. Cl. 39. 12-14-37.
353,554. PARASHADE. Cl. 6. 1-11-38.
353,619. PREMIER ELECTRIC. Cl. 21. 1-11-38.
353,809. DELCO. Cl. 34. 1-18-38.
353,943. PEK. Cl. 37. 1-25-38.
353,972. ESSO AND DESIGN. Cl. 16. 1-25-38.
354,092. DELCO. Cl. 23. 2-1-38.
354,150. BARSTOCK. Cl. 49. 2-1-38.
354,209. TIGER AND DESIGN. Cl. 37. 2-8-38.
354,294. ESSO. Cl. 15. 2-8-38.
354,305. ESSO AND DESIGN. Cl. 15. 2-8-38.

Class 51—Cosmetics and Toilet Preparations

658,649. Revlon, Inc., d. b. a. Revlon, New York, N. Y. SN 20,658. Filed P. R. 12-7-56. Am. S. R. 11-21-57.

PINK VANILLA

For Lipstick and Nail Enamel.

First use Nov. 1, 1956.

Service Marks

Class 102—Insurance and Financial

658,650. Norman Tuchmann, d. b. a. Transport Clearings, Danbury, Conn. SN 19,204. Filed P. R. 11-13-56. Am. S. R. 5-7-57.

TRANSPORT CLEARINGS

For Clearing House Services—Namely, the Consolidating of Payments of Motor Carriers of Freight by Discounting Their Accounts Receivable.

First use Feb. 1, 1955.

Class 103—Construction and Repair

658,651. Dri-Wear Fur Processing Co., New York, N. Y. SN 17,008. Filed P. R. 10-5-56. Am. S. R. 4-1-57.

DELUXE CLEANED AND LUSTRE PROCESSED

For Cleaning, Glazing, and Chemically Treating Furs To Improve Their Lustre.

First use May 20, 1941.

354,379. ALUMINECK. Cl. 15. 2-8-38.
354,502. WELLMASTER. Cl. 23. 2-15-38.
354,521. DELCO. Cl. 19. 2-15-38.
354,691. LEADOLINE. Cl. 15. 2-22-38.
354,780. GARCIA GRANDE AND DESIGN. Cl. 17. 2-22-38.
354,888. DELCO. Cl. 21. 3-1-38.
355,087. CAMEL. Cl. 37. 3-8-38.
355,339. COMURA. Cl. 38. 3-15-38.
355,523. VITROLUX. Cl. 33. 3-22-38.
355,580. BILTMORE. Cl. 34. 3-22-38.
355,741. ESSO. Cl. 34. 3-29-38.
355,742. ESSO AND DESIGN. Cl. 34. 3-29-38.
355,844. PANDENE. Cl. 18. 4-5-38.
355,888. ARISTOCRAT AND DESIGN. Cl. 32. 4-5-38.
356,474. "YES MADAME." Cl. 46. 4-26-38.
356,483. SUPER-X. Cl. 1. 4-26-38.
356,693. TIPTOPPER. Cl. 39. 5-10-38.
356,742. MAISON HENRI. Cl. 51. 5-10-38.
356,788. COVERAY. Cl. 20. 5-10-38.
356,830. FULFLO. Cl. 31. 5-10-38.
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357,071. LYOVAC. Cl. 18. 5-24-38.
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535,758. STONE CUTTER. Cl. 39. 1-2-51.
539,005. JOLLY BLINKER. Cl. 22. 3-6-51.

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552,653. MONROE AND DESIGN. Cl. 39.
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552,659. WOODROSS. Cl. 23.
552,660. PLANET-TONE. Cl. 51.
552,664. STELLRAM. Cl. 14.
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552,671. DAVID KENNE DK AND DESIGN. Cl. 2.
552,680. PINK-KING. Cl. 23.
552,681. ELIZABETH LEE. Cl. 46.
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552,714. BERNE AND DESIGN. Cl. 39.
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552,731. THE BANTAM AND DESIGN. Cl. 23.
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552,752. FANCY FREE. Cl. 46.
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552,763. PRIZE-POP. Cl. 46.
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552,795. POSEE PRIMER AND DESIGN. Cl. 5.
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552,852. WESTCORD. Cl. 42.
552,853. SUPPLETEEN. Cl. 42.
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552,858. QUALITOR. Cl. 42.
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552,866. STANEGG. Cl. 46.
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552,901. SAFE-T-TILT. Cl. 44.
552,903. CLEMENT AND DESIGN. Cl. 19.
552,906. BABIES ARE OUR BUSINESS! OUR ONLY BUSINESS! Cl. 46.
552,908. C HOWARD'S. Cl. 46.
552,909. ANDEAN PILE. Cl. 42.
552,910. EASY WAY CLOTHESPIN BAG AND DESIGN. Cl. 2.
552,912. SUPER NUMBER 12 WITHIN A DESIGN. Cl. 21.
552,913. CLAMBAKE AND DESIGN. Cl. 46.
552,916. PRAGA. Cl. 46.
552,919. "SUPER MARKET FOR REAL ESTATE." Cl. 102.
552,920. "SUPER-MARKET FOR HOMES." Cl. 102.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

220,214. TAVERN. Cl. 46. 11-2-26. Aug. Wagner Commission Co. Cheese Products Co., Inc., Chicago, Ill. Amended: The identification of goods with the exception of "cheese" is deleted.
350,427. ABUNDA. Cl. 6. 9-28-37. Andrew F. Wineburgh, doing business as Soapless Products Co. Lehn & Fink Products Corporation, Bloomfield, N. J. Amended: The second paragraph of the statement is deleted, and the drawing is amended to appear:

ABUNDA

385,214. STEINHARDT'S QUALITY CREST AND DESIGN. Cl. 49. 2-18-41. The Steinhardt Company, Inc. L. E. Jung & Wulff Co., Inc., New York, N. Y. Amended: The second paragraph of the statement is deleted, and the drawing is amended to appear:

STEINHARDT'S



399,947. RED FEATHER SCRATCH FEED AND DESIGN. Cl. 46. 2-9-43. Allied Mills, Inc., Wayne Feed Supply Co., Inc., Chicago, Ill. Amended: In the statement, column 1, lines 18 and 19 "The words 'Scratch Feed' are disclaimed apart from the mark shown in the drawing." are deleted, and the drawing is amended to appear:

566,874. CELLEPACBIN—GERIATRICS. Cl. 18. 11-18-52. 643,491. DURACAP'S. Cl. 18. 4-2-57. Meyer Chemical Arthrins, Inc., New York, N. Y. Amended: In the statement, column 2, lines 8 and 9 are deleted, and the drawing is amended to appear: Company, now by change of name Meyer and Company, Detroit, Mich. Amended to appear:

CELLEPACBIN**DURACAP****TRADEMARK REGISTRATIONS—NEW CERTIFICATES**

New Certificates issued under sections 7(c), 7(f), 7(g) of the Trademark Act of 1946 for the unexpired term of the original registrations.

413,320. BIRPAC. Cl. 12. Birma Manufacturing Co., Inc. 4-17-45. New Cert. Sec. 7(c), to Birma Manufacturing Company, Inc., Buffalo, N. Y., 2-18-58.
585,524. SHINING LIGHT. Cl. 1. Delta Gamma Pre-School Visually Handicapped Foundation of St. Louis. 2-9-54. New Cert. Sec. 7(c), to Delta Gamma Foundation for Pre-School Visually Handicapped of St. Louis, Missouri, Inc., St. Louis, Mo., 2-18-58.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 8—Smokers' Articles, Not Including Tobacco Products

354,477. Feb. 15, 1938. Denicotea, Societe Anonyme, Antwerp, Belgium. Pub. by Alfred Dunhill of London, Inc., New York, N. Y.

DENICOTEA

For Cigarette Holders, Cigar Holders, and Pipes, Containing Denicotizing Tube Fillers, and Tube Refills for the Same.

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

15,002. Dec. 6, 1887. Revere Rubber Company, Boston, Mass. Pub. by United States Rubber Company, New York, N. Y.

SHAWMUT

For Rubber Belting, Hose, and Packing.

Class 39—Clothing

369,907. Aug. 8, 1939. B. A. Von Hensler, New York, N. Y. Pub. by Wispese Corp., New York, N. Y.

Wispese

For Girdles and Corsets.

Class 44—Dental, Medical, and Surgical Appliances

164,278. Feb. 20, 1923. F. Longdon and Company Limited, Derby, England. Pub. by F. Longdon & Co. Limited, Derby, England.



ELINSTAR

Class 46—Foods and Ingredients of Foods

297,904. Oct. 4, 1932. H. P. Hanson & Company, Chicago, Ill. Pub. by H. P. Hanson, Chicago, Ill.

appladay

For Apple Candy Confection.

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Abercrombie & Fitch Co., New York, N. Y. 552,733, can. Cl. 27.
Abbott Laboratories, North Chicago, Ill. 552,694, can. Cl. 18.
Addressograph-Multigraph Corp., Cleveland, Ohio. 658,613, pub. 12-3-57. Cl. 50.
Affiliated Distillers Brands Corp.: See—Liquor Dealers Supply Co.
Aircraft Radio Corp., Boonton, N. J. 658,473, pub. 12-3-57. Cl. 21.
Alan-Randal Co., Inc., Los Angeles, Calif. 658,626, pub. 12-3-57. Cl. 101.
Allied Mills, Inc. Wayne Feed Supply Co., Inc., Chicago, Ill. 390,947. Am. 7(d). Cl. 46.
Alta Vineyards Co., d. b. a. B. Cribari & Sons, Fresno, Calif. 658,605, pub. 12-3-57. Cl. 47.
Aluma Craft Boat Co.: See—Flour City Ornamental Iron Co., The.
Ambrosia Chocolate Co., Milwaukee, Wis. 89,084, can. Cl. 46.
Ambrosia Chocolate Co., Milwaukee, Wis. 176,686, can. Cl. 46.
American Breddo Corp., New York, N. Y. 356,912, ren. 5-17-58. Cl. 46.
American Dyewood Co., Belleville, N. J. 658,445, pub. 12-3-57. Cl. 16.
American Furniture Co., The, Batesville, Ind. 658,640. Cl. 32.
American Jewelry Distributors, Inc., New York, N. Y. 552,826, can. Cl. 27.
American-Marietta Co., O-Cedar Division, Chicago, Ill. 658,616, pub. 12-3-57. Cl. 52.
American Steel and Wire Co. of New Jersey, The, Cleveland, Ohio. 552,850, can. Cl. 21.
American White Cross Laboratories, Inc., The, New Rochelle, N. Y. 658,646-7. Cl. 44.
Ames Safety Envelope Co., Somerville, Mass. 658,526, pub. 12-3-57. Cl. 37.
Amfre-Grant, Inc., Brooklyn, N. Y. 658,453, pub. 12-3-57. Cl. 18.
Anything Goes, Inc., New York, N. Y. 658,640, pub. 12-3-57. Cl. 38.
Archer-Daniels-Midland Co., Minneapolis, Minn. 658,381, pub. 12-3-57. Cl. 1.
Arco Co., The, Cleveland, Ohio. 552,893, can. Cl. 16.
Arden, Elizabeth, Sales Corp., New York, N. Y. 552,800, can. Cl. 61.
Aries, R. S., & Associates, Inc., New York, N. Y. 658,450, pub. 12-3-57. Cl. 18.
Arnold Shoe Products Co., Inc., Boston, Mass. 658,568, pub. 12-3-57. Cl. 39.
Arthrins, Inc., New York, N. Y. 566,874. Am. 7(d). Cl. 18.
Associated Knitters, Inc., Reading, Pa. 552,714, can. Cl. 39.
Association of Twin Cities Hobby Retailers Inc., Minneapolis, Minn. 658,627, pub. 12-3-57. Cl. 101.
Balcom Industries, Inc., Greeley, Colo. 658,417, pub. 12-3-57. Cl. 6.
Bell, William N., North Wales, Pa. 658,395, pub. 12-3-57. Cl. 2.
Barker Bros. Corp., Los Angeles, Calif. 552,858, can. Cl. 42.
Barr Mfg. Co., Oakland, Calif. 658,507, pub. 1-18-55. Cl. 31.
Barrow Mfg. Co., Inc., Winder, Ga. 658,578, pub. 12-3-57. Cl. 39.
Bastian-Morley Co., Inc., La Porte, Ind. 353,619, ren. 1-11-58. Cl. 21.
Bates Mfg. Co., The, West Orange, N. J. 552,769, can. Cl. 23.
Bates Shoe Co., Webster, Mass. 658,579, pub. 12-3-57. Cl. 39.
Bavin, G. D., Co., Los Angeles, Calif. 658,614, pub. 12-3-57. Cl. 50.
Bear Brand Hosiery Co., Chicago, Ill. 658,577, pub. 12-3-57. Cl. 39.
Bell & Gossett Co., Morton Grove, Ill. 658,466, pub. 12-3-57. Cl. 21.
Bell & Zoller Coal Co., Chicago, Ill. 356,483, ren. 4-26-38. Cl. 1.
Bellini, W. H., Cheese Corp., Green Bay, Wis. 658,593, pub. 12-3-57. Cl. 46.
Bernard Hosiery Co., Inc., New York, N. Y. 658,576, pub. 12-3-57. Cl. 39.
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Birma Mfg. Co., Inc., to Birma Mfg. Co., Inc., Buffalo, N. Y. 413,320, new cert. Cl. 12.
Blommer Bros. Co., Newark, N. Y. 658,396, pub. 12-3-57. Cl. 2.
Bluhill Foods, Inc., d. b. a. Wedding Breakfast Coffee Co., Lady West Products, and Martin Bros. Co., Denver, Colo. 552,890, can. Cl. 46.
"Bob Brownell's": See—Brownell, Frank R., II.
Bon-Aide Mills, Inc., New York, N. Y. 658,458-9, pub. 12-3-57. Cl. 20.
Boosey & Hawkes Ltd., London, England. 552,897, can. Cl. 36.
Broidert, G. C., Co., The, Pacoima, Calif. 658,516, pub. 12-3-57. Cl. 34.
Brightwater Paper Co., Adams, Mass. 658,536, pub. 12-3-57. Cl. 37.
Broadway Contracting Co.: See—Nash, Marjorie D.
Brooks Oil Co., The, Cleveland, Ohio. 354,691, ren. 2-22-58. Cl. 15.
Brooksbank, J., Ltd., Skipton, England. 658,384, pub. 12-3-57. Cl. 1.
Brown Durrell Co., Cambridge, Mass. 658,585, pub. 12-3-57. Cl. 39.
Brownell, Frank R., II, d. b. a. "Bob Brownell's," Montezuma, Iowa. 658,401, pub. 12-3-57. Cl. 6.
Bruenner, Roland L., d. b. a. Optical Industries, Grand Rapids, Mich. 658,494, pub. 12-3-57. Cl. 26.
Buffalo-Springfield Roller Co., The, Springfield, Ohio, to Koechlin Co., Milwaukee, Wis. 658,489, pub. 6-4-57. Cl. 23.
Burberrys Ltd., London, England. 658,567, pub. 12-3-57. Cl. 39.
Burnby Corp., Norwalk, Conn. 658,467-71, pub. 12-3-57. Cl. 21.
California Packing Corp., San Francisco, Calif. 120,716, ren. 3-5-58. Cl. 46.
Camel Color & Paint Corp.: See—Camel Lead Color & Chemical Products Mfg. Corp.
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Cane Ann Isinglass Co., Marblehead, Mass. 285,443, can. Cl. 6.
Caran Engineering Corp., San Antonio, Tex. 658,631, pub. 12-3-57. Cl. 103.
Caron Corp., New York, N. Y. 218,293, can. Cl. 6.
Carroll, W. E., d. b. a. Size Control Co., Chicago, Ill. 658,501, pub. 12-3-57. Cl. 26.
Carthage Mills Inc., Cincinnati, Ohio. 658,455, pub. 12-3-57. Cl. 20.
Cascades Plywood Corp., Portland, Ore. 658,433-4, pub. 12-3-57. Cl. 12.
Casco Products Corp., Bridgeport, Conn. 552,647, can. Cl. 23.
Cavanaugh, Newark, N. J. 658,398, pub. 12-3-57. Cl. 3.
Celanese Corp. of America, New York, N. Y. 352,913, ren. 12-14-57. Cl. 42.
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Central Ohio Paper Corp., The, Columbus, Ohio. 658,533, pub. 12-3-57. Cl. 37.
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Chicago Metallizing Corp., Chicago, Ill. 658,637, pub. 12-3-57. Cl. 106.
Chicago Pharmacal Co., Chicago, Ill. 357,021, ren. 5-24-58. Cl. 61.
Chicago Section of The American Chemical Society, The, Chicago, Ill. 658,638, pub. 12-3-57. Cl. 107.
Circuit Mfg. Co., Inc., Philadelphia, Pa. 658,472, pub. 12-3-57. Cl. 21.
Climax Industries, Cleveland, Ohio. 658,484, pub. 12-3-57. Cl. 22.
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Cloverly Plastics Inc., New York, N. Y. 552,789, can. Cl. 42.
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Cobbs Mfg. Co., Des Moines, Iowa. 552,910, can. Cl. 2.
Cohen, Joseph H., & Sons, Inc., New York, N. Y. 658,574, pub. 12-3-57. Cl. 39.
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Commercial Filters Corp., Melrose, Mass. 356,830, ren. 5-10-58. Cl. 31.
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 Conrad, Bernard J., d. b. a. Solroi Mfg. Co., Chicago, Ill. 658,495, pub. 12-3-57. Cl. 20.
 Consolidated Dressed Beef Co., Inc., Philadelphia, Pa. 658,506, pub. 12-3-57. Cl. 46.
 Continental Oil Co., Ponca City, Okla. 658,414, pub. 12-3-57. Cl. 6.
 Cosmopolitan Doll and Toy Corp., Jackson Heights, N. Y. 658,481, pub. 12-3-57. Cl. 22.
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 Cribari, B., & Sons: See—
 Alta Vineyards Co.
 Cutisin, Vyroba Umelych Strev, Narodni Podnik, Jablonec n. N., Czechoslovakia, 658,394, pub. 12-3-57. Cl. 2.
 Davis Bros. Fisheries Co., Inc., Gloucester, Mass. 552,721, can. Cl. 48.
 Davis Bros. Fisheries Co., Inc., Gloucester, Mass. 552,722, can. Cl. 48.
 Dearborn Chemical Co., Chicago, Ill. 658,407, pub. 12-3-57. Cl. 6.
 Delta Gamma Foundation For Pre-School Visually Handicapped of St. Louis, Missouri, Inc.: See—
 Delta Gamma Pre-School Visually Handicapped Foundation of St. Louis.
 Delta Gamma Pre-School Visually Handicapped Foundation of St. Louis, to Delta Gamma Foundation For Pre-School Visually Handicapped of St. Louis, Missouri, Inc., St. Louis, Mo. 555,524, new cert. Cl. 1.
 Denicotte, C. G. Anonyme, Belgium, by Alfred Dunhill of London, Inc., New York, N. Y. 354,477, 12(c) pub. 2-18-58. Cl. 8.
 Dennis, S., Inc., New York, N. Y. 552,772, can. Cl. 39.
 De Saymont, Chicago, Ill. 658,517, pub. 12-3-57. Cl. 36.
 Destileria Serralles, Inc., Ponce, Puerto Rico. 658,611, pub. 12-3-57. Cl. 49.
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 Dow Chemical Co., The, Midland, Mich. 658,402, pub. 12-3-57. Cl. 6.
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 Dow Corning Corp., Inc., Midland, Mich. 658,476, pub. 12-3-57. Cl. 39.
 Draper Brothers Co., Canton, Mass. 552,909, can. Cl. 42.
 Drewrys Ltd. U. S. A., Inc., South Bend, Ind. 658,607, pub. 12-3-57. Cl. 48.
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 Dubonnet Wine Corp., New York, N. Y. 658,604, pub. 12-3-57. Cl. 47.
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 Durkee-Atwood Co., Minneapolis, Minn. 658,570, pub. 12-3-57. Cl. 39.
 Electrical Utilities Co., La Salle, Ill. 658,542, pub. 12-3-57. Cl. 38.
 Elman Labels, Inc., Washington, D. C. 658,531, pub. 12-3-57. Cl. 37.
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 Etchison Hat Co., Inc., Richmond, Va. 552,870. Cl. 39.
 Eureka Mills, Inc., St. Louis, Mo. 658,588, pub. 12-3-57. Cl. 46.
 Famous-Sternberg, Inc., New Orleans, La. 658,559, pub. 12-3-57. Cl. 39.
 Faucher Furniture Co., The, Salamanca, N. Y. 658,514, pub. 12-3-57. Cl. 32.
 Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany 658,390, pub. 12-3-57. Cl. 1.
 Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany 658,421, pub. 12-3-57. Cl. 7.
 Farmingdale Garden Laboratories, Inc., Massapequa, N. Y. 658,410, pub. 12-3-57. Cl. 6.
 Fast-Lok Mfg. Co., The, Bridgeport, Conn. 658,475, pub. 12-3-57. Cl. 21.
 Federal Foundry Supply Co., The, d. b. a. The Wyodak Chemical Div., Cleveland, Ohio. 658,424, pub. 12-3-57. Cl. 10.
 Ferranti Electric, Inc., New York, N. Y. 658,482, pub. 12-3-57. Cl. 21.
 Fertel, Irving, d. b. a. Mitchell Auto Supply Co., Brooklyn, N. Y. 552,896, can. Cl. 19.
 Fine Laboratories, Inc., Freeport, Ill. 658,618, pub. 12-3-57. Cl. 52.
 First National Stores Inc., Somerville, Mass. 658,557, pub. 12-3-57. Cl. 39.
 Flour City Ornamental Iron Co., The, d. b. a. Aluma Craft Boat Co., Minneapolis, Minn. 658,485, pub. 12-3-57. Cl. 22.
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Gaveau & Cie, Paris, France. 658,645. Cl. 36.
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 Vacu-dry Co.: See—
 Izard Co., The.
 Van Waters & Rogers, Inc., South Seattle, Wash. 658,436, pub. 12-3-57. Cl. 13.
 Veb Druckmaschinenwerk Victoria, Heidenau, Germany. 658,487, pub. 12-3-57. Cl. 23.
 Venue, Ben, Laboratories, Inc., Bedford, Ohio. 658,415, pub. 12-3-57. Cl. 6.
 Victor Wood Products Co., Grand Rapids, Mich. 658,509, pub. 1-1-57. Cl. 32.
 Vital Products Mfg. Co., Cleveland, Ohio. 552,754, can. Cl. 23.
 Volin, Ed., Co., Inc., New York, N. Y. 658,565, pub. 12-3-57. Cl. 39.
 Von Hensler, B. A., by Wispepe Corp., New York, N. Y. 369,907, 12(c) pub. 2-18-58. Cl. 38.
 W. L. W. Grinding and Mfg. Co., Inc., Chicago, Ill. 552,765, can. Cl. 23.
 W. S. K. Inc., Detroit, Mich. 552,755, can. Cl. 23.
 Wagner, Aug., Commission Co., Cheese Products Co., Inc., Chicago, Ill. 220,214, Am. 7(d). Cl. 46.
 Walker, Hiram, & Sons, Inc., Detroit, Mich. 354,150, ren. 2-1-58. Cl. 49.
 Walker-Young Corp., Long Beach, Calif. 552,871, can. Cl. 44.
 Warehousing Service Co., d. b. a. Service Gear Co., Chicago, Ill. 552,788, can. Cl. 23.
 Washington Mills Co., Winston-Salem, N. C. 658,582, pub. 12-3-57. Cl. 39.
 Washington-Oregon Foods: See—
 Wenatchee Valley Foods, Inc.
 Wayne Feed Supply Co., Inc.: See—
 Allied Mills, Inc.
 Wedding Breakfast Coffee Co., Lady West Products, and Martin Bros. Co.: See—
 Bluhill Foods, Inc.
 Wenatchee Valley Foods, Inc., Wenatchee, to Washington-Oregon Foods, Vancouver, Wash. 356,474, ren. 4-26-58. Cl. 46.
 Wesleyan University, Middletown, Conn. 658,543, pub. 12-3-57. Cl. 38.
 Wesleyan University, Middletown, Conn. 658,546, pub. 12-3-57. Cl. 38.
 West Laboratories, Inc., Long Island City, N. Y. 658,615, pub. 12-3-57. Cl. 52.
 West Virginia Pulp & Paper Co., New York, N. Y. 658,525, pub. 12-3-57. Cl. 37.
 West Virginia Pulp and Paper Co., New York, N. Y. 658,530, pub. 12-3-57. Cl. 37.
 West Virginia Pulp and Paper Co., New York, N. Y. 658,532, pub. 12-3-57. Cl. 37.
 White Stores, Inc., Wichita Falls, Tex. 658,508, pub. 12-3-57. Cl. 31.
 Whiting, Geo. A., Paper Co., Menasha, Wis. 658,527, pub. 12-3-57. Cl. 37.
 Whyman, S. H., Ltd., Leeds, England. 658,584, pub. 12-3-57. Cl. 39.
 Williamson Co., The, Cincinnati, Ohio. 658,643. Cl. 34.
 Wilson Sporting Goods Co., River Grove, Ill. 658,483, pub. 12-3-57. Cl. 22.
 Winch-Lift, Inc., Webster Parish and Shreveport, La. 552,908, can. Cl. 19.
 Wineburgh, Andrew F., d. b. a. Soapless Products Co., to Lehn & Fink Products Corp., Bloomfield, N. J. 350,427, Am. 7(d). Cl. 6.
 Winfred-Eldridge Corp., Chicago, Ill. 658,513, pub. 12-3-57. Cl. 32.
 Wispepe Corp.: See—
 Von Hensler, B. A.
 Witter, Frank D., Genoa, Ill. 552,784, can. Cl. 46.
 Wolfram & Molybdene Societe Anonyme, Nyon, Switzerland 552,664, can. Cl. 14.
 Wolfram & Molybdene Societe Anonyme, Nyon, Switzerland 552,666, can. Cl. 23.
 Woodboss Inc., Portland, Oreg. 552,659, can. Cl. 23.
 Wright, E. T., & Co., Inc., Rockland, Mass. 658,566, pub. 12-3-57. Cl. 39.
 Wyodak Chemical Div.: The: See—
 Federal Foundry Supply Co., The.

PATENTS

NOTICES

Disclaimer

2,674,295.—Roger C. Steele, Albany, and Paul V. Ammen, Orinda, Calif. METHOD OF AND MEANS FOR EXPANDING EXPANSIBLE CELLULAR MATERIAL. Patent dated Apr. 6, 1954. Disclaimer filed Jan. 23, 1958, by the assignee, Hexcel Products Inc.

Hereby enters this disclaimer to claim 1 of said patent.

Patents Available for Licensing or Sale

Eastman Kodak Company announces that, in accordance with its policy, nonexclusive licenses upon reasonable terms are available to domestic applicants (under the circumstances prevailing at the time) under the following U. S. patents:

- 2,374,475. Sighting Device.
2,384,643. Objective for Reflex Sight.
2,420,633. Instrument for Testing and Developing the Stereoptic Acuity of a Person's Eyes.
2,425,400. High Aperture Collimating Lens System.
2,430,551. Optical Support.
2,432,432. Ortho Pseudo Stereo Range Finder.
2,441,036. Lens System for Telescopes.
2,453,336. Periscope Lens System.
2,458,382. Shock Testing.
2,458,399. Swivel Mount.
2,458,448. Gun Training by Tracer Fire Spotting.
2,469,587. Impact Fuse.
2,478,442. Orthopseudo Range Finder.
2,490,747. Infinity Sight Using a Transparent Reflector.
2,530,190. Surge Chamber.
2,575,034. Reader for Translating Digital Data Recorded on Film Into Electric Pulses Suitable for Input to a Computer.
2,578,299. Vector Analogue Computing Mechanism.
2,582,001. Photographic Print Making Machine.
2,582,004. Motion-Picture Sensitometry.
2,582,049. Manufacture of Cellulose Triacetate.
2,582,081. Neutron-Absorbing Borate Glass.
2,582,085. Wide-Angle Lens Attachment With Front Element of High Index Glass.
2,582,087. Method of Blocking and Unblocking Lens Blanks for Surfacing Operations.
2,585,250. Machine for Applying Tape to Cylindrical Containers.
2,585,276. Control System for Photographic Document Copying Machines.
2,585,287. Apparatus for Chucking Blocks of Lenses on Generating Machines.
2,585,291. Device for Forming Sound Records.
2,586,866. High Aperture Five-Component Objective.
2,588,615. Printing Onto Lenticular Film.
2,588,966. Drum-Type Glossy Print Drier.
2,588,974. Optical Aligner.
2,588,980. Normalizing Device for Gear Train Shutter Retards.
2,588,982. Direct Positive Photographs Using Hydrazine in the Emulsion.
2,589,004. Process for Producing Couplers From Bi-Functional Amines.
2,589,014. Focusing View Finder System.
2,592,239. Cover Locking Mechanism.
2,592,243. Method of Selectively Exposing the Grains of a Mixed Grain Photographic Emulsion.
2,592,248. Alpha-Acylamino Acrylamides and Polymers Thereof.
2,592,250. Photographic Silver Bromide Emulsion Containing Some Silver Iodide.
2,592,262. Slide Mount.
2,592,263. Method of Reacting Gelatin With Naphthyl Isocyanates and Resulting Products.
2,592,285. Film Transport Means for Motion-Picture Projectors.
2,592,298. Photographic Reversal Process Using High-Intensity Flash Exposure.
2,592,303. Thio-Bis-Acylamino Pyrazolone Couplers for Color Photography.
2,592,305. Method of Lowering the Viscosity of Hydrolyzed Cellulose Esters and Product.
2,592,319. Casting Apparatus for Film Support or Sheetting.
2,592,351. Spring Clip.
2,592,354. Film Developing Rack.
2,592,363. p-Phenylenediamine Developer Containing N-Alkylacetamido Ethyl Substituent.
2,592,364. p-Phenylenediamine Developer Containing Alkylacylamidoethyl or Alkylacylamidoethoxy Ring Substituents.
2,592,368. Gelatine Silver Halide Emulsion Layer Containing a Dihydroxy Diphenyl Tanning Developing Agent.
2,593,411. Bis(4-β-Hydroxyalkoxyphenyl) Sulfones and Polyesters Prepared Therefrom.
2,593,440. Manufacture of Carboxyl Compounds.
2,596,656. Method of Precipitating High Acetyl Cellulose Acetate.
2,596,665. Condenser Lens Mount.
2,596,667. Transparency Inserting and Positioning Device.
2,596,671. Camera Shutter, Including Adjustable Flash Synchronizing Means.

New Applications Received During December 1957

Patents	6,609
Designs	361
Plant Patents	12
Reissues	27
Total	7,009

Issue

Patents	757—No. 2,824,307 to No. 2,825,063, incl.
Designs	64—No. 182,153 to No. 182,216, incl.
Reissues	4—No. 24,435 to No. 24,438, incl.
Total	825

2,596,677.	Method for Making Masks for Photographic Transparencies.	2,611,761.	Alkyl α -Fluoroacetoxy Acrylates, and Polymers Thereof.
2,596,702.	Automatic Focusing Arrangement.	2,611,765.	Interpolymers of α -Acetoxyacrylonitriles.
2,596,713.	Antihalation Layer for Cellulose Ester Lithographic Printing Plates.	2,611,772.	Preparation of 1,4,5,8-Tetraamino-Anthraquinone Compounds.
2,596,741.	External Memory Device for Electronic Digital Computers.	2,614,120.	β -Hydroxyalkyl Diesters of Dicarboxyphenyl Sulfones and Method of Preparing Same.
2,596,742.	N-Substituted Ethylene Thioureas.	2,614,409.	Flash Lamp Firing Circuit.
2,596,754.	Photomechanical Copy Method.	2,614,430.	Temperature Indicating Device.
2,596,755.	Aromatic Color Couplers Containing Mercaptan and Hydroxyl Groups.	2,614,468.	Timing Mechanism for Multiple Grid Cameras.
2,596,756.	Photomechanical Copy Method.	2,614,472.	Centrifugal Spray Processing Apparatus for Sensitized Materials.
2,597,856.	Stabilization of Photographic Emulsions Sensitized With Gold Compounds.	2,614,752.	Footage Indicator for Motion-Picture Apparatus.
2,597,915.	Stabilization of Photographic Emulsions Sensitized With Gold Compounds.	2,614,763.	Film Stripper-Stop for Extrusion-Loading Apparatus.
2,598,079.	High-Speed Photographic Silver Halide Emulsions Supersensitized With Palladium Salts.	2,614,837.	Document Feeding Device.
2,600,377.	Process for the Preparation of Sulfonated Copper Phthalocyanine Dye.	2,614,925.	Mercapto Azoles in Developer for Mixed Grain Photographic Process.
2,600,748.	Flash Holder Bracket Attachment for Cameras With Resiliently Held Latches.	2,614,927.	Rapid Processing of Photographic Materials.
2,600,756.	Photographic Color Correction Process.	2,614,928.	Method of Preparing Photographic Emulsions.
2,600,789.	Flashlight Device.	2,614,929.	Method of Preparing Photographic Emulsions.
2,600,806.	Poly N-Vinyl Sulfonamides.	2,614,930.	Method of Preparing Polyvinyl Alcohol-Silver Halide Photographic Emulsions.
2,600,809.	Enlarging Easel.	2,614,931.	Method of Preparing Cellulose Ester-Silver-Halide Photographic Emulsions.
2,600,815.	Apparatus for Rough and Fine Grinding of Spherical Surfaces.	2,614,932.	Photographic Stripping Film.
2,600,816.	Grid-Type Display Sign.	2,618,198.	Projection Screen.
2,604,002.	Optical Infinity Sight.	2,618,553.	Hardened Particle Mixed Grain Photographic Emulsion.
2,604,013.	Ultrahigh-Aperture Five Component Objectives.	2,618,556.	Process for Preparing Photographic Emulsions.
2,604,024.	Print Processing Machine.	2,618,557.	Method of Developing Sensitive Photographic Materials.
2,604,397.	Chemical Sensitization of Photographic Emulsions.	2,618,558.	Photographic Developers Comprising an N,N-Di-alkyl-p-Phenylenediamine and a Benzene Sulfonate.
2,604,398.	Light-Sensitive Photographic Stripping Film.	2,618,641.	Arylidene-Bis-Pyrazolones.
2,604,399.	Photographic Developers Comprising Bis-(Di-Hydroxyalkyl Aminomethyl)-Hydroquinones.	2,618,656.	(Alkylsulfonamidoalkyl) Arylhydrazines.
2,604,400.	Naphthyl Hydrazine Sulfonic Acids in Direct Positive Photographic Processes.	2,618,657.	Process of Preparing N-Substituted Derivatives of Aminophenols.
2,604,471.	Preparation of a Stable Cellulose Nitrate Having Good Adhesive Characteristics.	2,621,558.	Film Gate for Film Handling Apparatus.
2,604,475.	Benzo(f)Quinoline Compounds and Process for Their Preparation.	2,621,569.	Flashing Lamp for Halftone Cameras.
2,606,118.	Stabilizing Agent for Single Powder Photographic Developers.	2,621,570.	Camera Shutter With Two Successively Operated Blades.
2,607,588.	Web Centering Device.	2,621,572.	Film Processing Machine.
2,607,683.	Method of Making a Hydrolyzed Cellulose Ester Printing Plate.	2,621,866.	Film Metering Mechanism.
2,607,684.	Direct-Positive Photographic Process.	2,622,026.	Photographic Element and Tinted Film Base.
2,607,703.	Preparation of Acetic Acid Solutions of Cellulose Acetate.	2,622,082.	Styryl Photographic Filter and Antihalation Dyes.
2,607,704.	Cellulose Acetate Solution and a Film Formed Therefrom.	2,642,538.	Thermal Radiography Using Phosphors.
2,607,721.	Silver Recovery From Sodium Thiosulfate Solutions.	2,697,037.	Multilayer Print Film Having Incorporated Coloring Material.
2,610,120.	Photosensitization of Polymeric Cinnamic Acid Esters.	2,708,687.	Preventing Formation of Prussian Blue Stain in Color Developed Photographic Prints.
2,611,283.	Plural Pulley Mechanism.	2,795,328.	Sorting Device for Information Bearing Elements.
2,611,292.	Claw Pulldown Mechanism.	2,797,753.	Apparatus for Severing Strip Material Into Discrete Elements and Sorting and Stacking Said Elements.
2,611,294.	Supplemental Lens for Camera Objectives.	2,797,754.	Apparatus for Broaching Die Apertures in a Rotary Film Perforator.
2,611,295.	Optical Objective Comprising a Meniscus Doublet and Meniscus Triplet Between Two Positive Components.	2,801,279.	Electro-Optical System for Producing Outline Pictures From Continuous Tone Originals.
2,611,296.	Mount for Optical Elements.	2,807,980.	Automatic Photographic Printer.
2,611,300.	Film Hanger.	2,808,518.	Adjusting D. C. Resistance of Light-Sensitive Cells.
2,611,686.	Apparatus for Transferring an Emulsion Layer From a Perforated Film Strip.	2,811,352.	Apparatus for Inserting and Withdrawing Discrete Elements Into and From an Open End Receptacle.
2,611,696.	Photographic Element Containing Unsymmetrical Oxonol Filter and Antihalation Dyes.		
2,611,720.	Machine for Mounting a Flexible Film on Glass for Making Lantern Slides.		

Applications for license may be addressed to: Director, Patent Department, Eastman Kodak Company, 343 State St., Rochester 4, N. Y.

CONDITION OF PATENT APPLICATIONS AS OF DECEMBER 31, 1957

Total number of pending applications (excluding Designs)	212,606
Total number of pending Design applications	6,654
Total number of applications awaiting action (excluding Designs)	94,856
Total number of Design applications awaiting action	3,138
Date of oldest new application	Dec. 20, 1956
Date of oldest amended application	Aug. 1, 1956

M. C. ROSA, Director, Patent Examining Operation

PATENT EXAMINING GROUPS, AND SUPERVISORY EXAMINERS	DIVISIONS	
(I) STONE, I. G., CHEMICAL AND RELATED ARTS	6, 31, 38, 43, 46, 50, 56, 59, 60, 63, 64, 16, 26, 37, 41, 42, 44, 48, 51, 54, 60, 70,	
(II) STRACHAN, O. W., COMMUNICATIONS, RADIANT ENERGY AND ELECTRICAL ARTS	2, 12, 13, 14, 21, 24, 57, 58, 61, Designs,	
(III) YUNG KWAI, B., MECHANICAL MANUFACTURING, MACHINE ELEMENTS AND DESIGNS	7, 11, 17, 27, 34, 35, 39, 53, 62,	
(IV) FREEHOF, H. B., MATERIAL HANDLING AND TREATING, OPTICS, RAILWAYS AND AMUSEMENT DEVICES	5, 8, 20, 29, 33, 36, 40, 52, 66,	
(V) HULL, J. S., STATIC STRUCTURES AND INSTRUMENTS OF PRECISION	1, 4, 9, 10, 18, 22, 23, 26, 45, 47,	
(VI) MURPHY, T. F., AGRICULTURE, TRANSPORTATION, PUMPS AND MOTORS	3, 15, 19, 25, 30, 32, 49, 65, 67,	
(VII) KAUFFMAN, H. E., HEATING AND COOLING, PLASTIC SHAPING AND COATING, SEPARATION AND MIXING, BODY TREATMENT AND CARE	I, II, III, IV, V,	
(CLASS.) GORECKI, G. A., ARTS UNDERGOING RECLASSIFICATION AS LISTED UNDER CLASSIFICATION DIVISIONS.		
DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION		Oldest Application
(Roman numerals in parentheses indicate Examining Group)		New Amended
1. (VI) GOLDBERG, A. J., Brakes; Excavating; Planting; Plant Husbandry; Scattering Unloaders	4-12-57	1-11-57
2. (III) HERRMANN, D., Fishing, Trapping and Vermin Destroying; Presses; Tobacco; Textile Wringers; Buckles, Buttons and Clasps	4-1-57	1-8-57
3. (VII) LE ROY, C. A., Metal Founding and Treatment; Metallurgy (Process and Apparatus); Alloys; Resistances and Rheostats	4-4-57	1-2-57
4. (VI) FALLER, E. A., Hoists; Power Driven Conveyors; Handling Apparatus; Elevators; Pneumatic Dispatch; Store Service; Conveyers, Chutes, Skids, Guides and Ways	4-8-57	1-2-57
5. (V) ROBINSON, O. W., Harvesters; Unearthing Objects; Threshing; Knotters; Animal Husbandry; Bee Culture; Dairy; Butchering; Vegetable and Meat Cutters and Comminutors; Fences; Gates; Music; Signals and Indicators; Fluid Sprinkling, Spraying and Diffusing	3-25-57	12-13-56
6. (I) LIDOFF, H. J., Carbon Chemistry (part), e. g., Heterocyclic, General Organic Processes, Proteins, Amides, Amines	5-2-57	5-2-57
7. (IV) OONSALVES, J. E. (ANDERSON, E. G., acting), Optics, Photographic Apparatus	4-1-57	1-18-57
8. (V) LEWIS, R. O., Beds; Chairs and Seats; Cabinets; Tables; Miscellaneous Furniture; Fire Escapes; Ladders; Scaffolds; Deposit and Collection Receptacles	5-24-57	1-23-57
9. (VI) BRANSON, J. H., Pumps; Fans; Turbines	4-1-57	1-17-57
10. (VI) BOYD, S., Firearms; Ordnance; Ammunition; Explosive Charge Making	4-9-57	2-20-57
11. (IV) BENHAM, E. V., Boots, Shoes and Leggings; Shoe and Leather Manufacture; Button, Eyelet and Rivet Setting; Nailing, Stapling and Clip Clenching; Card, Picture and Sign Exhibiting; Cutlery; Pipes and Tubular Conduits	5-6-57	5-2-57
12. (III) SPINTMAN, S., Machine Elements; Engine Starters; Interrelated Clutch and Motor Controls	4-4-57	1-17-57
13. (III) BEALL, T. E., Gear Cutting; Electric Lamp and Tube Manufacture; Needle and Pin Making; Metal Working (part), e. g. Special Work, Forging, Plastic Working, Drawing, Sawing, Milling, Planing, Turning	4-8-57	1-22-57
14. (III) MANIAN, J. C. (WILTZ, W. A., acting), Metal Working (part), e. g. Sheet Metal, Wire Bending, Miscellaneous Processes, Assembly and Disassembly Apparatus; Wire Fabric; Air Brakes	4-4-57	2-20-57
15. (VII) BRINDISI, M. V., Plastics; Plastic Block and Earthenware Apparatus; Glass	4-2-57	1-30-57
16. (II) ANDRUS, L. M., Telephony; Recorders (part)	12-20-56	10-16-56
17. (IV) LEIGHEY, R. A., Packaging (part); Typewriters; Printing; Type Casting and Setting; Sheet Material Association or Folding	4-1-57	1-2-57
18. (VI) BLUM, A., Power Plants; Fluid Transmissions; Servomotor Systems; Jet Motors; Combustion Turbines; Speed Responsive Devices	4-1-57	1-11-57
19. (VII) PATRICK, P. L. (MATTESON, F. L., acting), Stoves and Furnaces; Boilers; Concentrating Evaporators; Fluid Fuel Burners; Heating Systems; Miscellaneous Heating	4-10-57	2-11-57
20. (V) KAMPE, A. H., (acting), Miscellaneous Hardware; Closure Fasteners; Locks; Safes; Bank Protection; Bread, Pastry and Confection Making; Tents and Canopies; Umbrellas; Canes; Undertaking; Electrical Connectors	4-1-57	1-2-57
21. (III) MADER, R. C., Textiles	1-16-57	12-12-56
22. (VI) MARLAND, M. L., Aeronautics; Boats; Buoys; Ships; Marine Propulsion; Propellers; Windmills; Fluid Diaphragms and Bellows	4-1-57	1-2-57
23. (VI) SMILOW, L., Cash and Fare Registers; Calculators and Counters; Education	2-19-57	8-1-56
24. (III) HICKEY, T. J., Apparel (except Corsets and Brassieres); Apparel Apparatus; Sewing Machines; Textiles, Ironing or Smoothing; Clutches and Power-Stop Control	5-6-57	3-4-57
25. (VII) NEVIUS, R. D., Coating—Processes, Miscellaneous Products and Apparatus; Distillation; Wood Treating Apparatus; Paper Making	1-31-57	1-7-57
26. (II) RADER, O. L., Electricity—Generation, Motive Power, Transmission Systems, Voltage and Phase Control Systems, Furnaces, Battery Charging and Discharging, Arc Lamps, Prime Mover Dynamo Plants; Elevators (part), e. g. Miscellaneous Electric Control Mechanisms	5-31-57	5-2-57
27. (IV) JAMES, S., Brushing, Scrubbing and General Cleaning; Brush, Broom and Mop Making; Textiles, Fluid Treating Apparatus; Cleaning and Liquid Contact with Solids	5-2-57	5-1-57
28. (VI) BRAUNER, R. H., Internal Combustion Engines; Expandable Chamber Motors; Fluid Servomotors; Springs, Weight and Animal Powered Motors; Cylinders; Pistons; Drive Shafts; Flexible-Shaft Couplings; Chucks or Sockets; Fluid Current Conveyers; Pressure Modulating Relays; Wheel Substitutes	4-1-57	1-8-57
29. (V) FRITZ, M. M., (acting), Tools; Woodworking; Button, Barrel and Wheel Making; Baggage; Cloth, Leather and Rubber Receptacles; Package and Article Carriers; Joint Packing; Valved Pipe Couplings; Rod Joints; Tool-Handling Fastenings	2-19-57	12-14-56
30. (VII) O'LEARY, R. A., Automatic Temperature and Humidity Regulation; Illuminating Burners; Separating and Assorting Solids (part); Comminutors; Coin Controlled Apparatus; Dispensing Cabinets; Article Dispensing; Coin Handling	4-1-57	11-21-56

DIVISIONS, EXAMINERS AND SUBJECTS OF INVENTION (Roman numerals in parentheses indicate Examining Group)		Oldest Application	
		New	Amended
31. (I) BOETTCHER, A. M., Carbon Chemistry (part), e. g., Urea Adducts, Silicon Containing Carbon Compounds, Hydrogenation of Carbon Oxides, Partial Oxidation of Non-Aromatic Hydrocarbon Mixtures, Hydrocarbons, Halogenated Hydrocarbons; Mineral Oils.		1-11-57	1-11-57
32. (VII) BERMAN, H., Gas and Liquid Contact Apparatus; Heat Exchange; Gas Separation; Agitation; Self Proportioning Fluid Systems; Liquid Level Responsive Systems; Fire Extinguishers.		5-7-57	3-4-57
33. (V) MUSHAKE, W. L., Bridges; Hydraulic and Earth Engineering, Roads and Pavements.		4-9-57	1-14-57
34. (IV) QUACKENBUSH, L., Railways—Draft Appliances, Switches and Signals, Surface Track, Rolling Stock, Track Sanders; Electricity, Transmission to Vehicles; Dumping Vehicles; Vehicle Fenders; Hand and Hoist Line Implements.		4-1-57	3-1-57
35. (IV) DEMBO, L. J., Dispensing; Filling and Closing Receptacles; Toilet; Sheet or Web Feeding.		6-4-57	6-3-57
36. (V) McFADYEN, A. D., Measuring and Testing; Automatic Weighers; Weighing Scales.		1-22-57	1-3-57
37. (II) LEVY, M. L., Electricity—Switches, Welding, Heating, Photo-cell Circuits.		4-9-57	3-21-57
38. (I) MARMELESTEIN, N., Carbon Chemistry (part), e. g., Azo, Carbocyclic or Acyclic Compounds (part), e. g., Anthrones, Triarylmethanes, Esters, Acids, Ketones, Aldehydes, Ethers, Phenols, Alcohols.		6-3-57	5-20-57
39. (IV) WEIL, I., Fluid-Pressure Regulators; Valves; Fluid Handling (except Pressure Modulating Relays, Self-Proportioning Systems, Float Valves, Diaphragms and Bellows).		5-7-57	4-23-57
40. (V) DRUMMOND, E. J., Receptacles—Metallic, Paper, Wooden, Glass; Special Receptacles and Packages.		6-4-57	6-3-57
41. (II) LOVEWELL, N. N., Recorders (part); Sound Recording; Television.		1-7-57	12-17-56
42. (II) REYNOLDS, E. R., Electric Signaling; Telegraphy (part).		1-2-57	1-8-57
43. (I) KNIGHT, W. B. (WOLK, M. O., acting), Medicines, Poisons, Cosmetics; Sugar and Starch; Skins and Leathers; Preserving, Sterilizing and Disinfecting (except Wood Treatment Apparatus); Bleaching, Dyeing, Fluid Treatment of Textiles.		4-8-57	1-3-57
44. (II) EVANS, N. H., Antennas; Directive Radio Systems; Mass Spectrometers; Nuclear Batteries; Nuclear Resonant Devices; Neutron Detecting and Measuring; Radar; Sonar; Torpedoes.		4-1-57	1-2-57
45. (VI) MANIAN, J. A., Wheels, Tires and Axles; Railway Wheels and Axles; Lubrication; Bearings and Guides; Belt and Sprocket Gearing; Spring Devices; Animal Draft Appliances; Fluid Handling (part).		4-5-57	2-12-57
46. (I) WILES, W. G. (CAMPBELL, R. L., acting), Actinide Series (e. g., fissionable) Compounds; Sintered Metal Stock; Explosives; Power Plants (part); Metallurgy (part); Radioactive Medicines; Nuclear Reactions; Carbon Chemistry (part).		4-23-57	1-9-57
47. (VI) KANOF, W. J., Mining, Quarrying, and Ice Harvesting; Motor Vehicles; Land Vehicles.		6-14-57	4-24-57
48. (II) BERNSTEIN, S., Electricity—Conversion Systems, Protective Systems; Measuring and Testing (except Meters); Switchboards, Relays, Magnets, Inductors, Transformers, Condensers, Transistors, Barrier Layer Rectifiers.		4-1-57	12-10-56
49. (VII) BENDETT, B., Drying and Gas or Vapor Contact with Solids; Ventilation; Wells; Earth Boring.		4-15-57	3-12-57
50. (I) ARNOLD, D., Carbon Chemistry (part), e. g., Synthetic Resin Compositions (part), Synthetic Rubber Compositions, Natural Rubber.		6-5-57	6-10-57
51. (II) YAFFEE, S., Radio Transmitters, Receivers and Tuners; Modulators; Piezoelectric Devices.		3-14-57	3-14-57
52. (V) NEFF, P. R., Supports and Racks.		4-9-57	1-30-57
53. (IV) NINAS, G. A., Label Pasting and Paper Hanging; Books and Book Making; Manifolding; Printed Matter; Stationery; Paper Files and Binders; Flexible or Portable Closures or Partitions; Doors, Windows, Awnings, and Shutters; Harness; Whip Apparatus; Food Apparatus; Closure Operators.		5-16-57	4-25-57
54. (II) NILSON, R. O., Electric Lamps; Electronic Tubes; Miscellaneous Discharge Devices; Lamp, Cathode Ray and Gas Discharge Device Circuits; Ray Energy (e. g., X-Ray, Ultraviolet, Radioactive) Applications.		3-18-57	2-13-57
55. (VII) KLINE, J. R., Surgery; Dentistry; Artificial Body Members; Separating and Assorting Solids (part); Centrifugal Bowl Separators.		12-31-56	12-24-56
56. (I) SPECK, J. R., Abrading Compositions; Batteries; Coating or Plastic Compositions; Electrical and Wave Energy Chemistry.		6-4-57	3-27-57
57. (III) MILLER, A. B., Bolt, Nut, Rivet, Nail, Screw, Chain, and Horseshoe Making; Driven and Screw Fastenings; Nut and Bolt Locks; Jewelry; Pipe Joints or Couplings; Metal Bending.		5-13-57	4-4-57
58. (III) BRONAUOH, F. H., Rolls and Rollers; Making Metal Tools and Implements; Stone Working; Abrading Processes and Apparatus; Baths, Closets, Sinks, and Spitoons; Boring and Drilling; Paper Manufactures; Packaging (part).		4-2-57	1-11-57
59. (I) BRINDISI, M. A. (acting), Inorganic Chemistry; Fertilizers; Gas, Heating and Illuminating.		4-1-57	12-27-56
60. (I) MANGAN, P. E., Carbon Chemistry (part), e. g., Synthetic Resins (part), Synthetic Resin Compositions (part), Synthetic Rubber; Photographic Processes and Products.		6-6-57	4-1-57
61. (III) STRIZAK, J. P., Winding and Reeling; Pushing and Pulling; Horology; Time Controlling Apparatus; Railway Mail Delivery; Feeding of Indefinite Lengths.		4-4-57	1-9-57
62. (IV) LOWE, D. B., Games; Toys; Amusements and Exercising Devices; Mechanical Guns and Projectors; Illumination.		9-6-57	8-1-57
63. (I) WINKELSTEIN, A. H., Foods and Beverages; Fermentation; Carbon Chemistry (part), e. g., Lignins, Carbohydrate Derivatives, Fats, Sulfurized Compounds; Heavy Metal Compounds.		4-1-57	12-7-56
64. (I) GREENWALD, J., Fuels; Miscellaneous Compositions.		4-2-57	1-14-57
65. (V) LISANN, I., Geometric Instruments; Acoustics; Building Structures.		4-1-57	1-3-57
67. (VII) KRAFFT, C. F., Ornamentation; Liquid Separation or Purification.		4-2-57	1-2-57
69. (II) SAX, E. J., Wave Guides; Electric Meters; Conductors; Insulators.		5-1-57	2-14-57
70. (II) BREWRINK, J. L., Security Laws Administration.			
I—BAILEY, J. S., Laminated Fabrics.		4-29-57	2-18-57
II—LADY, J. E., Oscillators; Amplifiers.		4-2-57	2-13-57
CLASS. DIV. III—WAHL, R. A., Cutting and Punching; Apparel (part), e. g., Corsets and Brassieres.		4-1-57	1-3-57
IV—BERLOWITZ, W., Harrows and Diggers; Plows.		4-10-57	1-17-57
V—ANGEL, C. D., Refrigeration; Roofs.		4-1-57	4-1-57
M. E. DIV. A (I) LANHAM, B. E., Carbon Chemistry (part), e. g., Steroids; Synthetic Resins (part).		4-19-57	2-3-57
DESIGNS (III) A—MONCURE, J. A., Industrial Arts.		6-10-57	7-2-57
B—GRAY, M. A., Household, Personal and Fine Arts.		6-3-57	6-3-57

*Established August 23, 1957, by order of the Commissioner—722 O. G. 215.

The following divisions have been abolished: 65 and 66

EXPIRATION OF PATENTS

The patents within the range of numbers indicated below expire during January 1958, except those which may have been extended under the provisions of the Veterans Patent Extension Act (64 Stat. 316 as amended by 66 Stat. 321) and those which may have expired earlier due to shortened terms under the provisions of Public Law 690. A list of Veterans' patents which have been extended appears in the *Annual Index of Patents—1953*.

Patents..... Numbers 2,227,418 to 2,230,217, inclusive
Plant Patents..... Numbers 437 to 444, inclusive

DECISIONS IN PATENT AND TRADEMARK CASES

United States Court of Appeals District of Columbia Circuit

HANS C. BICK, INC. v. ROBERT C. WATSON,
COMMISSIONER OF PATENTS

No. 15,763. Decided January 21, 1958

TRADEMARKS—CANCELLATION—REVIEW BY THE U. S. DISTRICT COURT FOR THE DISTRICT OF COLUMBIA—JURISDICTION UNDER 35 U. S. C. 145 FOLLOWING PATENT OFFICE DECISION ON PETITION FOR CANCELLATION UNDER SEC. 24 OF TRADEMARK ACT OF 1946.

Where the only issue presented, by the Commissioner's decision on petitions for cancellation of appellant's registrations under section 24 of the Trademark Act of 1946 and by appellant's complaint asking the District Court to restrain the Commissioner from cancelling its registrations, was "whether the initial registrations of appellant's mark were erroneously granted as a matter of law because the mark was descriptive in character and without trademark significance and because, as to one registration, the mark had not been used by the appellant prior to registration," Held that appellant was entitled under 35 U. S. C. 145 to seek its remedy by civil action against the Commissioner in the District Court for the District of Columbia; and Held that, if the facts and law so warrant, the District Court "has power to restore the cancelled registrations."

APPEAL from the United States District Court for the District of Columbia.

REVERSED.

William J. Ruano for Hans C. Bick, Inc.

Clarence W. Moore for Robert C. Watson, Commissioner of Patents.

Before FAHY, WASHINGTON and DANAHER,
Circuit Judges

DANAHER, Circuit Judge, delivered the opinion of the court.

Appellant asked the District Court to restrain the Commissioner of Patents from cancelling its Trademark Registration No. 557,776 of "Nylonized" for women's nylon hosiery, issued on April 15, 1952, and its Service Mark Registration No. 557,443 of "Nylonized" for the finishing of nylon and other woven and knit fabrics by applying an emulsified nylon finishing coat thereon, issued on April 8, 1952. Both registrations had issued on the Supplemental Register under the Trademark Act of 1946. Scholler Brothers, Inc., W. F. Fancourt Co., both of Philadelphia, Pennsylvania, and Onyx Oil & Chemical Co. of Jersey City, New Jersey, filed cancellation petitions in the Patent Office where, finally, the Assistant Commissioner of Patents held that appellant had not been entitled to register the word "Nylonized" at the time it filed its application and that Registration No. 557,776 should therefore be cancelled. It was further held that "Nylonized" is merely descriptive, that the Examiner's decision to that effect should be affirmed and that Registration No. 557,443 should be cancelled. The Commissioner moved to dismiss the complaint in the District Court on the ground that the court lacked jurisdiction over the parties and over the subject matter and because the petitioners for cancellation

were "indispensably necessary to a full and final adjudication of the controversy and none of them has been made a party hereto." The Commissioner's motion having been granted and the complaint having been dismissed, this appeal followed.

The Commissioner here mistakenly relies upon *Chris Laganas Shoe Co. v. Watson*.² Laganas had filed its application for registry on the Principal Register of the term "Air Stride" for women's shoes. Brown Shoe Company, Inc., prior user of the registered mark "Air Step" successfully opposed; the Laganas appeal to the United States Court of Customs and Patent Appeals was dismissed after Brown exercised its election "to have further proceedings in the District Court. Thus, the complaint was thereafter filed against the Commissioner and against Brown Shoe Company, Inc., and the case went forward in the District Court, as it must, under 35 U. S. C. § 146 which specifically provides that the Commissioner shall not be a necessary party to an inter partes proceeding under that section. We pointed out that the action was plainly inter partes, and that the District Court correctly dismissed the complaint.

Here the provisions of the Trademark Act of 1946,³ found in "Title II—Supplemental Register" primarily apply. Cancellation was to be accomplished necessarily, if at all, under section 24. The instant registrations were not subject to the provisions of sections 13 to 18, inclusive; but, as provided by section 26, were to receive the advantages of section 21,⁴ and since the marks had been registered, section 37 also applied.

The 1946 act reversed the former practice so that the Commissioner could no longer be made sole defendant in an action under section 4915, Revised Statutes,⁵ "where there was an opposing party." It was clear enough that the Commissioner thereafter was not to be a "necessary party to an inter partes proceeding" under section 4915, Revised Statutes, but controversy developed as to what proceedings were to be deemed "inter partes" and as to the Commissioner's status in an "ex parte" situation.⁶

Congress in 1952 codified Title 35⁷ United States Code, with marked effect on section 21 of the 1946 Trademark Act.⁸ Substituted for the first reference "section 4915, Revised Statutes" was the inserted "35

¹ 35 U. S. App. D. C. 324, 221 F.2d 881 (D. C. Cir. 1955); and see *Brown Shoe Company, Inc. v. Chris Laganas Shoe Co.*, 100 USPQ 146 (1954).

² 15 U. S. C. § 1071 (1952); this section makes specific provision for the course which must be followed. When any dissatisfied party appeals to the Court of Customs and Patent Appeals, any satisfied party has the right "to elect to have all further proceedings under section 146 of Title 35, by election as provided in section 141 of Title 35."

³ 60 Stat. 427, 433-35, 436, 440, 15 U. S. C. §§ 1051, 1063-68, 1081, 1091, 1092, 1094, 1119 (1952).

⁴ As amended by 15 U. S. C. § 1071 (1952).

⁵ 35 U. S. C. § 63 (1946).

⁶ *Gold Seal Co. v. Marshall*, 89 U. S. App. D. C. 376, 377, 190 F.2d 290, 291 (D. C. Cir. 1951).

⁷ 35 U. S. C. § 1071 (1952).

⁸ See, e. g., *Gold Seal Co. v. Sawyer*, 106 F. Supp. 494 (D. C. D. C. 1952); *Baxter Laboratories v. Don Baxter, Inc.*, and cases collected in the dissenting opinion, 186 F.2d 511, 515, 38 CCPA (Patents) 786, 790 (1951).

⁹ 66 Stat. 792.

¹⁰ Sec. 2, 66 Stat. 814; cf. Reviser's note, 15 U. S. C. § 1081 (1952).

¹¹ *Scholler Brothers, Inc. v. Hans C. Bick, Inc.*, 110 USPQ 431 (1956).

United States Code, sections 145 and 146." In lieu of "Revised Statutes 4915" appearing twice in former section 21, the revisers inserted "35 United States Code, section 146." The new section 145, provides now, as prior to the 1946 Trademark Act, that the dissatisfied applicant may "have remedy by civil action against the Commissioner in the United States District Court for the District of Columbia." As to inter partes actions, a dissatisfied party may have remedy by civil action against the party in interest, and in such actions, "The Commissioner shall not be a necessary party . . ."

The "remedy" prescribed has been identified by this court. "Putting this in terms of legal 'right' and legal 'duty' the Trademark Act creates a statutory right of registration of a mark . . . it is this right which Gold Seal seeks to vindicate. The act imposes a correlative duty upon the Commissioner . . . to register a mark if the statutory conditions are complied with. It is this duty a wrongful breach of which Gold Seal seeks to remedy." The act provides that if after examination of an application for registration on the Supplemental Register it shall appear that the applicant is entitled to registration, the registration shall be granted.¹³ Clearly, the Examiner in charge of registrations must examine the application and be satisfied that the statutory requirements have been met and that the mark is entitled to registration. If it be so found, it is the duty of the Commissioner to register the mark so qualified.¹⁴

To summarize, the only issue presented by the Commissioner's decision and the complaint is whether the initial registrations of appellant's mark were erroneously granted as a matter of law because the mark was descriptive in character and without trademark significance and because, as to one registration, the mark had not been used by the appellant prior to registration. Such a dispute clearly is primarily between the appellant and the Commissioner and was properly instituted under section 145. The petitioners for cancellation have never used or registered the appellant's mark or a mark claimed to be similar. Their only claim to damage was that registration of the mark would in the future be "likely to interfere with their

freedom to use" the descriptive registered word, a claim which is irrelevant where the issue before the Commissioner is only registrability, *vel non*. In the circumstances it would be pointless to require the appellant to sue only the petitioners rather than the Commissioner, and we do not believe that Congress so intended.

We conclude that appellant was entitled under section 145 to seek his remedy "by civil action against the Commissioner" in the District Court for the District of Columbia. The court has jurisdiction, and if the facts and law shall so warrant, it has power to restore the cancelled registrations.¹⁵

Of course, we express no opinion on the merits. We say only that the action should not have been dismissed.

REVERSED.

FAHY, Circuit Judge (dissenting):

The proceedings in the Patent Office were initiated by petitions of private parties for cancellation of the registrations of the trademark held by appellant. The proceedings accordingly were inter partes. In my view neither the fact that the ground urged for cancellation was the original nonregistrability of the mark, nor the fact that the decision of the Commissioner granting the petitions rested also on a ground not asserted in the petitions, gave the Patent Office proceedings an *ex parte* character. If this be so, then the proceedings in the District Court should retain the same inter partes character they had in the Patent Office. While the problem is susceptible of a different solution under the complexities of the existing statutes, the more easily followed rule would be to permit proceedings in court to retain the character they had in the Patent Office; and this appears more likely to have been the congressional intent. Sections 145 and 146 of 35 U. S. C., originally enacted for patent cases, and section 21 of the Lanham Act,¹⁶ which makes those sections applicable to trademark cases under the same conditions, rules, and procedures as in patent cases "so far as they are applicable," should be construed together to mean that the Commissioner shall not be a necessary party in the District Court action contesting the outcome of inter partes cancellation proceedings in the Patent Office. The Commissioner would be notified and have the right to intervene and protect the public interest if so advised. But, except for this, the parties should be left to contest between themselves in court as they did in the Patent Office. The selection of parties in the District Court would not depend upon the ground of the Commissioner's decision, which might be plural or uncertain and furnish an indefinite guide. The question of necessary parties would depend rather upon the inter partes nature of the proceedings in the Patent Office. This view is also consistent with our decision in *Chris Laganas Shoe Co. v. Watson*, 95 U. S. App. D. C. 324, 221 F.2d 881.

I would affirm.

¹³ Supra note 1; if the petitioners deem it necessary to seek to protect this interest, they may apply for leave to intervene. It may be observed in passing that the Commissioner must defend his own action whether a disappointed applicant has filed his appeal before the United States Court of Customs and Patent Appeals or, as here, has sought his remedy in the District Court.

¹⁴ 37, 60 Stat. 440, 15 U. S. C. § 1119 (1952).

¹⁵ 60 Stat. 435, as amended, 15 U. S. C. § 1071 (1952).

¹⁶ 66 Stat. 803; 35 U. S. C. § 145 reads:

"§ 145. Civil action to obtain patent.
"An applicant dissatisfied with the decision of the Board of Appeals may unless appeal has been taken to the United States Court of Customs and Patent Appeals, have remedy by civil action against the Commissioner in the United States District Court for the District of Columbia if commenced within such time after such decision, not less than sixty days, as the Commissioner appoints. The court may adjudge that such applicant is entitled to receive a patent for his invention, as specified in any of his claims involved in the decision of the Board of Appeals, as the facts in the case may appear and such adjudication shall authorize the Commissioner to issue such patent on compliance with the requirements of law. All the expenses of the proceedings shall be paid by the applicant . . ."

¹⁷ 66 Stat. 803, 35 U. S. C. § 146 (1952); and see *Chris Laganas Shoe Co. v. Watson*, supra note 2.

¹⁸ *Gold Seal Co. v. Weeks*, 93 U. S. App. D. C. 249, 258, 209 F.2d 802, 810 (D. C. Cir. 1954). Of course, Gold Seal presented an inter partes situation.

Where no inter partes problem arises, the remedy may be sought against the Commissioner under 35 U. S. C. § 145 if the Commissioner refuses to pass for publication an application for registration on the Principal Register. Similarly, if the Commissioner had here refused registration on the Supplemental Register, Bick's "remedy" would clearly be the same, to be attained by civil action here in the District Court against the Commissioner under § 145.

¹⁹ 23, 60 Stat. 435, 15 U. S. C. § 1091 (1952).

²⁰ Unlike applications for the Principal Register, marks for the Supplemental Register "shall not be published for or be subject to opposition." § 24, 60 Stat. 436, 15 U. S. C. § 1092 (1952).

PATENT SUITS

Notices under 35 U. S. C. 290; Patent Act of 1952

- 1,957,424, A. Madison, Shoe, filed May 1, 1951, D. C., S. D. Ill. (Peoria), Doc. P-1268, *Amos Madison v. United Shoe Machinery Co.* Order of dismissal with prejudice Jan. 17, 1958.
- 2,119,083, E. A. Link, Jr., Aviation trainer; 2,439,168, K. A. Kall, Constant speed propeller simulating means for aviation trainer; 2,442,205, same, Aviation trainer; 2,443,076, G. Lowkrantz, Simulated directional gyro for aviation trainer; 2,450,239, K. A. Kall, Aviation trainer; 2,450,261, R. L. West, Training equipment for aviators; 2,465,168, K. A. Kall, Aviation trainer; 2,485,331, Stuhman and McKee, Apparatus for training aircraft personnel in radio navigation; 2,627,675, R. E. Kittredge, Dynamic pressure computer and control loading means operated thereby for grounded aviation trainer, filed Jan. 15, 1958, D. C. N. J. (Newark), Doc. 43/58, *Link Aviation, Inc. v. Curtiss-Wright Corp.*
- 2,148,986, C. F. Hoyt, Spray gun and means for heating air and liquid supplied thereto, filed Aug. 23, 1954, D. C., N. D. Ohio (Cleveland), Doc. 31310, *Rachel Hoyt, Adm. of Estate of Cornelius F. Hoyt, deceased, et al. v. Thermalcup, Inc.* Order of dismissal; patent held invalid Jan. 6, 1958.
- 2,180,943, R. F. Peo, Air conditioning systems for automobiles, filed June 13, 1957, D. C., N. D. Tex. (Dallas), Doc. 7212, *Albert L. Reiser v. Frigikar Corp.* Order of dismissal with prejudice (notice Jan. 15, 1958).
- 2,313,382. (See 2,384,839.)
- 2,342,076, H. M. Herbener, Combined bust supporter and filler; 2,563,241, same, Artificial bust, filed June 20, 1956, D. C., S. D. Calif. (Los Angeles), Doc. 20076-HW, *Henry M. Herbener v. California Forms, Inc. et al.* Stipulation and order of dismissal of complaint and counterclaim (notice Jan. 13, 1958).
- 2,381,124, J. F. Hart, Composition for cleaning metal such as aluminum and magnesium, filed Dec. 7, 1955, D. C., N. D. Ill. (Chicago), Doc. 55c2273, *Kelite Corp. v. Kchem Chemicals, Inc.* Patent held valid and claim 1 infringed; defendant restrained Jan. 10, 1958.
- 2,384,839, M. M. Kistner, Steam-electric pressing and ironing device; 2,313,382, same, Steam hand iron, filed June 27, 1955, D. C., S. D. N. Y., Doc. 101/336, *Merrill M. Kistner v. Eastern Metal Products Corp.* Final consent judgment for permanent injunction Jan. 20, 1958.
- 2,429,828, Lapeyre and Lapeyre, III, Shrimp peeler; 2,537,355, F. S. Lapeyre et al., Machine for peeling shrimp; 2,574,044, Lapeyre and Lapeyre, III, filed Jan. 20, 1958, D. C., E. D. La. (New Orleans), Doc. 7436, *The Peelers Co. v. National Blow Pipe Mfg. Co., Inc.*
- 2,439,168. (See 2,119,083.)
- 2,442,205. (See 2,119,083.)
- 2,443,076. (See 2,119,083.)
- 2,450,239. (See 2,119,083.)
- 2,450,261. (See 2,119,083.)
- 2,452,834, C. E. Clapper, Hot air deflector for tractors; 2,461,974, L. Flora, Enclosure for tractors, filed Apr. 14, 1950, D. C., S. D. Ind. (Indianapolis), Doc. 2255, *Clyde E. Clapper et al. v. The Original Tractor Cab Co., Inc. et al.* Complaint dismissed; patents held invalid Jan. 14, 1958.
- 2,461,974. (See 2,452,834.)
- 2,465,168. (See 2,119,083.)
- 2,485,331. (See 2,119,083.)
- 2,537,355. (See 2,429,828.)
- 2,542,919, D. J. Freeman, Rigid type sheet material awning, filed Mar. 12, 1956, D. C., S. D. Ind. (Indianapolis), Doc. IP-56c66, *B & M Corp. v. Koolvent Aluminum Awning Corp. of Indiana.* Patent claims 1 through 10 held invalid Nov. 21, 1957.
- 2,563,241. (See 2,342,076.)
- 2,565,500, Re. 23,957, E. J. Bullard, Lapping machine, filed Jan. 14, 1958, D. C., N. D. Ill. (Chicago), Doc. 58c71, *Crane Packing Co. et al. v. Spitfire Tool & Machine Co., Inc.*
- 2,574,044. (See 2,429,828.)
- 2,574,971, H. Heltzer, Highway marking paint containing glass beads, filed Oct. 10, 1957, D. C., N. D. Ill. (Chicago), Doc. 57c1687, *Minnesota Mining & Manufacturing Co. v. American Marietta Co.* Notice of dismissal (notice Dec. 2, 1957).
- 2,606,268, Pityo and Butterfield, Method of forming and welding pins to metal parts; 2,734,119, A. F. Pityo, same, filed Jan. 20, 1958, D. C., M. D. Pa. (Philadelphia), Doc. 6184, *Albert F. Pityo et al. v. Emporium Specialties Co., Inc. et al.*
- 2,627,675. (See 2,119,083.)
- 2,690,767, J. A. Soltis, Baby's automobile seat, filed Jan. 16, 1958, D. C., E. D. Pa. (Philadelphia), Doc. 23947, *Dennis Mitchell Industries v. Jensen Mfg. Co.*
- 2,696,455, H. E. Blair, Cadmium compositions for roundworm control and process of administration, filed Apr. 29, 1955, D. C., N. D. Ohio (Toledo), Doc. 7357, *Pemco Products, Inc. v. General Mills, Inc.* Complaint dismissed Nov. 13, 1957.
- 2,734,119. (See 2,606,268.)
- 2,782,161. (See Des. 174,482.)
- 2,787,843, F. C. Phillips, Cleat for football shoe, filed Jan. 6, 1958, D. C., E. D. Mich. (Detroit), Doc. 17620, *Fred C. Phillips v. M & S Mfg. Co.*
- 2,804,133, A. R. Wood, Lighters for gas burners, filed Jan. 14, 1958, D. C. Minn. (St. Paul), Doc. 6/58/16, *A. R. Wood et al. v. F & F Supply & Produce.*
- 2,806,834, W. G. Marden, Apparatus for semen collection, filed Jan. 14, 1958, D. C. Nebr. (Omaha), Doc. 0506, *William G. Marden v. Plectron Corp. et al.*
- 2,809,544, M. Maccaferri, Plastic wall tile for packing, filed Jan. 20, 1958, D. C., S. D. N. Y., Doc. 129/72, *The Tile-Rite Co. v. Mastro Plastics Corp. et al.*
- Des. 174,482, Willinger and Nestler, Bottom aquarium filter; 2,782,161, same, Aquarium filter, filed Jan. 17, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18401, *Harding W. Willinger et al. v. Abby Halpert.*

REISSUES

FEBRUARY 25, 1958

Matter enclosed in heavy brackets [] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates additions made by reissue.

24,435

PROCESS FOR PREPARING [DECACHLORO-TETRAHYDRO-4,7-METHANOINDENEONE] A HYDROLYZED REACTION PRODUCT OF HEXACHLOROCYCLOPENTADIENE AND SULFUR TRIOXIDE

Everett E. Gilbert, Morris Township, Morris County, N. J., and Silvio L. Giolito, Whitestone, N. Y., assignors to Allied Chemical & Dye Corporation, New York, N. Y., a corporation of New York

Original No. 2,616,928, dated November 4, 1952, Serial No. 196,123, November 17, 1950. Application for reissue August 19, 1957, Serial No. 679,114 5 Claims. (Cl. 260—586)

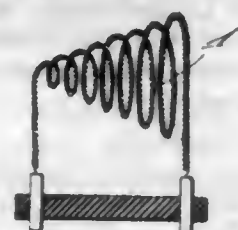
1. The method of making a [decachlorotetrahydro-4,7-methanoindeneone] ketonic compound having the empirical formula $C_{10}Cl_{10}O$ which comprises mixing hexachlorocyclopentadiene and sulfur trioxide at temperatures between about 35° C. and about 70° C. to form a reaction product thereof, and hydrolyzing the reaction product.

24,436

SENSITIVE HEAT EXCHANGE DETECTOR

Moses G. Jacobson, Penn Township, Allegheny County, Pa., James C. Gilfert, Columbus, Ohio, and Frank J. De Luca, Pittsburgh, and Walter F. Mruk, McKees Rocks, Pa., by Mine Safety Appliances Co., Pittsburgh, Pa., assignee

Original No. 2,769,884, dated November 6, 1956, Serial No. 281,632, April 10, 1952. Application for reissue November 6, 1957, Serial No. 697,298 9 Claims. (Cl. 201—63)



1. A sensitive element for the measurement of heat exchange with a surrounding medium comprising: a flexible member with a high temperature coefficient of electrical resistance, two terminals electroconductively joined to the ends of said member for leading electric current to and from said member, a flexible member of high thermal conductivity, a thin layer of electric insulation on one of said members, one of said members being tightly coiled around the other member to form a substantially solid composite element of high thermal and relatively low electrical conductivity and said composite element being wound in the shape of a conical coil.

24,437

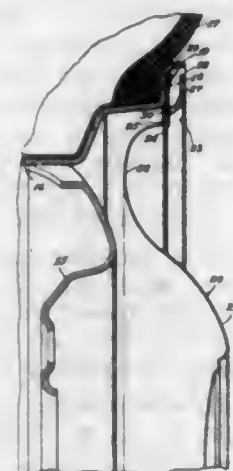
WHEEL COVER

George Albert Lyon, Detroit, Mich.

Original No. 2,683,628, dated July 13, 1954, Serial No. 135,469, December 28, 1949. Application for reissue June 12, 1956, Serial No. 591,004 16 Claims. (Cl. 301—37)

1. In a wheel structure including a multi-flange tire rim and a body supporting the tire rim, the tire-rim having a generally radially and axially outwardly extending terminal flange, a cover disposed at the outer side of the wheel and having a convexly curved outer margin includ-

ing an underturned flange extending radially and axially inwardly in spaced relation to the marginal portion and including a plurality of generally radially and axially outwardly projecting retaining fingers engaging against the inner side of the axially outwardly extending portion of the terminal flange and being of a length to be in stressed



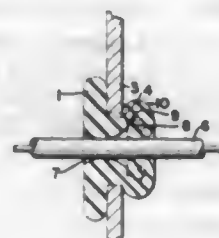
inwardly bowed condition and of a flexibility to turn upon the application of pry-off force to the margin of the cover, the cover having a pry-off tool rib projecting axially inwardly at a point closely adjacent to but radially inwardly of the inner edge of the underturned flange and at the radially inner side of the convex marginal portion.

24,438

SELF LOCKING FLEXIBLE GROMMET

Walter H. Moorhead, Richmond Heights, Ohio

Original No. 2,707,723, dated May 3, 1955, Serial No. 438,286, June 21, 1954. Application for reissue May 1, 1957, Serial No. 657,470 6 Claims. (Cl. 174—153)



1. In combination with a wall member having an aperture therein, a grommet of flexibly deformable material formed to comprise a single preformed enlarged end head and an elongated hollow body portion of lesser size than said preformed enlarged end head and extending to a relatively small end portion that is lesser in outside diameter and in wall thickness to be readily insertable, without deformation, through the aperture in said wall member to leave said preformed single enlarged end head in abutment with one side surface of said wall member, an elongated member slidably extending through said grommet with radial clearance in said preformed enlarged end head and the greater portion of its [tapered] elongated body portion, the smaller end portion only of said grommet being in [resilient and] frictional gripping relationship with said elongated member due solely to the inside [diameter] of said smaller grommet end being normally less than the outside diameter of

FEBRUARY 25, 1958

U. S. PATENT OFFICE

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said elongated member [body portion] whereby, upon a manual axial pull on said elongated member in a direction from the smaller end of said grommet toward said preformed large end head while holding the preformed enlarged end head of the grommet in place in abutment against one side surface of said wall member, the hollow body of said grommet, due to the gripping relationship between its smaller end with said elongated member and the radial [annular] clearance between the main elongated hollow body portion of said grommet and said elongated member, is rolled inwardly upon itself from said small end, progressively, toward said preformed large end head to form a second enlarged grommet head

on the other side of said apertured wall member opposite that of said preformed enlarged end head and the elongated grommet body portion is flexibly deformed into snug engagement with said elongated member and said wall member in the aperture of said wall member, the small end of said grommet having an external portion to engage the internal surface of the grommet at a point in the length of the grommet adjacent the plane of the wall member surface opposite that engaged by the preformed grommet head when said small end is rolled inwardly on itself so as to [resiliently] lock said second grommet head in said position against inadvertent unrolling to become displaced.

727 O. G.—47

PATENTS

GRANTED FEBRUARY 25, 1958

GENERAL AND MECHANICAL

2,824,307

STAPLE DRIVING DEVICE

Herbert W. Marano, Summit, N. J., assignor to Wilson Jones Company, Elizabeth, N. J., a corporation of Massachusetts

Application March 6, 1957, Serial No. 644,232
6 Claims. (Cl. 1—3)

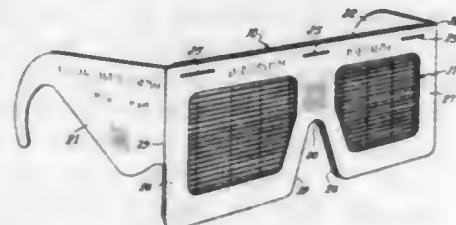


1. A device for driving staples including spaced legs and a connecting bridge member, said device comprising a base member including an anvil disposed adjacent the forward end thereof and upwardly directed transversely spaced bracket members located adjacent the rear end thereof, a stapling head having a rear portion disposed between and hinged to said bracket members, and a forward portion normally located above said anvil, said stapling head being swingable to a tacking position wherein the forward portion thereof is spaced from the anvil a distance substantially greater than the length of the staple legs, and to a position affording contact between said stapling head forward portion and said anvil, spring means normally urging said stapling head forward portion upwardly to a stapling position above said anvil, a latching member mounted on said base adjacent the rear portion thereof and having an upstanding resilient leg engaging and adapted selectively to releasably maintain said stapling head in said tacking position and in said stapling position.

2,824,308

LOUVERED SCREEN EYEGLASS

Rea E. Duncan, Northbrook, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application April 29, 1954, Serial No. 426,321
6 Claims. (Cl. 2—14)



1. In a pair of sunglasses having in combination a ribbon-like wire fabric lens and a frame assembly, said wire fabric lens comprising a portion of longitudinally resilient screen composed of a plurality of pairs of longitudinally extending warp wires and a plurality of parallel ribbon-like filler wires held in position by integrating twists between the said warp wires and adapted to fit into said frame assembly, and said frame assembly comprising two sets of members spaced transversely from each other including a nose piece therebetween, and hooked arm portions extending from the outside of each member for holding the frame assembly on the wearer, thereby providing light-ray control to protect the eyes of the wearer from the direct rays of the sun.

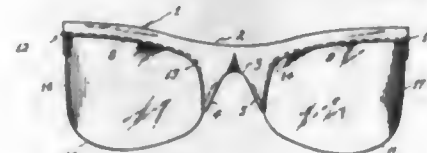
704

2,824,309

SUNGLASSES FOR PROTECTING THE EYES FROM SUN RAYS DIRECTED TO THE SIDE OF THE HEAD

Jack F. Fleming, Summit, N. J., assignor to Curtiss-Wright Corporation, Plastics Division, a corporation of Delaware

Application February 9, 1955, Serial No. 487,031
1 Claim. (Cl. 2—14)



A pair of sunglasses including a frame comprising two brow portions and a bridge portion integral with and interconnecting said brow portions, each said brow portion being formed to extend substantially straight across the brow of the wearer and to curve sharply toward the temple to extend about the side of the head, the bottom edge of each brow portion and each outer lateral edge of the bridge portion being grooved; and a pair of lenses each having its upper and inner edges secured in the associated grooves in brow portion and bridge portion, respectively, with its remaining edge portions free, and each lens being curved to extend about the sides of the head in the manner defined by the frame for protecting the eyes from sun rays or foreign objects directed to the side of the head.

2,824,310

INSERTS FOR COLLARS

Eric Allan Hedbrandh, Halsingborg, Sweden
Application December 14, 1954, Serial No. 475,105
Claims priority, application Sweden December 19, 1953
2 Claims. (Cl. 2—131)



1. In a collar for shirts formed by a pair of cloth pieces sewn together and then turned inside out to form thickened edge portions, an interlining fastened within the collar comprising a large unfolded cloth piece having a size substantially equal to the size of the collar, a small unfolded cloth piece, and at least one intermediate cloth piece marginally reduced in size from said large cloth piece and marginally greater in size than said small cloth piece, said small cloth piece and said intermediate cloth piece being stacked on said large cloth piece to form an interlining with a stepwise retracted form, and fastening means for joining said unfolded cloth pieces together, said fastening means directly joining the large cloth piece and said intermediate cloth piece, and directly joining said intermediate cloth piece and said small cloth piece, and indirectly joining said large and said small cloth pieces situated on either side of an intermediate cloth piece of said interlining by means of said intermediate cloth piece, said interlining having a sufficient number of cloth pieces in it to substantially equal the thickness of said thickened edge portion of said collar.

FEBRUARY 25, 1958

GENERAL AND MECHANICAL

705

2,824,311

SCARF

Mark Barnett, Hammond, Ind.

Application February 9, 1956, Serial No. 564,558
1 Claim. (Cl. 2—207)



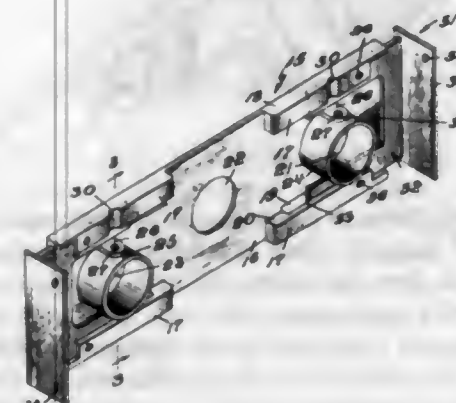
As a new article of manufacture, a scarf comprising a triangular body member including a first, second and third edge, there being a pocket in said body member contiguous to said first edge, a visor having a portion thereof seated in said pocket, means detachably securing said visor in said pocket, fringe members arranged contiguous to said second and third edges, and means detachably connecting said fringe members to said body member, there being a plurality of spaced apertures arranged contiguous to said second edge, a ring extending through certain of said apertures, and a fabric piece connected to said ring.

2,824,312

BRACKET FOR A VALVE FIXTURE

Louis Tortorice, Bristol, R. I.

Application August 29, 1956, Serial No. 606,802
2 Claims. (Cl. 4—191)



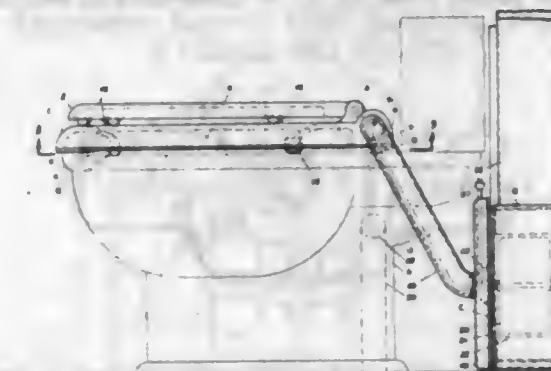
1. A bracket for a valve fixture having a plurality of equally spaced tubular parts extending parallel to each other in a straight line, comprising an elongated body having guide grooves at each longitudinal edge thereof opening one towards the other, said body having a plurality of openings through which said tubular members are adapted to project, said openings extending in a straight line substantially midway between the longitudinal edges of said body and spaced from each other a distance substantially equal to the spacing of said tubular members and each being of a size much larger than said tubular members crosswise thereof, collars surrounding some of said openings and each collar having a threaded member extending through the wall thereof for engaging and clamping the tubular member projecting therethrough against the wall of said collar, and an L-shaped wing part at each end portion of said body having one leg of the L slidably received in said guide grooves and provided with an open ended slot of a size to receive a collar so as to be capable of being slid along on either side of the collar, and binding means along the guiding portions of the body for engaging said leg and holding it in place.

2,824,313

ELECTRIC TOILET SEAT EXHAUST VENTILATOR

Richard L. Bulow, Royal Oak, Mich.

Application May 20, 1954, Serial No. 431,118
1 Claim. (Cl. 4—213)



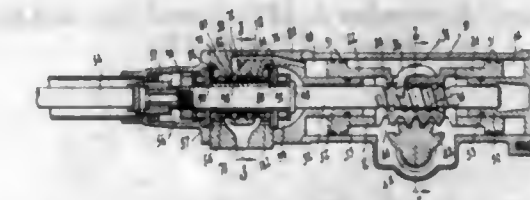
An electric toilet seat exhaust unit ventilator adapted for air ventilation of a toilet unit, and used therewith, comprising a hollow, recessed, oval shaped toilet seat unit formed with a projected hollow end hinge block thereon, tubular hinge bearing units mounted cross-wise through said projected hollow hinge block and opening therein, vertical adjustable bearing units fixedly mounted over said tubular bearing units and slidably mounted in the adjacent toilet unit walls, an open push button electric switch fixedly mounted within said seat hinge block projection, engageable with the toilet wall, a perforated base plate fixedly mounted over said hollow seat recess forming an air ventilation chamber throughout, flexible air outlet tubes mounted on the said tubular bearing units, an electric motor-fan air exhaust unit fixedly mounted within an adjacent building wall recess opening and connected to said flexible air outlet tubes leading to the seat chamber, an air exhaust outlet passage channel mounted within the building wall and connected to the exhaust unit outlet, electric cable means for operatively connecting the exhaust motor with an electric power source through the push button control switch unit when the toilet seat is depressed in use, and spring release button means mounted on the seat base, engageable with the toilet walls, for raising said toilet seat and for opening said electric control switch when not in use.

2,824,314

FLUID POWER STEERING GEAR

Francis W. Davis, Belmont, Mass.

Application May 11, 1951, Serial No. 225,849
7 Claims. (Cl. 121—46.5)



1. A fluid motor control valve comprising a housing with a bore therethrough and grooves in the wall of the bore, a hollow cylindrical valve member slidably fitted in said bore, said member having external grooves cooperating with the grooves in the bore to form valve ports which are varied by movements of the valve member relative to the housing, a lever at each end of said valve member, each said lever having one end pressing against an end of the valve member and its other end pressing in the same direction against said housing, and manually operable means bearing against an intermediate point of each lever to press said lever ends against said valve member and housing, whereby movement of said means in the direction of the axis of the valve member result in magnified movements of the valve member in the same direction.

2,824,315

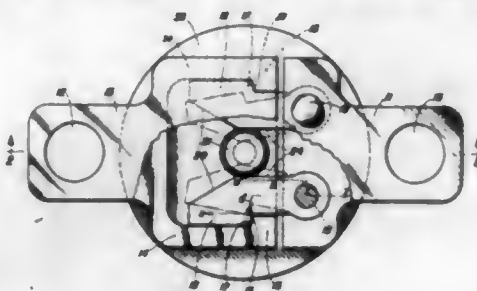
RELEASEABLE COUPLING DEVICE

George D. McKenny, Vallejo, Calif.

Application March 15, 1955, Serial No. 494,587

24 Claims. (Cl. 9-33)

(Granted under Title 35, U. S. Code (1952), sec. 266)



17. A coupling device for releasably securing together two lashing-down members of a buoyant life-saving device comprising a first coupling member having a pair of substantially co-planar arms in spaced relation to each other, a second coupling member having a pair of substantially co-planar dogs pivotally attached to said second member and adapted for insertion between said arms in a manner to tightly fit each dog against the inner surface of one of said arms to cooperate therewith to link the coupling members together, those inter-engaging surfaces of each of said dogs and its respective arm which link with each other being, at their point of contact, in all positions of their engagement inclined at a substantial angle to the direction of motion of, respectively, each of said dogs at its point of contact, a pin mounted for motion in a direction transverse to the plane of motion of said dogs and disposed between said dogs and having a wide portion of sufficient magnitude to hold each of the dogs tightly against the inner surface of one of said arms in the linked position, and having a relatively more narrow portion sufficient to permit the dogs to move toward the center of the pin and become disengaged from said arms, and a hydrostatic-pressure-operated actuator connected to said pin and adapted to bring the more narrow portion thereof adjacent the inner surfaces of said dogs when said coupling device is submerged in water to a predetermined depth.

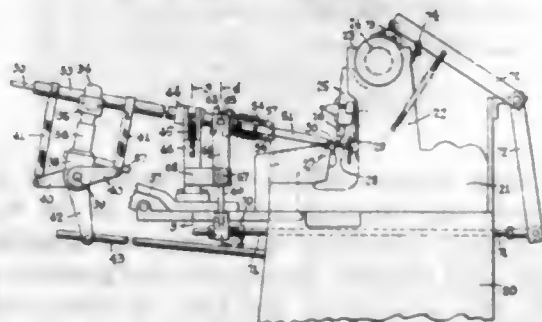
2,824,316

MEANS PERMITTING LIMITED RETROGRADE MOVEMENT OF STRIP STOCK ON RETRACTION OF FEED MEANS

Carl P. Michlein, Shelton, Conn., assignor to The Shelton Tack Company, Shelton, Conn., a corporation of Connecticut

Application September 8, 1954, Serial No. 454,813

6 Claims. (Cl. 10-178)



1. Means for feeding a continuous supply of flat strip from a reel comprising a guide having an opening through which the strip can pass and advance; means mounting the guide for turning movement about said opening, said guide comprising support means positioned on one side of the strip and a bearing means diametrically opposite the support to define therebetween a slot slidably engageable with opposite sides of the strip and imparting to said strip a twisting movement in opposite directions about its length; a unidirectional-acting gripper means

cooperating with said guide and engageable with said strip for gripping the same, said gripper means being axially movable relative to said guide opening to impart longitudinal advancing movement to the strip and being keyed to the guide against relative turning; said guide being formed to provide a barrel portion on the side of the slot opposite the gripper means and having a diameter determinately larger than the width of the strip; and back-check means including a pivotally mounted clamp arm opposite and extending towards the support means; and adjustable spring means biasing the arm towards the barrel portion with sufficient tension to enable a slight retrograde movement of the strip prior to locking of the strip by the clamp arm, whereby the strip when being twisted from one side to the other is permitted to buckle within the barrel a determinate amount to cause a slight retrograde movement thereof which provides a clearance for the foremost end of the strip and the back-check means enables the movement but prevents appreciable retrograde movement.

2,824,317

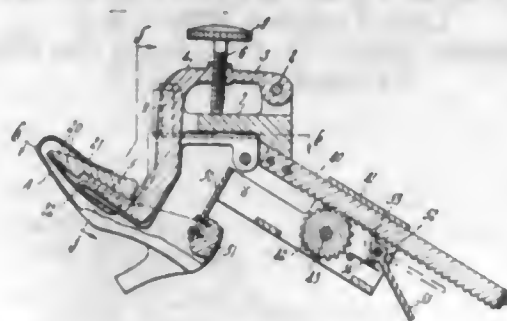
SHOE UPPER STRETCHING MACHINE

Milton L. Dodge, Newburyport, Mass., assignor to Compo Shoe Machinery Corporation, Boston, Mass., a corporation of Delaware

Original application July 7, 1952, Serial No. 297,432, now Patent No. 2,717,402, dated September 13, 1955.

Divided and this application December 14, 1954, Serial No. 475,115

1 Claim. (Cl. 12-53.6)



In combination, a support, an arm pivoted at its rear end to said support and extending forwardly over said support and then downwardly and having an upwardly and forwardly extending free end, a second arm carried by said support and having an upwardly and forwardly extending free end positioned adjacent to the free end of said first mentioned arm, a screw threaded through said forward extension and bearing on said support and by turning of which the free end of said first mentioned arm may be lifted and lowered with respect to the free end of said second arm, and a two-part shoe-receiving form, one of said parts being carried by each of said free ends.

2,824,318

EGG WASHING AND DRYING MACHINE

Norbert F. Marzolf, Strykersville, N. Y., assignor to Marzolf Manufacturing Company, Strykersville, N. Y., a partnership

Application January 2, 1952, Serial No. 264,541

11 Claims. (Cl. 15-3.13)



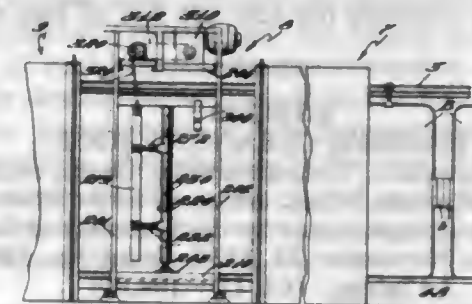
1. An egg cleaning machine comprising, housing means, conveyor means positioned within said housing means for conveying eggs therethrough and including a rotatable

2,824,320

APPARATUS FOR CLEANING PASTING BOARDS
Lawrence H. Teel, Marblehead, Mass., assignor, by mesne assignments, to Swift & Company, Chicago, Ill., a corporation of Illinois

Application July 12, 1950, Serial No. 173,386

3 Claims. (Cl. 15-77)



spiral track of resilient material providing a friction surface, guide means extending along said conveyor means for guiding an egg therealong, rotary scrubbing brush means positioned above said conveyor means for scrubbing eggs being conveyed therealong, means for rotating said conveyor means and said scrubbing brush means with the latter rotating faster than the former and in a direction urging the eggs against said guide means, feed means synchronized with said conveyor means for automatically feeding eggs to said conveyor means in timed relation, said feed means including track means extending substantially laterally of said conveyor means on the guide means side thereof, said brush means being positioned to avoid interference with eggs being discharged from said feed track means, and pivoted bumper means positioned adjacent the discharge end of said feed track means for receiving eggs passing therefrom onto said conveyor means and biasing the same toward said guide means before being acted upon by said brush means.

2,824,319

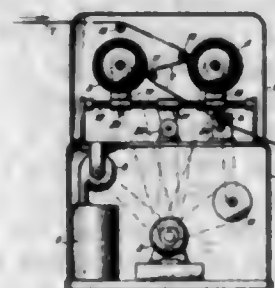
POLISHING MACHINE FOR POLISHING THE COUPLING LINKS OF SEPARABLE SLIDE FASTENERS

Karl Friedrich Nägele, Stuttgart-Hohenheim, Germany

Application August 25, 1953, Serial No. 376,476

Claims priority, application Germany August 29, 1952

1 Claim. (Cl. 15-21)



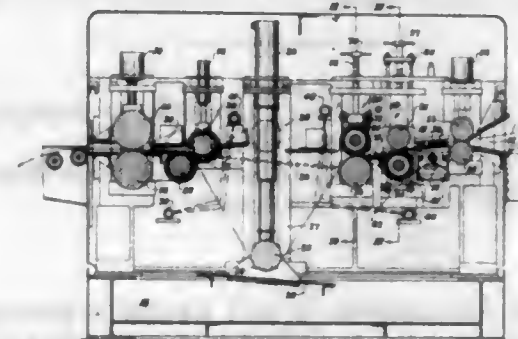
In a machine for polishing slide fastening links mounted in sets on the beaded edge of a strip of indefinite length with vacant places unoccupied by links between the individual sets of links, feeding means and a plurality of strip reversing guide members adapted to continuously feed the strip in zig-zag path with different surfaces of the links alternately engaging the guide members, each of said plurality of guide members being provided with a recess of such width and depth that the links of the strip engaging in the recess project therefrom with approximately half the width of their bodies while the unoccupied beaded edge portions of the strip practically completely engage within the recess; and rotary polishing means for said plurality of guide members and adapted to polish the body portions of the links projecting from the recess of the guide members in longitudinal as well as transverse direction of the strip, said rotary polishing means consisting for each of said plurality of guide members of a brush, and of a support on which said brush is rotatably supported; a shaft on which said supports of the brushes are rigidly and adjustably mounted in such manner that the axis of every brush extends parallel to the axis of the appertaining guide member; and rocking means connected with said shaft and adapted to rock said shaft to thereby cause said brushes to perform an oscillating movement substantially parallel to the axis of the appertaining guide member and corresponding in range to the width of said brush, said rocking means consisting of a rotating cam, a rocker arm having one end rigidly secured to said shaft, and a spring adapted to yieldingly urge the free end of said rocker arm against said rotating cam to receive rocking motion therefrom.

2,824,321

STRIP CLEANING AND PROCESSING MACHINE
Kenneth L. Bandy, Youngstown, Ohio, assignor to The McKay Machine Company, Youngstown, Ohio, a corporation of Ohio

Application August 9, 1954, Serial No. 448,658

16 Claims. (Cl. 15-77)



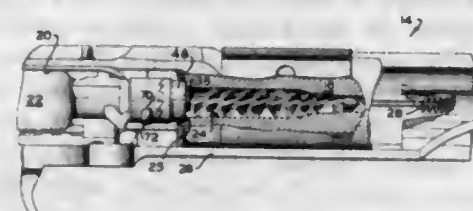
9. In a strip cleaning machine having a frame, a power driven brush roll, and means to journal said brush roll in said frame; the improvement in said brush roll and said means to journal comprising a supporting shaft for said brush roll having axial spline means at one end, a first bearing block at one side of said frame for slidably and rotatably receiving said one end, said bearing block including means for drivingly engaging said spline means, a second bearing block at the other side of said frame for slidable reception over the other end of said supporting shaft, means to retain said second bearing block in said frame comprising a removable portion of said frame positioned on the outer axial side of said second bearing block whereby upon removal of said portion said second

bearing block may be removed axially from said shaft, and means independent of said bearing means to support said one end of said shaft in substantially all axial positions of the same within said frame, the arrangement being such that upon removal of said portion and said second bearing block said brush roll may be removed axially from said other side of said frame with continuous support being provided for said one end of said shaft.

2,824,322

CHAMBER CLEANING TOOL

Nicholas J. Angella, Thompsonville, Conn., and Robert S. Henry, Agawam, Mass., assignors to the United States of America as represented by the Secretary of the Army
Application November 21, 1955, Serial No. 548,285
3 Claims. (Cl. 15—104.09)
(Granted under Title 35, U. S. Code (1952), sec. 266)

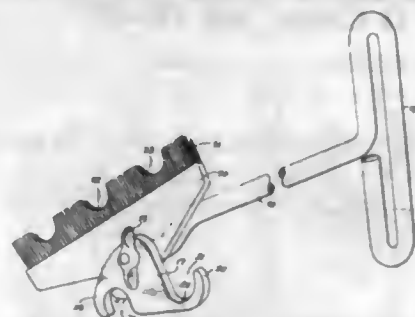


1. For a firearm having a barrel with a chamber and a longitudinally reciprocating bolt spring-biased against the breech end of the barrel, means for cleaning the chamber including an actuator operationally disposed outside of the chamber for resilient engagement by the bolt, a core secured to said actuator so as to extend axially into the chamber, a continuous helical row of radial bristles extending along said core for brushing contact with the wall of the chamber when the bolt biases said actuator into engagement with the barrel, and means operationally cooperating with the bolt for rotating said core so that said bristles clean the wall of the chamber and remove therefrom any foreign matter.

2,824,323

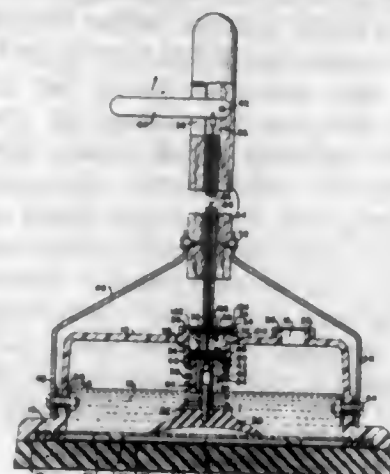
GRILL SCRAPER AND CLEANER

Oreste Tos and Louis De Marco, Cleveland, Ohio
Application January 13, 1956, Serial No. 558,885
3 Claims. (Cl. 15—105)



1. A tool for scraping a grill having a plurality of equally spaced parallel bars, said tool comprising a blade having a narrow extension which is shaped and dimensioned to pass from one side of the grill freely between two adjacent bars of the grill and to extend at the opposite side of the grill, said blade at said extension having a first scraping edge which has a configuration corresponding to at least substantially one-half the periphery of a grill bar at said opposite side of the grill and arranged to engage said half when said extension is disposed at said opposite side of the grill, said blade having a second scraping edge spaced from said first scraping edge a distance substantially equal to the spacing between two adjacent grill bars and facing opposite to the direction in which said first scraping edge faces, said second scraping edge having a configuration corresponding to the other half of the periphery of said grill bar.

2,824,324
LIQUID WAX DISPENSER AND APPLICATOR
Hubert Ballbach, Brooklyn, and Chris H. Meyer, Jamaica, N. Y.
Application October 18, 1954, Serial No. 462,772
1 Claim. (Cl. 15—131)

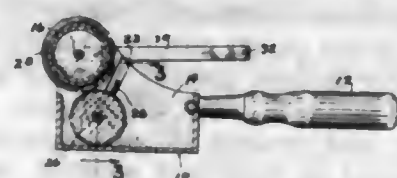


A wax dispensing and applying device, comprising a tank for said wax, an opening at the bottom of the tank through which the wax is dispensed, a closure member across said opening, spring means holding said closure member in normally closed position, a cable connected to said closure member to pull said closure member to open position against the action of said spring means, a handle connected to said tank, a lever pivoted to said handle, said lever being connected to said cable to actuate the same, and a sponge removably secured to said tank in operative position thereon below the tank opening to receive the wax therethrough, said sponge being backed with a perforated plate to support it while in use, spacers being provided between said perforated plate and the bottom of said tank to space said perforated plate from said bottom of the tank to provide a chamber for the wax passing through the opening in said tank bottom and to enable said wax to spread to and pass through all of the perforations in said perforated plate in order to equally distribute the wax to the sponge, said sponge being provided with a rectangular framework on its upper surface, said rectangular framework comprising a pair of longitudinally extending, relatively rigid plastic bars situated in parallel relation to each other adjacent the sides of the sponge, and a pair of transversely extending sponge bars situated in parallel relation to each other adjacent the ends of the sponge and adjacent the ends of the plastic bars, the bottom of the tank being recessed to receive said rectangular framework, the walls of the recess being in frictional engagement with said rectangular framework to frictionally secure said sponge to said tank.

2,824,325

PAINT-APPLYING DEVICE

Maurice H. Lussler, Fitchburg, Mass.
Application July 30, 1954, Serial No. 446,898
1 Claim. (Cl. 15—132.5)



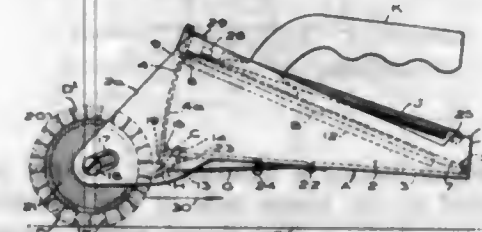
A paint-applying device comprising a container having end walls extending above the open top portion thereof, said end walls being downwardly slotted at their uppermost parts and being provided with interior grooves extending slantingly downward, a paint applying roller, the lower ends of the slots providing stops for the paint-applying roller, a shaft on the latter having ends extend-

ing into the slots, a paint pickup roller, the lower ends of the grooves providing stops for the paint pickup roller, a shaft on the latter having extending ends slidingly located in said grooves, a doctor blade slidingly mounted by its ends in said grooves and resting by gravity on the surface of the paint pickup roller, and means to manually raise the paint-applying roller from the pickup roller, the former normally resting on the latter by gravity.

2,824,326

AUTOMATIC FEED PAINT AND TEXTURE APPLICATOR

Robert G. Ames, San Mateo, Calif., assignor of one-half to George W. Williams, Redwood City, and one-fourth to Stanley Ames, Belmont, Calif.
Application April 4, 1955, Serial No. 499,114
2 Claims. (Cl. 15—132.5)



1. In an automatic feed paint and texture applicator: a contractible paint-holder compartment including side walls, a bottom wall and an arcuate rear end wall; said bottom wall having a leading edge, and being provided with an outlet opening disposed adjacent to the arcuate rear end wall; a pressure plate having a leading edge fulcrumed adjacent to the leading edge of the bottom wall, and having a trailing edge making a liquid-tight sliding contact with the inner surface of the arcuate rear end wall; the side edges of the pressure plate making a liquid-tight sliding contact with the inner surfaces of the side wall; a paint-applying roller rotatably mounted adjacent to the opening; a handle mounted on the pressure plate, whereby an operator may manipulate the applicator for applying the roller to a surface to be painted, and for exerting pressure on the plate for contracting the compartment and forcing paint through the opening and onto the roller; spring means yieldingly urging the pressure plate to its normal expanded position as soon as pressure on the handle is released, whereby the plate will create a vacuum within the expanded compartment for drawing paint from the opening and preventing any dripping; the roller being provided with a plurality of radially-extending traction pins, and a layer of compressible material normally covering the pins; the portion of said layer of material contacting a surface being compressible, whereby the pins in this portion will contact the surface and provide traction for rotating the roller as the applicator is moved thereover.

2,824,328
PAINT APPLYING DEVICE
Gorman L. Bedford, United States Army
Original application October 31, 1952, Serial No. 318,151.
Divided and this application February 6, 1956, Serial No. 568,143
2 Claims. (Cl. 15—230)
(Granted under Title 35, U. S. Code (1952), sec. 266)

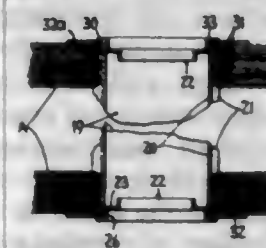


2. In a paint applying device, comprising a handle having a front end formed to provide a disk, said disk having a front face which extends from said handle at an angle, a pair of axles each having a disk-shaped head, one of said heads being rearwardly offset and seated on said front face of said disk, the other of said heads being forwardly offset and seated on top of said first named head, with said axles disposed in diverging relation, said heads being so offset that said axles lie in a common plane, said heads and axles being movable relative to each other and to said disk to vary the angle of divergence of said axles, adjustable clamping means securing said disk and said heads together in selected angularly adjusted positions, and paint applying rollers journaled on said axles.

2,824,329
WINDOW WASHING AND CLEANING DEVICE
Gus J. Verhas, Jacksonville, Fla.
Application November 5, 1954, Serial No. 467,070
2 Claims. (Cl. 15—232)



2,824,327
BRUSH OF HIGH BRISTLE DENSITY
William C. Van Clet, Jr., Baltimore, Md., assignor to Pittsburgh Plate Glass Company, Allegheny County, Pa., a corporation of Pennsylvania
Application October 11, 1954, Serial No. 461,302
7 Claims. (Cl. 15—181)



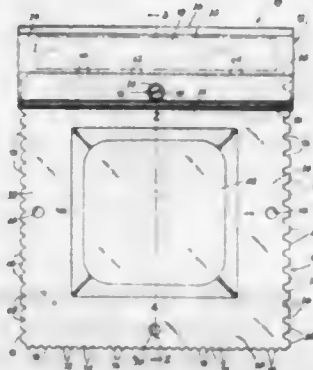
1. A rotary brush comprising a substantially cylindrical core having a series of peripherally spaced, lon-

2. In a window cleaner, the combination which comprises a U-shaped bracket having an elongated telescop-

ing member including a pair of arms slidably mounted therein, said arms extending outwardly of the bracket, a handle extended from one side of the bracket, plates having spaced bearings extended from rear surfaces thereof and positioned with ends of the arms of the member positioned between the bearings, pins extended through the bearings and through ends of the arms for pivotally mounting the plates on ends of the arms with the plates in abutting relation, layers of cleaning material positioned on opposed faces of the plates and extending around opposed edges of the plates, spring members secured over the bearings and positioned to frictionally grip edges of the sheets of cleaning material positioned over the plates, and gripping means at the ends of the plates and positioned to coact with notches of the spring member for retaining the sheets of cleaning material in position on the surfaces of the plates.

2,824,330

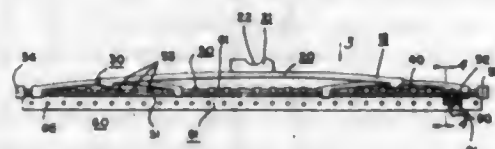
SPREADER FOR CEMENT AND THE LIKE
Lester Williams, Afton, Mo., assignor to Consumers Glue Company, St. Louis, Mo., a corporation of Missouri
Application November 2, 1956, Serial No. 620,146
7 Claims. (Cl. 15-236)



1. A device of the character described, comprising in combination: a handle member; a quadrilateral blade; a determined serration formation along the edge of each side section of the blade; and means for releasably securing a selected side section of said blade in the handle member, said means comprising: an end to end groove in said handle member for receiving therein one side section of the blade; a circular aperture provided in each side section intermediate the margins thereof; a conical opening including a threaded portion provided in said handle member and adapted to register with any selected one of said circular apertures; and a clamping screw adapted to pass through the selected circular aperture via said conical opening and into engagement with the threaded portion thereof, said screw having a head tapered correspondingly and with and adapted to seat in said conical opening.

2,824,331

WINDSHIELD WIPER BLADE ASSEMBLY
Cyril T. Wallis, Brockport, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 10, 1954, Serial No. 428,563
6 Claims. (Cl. 15-245)

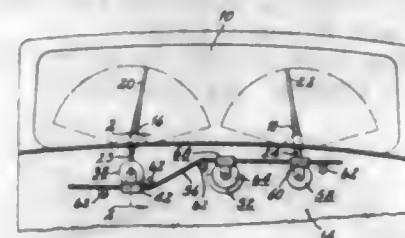


1. A wiper assembly for cleaning a surface having substantially planar portions and sharply curved portions comprising, a resilient, elastomeric wiper element conformable to the surface to be wiped, a flexible backing

strip for supporting said wiping element, and roller means operatively connected with said wiper at the outer end thereof and engageable only with the sharply curved portions of the surface to be wiped for limiting tilting of said wiping element relative to said backing strip.

2,824,332

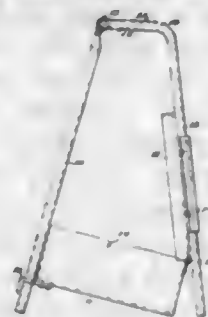
WINDSHIELD WIPER DRIVE MECHANISM
Charles G. Gibson, Flint, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application August 3, 1955, Serial No. 526,295
4 Claims. (Cl. 15-253)



1. In a vehicle having a windshield, a wiper actuating shaft journaled at the lower side of the windshield, an oscillatory drive shaft, a first fluted wheel connected to the drive shaft, a non extensible, laterally flexible cable comprising a helically wound wire having adjacent convolutions in engagement with each other, said cable engaging said first fluted wheel so as to be reciprocated thereby in a rectilinear path, a second fluted wheel attached to the wiper shaft, said cable engaging said second fluted wheel to rock said wiper shaft, and means for preventing rotation of said cable about its longitudinal axis.

2,824,333

COMPACT SHOE SHINE KIT
Leonard G. Kernan, St. Cloud, Minn.
Application October 4, 1955, Serial No. 538,421
1 Claim. (Cl. 15-265)

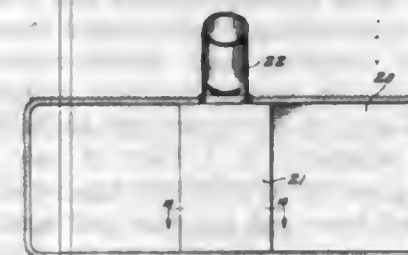


A shoeshine kit comprising an inclined rod having an eyelet on its upper end, a pair of spaced apart legs arranged in converging relation with respect to each other, said legs being spaced from the rod so as to form a tripod-like stand, a first section extending from the upper end of each of said legs and terminating in angularly arranged and parallel straight portions, a crosspiece interconnecting said straight portions together and said crosspiece projecting through said eyelet, a bracket secured to each of said legs, a hollow cover secured to said brackets and arranged contiguous to the inner surface of said legs, a container hingedly connected to the lower end of said cover for holding articles such as shoe polish, brushes, rags and the like, said first sections and straight portions coacting to provide a support for a person's foot when a shoe is being shined or polished, and an L-shaped lug for retaining said parts in open and closed positions, having one portion thereof secured to said container and with the other portion provided with a slot for slidably engaging said rod so as to maintain the parts in their closed position with sufficient friction to prevent accidental opening thereof when said lug is moved into position adjacent the eyelet on the upper end of said rod, and whereby when

the kit is in a folded position, the cover snugly closes said container, and when the kit is in open position, the lug forms a locking mechanism to hold the rod separated from the legs when said lug is moved into position adjacent the lower end of said rod, and when the kit is in open position the container is open and in a substantially horizontal position so that access can be readily had to the interior of the container as when the polish or brushes or the like are to be removed.

2,824,334

VACUUM CLEANER BRUSH HEAD
Ray J. Laningham, Morganton, N. C.
Application September 13, 1954, Serial No. 455,547
5 Claims. (Cl. 15-325)

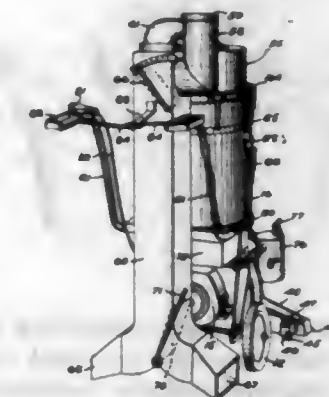


1. A vacuum cleaner brush head having an air intake means located near the center of said head, a brush means carried by said head, said brush means comprising two brush elements upon each side of said air intake means, converging toward said air intake means and converging from the side of the brush head to the center of the brush head and in a direction normal to the direction of movement of the brush head, and a portion extending across said air intake means thereby dividing said air intake means into a forward air intake opening and a rear intake opening, a valve housing carried by said head, a valve element slidable forwardly and rearwardly across said head in said housing in the direction of the movement of said brush head, said valve element being adapted to connect to a vacuum tube of a vacuum cleaner, said valve element having a suction opening adapted to selectively register with said forward and rear intake openings of said head as said valve element is moved forwardly and rearwardly across said head, the drag of the brush means upon a surface to be cleaned and the forward pushing of the operator's hand upon the vacuum tube causing said valve element to move in a forward direction upon said head to open the forward intake opening, and the drag of the brush means upon a surface to be cleaned and the rearward pull of the operator's hand upon the vacuum tube causing said valve element to move in a rearward direction upon said head to open the rear intake opening.

2,824,335

MOBILE SUCTION FLOOR CLEANER
Alexander W. Moffat, Beverly Farms, Mass., assignor to Handling Devices Co. Inc., Brookline, Mass., a corporation of Massachusetts
Application February 17, 1955, Serial No. 488,890
2 Claims. (Cl. 15-345)

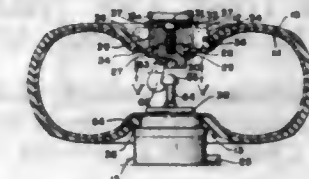
1. In a mobile power actuated machine for cleaning floors, a frame, a pair of wheels mounted for rotation at the underside of said frame, a motor located on said frame and substantially centered above said wheels, a vertically extending waste receptacle removably supported on said frame directly above said motor and centered over said wheels, said waste receptacle having a waste inlet opening formed in the upper end thereof, a vertically extending waste conduit located immediately adjacent said waste receptacle and communicating with said waste inlet, said motor having a shaft projecting forwardly of said frame at a point immediately below said waste conduit, a blower



fan below said waste conduit discharging into the same and operatively connected to said shaft, a suction nozzle connected to an inlet of said blower fan, said waste receptacle further having an outlet opening at the upper end thereof, and means connected to said outlet opening for conducting a blast of air downwardly and discharging it laterally across said floors, said means being in the form of a removable attachment including an elongated vertical tube positioned closely adjacent said waste receptacle, said tube having an upwardly directed branch discharge opening at its upper end and air discharge means at its lower end, and valve means between said vertical tube and said branch discharge opening for controlling the amount of air diverted through said branch discharge opening.

2,824,336

APPARATUS FOR TREATING PNEUMATIC TIRES
Harold Weigold, Grosse Pointe Woods, and Robert A. Merrill and Joseph C. Andreini, Detroit, Mich., assignors to United States Rubber Company, New York, N. Y., a corporation of New Jersey
Application March 19, 1953, Serial No. 343,426
1 Claim. (Cl. 18-2)



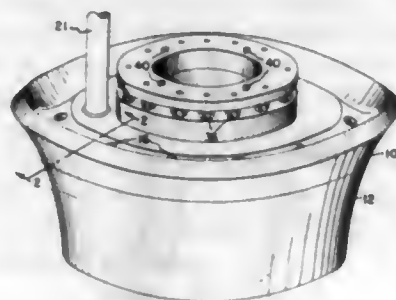
A pneumatic tire shaping unit adapted to be positioned between the platens of a press, said unit comprising a pair of opposed heads, key slots in the extreme outer surfaces of each head for detachably connecting the heads to the platens of the press, an expansible cylindrical member of elastomeric material secured at each end to said heads and forming with said heads an air tight chamber, one of said heads being provided with a shoulder for receiving one of the bead portions of a pneumatic tire carcass, the other of said heads having a split collar detachably connected thereto and forming a shoulder for receiving the other bead portion of the pneumatic tire carcass, one of said heads having an opening therethrough for admitting gas into said chamber for expanding said cylindrical member when said heads are moved together, a valve in said opening, an operating rod connected to said valve and extending outwardly beyond said outer face whereby when said head is connected to the platen of the press said rod will be depressed and open said valve to admit gas into said chamber, and cooperating latch means on the inner faces of each of said heads within the confines of said expansible cylindrical member for locking said heads together after they have been moved together during the expansion of said expansible cylindrical member.

2,824,337

CIRCULAR EXTRUSION DIE

Robert A. Covington, Jr., and Vincent H. Waldin, Wilmington, Del., assignors to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

Application July 28, 1955, Serial No. 524,890
4 Claims. (Cl. 18—14)

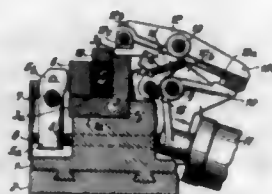


1. A circular extrusion die comprising in combination a relatively rigid body portion provided with a retaining cavity for plastic material in open communication with a supply of plastic material under pressure and an annular extrusion passage disposed coaxially of said die body, a plastic flow-directing surface within said retaining cavity ahead of said extrusion passage and terminating at the inner end of said extrusion passage, an axially movable ring element disposed within said retaining cavity in coaxial relationship with said die body with a surface of said ring element opposite said plastic flow-directing surface and defining therewith a plastic-supplying exit opening into said extrusion passage, and a plurality of adjusting elements supporting said ring element in position with respect to said plastic flow-directing surface, said adjusting elements being individually adjustable with respect to said body portion to effect advance or retraction of preselected discrete portions of said ring element axially of said plastic flow-directing surface.

2,824,338

DEVICE FOR PRESSING INSULATING MATERIAL AROUND THE LONG AND STRAIGHT-LINED COIL MEMBERS OF MOTORS AND GENERATORS

Heinrich Schumann, Lubeck, Germany
Application January 7, 1954, Serial No. 402,761
8 Claims. (Cl. 18—16)



1. In a device for pressing insulating material around the long and straight-lined coil members of motors, generators and the like, a supporting body; an elongated angle member provided with means for its heating horizontally mounted on said supporting body and into which said coil member surrounded by the insulating material is placed; an elongated lateral pressure member of rectangular cross-section loosely arranged in said elongated angle member laterally of said coil member for pressing said coil member against the vertically extending flange of said angle member; an elongated upper pressure member of rectangular cross-section loosely placed on the upper surface of said coil member for pressing said coil member against the horizontally extending flange of said angle member; two double-armed levers pivotally mounted and suitably positioned at said supporting body, one of said levers being adapted to exert with one of its arms compressive pressure against said upper pressure member, and the other

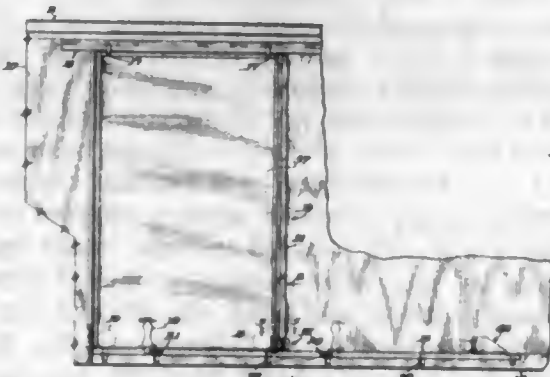
one of said levers being adapted to exert with one of its arms compressive pressure against said lateral pressure member; a working cylinder provided with a hydraulically actuated piston and piston-rod; and coupling means coupling said double-armed pressure exerting lever of said upper pressure member to said working cylinder and coupling said double-armed pressure exerting lever of said lateral pressure member to said piston-rod in such a way that actuation of said hydraulic piston results in simultaneous actuation via said coupling means of said two double-armed levers and their pressure exerting arms, said coupling means coupling said double-armed pressure exerting lever of said upper pressure member to said working cylinder consisting of an angle lever rotatably mounted at said supporting body and having one of its lever arms rigidly connected to said cylinder and the other one of its lever arms suitably devised and positioned for rotation of its appertaining double-armed lever, and said coupling means coupling said double-armed pressure exerting lever of said lateral pressure member to said piston-rod consisting of a pressure bolt shiftably arranged against spring resistance in a bore of said supporting body and having one of its ends rest against its appertaining double-armed lever and its other end against the free end of said piston-rod for actuation by the latter.

2,824,339

BOX CAR SIDE DOOR, BUMPER, AND GUIDE

William R. Shaver, Highland, Ind., assignor to Pullman-Standard Car Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application January 26, 1954, Serial No. 406,119
10 Claims. (Cl. 20—22)



10. In combination with a railway car having a side wall and an opening therein, a vertically disposed strip secured to said car side wall adjacent said opening, a movable door attached to said car side wall over said opening, a horizontal wall disposed at the lower edge of said door adjacent the rear edge thereof and secured to the door, the second named wall being disposed below the strip and engaging the strip to limit upward vertical movement of said door when the door is in closed position.

2,824,340

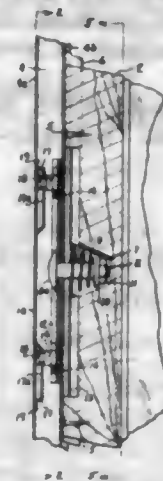
WINDOW CONSTRUCTION

Joseph N. Blair, Detroit, Mich.

Application December 22, 1955, Serial No. 554,663
5 Claims. (Cl. 20—49)

1. In a window construction of the class comprising a frame having a window opening and a pair of opposed vertically elongated guideways, a pair of vertically elongated bars slidable up and down in said guideways, a sash mounted in said opening between the slide bars, and a pair of horizontally aligned pivot members jointly mounting the sash on the slide bars, the combination with said window construction of a pair of friction plates respectively mounted on the respective guide bars and engageable with the guideways of the frame to main-

tain selective vertical adjustments of the bars, and means mounting each friction plate on the corresponding slide

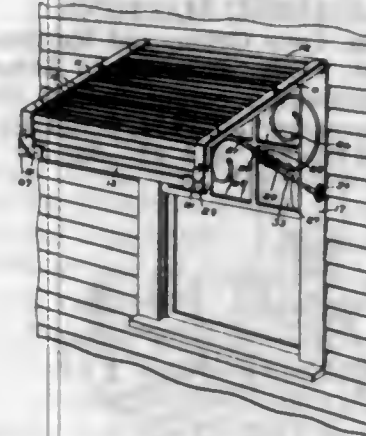


bar, including means for selectively spacing such plate from the corresponding bar.

2,824,341

AWNING

Stewart B. Ashton, Burrillville, R. I., and Walter L. Roy, Saugus, Mass., assignors, by mesne assignments, to Harold B. Neal, Needham, Mass., as trustee
Application November 25, 1953, Serial No. 394,282
5 Claims. (Cl. 20—57.5)



1. An awning comprising a plurality of slats of resilient stock, each of approximately Z-shaped section thus to have a main part and oppositely disposed marginal flanges inclined towards each other, said slats being assembled side by side with their proximate flanges interengaged, and a frame for said slats supporting them against relative movement with said interengaged flanges under tension said frame having opposed channels in which the ends of said slats are lodged.

2,824,342

FABRICATED POLE

Robert J. Hoyle, Jr., Hyattsville, Md., assignor to Timber Engineering Company, Washington, D. C., a corporation of Delaware

Application June 16, 1953, Serial No. 362,022
5 Claims. (Cl. 20—99)

1. A fabricated pole comprising a plurality of laminations secured together to provide a laminated base portion having a substantially rectangular cross section, said base portion comprising several parallel laminations making up one dimension of said rectangular cross section and side laminations secured across the edges of said parallel laminations making up together with the width of said several parallel laminations the other dimension of said rectangular cross section, said side laminations and at least one of said several parallel laminations extending upwardly from said base portion, each of the laminations extending upwardly from said base por-

tion being continuous along the length of said pole to provide load carrying members coextensive with the pole length and such upwardly extending laminations tapering throughout their length to form a uniformly tapered main portion above said base portion, a plurality of members secured intermediate the upper ends of the upwardly extending laminations to provide a laminated solid sub-



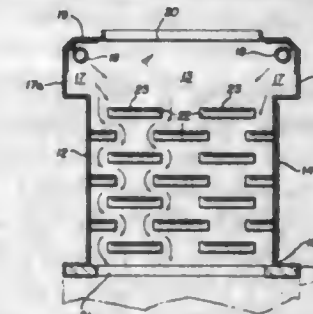
stantially rectangular cross section at the top of said main portion, corner blocks secured throughout a major portion of the length of said main portion in the corners at the junction of said upwardly extending laminations, and load blocks secured between said side laminations at spaced positions along the length of said main portion to brace the main portion of said pole and provide anchorage for pole line equipment and crossarms.

2,824,343

GERMICIDAL DEVICE

James W. Glass, New Castle, Pa.

Application September 28, 1955, Serial No. 537,219
4 Claims. (Cl. 21—74)



1. A germicidal device through which air may be directed and comprising an enclosure having oppositely disposed inlet and outlet openings, ultraviolet sources in said enclosure adjacent said inlet opening and a plurality of ultraviolet light transmitting baffles positioned across said enclosure at right angles to a line passing axially through said inlet and outlet openings, each of said light transmitting baffles being of a width less than the width of said housing and wherein each of said light transmitting baffles is arranged in staggered spaced relation with respect to one another.

2,824,344

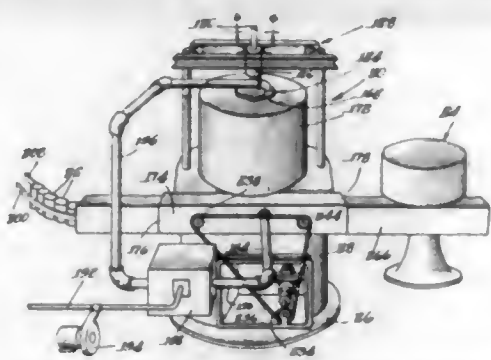
STERILIZING APPARATUS

Victor R. Abrams, Rockford, Ill., assignor to W. F. and John Barnes Company, Rockford, Ill., a corporation of Illinois

Application April 19, 1955, Serial No. 502,481
16 Claims. (Cl. 21—80)

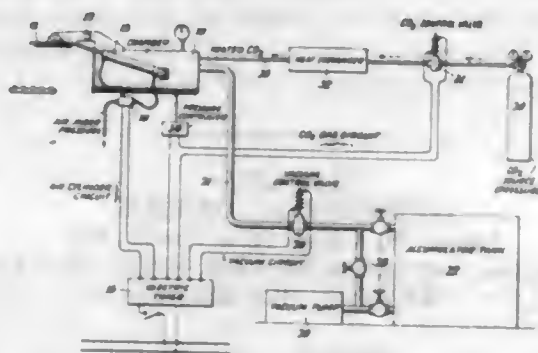
1. An apparatus for processing articles such as containers and the like comprising movably mounted con-

veyor means including means for supporting articles to be processed, means adjacent and movable with said conveyor means and co-operable with said supporting means for combining therewith for providing a substantially sealed pressure chamber around an article on said



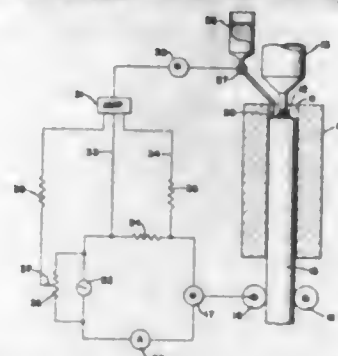
supporting means, means for directing processing fluid into said chamber, and means for relatively shifting said supporting means and said means co-operable therewith into and out of co-operation to permit articles to be loaded onto and discharged from said supporting means.

2,824,345
APPARATUS AND METHOD FOR CURING A FORMED GRANULAR ARTICLE
Lothar Robert Zifferer, Glen Rock, Pa.
Application September 5, 1956, Serial No. 608,096
7 Claims. (Cl. 22-9)



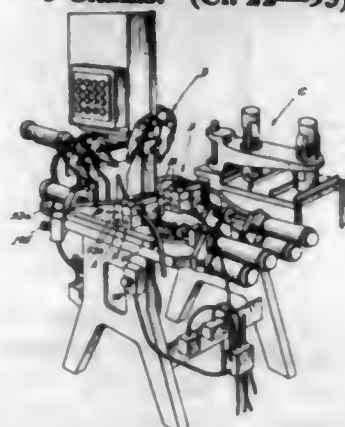
3. Apparatus for making a refractory mold or core comprising a chamber, means for opening and closing said chamber, vacuum means for evacuating said chamber, a source of carbon dioxide under high pressure, means for introducing said carbon dioxide into said chamber, pressure control means for reducing the pressure of said carbon dioxide to a value slightly above atmospheric pressure, and automatic timing means connected to said opening means, said vacuum means and said control means for automatically closing said chamber and then repeatedly and alternately evacuating said chamber and charging it with carbon dioxide, said timing means comprising automatic means for operating said chamber closing means, automatic evacuating means operative in timed relation to said closure for evacuating said chamber, automatic gassing means for closing off said evacuating means and for introducing said carbon dioxide into said chamber when said evacuating means is closed off, pressure control means for regulating the carbon dioxide pressure in said chamber for automatically introducing additional carbon dioxide to replenish the carbon dioxide consumed in the curing reaction, means operative in predetermined timed relation to said gassing means for shutting off said gassing means and for maintaining said chamber closed and for re-evacuating said chamber, further gassing control means for again closing off said evacuating means and introducing said carbon dioxide into said chamber, and chamber opening means connected for operation in predetermined timed relation to said further gassing control means, for opening said chamber.

2,824,346
METHOD OF CONTROLLING LUBRICATION OF CONTINUOUS CASTING
Harry B. Osborn, Jr., Cleveland, Ohio, assignor to The Ohio Crankshaft Company, Cleveland, Ohio, a corporation of Ohio
Application January 28, 1955, Serial No. 484,666
4 Claims. (Cl. 22-57.2)



1. In continuous casting apparatus, means for forcibly withdrawing a solidified ingot from a mold at a generally constant speed, means for introducing a lubricating material between the walls of the mold and the solidifying ingot, means responsive to variations in the force required to advance the ingot through the mold at such speed and operatively connected to said second mentioned means for varying the amount of lubricant supplied in direct proportional relationship to such force.

2,824,347
MOLDING MACHINE
James W. Winship, Lake Orion, and Raymond C. Schumacher, Detroit, Mich., assignors to Bohn Aluminum & Brass Corporation, a corporation of Michigan
Application November 21, 1952, Serial No. 321,794
5 Claims. (Cl. 22-93)

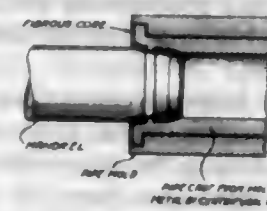


1. A molding machine of the type having at least one mold of the permanent type with two mold halves which are movable toward each other to define a mold cavity and movable away from each other to expose the casting, the improvement which comprises; a pair of vertical guideways mounted on the rear of the machine, a slide movable vertically in the guideways, first power means for moving the slide vertically, a vertical shaft mounted rotatably on the slide, second power means for rotating the shaft, an extractor arm mounted on the shaft and movable by the first power means from a lowered position adjacent a casting to a raised position in which it clears the mold halves, the extractor arm being rotatable by the second power means from a position directly over the mold to a discharging position at the rear of the machine.

2,824,348
METHOD OF CASTING METALS
John C. Williams, St. Charles, Ill., assignor to Hawley Products Company, St. Charles, Ill., a corporation of Delaware
Application March 18, 1954, Serial No. 417,020
9 Claims. (Cl. 22-200.5)

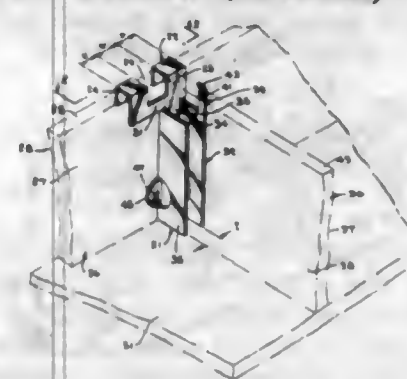
1. A method of casting metals which comprises casting molten metals around a preformed fibrous core compris-

ing a major proportion of heat resistant, substantially non-combustible fibrous materials and a minor propor-



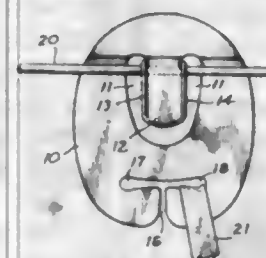
tion of a thermosetting resinous binder, said thermosetting resinous binder being at least partially destroyed at the high temperatures employed in said metal casting.

2,824,349
DEVICE FOR POSITIONING BOARDS AT A PREDETERMINED ANGLE
Aldo Baldacci, Geneva, Switzerland, assignor to Jean-Jacques Wiehr, Geneva, Switzerland
Application February 4, 1954, Serial No. 408,111
Claims priority, application Switzerland February 6, 1953
3 Claims. (Cl. 24-81)



1. A bracket, for use in positioning boards at a predetermined angle, comprising in combination, a body including engaging means clamping a side edge of a first board, a channel connected to said engaging means and extending with its web alongside a side surface of said first board and operable to clamp with its side flanges a second board at said angle to said surface, a portion of each flange forming a flap and being bent outwardly from the flange for abutting against said surface, a portion of each flap forming a piercing element bent outwardly from the flap at right angle to said surface and operable to pierce the same for immobilizing said body relative to said first board, and an arm formed on said channel and extending therefrom, said arm including a lug bent from said arm and operable to engage a lateral portion of a terminal edge of said second board to restrain movement thereof.

2,824,350
CLOTHESPIN
Ramon C. Lee, Beaverton, Oreg., assignor to Beaman Plastics, Portland, Oreg., a corporation of Oregon
Application May 9, 1955, Serial No. 506,771
4 Claims. (Cl. 24-137)



1. A clothespin comprising a flat body having an opening therein, a flat resilient elongated tongue member secured to the body and having a free end extending downwardly into said opening for movement transversely of the plane of said opening, the body and tongue member normally being coplanar, and elongated flange means

on the tongue extending outwardly therefrom substantially normal to the plane of the tongue in the longitudinal direction of the tongue and terminating at its upper end a spaced distance below the upper end of the opening, the flange means being tapered and being wider at said upper end whereby to receive a clothesline or the like between said flange means and the upper end of the opening.

2,824,351
FASTENER STRUCTURE
Paul St. E. Webb, Wickliffe, Ohio
Application September 2, 1953, Serial No. 378,069
2 Claims. (Cl. 24-203)



1. A device adapted to provide, for a shoe of a given size within a selected size range of shoes having a common hole spacing in the series of lace holes of the shoe, a shoe fastener for application to the usual lace holes in the side panels of the shoe top, comprising: a tough elastic body including integrally formed reaches of elastic material intersecting on the median line of the body and in two series of apices at the lateral margins of the body to simulate a shoe lace in place on a shoe, the apices of each series being spaced to correspond with the lace hole spacing; and a series of projecting lace hole engaging lugs affixed along lateral portions of said body at the apical intersections of said reaches and adapted for removable insertion and engagement in said holes, said lugs being crown buttons with base flange portions embedded in the body material and with bulbular free portions for engaging side panel material adjacent the lace holes wherein inserted to retain the lugs therein; said body having the two series of apices disposed in tapernig disposition and having a length exceeding the maximum length of the two lace hole series of shoes in said shoe range size, thereby permitting selection and cutting of a length portion from said device forming a shoe fastener with the two lug series spaced from each other to provide spacing somewhat less than the spacing of the said series of lace holes of the shoe, when the said side panels of the shoe are in normal wearing disposition, whereby stretching of the body necessitated in inserting said lugs in the lace holes develops a holding force applied to the panels and drawing the panels together.

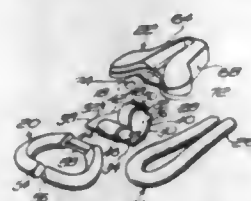
2,824,352
SLIDABLE FASTENER
Anestis Foltis, Jackson Heights, N. Y., assignor to Knit Wear Patents, Inc., Atlanta, Ga., a corporation of Georgia
Application June 7, 1954, Serial No. 434,705
2 Claims. (Cl. 24-205.15)



1. A slidable fastener having a front section and a back section, with a space between them and relatively wide

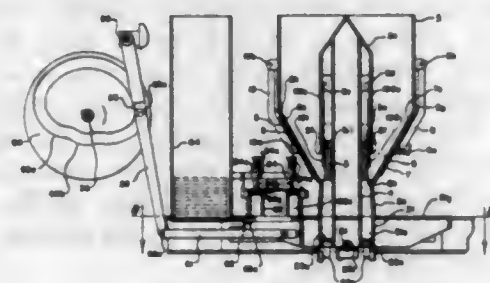
connected ends, said sections having a neck at said connected ends and an open opposite end, and being open along the sides and adjacent said neck, the edges of said fastener between the neck and sides having short hollow projections enlarging the adjacent portions of the inside space between said sections, and ribs within the fastener at the inner ends of said projections, and extending crosswise of said projections.

2,824,353
END CONNECTOR FOR CORD-TYPE BANDS
Charles J. Obst, Barrington, R. I.
Application March 12, 1956, Serial No. 570,921
8 Claims. (Cl. 24-265)



1. In a cord-type band for watches and the like wherein a pair of cords are provided and in which each cord is doubled upon itself to provide a bight and two juxtaposed parallel cord sections and wherein the free ends of both pairs of cord sections are adapted to be interconnected; an improved end attachment for coupling the cord to a watch or the like comprising a connector plate, means carried by said connector plate for attaching a watch or the like to said plate, said plate having remote from said means a bight-engaging tongue means about which the bight of said cord is engaged, and shell means engaged over said connector plate, bight-engaging tongue means and cord bight to restrain relative movement therebetween and so as to grippingly retain said cord bight about said tongue means.

2,824,354
CONCRETE BLOCK MANUFACTURING METHOD AND MACHINE
Floyd D. Hyde, El Cajon, Calif., assignor to Inventors Development Company, San Diego, Calif., a corporation of California
Application August 9, 1948, Serial No. 43,293
32 Claims. (Cl. 25-41)



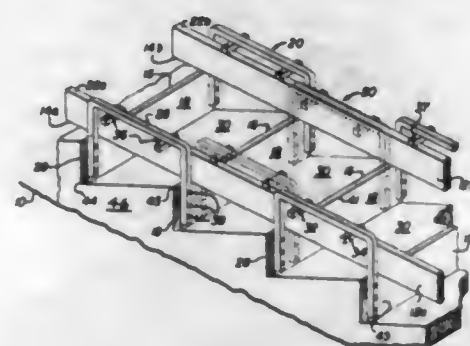
20. In a concrete block manufacturing machine, a frame, a material receiving hopper mounted on said frame, a vertical casing internally of said hopper, said casing enclosed at its upper portion, a ram vertically movable in said casing remote from material in said hopper, and a preforming mold below said casing and spaced therefrom, whereby material flows into said preforming mold beneath said casing and said ram.

24. In a concrete block manufacturing machine, a preforming mold, a core structure internally of said preforming mold and coextensive therewith, a forming mold having a coextensive core structure therein, said forming mold having an open end adjacent said preforming mold adapted to receive a preformed block therefrom, both of said molds and their respective core structures adapted to coincide with each other, said core structure in said forming mold supported thereby distant from said open

end, a movable member in said forming mold adapted to eject a block therefrom and a ram surrounding the core structure in said preforming mold and adapted to drive a preformed block therefrom and into said forming mold.

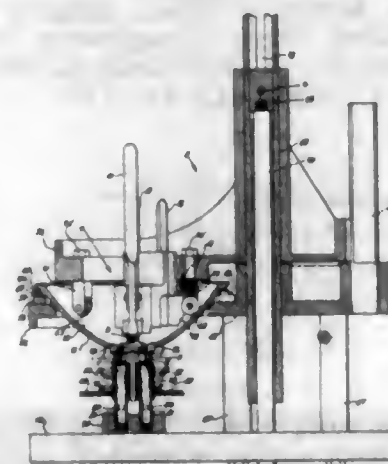
30. A method of forming cementitious block including preforming a mass of material, then slugging said mass of material and ramming the same into a confined space, while maintaining the same form of said mass as preformed and abutting said mass in said confined space, causing a compressive shock wave of said material upon initial slugging and a reactional shock wave upon abrupt abutment of the material within said confined space intermediate the same and the slugging medium.

2,824,355
DEVICE FOR SETTING UP MOLDS FOR THE CONSTRUCTION OF CONCRETE STEPS
Guy W. Griset, El Cerrito, Calif.
Application January 9, 1956, Serial No. 557,915
2 Claims. (Cl. 25-118)



1. In a mold for concrete steps including parallel transversely spaced side bars mounted to slant at the intended angle of ascent of the steps to be constructed, a device for suspending riser boards in appropriately spaced position from the side bars, said device comprising a center bar having two opposite ends, means on said center bar for securing it to one of said side bars in a position parallel thereto, a pair of parallel legs depending from the opposite ends of said center bar at an angle complementary to the angle of ascent of the steps, and means on both said legs for securing riser boards in parallel position to said legs.

2,824,356
APPARATUS FOR MOUNTING FILAMENTS
John O. Geissbuhler, South Euclid, Ohio, assignor to General Electric Company, a corporation of New York
Application January 31, 1950, Serial No. 141,435
6 Claims. (Cl. 29-25.2)



1. Apparatus for assembling a filament mount on a reflector section of an incandescent lamp bulb having a group of thimble-like terminals secured thereto comprising a jig having apertures therein for receiving the inner

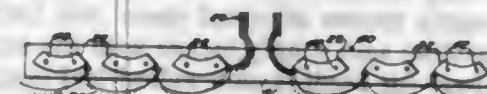
end portions of leads in definite predetermined spaced relationship to support a filament and having passages intersecting said apertures, movable pins located within said passages, releasable spring-pressed means on the jig for forcing the pins toward the apertures therein for clamping the leads in said apertures, a holder for supporting the reflector section of the lamp in an accurate predetermined position, means on said holder for receiving and accurately fixing the position of the jig thereon to cause the inner end portions of the leads to be arranged in definite predetermined relationship to the reflecting surface of the reflector section with the opposite outer end portions of said leads disposed within said terminals but out of contact therewith, and means associated with the holder for effecting the attachment of the outer end portions of the leads to the said terminals of the reflector section.

2,824,357
MANUFACTURING PROCESSES OF BALL CAGES FOR BALL BEARINGS
Ernest Schmid, Zurich, Switzerland
Application January 18, 1954, Serial No. 404,542
2 Claims. (Cl. 29-148.4)



1. In a method of making a half-cage for an externally guided ball bearing cage comprising a pair of half cages, the steps of forming a flat annular ring-shaped disc having its inner and outer edges defined by concentric circles into a substantially corrugated annulus having alternately plane assembling portions and half cylindrical portions whose axes are directed radially, and drawing up the outer periphery of the corrugated annulus to form an axially extending rim of even width around each half cage to evenly center the assembled bearing cage in the outer race of the ball bearing and to define a cylindrical surface external to the assembled ball cage.

2,824,358
METHOD OF MANUFACTURING UNITS OF WIRED TERMINAL BANKS
Charles J. Roach, Los Angeles, Calif., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Original application June 7, 1951, Serial No. 230,381, now Patent No. 2,713,194, dated July 19, 1955. Divided and this application June 23, 1955, Serial No. 517,578
6 Claims. (Cl. 29-155.55)



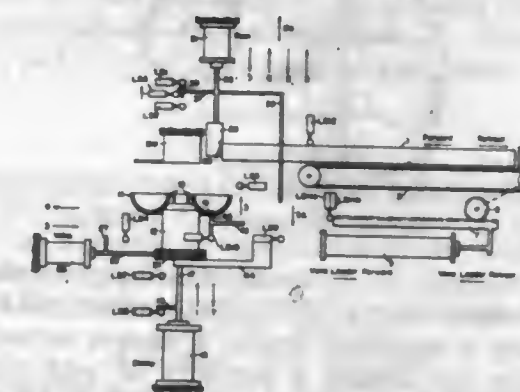
1. A method of assembling a unit of wired terminal banks which comprises forming ladders of terminal cards with a predetermined number of cards in each ladder and with the terminals arranged on the cards in pairs and with the corresponding pairs of terminals on the cards interconnected by pairs of wires, selecting a predetermined number of ladders and dividing them into two groups, selecting one of the ladders in each of the groups and placing the cards in the first half of the ladder of one group in a row and the cards in the second half of the ladder of the other group in the same row to form the bottom level of cards of the unit of terminal banks, selecting successive ones of the remaining ladders in each of the groups and placing the cards in the first half of each ladder of said one group and the cards in the second half of each ladder of said second group on the

corresponding cards of the preceding ladders to form successive levels of terminal cards for the lower half of the unit of terminal banks, alternately selecting successive ones of the ladders in each group of partially assembled ladders and laying the cards in the unassembled half of each of the ladders onto the corresponding cards of the upper level of cards of the partially assembled unit to form successive levels of the upper half of the unit, and securing the cards together in assembled relation.

2,824,359
FABRICATED GAS TURBINE STRUCTURES
Edwin Clements Rhodes, Ealing, London, and David Wade Rhys, Hounslow, England, assignors to The International Nickel Company, Inc., New York, N. Y., a corporation of Delaware
No Drawing. Application May 20, 1953
Serial No. 356,312
Claims priority, application Great Britain August 5, 1948
7 Claims. (Cl. 29-194)

1. An improved fabricated hollow gas turbine blade made of a plurality of structural members of a heat resistant chromium-containing alloy selected from the group consisting of nickel-chromium and nickel-chromium-iron alloys united by at least one solder joint and adapted to be subjected to corrosive conditions prevailing in gas turbines at high service temperatures of the order of about 600° C. to 850° C. and characterized within said temperature range by high mechanical strength and high resistance to creep, to oxidation and to scaling, said solder joint comprising a palladium-base joining alloy containing about 6.5% to 7.9% aluminum and the balance essentially palladium, said joining alloy having a melting temperature of not less than about 900° C. nor more than about 1250° C.

2,824,360
MACHINE TOOL CONTROL SYSTEM
Ray E. Giboney, Williamsville, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 14, 1956, Serial No. 609,859
8 Claims. (Cl. 29-208)

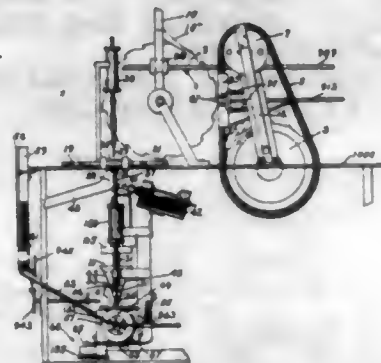


8. A control system for a cyclically operating work tool for inserting a predetermined number of work objects in a receptacle, said receptacle being indexable to successive positions so that a reciprocating insertion member can repetitively insert said objects in said receptacle, first electromagnetically generated means for actuating said insertion member, second electromagnetically actuated means for indexing said receptacle, first limit switch means for detecting the presence of said objects in said receptacle, second limit switch means for detecting the end of an indexing movement of said second electromagnetically actuated means by closure thereof; third limit switch means for detecting by closure thereof of the presence of said first electromagnetically actuated means in its non-actuated position; fourth limit switch means for detecting by closure thereof of the presence of said first electromagnetically actuated means in its

fully actuated position; fifth limit switch means for detecting the presence by closure thereof of said first electromagnetically actuated means from its fully actuated position to its non-actuated position; and manually actuated means for generating an initiating signal having a first characteristic; first and second bistable means responsive to closure of said manually actuated means for generating continuing signals having a first characteristic; first circuit means responsive to simultaneous signals having said first characteristic from said first and second bistable means for generating a signal having a second characteristic; second circuit means responsive to simultaneous closure of said third limit switch means, non-closure of said first limit switch means and presence of said signal from said first circuit means for actuating said second electromagnetically actuated means; said first bistable means being responsive to opening of normally-closed manually actuable switch means to generate a signal having said second characteristic; third bistable means responsive to closure of said third limit switch means to generate a signal having said first characteristic, and to closure of said first or fourth limit switch means for removing said signal from said third bistable means; third circuit means responsive to simultaneous closure of said first limit switch means and presence of said signal from said third bistable means and said signal from said first bistable means having said second characteristic for actuating said first electromagnetically actuated means.

2,824,361
MACHINE FOR ASSEMBLING HYPODERMIC SYRINGES

Frank E. Brown, Burbank, Calif., assignor to Chas. Pfizer & Co., Inc., Brooklyn, N. Y., a corporation of Delaware
Application September 13, 1954, Serial No. 455,565
4 Claims. (Cl. 29—211)



1. A machine for orienting, feeding and inserting resilient plungers into cylindrical containers, said machine comprising a stationary frame, a hopper mounted upon said frame for storing a plurality of said plungers, a pick-up wheel rotatably mounted within said hopper and having peripheral pockets for receiving said plungers, said pick-up wheel passing through said stored plungers for abstracting them one at a time in random orientation within said pockets, a conveyor belt disposed about the periphery of said pick-up wheel, said conveyor belt having plunger receiving pockets which are spaced to correspond with the spacing between said pockets of said pick-up wheel and being associated with said pick-up wheel in a manner to cause said respective pockets to become successively aligned with each other, intermittent motion imparting means mounted upon said frame and operatively associated with said pick-up wheel for causing it to intermittently rotate, oscillating finger means operatively associated with said intermittent motion imparting means and constructed and arranged to pass through said pockets of said pick-up wheel when they are aligned with said conveyor belt pockets for insuring the passage of said plungers from said pick-up wheel pockets into said

conveyor belt pockets, a transfer wheel rotatably mounted upon said frame including radially disposed plunger-receiving pockets in its edge, said transfer wheel being disposed in a position to cause its pockets to become successively positioned adjacent and aligned with the pockets in said conveyor belt, piston means disposed upon said frame adjacent the path of common travel of said aligned pockets of said transfer wheel and said conveyor belt for driving said resilient plungers from said conveyor belt into said transfer wheel, an orientation wheel having axially oriented plunger receiving pockets disposed about its periphery, said orientation wheel being rotatably mounted upon said frame in position to have the path of travel of its pockets intersect the path of travel of said pockets of said transfer wheel in aligned relationship for receiving said resilient plungers therefrom, individual piston means being respectively disposed to slide radially outwardly within each of said pockets of said transfer wheel for ejecting said plungers therefrom, piston actuating means mounted upon said frame adjacent said aligned position of said pockets of said transfer and orientation wheels and being operatively disposed with respect to the path of travel of said individual piston means for successively actuating each of said individual pistons as said pockets in said transfer and orientation wheels become successively aligned for successively driving said plungers from said transfer wheel into said orientation wheel, a stationary plate including a channel passing axially there-through for allowing said resilient plungers to pass through said plate at a predetermined position, said plate being mounted upon said frame adjacent and parallel to said rotating orientation wheel in position to have said pockets in said orientation wheel successively lie over said channel, the depth of said pockets as terminated by the blank face of said plate being sufficiently great to completely receive the bodies of the plungers when they are oriented in one direction while permitting the bodies of the plungers oriented in the other direction to project therefrom, a pair of blades rigidly suspended upon said frame above said rotating orientation wheel, said blades being disposed on opposite sides of the succession of pockets in said orientation wheel when they are positioned above said channel for engaging said plungers projecting from said pockets as said plungers pass between said blades, lightly loaded piston means for urging plungers completely received within said pockets through said channel, said lightly loaded piston means being disposed in alignment with said successive pockets as they lie over said channel, said lightly loaded piston means being loaded insufficiently to dislodge said plungers projecting from said pockets and engaged by said blades to permit them to be carried by said pockets past said channel, a rotatable insertion wheel including radially disposed pockets in its edge and being rotatably mounted upon said frame, a container supply means mounted upon said frame, chute means connecting said supply means with the edge of said insertion wheel for feeding said cylindrical containers to said pockets, a positioning wheel being disposed over another portion of the edge of said insertion wheel for successively delivering said plungers to said containers in said pockets at a predetermined station, plunger delivering means connecting said channel with said positioning wheel for supplying plungers from said channel adjacent said orientation wheel to said vials in said positioning wheel pockets, inserting piston means disposed in line with said predetermined station for driving said plungers into said cylindrical containers, assembled plunger and container conveyor means disposed below said insertion wheel for receiving said plungered containers which are discharged therefrom, coordinated actuating and control means mounted upon said frame, and operating linkage means operatively associating said actuating and control means with each of the aforementioned means for driving them in coordinated relationship to carry out their appointed functions.

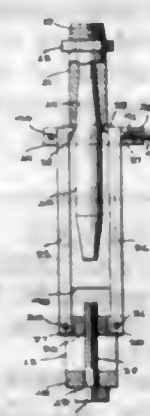
2,824,362
MACHINE FOR ASSEMBLING RESILIENT BUSHINGS OF THE ELASTIC RUBBER INSERT TYPE
William G. Myers, Logansport, Ind., assignor to The General Tire and Rubber Company, Akron, Ohio, a corporation of Ohio

Application August 13, 1953, Serial No. 374,080
16 Claims. (Cl. 29—235)



1. A machine for assembling resilient bushings that have a rigid outer sleeve, a rigid core and a tubular elastic rubber insert under radial compression between the sleeve and core comprising a sleeve and insert assembling press having opposed sleeve and insert engaging clamping members movable one toward the other to force an insert into a sleeve and to clamp the assembled sleeve and insert between said members, said clamping members having axially aligned sockets for positioning the assembled sleeve and insert, one of said clamping members having a bore opening to its socket and axially aligned therewith in which a core will slidably fit, the other of said clamping members having an opening centrally of its socket that is of a diameter not less than that of the bore, a core inserting plunger slidable in said bore, means for actuating said press to clamp said sleeve and to force an insert into the sleeve, means for advancing said plunger toward the clamped sleeve after an insert has been placed therein, insert expanding pilots of a diameter substantially equal to the external diameter of a core, and means for feeding a pilot into said bore between said plunger and the sleeve and insert and a core into said bore between said pilot and plunger whereby the core is pushed by the plunger into the insert and the pilot is pushed ahead of the core through the insert and discharged through said opening.

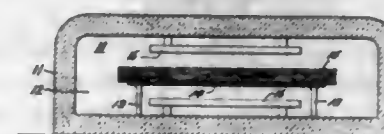
2,824,363
WELDING POINT EXTRACTOR
Frank Koss, Jr., Tecumseh, Ontario, Canada
Application October 27, 1953, Serial No. 388,592
1 Claim. (Cl. 29—261)



A device for extracting a welding point from an adapter on which the point is secured, comprising a U-shaped main frame having a bight portion having a rear side and substantially parallel spaced legs having forward ends, said bight portion having a central bore there-through, a screw having a shank extending rotatably and forwardly through said bore and a head on the shank bearing against the rear side of the bight portion, a rectangular block positioned between the frame legs forwardly of the bight portion and threaded on said screw shank, said block having opposite sides bearing against the frame legs, said block having other opposite sides

having projections thereon, a pair of elongated jaw bars having rear ends and forward ends, said jaw bars being positioned along opposite sides of and between the frame legs with their rear ends pivoted on related block projections, said jaw bars having inner sides and outer sides, jaws on the inner sides of the jaw bars at their forward ends for gripping opposite sides of a welding point disposed between the jaw bars and between the frame legs, one of said jaw bars having a lug on its outer side at its forward end, a U-shaped clamp frame having a bight portion and parallel spaced legs having free ends, said clamp frame having its legs slidably engaged with the outer sides of the frame legs near the forward ends of the main frame legs and having the free ends of its legs pivoted on said lug, with the bight portion of the clamp frame spaced outwardly from the outer side of the other of said jaw bars, and a set screw threaded through the bight portion of the clamp frame and bearing against the outer side of the said other jaw bar, the forward ends of the main frame legs being arranged to engage the adapter in opposition to the pull of the jaws on the welding point as said screw is rotated in a direction to move said block toward the bight portion of the main frame.

2,824,364
METHOD OF ASSEMBLING AND EVACUATING AN INSULATED VACUUM PANEL
Harold P. Bovenkerk, Ballston Lake, N. Y., assignor to General Electric Company, a corporation of New York
Application August 27, 1954, Serial No. 452,661
1 Claim. (Cl. 29—455)



The method of shortening the evacuation cycle of an insulated vacuum panel containing a fiber glass material therein which comprises the steps of, placing the filler material in a panel, heating said panel and glass filler to substantially 450° C., maintaining said temperature for approximately one hour, simultaneously flushing said filler with an inert gas to aid in the removal of adsorbed gases, reducing the said temperature to approximately 350° C., and evacuating and sealing said panel.

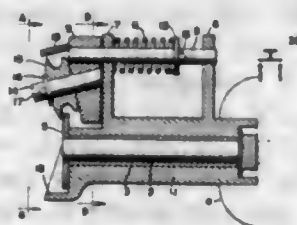
2,824,365
SOLDERING OF ALUMINUM BASE METALS
George F. Erickson, Chicago, Ill., assignor to the United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application November 18, 1953
Serial No. 393,025
5 Claims. (Cl. 29—492)

1. A process of soldering a member of aluminum metal to a metal piece comprising heating the aluminum metal member to slightly above 30° C., rubbing a small amount of metallic gallium into the surface of the part of said member to be combined with said metal piece whereby an aluminum-gallium alloy forms on the surface, heating said member to a temperature of from 180 to 200° C., applying lead-tin soft solder to said alloyed surface, and combining said member with said metal piece.

2,824,366
POWER DRIVEN METAL CAN OPENER
Forest M. Sarff, Sepulveda, Calif.
Application April 30, 1956, Serial No. 581,578
1 Claim. (Cl. 30—4)

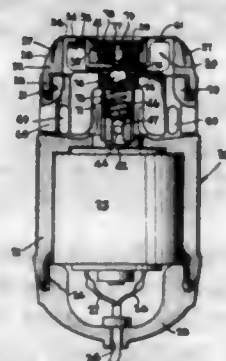
In a power driven metal can opener the combination of a housing, means to support said housing, a drive shaft positioned within said housing, means to connect

said drive shaft to a source of rotating power, a drive wheel capable of turning a metal can past said housing positioned upon the outer end of said drive shaft, a second shaft positioned within said housing near to and parallel to said drive shaft, a lever with its base positioned upon the outer end of said second shaft, a spring



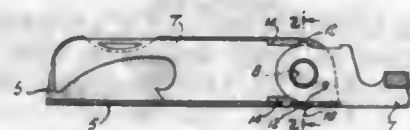
capable of normally holding said base of said lever near said housing, a shaft positioned upon the outer side of the base of said lever and set at a slight angle from said second shaft, a metal cutting disc positioned upon said third mentioned shaft, a stop to limit the rotation of said lever at a predetermined position, and guards to protect all moving parts.

2,824,367
DRY SHAVER HAVING COMBINATION SUCTION AND ADJUSTABLE CUTTING MEANS
Arthur C. McWilliams, Chicago, Ill.
Application June 22, 1955, Serial No. 517,305
7 Claims. (Cl. 30-41.5)



1. In a dry shaver, a housing, a shearing head secured to said housing and arranged to contact the skin, said shearing head including an annular shaped shearing comb with inner and outer rims secured to inner and outer flanges, a drive shaft extending within said housing, a cutter mounted on said shaft for rotation therewith, said cutter having cutter elements mounted thereon and co-operating with said shearing head, said cutter elements being displaced radially from each other so as to rotate in different orbits, vane members disposed on said cutter for creating suction against said shearing head, openings in said housing spaced from said shearing head to disperse cuttings resulting from the action of said cutter elements and said shearing head, resilient means biasing said cutter in a direction toward said shearing comb, and means for adjusting the position of said cutter with respect to said shearing comb.

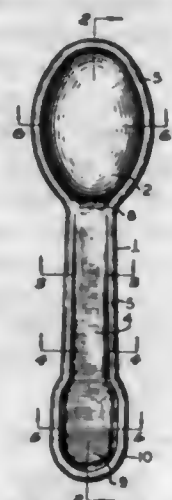
2,824,368
COMBINED TOOL
Henry W. Bassett, South Britain, Conn., assignor to The W. E. Bassett Company, Derby, Conn., a corporation of Connecticut
Application August 6, 1957, Serial No. 676,591
2 Claims. (Cl. 30-161)



1. In a device of the character indicated, an elongated channel having a base and opposed upstanding side walls

and defining a retaining case, a plurality of elongated blade members, means for pivotally mounting said blade members between said side walls about a common axis, said blade members being independently movable from a closed position between said side walls to an open position projecting away from said case, each of said blade members having near the pivotally supported end thereof a retaining projection, the base of said channel having a pair of slits extending longitudinally thereof and adjacent the side walls thereof, a part of the material of said base extending transversely thereof and between said slits forming a resilient part and being bowed outwardly leaving a transverse trough or depression within said channel in position to be intercepted by said projections on said blade members, said projections on said blade members being so angularly located with respect to the pivot axis of said blade members as to coact with said transverse trough or depression and hold each of said blade members in definite position relatively to said case.

2,824,369
PLASTIC SPOON
Clarence M. Welch, Milford, Del., assignor to Allen M. Penrod and Samuel R. Davis, Jr., both of Federalburg, Md.
Application August 12, 1954, Serial No. 449,311
2 Claims. (Cl. 30-324)



1. A thin eating spoon capable of being stacked and wrapped in an automatic wrapping machine comprising a pair of bowls at one end of said spoon disposed in back to back relationship, a handle including a shank and a flared end, said flared end being of a width greater than one-half the width of either of said bowls, and a flat perimetrical edge surrounding said spoon and having a thickness at least as great as that of said bowls and said handle.

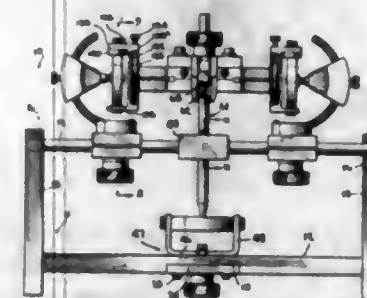
2,824,370
DENTAL DRILL
Richard W. Page, Chappaqua, N. Y., assignor to Chayes Dental Instrument Corporation, New York, N. Y., a corporation of New York
Application September 13, 1955, Serial No. 534,037
4 Claims. (Cl. 32-27)



1. A dental drilling angle instrument comprising an elongated rigid frame structure, a chuck for holding a drill, bearings rotatably supporting the chuck in the frame structure at an angle to the longitudinal axis of the frame structure, a pulley carried by the chuck for driving the chuck, a pulley drive for said pulley, including a larger diameter drive pulley carried by the said frame structure, means for driving the drive pulley from a dental engine arm, the said drive pulley being mounted for rotation

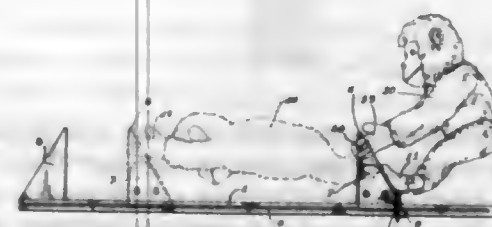
about an axis substantially parallel to the longitudinal axis of the elongated frame structure, and idle guide pulleys carried by the said frame structure and arranged with relation to the driving pulley and driven pulley for guiding the belt generally parallel to the longitudinal axis of the frame structure.

2,824,371
GNATHOLATORS
Ernest R. Granger, Mount Vernon, N. Y.
Application July 20, 1956, Serial No. 599,135
17 Claims. (Cl. 32-32)



1. A gnatholator comprising a stand, a horizontal support on a stand, a pair of clamp members mounted on said support, means to clamp said clamp members to said support in adjusted positions, a part circular member, having a horizontal axis, mounted on each clamp member for rotation about a vertical axis, a slider slidably mounted on each part circular member, a pin slidably radially on each slider and having a ball at its inner end, a post fixed to said support between said clamp members, and having a ball at its upper end, a device having means engaging the ball on the post, a pair of members slidably mounted on said device, and each supporting a disc formed with a longitudinally curved slot of transverse curved cross-section engaging a ball on one of the sliding pins.

2,824,372
FOOT MEASURING DEVICE
Vernon S. Bottenfield, Evanston, Ill., assignor to The Scholl Mfg. Co., Inc., Chicago, Ill., a corporation of New York
Application December 31, 1953, Serial No. 401,575
5 Claims. (Cl. 33-3)



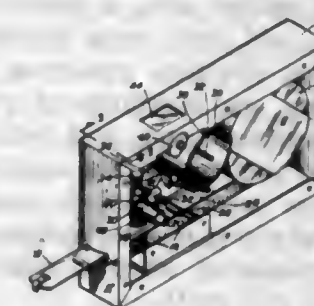
1. A device for measuring children's feet, comprising a stick carrying a size indicia thereon, a fixed heel contacting means at one end of said stick, a fixed bar support adjacent the other end of said stick, a toe contacting block slidably mounted with said stick for rectilinear movement thereon, a body having a pair of swingable leg members pivoted and supported upon said bar support and a pair of swingable arm members pivoted to said toe contacting block and the body being between the said leg and arm members, whereby upon sliding movement of the toe contacting block in a direction toward said fixed heel contacting means the body will assume various positions between substantially erect and substantially horizontal depending upon the distance of movement of said toe contacting block.

2,824,373
COMPASS
Åke Gottfrid Sjölund, Stockholm-Vallingby, Sweden
Application October 5, 1954, Serial No. 460,360
Claims priority, application Sweden October 5, 1953
4 Claims. (Cl. 33-27)



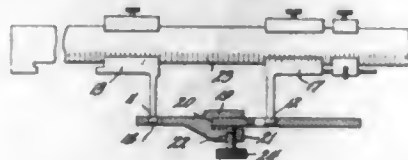
1. In a drawing compass; the combination of an elongated needle member pointed at one end, an elongated tubular leg member telescoping rotatably over said needle member with at least said pointed end of the latter projecting from the leg member and with the latter being held against axial displacement with respect to said needle member, a slide member displaceable axially on said leg member, clamping means for locking said slide member relative to said leg member in any adjusted position along the latter, two substantially parallel and spaced apart link rods pivoted, at one end, to said slide member for swinging in a common plane passing through the longitudinal axis of said leg member, a drawing element pivotally connected to the ends of said rods remote from said slide member, means for securing one of said link rods in any angular position with respect to said leg member and including said clamping means, and means interposed in at least one of said link rods operative to adjust the length of the related rod so that said drawing element can thereby be angularly displaced with respect to the axis of said leg member between a normal substantially parallel condition and a converging condition, making possible the positioning of said element closely adjacent said pointed end of the needle member for the drawing of small diameter circles.

2,824,374
PORTABLE MULTIPLYING MEASURING TAPE
Israel J. Abrams, Berkeley, Calif., Harry M. Hughes, San Antonio, Tex., and Leonard Krauss, San Francisco, Calif., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 6, 1956, Serial No. 589,833
5 Claims. (Cl. 33-140)



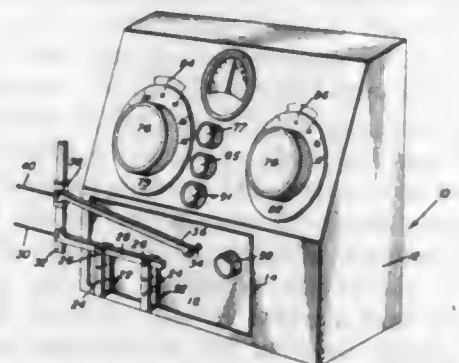
1. A device of the character described comprising a measuring tape; a housing for retaining said tape; an answer indicator; means for moving said answer indicator both forward and backward, respectively, in accord with the displacement out and in of said tape relative to said housing an amount generally proportional to the logarithm of the length of tape displaced; and controllable means for disconnecting said last-named means whereby said tape can be displaced relative to said housing without concomitant motion of said answer indicator.

2,824,375
ATTACHMENT FOR "CENTER-MIKE" VERNIER CALIPERS
 Harold Rhodes, Graham, N. C., assignor to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
 Application July 15, 1954, Serial No. 443,625
 4 Claims. (Cl. 33-143)



1. An apparatus for measuring the distance between the center line of an aperture in a plate and an edge of the plate comprising an adapter detachably mountable on said plate, said adapter having a positioning surface for the edge of said plate and an aperture the center line of which is a known distance from said positioning surface, and means for measuring the distance between the center lines of said apertures.

2,824,376
ELECTRICAL MICROMETER USING A RESISTANCE BRIDGE
 Harry A. Yarrow, Sun Valley, Calif.
 Application January 28, 1954, Serial No. 406,656
 2 Claims. (Cl. 33-147)



2. In an electric micrometer for measuring the dimensions of objects; a casing, a mounting plate adapted to be carried by said casing, a pair of U-shaped supports secured to said plate, a first caliper arm, means adjustably securing said first caliper arm to said supports, a guide rod carried by said first caliper arm, a shaft journaled in said plate, a second caliper arm mounted on said shaft, a slide secured to said second caliper arm, said slide engaging said guide rod, and means for rotating said shaft to adjust said second caliper arm with respect to said first caliper arm, a potentiometer connected to said shaft, said shaft upon rotation actuating said potentiometer, an electrical resistance bridge, said potentiometer forming one resistance of said electrical resistance bridge, a galvanometer, said resistance bridge controlling said galvanometer, direct reading indicators and variable resistors incorporated in said resistance bridge coupled to said direct reading indicators for compensating for an unbalance of said resistance bridge caused by rotation of said shaft.

2,824,377
GEOMETRICAL INSTRUMENT
 Paul Asperger, Flint, Mich.
 Application September 22, 1955, Serial No. 535,925
 8 Claims. (Cl. 33-158)

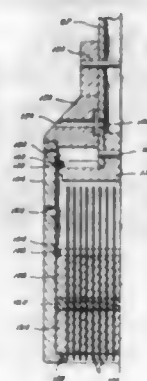
1. A trammel head comprising, in combination with a stiff rule-like beam, a substantially C-shaped body member closely embracing one side and opposite edges of said rule-like beam with its bight portion and the spaced arms respectively, said arms of said C-shaped body mem-

ber having their free ends extended beyond the opposite side of said rule-like beam and one arm being provided with a bore therethrough that is parallel with the bight portion of said body member and has the center thereof spaced from the inner embracing surface of said bight portion substantially the thickness of said rule-like beam, an indicator leg positioned in said bore and having a flat on a side and at one end thereof, said flat being in surface



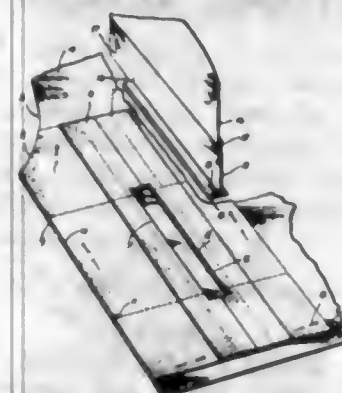
engagement with the side of said rule-like beam opposite to that embraced by said bight portion, attaching means for detachably supporting said leg in said bore, and a clamp movably mounted at and relative to the other arm of said C-shaped body and arranged to apply pressure on the edge of said rule-like beam adjacent thereto and thereby force the opposite edge of said rule-like beam against and in frictional contact with the first-mentioned arm.

2,824,378
APPARATUS FOR DETERMINING THE CONTOUR AND POSITION OF OBSTRUCTIONS IN WELLS
 John F. Stokes, Corpus Christi, Tex., assignor to Petroleum Recovery Engineering Corporation, a corporation of Delaware
 Application June 12, 1953, Serial No. 361,151
 1 Claim. (Cl. 33-175)



A device for determining the contour and position of an object in a well comprising, a tubular body whose lower end is open, means forming a removable connection between the body and a support extending into the upper end of the body for lowering the body with the support into a well bore, said means being removable to permit relative longitudinal movement of the support and body, a plurality of elongated elements mounted within the body for longitudinal movement relative thereto and whose lower ends are positioned for engagement with an object in the well bore to move said elements longitudinally in accordance with the contour and position of the object, means in the body in frictional engagement with the elements to yieldingly resist longitudinal movement of the elements, and means movably mounted in the body for longitudinal movement therein in position to engage the upper ends of said elements and connected to said support for movement with the support to move the elements downwardly in the body upon downward movement of the support relative to the body.

2,824,379
MARKER FOR MAKING POCKETS IN GARMENTS AND METHOD OF MAKING SAME
 Sam Katz, Kansas City, Mo.
 Application October 20, 1955, Serial No. 541,603
 2 Claims. (Cl. 33-180)



1. A marker for the making of pockets in garment material by the use of a machine having stitching mechanism thereon comprising, a body member of flexible paper having an opening therein, plastic means surrounding said opening for reinforcing and stiffening the edges of said opening, and means on said marker adapted to be aligned with means on said material for aligning said marker on said material to place the pocket in the material at the desired location.

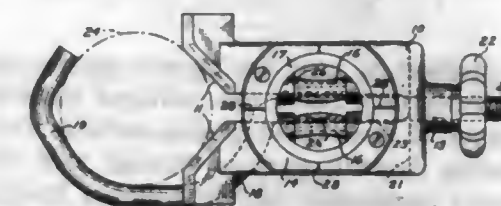
2,824,380
DRILL HOLE SLOPE INDICATOR
 Norman A. Nelson, Genoa, Tex., assignor, by mesne assignments, to Esso Research and Engineering Company, Elizabeth, N. J., a corporation of Delaware
 Application July 1, 1954, Serial No. 440,733
 4 Claims. (Cl. 33-205)



4. A borehole slope indicator for use in a well pipe comprising a longitudinally extending housing positioned in said pipe, a pendulum suspended in said housing adapted to assume a vertical position, longitudinally movable detector means arranged in said housing adapted to be moved downwardly by the action of circulating fluid, means connected to said detector means adapted to urge said detector means upwardly, the upward movement of said detector means being limited by said pendulum, a sealing member arranged on said housing in fluid-tight relation to said pipe, said member defining a flow space extending vertically therethrough, a valve element mounted on the lower end of said housing in fluid-tight engagement therewith and connected to said detector means for longitudinal movement therewith, said valve element opening and closing completely the flow space through said sealing member upon each downward and upward movement, respectively, of said detector means, stationary bi-directional fluid flow control means arranged in said housing adapted to control downward movement of said detector means in order to determine deviations of the borehole from the vertical, and distensible means, the

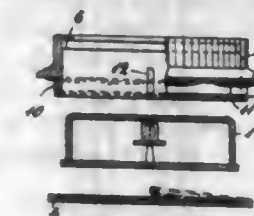
interior thereof fluidly communicating with said fluid flow control means and the outer surface thereof being exposed to fluid located in said pipe.

2,824,381
PRE-INDICATOR OF PIPE POSITIONS AND BENDS
 Raymond J. Traupmann, Wauwatosa, Wis., assignor to Blackhawk Mfg. Co., West Allis, Wis., a corporation of Wisconsin
 Application April 29, 1955, Serial No. 504,743
 6 Claims. (Cl. 33-207)



1. In an implement for indicating characteristics of elongated pipes or the like, a frame provided with two crossing V-shaped pipe engaging recesses having apices intersecting at a point, a hook alternatively cooperable with said recesses to clamp pipes therein and having a shank the axis of which passes through said point and which is adjustably cooperable with said frame to move the hook into clamping position, a spirit level rotatable upon said frame about an axis which intersects said shank axis, and angle designating indicia interposed between said level and said frame.

2,824,382
COMPASSES
 Nils Henry Sandberg, Enskede, Sweden
 Application August 17, 1953, Serial No. 374,677
 2 Claims. (Cl. 33-222)



1. A ruler-compass assembly comprising a ruler having a circular opening therein, a sleeve-shaped ring rotatably mounted on said ruler and partially projecting into said opening, and having an annular flange thereon engaging one surface of said ruler adjacent said opening, said flange having a scale thereon which is divided into degrees, a compass-box received within said ring, mating projections and recesses being formed on the inner and outer peripheral surfaces of said ring and compass-box, respectively, to prevent relative rotation therebetween, said ring having a circular groove adjacent the edge of that portion which projects into said ruler opening, a split clamping ring engaging said groove and the other surface of said ruler adjacent said opening to retain said ring and the box received thereby, as a unit, in said opening and a resilient ring adapted to surround that portion of the sleeve-shaped ring which projects into the ruler opening, between the edge of the ruler opening and the annular flange, said sleeve-shaped ring having an annular flange engaging the compass-box from above and having thereon a compass scale, recesses and projections on said sleeve-shaped ring and mating recesses and projections on said annular flange of said compass-box, said clamping ring being adapted to be received by a recess in the ruler.

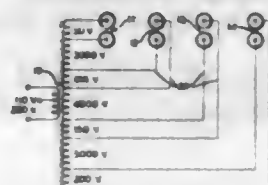
2,824,383

APPARATUS AND METHOD FOR ELECTRICALLY HEATING WET POROUS SHEETS

Ferdinand Machalek, Cincinnati, Ohio, assignor of one-third to Joseph Dvorak, and one-third to Joseph Litochleb, Cincinnati, Ohio

Application April 17, 1952, Serial No. 282,863

11 Claims. (Cl. 34-1)



1. The method of heat drying wet porous sheet material comprising impressing low voltages transversely of the sheet material from its opposite surfaces for causing electric heating currents to flow through said sheet, and simultaneously impressing higher voltages longitudinally of the sheet material to cause additional electric current to flow through said sheet material.

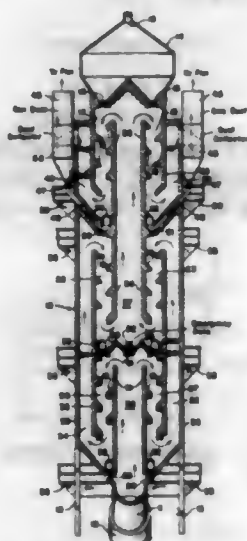
2,824,384

SUSPENSION TYPE HEAT EXCHANGER FOR FINELY DIVIDED SOLIDS

Gerhard Nlemitz, Bronx, N. Y., assignor to Kennedy-Van Saun Mfg. & Eng. Corp., New York, N. Y., a corporation of Delaware

Application July 23, 1954, Serial No. 445,305

10 Claims. (Cl. 34-56)



1. A heat exchange installation for exchanging heat between a fluid gaseous medium and a finely divided solid material, comprising a series of heat exchange chambers, means for passing the finely divided solid material in succession through said series of chambers from one end of the series to the other, the series of chambers being arranged one below the other in the direction of passage of the finely-divided solid material through the series of chambers, means for distributing the finely-divided solid material into the upper portion of each chamber, means for passing the fluid gaseous medium in succession through the series of chambers in the reverse order to that of the passage of finely divided solid material, means for causing the finely divided solid material and fluid gaseous medium to flow downwardly through each chamber of the series in concurrent intimate contact with each other, means for causing the separation of finely divided solid material from the fluid gaseous medium following their concurrent flow and intimate contact in each chamber, and means for conducting the resulting separated fluid gaseous medium into the upper portion of the preceding chamber of the series relative to the direction of passage of the finely-divided solid material through the series of chambers.

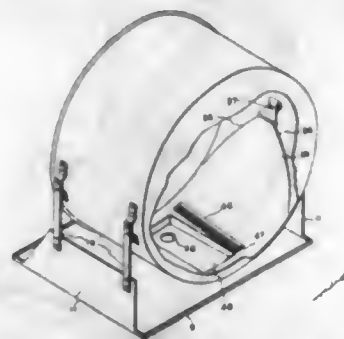
2,824,385

WATER SPREADER FOR CLOTHES DRYING MACHINE

John W. Toma, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application September 14, 1956, Serial No. 609,854

2 Claims. (Cl. 34-75)



1. In a machine for drying clothes, an imperforate tub defining a drying chamber, clothes tumbling means disposed within said chamber, a heater for heating the clothes being tumbled to extract moisture therefrom, and means for flowing cold condenser water down a wall of said tub on the inner surface thereof to condense said moisture, said wall including an inverted V-shaped raised portion thereon to aid in the distribution of said water across said wall, and said condenser means including a condenser water inlet aperture through said wall of said tub, a cold water inlet line connected to said inlet aperture for introducing condenser water into said tub there-through, and a spreader element connected to said tub wall for distributing said water across said wall to form a wide condensing sheet thereon, said spreader element including an upper portion covering said aperture for deflecting said condenser water downwardly and a lower portion acting as a barrier across the downward flow for spreading said water in a horizontal direction, said spreader extending below and covering the upper end of said raised portion of said tub wall, and said lower portion including a horizontally extending serrated discharge edge touching said raised portion below the top thereof to form said barrier and extending outwardly past the sides of said raised portion, with the spaces between the teeth of said discharge edge providing for the discharge of condenser water onto said raised portion in a plurality of closely spaced streams, and with the extensions of said discharge edge past the sides of the raised portion providing for the discharge of a stream of water down each side of said raised portion, whereby the spreading out of said streams a wide sheet of water is formed flowing said raised portion.

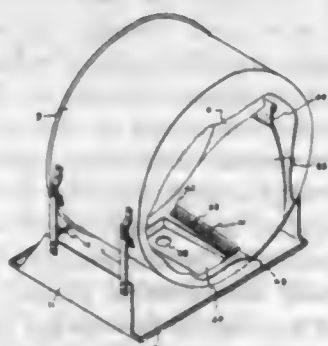
2,824,386

MOISTURE CONDENSING SYSTEM FOR CLOTHES DRYING MACHINES

Aidan M. Stone, Louisville, Ky., assignor to General Electric Company, a corporation of New York

Application September 14, 1956, Serial No. 610,022

4 Claims. (Cl. 34-75)



1. In a clothes drying machine, a tub structure defining a drying chamber, clothes tumbling means disposed

within said drying chamber, heating means for heating the clothes being tumbled to extract moisture therefrom, means for flowing a sheet of cold condenser water down a wall of said chamber for condensing said moisture, a drain from the bottom of said chamber adjacent one end thereof for discharging said condenser water from said chamber, and a baffle extending slant-wise across said wall above said drain effective to collect said water and direct it toward other end of said chamber, said baffle terminating at a point spaced from the surface defining said other end of said chamber, whereby said water must flow longitudinally across said chamber from the discharge end of said baffle to said drain producing a second condensing action during its passage.

2,824,387

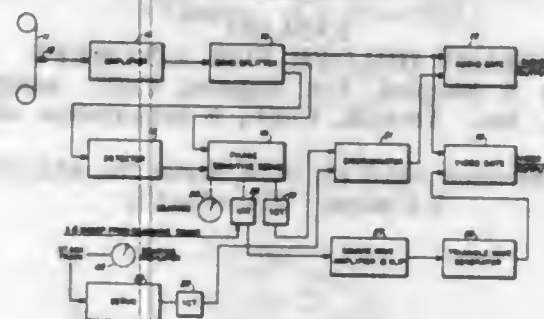
SONAR SIMULATOR

Robert H. Harwood, San Diego, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application December 3, 1954, Serial No. 473,061

4 Claims. (Cl. 35-10.4)

(Granted under Title 35, U. S. Code (1952), sec. 266)



4. A sonar simulator system comprising a recording medium having a bearing signal, a reference signal and an audio signal, each in separate frequency bands, recorded in simultaneous relation thereon, means for reproducing said signals, means for separating said signals each from the other, said separating means having three outputs one for each of said signals, an audio gate and a video gate, the audio signal output of said separating means being applied to the input of each of said gates, means for comparing said bearing signal with said reference signal, said comparing means being connected to an audio gate biasing means, bearing training means connected to said audio gate biasing means, the output of said biasing means being proportional to the phase difference between the output of said bearing training means and said comparing means, whereby said audio gate is open only when said phase difference is substantially zero, and a wave shaping circuit connecting said comparing means with said video gate.

2,824,388

TRAINING APPARATUS FOR REPRESENTING AIRCRAFT ENGINE OPERATION

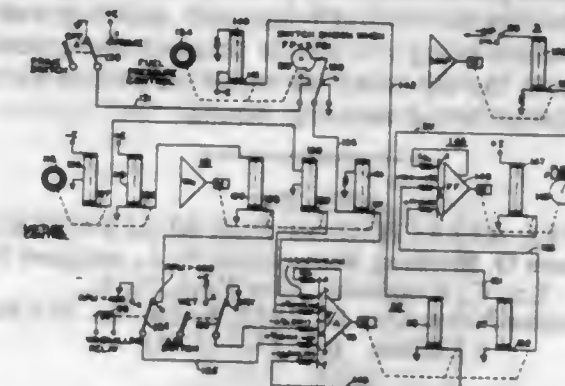
Robert G. Stern, West Caldwell, and William H. Dawson, Jr., Waldwick, N. J., and Clinton H. Havill, deceased, late of South Orange, N. J., by Katherine R. Havill, executrix, South Orange, N. J., assignors to Curtiss-Wright Corporation, a corporation of Delaware

Application June 14, 1954, Serial No. 436,328

28 Claims. (Cl. 35-12)

1. In ground-based training apparatus for aircraft personnel, means for simulating engine operation comprising computing means operable according to simulated flight and engine conditions, and indicating means responsive to said computing means for representing manifestations of engine operation, said computing means including means representing mixture control for deriving a control signal, means representing mass airflow for deriving another con-

trol signal, and an electrical system responsive to the aforesaid combined control signals as functions of mixture



control and mass airflow for computing engine fuel-air ratio.

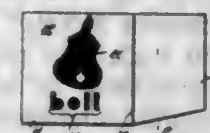
2,824,389

EDUCATION DEVICE

Nelle R. Orebaugh, Columbus, Ohio

Application December 29, 1955, Serial No. 556,317

5 Claims. (Cl. 35-35)



1. An educational device comprising: a plurality of reading cards having a light surface color; each card having a large pictorial representation of an object in dark color on one face, a word representation of the object in large, legible print on said one face below and in close proximity with said pictorial representation, and a split representation of said word representation in dark colored, large, legible print on the other face of said card; a vertical hinge in each card intermediate the side edges of said card, denoted by a visual surface irregularity appearing at least on said other face and passing between portions of said split representation; one portion of said split representation comprising a group of letters belonging to a sound family; said plurality of cards consisting of a plurality of small groups of cards, each individual group containing words in which said one portion of said split representation is identical.

2,824,390

WALKING AND WADING BOOT

Frank S. Walker, Framingham, Mass.

Application April 13, 1954, Serial No. 422,961

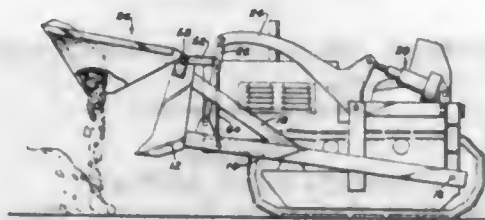
3 Claims. (Cl. 36-1.5)



1. A combined wader and walking boot comprising a waterproof shoe, an outer waterproof top, an upwardly extensible waterproof leg covering portion, releasable means securing said outer top around its lower edge to the outside of the shoe, the outer top being waterproofedly joined to the extensible portion, and the extensible portion being water proofedly joined to the shoe to form a continuous waterproof tube from the shoe to the upper edge

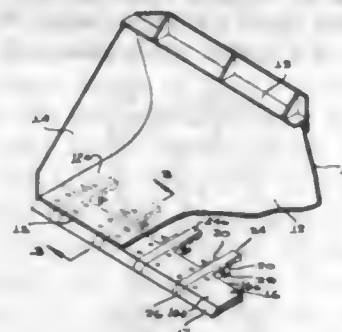
of the said outer top, said releasable top securing means when released permitting the top and extensible portion to be extended up the wearer's leg, and said top and extensible portion being retractable to place the extensible portion inside the top when the top is secured to the shoe by said releasable top securing means.

2,824,391
SHOVEL ATTACHMENT FOR BULLDOZERS
Theodore O. Roemer, Ridgewood, N. J., assignor to
Leo C. Krazinski, New York, N. Y.
Application November 13, 1953, Serial No. 391,983
6 Claims. (Cl. 37-117.5)



1. In a tractor having a bulldozing blade, a hydraulic power means for actuating said blade and a stationary frame, a shovel attachment therefor comprising a bottom member having a flat underside portion, a pair of side members each rigidly secured to the bottom member, a transverse member rigidly interconnecting said sides adjacent the upper portions thereof, whereby said bottom, side, and transverse members are formed into a unitary attachment, means rigidly secured to said bulldozing blade for pivotally supporting said attachment, whereby a rear edge of each of said bottom and side members is adapted to normally rest by virtue of gravity against said blade and thereby employ said blade as a back member thereof, means interconnecting said stationary frame and said attachment for gradually moving said attachment from a resting position against said blade to a position separated therefrom, after said blade in response to said hydraulic power means has been raised beyond a predetermined height, said attachment being responsive to movement of said blade beyond said predetermined height.

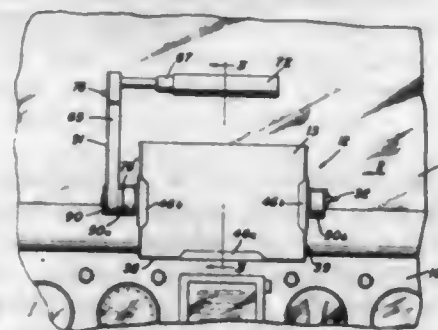
2,824,392
LOADING BUCKET CUTTING EDGE CONSTRUCTION
Richard B. Reinhard, Columbus, Ohio
Application January 7, 1955, Serial No. 480,419
2 Claims. (Cl. 37-141)



1. A loading bucket comprising a body including a bottom wall having a forward end, a blade element having a rearward end and a forward end provided with a beveled cutting edge positioned below said bottom wall so that it extends from one side edge to the other side edge of said bottom wall with the beveled cutting edge forwardly of the front end of said bottom wall and fixedly secured to said bottom wall, said blade element having a plurality of grooves arranged in spaced relation and extending transversely therethrough from the forward to the rearward end thereof, the base wall of each groove having a shelf in alignment therewith and projecting beyond the rearward end of said blade element, an upstand-

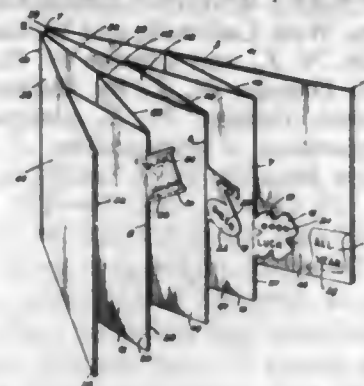
ing lug on each side of each shelf and attached to said side and the adjacent part of the rearward end of said blade element, each of said lugs being provided with an aperture, a plurality of tooth elements each having the forward end provided with a beveled cutting edge conformably shaped to that of the beveled cutting edge of said blade element and having the portion adjacent the rearward end conformably shaped to be received within a shelf and the adjacent lugs, each of said tooth elements being insertable within a groove of said blade element so that the beveled cutting edge is forwardly of or flush with the beveled cutting edge of said blade element with the portion adjacent the rearward end received within the adjacent shelf and upstanding lugs, spaced means on the under face of each of said tooth elements intermediate the ends thereof and selectively registrable with means on each of said shelves, and removable fastening means extending through the aperture in each of the complementary lugs and the means on the adjacent tooth element in registry with the means on the adjacent shelf for securing said tooth element in a selected position within the groove of said blade element.

2,824,393
CHART HOLDER FOR AIRCRAFT
Lawrence S. Shapiro, Los Angeles, Calif., assignor to
Clowd, Inc., Arcadia, Calif., a corporation of California
Application April 13, 1954, Serial No. 422,734
8 Claims. (Cl. 40-10)



1. In a chart holder for aircraft: a bracket adapted to be secured to a supporting member in the aircraft; a support connected to said bracket, said support having a pair of spaced arms; a chart receiving table arranged to be placed between said arms; means for detachably and swingably connecting said table to said arms; and means acting in response to rotation of said table relative to said arms to prevent detachment of said table from said arms.

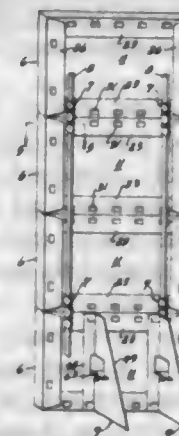
2,824,394
GREETING CARD
Howard E. Lohnes, Kansas City, Mo., assignor to Hallmark Cards, Incorporated, Kansas City, Mo., a corporation of Missouri
Application February 1, 1956, Serial No. 562,766
3 Claims. (Cl. 40-124.1)



1. A greeting card made from a single sheet of flexible material having a fold line longitudinally thereof for fold-

ing the sheet to form a front and back member, a transverse fold line substantially centrally of said sheet, fold lines spaced equal distance from said transverse fold line of said sheet and extending transversely thereacross, spaced slots on the longitudinal fold line intersecting the last-named fold lines, fold lines intersecting the ends of said slots and extending transversely only from said longitudinal fold line to the edge of said front member, and cut-out portions on the front member intersecting certain of the transverse lines and forming tabs for greeting indicia, said tabs having their connecting portions bendable on said fold lines, whereby the sheet is folded on the longitudinal fold line and the front and back members may be folded on said transverse fold lines to cause the card to lie in flat position and when opened will stand in vertical position.

2,824,395
DISPLAY STRUCTURE
Charles A. Decker and Kurt Eder, Jersey City, N. J., assignors, by mesne assignments, to Arvey Corporation, Chicago, Ill., a corporation of Delaware
Application September 17, 1954, Serial No. 456,834
4 Claims. (Cl. 40-125)

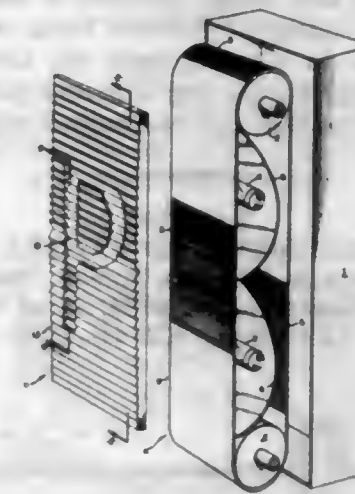


1. In a stack display structure, a plurality of identical frame displays each constructed from sheet material such as cardboard to provide a central panel enclosed by a hollow marginal frame having a back wall formed with apertures, attachment means formed of sheet material such as cardboard provided with two sets of fingers for engagement within apertures of adjacent frame displays to secure the latter together, said attachment means comprising wing sections hingedly connected to opposite sides of a base section, two of said fingers being formed on said base section, and another two fingers being formed in the inner end of one of said wing sections, and means provided in the wing sections to secure the free ends of the latter to each other, whereby the base and wing sections form a hollow triangular structure, and an elongated reinforcing member of generally triangular section adapted to be snugly embraced within said attachment means.

2,824,396
ANIMATED SIGN AND OPTICAL SCREEN THEREFOR
William E. Thomas, San Francisco, Calif., assignor to Prism Signs Inc., San Mateo, Calif., a corporation of California
Application February 13, 1956, Serial No. 564,925
4 Claims. (Cl. 40-132)

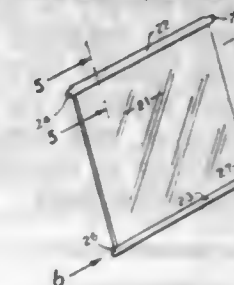
1. In an animated sign of the type wherein light is applied to illuminate an optical screen, an optical screen formed of light transmitting and refracting material, said screen including both indicia and field portions, the field portion including a plurality of cylindrical lens segments distributed over a substantial area of the screen, the lens segments all having their foci in a common focal plane

on the rear side of the screen, the focal axes of the lens segments also being convergent whereby the foci at said plane are in a substantially linear region, the indicia likewise comprising a plurality of cylindrical lens segments distributed over a substantial area of the screen and all having their foci in said plane and with their focal



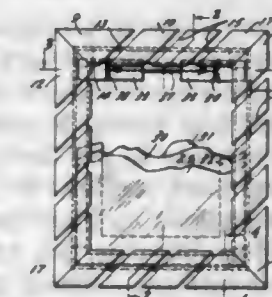
axes being convergent toward said plane whereby at said plane the foci are localized in a substantially linear region, said last region being displaced from the first region, and means for supplying color modulated light from said regions to said screen, whereby said areas of the screen as viewed from the front thereof are illuminated in changing colors.

2,824,397
FILM-SLIDE MOUNTING DEVICES
Raymond J. Poulin, Topanga, Calif., assignor of one-half to Edward H. Rose, Santa Monica, Calif.
Application October 25, 1956, Serial No. 618,238
8 Claims. (Cl. 40-152)



1. A film-slide mounting device, comprising: a pair of transparent generally rectangular planar panels, each having two oppositely spaced enlarged edge sections; portions of said edge sections being extended outwardly laterally of the corners of said panels, and said outwardly extended edge portions being adapted to interfit with and engage those of the other panel when said pair of panels is placed in facing juxtaposition.

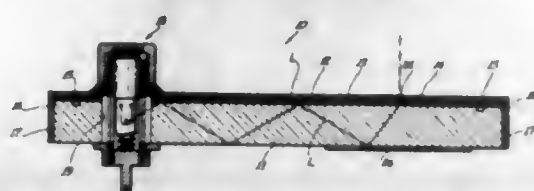
2,824,398
PICTURE FRAME
John G. Storm, Milwaukee, Wis.
Application February 3, 1955, Serial No. 485,871
5 Claims. (Cl. 40-155)



2. In a picture frame, the combination of a series of blocks, each having a molding face, a picture supporting

ledge portion and a wedge portion facing said ledge portion, some of the blocks being joined together to form corner members, the ledge portion of each block being recessed back from its outer edge, and yieldable retainer strips of V form having a side portion mounted in the recesses of said ledge portion of the blocks and a side portion abutting said wedge portions of said blocks, said strips when in assembled position being under a predetermined tension to normally hold the same in gripping relation with said blocks and also the picture elements in wedging relation with said blocks and strips.

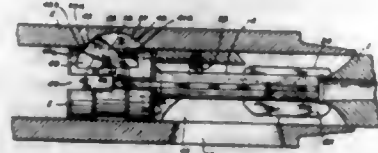
2,824,399
ILLUMINATED PANELS
Edwin A. Neugass, Poteau, Okla.
Application November 24, 1954, Serial No. 470,997
12 Claims. (Cl. 41-22)



1. A panel comprising a transparent, light-transmitting body, a layer of translucent material and an opaque layer covering one side of said translucent layer and secured to the latter over substantially its entire area to form a lamination, said lamination formed by said translucent and opaque layers being disposed in front of said transparent body with said translucent layer facing toward the front surface of said body, glue securing said lamination to the front surface of the body only along the edge portions of said front surface so that said translucent layer is free of said light transmitting body over substantially its entire area thereby to avoid any substantial reduction in the internal reflection from said front surface of the body, said opaque layer having at least one opening therethrough exposing the underlying portion of said translucent layer, and means for admitting light to said transparent body to transilluminate the exposed portion of said translucent layer.

2,824,400
ROCKABLE BREECH BOLT LOCKING BLOCK
Lexie Ray Crittendon, Wilmington, Del., and Ellis William Hallston, Illon, N. Y., assignors to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Original application January 19, 1955, Serial No. 482,726, now Patent No. 2,751,702, dated June 26, 1956. Divided and this application February 8, 1956, Serial No. 564,249

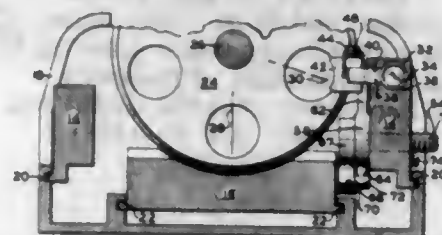
8 Claims. (Cl. 42-16)



1. In a firearm having a barrel, a receiver and a breech bolt reciprocable therein, breech bolt locking means comprising in combination a groove formed in and extending across said breech bolt and having a planar bottom surface in a direction transverse to the line of reciprocation of said bolt; a locking block received in said groove and having two mutually inclined surfaces in facing relation to the bottom of said groove, the line of intersection of said mutually inclined surfaces defining a fulcrum about which said locking block is rockable on the bottom surface of said groove between a first position in which the block is wholly within the projected surfaces of the

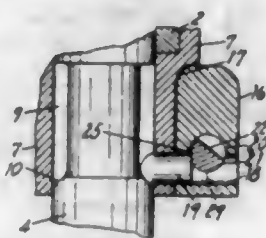
breech bolt adjacent said groove and a second position in which the rearward end of said locking block protrudes laterally from said groove and the forward end of said locking block is in engagement with the forward wall of said groove; a locking recess in said receiver in which the rearward end of said locking block may be engaged when said locking block is in said second position to secure said breech bolt against rearward movement in the receiver; and means to rock said locking block from said first position to said second position and vice versa.

2,824,401
CRANK LINK EXTRACTOR FOR GUN
William D. Bobco, Berwyn, and Eugene S. Wassel, Cicero, Ill., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Army
Application April 5, 1954, Serial No. 421,209
6 Claims. (Cl. 42-68)



4. A cartridge extraction device for a revolver-type automatic gun including a recoil unit, a drum with cartridge chambers rotatably disposed on the recoil unit, an actuator slidable in rearward and forward stroke operation with respect to the recoil unit for rotation of the chambers to firing and extraction positions responsive to discharge of cartridges chambered in the firing position, said device comprising a recoil unit cylinder with a slidable piston provided with a pawl and spring-biased to a forward position for engagement of said pawl with the extractor groove of a cartridge chambered in the extraction position, and a lever for engaging said piston disposed on the recoil unit for pivoting about a pair of instantaneous centers to operate said piston and remove the case from the drum at an increasing pair of extraction velocities responsive to the forward stroke.

2,824,402
BREECH BOLT AND FIRING PIN SAFETY MECHANISM FOR FIREARMS
Joseph F. Fischer, Grand Rapids, Mich.
Application June 21, 1956, Serial No. 592,846
14 Claims. (Cl. 42-70)



10. In a fire arm having a bolt rotatable between locked firing position and unlocked retractable position and a firing pin reciprocable in said bolt and spring pressed forwardly to firing position, safety mechanism comprising a sleeve non-rotatably mounted on said fire arm around the rear of said bolt and said firing pin, a safety pin mounted in said sleeve in transversely extending relation to said firing pin and projectable into engagement with a shoulder on said firing pin in the safe positions of the pins, an actuating shaft rotatably mounted in said sleeve in transversely extending intersecting relation to the path of said safety pin and in off-set relation to the axis of said bolt, said shaft having a first

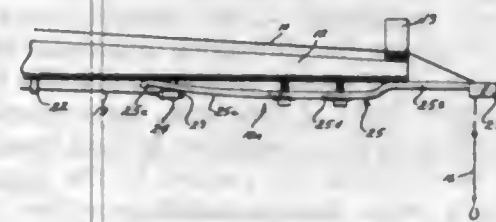
portion cut away to permit retraction of said safety pin to firing position and a second portion engageable in a rotated safe position with the outer end of said safety pin to advance the safety pin into safe position, and a finger piece on said shaft to rotate the same.

2,824,403
FISH HOOK SETTING DEVICE
James H. Booth, Detroit, Mich.
Application September 15, 1955, Serial No. 534,466
5 Claims. (Cl. 43-15)



1. In a fish hook setting device, a one-piece inverted substantially L-shaped member having a short rigid laterally extending leg adjacent the top thereof and a long vertical depending leg extending downwardly therefrom, means at the junction of said legs for connecting the upper end of said member to a fishing line leading to a fishing pole, attaching means at the outer end of said short leg, a resilient member having one end secured to said attaching means and a free end adapted to be connected to a fishing line leading to a hook, means adjacent the bottom of said long vertical depending leg for releasably retaining the free end of the resilient member to stretch the resilient member between the free ends of said legs, and a loop of fish line connecting said means at the junction of the legs to the free end of the resilient member, said loop of fish line being longer than said resilient member when it is dormant, whereby a slight pull on the hook line will release the resilient member from the retaining means adjacent the bottom of said long leg and the L-shaped member will pivot at the junction of the legs to swing the long leg away from the loop of line to accommodate tensioning of the loop when tension is applied to said hook line while said resilient member pulls downwardly on said short leg without being substantially tensioned.

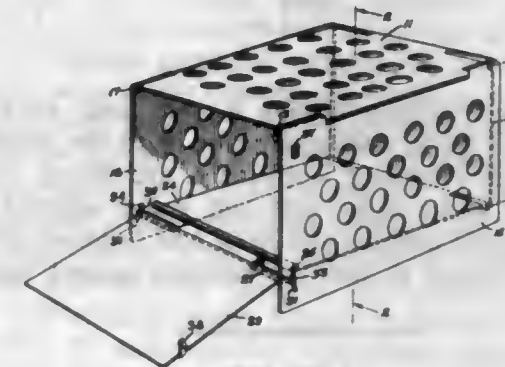
2,824,404
FISH HOOK SETTING DEVICE
James H. Booth, Detroit, Mich.
Application December 5, 1955, Serial No. 551,007
4 Claims. (Cl. 43-15)



1. The combination of a fishing pole and a device for the loading the pole in such a manner that the pole will impart a jerk to the fishing line when the line is pulled, said pole having a fishing line extending from the tip end thereof and a hook on the free end of said line, said device including a pin fixed to the underside of the said pole and spaced inwardly from the tip end thereof, means slidably engaging said pin for preloading the pole, and

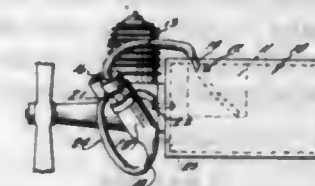
means slidably mounted on the underside of the pole and near the tip end thereof, said slidably mounted means having a line guide at the outer end thereof for freely receiving the fishing line, whereby the slidably mounted means disengages said engaging means slidably engaging said pin from said pin in response to a predetermined movement of said fishing line.

2,824,405
GRAVITY OPERATED COLLAPSIBLE TRAP
Jerry R. Brooks, Gainesville, Tex.
Application January 28, 1957, Serial No. 636,609
6 Claims. (Cl. 43-61)



1. A gravity operated animal trap formed of a plurality of hingedly connected substantially rectangular flat panels adapted to be folded upon each other to collapse said trap for storage purposes, said panels in normally assembled relation comprising a main top panel, a side panel hingedly connected to each side of said top panel, a rear wall panel hingedly connected at one end to an end of said top panel and free to swing inwardly of said trap, a bodily movable floor panel pivotally connected at one end to the opposite end of said rear wall panel, a gate hingedly connected at one end to the opposite end of said floor panel, the opposite end of said gate having latch means adapted to cooperate with one of said side panels to secure said gate in a closed position when rotated from a normally open position, and gravity operated means including said floor panel for automatically effecting said rotation of said gate from said normally open to a closed position.

2,824,406
FREE FLIGHT TIMER TANK FOR MODEL AIRCRAFT
Norman Vanderschel, Lubbock, Tex.
Application October 26, 1956, Serial No. 618,483
2 Claims. (Cl. 46-78)



1. In a model aircraft of the type including a fuselage, a reserve tank arranged in said fuselage, there being an air vent communicating with said reserve tank, a motor extending from said fuselage, a tube extending outwardly from said reserve tank, a first conduit having one end connected to said tube, an adjustable piston provided with a central bore communicating with said first conduit, a housing snugly receiving said piston and said housing defining a fuel reservoir tank, said housing having one end terminating in a tapered neck provided with an opening, a spring clamp connecting said housing to said fuselage, and a second conduit leading from said neck to the motor.

2,824,407

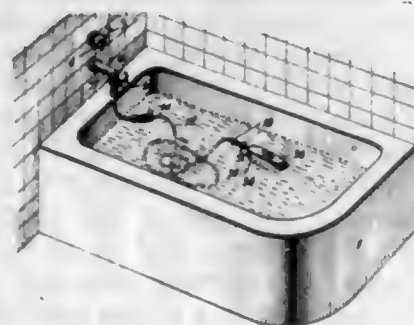
BALLOON WITH INTEGRAL TIE
Adolf G. Ebel, Ravenna, Ohio, assignor to The Oak Rubber Company, Ravenna, Ohio, a corporation of Ohio

Application June 27, 1956, Serial No. 594,259
2 Claims. (Cl. 46—90)



1. A rubber balloon having a neck, and an integral hollow rubber tie in communication with the interior of the neck and extending outwardly therefrom, said tie being closed at its outer end and being adapted to be stretched, wound around said neck and fastened after the balloon is inflated to seal the balloon against the leakage of air.

2,824,408
HYDRAULICALLY POWERED TOYS
Stephen P. Cauley, Garden City, N. Y.
Application July 21, 1955, Serial No. 523,431
5 Claims. (Cl. 46—95)

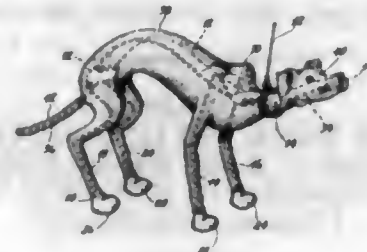


1. In combination a toy powered by water, said toy having a water inlet, at least one water outlet spaced from said water inlet, and at least one conduit connecting in a water-tight manner said water inlet with said water outlet, flexible elastomer tubing having an inside diameter of about 0.114 to about 0.158 inch and a wall thickness of about 0.017 to about 0.023 inch, means connecting said flexible elastomer tubing and said water inlet in a pressure-tight manner, means connecting said flexible tubing to household water supply at pressures up to about 75 pounds per square inch in a pressure-tight manner, and means movable on said flexible tubing to control within relatively narrow limits the volume of water flowing through said flexible tubing.

2,824,409
LEAPING ANIMAL TOY
William A. Brodrib, Hartford, Conn.
Application February 20, 1956, Serial No. 566,669
4 Claims. (Cl. 46—129)

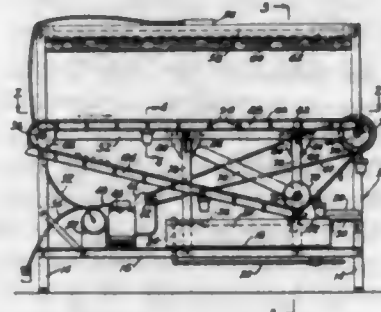
1. In a leaping animal toy, the combination of a skeleton comprising a longitudinal spine and two transversely spaced rigid front legs and two transversely spaced rigid rear legs all of which legs are rigidly secured to the spine and extend downwardly therefrom, the spine of the said skeleton between the front and rear legs being resilient and being flexible upwardly and downwardly and thus enabling the front legs and the rear legs to move out of predetermined relative positions of repose and forwardly or rearwardly with respect to each other, front and rear

feet secured respectively to the bottoms of the front and rear legs said front and rear feet together with the corresponding legs being relatively heavy, and a counter-



weight on the spine spaced forwardly from the front legs and the front feet and substantially balancing the portion of the toy at the rear of the front feet.

2,824,410
PLANT PROPAGATING APPARATUS
Alfred S. Daw, Naperville, Ill.
Application September 16, 1955, Serial No. 534,745
3 Claims. (Cl. 47—1)

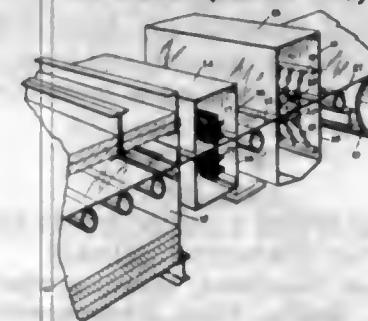


1. Apparatus for propagating plants in pots, comprising an upstanding, open, horizontally elongated framework; at least one conveyor chain mounted upon said framework, said chain including a substantially horizontally extending upper flight and a lower flight spaced below the upper flight and inclined for a substantial part of its length from the horizontal; means for driving the chain; a plurality of pot support brackets carried by and spaced along the length of the chain at uniform intervals, each bracket having a portion of substantially inverted L-shape formed with a horizontal leg including a depending extension at one end, said portion also including a vertical leg extending downwardly from the other end of the horizontal leg, each bracket being formed at the lower end of the vertical leg with an outwardly projecting extension terminating its free end in an upwardly projecting finger, the bracket further including a pot support ring in a horizontal plane and a support rod projecting upwardly from the ring and having a sleeve at its upper end receiving the finger of the second named extension, selected links of the chain including stub axles, the first named extensions of the several brackets having openings receiving the stub axles to connect the brackets to the chain; lamp means mounted upon the frame adjacent the upper flight of the chain, for subjecting to light plants growing in pots supported by said brackets during the time the brackets are carried by the upper flight of the chain; a water tank mounted upon the frame work below the inclined flight of the chain for immersion of the supported pots into the water confined within said tank when the pots are suspended by the brackets from the lower flight of the chain; and sprockets carried by the frame in engagement with the lower flight of the chain, arranged to extend said lower flight in close proximity to the tank at a selected location along the length of the lower flight, for effecting the timed immersion of the supported pots within the tank.

2,824,411
METHOD OF APPLICATION OF WATER-SOLUBLE CARBOHYDRATE TO HEATED ANNEALED GLASS

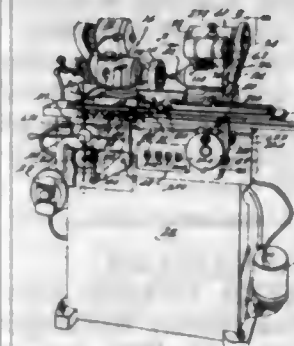
David H. Goodwillie, deceased, late of Toledo, Ohio, by Commerce National Bank of Toledo, Toledo, Ohio, executor, and Wilbur F. Brown, Toledo, Ohio, assignors to Libbey-Owens-Ford Glass Company, Toledo, Ohio, a corporation of Ohio
Continuation of application Serial No. 16,088, March 20, 1948. This application December 24, 1952, Serial No. 327,754

4 Claims. (Cl. 49—77)



1. A method of providing a temporary protective coating upon a newly formed continuous sheet of glass, comprising passing the newly formed sheet into and through an annealing zone and after the sheet has been annealed, but while it is still in a heated condition, applying to opposite surfaces of said sheet across its entire width as it travels forwardly a dilute solution of a water-soluble carbohydrate, and drying said solution to form upon said sheet a transparent, readily removable coating coextensive with the edges thereof.

2,824,412
INTERNAL GRINDING MACHINE
John William Parker, Grosse Pointe, Mich.
Application July 7, 1955, Serial No. 520,420
14 Claims. (Cl. 51—95)

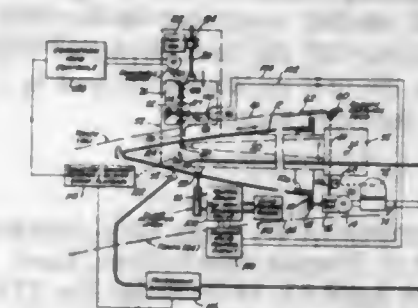


1. In a grinding machine or the like, a body member, a spindle assembly, pivot means for pivotally supporting said spindle assembly upon said body member, spring means tending to pivot said spindle assembly in one direction upon and relative to said body member, means including a pair of spaced-apart pins bearing laterally against said spindle assembly mutually operable to maintain a balanced pressure against said spindle assembly and to establish an adjustable limit position to movement of said spindle assembly in said one direction, and means engageable with both of said pins for concurrently shifting the position of both of said pins relative to said body member for pivoting said spindle assembly relative to said body member.

2,824,413
APPARATUS FOR MACHINING RADOME WALLS TO CONTROLLED ELECTRICAL THICKNESS
Albert J. Whitehill, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application September 25, 1956, Serial No. 612,012
10 Claims. (Cl. 51—165)

1. Apparatus for machining to a predetermined electrical thickness the wall of a radome and the like com-

prising an elongated hollow generally annular figure, said apparatus comprising means for supporting such a radome and rotating the same about the longitudinal axis thereof, a machining tool element, a cantilever support for said machining tool element positioned relative to said radome supporting means to project into the radome interior generally lengthwise thereof for applying said machining tool element operatively to the interior surface of the radome, carriage means for effecting progressive relative movement between said radome supporting means and said cantilever support in the direction generally lengthwise of the rotating radome to effect both circumferential and longitudinal traversal of the radome in relation to said machining tool element, said cantilever support being mounted to permit movement thereof and of said machining tool element generally transversely in relation to the radome, an actuator connected to said cantilever support to effect such transverse movement thereof and thereby advance or retract the machining tool element in relation to the radome surface being machined, radome wall thickness sensing means mounted outside the supported radome and having a feeler element in contact with the radome wall directly opposite said machining tool element, said sensing means further including a base rigidly connected to said element cantilever support to move therewith, a traversing head mounted on said base for

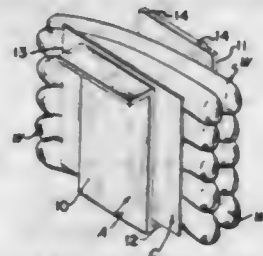


movement relative thereto in the direction generally perpendicular to the radome surface contacted by said feeler element, said traversing head in turn carrying said feeler element to permit movement of the latter relative to said traversing head in the same direction, means on said traversing head yieldably urging said feeler element into sliding contact with the radome surface, and positional pickup means including mutually cooperating elements carried respectively by said feeler element and said traversing head, said positional pickup means being arranged for controlling operation of said actuator to move said machining tool element in the sense toward the radome wall in response to predetermined displacement of said feeler element on said traversing head in the sense away from the radome surface, and in the sense away from said radome wall in response to predetermined opposite displacement of said feeler element relative to said traversing head, and means for measuring electrical thickness of said radome in the different areas thereof presented to said machining tool element and operatively connected to said traversing head for moving the same on said base toward and from the radome by amounts corresponding to the magnitude and sense of the measured difference between a predetermined value of electrical thickness desired for the radome wall and the instantaneous electrical thickness of the radome wall at the point thereof presented to the machining tool element.

2,824,414
APPARATUS FOR PACKAGING ARTICLES
Edwin B. Fleman and Arthur L. Sigman, Denver, Colo., assignors to Packer Plast, Arvada, Colo., a limited partnership
Application December 9, 1953, Serial No. 397,062
1 Claim. (Cl. 53—390)

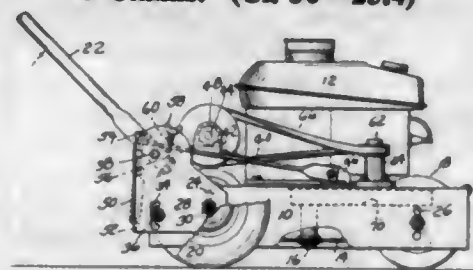
A device for aiding in the hand wrapping in a flexible sheet of a plurality of similar elongated articles com-

prising a member having spaced apart parallel elements connected together at like ends and unconnected at their other ends, said spacing of the members being such that a plurality of the articles to be wrapped can be arranged therebetween in side by side relation with their length extending in a direction transverse to the length of the spaced apart parallel elements of the member, one of the spaced apart elements being provided with means at the unconnected end extending substantially laterally outwardly therefrom to provide a hand grasping means



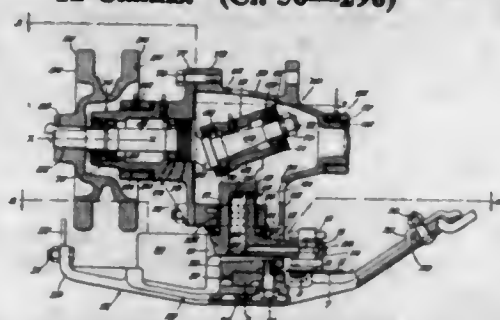
for aiding in moving the member from around the elongated articles when the other parallel element is placed on a wrapping sheet of flexible material and the articles are held from movement, and a second member for securing to a surface and upon which the sheet of wrapping material can be placed, said second member having an upstanding shoulder means against which an elongated article at the open end of the first member can be pressed and all the articles firmly held against movement when the first member is moved in a direction away from the shoulder means.

2,824,415
SELF-PROPELLING ROTARY MOWER
Pearl G. Frazier, Des Moines, Iowa
Application April 23, 1956, Serial No. 579,938
5 Claims. (Cl. 56-25.4)



1. In a self-propelling rotary type lawn mower having a propelling drive control; a pair of vertically moveable plates secured to said mower; portions of said drive control being supported by said plates; and means associated with two wheels of said self-propelling rotary type lawn mower and said plates for maintaining a predetermined relationship between them.

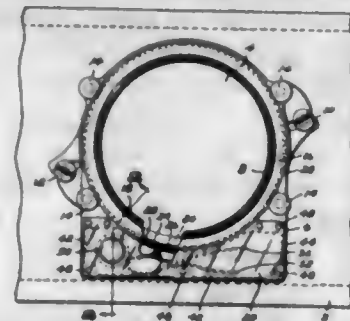
2,824,416
BALANCED HEAD MOWER
John R. Orellind, Wilmette, Ill., assignor to International Harvester Company, a corporation of New Jersey
Application June 22, 1956, Serial No. 593,156
12 Claims. (Cl. 56-296)



1. For use in a mower of the type comprising a mower bar and a sickle reciprocal thereon on a given line, a

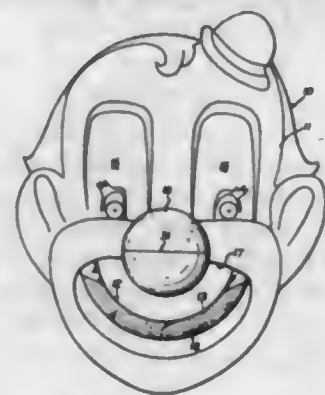
housing having a first part for affixation to the cutter bar and a second part removably connected to a side of the first portion, and sickle drive mechanism mounted entirely on said second part, said second part having a journal, an input shaft rotatably supported on said journal on a generally horizontal axis extending substantially normal to said line and having a cantilever portion including a crank extending angularly to said axis within said first portion of the housing, a wobbler mounted in driven relation by the crank, a wobbler drive transmitting member connected in driven relationship to said wobbler for rotary oscillation on a substantially vertical axis and having first and second diametrically oppositely extending arms, a counterweight on one arm and means connecting said sickle to said other arm on a substantially vertical axis.

2,824,417
BASE FOR USE WITH LUBRICATED SPINNING AND TWISTING RINGS
Andrew J. Wayson, Needham, Mass., assignor to Merri-man Bros., Inc., Boston, Mass., a corporation of Massachusetts
Application September 22, 1953, Serial No. 381,599
8 Claims. (Cl. 57-120)



1. A base for use with a spinning ring, said base comprising a support for said ring, an oil reservoir, a transparent cover for said reservoir supported at its periphery in a rabbeted recess in said base, means securing said cover to said base in oil-tight relationship, and a normally closed oil supply valve which when opened will permit oil to be supplied to said reservoir, said valve being located in said reservoir within the confines of said cover.

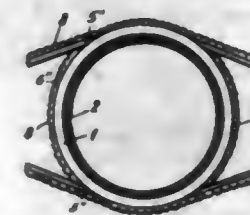
2,824,418
ANIMATED TIMING DEVICE
Robert Arthur Hilbert, Huntington, N. Y.
Application October 14, 1955, Serial No. 540,564
10 Claims. (Cl. 58-1)



1. A timer of the hourglass type comprising a hollow receptacle formed of two like chambers of substantially equal volume, means for adjustably mounting the receptacle to selectively position the two chambers in overlying relation one to the other, each chamber having spaced apart ends, with the respective ends in juxtaposition, a restricted passageway at each end connecting the chambers, a quantity of fluent material in the receptacle flowable through said passageways from one chamber to

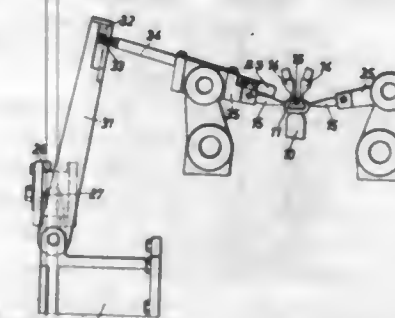
the other, the inner walls of said chambers being shaped and the restricted passageways being of such size as to cause all the fluent material when contained in one chamber to flow at substantially the same rate through each of the two passageways into the other chamber by gravity when the ends of the chamber containing the fluent material are disposed in overlying relation to the ends of the other chamber.

2,824,419
WRIST-WATCH CASING AND METHOD OF MANUFACTURING THE SAME
Samuel Graber, St. Imier, Switzerland
Application September 20, 1954, Serial No. 457,107
Claims priority, application Switzerland September 22, 1953
4 Claims. (Cl. 58-88)



3. A wrist watch case band unit comprising means adapted for connecting a watch crystal, a watch movement and a watch case bottom together, and provided with external wrist band attaching lugs at its periphery, said unit consisting of: a ring provided with means adapted to connect the watch crystal, the watch movement and the watch case bottom together; a first pair of identical longitudinal elements soldered to the ring so that they extend around two symmetrical peripheral portions thereof, and a second pair of identical longitudinal elements having each a central portion fixed to said ring and two end portions extending therefrom and forming said wrist band attaching lugs, said central portions being so soldered to said ring as to extend around the two remaining peripheral portions thereof, which are comprised between the elements of said first pair, a rim and a groove thereby being provided the one in said ring and the other in said elements, so that the rim fills the groove in order to provide a large surface of contact between the ring and the elements for ensuring enough rigidity to said unit, said elements having substantially throughout the same cross-section and covering such a portion of said ring that they constitute an important part of the external visible surface of said watch case band unit.

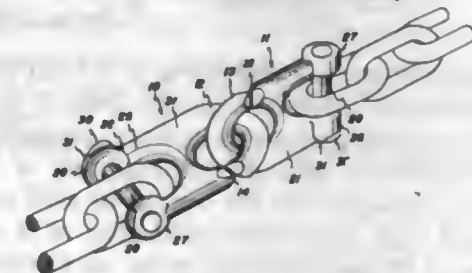
2,824,420
APPARATUS FOR WELDING A CHAIN LINK AND THEREAFTER TRIMMING THE FLASH FROM THE WELD
Paul Esser, Köln-Raderberg, Hans Stützer, Köln-Bickendorf, and Wilhelm Wattler, Köln-Zollstock, Germany
Application January 2, 1953, Serial No. 329,178
2 Claims. (Cl. 59-31)



1. In a machine for the electric welding of chain links each made of a single piece of metal bent to form an open link with its ends opposite to and in proximity to one

another, said machine having means to hold the link in welding position, electrodes for engaging the link close to its ends and for passing a welding current across said ends, upsetting tools to press the ends of said link together to form the weld whereby the weld is made and a burr of heated soft metal is extruded around the weld, a slideway at an acute angle to the axis of the joined link ends on one of said upsetting tools, means to cut off said burr comprising a pitman slidably mounted on said slideway, a pair of straight edged burr-cutting knives, said knives having edges normal to the direction of sliding of said pitman and spaced to receive said link therebetween, means operatively connecting said pitman and said upsetting tool whereby said knives are advanced to engage the burr in the parallel planes of the sides of the link and progressively at an angle to the plane of the burr immediately upon completion of the upsetting operation to cut the burr from the sides of the link, and a pair of pressure tools operative subsequent to said knives and in a direction normal to the plane of the link to compact the metal at the weld and to deform the remaining burr into thin flashes lying in the plane of the link to facilitate subsequent removal.

2,824,421
CHAIN ATTACHMENT HAVING A SPLIT LOOP PORTION AND A CLEVIS PORTION
John Stanley Nelson, Buffalo, N. Y.
Application April 9, 1956, Serial No. 576,964
1 Claim. (Cl. 59-85)

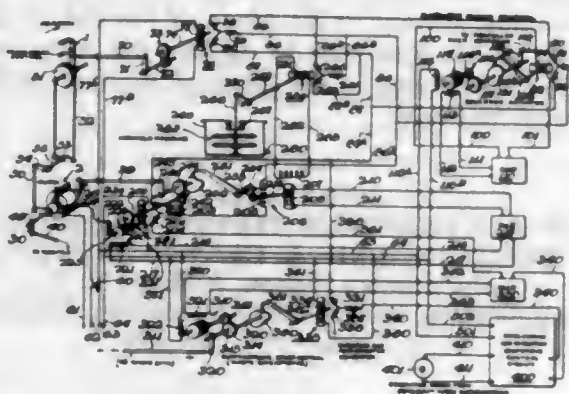


As an article of manufacture, a hook for coupling chains or cable lengths, said hook comprising a pair of interlinkable U-shaped aluminum stud link members, each of said link members having a forward stud link portion and an eye bolt apertured portion integral therewith at the opposite end from said stud link portion, a slip bolt disposed in said apertured portion for interlinking said hook with a chain link, and a cross-split open section and a side straight-away portion of said stud link portion for interlinking the forward respective stud link portions of said hook to fasten the same together and releasably couple the chain lengths, a thickened wall portion disposed diametrically opposite from said cross-split open section and forming the forward load stress-receiving portion of the hook, an integral cross link portion joining the opposite sides of the hook between said split open section and said eye bolt apertured portion, said bolt having a rectangular shaped head, and said eye bolt portion comprising parallel leg members which form integral extensions of said stud link, said leg members having apertured end portions which are in registration to receive said slip bolt, one of said apertured end portions having a rectangular shaped countersunk head for engaging the headbolt end of said slip bolt to prevent rotation of the bolt when in place.

2,824,422
AIRCRAFT ENGINE CONTROL SYSTEM
Joel D. Peterson, Ridgewood, N. J., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application October 30, 1944, Serial No. 561,083
44 Claims. (Cl. 60-13)

1. An engine control system for controlling the functions of the engine, comprising pilot control means for

selecting a desired manifold pressure, an engine throttle, manifold pressure responsive means for controlling the throttle, a variable speed supercharger for maintaining the manifold pressure in agreement with the selected pressure, and supercharger speed control means operatively connected to said throttle and including means responsive to the position of said throttle for affecting the speed of said supercharger, said last mentioned means continuously increasing the speed of the supercharger within its operating limits so long as the throttle remains in a position to one side of a predetermined partially open position, and said last mentioned means continuously decreasing the speed of the supercharger within its operating limits so long as the throttle remains in a position to the other side of the predetermined partially open position, so as to thereby automatically maintain the actual manifold pressure equal to the pilot selected manifold pressures within a correlated performance range of the engine.



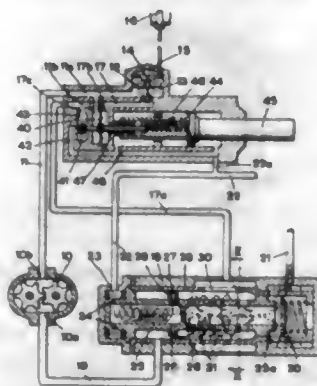
21. The combination comprising, a driven member, a source of pulsating electrical energy, means for varying the frequency of said pulsations in direct proportion to the speed of rotation of said driven member, a high pass filter network connected to the output of said source at a predetermined high frequency indicative of a maximum allowable speed of said driven member, an electronic valve having a plate, a cathode, and a control grid, a second source of electrical energy having a positive terminal and a negative terminal, a voltage dividing resistor connected across the positive and negative terminals of said second source of electrical energy, means including a winding connecting the positive terminal of said electrical energy to the plate, said winding to control the driven speed of said member, means connecting the cathode to said voltage dividing resistor at a point intermediate the opposite ends of said voltage dividing resistor, means connecting the negative terminal of said second source of electrical energy to the control grid so as to apply from said second source of electrical energy a lower potential to said grid than that applied to the cathode and plate for normally opposing electron flow from the cathode to the plate, said last mentioned connecting means including a resistor connected across the output of said filter network and so arranged that passage of current from said first mentioned source of pulsating current through said last mentioned resistor will effect a fall of potential through said last mentioned resistor which will oppose the low potential applied to said grid from said second mentioned source of electrical energy so as to permit electron flow from the cathode to the plate, and said last mentioned connecting means including means supplying a pulsating current having a constant frequency so that the electron flow from the cathode to the plate will pulsate at a constant frequency.

39. A control system for an engine having an air intake passage, a valve in said passage, and means other than said valve for varying an operating condition of said engine indicative of its torque output; said system comprising mechanism for automatically positioning said valve in response to changes in said condition; and means automatically operable in response to operation of said mechanism effecting opening movement of said valve

beyond a predetermined range of its movement adjacent to its full open position for also effecting torque increasing adjustment of said first mentioned means and automatically operable in response to operation of said mechanism effecting closing movement of said valve beyond said range for also effecting torque decreasing adjustment of said first mentioned means.

2,824,423

HYDRAULIC SPEED RESPONSIVE CIRCUITS
Kenneth Arnold Basford, Alvaston, Derby, England, assignor to Rolls-Royce Limited, Derby, England
Application October 3, 1955, Serial No. 538,007
Claims priority, application Great Britain
October 13, 1954
8 Claims. (Cl. 60—52)

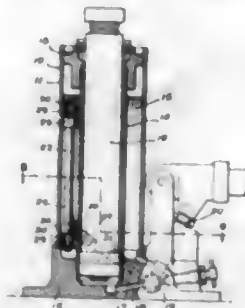


1. A hydraulic speed responsive system comprising a positive displacement fixed capacity hydraulic pump driven by a prime mover at a speed proportional to that of the prime mover, flow restricting means through which is passed the delivery flow from the pump, thereby to cause across the flow restricting means a pressure drop which is a function of the rotational speed of the prime mover, and pressure responsive means subjected to the pressure drop and arranged to effect a controlling action associated with the operation of the prime mover and in which the pump circulates liquid round a hydraulic flow circuit back to its inlet, there being provided an outflow connection from said circuit through which liquid leaves the circuit and an inflow connection to said circuit from an external liquid pressure supply source through which connection supplemental liquid enters the circuit, both said connections being located on the downstream side of the flow restricting means, and flow restricting means in said connections so regulated as to maintain the pressure on the inlet side of the pump at a value in excess of ambient atmospheric pressure.

2,824,424

PORTABLE HYDRAULICALLY ACTUATED MECHANISM

Raymond W. Sebenick, Mount Pleasant, Mich.
Application June 21, 1956, Serial No. 592,792
2 Claims. (Cl. 60—52)



1. In combination with a portable hydraulic jack including a cylindrical housing, a cylinder in and supported by said housing and providing a fluid reservoir between same and said housing, a pump having separate passageways communicating the same with the cylinder

and with the reservoir, and a plunger operating in and protruding from said cylinder; a tubular conduit in said reservoir and angled slightly lengthwise thereof and with its opposite ends terminating adjacent opposite ends of said reservoir, said conduit having its opposite ends open, a gravity-actuated valve on each open end of said conduit and having a path of movement along substantially the same plane as the angled position of the conduit for closing either open end that is elevated above a horizontal plane of said conduit, and a branch tubular conduit connected to and communicating with said first-mentioned conduit and with the passageway between the reservoir and the pump.

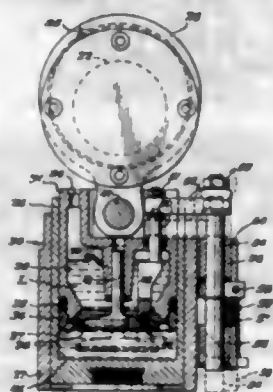
2,824,425

FLUID CUSHIONED CLUTCH MECHANISM

George F. Wales, Kenmore, N. Y.

Application September 24, 1952, Serial No. 311,182

9 Claims. (Cl. 60—54.5)



1. A clutch comprising a driving element and a driven element, one of said elements being a reciprocal piston and the other of said elements being a reciprocable cylinder in which said piston reciprocates and in which it is guided in its reciprocation, said piston being hollow and having a chamber formed therein for liquid, and said cylinder being hollow to provide a second chamber confronting the chamber of said piston, and a valve carried by one of said elements and controlling communication between said chambers, said valve being movable in one direction independently of the stroke of said one element to close off said communication to entrap liquid between the piston and cylinder to cause one to drive the other, and said valve being movable in the opposite direction independently of the stroke of said one element to establish said communication so that said cylinder and said piston may move relative to one another without one driving the other, and means separate from said piston and said cylinder for moving said valve in both said one direction and said opposite direction in said one element.

2,824,426

TEMPERATURE MODIFIED SPEED SWITCH MECHANISM

Mark R. Rowe and Harry C. Zelsloft, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware

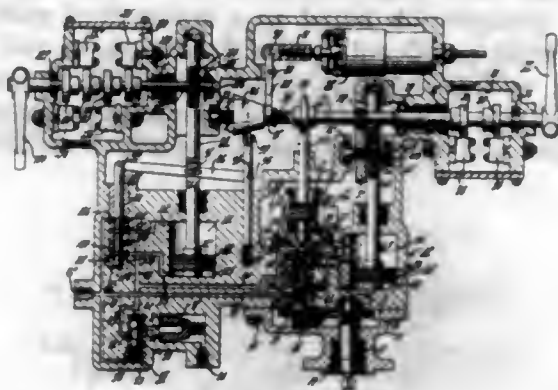
Application March 29, 1955, Serial No. 497,577

4 Claims. (Cl. 60—97)

1. In a device of the character described, a rotatable input shaft, a displaceable member, centrifugally responsive means driven by said shaft and operatively connected to said member for moving it in one direction from a neutral position, resilient means acting in opposition to said centrifugally responsive means and operatively connected to said displaceable member for moving the said member in the opposite direction from the neutral position whereby when the oppositely acting forces imposed upon said displaceable member are in equilibrium, the said displaceable member will remain in said neutral position and when said oppositely acting forces are not in equilibrium,

727 O. G.—49

the said displaceable member will be moved away from the said neutral position, a first output element positioned by said displaceable member as a function of the actual speed of said input shaft, a second output element, actuating means including a three-dimensional cam carried by said first output element for controlling the position of said second output element, and means responsive to ambient



temperature for modifying the operation of said actuating means whereby the second output element is positioned as a function of the actual speed of said input shaft modified by ambient temperature, the means responsive to ambient temperature including a thermostat operatively connected to said three-dimensional cam for varying the base circle thereof.

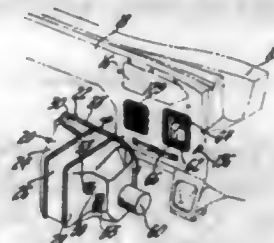
2,824,427

VEHICULAR AIR CONDITIONING SYSTEM

Albert Daniel Baker, Lansing, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application September 23, 1954, Serial No. 457,856

4 Claims. (Cl. 62—117)



1. A vehicular air conditioning system for a body having a cowl air inlet, a fire wall, a passenger compartment and a passage leading forwardly from said inlet to the rearward side of said fire wall, said system comprising an evaporator casing mounted on the forward side of said fire wall and adapted to communicate with said passage, a cooling core in said casing, an outside air inlet valve arranged to direct air from said passage to one side of said core, a by-pass valve arranged to direct air from said passage to the other side of said core opposite said one side, a recirculating valve arranged beneath said inlet valve and adapted to direct air from said passenger compartment to said one side of said core, a blower having its inlet in communication with said casing at said other side of said core, and means for conducting air from said blower to said passenger compartment.

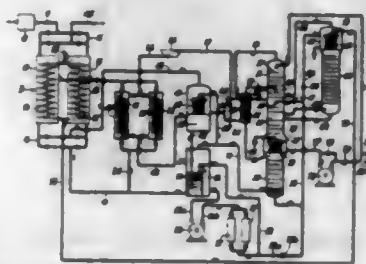
2,824,428

PROCESS AND APPARATUS FOR SEPARATING AIREdward F. Yendall, Kenmore, N. Y., assignor to Union Carbide Corporation, a corporation of New York
Continuation of application Serial No. 449,963, August 16, 1954. This application March 19, 1957, Serial No. 647,447

19 Claims. (Cl. 62—123)

1. A process for separating air by low temperature rectification into products including an argon-enriched product which comprises subjecting air to cooling and

liquefying heat exchanges including a rectification at a higher rectification pressure to provide liquid feeds for a main rectification at lower pressure, said feeds including an oxygen-enriched liquid containing a substantial part of the argon and a nitrogen-rich liquid containing a minor amount of the argon; feeding the oxygen-enriched liquid to an intermediate feed point level of said main rectification after expansion to said lower pressure; feeding the nitrogen-rich liquid to a higher feed point level of said main rectification after expansion to said lower pressure; withdrawing an argon-containing vapor from a level of said main rectification below said intermediate feed point and passing it to an auxiliary rectification;

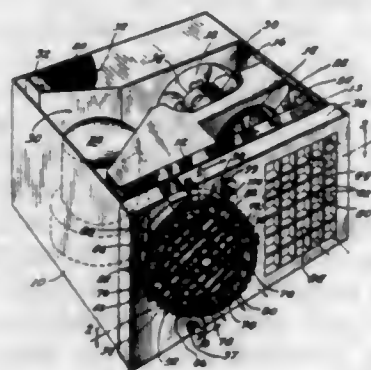


refrigerating the effluent of said auxiliary rectification to partially liquefy same and provide a reflux liquid for said auxiliary rectification and an argon-enriched product; boiling the oxygen-rich liquid collected at the lower zone of said main rectification to produce vapor for said main rectification and to reduce the argon content of such oxygen-rich liquid to an immaterial amount; and feeding at least a portion of the unvaporized oxygen-rich liquid from the lower zone of the main rectification to the top zone thereof above said higher feed point level to wash down a substantial amount of the argon contained in the nitrogen vapor above said higher feed point whereby an improved yield of argon is recovered in said argon-enriched product.

2,824,429 MEANS FOR CIRCULATING AND DISTRIBUTING AIR

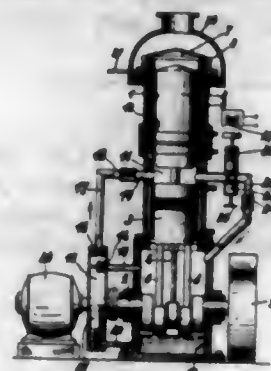
Armand S. Zucker, Chicago, Ill., assignor to Mitchell Manufacturing Company, Chicago, Ill., a corporation of Delaware

Application June 8, 1955, Serial No. 514,090
20 Claims. (Cl. 62-129)



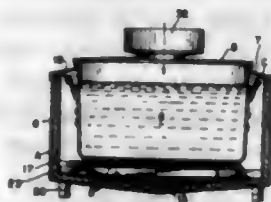
8. In an air conditioner of the character described having an air inlet for passage of air from the room into said air conditioner and an air outlet for passage of conditioned air from said air conditioner into said room, said air outlet having a rotor, said rotor having means impinged by the air from said air conditioner to cause said rotor to operate, said rotor having air discharge openings whereby the air from said conditioner is expelled into the room, and a manually controlled shutter positioned behind said air engaging means for controlling the passage of the volume of air impinging against said air engaging means to thereby control the speed of rotation of said rotor.

2,824,430
COLD-GAS REFRIGERATOR CONTROL SYSTEM
Herre Rinia, José Jan Willem den Haan, Albert August Dros, and Franciscus Lambertus Van Weenen, Emmasingel, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application February 18, 1955, Serial No. 489,106
Claims priority, application Netherlands
February 18, 1954
8 Claims. (Cl. 62-136)



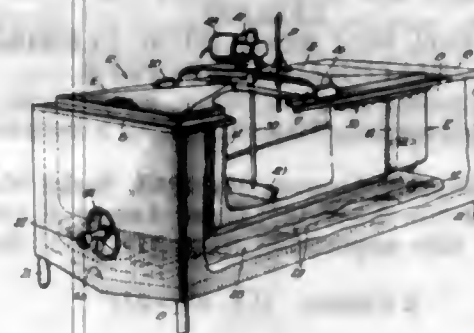
2. A cold-gas refrigerator comprising a cylinder, a piston and a displacer mounted for reciprocable movement in said cylinder, a pair of spaces of variable volume in said cylinder, a freezer, a regenerator and a cooler in series and interconnecting said two spaces of variable volume, an auxiliary space, a duct system communicating at one end with one of said spaces of variable volume and at the other end with said auxiliary space, and a relief valve located in said duct system, said relief valve being operable to connect said space of variable volume to said auxiliary space during relatively low operating speeds of said cold-gas refrigerator.

2,824,431
MILK-COOLING STORAGE TANK
Robert L. Pearson, Chicago, Ill., assignor, by mesne assignments, to Craft Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application May 5, 1955, Serial No. 506,196
5 Claims. (Cl. 62-141)



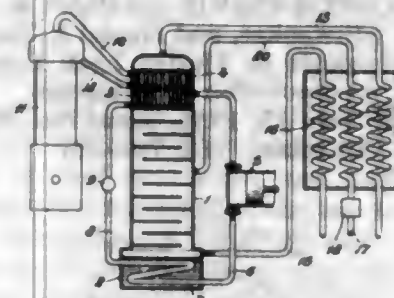
3. A milk-cooling storage comprising, an open-top insulated housing, a refrigerating coil disposed adjacent the bottom of the housing nearly coextensive therewith, a tank suspended in the housing above but not in contact with the refrigerator coil, spray means arranged around the perimeter of the housing to direct a water spray exteriorly onto the walls of the tank for drainage down to and over the refrigerator coil and collection in the bottom of the housing, a circulating pump connected to draw water from the bottom of the housing and deliver it to the spray means, a housing border apron of angular S-shape having the outer lateral flange fitting down over the perimeter of the housing and the inner lateral flange abutting the adjacent top face of the tank with the upper edges of the tank and inner flange substantially flush, said apron having a center portion slanting down from the inner flange to the outer flange around the border of the housing, and perimetricaly-flanged covers removably resting on the tank and housing apron with the cover flanges telescopically fitting over the inner lateral flanges of the housing apron.

2,824,432
LIQUID COOLING SYSTEM
John R. Varese, McHenry, and Clifton D. Wagner, Chicago, Ill., assignors to Craft Manufacturing Co., Chicago, Ill., a corporation of Illinois
Application July 26, 1956, Serial No. 600,208
10 Claims. (Cl. 62-141)



3. Heat exchange apparatus adapted for utilizing a heat exchange liquid comprising a tank, a container for said heat exchange liquid, a heat exchanger immersed in the liquid, and a circulating system for passing said liquid across said tank and said heat exchanger whereby said liquid provides a heat transfer medium between the tank and the heat exchanger, said circulating system including liquid jet flow means submerged in said liquid adjacent one end of said heat exchanger below said tank and associated closely enough to said heat exchanger to substantially increase the heat transfer efficiency between the liquid and the heat exchanger.

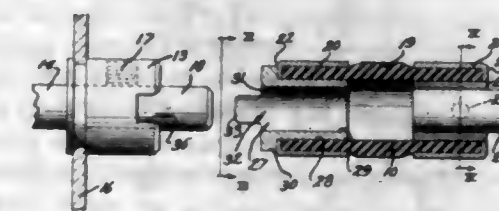
2,824,433
METHOD OF SEPARATING GAS-MIXTURES IN A RECTIFYING COLUMN
Jacob Willem Laurens Köhler, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application December 10, 1952, Serial No. 325,102
Claims priority, application Netherlands
February 29, 1952
11 Claims. (Cl. 62-175.5)



1. A method of separating gas mixtures into at least two fractions in a system having a rectifying column, a vaporizer, condenser, and compressor comprising the steps of providing an auxiliary medium in said system, compressing said auxiliary medium in a compressor wherein the highest temperature occurring in the compression space of the compressor during normal operations is lower than 0° C., passing said compressed medium through said vaporizer in the rectifying column where said medium gives off caloric energy, decreasing the pressure of said medium, conducting said medium through said condenser in the rectifying column thereby absorbing caloric energy, causing said medium to flow back to said compressor, and additionally extracting caloric energy from said rectifying column by means of cold extracted from a cold-gas refrigerator, comprising a cylinder, two pistons operating in said cylinder with a constant phase difference and defining two chambers in which a closed thermodynamic cycle is performed by a gaseous medium of invariable chemical composition in one and the same

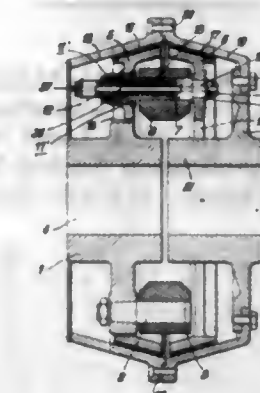
state of aggregation, the volume of gaseous medium in said chambers varying continuously while one of said chambers has a low temperature and the other chamber has a higher temperature, the chambers being connected with one another through a cooler, regenerator and freezer, said cycle being performed independently of said fractionating process.

2,824,434
FLEXIBLE SHAFT COUPLING
Arnold S. Stern, Chicago, Ill.
Application May 11, 1955, Serial No. 507,551
2 Claims. (Cl. 64-11)



1. In a flexible shaft structure including generally aligned but spaced drive and driven shafts, a flexible shaft coupling for slip-on driving connection with said drive shaft to connect same to said driven shaft, said coupling comprising a resiliently flexible sleeve for connection at one end to said driven shaft, a fitting at the other sleeve end telescoping the sleeve to support same, and clutch means integral with said fitting and projecting endwise beyond the fitting for telescoping cooperation with and supported by said drive shaft and for slidingly clutching the drive shaft to the fitting, said clutch means being longitudinally slidable relative to said drive shaft to afford limited longitudinal play of said sleeve without declutching same from driving cooperation with the drive shaft.

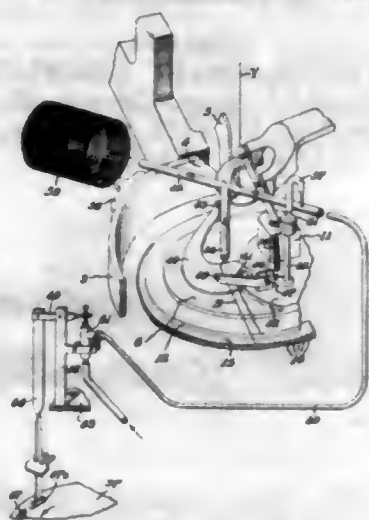
2,824,435
ELASTIC SHAFT COUPLINGS
Johann Hochreuter, Ansbach, Mittelfranken, Germany
Application July 29, 1955, Serial No. 525,307
12 Claims. (Cl. 64-30)



1. An elastic shaft coupling comprising a driven member, a drive member carried by a drive shaft and resiliently connected to said driven member forming coupling members therewith, drive bolts connected to each of said two coupling members, springs positioned between said drive bolts for permitting limited rotation of said two coupling members relative to one another, said driven member having a pair of clutch members, said bolts connected to said driven member being formed as resilient connectors, said clutch members being resiliently joined by said resilient connectors tending to move said clutch members apart and a housing carried by the driven shaft and surrounding the clutch members of said driven member for frictional engagement therewith upon said clutch members moving apart.

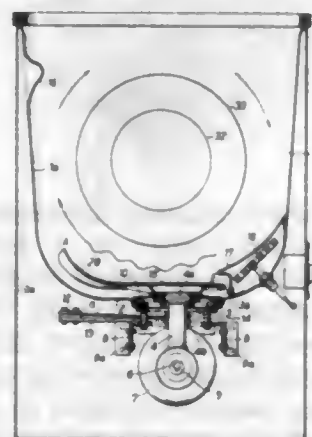
2,824,436
YARN CLAMPING AND SEVERING MECHANISM FOR KNITTING MACHINES
 Vernon T. Stack, Winston-Salem, and Edward E. Knox, Kernersville, N. C., assignors to Hanes Hosiery Mills Co., Winston-Salem, N. C., a corporation of North Carolina

Application February 27, 1957, Serial No. 642,705
 10 Claims. (Cl. 66—140)



1. Yarn clamping and severing mechanism for a circular knitting machine having a rotating cylinder with a complement of needles, a stationarily-supported retractable yarn feed, and a stationary disk axially within the needle circle at the top of the needle cylinder, said mechanism including an annulus at the bottom of the disk capable of rotation with the cylinder, said annulus having sharp edged peripheral teeth extending into close proximity to the needles; a cooperative cutter element positioned substantially diametrically opposite the feed, and adapted to bear downwardly upon and shear with the teeth of the annulus; and a clamp positioned in the interval between the feed and the cutter element whereby, upon retraction of the feed, the yarn is carried down by the last needle to which it is fed and incidentally caught between adjacent teeth of the annulus, drawn beneath the clamp, and eventually severed close to the needle by shearing action of the cutter element with said teeth as said needle passes said cutter element.

2,824,437
CLOTHES WASHING MACHINE
 Wilhelm Reisch, Frastanz (Vorarlberg), Austria
 Application May 10, 1954, Serial No. 428,732
 Claims priority, application Austria May 16, 1953
 11 Claims. (Cl. 68—15)

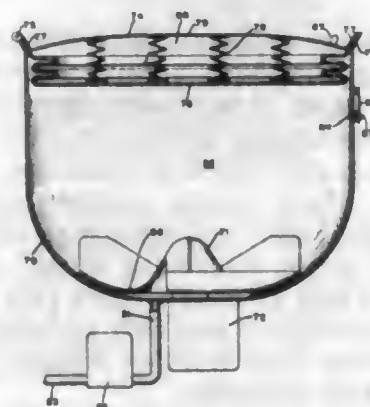


1. A washing machine comprising a casing, a tank within the casing adapted to receive washing lye and goods to be washed, an oscillatory plate within said tank extending in proximity to the bottom of the tank and substantially parallel thereto, drive means for said plate including an eccentric, a connecting rod connecting said eccentric

with said plate, blade spring means having one end fixed to said tank and the other end to said connecting rod, whereby movement of said eccentric is transmitted to said plate to produce a combined pulsating up and down movement and rocking movement of the plate.

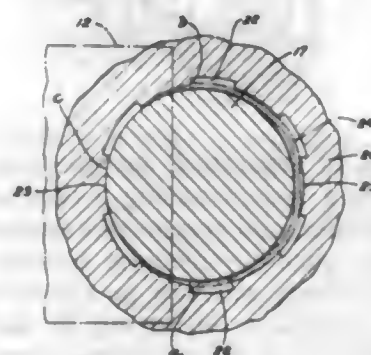
2,824,438
WASHING MACHINE WITH FLEXIBLE DIAPHRAGM WRINGER
 Robert R. Candor, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Original application January 30, 1948, Serial No. 5,320, now Patent No. 2,647,385, dated August 4, 1953. Divided and this application May 21, 1953, Serial No. 356,443

2 Claims. (Cl. 68—21)



1. In a washing machine, a substantially solid tub having an opening in its top wall for introduction of articles to be washed, cover means for said opening, agitating means for said articles to be washed and including actuating means passing through the bottom wall of said tub, flexible sheeting carried by said cover means, means to apply a vacuum to the space between said tub and sheeting, and resilient means holding said sheeting in raised position when a vacuum is not applied.

2,824,439
TAMPER-PROOF PADLOCK
 Harry E. Soref, Milwaukee, and Daniel J. Foote, Wauwatosa, Wis., assignors to Master Lock Company, Milwaukee, Wis., a corporation of Wisconsin
 Application July 13, 1956, Serial No. 597,743
 3 Claims. (Cl. 70—38)



1. In a lock having a body with a circular opening extending inwardly therein from one end, a shackle having a leg thereof movably received by said body opening, and a locking lever operatively mounted within the body and having a cam-like shouldered end portion releasably engageable with a portion of the shackle leg within said opening, which lever end portion is susceptible of being contacted and releasably moved by a shim inserted into said body opening when moved circularly, spaced shoulders formed within a narrow axial extent of the body opening inwardly of its end and adjacent a portion of the locking lever to locally reduce the diameter of a portion

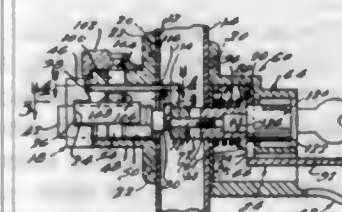
of the opening and obstruct contact between a shim inserted into the body opening and said locking lever end portion.

2,824,440
PANIC EXIT LOCK
 Deane N. Jewett, Fraser, Mich., and John H. Gesing, Cleveland, Ohio; said Jewett assignor of one-half to Detroit Hardware Manufacturing Co., Detroit, Mich., a corporation of Michigan
 Application March 5, 1953, Serial No. 340,432
 1 Claim. (Cl. 70—92)



A lock bolt-shifting mechanism for a hollow door having a chamber therein and a key-actuated rim lock cylinder projecting into the chamber and also having a panic-bar-operated exit lock with upper and lower lock bolts, said bolt-shifting mechanism comprising vertically-disposed upper and lower bolt-shifting rods reciprocally mounted in the chamber of the door respectively above and below the rim lock cylinder and extending toward one another and operatively connected to said upper and lower lock bolts respectively, a housing mounted on the door, a rod coupling device including a vertically-disposed elongated base reciprocally mounted within said housing and vertically-spaced upper and lower arms projecting substantially horizontally from said base into the door chamber above and below the rim lock cylinder and connected respectively to said upper and lower rods, said base having a pair of spaced parallel abutments disposed transversely thereon, a panic bar supporting lever pivotally mounted on said housing and operatively engaging one of said abutments, and motion-transmitting means operatively connected to the rim lock cylinder and operatively engaging the other of said abutments, said coupling device being selectively movable in response to the motion of the rim lock cylinder by the door key and of said panic bar supporting lever by the panic bar to shift said rods and bolts.

2,824,441
DOOR LATCH AND LOCK
 George Wartian, Detroit, Mich., assignor to Wartian Lock Company, St. Clair Shores, Mich., a corporation of Michigan
 Application August 15, 1955, Serial No. 528,466
 4 Claims. (Cl. 70—150)



1. A door latch comprising a casing adapted to be mounted on one side of a door, a latch bolt pivoted in

said casing and movable between latched and unlatched positions, a handle pivoted in said casing and engageable with said bolt for moving the same to its unlatched position, spring means urging said bolt to latched position, a bracket adapted to be mounted on the other side of the door, a plunger slidably mounted in said bracket and having an inner end adapted to project through an opening in the door into engagement with said pivoted handle, an operating member pivoted in said bracket on a horizontal axis and having a vertical portion engageable with the outer end of said plunger and a horizontal portion projecting outwardly from said bracket and forming a manually depressible lever for actuating said plunger, said operating member upon depression thereof being operable to move said plunger against said pivoted handle to cause the latter to move said bolt to unlatched position, a movable locking member supported on said casing and movable into the path of movement of said bolt to lock said bolt in latched position, said plunger being rotatable and having an arm engageable with said locking member upon rotation of said plunger to move said locking member to and from its locking position, and key-operated lock means mounted in said bracket and projecting through said vertical portion of said operating member into engagement with said outer end of said plunger to rotate the latter upon operation of said lock means.

2,824,442
MASTIC APPLICATOR AND FINISHING TOOL
 Robert G. Ames, San Mateo, Calif., assignor of one-half to George W. Williams, Redwood City, and one-fourth to Stanley Ames, Belmont, Calif.
 Application August 17, 1953, Serial No. 374,722
 8 Claims. (Cl. 72—130)



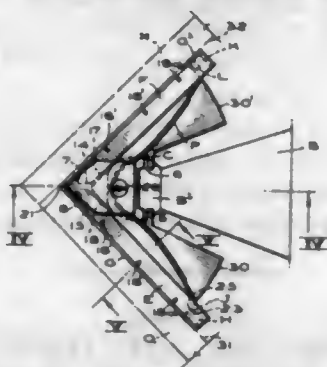
1. In a mastic applicator and finishing tool: a tool body movable over a surface and having a leading end and a trailing end; said body being provided with side walls, a bottom wall, and an arcuate trailing end wall that has an upper edge; said bottom wall having an edge facing the leading end of the body and an opening disposed adjacent to the trailing end wall; a mastic-pressing plate having a leading edge fulcrumed at the leading edge of the bottom wall and having a trailing edge disposed adjacent to the inner surface of the arcuate trailing end wall; spring means for yieldingly holding the trailing edge of the fulcrumed plate adjacent to the upper edge of the end wall; said side walls, bottom wall, end wall and fulcrumed plate forming a mastic-receiving recess; a quadrant mounted on the fulcrumed plate and adjacent to the trailing edge thereof and having an arcuate row of recesses therein; a handle pivoted to the fulcrumed plate; said spring means also yieldingly rocking the body and plate about the handle pivot point for urging the bottom wall toward the surface over which the tool is moved; a latch pivotally carried by the handle and having a projection adapted to enter any one

of the recesses in the quadrant; a hand grip control pivotally secured to the outer end of the handle and operatively connected to the latch for causing the projection on the latch to enter the desired recess in the quadrant when the hand grip control is moved; whereby the handle will be rigidly connected to the fulcrumed plate to prevent the body from freely swinging about the pivot between the handle and plate; and spring means for urging the latch away from the quadrant when the hand grip control is released.

2,824,443

CORNER-FINISHING TOOL HEAD FOR APPLYING MASTIC

Robert G. Ames, San Mateo, Calif., assignor of one-half to George W. Williams, Redwood City, and one-fourth to Stanley Ames, Belmont, Calif.
Application December 20, 1954, Serial No. 476,493
6 Claims. (Cl. 72-130)



1. In a corner-finishing tool head: a body having angularly-related faces providing a corner therebetween; the faces having leading, trailing and side edges; these faces being arrangeable in confronting relation with two wallboard taped surfaces that define a corner, with the corner of the faces disposed at the wallboard corner; means for delivering mastic to said faces for applying a layer of mastic to the surfaces; two transverse matrices extending along the trailing edges of the faces; a corner-shaped clip secured to the body corner and pivotally supporting the inner ends of the matrices; trowelling bars carried by the matrices; the inner ends of the bars being disposed close to the upper sides of the matrices to provide space for the pivotal connection between the matrices and clip, and the outer ends being disposed close to the lower sides of the matrices, to reduce the area of the face of the matrices to the pressure of mastic; the trowelling bars projecting beyond the surfaces of the matrices for trowelling off any excess mastic as the tool head is advanced longitudinally along the wallboard corner; and yielding means for urging the trowelling bars toward the wall board surfaces.

2,824,444

DEVICE FOR PRODUCING MECHANICAL SHOCKS

Thomas E. Hanes, Ventura, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application June 29, 1955, Serial No. 519,009
4 Claims. (Cl. 73-12)
(Granted under Title 35, U. S. Code (1952), sec. 266)



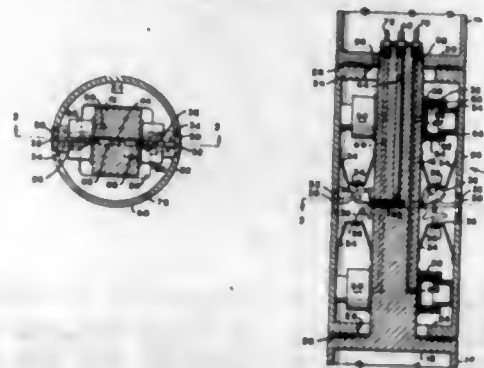
1. A device for producing high acceleration mechanical shocks which comprises an elongated hollow body means, means for closing one end of said body means, a frangible member mounted within said body member and

dividing the interior of said body means into a compression chamber and an expansion chamber, means for rupturing said frangible member, means for introducing a gaseous fluid under pressure into said compression chamber, and a driven member movably mounted within said expansion chamber, means for supporting a test object for engagement by said driven member, said driven member being spaced from said frangible member sufficiently to permit the formation of a pneumatic shock wave when the frangible member is ruptured whereby said driven member is subject to a mechanical shock created by said shock wave.

2,824,445

SOIL TESTING APPARATUS

Lyndon C. Reese, Austin, Tex., assignor to Shell Development Company, New York, N. Y., a corporation of Delaware
Application August 10, 1956, Serial No. 603,361
7 Claims. (Cl. 73-89)

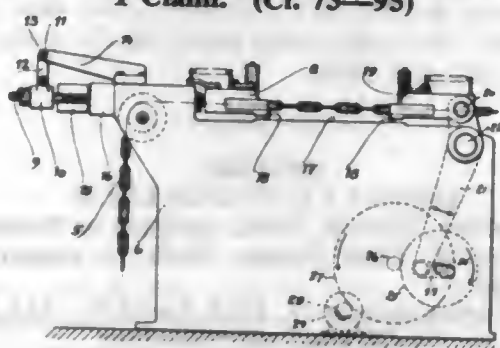


1. An apparatus for determining the lateral soil reaction characteristics of sub-surface earth formations, comprising: a pile adapted to be driven into the earth, said pile including an interposed transversely movable testing section of substantially the same outer diameter as said pile, means in said pile for shifting said testing section transversely of the pile and against the pressure of an earth formation, and means carried by the testing section for sensing the pressure exerted on said section by an earth formation and the lateral displacement of said movable testing section with reference to a fixed element of said pile.

2,824,446

APPARATUS FOR TESTING THE TENSILE STRENGTH OF CHAINS AND THE LIKE

Hans Stützer, Köln-Bickendorf, Germany
Application October 1, 1953, Serial No. 383,630
Claims priority, application Germany October 13, 1952
1 Claim. (Cl. 73-95)



In a testing machine, a horizontal bed, a traverse at one end of said bed to resist the testing stress applied by the machine, a first horizontally movable grip adjacent said traverse to hold one end of the material under test, a yoke on the side of the traverse remote from said grip and rigidly connected to said grip, said first grip and yoke being pivotable on a horizontal axis remote from said grip, a second horizontally movable grip spaced from said first grip and located at the end of said test-

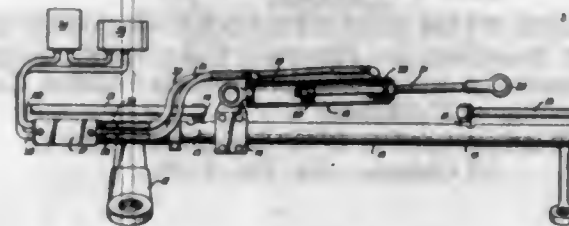
ing machine remote from said first grip, said second grip being pivotally mounted on a lever which is oscillated by a motor, a pressure cell between the said traverse and said yoke to record the stress in the test piece, and a track-way to support said grips, said track-way being sufficiently below the said grips that the grips may rest on said track-way when the test piece is not under stress and lift off of the track-way when the test piece is placed under stress.

2,824,447

POWER STEERING APPARATUS AND CONTROL VALVE THEREFOR

Robert A. Garrison, San Marino, Calif.
Continuation of application Serial No. 268,587, January 28, 1952. This application May 24, 1954, Serial No. 431,649

3 Claims. (Cl. 180-79.2)



1. In a power steering apparatus for a vehicle provided with a steering-wheel-operated pitman arm, provided with steered parts, and provided with two tie rods having spaced inner ends and having outer ends respectively connected to said steered parts, the combination of: an idler bar extending between and pivotally connected to said inner ends of said tie rods, said idler bar having at one end an extension extending outwardly beyond the point of pivotal connection of said idler bar to the inner end of one of said tie rods; a hydraulic pump; hydraulic motor means operable by fluid under pressure delivered by said pump for moving said idler bar longitudinally thereof in either direction to steer said steered parts through said tie rods, said hydraulic motor means including cylinder and piston members extending in the direction of said idler bar, one pivotally anchored relative to the frame of the vehicle, and the other moving said idler bar longitudinally thereof in one direction or the other depending on the fluid pressures existing in said cylinder member on opposite sides of said piston member; means of fluid communication between said hydraulic pump and said hydraulic motor means for admitting fluid into and discharging fluid from said cylinder member on said opposite sides of said piston member; valve means carried by said idler bar extension and located in said means of fluid communication for controlling the admission of fluid into and the discharge of fluid from said cylinder member to control the fluid pressures on said opposite sides of said piston member, whereby to control the operation of said hydraulic motor means; and means connecting said pitman arm to said valve means to operate said valve means in response to steering-wheel-induced movement of said pitman arm.

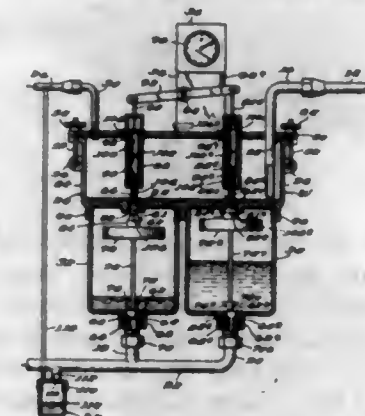
2,824,448

MILK VOLUME METERING APPARATUS

Bert Wier, Artesia, Calif.
Application January 2, 1952, Serial No. 264,442
8 Claims. (Cl. 73-221)

1. An apparatus for use with mechanical milking equipment that indicates the milk production of one or more cows, including: two receptacles of known volume, each of which has a fluid outlet formed in the bottom thereof; an open-topped fluid distribution chamber having two spaced first ports formed in the bottom thereof; means for removably securing each of said receptacles to the bottom of said chamber in communication with one of said ports; a cover that is removably mounted on the

open top of said chamber and effects an air-tight seal therewith; two vertical tubular valve bodies having second ports formed in the upper portions thereof and sealed upper extremities, which bodies are so affixed to said cover that the upper portions thereof project thereabove with said second ports communicating with the ambient atmosphere and with said bodies being in alignment with said first ports when said cover is mounted on said chamber; a horizontally disposed pin supported above said cover; a lever pivotally supported on said pin; two arms pivotally connected to the end portions of said lever and extending downwardly into said valve bodies through openings formed in the upper ends thereof; two hollow plungers connected to the lower ends of said arms and having open lower ends, which plungers are slidably mounted in said valve bodies and have third ports formed in the upper portions thereof that may be brought into alignment with said second ports; a float disposed within each of said receptacles; a first valve plug positioned above each of said floats in fixed relationship thereto, which plugs may effect fluid-tight seals with said first ports; two rigid tubes extending upwardly from said valve plugs through said first ports to rigidly engage said lower open



ends of said plungers, each of which tubes communicate with a fourth port formed in one of said plugs; two rods depending downwardly from said floats, which rods are in alignment with said fluid outlets; two second valve plugs mounted on the lower ends of said rods and adapted to effect fluid-tight seals with said outlets; fluid discharge means connected to said outlets; a fluid-conducting line extending from said equipment to the interior of said chamber; and a conduit extending into the upper portion of said chamber through which air is constantly withdrawn to form a vacuum in said chamber and that receptacle being filled whereby fluid flows from said line into said chamber to be alternately distributed to said receptacles through said first ports, with fluid flow continuing to one of said receptacles until said float contained therein is raised to concurrently displace said second valve plug associated therewith from one of said outlets to permit flow of fluid to said discharge means, dispose said first valve plug associated therewith in sealing engagement with one of said first ports, move said valve plunger associated therewith upwardly to bring one set of said second and third ports into alignment to break the vacuum existing in said receptacle, and pivot said lever to move said first and second valve plugs and plunger into positions permitting fluid flow into the other of said receptacles from said chamber.

2,824,449

CAPACITANCE-TYPE FLUID MEASURING APPARATUS

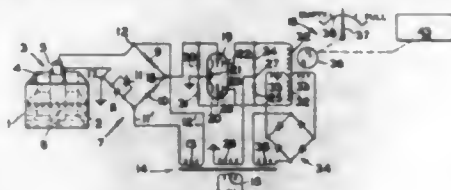
Robert S. Childs, Sudbury, Mass., assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware

Application July 29, 1953, Serial No. 371,050

9 Claims. (Cl. 73-304)

1. Apparatus for measuring the quantity of a dielectric fluid present in a container, comprising a measuring con-

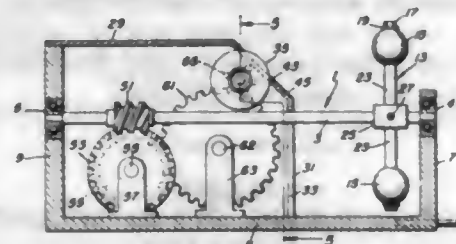
denser having its electrodes adapted for mounting in the container for immersion in the fluid therein to an extent depending upon the level of the fluid therein so that its capacitance changes with the fluid level, an electrical bridge having said measuring condenser connected in its measuring arm and having its input adapted to be electrically coupled to a source of alternating current to produce bridge balance when the container is empty and to develop in its output when there is fluid present in the container an unbalance voltage of a magnitude which is a function of the quantity of fluid present in the container, indicating means having a rotor and first and second field winding means, means for energizing said first winding means with unidirectional current to establish a first unidirectional field of substantially constant magnitude during the operation of the apparatus tending to hold said rotor in a first angular position, first and second amplifying devices each having a control electrode, an electron emitter and a collector, means for electrically coupling the control electrode of said first device to the output of said bridge to receive and amplify said unbalance voltage and for connecting the control electrode of said



second device so that said last-mentioned electrode does not receive said unbalance voltage, means for maintaining the control electrodes of said devices at substantially the same potential when said bridge is balanced, means for electrically coupling the emitter and collectors of said devices to the source so that said devices conduct on the same half cycles of the source voltage to an equal extent when said bridge is balanced and when said bridge is unbalanced the conduction of said second device remains substantially unchanged while the conduction of said first device is changed to an extent depending upon the magnitude of the unbalance voltage when said bridge is unbalanced, and means including said amplifying devices and utilizing the difference in the currents flowing therethrough upon bridge unbalance for energizing said second winding means to produce a second unidirectional field of an effective magnitude which is a function of the magnitude of the unbalance voltage and angularly displaced with respect to said first field to produce a resultant unidirectional field which locates said rotor in an angular position corresponding to the quantity of fluid present in the container.

2,824,450
GOLF PRACTICE APPARATUS
Dante Para, Detroit, Mich.

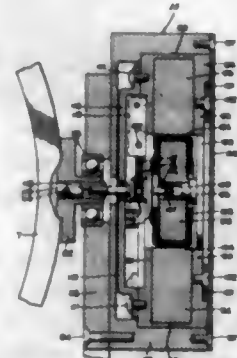
Application November 29, 1955, Serial No. 549,617
2 Claims. (Cl. 73-379)



1. In combination, a base panel, a housing on said panel having a front sight opening, a rotatably mounted first shaft extending into said housing and forwardly of said housing, a spinner head fast on said shaft in front of and outside said housing adapted to be struck by a golf club to impart rotation to said shaft, a second shaft

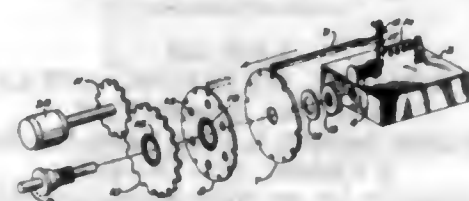
in said housing, a drum in said housing freely rotatable and slidable laterally on said second shaft and extending out of said opening for manual rotation and sliding thereof, said drum having peripheral numbers thereon to indicate upon rotation of the drum from a starting position the distance a golf ball would have traveled under blows struck against said spinner head, means in said housing operatively connecting said first shaft to the second shaft, clutch devices on said second shaft and drum disengaged by manual sliding of said drum in one direction, and spring means on the second shaft opposite said drum sliding the same in an opposite direction to engage said devices, said drum being manually rotatable when said devices are disengaged to provide for manual rotation of the drum into starting position.

2,824,451
GYROSCOPE WITH DIRECT CURRENT TORQUING
Thomas O. Summers, Jr., Sherman Oaks, Calif., assignor to Summers Gyroscope Company, Santa Monica, Calif., a corporation of California
Application April 1, 1953, Serial No. 346,141
15 Claims. (Cl. 74-5.47)



1. In an instrument for controlling the movement of a movable craft, a universally mounted gyroscope, a gravity sensitive means for sensing movement of said gyroscope away from true vertical about one of its axes, a direct current motor responsive to said gravity sensitive means for applying an erection torque to said gyroscope to return it to true vertical about said one axis, said motor having pole pieces and a core movable with said craft and a cylindrical armature connected to said gyroscope, and means for mounting said armature for rotation about an axis in line with said one axis, said armature being constructed of wholly non-magnetic material so as to have no inherent residual magnetism remaining after energization of the armature by said gravity sensitive means.

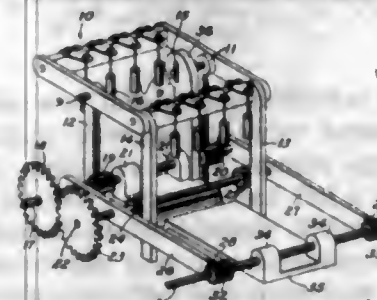
2,824,452
SHAFT POSITIONING MECHANISM
Robert A. Colby, Marion, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application December 6, 1955, Serial No. 551,244
4 Claims. (Cl. 74-10.2)



1. A shaft positioning mechanism including a rotatable shaft, a motor, a plurality of gears including at least one gear positioned on and freely rotatable about said shaft, said motor rotating said freely rotatable gear, clutch means for selectively transmitting the rotary motion of said freely rotatable gear, a stop plate fixed to said rotatable shaft, a control mechanism including a positive stop means responsive to external signals to control the position of said posi-

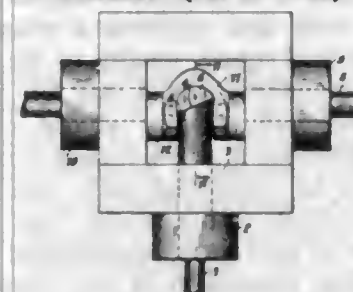
tive stop means, said positive stop means selectively meshing with said stop plate and said clutch means, and said rotary motion selectively applied to said shaft by said stop plate thereby automatically positioning said shaft.

2,824,453
DIFFERENTIAL MECHANISM
Lloyd E. Winter, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application June 11, 1956, Serial No. 590,477
5 Claims. (Cl. 74-10.54)



5. A differential mechanism comprising a base, a first, second, and third shaft, said first and third shafts being supported on said base, arm means pivoting on said first shaft, said arm means mounting said second shaft, means coupling the end of said arm means to said third shaft, means rotatably coupling said first and second shafts, slug carrying means, rack and pinion means coupling said slug carrying means to said first and second shafts, whereby rotation of said first shaft moves said slug carrying means parallel to itself and rotation of said third shaft rotates said slug carrying means about a coupling point.

2,824,454
ROTARY TO OSCILLATORY MECHANICAL MOVEMENT
Granville S. Rider, Los Angeles, Calif., assignor to one-half to George I. Wahnish, Hermosa Beach, Calif.
Application April 18, 1955, Serial No. 501,839
7 Claims. (Cl. 74-48)

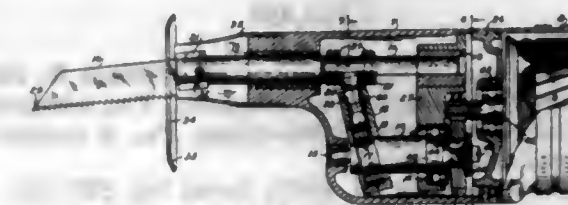


1. In a mechanical movement, a rotatable shaft provided with an inclined cam surface, a semi-cylindrical driving element having a cylindrical surface and a flat face, the cam surface being in intimate contact with said flat face, an oscillatable shaft having a crank portion provided with a loop cavity, said cavity having a portion complementary in shape to the cylindrical surface of the driving element, the driving element being fitted in said cavity, and guide means for guiding the driving element through an oscillatory path within said cavity when the rotatable shaft is rotated.

2,824,455
PORTABLE RECIPROCATING SAW
Edward W. Ristow, Wauwatosa, and Versel A. Behlke, Greenfield, Wis., assignors to Milwaukee Electric Tool Corporation, Milwaukee, Wis., a corporation of Wisconsin
Application June 27, 1952, Serial No. 295,902
3 Claims. (Cl. 74-60)

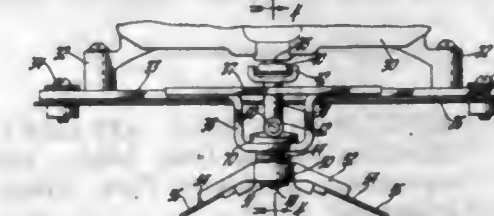
1. In combination, a rearwardly open unitary casing having therein lower and upper fixed front bearings, a

wall detachably secured to the open rear end of said casing and having therein complementary lower and upper bearings, a rotary drive shaft journaled in said complementary lower bearings and having an intermediate crank the axis of which is inclined relative to the shaft axis, a longitudinally reciprocable driven shaft slidably



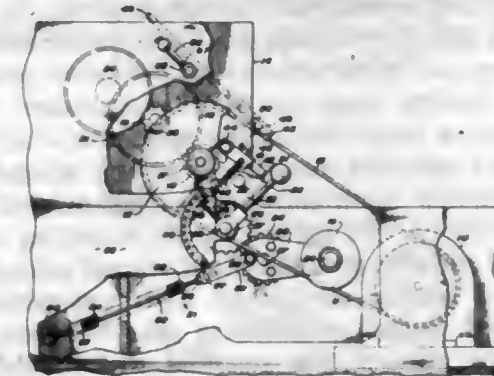
confined within said complementary upper bearings for movement parallel to said drive shaft and having thereon a socket facing said crank, an oscillatory element journaled upon said crank and having a member rockably engaging said socket and swingable in the common plane of the axes of said parallel shafts, and means for rotating said drive shaft to reciprocate said driven shaft.

2,824,456
FLEXIBLE CABLE DRIVE FOR OSCILLATING SHAFTS
Clarence P. McClelland, Royal Oak, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application May 8, 1953, Serial No. 353,726
20 Claims. (Cl. 74-96)



1. A flexible cable transmission apparatus for effecting oscillatory movement of windshield wipers and the like comprising an oscillatable driver shaft, a member mounted transversely of and in fixed relation on said shaft, opposed flexible cables attached at each of two points on said member at opposite sides of said shaft, and cam means arranged to impart motion to said cables in a direction parallel with said driver shaft.

2,824,457
SPEED CONTROL FOR PRINTING PRESS
Robert K. Norton, Twinsburg, Ohio, assignor to Harris Intertype Corporation, a corporation of Delaware
Application April 21, 1954, Serial No. 424,722
17 Claims. (Cl. 74-230.17)



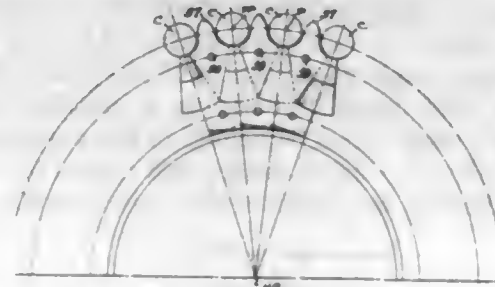
1. In a printing machine, driving mechanism comprising driving and driven pulleys on fixed parallel axes, a belt running over said pulleys, one of said pulleys being adjustable as to its effective diameter in response to variations in the tension of said belt, an idler pulley over which said belt runs, spring means tending to move said

idler to belt tensioning position and reduce the effective diameter of said adjustable pulley, manual means for moving said idler to decrease belt tension and increase the diameter of said adjustable pulley, and latching means for preventing actuation of said spring means.

2,824,458 GEAR

Lauri C. Barland, West Chester, and William R. Shaffer and John R. Wald, Jr., Huntingdon, Pa., assignors to Wald Industries, Inc., Huntingdon, Pa., a corporation of Pennsylvania

Application May 25, 1956, Serial No. 587,342
14 Claims. (Cl. 74-243)

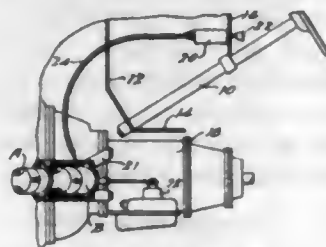


1. A sprocket comprising an axially mounted circular member, an annular channel in the periphery of said circular member, and a plurality of sprocket teeth interlocked together in said annular channel, the bottom of said annular channel consisting of an expansible ring which is adapted to be varied in effective diameter by the application of force outwardly from the radial center of the ring.

2,824,459

TRANSMISSION CONTROL APPARATUS
Bernard L. Thibodeau, Royal Oak, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application July 3, 1956, Serial No. 595,719
6 Claims. (Cl. 74-365)



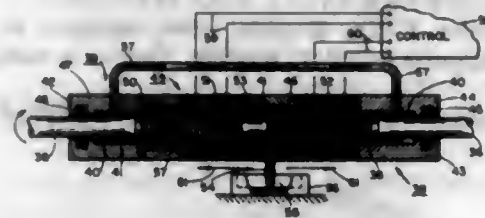
1. In a vehicle having a source of electrical energy and a transmission having a control member which is selectively movable to a plurality of positions to establish respectively different driving ranges of the transmission, a control apparatus for said member comprising a device located within the reach of the operator of the vehicle and having a plurality of manually operable members each movable from an inoperative to an operative position to select one driving range of said transmission differing from the driving range selected by operation of another of said manually operable members, first and second axially aligned solenoids electrically connected to said source and to said device, and means fixedly mounting said first solenoid and slidably mounting said second solenoid, said first solenoid having an output shaft operatively connected to said second solenoid so that energization and deenergization of said first solenoid will slidably move said second solenoid relative thereto, said second solenoid having an output shaft operatively connected to said control member, said manually operable members being movable to operative positions to energize and deenergize said first and second solenoids in predetermined combinations to thereby move said control members to said predetermined driving ranges of said transmission.

2,824,460

MAGNETIC REVERSIBLE NUT

Lincoln K. Davis, Brockton, Mass., assignor to The Foxboro Company, Foxboro, Mass., a corporation of Massachusetts

Application November 24, 1954, Serial No. 470,966
1 Claim. (Cl. 74-424.8)



For use in an industrial instrument as a means of operating a flow control valve, a magnetic clutch movement translation device comprising a rotatably driven screw shaft which has a left hand sharp V thread portion and a right hand sharp V thread portion thereon, a tubular sleeve chamber mounted on said shaft for movement therealong, and enclosing said left and right hand thread portions, said sleeve having an inner diameter substantially greater than the diameter of said shaft and said threaded portions thereof, said shaft having the same diameter throughout said chamber except for said screw thread portions, said threaded portions having equal major diameters somewhat greater than the diameter of said shaft, with said threaded portions thus providing the only abutments extending transversely of said shaft, a pair of magnetic coils wound on said sleeve, in integral relation thereon for movement therewith along said shaft, a magnetic particle mass in said chamber and about both of said left and right hand thread portions thus filling the said substantially greater inner diameter of said sleeve to provide relatively large radial thickness dimension in said particle mass between said shaft and said sleeve sufficient to provide a substantial "nut" body of said particle mass whereby said magnetic coils, said sleeve, and said "nut" body move as a unit along said shaft as a nut along a bolt when said coils are energized and said shaft is rotating, means responsive to a control signal for selectively energizing said coils and applying a magnetic field, in representation of said signal, locally to the said magnetic particle mass in the ambiances of said left and right hand threads to solidify said mixture at one of said threads and in effect to produce a screw thread formation in said solidified mixture to form said coils, said sleeve and a portion of said mixture into a single "nut" unit, whereby movement forces of said screw are applied to said chamber unit to produce movement of said shaft through said mixture in a predetermined direction according to which of said screw threads is associated with said solidified mixture, and a magnetic fluid mixture feedback passage extending from one end of the chamber of said unit to the other as a means of by-passing slippage portions of said mixture, said passage being located outside of the effective area of said magnetic field, and whereby a flow control valve stem may be secured to said chamber unit assembly for movement thereby as a means of opening and closing a flow passage.

2,824,461

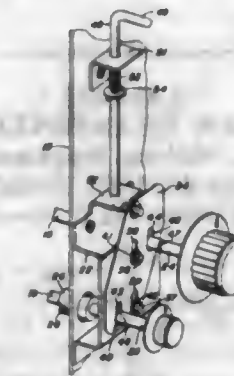
SHAFT LATCHING DEVICE AND QUICK DISCONNECT COUPLING FOR SHAFTS PARALLEL BUT NOT COLINEAR

Hubert H. Hoeltje and Jack L. Groom, Burbank, Calif., assignors to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application February 21, 1955, Serial No. 489,464
6 Claims. (Cl. 74-483)

1. Means for locking shafts together so they cannot move relative to each other in a longitudinal direction while remaining free to turn comprising, a first plate

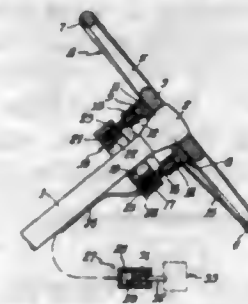
formed with an opening, a U-shaped bracket attached to said first plate and formed with an aligned opening, a locking plate formed with a pair of slots, guide pins attached to said bracket and extending through said slots a keyhole slot formed in said locking plate, one



of said shafts extending through said plate, the bracket and the keyhole slot, a groove formed in said one shaft for engagement with the smaller portion of the keyhole slot, and spring biasing means attached to said locking plate urging the smaller portion of said keyhole slot toward said one shaft.

2,824,462

STEERING WHEEL MOUNTED CONTROL DEVICE
Maurice Nelles, Elmhurst, Ill., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application October 26, 1953, Serial No. 388,349
6 Claims. (Cl. 74-484)



1. In an automotive vehicle having a steering column, the combination which comprises a steering wheel having integrally formed therein a recessed portion which extends along one surface thereof, a flexible and fluid-tight container, means mounting said container within said recessed portion of said steering wheel, a cylinder, a piston within said cylinder, fluid-transmitting means interconnecting said flexible container and said cylinder, means biasing said piston toward one position, and means responsive to movement of said piston against said biasing means to a second position to effect a control function, flexing of said flexible container effecting a transfer of fluid from said flexible container through said fluid-transmitting means into said cylinder and consequent movement of said piston to said second position.

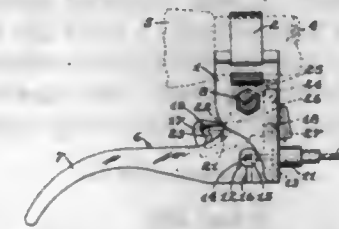
2,824,463

FLEXIBLE CABLE OPERATING MECHANISM FOR TWO-SPEED BICYCLE GEARING

Hollis K. Gleasman, Elmira, and Anthony J. Strozinski, Horseheads, N. Y., assignors to Bendix Aviation Corporation, Elmira Heights, N. Y., a corporation of Delaware

Application April 30, 1954, Serial No. 426,856
2 Claims. (Cl. 74-489)

1. Flexible cable operating means for two-speed bicycle gearing including a frame, means for clamping the frame on a bicycle at a location convenient to the operator, an operating lever pivoted to the frame, a flexible cable attached to the lever to be placed under tension by actuation of the lever, and means responsive to

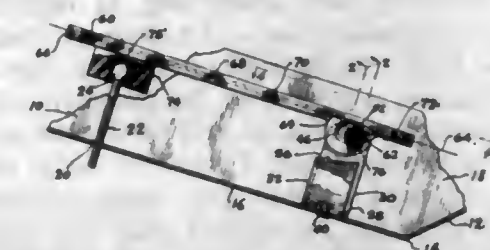


2,824,464

HINGED PEDAL STRUCTURE

Ralph T. Remington, Roseville, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan

Application January 13, 1954, Serial No. 403,753
9 Claims. (Cl. 74-513)

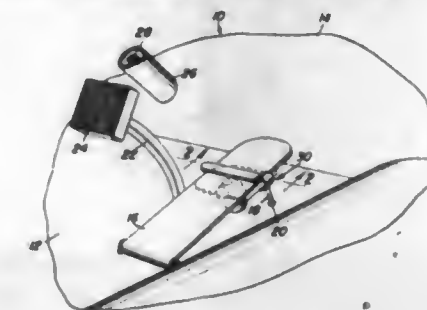


6. In combination, a support bracket having at least one opening therein, a part to be swingably supported by means of an insertable hinge pin on the bracket and having hollow core means affixed thereto in a position of registry with the bracket opening, said core means having a preformed elastically deflectable protrusion in the path of the hinge pin, and a hinge pin which is provided to be inserted through the support bracket opening and the core means when mutually in registry and having an end engageable with the protrusion to displace the same and temporarily clear it out of the path thereof and having a reduced portion adjacent said pin end into which the protrusion snaps after clearing the latter.

2,824,465

GAS PEDAL CONTROL

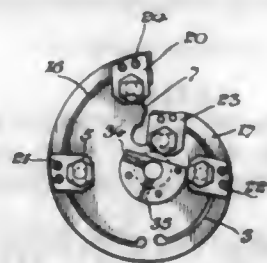
John T. Riley, Washington, Pa.
Application January 10, 1955, Serial No. 480,823
3 Claims. (Cl. 74-526)



2. In combination with a vehicle gas pedal of the type overlying a vehicle floor board, a control device, said control device including a mounting plate underlying said gas pedal, a bifurcated spring clip, said spring clip having one leg secured to an underside of said mounting plate and a second leg overlying said gas pedal releasably

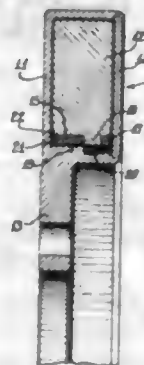
clamping said mounting plate to said gas pedal, said gas pedal having a side edge, said mounting plate having a side flange engaging said side edge to position said control device relative to said gas pedal, a threaded member secured to said mounting plate in depending relation, a stop member carried by said threaded member and engageable with said floor board to limit the depressing of said gas pedal, said stop member being adjustable relative to said threaded member whereby the maximum depressing of said gas pedal may be selectively raised.

2,824,466
ADJUSTABLE PERIPHERY CAM
Frank J. Skwarek, Westbury, N. Y., assignor to Polarad Electronics Corporation, Brooklyn, N. Y., a corporation of New York
Application July 17, 1953, Serial No. 368,718
4 Claims. (Cl. 74-568)



4. An adjustable cam comprising, in combination, a cam body, means comprising a slot along an outer portion of said cam body and generally parallel to the cam contour for rendering a portion of the periphery of the cam flexible, members mounted on said peripheral portion and overlying the other portion of said cam body, and means adjustably mounted on said cam body in contact with each of said members for causing generally radial movement of said members to adjust the position of said peripheral portion, there being at least one of said members for each 90° of arc of said adjustable peripheral portion, each of said members being in the form of a tab having a slot therein, said slot being generally perpendicular to the radius of said cam, and said means for adjusting the position of said members and their associated peripheral portion comprising a bolt having an eccentric portion located in each said slotted opening, said bolts being rotationally adjustable in said cam body, and means operative to prevent the rotation of said bolts.

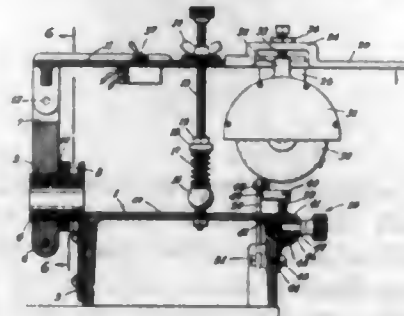
2,824,467
BEARING STRUCTURE FOR VISCOUS CRANKSHAFT DAMPERS
Bernard E. O'Connor, Buffalo, N. Y., assignor to Houdaille Industries, Inc., a corporation of Michigan
Application September 27, 1952, Serial No. 311,887
18 Claims. (Cl. 74-574)



1. In combination in a viscous torsional crankshaft vibration damper a ferrous housing providing a flywheel chamber, a ferrous flywheel relatively rotatably disposed in said chamber, said flywheel and said housing having opposed parallel working surfaces in shear film spaced relation, a viscous silicone fluid in said chamber and providing a shear film of the fluid in the space between said work-

ing surfaces, and non-ferrous bearing means carried by said flywheel and engageable with an opposing surface of the housing within said chamber and from which the flywheel must be held against direct engagement, due to the ferrous nature thereof, to avoid binding in the presence of said silicone fluid.

2,824,468
SAW SHARPENER
Erich R. Nielsen, Stockton, Calif.
Application July 26, 1956, Serial No. 600,223
13 Claims. (Cl. 76-40)



1. A saw sharpener comprising a base, means to releasably secure a saw on the base with a selected tooth upstanding thereabove, an electric motor and grinding wheel unit, and means mounting said unit in connection with the base for manual swinging motion between an initial raised position with the grinding wheel clear of such tooth and a lowered working position with the grinding wheel in sharpening engagement with said tooth; said last named means including a swing arm disposed above the base, one stop element depending from the swing arm toward the base, another and cooperating stop element on the base in initially spaced relation to said one stop element, and a spring between said stop elements yieldably resisting motion of one toward the other.

2,824,469
CHAIN SAW SERVICING VICE
Harold B. Craig, Keosauqua, Iowa
Application May 7, 1956, Serial No. 582,979
4 Claims. (Cl. 76-78)

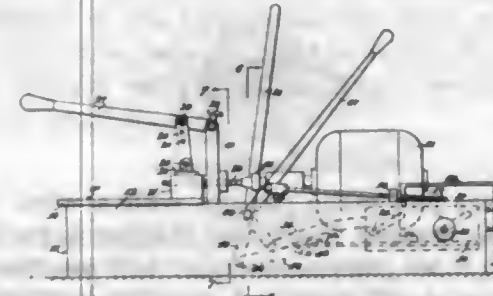


1. In a vice, a vertical base jaw plate, a second vertical base jaw plate adjacent said first jaw plate, spring means for yieldingly holding said two jaw plates away from each other, a lever bracket means secured to said first jaw plate and loosely extending through said second plate jaw, a cam lever hinged to said bracket means and engageable with the outer side of said second plate jaw, and a saw chain tray support on one side of said first plate jaw; said tray being in the form of an open ended trough having its two end portions extending downwardly and outwardly.

2,824,470
BORING MACHINE
Earl C. Groves, Monett, Mo.; E. L. Monroe, administrator of said Earl C. Groves, deceased
Application February 1, 1954, Serial No. 407,304
2 Claims. (Cl. 77-5)

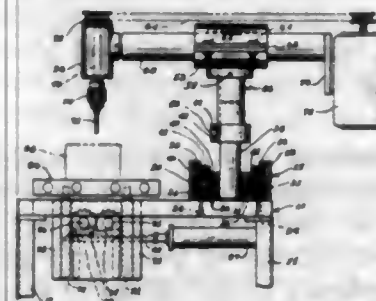
1. An improved boring machine of the kind described comprising a frame, a work bench adjacent one end of

said frame, manually actuated clamping lever means pivotally connected to said bench at the other end thereof for clamping a work piece to be bored thereon, lever actuated motor base supports including a pin and inclined slot connection between said frame and said supports



for moving said base supports vertically and horizontally relative to said frame, a motor base horizontally slidable on said motor base supports for sliding movement longitudinally of said frame and a link and lever connection connected to said motor base for sliding said motor base.

2,824,471
MULTI-SPINDLE DRILLING MACHINE WITH INDIVIDUAL SPINDLE HAVING UNIVERSAL ADJUSTMENT IN A PLANE
Seymour E. Gordon, Rockville Centre, N. Y., assignor to Gang Driller Machine Works Inc., Brooklyn, N. Y., a corporation of New York
Application June 8, 1954, Serial No. 435,303
7 Claims. (Cl. 77-24)

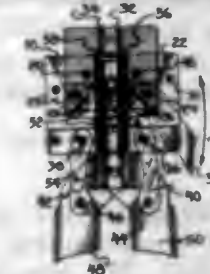


1. A gang drilling machine including a main frame having a guideway extending lengthwise thereof, a plurality of carriages that are adjustable into different positions along the guideway independently of one another, means for clamping the carriages at any selected positions along the guideway, a work table, a tool assembly carried by each of the carriages and having one end extending outwardly over the work table, each tool assembly including a supporting frame and a drill located at the end of the frame over the work table, a support on each carriage connecting the tool assembly frame with the carriage and rotatable with respect to the carriage about a substantially vertical axis to provide angular movement of the tool assembly over the work table and, in combination with the adjustment of the carriages along the guideway, provide the drill with universal adjustment in a plane over the work table, and bearing means on which the drill is movable toward and from the substantially vertical axis to change the radius about which the drill is angularly movable.

2,824,472
TOOL FOR CRIMPING AN ELECTRICAL CONNECTOR ONTO A CONDUCTOR
Leon K. Yeiser, Lebanon, Pa., assignor to AMP Incorporated, a corporation of New Jersey
Application December 14, 1955, Serial No. 553,072
4 Claims. (Cl. 81-15)

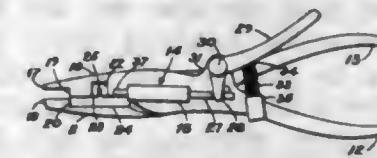
4. A tool for deforming an electrical connector onto a conductor including: a body member, a plurality of jaws forming die members, said jaws pivoted to the body

member with one end of each jaw therein, linkage means secured to the jaws for opening and closing the die members, means for operating the linkage means, a ram longitudinally movable in the body member, means



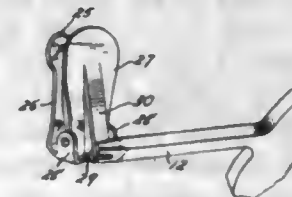
to actuate the ram longitudinally with respect to the die members, and means cooperating with the ram to deform the work piece whereby a connector may be inserted in the tool and the jaws and ram actuated to deform the connector onto the conductor.

2,824,473
PIGTAIL FORMING TOOL WITH SLIDE RAM
Wesley Simon Smith, Cedar Rapids, Iowa, assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application May 3, 1956, Serial No. 582,441
1 Claim. (Cl. 81-15)



A tool comprising a pair of crossed levers, a pivot joining the two levers with portions extending in one direction from the pivot formed as handles and portions extending in the opposite direction formed as jaws, one jaw having an open-sided pocket with the open side facing the other jaw, a surface of said one jaw forming a bottom wall of said pocket, said bottom wall having a slot opening toward said other jaw, ram means slidably mounted on said one jaw between the pivot and the pocket, a finger lever mounted on that lever that is extended to form said one jaw, said finger lever engaging said ram means whereby movement of the handles toward each other will cause the jaws to grip a work-piece therebetween and subsequent movement of said finger lever will effect a sliding motion of said ram means past said pocket.

2,824,474
TOOL FOR ADJUSTING EARRINGS AND SIMILAR DEVICES
Leonard Lawrence, New York, N. Y.
Application November 8, 1956, Serial No. 621,048
2 Claims. (Cl. 81-15)



1. An adjusting tool for altering the spring tension of earring clips and similar devices comprising: a gripping portion, and an elongated shaft portion having a free end; said free end being of tapered configuration and having a slot therein extending into the body of said shaft portion, the principal axis of the same lying substantially perpendicular to the axis of said shaft portion; said slot being of tapered configuration in a direction away from said free end.

2,824,475
HAND TOOL FOR BENDING A WIRE END
 John Rolando, Birmingham, Mich.
 Application April 29, 1957, Serial No. 655,794
 3 Claims. (Cl. 81-15)



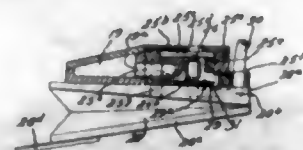
1. A hand tool for bending an end of a thick wire into an ogee form, comprising an elongated body having a transverse end wall containing a longitudinally extending socket providing means laterally spaced from the side wall of the body, and an abutment extending longitudinally beyond the end of the body and spaced longitudinally from such end by a transverse slot, the dimension of the slot, measured longitudinally of the body, and the dimension of the socket providing means, measured transversely of the body, both being larger than the thickness of the wire but only very slightly larger for closely receiving the wire, the abutment being integrally connected to the body at the end thereof by a connecting portion laterally spaced from the socket providing means, the end of the body providing an anvil for the first bend of the wire whose end is then in the socket providing means, the outer wall of the abutment providing an anvil for the second bend of the wire whose end is then also in the socket providing means, both bends being formed separately and successively while the wire end is in the socket providing means, the latter providing a grip means for the wire end while the two bends are being formed.

2,824,476
FRICTION DRIVE, RATCHET-TYPE WRENCH
 Leonard K. Wilson, Altkin, Minn.
 Application June 22, 1956, Serial No. 593,276
 2 Claims. (Cl. 81-58)



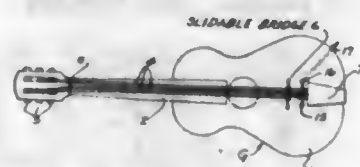
1. A wrench of the character described comprising a generally C-shaped resilient main body, a pair of parallel relatively large lugs on one end of said main body formed to receive the other end of the main body therebeneath, said parallel lugs being formed with respective notches facing said other end of the main body, a transverse rib on said other end of sufficient length to be received in said notches, an elongated handle member received between said lugs, a transverse pin pivotally connecting said handle member to said lugs, said handle member being formed at its end adjacent said main body with a fulcrum recess receiving said rib and cooperating with said rib to exert tightening force on said main body responsive to rotation of said handle member on said transverse pin, said end of the handle member being formed adjacent said first-named recess with an additional recess, and a coiled spring mounted in said additional recess and bearing between the additional recess and said main body, biasing the handle member toward engagement with said rib.

2,824,477
POWER PNEUMATIC
 Tolbert F. Cheek, Gloucester, Mass.
 Application May 14, 1953, Serial No. 355,043
 7 Claims. (Cl. 84-28)



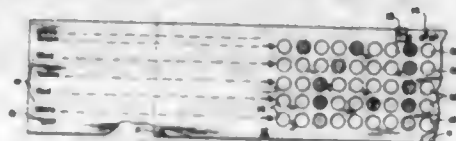
2. A striker pneumatic for use with a wind chest of an automatic musical instrument having a tracker bar, comprising a main pneumatic power bellows, the bellows having relatively stationary and movable members and a flexible member therebetween to provide a collapsible chamber, the stationary member having a valve chest, the valve chest being of homogeneous transparent workable material, said chest having an opening in communication with said bellows and forming a valve seat, a valve in said valve chest having coactive engagement with said valve seat in the homogeneous transparent workable material, to control air supply between said bellows and said chest.

2,824,478
BASS GUITAR
 Charles H. Shultz, Shoemakersville, Pa.
 Application March 29, 1955, Serial No. 497,513
 2 Claims. (Cl. 84-267)



2. In combination with a guitar having a standard body, neck, fingerboard, nut and tuning heads, said guitar having a total of four electric bass strings corresponding to the four lower strings of a standard guitar which are heavier than ordinary guitar strings to an extent so as to play an octave lower, a tail piece having anchoring points at the lower end thereof for the lower ends of said strings so as to increase the distance thereof from said nut by several inches as compared to the distance between the anchoring points and nut in a standard guitar, a slidable type of bridge for adjustably varying the distance between the nut and bridge, and an electric pickup mounted on said body, whereby sounds simulating those of a bass fiddle are produced when said four strings are played in the manner of a bass fiddle.

2,824,479
MUSIC CHORD INDICATOR
 Thomas E. DeRosa, Mamaroneck, N. Y.
 Application July 26, 1954, Serial No. 445,531
 4 Claims. (Cl. 84-482)



2. A music chord indicator adapted to be set in a vertical plane at the rear of a piano keyboard and comprising a flat backing element of sufficient length to span at least several octaves of piano keys, a flat frontispiece movably connected to the backing element for movement longitudinally thereof, the frontispiece being provided with a plurality of longitudinal rows of substantially equally spaced openings, the openings in each of said rows being adapted to be serially aligned with the keys

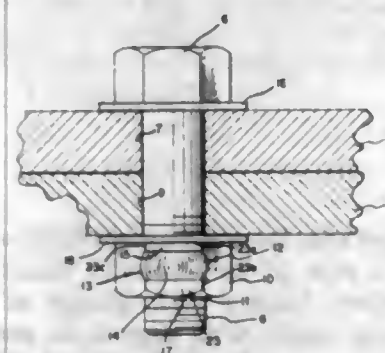
of at least one octave of the piano, the backing element being provided with longitudinal rows of indicator patterns aligned with the rows of openings in the frontispiece, and tab means for relatively positioning the backing element and the frontispiece so as to indicate through said openings in the frontispiece the keys of the piano which constitute a musical chord in the key for which the backing element and frontispiece are positioned relative to one another.

2,824,480
CIRCUIT DEVICE AND NUT USEFUL THEREIN
 James Rowland Hotchkiss, Short Hills, N. J., assignor to The Palnut Company, Irvington, N. J., a corporation of New Jersey
 Application December 23, 1953, Serial No. 399,864
 4 Claims. (Cl. 85-32)



1. In electrical apparatus in which (a) a screw is connected into a circuit and is adjustably threaded into a member for varying a characteristic of the circuit, (b) the screw passes through another member which has a fixed surface that extends outwardly from the screw, and (c) a nut element is interposed between the screw and the fixed surface for tightening against the surface and imposing adjustable braking force on the screw; the improvement which comprises: the nut element having a plurality of axially-yielding spring sectors extending downwardly and thence inwardly between the convolutions of the screw-thread, the tips of the sectors being chamfered top and bottom, the bottoms of the sectors being in spaced relation to the top side of the thread and the top chamfers of the sectors yieldingly engaging the bottom side of the thread, and the tips of the sectors being in spaced relation to the root of the thread, and at radial distances from the root which increase as the nut element is tightened against the fixed surface, and the nut element also having sharp points which bite into said fixed surface.

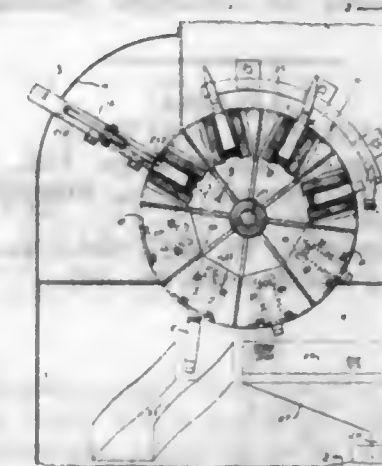
2,824,481
STRESS-INDICATING FASTENER
 Sidney P. Johnson, Washington, D. C.
 Application March 23, 1955, Serial No. 496,360
 5 Claims. (Cl. 85-62)
 (Granted under Title 35, U. S. Code (1952), sec. 266)



1. A screw-threaded fastener having an outer longitudinal surface comprising a polygonal portion adapted to be engaged by a wrench, said surface comprising stress-indicating means including a relatively wide and shallow concave recessed area in the transverse central portion of one face thereof, said face having side edges and a work-

engaging edge, said recessed area extending substantially to at least one of said edges, whereby said polygonal portion protects said recessed area from engagement by a wrench engaging said polygonal portion, said recessed area comprising a surface layer of a tightly-adhering brittle paint-film having the characteristic of cracking under a predetermined stress in said fastener.

2,824,482
CARTRIDGE BREAKDOWN MACHINE
 Clarence E. North, Independence, Mo., assignor to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
 Application November 12, 1953, Serial No. 391,499
 2 Claims. (Cl. 86-1)

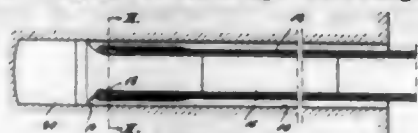


1. Apparatus for disassembling cartridges, consisting of a case, a powder charge in said case, and a projectile secured to said case in axial extending relation, said apparatus comprising a frame, a wheel mounted in said frame for rotation in a vertical plane, a plurality of radial cartridge receiving receptacles in said wheel disposed to receive individually cases of said cartridges and position the projectiles of said cartridges outward of the periphery of said wheel, a fixed cam on said frame extending about a portion of the circumference of said wheel and having a cam surface angularly disposed to the plane of rotation of said wheel and extending transversely across the path of travel of said projectiles, whereby projectiles traversing said cam surface are transversely displaced thereby from engagement with said cases, a powder receiving receptacle on said frame below said wheel and advanced in the direction of rotation of said wheel with respect to said cam, and releasable cartridge case holding means in said wheel comprising a spring loaded latch in each of said cartridge receiving receptacles disposed to engage the base rim of a cartridge case, a latch releasing rod disposed adjacent each of said receptacles for engagement with an associated latch and projecting outwardly from the face of said wheel; and a second fixed cam on said frame disposed in the path of said rods and advanced in the direction of rotation of said wheel from said powder receiving receptacle, whereby each of said cases is released from said wheel as the respective latch releasing rod traverses said second fixed cam.

2,824,483
DEVICE FOR PACKING EXPLOSIVE CARTRIDGES INTO BORE-HOLES
 Carl Hugo Johansson, Stocksund, Sweden, assignor to Nitroglycerin Aktiebolaget, Gyltorp, Sweden, a corporation of Sweden
 Application March 10, 1951, Serial No. 214,985
 Claims priority, application Sweden March 13, 1950
 6 Claims. (Cl. 86-20)

1. Means for loading and packing cartridges of explosive in a bore hole comprising a tubular member having an external diameter dimensioned to be inserted

in the bore and an internal diameter throughout substantially the entire length of the member dimensioned to permit free movement of the cartridge through the member and restricted at the discharge end of the member to closely engage a cartridge discharged therefrom,

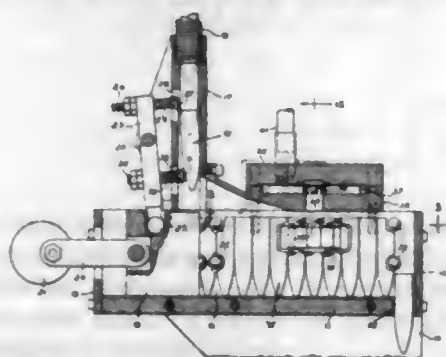


means providing an opening for loading cartridges into the member, and means for forcing the cartridges from the member, said restricted discharge end providing means for engaging cartridges discharged therefrom to pack them in the bore, said member being provided at its discharge end with a relatively thick and blunt end surface for engaging the discharged cartridges to pack them in place.

2,824,484

ASSEMBLY MACHINE

Jack E. S. Thompson, Independence, Mo., assignor to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application September 10, 1953, Serial No. 379,363
5 Claims. (Cl. 86-45)

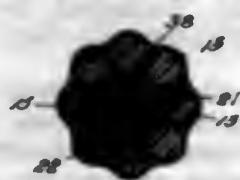


1. Apparatus for forming a line of rearwardly open, forwardly tapered articles from a column of such articles in nesting relation, comprising a tubular passage having an upper reduced diameter portion for maintaining said nested articles in axial alignment and a lower portion of greater diameter, an escapement mounted adjacent said passage for controlling delivery of articles one at a time into said lower portion of said passage and comprising a first member moveable into said lower portion of said passage to engage the lowermost article in said column, and a second member moveable into said upper portion of said channel to engage the adjacent article in said column, said first member displacing transversely said lowermost article from axial alignment with said adjacent article on engagement therewith, thereby separating said lowermost article from nesting relation, a channel block comprising a channel disposed to receive articles from the lower portion of said passage, a reciprocable feed block in said channel for advancing articles in line in said channel, and means for actuating said escapement in synchronism with said feed block.

2,824,485

TENNIS STRING OR LIKE ARTICLE

Francis J. Gregory, Rockville, Conn.
Application November 20, 1953, Serial No. 395,785
(Filed under Rule 47(b) and 35 U. S. C. 118)
8 Claims. (Cl. 87-1)



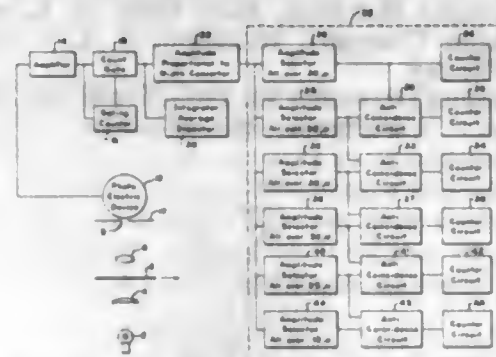
1. A tennis string comprising a multi-filament core with a braided cover of mono-filament strands, said core

and cover having similar chemical and physical characteristics and said mono-filaments each being many times the diameter of each of the multi-filaments.

2,824,486

METHOD OF GRADING TEXTILE FIBERS

Richard B. Lawrence, Cambridge, and Jonathan R. Roehrig, Newton Lower Falls, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application December 18, 1953, Serial No. 399,011
5 Claims. (Cl. 88-14)

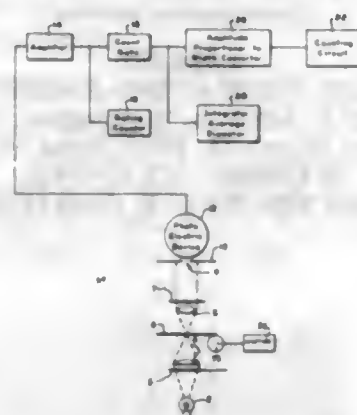


1. In a process for grading textile fibers, the improvement which comprises cutting individual textile fibers to a length of less than 1000 microns, the length being substantially greater than the diameter of the fibers, spreading the cut fibers across a surface having substantially parallel grooves of a depth on the order of the estimated average diameter of the individual fibers so as to align the fibers in substantially parallel spaced relationship with no more than one fiber per groove at any place along the groove, securing the fibers in their spaced relationship to a transparent support, moving the fibers relative to a light beam at a constant speed which thereby modifies the intensity of the light beam, and utilizing the modified light beam to indicate the actual diameters of the measured fibers.

2,824,487

APPARATUS FOR GRADING ANISOTROPIC FIBERS

Jonathan R. Roehrig, South Sudbury, Mass., assignor to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application August 25, 1954, Serial No. 452,015
4 Claims. (Cl. 88-14)



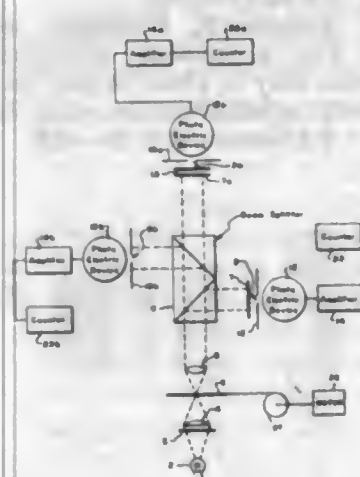
1. An apparatus for grading optically anisotropic fibers comprising a pair of substantially linear polarizers, the linear polarizers having their planes of polarization at a definite large angle with respect to each other, means interposed between said polarizers for holding a number of fibers in substantially parallel relationship and in the focal plane of an optical system so that the axes of the fibers bear a predetermined relationship to the planes of polarization of the linear polarizers, means for creating relative movement between said holding means and a polarized light beam passing between the filters, the rela-

tive movement being at a constant rate and transverse of the fiber length so as to modify the polarized light beam as a function of the fiber diameters, light responsive means for converting said modified polarized light beam into an electrical signal, and means limiting the amount of light reaching the light responsive means at a given instant of time to that light passing through an individual fiber so that the signal varies as a function of the fiber diameters.

2,824,488

APPARATUS FOR GRADING FIBERS

Samuel W. Bridges, Wellesley, and Jonathan R. Roehrig, South Sudbury, Mass., assignors to National Research Corporation, Cambridge, Mass., a corporation of Massachusetts
Application August 25, 1954, Serial No. 452,016
3 Claims. (Cl. 88-14)

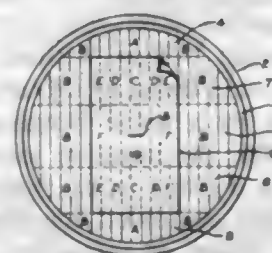


3. Apparatus for grading textile fibers comprising an optical system for projecting a beam of polarized light, means for holding a number of fibers in substantially parallel relationship in the beam of polarized light, means for creating relative motion transversely of the fiber length between the holding means and the light beam, a beam splitter for splitting said light beam into several portions, a plurality of electro-optical systems positioned to receive portions of the split beam, and counting means controlled by said electro-optical systems, two of said electro-optical systems including polarizing filters arranged to block portions of the polarized beam which have not passed through an anisotropic fiber, one of said two electro-optical systems additionally including a color filter for blocking light of a predetermined color, and a third electro-optical system arranged to detect optically isotropic as well as optically anisotropic fibers.

2,824,489

VEHICLE HEADLAMP HAVING MEANS FACILITATING INSTALLATION

Val J. Roper, Cleveland, Ohio, assignor to General Electric Company, a corporation of New York
Application May 6, 1955, Serial No. 506,423
9 Claims. (Cl. 88-14)



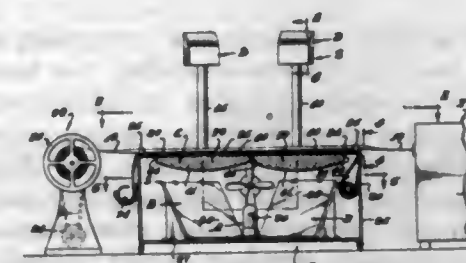
1. A vehicle headlamp comprising a reflector, a light source mounted within the reflector, a lens covering the mouth opening of said reflector and provided with light-

refracting media for refracting the light rays passing through the lens into a light beam having a high-intensity portion, and a layer of masking material on said lens covering only that portion of the surface area thereof other than that which provides the said high-intensity portion of the light beam, said layer of masking material being adherent to the surface of said lens but readily separable therefrom.

2,824,490

APPARATUS FOR PRESENTING MARKET QUOTATIONS BY OPTICAL PROJECTION MEANS

Harold G. Fitzgerald, Los Angeles, Calif., assignor to Victorlite Industries, Inc., Los Angeles, Calif., a corporation of California
Application February 28, 1955, Serial No. 490,947
4 Claims. (Cl. 88-24)



1. In a quotation projection apparatus of the character described, a room with a quotation screen on one wall thereof, a quotation projector spaced from the wall and adapted to project an image on said screen and including, a housing with a flat horizontally disposed top having a projection aperture therethrough, a transparent film extending across the top of the housing and overlying the projection aperture, a light source in the housing, a light projecting system passing said light through the projection aperture and the film and onto the screen, a tape printing machine operatively associated with the projector, a tape carried by the tape printing machine for receiving printed quotations thereon, and means drivingly connected to the projector and conducting the said tape adjacent to and along one side of the projection aperture and the film so that quotations printed on the tape can be transposed onto the transparent film to be projected onto the screen.

2,824,491

FILM HOLDER

Warren C. Hoffmaster, Barberton, Ohio
Application April 3, 1956, Serial No. 575,810
5 Claims. (Cl. 88-24)

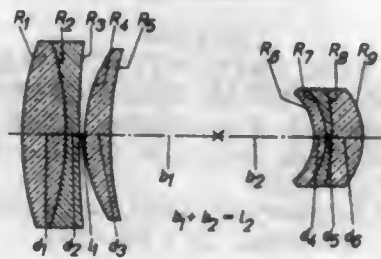


1. A film-holder comprising a base frame formed with a light passage defined on at least two opposite sides by margins of the frame adapted to receive margins of the film in overlapped relation to them respectively, a toggle structure formed with a light passage defined on at least two opposite sides by elements of said structure adapted to engage the said margins of the film, the two said light passages being unobstructed substantially throughout the extent of the image area of the film to be held, and resilient hold-down means mounted on said base frame for directly engaging the said elements and pressing them and the said margins of the film against the base frame and thereby tensioning the film as an incident of movement of the said elements away from each other in the flattening of the toggle structure.

2,824,492

TELEPHOTO LENS

Carl Baur, Baldham, and Christian Otzen, Munich, Germany, assignors to Agfa Camera-Werk Aktiengesellschaft, Munich, Germany, a corporation of Germany
Application December 23, 1955, Serial No. 555,157
Claims priority, application Germany January 7, 1955
15 Claims. (Cl. 88—57)

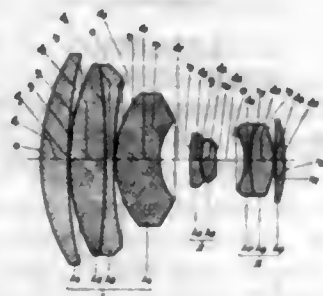


1. A photographic telephoto lens comprising a cemented meniscus positive member including two lenses, a cemented meniscus negative member including several lenses disposed a distance away from the positive member, and a single uncemented meniscus positive lens disposed between said cemented positive and negative members at a point close to said positive member, characterized in that said cemented negative member has the concave surfaces of all its lens elements disposed in the direction of said positive front members, the focal length of said two-lens cemented meniscus positive front member is greater than 2.5 times and less than 6.0 times the focal length of the entire system, and the focal length of the uncemented positive meniscus lens is greater than 0.6 times and less than 1.0 times the focal length of the entire system.

2,824,493

OPTICAL SYSTEM HAVING INTERCHANGEABLE ELEMENTS FOR VARYING ITS FOCAL LENGTH

Günter Klemt, Kreuznach, Rhineland, Germany, assignor to Jos. Schneider & Co., Kreuznach, Rhineland, Germany
Application June 22, 1954, Serial No. 438,511
Claims priority, application Germany June 27, 1953
6 Claims. (Cl. 88—57)



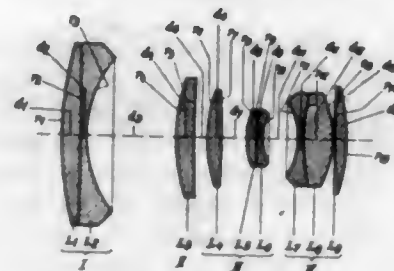
1. A lens assembly adapted to replace the front half of a Gaussian dual objective whose front and rear halves define between them a diaphragm space, each of said halves comprising a dispersive meniscus adjacent said diaphragm space and facing same with its concave side as well as a positive lens beyond said meniscus; said assembly comprising a positively refracting front unit including three air-spaced members each in the form of a meniscus facing said diaphragm space with its concave side, and a rear unit comprising a compound lens member of negative refracting power, said units being separated from each other by an air space which is large compared with all other air spaces of said lens assembly, said units being so dimensioned as to increase the focal length of the objective without substantial change in image distance upon being substituted for said front

half, the intermediate one of said three air-spaced members being a compound positive meniscus constituting a first pair of front and rear lens elements and said compound lens member of said rear unit constituting a second pair of front and rear lens elements, the rear element of said first pair having a refractive index exceeding that of the front element of said first pair by a value at least of the order 0.1, the front element of said second pair having a refractive index exceeding that of the rear element of said second pair by a value at least of the order of 0.05, the front element of said first pair having an Abbe number exceeding that of the rear element of said first pair by a value at least of the order of 30.

2,824,494

OPTICAL OBJECTIVE SYSTEM WITH INTERCHANGEABLE ELEMENTS FOR FOCAL-LENGTH VARIATIONS

Günter Klemt, Kreuznach, Germany, assignor to Jos. Schneider & Co., Kreuznach, Rhineland, Germany
Application July 3, 1956, Serial No. 595,629
Claims priority, application Germany July 13, 1955
2 Claims. (Cl. 88—57)

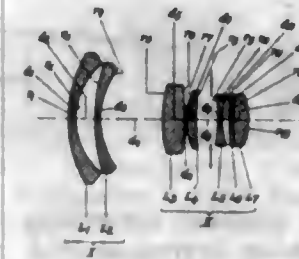


1. In an optical objective system, in combination, a front assembly and a rear assembly detachable from each other and defining between them a diaphragm space, said rear assembly being composed of a dispersive meniscus adjacent said diaphragm space and facing same with its concave side and of a positive lens back of said meniscus, said front assembly comprising a front unit, an intermediate unit and a rear unit; said rear unit consisting of a negative meniscus facing said diaphragm space with its concave side and a biconvex lens preceding said negative meniscus; said intermediate unit being a single positive lens member; said front unit consisting of a meniscus-shaped negative member facing said diaphragm space with its concave side; said front and intermediate units together defining an afocal system in the shape of an inverse Galilean telescope and being separated from each other by an air space whose axial length is between substantially 45% and 55% of the overall focal length of the combination of said front and rear assemblies, the radius of the rear surface of the negative meniscus of said rear unit being between substantially 30% and 40% of said overall focal length, the radius of the rear surface of the meniscus-shaped negative member of said front unit being between substantially 60% and 75% of said overall focal length, the meniscus-shaped negative member of said front unit consisting of a positive front lens and a negative rear lens cemented together, said rear lens having an index of refraction for the yellow helium line substantially not less than 1.70, said index of refraction exceeding that of said front lens by a value ranging substantially between 0.04 and 0.06, the negative meniscus of said rear unit consisting of a positive front component and a negative rear component cemented together, said rear component having an index of refraction exceeding that of said front component by substantially not less than 0.08, said dispersive meniscus of said rear assembly being composed of a less highly refractive front lens and a more highly refractive rear lens cemented together.

2,824,495

WIDE-ANGLE PHOTOGRAPHIC AND CINEMATOGRAPHIC OBJECTIVE

Günter Klemt, Kreuznach, Germany, assignor to Jos. Schneider & Co., Kreuznach, Rhineland, Germany
Application July 3, 1956, Serial No. 595,643
Claims priority, application Germany July 5, 1955
2 Claims. (Cl. 88—57)

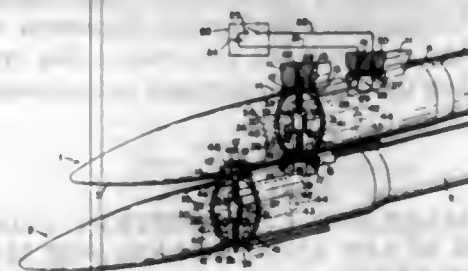


1. An optical objective system comprising a dispersive front lens group, consisting of two air-spaced negatively refractive menisci with rearwardly facing concavities, and a collective rear lens group, consisting of four air-spaced components including a positive forward component, a second positive component back of said forward component, a biconcave lens member back of said second positive component and a third positive component back of said biconcave member, said second positive component being a collective meniscus having two distinctly curved faces and turning its concave face toward said biconcave member, said collective meniscus having a refractive index for the yellow helium line at most equal to substantially 1.50, said third positive component consisting of two lenses cemented together, the more forwardly positioned one of said cemented lenses having the greater refractivity, said cemented lenses having indices of refraction whose sum is at most equal to substantially 3.3 and whose difference is substantially not more than 0.01, the sum of the thicknesses and air spacings of the components of both of said groups being approximately equal to the image distance of the system, said image distance being substantially not less than five-fourths of the overall focal length of the system and being approximately equal to three times the spacing between the second negatively refractive meniscus of said front group and the positive forward component of said rear group.

2,824,496

ELECTRIC CONTROL SYSTEM FOR SINGLY AND SEQUENTIALLY FIRING BALLISTIC MISSILES

Nils-Erik Gustaf Küller, Karliskoga, and Karl-John Thorild Thorildsson, Bofors, Sweden, assignors to Aktiebolaget Bofors, Bofors, Sweden, a corporation of Sweden
Application July 6, 1955, Serial No. 520,304
Claims priority, application Sweden July 9, 1954
6 Claims. (Cl. 89—17)

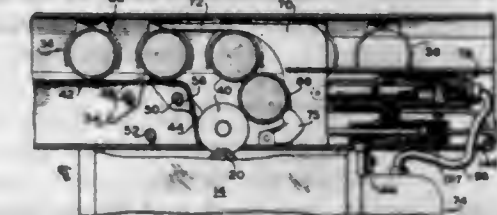


1. An electric control system for singly and sequentially firing ballistic missiles each having a firing system and joined in a cluster in side by side arrangement, said control system comprising a switch means in each missile, each of said switch means including a pair of contacts and a switch member movable between a closed and open position relative to said pair of contacts and biased toward a closing position therewith, the said pair of contacts being connected in circuit with the respective firing system, a central control station including a source of current, control circuit means including said source of current, said pair of contacts in each missile and the switch member in each missile, the contact open position of the switch member of each missile to be fired later in the sequence being maintained by the presence of an adjacent missile to be fired previously thereto, a part of each missile engaging with the said switch member of another missile to be sequentially fired next after the firing of said one missile holding said switch member in said open position, and the sequential firing of said one missile automatically releasing said switch member of said other missile to be next fired for movement by said bias into the position closing said pair of contacts connected with the respective firing system whereby upon actuation of the control circuit means current is supplied from said source of current to the firing system of the missile next to be fired only.

2,824,497

FEEDER MECHANISM FOR A FIREARM

Raymond A. Bond, Watertown, Conn., and Burns Darsie, Rockford, Ill., assignors to the United States of America as represented by the Secretary of the Army
Application March 30, 1956, Serial No. 575,282
14 Claims. (Cl. 89—33)



1. For a firearm supplied with cartridges by a belt and having a feed throat, a feeding mechanism including a slideway, a pair of two-toothed sprocket means successively engageable with the cartridges for moving the belt along said slideway, a stripper member slidable in alignment with the cartridge belt, a prong portion extending from said stripper member for separating the cartridges from the belt, an arcuate side on said stripper member for guiding the cartridges separated from the belt toward the feed throat, resilient means for biasing said stripper member against the cartridges in the belt, motor means for powering said sprockets so that said belt moved thereby overpowers said resilient means when one of the cartridges is immovably positioned over the feed throat and moves said stripper member away from the feed throat so that an extra one of the separated cartridges is forcible between the feed belt and the feed throat to form a reserve bank, and means responsive to movement of said stripper member for stopping said motor means when the reserve bank is formed and for starting said motor means when the reserve bank is depleted.

2,824,498

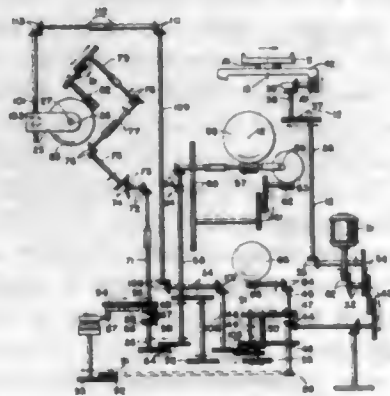
GENERATOR FOR CYLINDRICAL AND TAPERED GEARS AND METHOD OF GENERATION

Meriwether L. Baxter, Jr., Brighton, and Leonard O. Carlsen, Rochester, N. Y., assignors to The Gleason Works, Rochester, N. Y., a corporation of New York
Application January 19, 1955, Serial No. 482,736
22 Claims. (Cl. 90—3)

1. The method of tooth surface generation which comprises rotating a work gear about its axis and in time therewith effecting a relative motion between such axis and the cutting path of a tool, said relative motion being in a trochoidal path in a plane which is inclined to said axis.

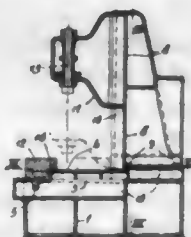
15. A machine for cutting gears and the like, comprising a frame, a slide movable rectilinearly on the frame,

a cutter support and a work support, one of said supports being carried by the slide, one of said supports being a cradle rotatable about an axis perpendicular to the direction of motion of the slide, a work spindle rotatable on the work support, a pair of disc cutters mounted on relatively inclined axes on the cutter support for simultaneous



cutting engagement with tooth surfaces of a workpiece on said work spindle, a generating train and means for driving it alternately in opposite directions, said train being connected to the work spindle, for effecting rotation thereof, and either to the cradle, for effecting rotation thereof in time with rotation of the work spindle, or to the slide, for effecting rectilinear motion thereof in time with rotation of the work spindle.

2,824,499
MACHINE TOOL
Paul André Gambin, St-Cloud, and Pierre Massot, Paris, France
Application August 12, 1952, Serial No. 303,888
Claims priority, application France August 16, 1951
2 Claims. (Cl. 90—11)



1. A machine tool comprising a pedestal, first transverse guideways secured on the pedestal and disposed in the central part of the pedestal, second transverse guideways joined with the pedestal and disposed along the transverse edges of the pedestal, a first carriage of notched, irregular shape forming a central tongue and having reentrant angles of such nature that the width of the full median portion is greater than that of the extremities, which latter are supported on the second transverse guideways while the median part rests on the first transverse guideways, third longitudinal guideways carried by the first carriage, a second carriage resting on the third longitudinal guideways, a bridge-shaped support above the pedestal and attached thereto the arch of which has a length just sufficient to permit passage of the central tongue of the first carriage and the first transverse guideways, fourth guideways perpendicular to the first transverse guideways carrying the first carriage and to the third longitudinal guideways carrying the second carriage, the said fourth guideways being carried by the bridge-shaped support, and a third carriage capable of sliding on the fourth guideways, the second carriage supporting the piece to be worked and the third carriage supporting the tool.

2,824,500
REFINING MACHINE
Edward H. Cumpston, Jr., Pittsfield, Mass., assignor to E. D. Jones and Sons Company, Pittsfield, Mass., a corporation of Massachusetts
Application July 19, 1955, Serial No. 522,972
5 Claims. (Cl. 92—26)



2. A paper-pulp machine comprising an approximately cylindrical chamber having an inlet at one end and an outlet at the other end, a shaft extending along the axis of the chamber, and means on the shaft for throwing material against the periphery of the chamber in the form of a cylindrical layer and then working on the layer, said means comprising a series of rakes disposed in juxtaposition to the periphery of the chamber to drag through the cylindrical layer and cause it to rotate, so that the centrifugal force of the rotating cylindrical layer produces a lengthwise flow which is directed toward the outlet, said outlet extending around the chamber at said periphery so that the cylindrical layer can flow directly through the outlet lengthwise of the container throughout substantially the entire periphery, said rakes being spaced from said periphery to provide clearance, said chamber comprising a plurality of sections, the diameter of each succeeding section being greater than that of the preceding section, and said clearance being approximately the same in each section, the exit end of each section being unobstructed so that the flow of material over the edge into the next succeeding section is unimpeded.

2,824,501
SHEET METAL MAT FOR AIRFIELDS
Gerald Gregory Greulich, Pittsburgh, Pa.
Application February 17, 1956, Serial No. 566,265
4 Claims. (Cl. 94—13)



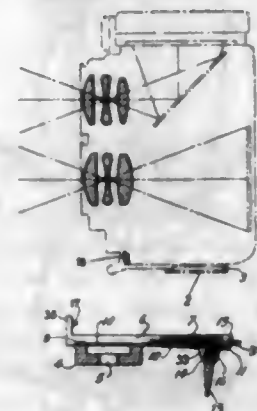
1. A mat adapted to be laid on the ground with like mats to form an airfield deck, the mat comprising a sheet metal plate having end portions adapted to be disposed in overlapping relation with end portions of other mats, the plate also having corrugations extending lengthwise thereof with the opposite ends of the corrugations provided in their side walls with notches extending lengthwise of the mat, and a cross bar extending transversely of the plate and through the side walls of the corrugations near the inner end of each of said end portions and being in substantially horizontal alignment with the notches, whereby said notches can receive the cross bars of like mats when the mats are disposed in end-overlapping relation.

2,824,502
HIGHWAY MARKING COMPOSITION CONTAINING GLASS BEADS AND PROCESS FOR MAKING AND USING SAME
Donald M. Rockwell and William D. Joseph, Huntingdon, Pa., assignors to Prismo Safety Corporation, Huntingdon, Pa., a corporation of Pennsylvania
No Drawing. Application September 15, 1954
Serial No. 456,328
13 Claims. (Cl. 94—22)

1. A reflective highway marking paint composition essentially comprising a mixture of at least one alkyl resin, said alkyl resin being a glycerol phthalate resin, and

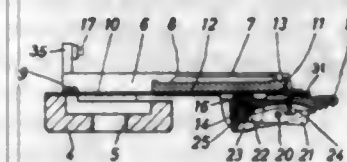
chlorinated rubber, the amount of said resin being approximately twice the amount of said rubber, to which is added ethylene oxide modified polypropylene glycol, a pigment, and small transparent glass beads, said composition when heated forming a readily flowable plastic and when cold being too thick for application as a paint.

2,824,503
QUICK ATTACHABLE MOUNTING FOR PHOTOGRAPHIC CAMERAS
Richard Weiss, Braunschweig, Germany, assignor to Franke & Heldecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany, a firm
Application September 2, 1955, Serial No. 532,219
Claims priority, application Germany September 10, 1954
9 Claims. (Cl. 95—86)



1. The combination with a photographic camera body having a projecting portion formed with grooves on two opposite sides thereof, of a quick attachable mount for said camera body, said mount comprising a pair of mounting rails having substantially parallel and laterally spaced edges for receiving said projecting portion of said camera body between them and extending into said grooves when said projecting portion is so received, a fixed stop for limiting movement of said projecting portion along said rails in one direction, a movable stop shiftable between effective and ineffective positions and serving, when in its effective position, to limit movement of said projecting portion along said rails in the opposite direction, a resilient spring member operatively connected to said movable stop and tending to shift said movable stop to ineffective position, and cam means for shifting said stop to effective position.

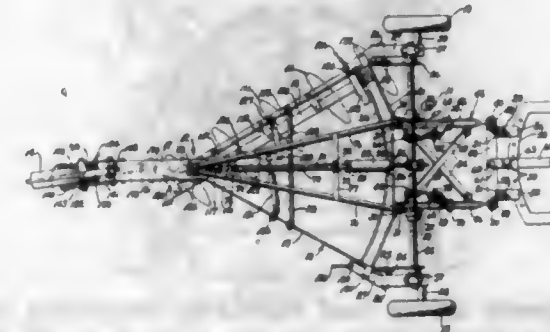
2,824,504
QUICK MOUNTING MEANS FOR PHOTOGRAPHIC CAMERAS
Gustav Bethmann, Braunschweig, Germany, assignor to Franke & Heldecke, Fabrik Photographischer Präzisions-Apparate, Braunschweig, Germany, a German firm
Application September 2, 1955, Serial No. 532,303
Claims priority, application Germany June 7, 1955
4 Claims. (Cl. 95—86)



1. Quickly attachable and detachable mounting means for photographic cameras of the type having a mounting plate provided with grooves on opposite edges, said mounting means comprising a pair of rails spaced laterally from each other and having edges adapted to embrace the mounting plate of the camera and to be received in the grooves thereof, a movable clamping member for engaging said mounting plate to hold it against detaching movement relative to said rails, a shaft extending below and

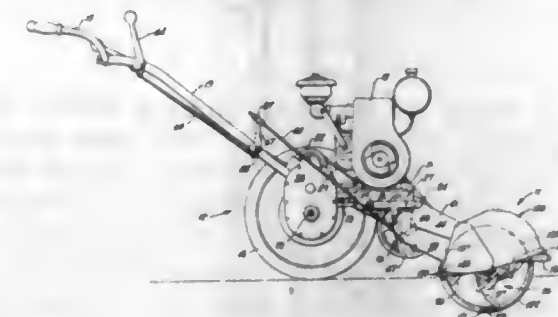
substantially crosswise to said pair of rails, a clamp actuating member swingable on said shaft from an effective clamping position to a released position, and a releasable locking pawl operatively connected to said clamp actuating member and serving to hold said clamp actuating member in effective clamping position until said pawl is released to permit said clamp actuating member to be swung to released position.

2,824,505
AGRICULTURAL IMPLEMENT AND SUPPORT VEHICLE THEREFOR
Anthony R. Coviello, Tulare, Calif.
Application January 3, 1955, Serial No. 479,611
8 Claims. (Cl. 97—32)



7. An agricultural implement comprising a frame having opposite end portions; a pair of legs pivotally connected to the frame having upwardly and downwardly extended end portions; ground engaging support means mounted on the downwardly extended end portions of the legs; means limiting the upward pivotal movement of the upper end portions of the legs; a substantially horizontal rock shaft rotatably mounted in the frame; control arms connected to the shaft, transversely extended therefrom, and adapted to engage the downwardly extended portions of the legs for depressing the legs relative to the frame; a substantially erect mounting post connected to one of the end portions of the frame and having a downwardly extended end; an elevationally fixed draft means; a draft mechanism having an end pivotally connected to the downwardly extended end of the mounting post and an oppositely extended end pivotally connected to the draft means; a lift arm connected to the rock shaft and transversely extended therefrom in angular relation to the control arms; a link pivotally interconnecting the lift arm and the draft mechanism; and means for rotating the rock shaft.

2,824,506
CULTIVATOR FOR GARDEN TRACTOR
George E. Smithburn, Berkeley, Calif.
Application February 13, 1953, Serial No. 336,830
2 Claims. (Cl. 97—40)



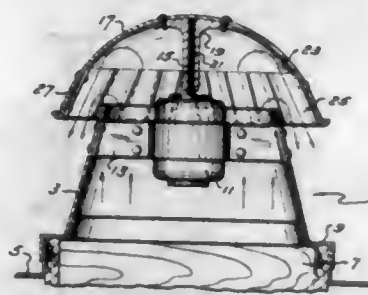
1. A cultivator comprising, a garden tractor having a motor and a pair of ground engaging power driven wheels, a rotary tiller shaft and ground engaging tines thereon for tilling the earth, a frame journaling said tiller shaft and being secured to said tractor so as to position said tiller shaft parallel to and in advance of the axis of said wheels, drive means connecting said tiller shaft and motor to effect

rotary ground tillage action of said tines, a downwardly bowed arcuate supporting member carried by said frame forwardly of said wheels and in underlying relation to said tiller shaft and in a fore and aft plane perpendicular to said tiller shaft, and an earth penetrating vane carried by said arcuate member at its lowermost extremity for engagement in the earth for stabilizing the ground engaging position of said tiller shaft against rotating forces around said drive wheels.

2,824,507

ROOF VENTILATORS

Lawrence L. Alldritt and Della May Alldritt, Miami, Fla.
Application October 10, 1955, Serial No. 539,387
2 Claims. (Cl. 98-43)

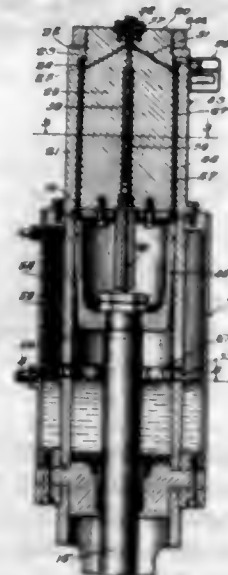


1. A power driven roof ventilator comprising in combination a round casing open at its top and bottom adapted to be mounted with its axis vertical on a roof over an opening therein, an electric motor mounted on and within said casing, a drive shaft coaxial with said casing and driven by said motor and extending upwardly from said motor, a rounded, downwardly concave hood supported by said drive shaft for rotation coaxially of said casing, the inner side walls of said hood extending outward a substantial distance beyond the upper marginal edges of said casing, and a plurality of vanes mounted on and spaced about said inner side walls and inclined downwardly away from the direction of rotation of said hood, said vanes extending upward from the lower edges of said hood, the lower portion of each said vane being spaced outwardly of said upper marginal edges of said casing and extending a substantial distance below said upper marginal edges of said casing.

2,824,508

LATCH MECHANISM

Wilbur C. Gates, Flossmoor, Ill., assignor, by direct and mesne assignments, of one-half to Chicago Bridge & Iron Company, Chicago, Ill., a corporation of Illinois, and one-half to Baerguard, Inc., Chicago, Ill., a corporation of Illinois
Application March 11, 1955, Serial No. 493,690
15 Claims. (Cl. 99-238)



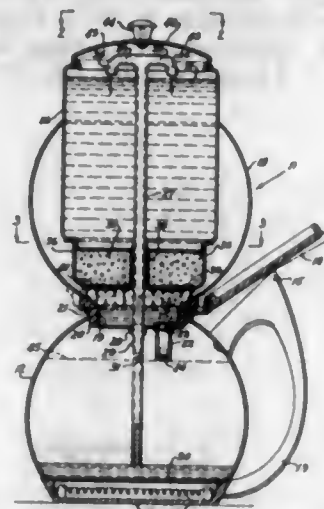
1. Latch mechanism for a gun or the like comprising a firing member and an abutting wall interfacially posi-

tioned to each other, an expansion member contiguous the interface of the firing member and wall, fluid pressure means for expanding the expansion member to bring the firing member and wall into sealing engagement and means for releasing the fluid pressure whereby the gun is fired.

2,824,509

AUTOMATIC ELECTRIC DRIP COFFEE MAKER

Arthur R. Trogden, La Grange, Calif.
Application August 28, 1956, Serial No. 606,614
3 Claims. (Cl. 99-292)

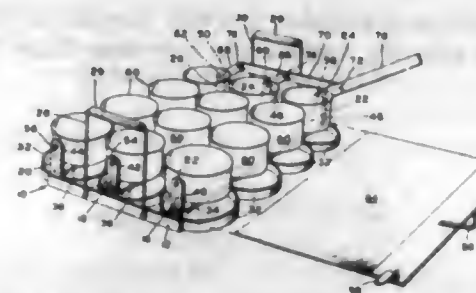


1. A coffee brewing apparatus comprising a bottom container, heating means in said bottom container, an upper container sealingly engaged in the top of said bottom container, said upper container being relatively enlarged at its intermediate portion and having an imperforate bottom and a relatively large top opening, a water receptacle in said upper container extending upwardly through and fitting within said top opening, whereby a steam chest is defined around the receptacle in said upper container, said receptacle having a perforated bottom, a perforated coffee grounds receptacle engaged on the water receptacle beneath said perforated bottom, a check valve in the bottom of said upper container beneath the grounds receptacle, and a vertical conduit extending centrally through the water receptacle, the grounds receptacle and the bottom wall of the upper container into the bottom container and extending adjacent the lower portion of said bottom container.

2,824,510

EGG-FRYING DEVICE

Edwin E. Gangwer, Richmond, Va.
Application June 25, 1956, Serial No. 593,647
11 Claims. (Cl. 99-423)

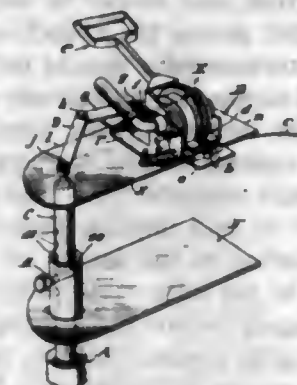


8. An egg-frying device comprising a frame, a plurality of laterally arranged rings on said frame, a plurality of cups arranged for tilting over said rings, and means for tilting said cups connected to said frame, said rings being arranged tangentially to each other and said cups being arranged so that each cup overlies a ring, the bottom edges of each ring being in a common plane and adapted to be placed on a hot grill for simultaneous frying of the cup contents in separate ration portions.

2,824,511

PACKAGE BINDING MACHINE

Ernest C. Hoyer, Los Angeles, Calif.
Application February 28, 1955, Serial No. 491,094
7 Claims. (Cl. 100-31)

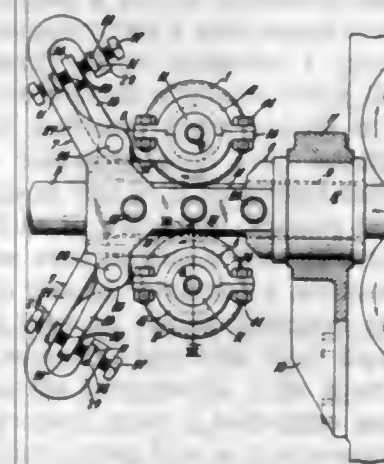


1. In a combined strapping machine mounting and package support, a standard, a column pivoted on said standard having an upper end portion protruding from said standard; a package receiving table carried on the protruding portion of said column, a panel fixed on the upper end of said column overlying said table in spaced relation thereto, said panel having a smooth upper surface adapted to slidably support a strapping machine, and means for pivotally and linkably connecting a strapping machine on said panel for movement over said surface.

2,824,512

APPARATUS FOR STAMPING TRAVELING PRODUCT

Fritz Scharf and Harold A. Schwan, Lorain, Ohio, assignors to United States Steel Corporation, a corporation of New Jersey
Application March 31, 1954, Serial No. 420,082
9 Claims. (Cl. 101-6)

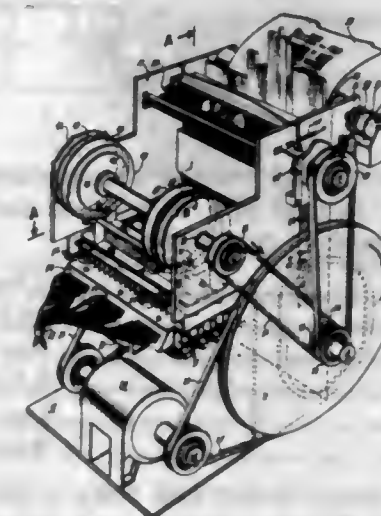


1. In stamping apparatus having a pair of spaced rolls for stamping indicia on an article moving through a pass defined by the peripheries of said rolls, a stationary support through which the moving article has a guided movement, a pair of bell-crank levers respectively having pivotal connections on opposite sides of said support for pivotal movement about parallel axes respectively above and below the moving article and extending transversely of its path of movement, each of said levers having a horizontally extending mounting arm and an outwardly extending adjusting arm, bearing assemblies mounting said rolls for rotation on said mounting arms, and adjusting means engaged with each of said adjusting arms for pivoting them respectively about their pivotal connections to thereby change the position of the mounting arms connected thereto and the rolls mounted thereon with respect to said stationary support.

2,824,513

POSITIONING MECHANISM IN SELECTIVE TYPE PRINTING MACHINE

Reynold B. Johnson, Palo Alto, and Paul L. Pecchenino, Santa Clara, Calif., assignors to International Business Machines Corporation, New York, N. Y., a corporation of New York
Application September 8, 1955, Serial No. 533,212
9 Claims. (Cl. 101-93)

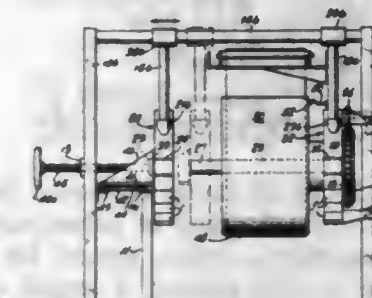


1. A positioning mechanism having a pair of positionable members, a reciprocating driving means common to said members, means selectively engageable with one or the other of said members for locking it when said driving means moves in one direction, and means for disabing said locking means from both said members when said driving means moves in the other direction.

2,824,514

SUPPORT MEANS FOR A HEAVY CYLINDER AND THE LIKE

James Reid Johnson, Providence, R. I.
Application August 11, 1954, Serial No. 449,177
10 Claims. (Cl. 101-178)

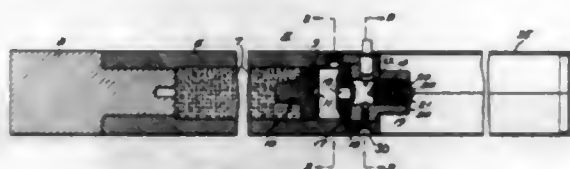


1. In textile printing apparatus in which an endless member is interposed between a heavy backing cylinder and one or more print rolls a combination of, a frame including a pair of supports having bearings for receiving and rotatably supporting said backing cylinder between them, one of said supports being fixed in position and the other being movable from a position to support one end of said backing cylinder to a non-support position axially aligned with said backing cylinder but laterally removed therefrom, leaving space between itself and said backing cylinder for passing an endless member over and partly around said cylinder, and means engageable with means on said cylinder adjacent its periphery to co-act with the bearing of said fixed support to temporarily support said cylinder while the bearing of said movable support is in non-support position.

2,824,515

INCENDIARY

James C. Loftin, United States Army, and Leo Flinkelstein, Aberdeen, and Edward M. Wharton, Edgewood, Md., assignors to the United States of America as represented by the Secretary of War, as trustee
Application February 12, 1944, Serial No. 522,082
3 Claims. (Cl. 102—6)
(Granted under Title 35, U. S. Code (1952), sec. 266)



1. A toxic incendiary munition comprising, in combination, a body formed of a magnesium-cadmium alloy of the following percent composition:

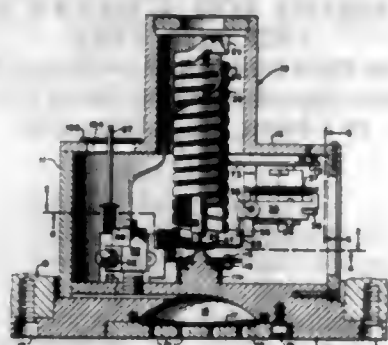
Aluminum	5.5 to 6.3%.
Cadmium	19.0 to 22.5%.
Zinc	Not over 1.5%.
Manganese	0.1 to 1.0%.
Impurities	Less than 0.5%.
Magnesium	Remainder.

a Thermit-type charge within said body, a first fire charge for igniting said Thermit charge, and firing means for setting off said first fire charge.

2,824,516

DEPTH MEASURING DEVICE FOR MOORING MINES

David K. Studenick, Silver Spring, Md., assignor to the United States of America as represented by the Secretary of the Navy
Application February 28, 1957, Serial No. 643,205
11 Claims. (Cl. 102—13)
(Granted under Title 35, U. S. Code (1952), sec. 266)



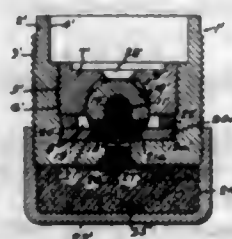
1. In a device of the character disclosed for mooring a mine at a predetermined depth of submersion, in combination, a mine anchor, a mine, means for releasably clamping the mine to said anchor, a length of mooring cable disposed within said anchor and adapted to be paid out therefrom, one end of said cable being connected to the mine, said cable being composed of magnetic material and having poles of opposite polarity magnetized at regular intervals in interweaving relation throughout the length thereof, a pickup device encircling said cable and having means for generating electrical signals induced by said magnetic poles as the cable moves past the pickup device, a rotatable contact member, means including a Bourdon tube in communication with the surrounding water for moving said member to a final position correlative with the depth of water at which the anchor is planted, a firing contact element comprising a movable contact arm rotatable about a common axis with said contact element from an initial position of rest in contact therewith to a second position corresponding to the depth of water at which the mine is to be moored, manipulative means for setting said firing contact arm to said second position prior to launching the mine, a source of electrical power,

impulse responsive means for actuating said firing contact arm from said second position to a firing position in electrical contact with said contact member when the contact member has been moved to said final position, a control circuit, hydrostatically controlled means for applying electrical power from said source to said control circuit, explosively actuated means for unlocking the mine from said anchor, electroresponsive means included in said explosively actuated means and operatively connected to said control circuit for operating the explosively actuated means when the control circuit is energized, and means controlled by signals received from said pickup device for applying impulses to said impulse responsive means corresponding in number to the length of cable paid out from the anchor as the mine rises within the water, electroresponsive swaging means for locking the cable to the anchor as the swaging means operates, and a firing circuit for said swaging means including said firing contact element for swaging the cable to the anchor as the firing contact element engages said contact member.

2,824,517

MAGNETIC DELAYED ARMING DEVICE FOR FUSES AND BOOSTERS

Sidney Sobelman, Morris Plains, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application October 21, 1952, Serial No. 316,110
8 Claims. (Cl. 102—79)
(Granted under Title 35, U. S. Code (1952), sec. 266)



3. In a point detonating centrifugally armed fuse for a spin-stabilized projectile having a longitudinal axis, a booster assembly comprising a body received in said fuse, said body having a spherical cavity formed therein, a centrifugal ball rotor rotatable in said cavity from first safe position to second armed position, said ball rotor having a diametral bore lying crosswise of said longitudinal axis when said rotor is in safe position, said body having an axial passage forwardly of said ball rotor in axial alignment with said diametral bore when said rotor is in armed position, a detonator in said diametral bore, and interacting magnetic means on said body and said rotor urging said rotor into said crosswise position, said ball rotor is made of a diamagnetic substance, and said magnetic means comprises a rotor magnet received in a hole formed transversely in said rotor subjacent said detonator, interacting with a pair of magnets each lying in recesses formed in said body on opposed sides of said rotor magnet in horizontal alignment therewith.

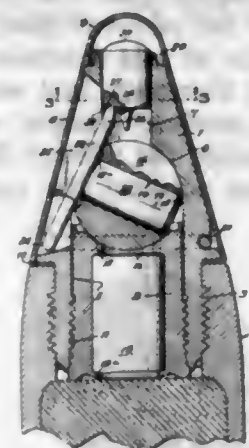
2,824,518

FUZE FOR SMALL CALIBER AMMUNITION

John Piskorski and Sellin S. Podnos, Washington, D. C., assignors to the United States of America as represented by the Secretary of the Army
Application November 6, 1953, Serial No. 390,763
4 Claims. (Cl. 102—79)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. In a fuze, a fuze body having a generally spherical cavity and a forwardly flaring first bore opening into and extending forwardly from said cavity, a generally spherical rotor fitting said cavity and having a diametral bore adapted to receive a detonator and flat across one end normal to and intersecting the axis of said bore, there

being a circumferential groove in said body adjacent the rearward portion of said cavity and coaxial with said bore, a firing pin reciprocable in and along said first bore and a safety spring having an annular portion fitting said groove and a straight upwardly extending portion

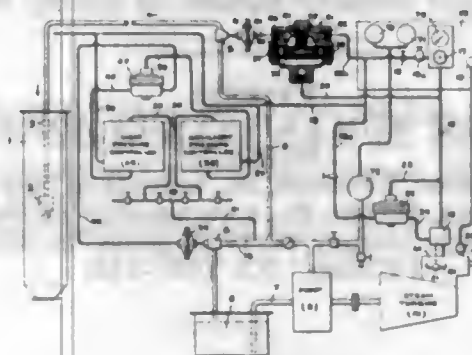


stressed radially inwardly and engaging across said flat to thereby releasably fix said rotor and maintain said diametral bore and first bore out of alignment, the free end of said straight portion received in and engaging a V-shaped slot formed in the lower face of said firing pin to simultaneously maintain the same out of contact with said rotor.

2,824,519

CONTROL FOR HIGH VELOCITY HIGH PRESSURE WATER DELIVERY SYSTEM

Elliott F. Wright, Plainfield, and August J. Keuffel, Summit, N. J., assignors to Worthington Corporation, Harrison, N. J., a corporation of Delaware
Application July 22, 1955, Serial No. 523,643
3 Claims. (Cl. 103—12)

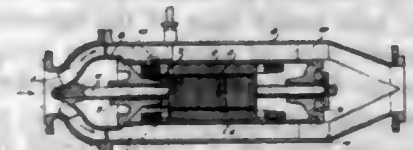


1. The combination with a high pressure fluid delivery system including a fluid reservoir, a pump having its suction connected to said reservoir and a discharge, a main delivery line connected to said discharge of the pump to receive fluid therefrom, a normally closed pneumatically operated valve in said main delivery line to control the flow of fluid therethrough, a by-pass line connecting the discharge of said pump to said reservoir, a normally open pneumatically operated valve in said by-pass line, a prime mover for driving said pump, a fuel inlet to deliver fuel to said prime mover, and a pneumatically operated valve for controlling the flow of fuel to said prime mover to regulate the speed thereof, of a pneumatic system comprising a source of compressed gas, means connected to said source for regulating delivery of compressed gas at reduced pressure to directly actuate said fuel control valve to regulate the prime mover operation from idle to full speed, means operated off of said regulating means to control delivery of pressure gas at a predetermined pressure to said main delivery line valve to actuate said valve to an open position, and means operatively connected to the discharge of said pump to control delivery of pressure gas to said by-pass valve to

2,824,520

DEVICE FOR INCREASING THE PRESSURE OR THE SPEED OF A FLUID FLOWING WITHIN A PIPE-LINE

Henning G. Bartels, Ploen, Holstein, Germany
Application November 3, 1953, Serial No. 390,050
Claims priority, application Germany November 10, 1952
5 Claims. (Cl. 103—87)

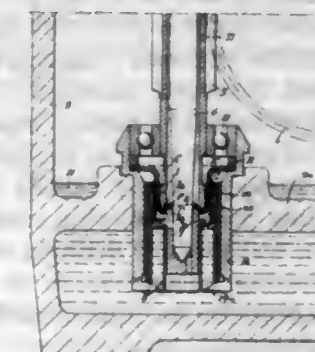


1. Fluid moving means for increasing the pressure of the speed of a fluid continuously flowing through a pipe-line comprising, in combination, a casing adapted to be built into the pipe-line; a plurality of impeller blades located in said casing; blade carrying means supporting said blades for rotating movement about an axis and for movement in axial direction between an operating position where said blades are adjacent the inner surface of said casing and provide substantial resistance to the flow of fluid and a rest position where said blades are located farther from the inner surface of said casing than in said operating position and provide less resistance to fluid flow than in their operating position; drive means operatively connected to said blades for rotating the same and for automatically moving said blades to said operating position thereof when they rotate above a given speed; and means automatically operating to bring said blades to said rest position thereof when they rotate below said given speed.

2,824,521

DEVICES FOR ELEVATING A LIQUID FROM A LIQUID BATH

Louis Birkigt, Pregny-Geneva, Switzerland, assignor to Brevets Aero-Mecaniques S. A., Geneva, Switzerland, a society of Switzerland
Application September 9, 1954, Serial No. 455,022
Claims priority, application Luxembourg September 22, 1953
2 Claims. (Cl. 103—101)



1. In a structure for lubricating a spinning spindle mechanism including a spindle and a worm and worm wheel gear for driving said spindle, which structure comprises, in combination, a casing the bottom of which forms a chamber containing an oil bath, a tube coaxial with the worm and rigid therewith, the lower end of said tube being immersed in said oil bath, said tube coaxially surrounding said spindle with an annular space therebetween, a cylindrical cup-shaped member 2 fixed with respect to said casing and surrounding the lower end of said tube at a small distance therefrom, the cylindrical wall of said cup-shaped member adapted to extend to a level above that of said bath, said cup-shaped member having a bottom, the bottom having a hole concentric

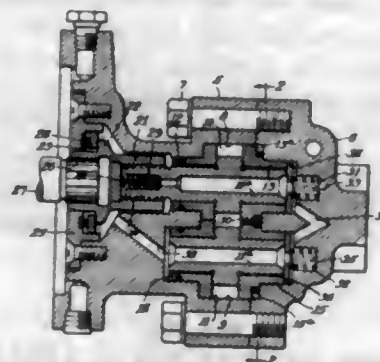
with said spindle for the passage thereof, said hole being of a diameter smaller than the inner diameter of said lower end of said tube, the bottom of said cup-shaped member having upper and under faces, the under face being of frusto-conical shape so that the axial sections thereof diverge in the downward direction, and a step bearing for the lower end of said spindle, said bearing being fixed with respect to said casing, the upper face of said bearing being located close to the under side of the bottom of said cup-shaped member and being of frusto-conical shape so that the axial sections thereof are at least substantially parallel to those of said member bottom under face, said under face of the cup-shaped member and the upper face of said bearing cooperating to form a passageway for the oil, the passageway being inwardly and upwardly directed whereby oil in the passageway is substantially free of a radial thrust due to centrifugal force by rotation of the lower end of the spindle.

2,824,522

PUMP, PRESSURE LOADED WITH OFFSET LOADING

James A. Compton, South Euclid, Ohio, assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application May 19, 1950, Serial No. 163,011
30 Claims. (Cl. 103—126)



1. An intermeshing gear type pump having pumping gears and having bearing means embracing axially extending gear journals in journal relation and sealably engaging the corresponding gear side faces, said gear journals extending axially through said bearing means and said bearing means being particularly characterized by being each formed in a single unitary piece and axially movable independently of said pumping gears, a first pressure responsive motive surface provided on said bearing means and eccentrically disposed with respect to the axis of said journals, and a second pressure responsive motive surface provided on said bearing means oppositely eccentrically disposed with respect to the axis of said gear journals, said two surfaces being axially displaced one from the other, sealing means isolating said first and second motive surfaces, and passage defining means for continuously communicating inlet pressure to said first surface and discharge pressure to said second surface.

2,824,523

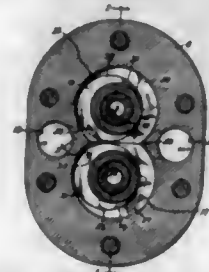
PRESSURE LOADED PUMP

Henry H. Campbell, East Cleveland, and James A. Compton, South Euclid, Ohio, assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Continuation of application Serial No. 168,216, June 15, 1950. This application November 19, 1953, Serial No. 393,029

18 Claims. (Cl. 103—126)

1. A fluid pump comprising a housing having a pump chamber formed therein, said housing having an inlet leading to and an outlet leading from said pump chamber, means including a rotatable member received in said pump chamber effective to force fluid from said inlet out of said housing through said outlet, an axially aper-

tured end plate of unitary construction received in said pump chamber and adapted to engage the side surface of said rotatable member in pumping seal relation, a first, continuous annular surface area on said end plate facing away from said rotatable member and normally spaced from the adjacent end wall of said housing, a second surface area on said end plate engageable with the adjacent side face of said rotatable member to provide a pumping seal therewith, said second surface area being subject to a pressure gradient extending from a minimum value adjacent the inlet of the pump chamber to a maximum value adjacent the outlet of the pump

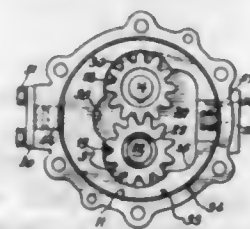


chamber, a third, continuous annular surface area on said end plate facing away from said rotatable member and normally spaced from the adjacent end wall of said housing, said first and third surface areas being eccentrically disposed with respect to said second surface area and lying in spaced planes parallel with respect to each other, passage defining means effective to direct pressure liquid generated by said rotatable member to the first surface area of said end plate for urging the end plate in the direction of the adjacent side surface of said rotatable member, and passage defining means effective to direct pressure liquid admitted to said pump at said inlet to the third surface area of said end plate for urging the end plate in the direction of the side surface of said rotatable member in sealing relation.

2,824,524

GEAR PUMP WITH EXTERNALLY ADJUSTABLE SHROUD

Oscar H. Banker, Evanston, Ill., assignor to New Products Corporation, Skokie, Ill., a corporation of Delaware
Application January 18, 1955, Serial No. 482,471
3 Claims. (Cl. 103—126)



1. In a pump having a housing defining a cavity, a drive gear in the cavity, a driven gear meshing with the drive gear, inlet and outlet openings in the housing adjacent the gears, a shroud surrounding portions of both gears and separating the pressure side of the gears from the suction side thereof, said shroud having a contour substantially the same as that of the cavity and fitting loosely in the cavity in a direction transverse to the axes of the gears, said shroud further having openings in alignment with the inlet and outlet openings of the housing, resilient means urging the shroud toward one side of the gears, a movable stop on the housing adapted to contact the shroud to limit the movement of the shroud toward the said one side of the gears, said housing having an access opening from the exterior thereof to the stop, a cover plate for the opening, and means insertable through said opening and filling the space between the stop and cover plate for adjusting the location of the stop relative to the gears.

2,824,525

OFFSET MANDREL FOR SMALL DIAMETER TUBING

Harold E. McGowen, Jr., Houston, Tex., assignor to Sid W. Richardson, Inc., Fort Worth, Tex., a corporation of Texas

Application July 26, 1954, Serial No. 445,689
9 Claims. (Cl. 103—232)



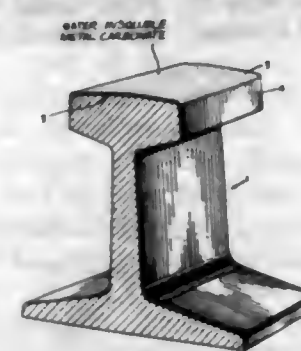
1. In a well tubing, a flow control device receiving tubing section including a laterally offset portion, a tubular receiver within said offset portion including means communicating the interior of the tubular receiver with the exterior of said section, a flow control device adapted to be lowered into said receiving section or raised therefrom, including a body portion containing valve mechanism, and a nose portion of less diameter than the body portion adapted to fit within the tubular receiver, and port means communicating said first named port means with said valve mechanism, the internal diameter of the receiver being of such size as to snugly receive the nose portion of the flow control device.

2,824,526

ADHERENCE TREATMENT OF METAL SURFACES

Thomas C. Nohehl, Downers Grove, Ill., assignor to National Aluminate Corporation, Chicago, Ill., a corporation of Delaware

Application December 19, 1955, Serial No. 553,930
35 Claims. (Cl. 104—1)



17. The method of improving the coefficient of friction between railway car wheels and tracks which comprises applying to at least one of the contacting surfaces a thin coating of a water insoluble metal carbonate.

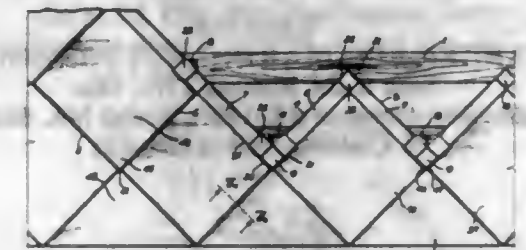
2,824,527

LOCK JOINT SHINGLE

George F. Waske, Parnell, Mo.
Application July 11, 1956, Serial No. 597,177
4 Claims. (Cl. 108—17)

1. A shingle made from a single sheet of material suitable for roof covering or the like comprising, a body portion having side edges, upturned hooking flanges on two adjacent sides of the shingle body portion, under-

turned hooking flanges on the other two adjacent sides of the shingle body portion, folded extensions from the adjacent ends of said upturned hooking flanges overlying said adjacent ends of said upturned hooking flanges, a top tab connecting said folded extensions in overlying relation thereto, and extensions adjacent the remote ends of the upturned hooking flanges folded in overlying rela-



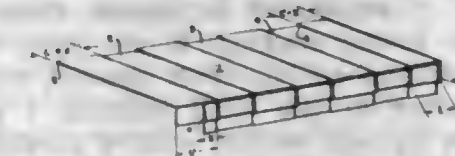
tion to said upturned hooking flanges and terminating in nail tabs extending outwardly from the respective side edges of the shingle body portion, the adjacent ends of said upturned hooking flange terminating in spaced parallel edges lying substantially diagonally of the body portion.

2,824,528

THROUGH-WALL FLASHING

William H. Stovall, Richmond, Va.; Savings Bank and Trust Company, administrator of the estate of said Stovall, deceased

Application June 11, 1953, Serial No. 361,006
5 Claims. (Cl. 108—26)

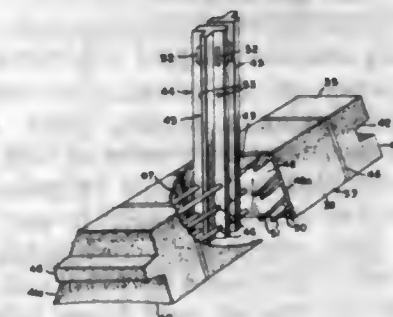


1. A flashing for a masonry wall comprising interlocking sections of flashing, each of said sections having an embedded portion for extending substantially through said wall and a downwardly extending counterflashing portion substantially perpendicular to the embedded portion, a channel opening downwardly and extending longitudinally along the counterflashing portion adapted to receive an inserted edge of sheet material, said channel having a segment cut out of one end thereof of L length, S-fold key-bonding means extending substantially transverse to said wall across the embedded portion for key-bonding the adjoining masonry layers together and continuously across the counterflashing portion, the S-fold key-bonding means at the uncut-away end of the section being of L width and the S-fold key-bonding means at the cut-away end of the section being greater than L width and having a downwardly disposed flange extending across the entire section at the end thereof adapted to interlock with the first S-fold of the adjacent flashing section.

2,824,529

METALLURGICAL FURNACE ROOF

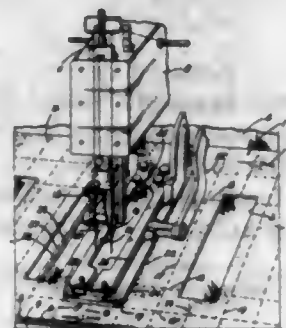
Lewis B. Ries, Monessen, Pa.
Application September 8, 1955, Serial No. 533,116
14 Claims. (Cl. 110—99)



2. A structural unit of the character disclosed comprising an elongate body of formed refractory material, a

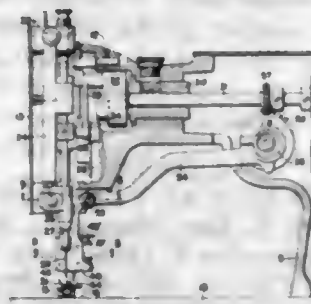
suspension post embedded at one end in the body and projecting upwardly from the top thereof, metal plates embedded in and disposed transversely of the body upon opposite sides of the post and reinforcing bars in and extending lengthwise of the body and passing through the plates and the post.

2,824,530
MARKER FOR MAKING BUTTONHOLES
Sam Katz, Kansas City, Mo.
Application October 20, 1955, Serial No. 541,769
4 Claims. (Cl. 112-65)



1. In combination with a machine for making buttonholes in cloth material having markings in one edge thereof, said machine having a base provided with an elongated opening therein and cutting and stitching mechanism operable through said opening, a marker having a plurality of equispaced rectangular shaped openings therein and having markings in one edge for aligning with the markings on said cloth material, means fastening the marker to said cloth material, a plurality of spaced lines on said marker running parallel with said openings and spaced equidistant from the side edges of said openings and a plurality of spaced lines on said marker running transversely of said first named lines for aligning all of said lines with the base of said machine whereby said openings in the marker will align with the opening in the base of the machine for making said buttonholes in equispaced relation in said cloth material.

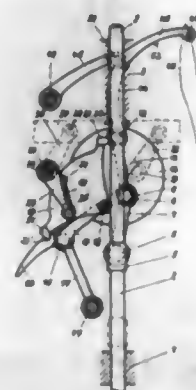
2,824,531
SEWING MACHINES ADAPTED FOR CORD LAYING
Fredric W. Breul and Stanley M. Silva, Bridgeport, Conn., assignors to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application June 1, 1954, Serial No. 433,543
5 Claims. (Cl. 112-100)



1. In a sewing machine adapted to present one or more cords to the action of the usual stitch-forming instrumentalities, and having a sewing head, a needle-bar bracket, means securing said bracket to said sewing head, a needle-bar journaled for endwise reciprocatory motion in said bracket, and means arranged in said sewing head for actuating said needle-bar, cord-laying mechanism comprising a frame interposed between said sewing head and said needle-bar bracket, said frame being supported on said needle-bar bracket securing means for movement in a direction transversely of the endwise reciprocatory

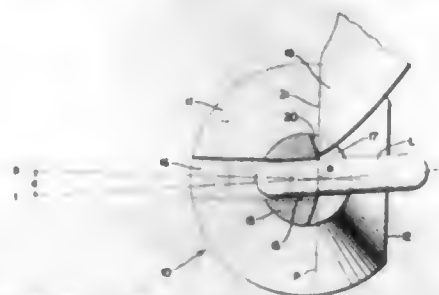
motion of said needle-bar, means driven by said needle-bar actuating means for reciprocating said frame, and a cord-laying finger carried by said frame.

2,824,532
DEVICE FOR AT LEAST TEMPORARILY INACTIVATING RECIPROCATING CONTROL MEMBERS OF MACHINES, ESPECIALLY OF EMBROIDERY MACHINES
Kurt Scheibel, Dresden, Germany, assignor to VEB Spezialnähmaschinenwerk Limbach, Limbach-Oberfrohna, Germany
Application February 16, 1955, Serial No. 488,628
14 Claims. (Cl. 112-221)



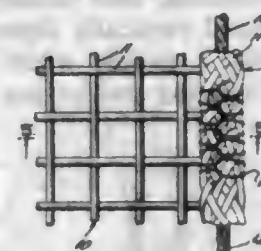
1. A system for transmitting reciprocating motion comprising a support, a continuously operating driving member, a pair of driven members arranged for movement by said driving member relative to said support, a link motion mechanism comprising three connecting links each having an end articulated to one of said members, respectively with each of said members being connected to one of said links, and having their remaining ends connected to form a common freely moving articulate joint, and means to lock either of said driven members to said support, whereby to transmit driving motion to the other driven member by said mechanism.

2,824,533
SEWING MACHINE NEEDLES
Herbert J. Goosman, Watchung, N. J., assignor to The Singer Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey
Application May 24, 1956, Serial No. 587,123
3 Claims. (Cl. 112-222)



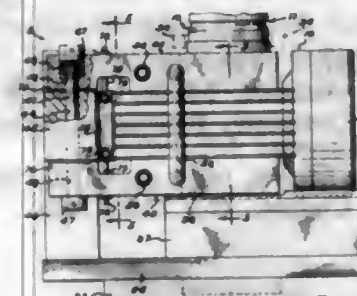
1. A sewing machine needle comprising, a blade, a shank formed on one end of said blade and provided with a flat, a work-penetrating point formed on the other end of said blade, a scarf formed in said blade adjacent said work-penetrating point and providing a scarf surface, and walls extending through said blade defining a thread eye opening into said scarf surface, the axis of said thread-eye through said blade lying in a plane normal to the longitudinal axis of said needle and forming an acute angle at said scarf surface with the transverse needle axis contained in said plane and perpendicular to said flat.

2,824,534
MESH BAG AND METHOD OF MAKING THE SAME
Joseph Dana Cramer, Goshen, Ind., assignor to Chase Bag Company, New York, N. Y., a corporation of Delaware
Application April 19, 1954, Serial No. 424,110
3 Claims. (Cl. 112-269)



1. In a bag formed from a woven strand open mesh material having interstices of greater area than the strands, a seam extending along one side and one end of the bag, said seam comprising a filler cord, two edges of a woven strand open mesh material superimposed on each other and rolled around said filler cord and over-stitching encircling the rolled edges of the open mesh material and the filler cord, said over-stitching holding the strands forming said rolled edges in close contact with the filler cord.

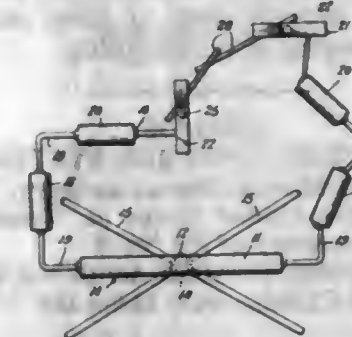
2,824,535
FIXTURE FOR SUPPORTING AND COOLING PARTS DURING BRAZING
Theodore W. Kalbow, Chicago, Ill., and Lester O. Reichelt, St. Paul, Minn., assignors to Western Electric Company, Incorporated, New York, N. Y., a corporation of New York
Application March 30, 1954, Serial No. 419,776
2 Claims. (Cl. 113-98)



1. A fixture for supporting and cooling a composite article during brazing of the components, a base means on said base for supporting said components in superposed relation, a pair of horizontally disposed hollow cooling blocks having ports connectible to means for supplying coolant therethrough and having vertically disposed bores adjacent one end thereof, each of said blocks having a first cooling face and a second cooling face angularly disposed relative to each other, a member on said base in horizontally spaced relation to said supporting means having a horizontal surface and pivot pins extending vertically therefrom through the bores in said cooling blocks for supporting the cooling blocks on opposite sides of the supporting means for horizontal pivotal movement and for engagement of the first cooling faces with a first pair of surfaces on opposite sides of one of said components on the supporting means and for limited vertical pivotal movement for engagement of the second cooling faces with a second pair of surfaces on said component extending transversely of said first surfaces, said cooling blocks having projections on the lower face thereof in horizontal spaced relation to the bores therein and engageable with the horizontal surface on said member in spaced relation to the pivot pin to form fulcrums for said vertical pivotal movement of said blocks, spring means encircling the pivot pins for stressing said blocks vertically into engagement with said second pair of surfaces, and spring means for urging said

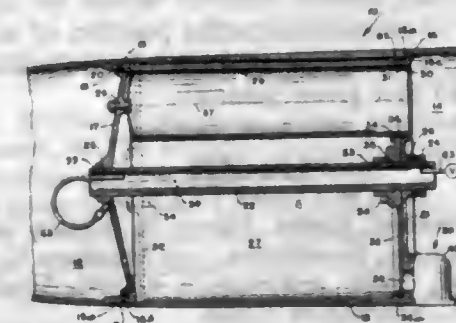
cooling blocks horizontally toward said supporting means into engagement with said first pair of flat surfaces on said component.

2,824,536
TRUE LINING VISE OR JIG
John M. Gamble, Burlington, Iowa
Application June 18, 1954, Serial No. 437,832
2 Claims. (Cl. 113-104)



1. A true lining vise or jig comprising an elongated central tubular member open at the ends thereof, a swivel ball at each end of said central member, a coiled spring in said central member engaging said balls urging said balls toward the outer ends thereof, a right angular connecting rod on each of said balls extending outwardly from said central member, an intermediate tubular member open at the ends thereof adjacent each end of said central member, a pair of balls in each of said intermediate members, a coiled spring in each of said intermediate members urging said balls toward the outer ends thereof, the connecting rod at each end of said central member being connected to one ball of the adjacent intermediate member, an outer tubular member open at the ends thereof, adjacent each of said intermediate members, a pair of balls in each of said outer members, a coiled spring in each of said outer members urging said balls toward the ends of said outer members, a right angular connecting rod between one ball of each of said outer members and the other ball of the adjacent intermediate member, a straight rod connected to the other of said balls in said outer member, a work engaging clamp connected to the other end of each straight connecting rod and a support engaging said central member intermediate the ends thereof, said vise or jig providing for the universal swivel movement of the articles in said clamps for work being accomplished thereon.

2,824,537
EXERCISE HEAD FOR TORPEDOES OR OTHER UNDERWATER, SURFACE, OR AIR MISSILES, SHIPS, OR CRAFT
Thomas C. Boyle, Pasadena, Calif., assignor to the United States of America as represented by the Secretary of the Navy
Application April 13, 1953, Serial No. 348,599
4 Claims. (Cl. 114-20)
(Granted under Title 35, U. S. Code (1952), sec. 266)



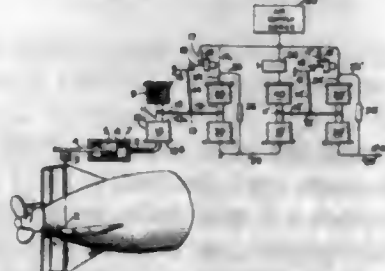
1. A torpedo exercise head comprising a chamber adapted to contain liquid ballast, a movable wall adapted to reduce the volume of the chamber, a source of gas

under pressure for moving the wall, a ballast discharge valve adapted to automatically open in response to pressure applied to the ballast by the wall and through which the ballast is adapted to discharge, a gas bleed valve adapted to automatically open when the ballast has been discharged from the chamber, the gas bleed valve, when open, permitting gas from said source to bleed through the discharge valve and retain same open until its pressure falls to a predetermined value depending on the depth of the submergence of the torpedo, said discharge valve being adapted to prevent entry of water into the ballast chambers at all depths of submergence.

2,824,538

TORPEDO CONTROL SYSTEM

Wilfred H. Howe, Sharon, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application May 19, 1952, Serial No. 291,037
5 Claims. (Cl. 114-25)



1. A mechanical integrating unit comprising a first and second collapsible, hollow, bellows device, each having a compressible fluid therein, the pressure of which determines the degree of collapse thereof, a first means for varying the fluid pressure in said first bellows device in proportion to a first given quantity, and a conduit means filled with a fluid including a narrow restriction in the walls thereof communicating with the said fluid-filled bellows devices whereby the rate of flow of fluid from first bellows devices to said second bellows device is proportional to the difference of fluid pressure therebetween, the fluid pressure in said second bellows device being the integral of said given quantity, a first mechanical coupling member between the collapsible wall member of said first and second bellows devices, where the position thereof is a function of the difference in fluid pressure in said bellows devices, a third collapsible bellows device whose degree of collapse is directly proportional to said first given quantity, said first means including a pilot valve member which varies the fluid pressure in said first bellows device proportional to the position thereof, and a mechanical linkage connected to said first coupling member, to said pilot valve, and to the collapsible wall member of said third bellows device for moving said pilot valve in response to a movement of said third bellows device and said coupling member, said first means including a first hollow cylinder having a movable piston therein providing a variable volume chamber therein whose pressure is proportional to the position of said piston, a compressible fluid in said chamber, means coupling said chamber to said third hollow bellows device to expand the walls thereof in proportion to the position of said piston, control means varying the position of said piston in proportion to said first given quantity.

2,824,539

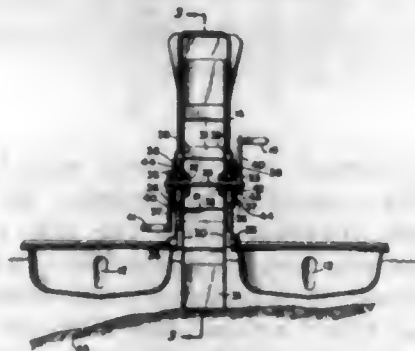
WATERCYCLE

Michael P. Budney, Berlin, Henry S. Budney and Thaddeus W. Budney, Newington, and Matthew F. Saczawa, Wethersfield, Conn., assignors to Atlantic Machine Tool Works, Inc., Newington, Conn.

Application June 9, 1955, Serial No. 514,266
1 Claim. (Cl. 115-26)

A watercycle comprising a pair of elongated floats arranged in side by side generally parallel relation, a hous-

ing positioned between said floats and secured to the adjacent edges thereof and extending upwardly therefrom, a seat on said housing at the rear end thereof, and a steering shaft journaled in said housing at the front end thereof, rudder means on the lower end of said steering shaft, means on the upper end of said shaft whereby it may be turned for steering, said housing being provided with medially positioned vertically disposed slots, a shaft mounted in said slots, a paddle wheel fixedly mounted on said shaft in said housing and having its lower extrem-

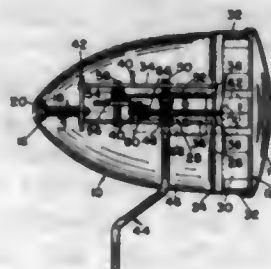


ity normally positioned below the bottom of the floats, said housing providing a space above the paddle wheel whereby said paddle wheel may move upwardly a distance corresponding to the length of said slots whereby the bottom of the paddle wheel may rise to the level of the bottom of the floats, said shaft supporting said paddle wheel and extending through said slots to rotatably mount said paddle wheel in said housing, said paddle wheel being adapted for vertical movement, crank means on the ends of said shaft whereby the paddle wheel may be rotated by a person sitting on said seat on the housing.

2,824,540

SIREN CONSTRUCTION

Martin J. Bird, Auburn, Mass., assignor to Persons-Majestic Mfg. Company, Worcester, Mass., a corporation of Massachusetts
Application May 8, 1956, Serial No. 583,445
4 Claims. (Cl. 116-147)

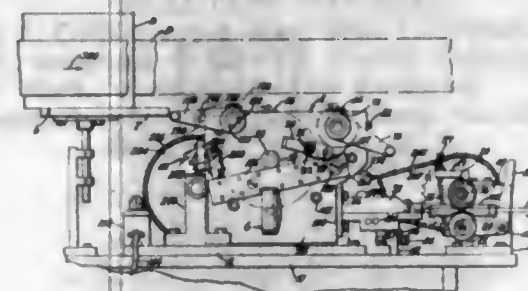


1. A siren comprising a tapered housing having a large open end and a small end, means forming a substantially continuous shoulder located on and interiorly of the housing spaced inwardly from but relatively close to the large open end of the housing, a cover member, means to attach the latter to the housing at the open end to close the same, a mounting plate in the housing, means on the plate abutting the shoulder at spaced points thereon, a pair of spaced, elongated plates attached at corresponding ends to the mounting plate and extending toward the small end of the housing, a cross plate attached to the elongated plates at the ends of the latter remote from the mounting plate, said cross plate connecting the elongated plates together in spaced relation, gearing mounted on the elongated plates, means engaged with and operating the gearing, a siren fan in the housing, a shaft for the fan, the shaft being connected to the gearing and driven thereby, and means located at the small end of the housing connected to the cross plate and locating and securing the same and the elongated plates, and therefore the gearing in position in the housing.

2,824,541

"GLUING-OFF" MACHINES FOR BOOKS USING HEAT-SOFTENABLE CEMENT IN ROD FORM

Hans C. Paulsen, Medford, Mass., assignor to United Shoe Machinery Corporation, Flemington, N. J., a corporation of New Jersey
Application August 4, 1954, Serial No. 447,794
7 Claims. (Cl. 118-7)

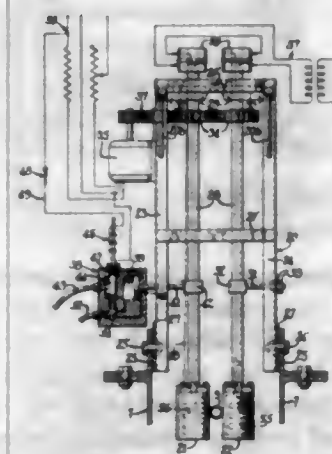


1. In combination, a heated casing having an entrance passage to the interior of said casing for the admission of a strip of meltable adhesive and also having an outlet opening, a driven feeding mechanism for said strip, movable means within the casing adjacent to said outlet opening to remove melted adhesive for application to a piece of work, said means communicating with said entrance passage and providing with the casing a restricted passage along which the strip is melted, and means responsive to the fluid pressure in said casing for controlling the drive for the strip feeding mechanism.

2,824,542

MEANS FOR HANDLING FRESHLY GALVANIZED PIPE DURING INTERNAL SWABBING

William S. Pearson, Baltimore, Md., assignor to Clifton Conduit Company, Inc., Baltimore, Md., a corporation of Maryland
Original application October 5, 1950, Serial No. 188,622, now Patent No. 2,753,837, dated July 10, 1956. Divided and this application March 27, 1956, Serial No. 574,298
12 Claims. (Cl. 118-60)

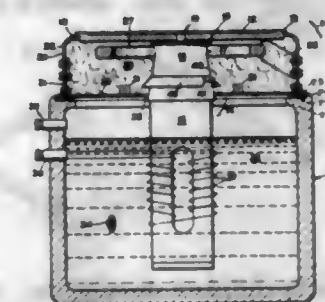


1. In combination in apparatus for removing excess galvanizing material from successive sections of freshly galvanized pipe, means for externally swabbing the pipe sections as they are advanced through a longitudinal path, means for advancing the pipe sections beyond said external swabbing means and including an overhead magnetic conveyor, and an internal swabbing blow tube having a mouth disposed for engagement by the leading end of each of the pipe sections after the same has been substantially advanced by said overhead conveyor, said overhead conveyor being controllable to release the pipe sections when the leading end of each of the sections is in proximity to the mouth of said blow tube, the improvement which comprises means operable at longitudinally spaced points on the successive pipe sections to thrust the same into the mouth of the blow tube after release from said overhead conveyor.

2,824,543

ULTRASONIC TINNING APPARATUS

Gilbert G. Brown, Davenport, Iowa, assignor to Bendix Aviation Corporation, Teterboro, N. J., a corporation of Delaware
Application January 14, 1955, Serial No. 481,929
20 Claims. (Cl. 118-72)

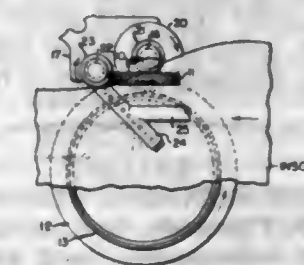


1. Ultrasonic tinning apparatus, comprising a base and a tinning head mounted on the base, said head comprising a casing, a shallow solder receptacle carried by the casing, an ultrasonic transducer unit engaging the receptacle, a receptacle heating element mounted in the casing, and insulation mounted in the casing around said heating element on the side opposite to the receptacle and between said element and the transducer unit.

2,824,544

SOLE CEMENTING MACHINE

Manfred E. Pehrson, Malden, Mass., assignor to Prime Manufacturing Company, Lynn, Mass., a corporation of Massachusetts
Application April 15, 1955, Serial No. 501,476
7 Claims. (Cl. 118-407)



4. A cement applying machine including in its organization a work supporting disk rotatable freely about a vertical axis and having an upstanding concentric rib defining a marginal shoulder on the disk and presenting a flat sole-supporting face, a supplementary disk overlapping said marginal shoulder and rotatable with its circumference adjacent to the concentric rib and its surface flush with that of the rib, in combination with an overhanging cement nozzle and work feeding means, the nozzle being horizontally disposed, inclined in the direction of the work feed and located so that it intersects a line drawn between the axes of the work supporting disk and the supplementary disk and also to ride upon the surface of the sole to which cement is being applied.

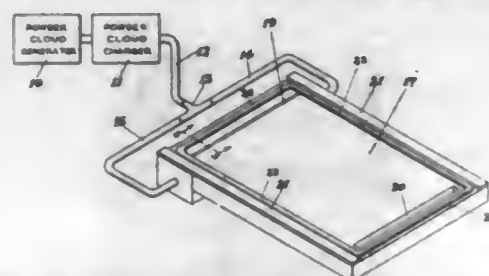
2,824,545

APPARATUS FOR DEVELOPING XEROGRAPHIC IMAGES

Eugene C. Ricker, Columbus, Ohio, assignor, by mesne assignments, to The Haloid Company, Rochester, N. Y., a corporation of New York
Application February 1, 1955, Serial No. 485,417
4 Claims. (Cl. 118-637)

1. Apparatus for developing an electrostatic image on an image layer with a finely-divided material comprising, in combination, a conductive development electrode having a surface conforming to the shape of said image layer, means to support said layer in spaced substantially parallel relation above said development electrode to

provide a development zone between them, walls defining an entrance chamber at one end of said zone, the walls of said chamber forming an opening therefrom communicating with said zone and extending across the end of said zone, entrance apertures at each end of said chamber, and means for generating and blowing a gas



suspension of finely-divided developing material through said apertures entrance chamber, opening, and development zone in series, said walls forming a tapered converging passage leading from said chamber through said opening to convert the flow of said gas suspension into substantially laminar flow.

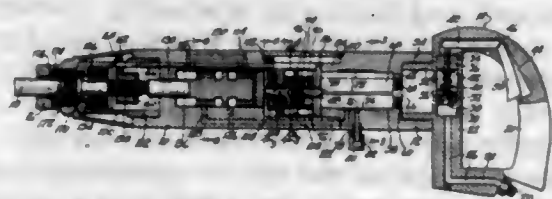
2,824,546 TREATING ANIMALS WITH HORMONE PREPARATION

Hermann Klette, Frankfurt am Main, Germany
No Drawing. Application October 30, 1950
Serial No. 193,042
5 Claims. (Cl. 119—1)

1. In a method of increasing body growth and improving meat quality of cattle and other domestic animals, the step comprising administering to said animals, by a single non-intravenous injection, a suspension of an estrogen compound in an injectable vehicle, said suspension containing estrogen particles of a size substantially between about 0.001 mm. and about 0.005 mm. diameter and estrogen particles of a size substantially between about 0.05 mm. diameter and about 0.50 mm. diameter.

2,824,547 PORTABLE SPINNING RIVET HAMMER

John F. Sherrill, Plymouth, Ind., assignor, by mesne assignments, to Indianapolis Bond and Share Corporation, Indianapolis, Ind., a corporation of Indiana
Application December 10, 1953, Serial No. 397,460
11 Claims. (Cl. 121—7)



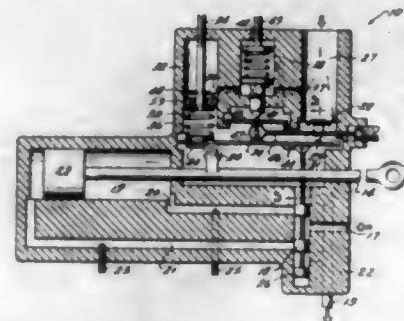
1. A portable spinning rivet hammer comprising a portable housing, an air actuated impeller rotatable in said housing, an air actuated hammer reciprocating longitudinally in said housing, means for applying compressed air sequentially to said impeller and hammer, a peen member rotatably and axially slidably carried by said housing and spring-urged against said hammer, and drive means journaled in said housing alongside and independent of said hammer and actuated by said impeller for rotating said peen.

2,824,548 FLUID ACTUATOR

Jean Alfred Felix Roché, Reading, and William Knowlton Gulick, Cincinnati, Ohio, assignors to General Electric Company, a corporation of New York
Application September 16, 1955, Serial No. 534,821
8 Claims. (Cl. 121—41)

1. A fluid actuated device comprising a housing, a first fluid pressure supplied system in said housing, a piston

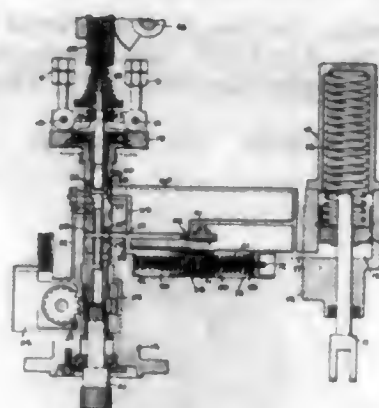
and load-connected rod movable in response to said fluid pressure, a fulcrum on said rod, a pilot valve positionable to direct said fluid pressure against said piston, a second signal pressure supplied system independent of said first system, a lever connected to said valve and rotatable about said fulcrum, first means biasing said lever on one side of said fulcrum, second means responsive to



change in said second signal pressure supplied system to bias said lever on the opposite side of said fulcrum, whereby movement of said piston is obtained until a moment balance occurs between said two biasing means on said lever, wherein said first biasing means comprises a spring, and a piston compressing said spring in response to said signal pressure, said spring being operative over a narrow portion of its deflection range.

2,824,549 COMPENSATED SPEED GOVERNOR

Willard J. Whitehead, Rockford, Ill., assignor to Woodward Governor Company, Rockford, Ill., a corporation of Illinois
Application November 17, 1955, Serial No. 547,382
7 Claims. (Cl. 121—42)

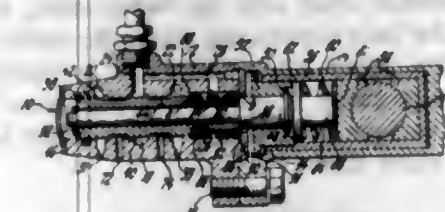


1. A speed governor having, in combination, a fluid servo having an expansible chamber and a member closing the chamber and adapted for association with a prime mover to increase and decrease the speed thereof in response to opposite movements of said member, a fluid space, a fluid passage extending between said chamber and said space, a partition wall in said passage separating said space and chamber and movable in opposite speed-increasing and speed-decreasing directions away from a centered position to transmit to said chamber changes in the pressure in said space, a by-pass passage connecting said space and chamber and having a restriction permitting slow leakage of fluid between the two, speed sensing means including a valve for admitting pressure fluid to or releasing the same from said space, means responsive to the pressure differentials built up between said space and chamber and operable to apply each differential to said valve to return the same toward neutral position, two springs both continuously acting on said wall in all positions of the latter and exerting equal and opposite forces on the wall when the latter is in said centered position, a fixed stop disposed in the path of movement of said wall and adapted to stop the same after a limited movement thereof in the speed increasing direc-

tion away from said centered position, and means mounting said stop for adjustment along said path to vary the position of interception of said wall.

2,824,550 POWER STEERING VALVE WITH SINGLE REACTION CHAMBER

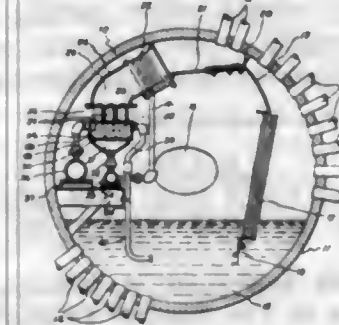
Ludwig A. Gribler and William Blair Thompson, Saginaw, Mich., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 26, 1954, Serial No. 406,118
5 Claims. (Cl. 121—46.5)



1. In a fluid power steering control valve assembly adapted for use with steering apparatus including a pitman arm or the like, said assembly comprising a housing having therein a plurality of passageways including an inlet passageway, an exhaust passageway and a power passageway, together with a pair of annular internal channels to which said inlet passageway and said exhaust passageway respectively open, and comprising, additionally, a spool element confined by said housing having a bore therein solely to accommodate a stem member through which it is actuated in an axial direction by said pitman arm or the like to control fluid flow in said passageways, said spool element having a first land functional with respect to said inlet passageway and a second land functional with respect to said exhaust passageway, the combination of means providing a chamber at the end of said spool nearest said pitman arm or the like, said chamber communicating at all times with said inlet passageway so that any axial movement of said spool in use of the valve is resisted by the pressure of the fluid in said chamber.

2,824,551 STEAM GENERATING APPARATUS

Willmer R. Taggart, Worcester, Mass., assignor to Riley Stoker Corporation, Worcester, Mass., a corporation of Massachusetts
Application January 4, 1954, Serial No. 402,050
5 Claims. (Cl. 122—459)

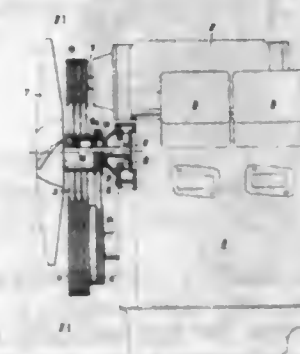


1. A steam generating apparatus comprising a steam-and-water drum, a centrifugal steam separator within the drum consisting of a skirt of circular cross-section within which foreign matter is removed from steam, liquid being thrown onto the inner surface of the skirt, a container within which the skirt resides, the container having parallel walls extending generally perpendicularly to the axis of the skirt, the ends of the skirt being attached to and in contact with the said walls of the container and the intermediate portion of the skirt being free of contact with the container, and means for passing feed water through the container and over the entire circumference of the outer surface of the skirt in heat exchange relationship to the substances within the skirt.

727 O. G.—51

2,824,552 DRIVE FOR BLOWER, FAN AND WATER PUMP OF TWO-STROKE V-TYPE ENGINES

Andreas Scheiteri, In, Graz, Austria, assignor to Gustav Ospelt, Vaduz, Liechtenstein
Application January 15, 1957, Serial No. 634,337
Claims priority, application Austria January 20, 1956
3 Claims. (Cl. 123—41.46)



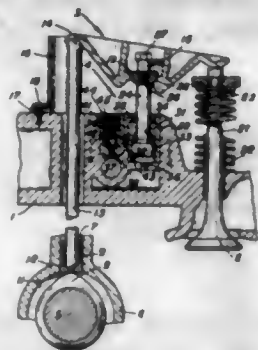
1. A V-belt drive for the blower, cooling fan and water pump of a V-type two-stroke engine having a rotatable crank shaft and a scavenging air blower, wherein the blower is mounted in the V-space between the cylinder banks of said engine and the cooling fan and water pump have a common drive shaft and are mounted for rotation between the blower and the free end of the crankshaft, a bearing housing on said engine adjacent the free end of said drive shaft supporting the latter for rotation, said drive comprising a first crankshaft pulley mounted on the free end of the crankshaft, a sleeve rotatably mounted about the bearing housing of the said common drive shaft and having at one end thereof a drive pulley for the water pump and cooling fan co-planar with the said first crank shaft pulley, said sleeve being attached at one end thereof to said drive shaft between the cooling fan and the free end of the engine, a first idler pulley co-planar with the last named two pulleys, a V-belt passing around the last named three coplanar pulleys, means mounting said idler pulley on the engine, a multi-V-belt drive pulley for the blower mounted on the drive shaft thereof, a second crankshaft pulley mounted on the crankshaft adjacent said first crankshaft pulley and coaxial therewith, a second idler pulley co-planar with said blower drive pulley and said second crank shaft pulley, multi-V-belts passing around said second idler pulleys, said second crank shaft pulley and said blower drive pulley, means mounting said second idler pulley on the engine, said last named three pulleys being positioned so that the planes through the V-belts around each intersect said sleeve between the cooling fan and the free end of the engine, and said idler pulleys being positioned at a sufficient distance to one side of the plane through the axes of the blower drive shaft and the crankshaft so that the shaft of the water pump, said sleeve and said pulley thereon are freely operable within the area defined by said multi-V-belts.

2,824,553 HYDRAULICALLY COMPENSATING MECHANISM FOR VALVE LIFTERS

Aldo Celli, Oshkosh, Wis.
Application November 17, 1954, Serial No. 469,336
1 Claim. (Cl. 123—90)

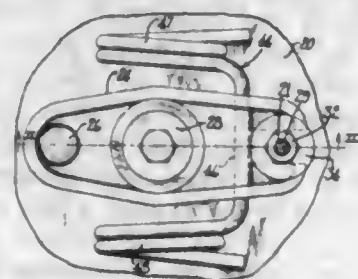
In a valve drive train comprising a cam follower, a push rod and a rocker arm for opening and closing a valve in an engine comprising a cylinder and a cylinder block, a hydraulic mechanism for supporting and maintaining zero clearance in said drive train comprising: a piston operatively mounted in a cylinder defined by said cylinder head, said rocker arm having oppositely extending arms and provided with a vertically extending opening between said arms and a concave curved surface extending upward from said opening, said piston having one

end extended upwardly through said opening and forming a pivot upon which said rocker arm is pivotably mounted; a source of fluid connected with the pressure lubricating system of said engine; a chamber defined by said engine; means for hydraulically connecting said source of fluid



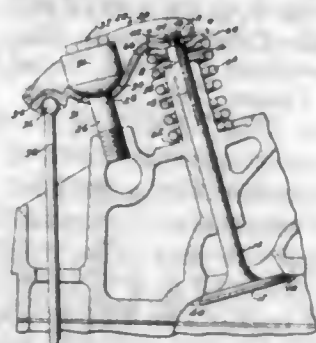
to said chamber; means for hydraulically connecting said chamber to said cylinder; and check valve means comprising a ball positioned in said chamber and coacting with said first named means to prevent said fluid in said cylinder from returning to said source of fluid.

2,824,554
METHOD AND MEANS FOR ROTATING VALVES
Achilles C. Sampietro, Detroit, Mich.
Application January 31, 1956, Serial No. 562,423
23 Claims. (Cl. 123-90)



1. The method of rotating two axially adjacent parts with respect to an axis of rotation intersecting one of the parts which includes the steps of cyclically loading and unloading the parts with resultant axially directed forces having axial and lateral components, applying the loading force to one of the parts on one side of said axis of rotation, whereby the lateral component will produce a torque moment acting in one direction, and applying the unloading force to said one of the parts on the opposite side of said axis of rotation, whereby the lateral component will produce a torque moment in the same one direction, whereby to rotatably drive the parts with respect to one another.

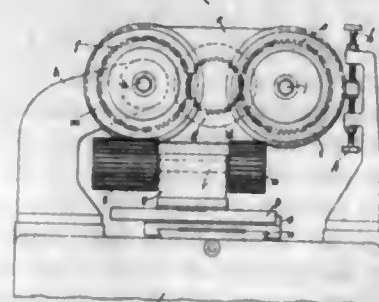
2,824,555
FULCRUM ADJUSTER
Achilles Charles Sampietro, Detroit, Mich., assignor to Thompson Products, Inc., Cleveland, Ohio, a corporation of Ohio
Application February 27, 1956, Serial No. 567,767
17 Claims. (Cl. 123-90)



1. A valve operating mechanism comprising a poppet valve having a valve stem mounted for axial sliding move-

ment, a rocker arm mounted for pivotal movement, a pivotal mounting for the rocker arm positioned so that there will be a net positive scrubbing action between the end of the rocker arm and the valve stem, a circumferential groove cut in the upper end of the valve stem, an elongated slot in the rocker arm cooperatively positioned to connect to the valve, the elongated slot extending in the direction of the plane of movement of the rocker arm, said slot being sufficiently wide so that only one side of the slot will engage the surface of the valve in the base of said groove, a push rod for moving the rocker arm in pivotal movement, means for causing a lateral pressure between the rocker arm and the valve stem, and means for changing the lateral pressure when the valve is moving in one direction from when the valve is moving in the other direction to cause a rotation of the valve in one direction as the surface of said slot slides in the base of the groove in the valve stem.

2,824,556
METHOD AND MEANS FOR SHAPING AND TRIMMING HELICALLY FORMED GRINDING WHEELS
William Henry Bateman, Overstream, Loudwater, Rickmansworth, England, assignor to Wickman Limited, Coventry, England
Application May 23, 1955, Serial No. 510,405
Claims priority, application Great Britain May 24, 1954
15 Claims. (Cl. 125-11)



1. A method of generating a peripheral helix on a grinding wheel of abrasive composition, including the steps of bringing a toothed cutting surface of a tooth contour which is conjugate to that of the form to be imparted to said grinding wheel by a relatively slow unidirectional movement into tangential cutting contact with the outer periphery of the grinding wheel, while rotating both said toothed surface and said grinding wheel at predetermined, relative speeds, and maintaining said tangential cutting contact while moving said toothed surface unidirectionally across the outer peripheral surface of the grinding wheel in a fixed linear path.

2,824,557
CONTROL APPARATUS FOR THE AIR AND OXYGEN SUPPLY IN THE SUITS OF AIRCRAFT PERSONNEL
Jacques G. Mejean and John V. Oliveau, Greenwich, Conn., assignors to The Aerotec Corporation, Greenwich, Conn., a corporation of Connecticut
Application August 23, 1956, Serial No. 605,794
10 Claims. (Cl. 128-142)

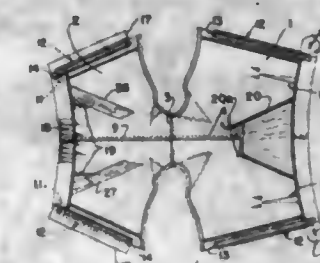
1. A control apparatus for supplying gases under pressure to the suits of aircraft personnel which comprises a disconnect device comprising a fixed part having an inlet air chamber, an oxygen chamber, a passage connecting said chambers and a valve in said passage controlled by the pressure in said air chamber to close said passage when the air in said air chamber exceeds a fixed minimum, and an upper part having an oxygen passage from said oxygen chamber to supply the helmet of said suit, an air passage from said air chamber to supply the body of the suit and a passage connecting said passages, a valve in said air and oxygen passages held in open position by

said fixed part when said parts are connected and closing when said parts are disconnected, and a valve in said connecting passage held closed by said lower part and opening when said parts are disconnected, a pressure regulating mechanism having an air passage connected to the air passage of said upper part and an oxygen passage connected to the oxygen passage of said upper part, said oxygen passage in said pressure regulating mechanism having an oxygen control valve controlled by the pressure in the

plastic material having skin adhesive and antiseptic characteristics, said cot being substantially hollow, and said plastic material having substantially the following components:

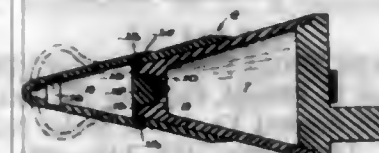
	Percent
Polyvinyl copolymer resin	18.2
Plasticizer	5.4
Aluminum powder	3.6
Methyl ethyl ketone solvent	71.8
Propylene oxide	1.0

2,824,560
BATHING GARMENT FOR MEN
Vernon B. Clinton, New York, N. Y., assignor to Cluett, Peabody & Co., Inc., Troy, N. Y., a corporation of New York
Application October 21, 1953, Serial No. 387,427
1 Claim. (Cl. 128-159)



air passage of said pressure regulating mechanism to close said oxygen passage at a pressure fixed above the pressure in said air passage, an air control valve in said air passage in said pressure regulating mechanism and a control diaphragm for said control valve having a passage to the ambient atmosphere and a second control valve having a closed bellows acted on by the atmosphere to close said passage to the control valve when the ambient atmospheric pressure falls below that of said bellows.

2,824,558
EAR PLUG
Paul L. Michael, Forest Hills, Joseph Borsh, Pittsburgh, and John P. Strange, Murrysville, Pa., assignors to Mine Safety Appliances Company, Pittsburgh, Pa., a corporation of Pennsylvania
Application May 24, 1956, Serial No. 587,101
7 Claims. (Cl. 128-152)



1. An ear plug adapted to be inserted in an ear canal and then expanded into the size and shape thereof, comprising a hollow elongated fluid-containing resilient body tapered towards its inner end for easy insertion into an ear canal, the inner end portion of said body being expandable laterally, and a valve within said body separating it into inner and outer chambers, said valve being adapted to admit fluid to the inner chamber to expand it upon manual compression of the wall of the outer chamber and to retain said fluid in the inner chamber while the plug is in use.

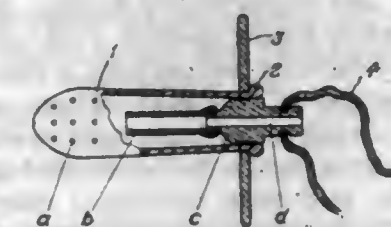
2,824,559
PEELABLE LIQUID PLASTIC COT OR BANDAGE
Francis D. Sullivan, Memphis, Tenn.; Mary E. Sullivan, heir of Francis D. Sullivan, deceased
Application June 6, 1952, Serial No. 292,071
1 Claim. (Cl. 128-157)



A finger cot removable from said finger in intact condition for subsequent reuse, said cot being formed from

A bathing garment for men of the type called trunks having its upper end terminating at about the waist of the wearer, and which can be put on or removed from the wearer under other garments, which comprises front and rear body panels which are connected with one another at their lower ends through the crotch portion to form a one-piece garment, and are otherwise separate, the upper end edge of each panel being formed as a waistband section, the waistband section of the rear panel having, approximately at its center, an elastic portion which resiliently contracts that portion of that waistband section, means detachably coupling together the adjacent sides of the panels to form a tubular portion encircling the body of the wearer at the thighs, a supporter element disposed within the garment and having one end attached to the inside face of the front panel at approximately the waistband section of that panel, a pouch approximately centrally of its length, and the other end forked, with the arms of the fork connected to the inside face of the rear panel adjacent the waistband section thereof, at opposite ends of said elastic portion, so that the supporter, will not be disturbed materially in its position by the stretching and release of said elastic portion, said pouch being of knitted fabric which is resiliently stretchable lengthwise of the supporter element.

2,824,561
COMBINATION INFANT PACIFIER AND FEEDING DEVICE
Erwin Richard Mueller, Edmonton, Alberta, Canada
Application May 2, 1957, Serial No. 656,596
2 Claims. (Cl. 128-252)

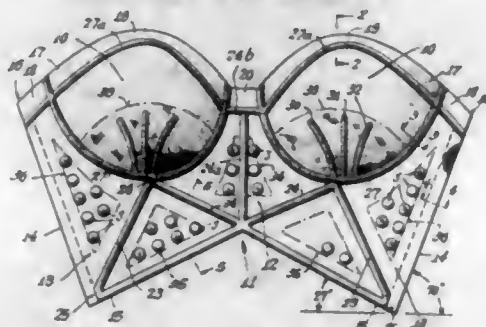


1. A combination infant pacifier and feeding device comprising a hollow, perforated, elongated, nipple-shaped body serving as a container for contents to be consumed by an infant by sucking the same through the perforations therein, a stop disc mounted on said body surround-

ing the open end thereof, a stopper closing said open end, said stopper having a longitudinal bore therein and a tube depending therefrom extending into said body, means for removing said stopper from said body while the same is in the mouth of an infant, the combination of said stopper and said tube serving as means for refilling said body.

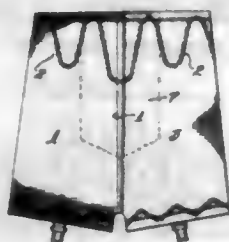
2,824,562
WITHDRAWN

2,824,563
PLASTIC BRASSIERE
Iver F. Hill, Stratford, Conn.
Application November 17, 1955, Serial No. 547,445
7 Claims. (Cl. 128—463)



1. A brassiere having a flexible, formed structure of plastic material and a fabric lining therefor, said material being characterized by softness and yieldability but being stiffer than untreated cloth of the same thickness, said structure comprising a pair of cups the walls of which are formed to constitute relatively flat, elongate, tubular and hollow enclosure portions constituting reinforcing means in their under sides to relatively increase the stiffness of the cups, said cups being shaped to simulate and adapted to receive and support the breasts of a wearer, and further comprising a band portion connected with and supporting said cups in spaced, normal, related positions, said band portion having a reinforcing means to relatively increase its stiffness.

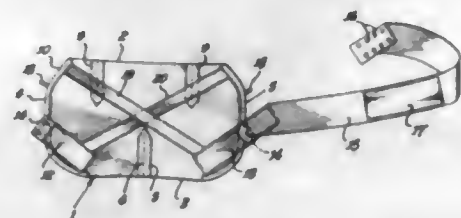
2,824,564
GIRDLE
Samuel T. Metz, New York, N. Y., assignor to Treo Co., Inc., Jamaica, N. Y., a corporation of New York
Application April 12, 1956, Serial No. 577,831
1 Claim. (Cl. 128—533)



A form-fitting girdle garment adapted for substantially flat folding, and comprising a flexible, stretchable body, said body having a front portion, a rear portion, and areas of connection between said portions, a flexing sinuous cord having a plurality of groups of inelastic metallic strands, the strands of each group being tight twisted together and the groups as a whole being twisted together into a unitary body, said body carrying a relatively thin hard flexible exteriorly smooth annular sheath of amide polymer intimately engaging to the said groups and wires thereof, and sheath means securing said cord to the garment, the cord with its sheath means being secured to the garment under tension by the resistance of said strands in a formation, having spaced legs joined by alternate top and

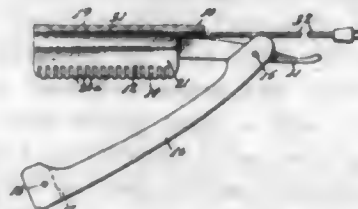
bottom arcuate sections, those legs which are joined by bottom arcuate sections at the center of the girdle body and at the areas of connection between the front and back portions being relatively long, said cord extending substantially throughout the upper area of said girdle body, said cord being adapted for substantially flat folding of the girdle overlay threads, the cord legs being substantially straight with the said top arcuate sections thereof close to the top edge of said body and operative to prevent said waist portion from rolling down.

2,824,565
ABDOMINAL SUPPORTERS
Samuel A. Strickstein, Beverly Hills, Calif.
Application November 8, 1955, Serial No. 545,619
1 Claim. (Cl. 128—540)



An abdominal supporter including a substantially rectangular member of concavo-convex form and of elastic stretch material, the elastic stretching to a greater extent horizontally than vertically, a pair of non-elastic tabs secured to said rectangular shaped member adjacent the bottom edge thereof and extending upwardly and outwardly from the side edges thereof, hooks secured to the outer ends of said tabs and hooks secured to the side edges of said rectangular member and spaced above the said tabs, a body encircling strap of elastic material provided at its ends with rows of eyelets for detachable engagement with the hooks on said tabs and with the hooks positioned above said tabs on said rectangular member, the said strap having a non-stretch area positioned normally at the small of the back of the wearer of said strap.

2,824,566
HAIR TREATING APPARATUS
Vincent R. Pileggi, Haddon Heights, N. J.
Application August 13, 1956, Serial No. 603,533
11 Claims. (Cl. 132—45)



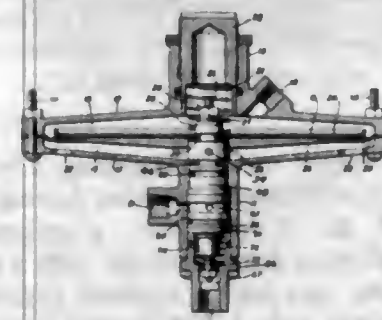
1. Hair treating apparatus comprising a cutter blade having a shank portion and side faces converging to a longitudinal cutting edge, a resilient member having an arcuate portion parallel to said edge and extending around said shank portion, said resilient member having flanges extending from said arcuate portion and in engagement with said side faces and holding said resilient member on said cutter blade, a roller of substantially the same length as said cutting edge, one of said flanges having mounting portions for supporting said roller for free rotation with its axis parallel to the cutting edge in transverse offset relation to said cutter blade, and a heating unit interiorly disposed in said resilient member and along said shank for heating said blade.

2,824,567
DISHWASHING MACHINE
Johan Fredrik Robert Karlstrom, Stockholm, Sweden, assignor to Aktiebolaget Elektrolux, Stockholm, Sweden, a corporation of Sweden
Application November 20, 1952, Serial No. 321,692
Claims priority, application Sweden November 24, 1951
25 Claims. (Cl. 134—57)



1. In a dishwashing machine, a cabinet, means for supporting dishes and other articles to be washed in said cabinet, spraying means in said cabinet for directing water in a multiplicity of directions toward the dishes, said cabinet having an access opening, a closure member for the access opening, hinge structure for pivotally mounting said closure member on said cabinet about a horizontal axis between a closed position and a number of different open positions including a first open position in which no part of said closure member appreciably extends above the top of said cabinet, said hinge structure including means for freely moving said closure member manually upward against the force of gravity from its closed position to the different open positions including the first open position, and braking means embodied in said hinge structure for holding said closure member against the force of gravity when the latter is released after being moved to any one of the different open positions.

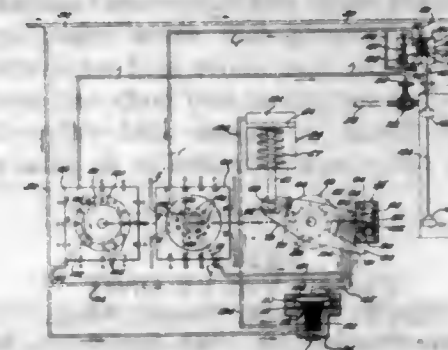
2,824,568
FLUID PRESSURE REGULATORS
Everett G. Gravenhorst, Baltimore, Md., and Stephen G. Evangelides, New York, N. Y., assignors to Air Associates, Inc., Teterboro, N. J., a corporation of New Jersey
Application May 6, 1954, Serial No. 427,957
3 Claims. (Cl. 137—116.3)



1. In a fluid pressure regulator, a casing having a control pressure fluid inlet, a high pressure fluid inlet and a controlled pressure fluid outlet, a flexible diaphragm arranged within said casing providing diaphragm chambers arranged on opposite sides of said diaphragm, one of which is in communication with the control fluid inlet providing a control pressure chamber and the other of which is open to the atmosphere providing an atmospheric chamber, a valve opening arranged between said high pressure inlet and said controlled pressure outlet, a reciprocating valve element tensioned to move the same to close said valve opening, two interengaged reciprocating members disposed between said diaphragm and said valve element and having combined movement in one direction with the movement of the diaphragm for moving the valve element away from said valve opening

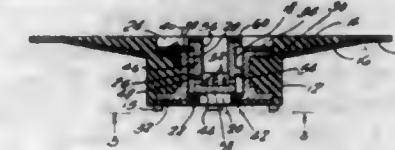
to admit fluid from said high pressure inlet to said controlled outlet, said members having a flow passageway for venting the regulator to said atmospheric chamber, one of said members having a head biased against said diaphragm and located within said atmospheric chamber against which the other of said two members seats in surrounding relation with the outlet of said flow passageway for shutting off the flow of fluid from said flow passageway to said atmospheric chamber, and said two members having relative movement from seated relation when the pressure at the controlled outlet reaches a predetermined limit to dispose said member out of surrounding relation with the outlet of said flow passageway to thereby permit the venting of said regulator to said atmospheric chamber.

2,824,569
PNEUMATIC SEQUENTIAL SELECTORS
Robert C. Wright, Jr., Hingham, Mass., assignor to Worthington Corporation, New York, N. Y., a corporation of Delaware
Application May 28, 1956, Serial No. 587,611
7 Claims. (Cl. 137—122)



1. In a sequential selector having a pair of common ports and a plurality of pairs of input and output ports, a source of operating pressure connected with one of the pair of common ports and a device responsive to pneumatic pressure connected to the output port of each pair of input and output ports, a source of input signal pressure connected to the input port of each pair of input and output ports, the other of said pair of common ports being connected to a means for generating pulsating pressure, said means having a source of operating pressure and initiating pneumatic pressure pulsations in response to an input pressure signal of one selected value and terminating said pressure pulsations in response to an input pressure signal of another selected value, and a movable valve member actuated by said means to sequentially connect one of the pair of common ports to each output port of the plurality of pairs of input and output ports, and to sequentially connect the other common port of the pair of common ports to each input port of the plurality of pairs of input and output ports, whereby each source of input pressure signal is sequentially connected to said means and the corresponding device responsive to pneumatic pressure is connected to said source of operating pressure.

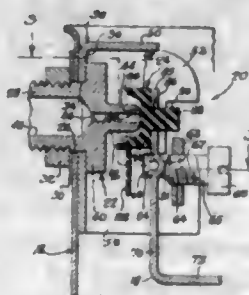
2,824,570
FLUSH TYPE TOPPING-OFF VALVE
Bernard R. Silverman and John Di Geambardino, Philadelphia, Pa.
Application April 7, 1953, Serial No. 347,423
1 Claim. (Cl. 137—223)
(Granted under Title 35, U. S. Code (1952), sec. 266)



A valve for inflatable devices comprising a cylindrical resilient body having an axial passage therethrough, said

body having a counterbore therein at one end communicating with said axial passage and provided with an annular recess therein adjacent the opposite end thereof communicating with said axial passage, a sleeve mounted entirely within said axial passage, an annular flange on said sleeve, said flange seated in said annular recess, a valve seat on said sleeve adjacent said annular flange, an axially movable valve core in said sleeve movable between open and closed positions relative to said valve seat and being provided with a central bore therein, said valve core having transverse passages therein communicating with said central bore, a valve actuating means on the upper end of said valve core, said valve actuating means being positioned entirely within the confines of said counterbore in said body when said valve core is in said closed position, an integral resilient flange surrounding said body adjacent said counterbore, the upper surface of said integral resilient flange being perpendicular to the axis of said axial passage, the lower surface of said integral resilient flange being inclined toward said upper surface, a second flange on said sleeve, said second flange overlying and disposed within the counterbore in said body, a resilient ring overlying said second flange, a resilient cover overlying said valve actuating means, a flange on said valve core above said transverse passages therein, and a lug secured to said body and overlying said second sleeve flange to engage said valve core flange whereby said valve core is limited in its axial movement.

2,824,571
FLOAT VALVE UNIT
Roy P. Skerrett, Detroit, Mich.
Application October 19, 1955, Serial No. 541,322
12 Claims. (Cl. 137-426)

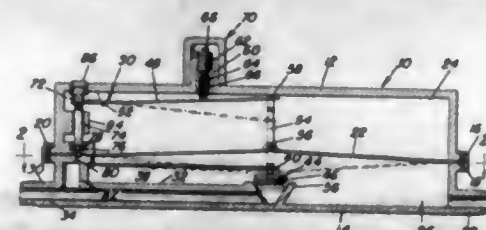


1. A humidifier float valve unit comprising a supporting structure, a stationary valve member mounted on said structure, said stationary valve member having a liquid passageway therethrough and a valve seat at the end of said passageway, a float arm having a pivot rockably mounted on one end of said arm remote from said pivot, a valve closure member mounted on said arm in spaced relationship with said pivot, said closure member being movable into and out of engagement with said valve seat in response to the rise and fall respectively of said float, a cross member secured to said supporting structure transversely to said arm in spaced relationship to said pivot and having a threaded hole therethrough with its axis directed at a location on said arm spaced away from said pivot axis, and an adjustment screw threadedly engaging said hole and contacting said arm substantially at said spaced location.

2,824,572
CUT-OFF VALVE
Olen E. Smith, El Dorado, Kans., assignor of one-half to W. H. Rex, El Dorado, Kans.
Application June 2, 1953, Serial No. 359,061
1 Claim. (Cl. 137-464)

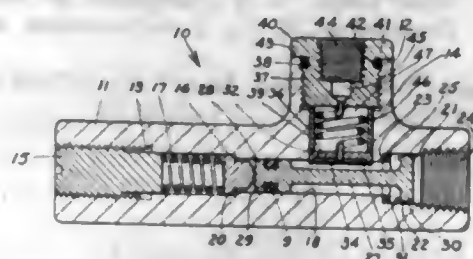
A cut-off valve assembly comprising a housing provided with a flexible diaphragm sub-dividing the interior thereof into an upper and a lower chamber, a valve seat

in said lower chamber provided with an inlet aperture, a shut-off valve in said lower chamber between said diaphragm and said seat and movable under the influence of said diaphragm into and out of engagement with said seat, resilient means in said upper chamber urging said diaphragm toward said seat, said means including a lever pivoted adjacent one end to said housing, the other end of said lever being connected to said diaphragm, a spring interposed between an intermediate portion of said lever and said housing, a bore portion in the housing providing communication between the upper chamber and the inlet aperture, a second valve seat interposed be-



tween the bore portion and the upper chamber, and a second valve carried by said one end of the lever and engageable with said second valve seat for establishing communication between said inlet aperture and said upper chamber when said shut-off valve is in engagement with its seat, said upper chamber being sealed with respect to the outside of the housing, and when said valve is closed, being sealed from the lower chamber, and reset means connected to said lever for setting the shut-off valve in a position above said valve seat, and for positioning said second valve on said second valve seat, and means for bleeding pressure fluid from said upper chamber.

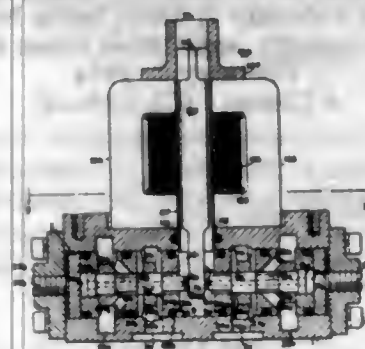
2,824,573
GAGE PROTECTOR VALVE
Walker Mason, Providence, R. I., and Stephen J. Biello, Somerset, Mass., assignors to American Associates Inc., Providence, R. I., a corporation of Delaware
Application January 4, 1955, Serial No. 479,834
2 Claims. (Cl. 137-505.13)



1. A gage protector valve comprising a body having a stepped bore and a transverse member having a bore communicating with the stepped bore, a reciprocating plug located in said stepped bore provided with a recess in one end and a seating ring and a serrated edge in the other end, said transverse bore being located between said recess and said seating ring, an O ring, said recess housing said O ring in fluid tight relationship with said stepped bore, a valve seat in said stepped bore, said seating ring in said reciprocating plug engaging and disengaging said valve seat, an adjusting screw rotatively engaging said stepped bore in air vent relationship, a spring located in said stepped bore between said adjusting screw and said reciprocating plug to urge said reciprocating plug and seating ring away from said valve seat, a disk provided with a port secured in said bore at the intersection of said bore and said stepped bore, a cap secured in said bore and axially provided with threads terminating in a well head, a cavity located between said disk and the base of said cap, a choke coil located in said cavity with one end of said coil fixed to communicate with said well head and the other end of said coil fixed to and extending through said disk whereby fluid under pressure entering one end

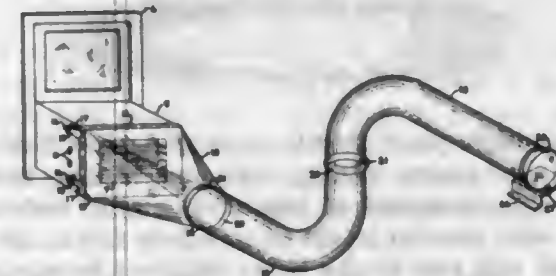
of said stepped bore engages an end of said reciprocating plug to act against the tension of said spring before bypassing said end to pass through said serrations and said valve seat to and through said choke coil to said well head and through said port to said cavity to surround said choke coil.

2,824,574
HYDRAULIC SERVO-VALVE
Mark I. Place, Harundale, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 19, 1955, Serial No. 502,471
5 Claims. (Cl. 137-623)



1. An electric-to-hydraulic conversion device comprising: a valve body having first and second bores therein of constant cross-sectional configuration, each having an open end and a closed end; a fluid inlet port opening into said open ends of said bores; a movable valve member in each of said bores, in sliding fit with said each of said bores, an axial bore in each of said movable valve members extending from one end thereof to the other end thereof, outlet port means in said valve body opening into said bores in said valve body; a radial orifice in each of said movable valve members intersecting the respective bore associated therewith to provide restricted fluid flow from said respective bore to said outlet port means, electrically positioned means pivoted between said bores in said valve body and adapted to be movable relative to said movable valve members so as to provide adjustable orifices for fluid flow into each of said axial bores.

2,824,575
AIR CONDITIONER ATTACHMENT
Shy Rosen, New York, N. Y., assignor to Milprint, Inc., Milwaukee, Wis., a corporation of Delaware
Application July 12, 1954, Serial No. 442,807
1 Claim. (Cl. 138-25)



A portable and collapsible attachment for an air conditioning unit having a conditioned air outlet, said attachment comprising, a flexible collapsible plastic hood having a mouth and a discharge aperture remote from the mouth, an expansible band confined within and circling the mouth of said hood, a plurality of attachment elements secured in spaced relation to said band and cooperable with the conditioning unit for detachably securing the mouth of said hood over a selected desired area of the conditioned air outlet, a rigid coupling ring of smaller fixed diameter than that of said hood mouth circling the discharge aperture of said hood, a plurality of flexible collapsible plastic tube sections of

approximately the same transverse cross-sectional area as said coupling ring extending in series therefrom, the tube section adjacent said hood being provided with a rigid coupling ring cooperable with said first mentioned coupling ring for detachably joining said tube section to said hood, and cooperating pairs of rigid coupling rings at adjacent ends of successive tube sections for interconnecting said sections, said coupling rings being sized to fit one within the other to detachably join said tube sections and provide a continuous conduit formed of flexible sections having entry and discharge ends of substantially uniform diameter communicating with the interior of said hood through the discharge aperture thereof for conducting conditioned air from said hood to a given locality remote from the conditioning unit when said hood mouth is secured to the conditioned air outlet.

2,824,576
SLOTTED PIPE CABLE GUIDE
Niels H. Jensen, Glenmore, and Axel F. Johnson, Paradise, Pa., assignors to Lukens Steel Company, Coatesville, Pa., a corporation of Pennsylvania
Application January 3, 1956, Serial No. 556,894
5 Claims. (Cl. 138-48)

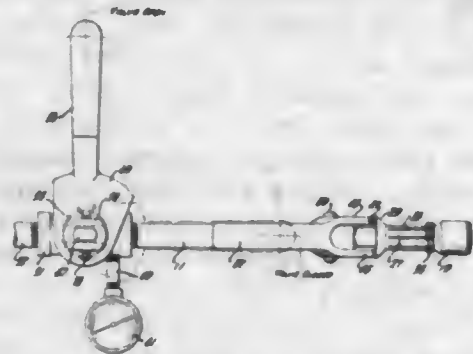


1. A cable guide comprising a substantially horizontally disposed pipe, spaced notches in the upper side of said pipe opening into the passage through said pipe, spaced slots extending through the wall of said pipe between said notches, said slots extending longitudinally of said pipe and being in substantial alignment with the axis of said pipe, the portions of said pipe between said slots serving to support a cable as it is pulled through the guide, a hollow rectangular box comprising a pair of members extending transverse to and a second pair of members extending longitudinally of the axis of said pipe, said transverse members each having a cable receiving opening notch in substantially the same plane as said slots, said box being open at two ends and being secured in each of said notches to form clean-out openings for the guide, a pair of spaced bars extending from said box and secured to said pipe, said bars being spaced apart a distance substantially equal to the width of said slots and disposed with their opposed faces substantially flush with the sides of said slots, and a cover for each of said clean-out openings, said cover having a slot arranged in the same vertical plane as said slots in said pipe and the space between said bars so that a cable may be pulled through the guide when each cover is mounted over its clean-out opening.

2,824,577
PIPE PLUG
Charles Grunsky, San Francisco, Calif.
Application June 27, 1955, Serial No. 518,037
11 Claims. (Cl. 138-90)

1. In a pipe plug, a support spindle adapted for positioning internally of a pipe, a pipe gripper surrounding the spindle and slidable thereon, said gripper having a shoulder at one end and comprising a plurality of circumferentially spaced arms extending outwardly from the shoulder portion and terminating in pipe-gripping ridges at the end opposite the shoulder, a frusto-conical wedge also surrounding the spindle and slidable thereon, the wedge having its apex turned toward the pipe-gripping end of each outwardly extending cantilever arm, an end member secured to the spindle and having means to limit

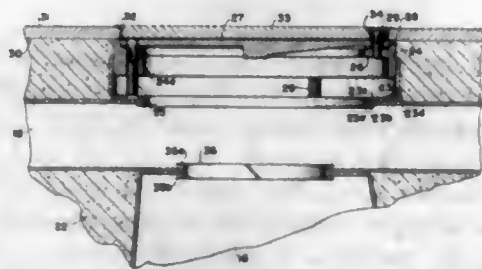
longitudinal motion of the gripper and wedge, and means for longitudinally sliding the gripper member and the frusto-conical wedge along the spindle toward the end member so that pressure exerted from the end member



on the wedge base forces the conical surface of the frusto-conical wedge interiorly of the cantilever gripper arms and between the gripper arms and the spindle to force the pipe-gripping ridge generally radially outwardly from the spindle.

2,824,578 ACCESS UNIT FOR USE IN UNDERFLOOR DUCT SYSTEMS

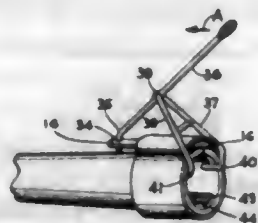
Glenn E. Blinn, Teaneck, and Charles Flachbarth, Narberth, Pa., assignors to Walker Brothers, Conshohocken, Pa., a corporation of Pennsylvania
Application January 28, 1955, Serial No. 484,784
7 Claims. (Cl. 138-92)



1. A header duct for use with a multicellular floor which comprises flat top and bottom walls, side walls connecting the top and bottom walls, the top wall having at least one opening, a sleeve mounted in the opening and extending upward, a closure for the sleeve mounted within it and movable vertically, and means within the sleeve and operable through the top of the closure for adjusting the position of the closure lengthwise of the sleeve.

2,824,579 TEMPORARY THREAD PROTECTOR

Richard E. Groh and John C. May, Ojai, Calif.
Application April 11, 1955, Serial No. 500,372
2 Claims. (Cl. 138-96)

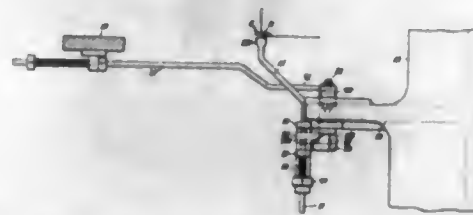


1. A thread protector comprising: a cylindrical collar having a lateral slit extending longitudinally through said collar whereby said collar is circumferentially contractible; a slide plate dimensioned to cover said slit, and positioned to slide substantially parallel to said slit; guiding flanges secured to said collar adjacent each side of the collar edges defining said slit respectively and extending substantially parallel to said slit, said flanges turning inwardly towards said slit to provide portions adapted to overlie opposite longitudinal edges of said slide plate to

provide a guiding channel for said slide plate; and cam members secured with respect to said collar adjacent opposite side edges of said collar defining said slit, said slide plate including slots adapted to receive said cam members, said slots being elongated and angulated with respect to each other, whereby movement of said slide plate cams said cam members towards each other to circumferentially contract said collar.

2,824,580 END TUFT SUPPORT FOR PILE SHEARING MECHANISM

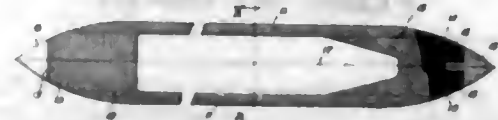
John Haynes, Rastrick, Brighouse, England, assignor to T. M. M. (Research) Limited, Oldham, England
Application February 7, 1955, Serial No. 486,316
Claims priority, application Great Britain
February 8, 1954
4 Claims. (Cl. 139-2)



1. A pile shearing mechanism for a pile tuft fabric having a selvage side, the pile shearing mechanism being adapted to execute cutting operations upon the selvage side of said pile fabric during manufacture and including a movable supporting element shiftable periodically for supporting the end tuft at said selvage side of the pile fabric against lateral or outward deflection during a cutting operation, movable front and back tuft-cutting knives for cutting or shearing the pile on said fabric, and means for moving said supporting element in timed relation corresponding to the movement of said cutting knives and into effective supporting position to provide lateral support for the end tuft at the instant the latter is disposed between the cutting knives in the cutting or shearing operation.

2,824,581 SHUTTLE

Maurice Earl Heard, Shawmut, Ala., assignor, by mesne assignments, to West Point Manufacturing Company, West Point, Ga., a corporation of Georgia
Application March 15, 1955, Serial No. 494,376
4 Claims. (Cl. 139-196)



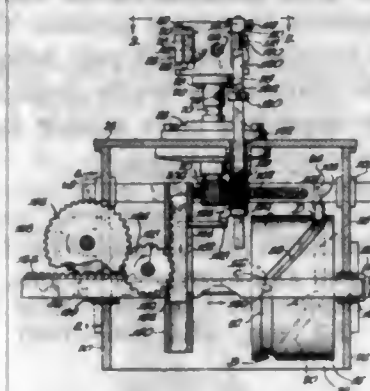
1. A multiple piece shuttle comprising end blocks and opposed side pieces joining said end blocks, said end blocks being composed of laminated plastic material reinforced with parallel layers of unwoven fabric, the laminations of said end blocks being disposed in planes normal to the shuttle axis.

2,824,582

WINDING MECHANISM AND METHOD
Ralph Reltheman, Chicago, Ill., assignor to Geo. Stevens Manufacturing Company, Chicago, Ill., a corporation of Illinois
Application April 12, 1954, Serial No. 422,451
6 Claims. (Cl. 140-92.2)

1. An oscillating winding head comprising a part-cylindrical body having a longitudinal axis of oscillation, a pair of flanges formed on said body and extending outwardly therefrom substantially perpendicular to the axis thereof, the junction between said flanges and said

body being contoured to shape a coil wound thereon, a core mounted on said body between the flanges thereof to provide coil receiving recesses therebetween, said cores at the ends thereof disposed toward said axis of oscillation being spaced from said body at spaced apart points



to provide coil receiving recesses therebetween, and a wire guide mounted at each end of said core adjacent said first mentioned coil receiving recesses to guide wire into said recesses, said wire guides extending outwardly beyond the axis of oscillation of said body.

2,824,583 LOOP OR EYE FORMING PLIERS

Pieter Dirk Knoester, Hilversum, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware
Application May 25, 1955, Serial No. 510,982
2 Claims. (Cl. 140-104)



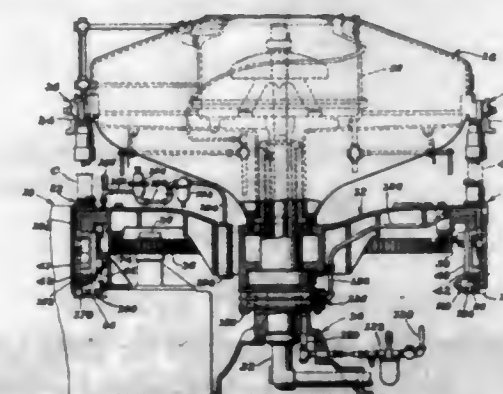
1. Pliers for forming a complete loop in the end of a wire or strip-like material, said pliers comprising a pair of handles each having a jaw at one end thereof, a pivot pin connecting said jaws together, a pair of linking members being pivotally connected together at one end and to the adjacent respective handles at the other end, a movable plate secured at one end to said pivotal connection of said linking members and provided at the other end with a core-forming projection corresponding to the inside diameter of the loop to be formed and tapering toward its free end, said jaws having a configuration when moved together corresponding to the outer diameter of said loop to be formed, said plate having a slot therein in which said pivot pin is received to permit movement of said plate upon movement of said handles toward each other whereby said material inserted between said jaws is first deformed by said core-forming projection and then made into a complete loop by means of said jaws in one continuous operation, said jaws being of different length, the end surface of said shorter jaw having a guide groove therein for retaining said material to be looped, and the longer jaw having a recess therein for holding the end of said material prior to the deformation thereof.

2,824,584 FILLING MACHINE

Rudolph Henry Breeback, Baltimore, Md., assignor to Crown Cork & Seal Company, Inc., Baltimore, Md., a corporation of New York
Application September 29, 1955, Serial No. 537,343
23 Claims. (Cl. 141-6)

14. A method of raising and lowering a container supporting platform carried by a moving filling table of a

filling machine comprising the steps of: positively lowering the container platform during a portion of the movement of the filling table, applying fluid at a predetermined pressure to the container supporting platform while in the lowered position to thereby raise the container supporting platform to the upper position, in-



creasing the pressure of fluid on the container supporting platform after it is in the upper position, reducing the increased pressure of fluid on the container supporting platform to the predetermined pressure necessary to raise the platform at least while the container supporting platform is in the lowered position.

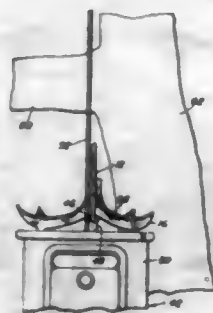
2,824,585 METERING PUMP

Lloyd J. Andres, Miami, Fla., assignor to Apco, Inc., a company of New York
Application November 9, 1956, Serial No. 621,263
6 Claims. (Cl. 141-174)



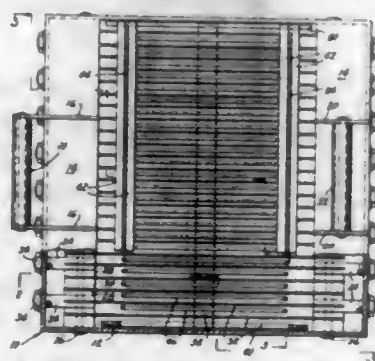
1. In a pump of a character described a piston-cylinder type pump having intake and discharge passage-ways including intake and discharge valve means for alternately and sequentially opening and closing said passage-ways, valve operating means for normally positioning said valve means into intake position with said intake passage-way open and said discharge passageway closed and to close said intake and sequentially open said discharge passage-way when moved to a discharge position, a source of pressurized liquid connected to said intake passageway, a piston means in said pump adapted to be displaced through a predetermined intake stroke when said liquid flows through said intake passageway into said pump cylinder, spring means associated with said piston means positioned and secured to be energized by said piston means during its intake stroke, said spring means responsive to the movement of said valve operating means at its said discharge position to move said piston through said discharge stroke to displace a predetermined volume of liquid from said discharge passage-way, tripping means operatively articulated with said piston means and said valve operating means for releasing the latter from its said discharge position into its said intake position at the end of said discharge stroke for refilling said pump with an equal said volume of pressurized liquid.

2,824,586
TRIMMING AND FELLING SUPPORT FOR
POWER SAWS
 John E. Miller, Maverick, Ariz.
 Application August 16, 1955, Serial No. 528,619
 5 Claims. (Cl. 143-157)



1. A trimming and felling support for chain saws, said trimming and felling support comprising a felling spike member adapted to be mounted in parallel relation to a saw blade for cooperation therewith in cutting trunks of trees, said felling spike member including a body portion having projecting therefrom generally in the direction of the saw blade at least one trunk engageable spike, and a trimming spike member secured to said felling spike member, said trimming spike member being disposed generally at right angles to said felling spike member; said trimming spike member including a body part having projecting therefrom generally in the direction of the saw blade at least one spike to support a saw in position for trimming limbs from a tree trunk.

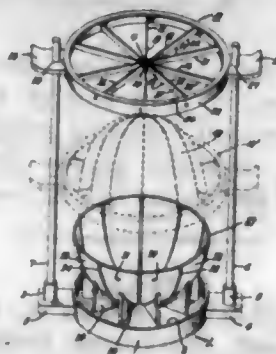
2,824,587
MULTIPLE BLADE LOAF SLICER
 Harold E. Houston, Casper, Wyo.
 Application June 15, 1956, Serial No. 591,639
 2 Claims. (Cl. 146-150)



1. A device for slicing food in loaf form comprising: a stationary, support frame of generally rectangular outer configuration when viewed in plan and formed trough-like so as to receive, for slicing in the frame, a food in loaf form; and a blade assembly wholly free of connections to the support frame and adapted to be moved downwardly through the trough in the frame, comprising a blade frame also rectangular in plan and having a center opening rectangularly shaped in general correspondence with the support frame and receiving the support frame sufficiently snugly that the corners of the rectangular support frame will provide guides for the downwardly moving blade assembly, said blade assembly further including parallel blades extending across the support frame within the center opening of the blade frame, and means connecting the blades at their ends to opposite sides of the blade frame, said support frame including U-shaped end frames the bight portions of which are formed with upwardly opening recesses, a bottom bar having its ends seated in said recesses and fixedly connected to the end frames of the support frame, said bottom bar providing an abutment in the path of downward movement of the blades for limiting downward movement of said blades, U-shaped rods alternating with the blades and cooperat-

ing to define the trough of the support frame, said rods having bight portions spaced upwardly a short distance from the bottom bar, for engagement of the blades against the bottom bar immediately following movement of the blades past the bight portions of the rods, and pairs of side frame members connected between the end frames, the side frame members of each pair defining a slot with the ends of the rods being fixedly engaged in the slots defined by the respective pairs of side frame members.

2,824,588
MELON SLICING DEVICE
 Leander L. Lyon and Florence N. Lyon, Tampa, Fla.
 Application September 14, 1956, Serial No. 609,914
 1 Claim. (Cl. 146-160)



A melon slicing device comprising a generally circular base having an upstanding rim forming with said base a juice receptacle, diametric outwardly projecting lips rigidly attached to said base, respective guide rods mounted on said lips and projecting upwardly therefrom in spaced parallel relation, a respective stop carried by each said rod above its respective said lip, a circular frame having a circular central opening, a knife blade assembly disposed in said opening and comprising a thin, narrow knife blade extending diametrically across said opening and having opposite ends anchored to said frame, said blade having a straight lower cutting edge and a straight upper edge parallel thereto, said blade having a notch through its back edge at the center of said circular opening, and at least one thin, narrow cross blade entering said notch and welded at said notch to said first knife blade and having ends anchored to said frame, each end of each blade being equally spaced between the next blade ends and each blade comprising straight portions extending from said center outwardly to said frame, whereby said blade portions define a plurality of equal angles therebetween around said center, the cutting edge of said first knife blade being disposed at a level lower than the level of each other blade cutting edge of said assembly, whereby, upon lowering said blade assembly onto a melon to be sliced, said first blade enters said melon prior to the engagement of any said cross blade cutting edge with said melon, a pair of diametric outwardly projecting handles rigidly attached to said frame and respectively engaged slideably and guidedly on said rods, a slotted bowl of hollow generally hemispherical shape disposed between said rods and having an open upper end and an inner bottom surface, said bowl comprising a plurality of curved, triangularly shaped sections completely separated from each other by upwardly and outwardly extending slots, extending completely through the sides and bottom of the bowl, whereby said slots are arranged to allow said blades to pass completely through said bowl, and post means mounted on said base and supporting each of said sections, said sections being supported at a height to dispose said inner bottom surface of said bowl at a height above the highest upper blade edge of said assembly when said frame is lowered into position to engage said handles with said stops, said post means comprising an individual post for each said section disposed under the respective section, each post being attached to said

base within said rim and extending upwardly and having an upper end affixed to and affording the sole support for its respective bowl section.

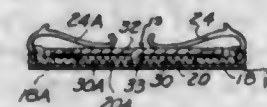
2,824,589
INFLATABLE DEVICE OF PREDETERMINED
SURFACE CONTOUR
 Charles Eugene Neisler, Jr., and Paul Mauney, Kings Mountain, N. C., assignors to Neisler Brothers, Incorporated, a corporation of North Carolina
 Application April 28, 1955, Serial No. 504,436
 11 Claims. (Cl. 150-5)



1. An inflatable device of predetermined surface contour, comprising a fluid-impervious inflatable flexible casing having a peripherally continuous core member disposed therein, and flexible means disposed internally of said casing and extending throughout the periphery of said core member between said core member and said casing for internally reinforcing said casing and for defining the surface contour of said casing as a function of the contour of said core member, said flexible means being connected to said core member and to said casing.

2,824,590
BILFOLD CLIP
 Carl A. Anderson, Cranston, R. I., assignor to Anson Inc., Providence, R. I., a corporation of Rhode Island
 Original application May 25, 1953, Serial No. 357,253, now Patent No. 2,785,722, dated March 19, 1957. Divided and this application August 22, 1956, Serial No. 605,656

3 Claims. (Cl. 150-38)



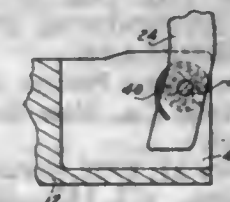
2. In a bill fold of the type having covers interconnected by a hinge about which said covers may be swung to and from open and closed position and a spring clamp for retaining bills therein, that improvement in said spring clamp which comprises a housing provided with a chamber in opposite ends, a spring clamp pivotally mounted in each chamber, a spiral spring located in each chamber with one end of each spring secured to said housing and the other end of each spring secured to the clamp located in the same chamber.

2,824,591
BILFOLD CLIP
 Carl A. Anderson, Cranston, R. I., assignor to Anson, Inc., Providence, R. I., a corporation of Rhode Island
 Original application August 22, 1956, Serial No. 605,656. Divided and this application May 13, 1957, Serial No. 658,823

1 Claim. (Cl. 150-38)

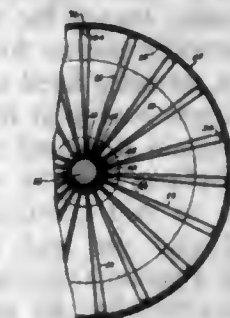
In a bill fold of the type having covers interconnected by a hinge about which said covers may be swung to and from open and closed position and a spring clamp for retaining bills therein, that improvement in said spring clamp which comprises a housing provided with a chamber in one end, a pin secured in said housing, a clamp piv-

otally mounted in said chamber on said pin, a spiral spring coiled around said pin with one end secured to said pin



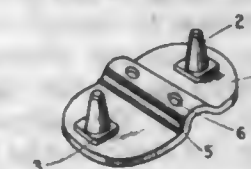
and the other end secured to said clamp to yieldingly hold said clamp in selected position.

2,824,592
VEHICLE TRACTION DEVICE
 Charles Eugene Neisler, Jr., and Paul Mauney, Kings Mountain, N. C., assignors to Neisler Brothers, Incorporated, a corporation of North Carolina
 Application April 28, 1955, Serial No. 504,435
 5 Claims. (Cl. 152-9)



1. A vehicle traction device, comprising an inflatable casing formed of flexible fluid-impervious textile material having a centrally axially disposed hub member forming the axis of revolution of the traction device, said casing comprising a cylindrical wall forming the rolling surface of the traction device and end walls, said hub member being secured to said end walls in fluid sealing relation therewith, and a radially extending series of flexible elements disposed internally of said casing and connected to said cylindrical wall and said hub member along the entire longitudinal extents thereof, respectively, for transmitting the torque of said member to said cylindrical wall, said connection of said flexible elements to said hub member including means in fixed relation with said hub member and extending longitudinally thereof about which said elements are looped, whereby to retain said elements under radial tension to prevent said casing from expanding under internal pressure.

2,824,593
NONSKID CHAIN
 Louis Chevrete, Sudbury, Ontario, Canada
 Application March 18, 1955, Serial No. 495,235
 1 Claim. (Cl. 152-245)

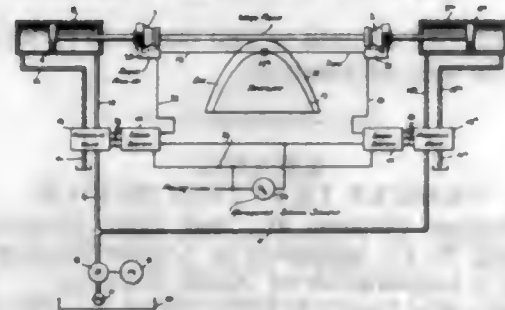


In an anti-skid device, the combination with the cross chains of an automobile tire chain, of a tread plate of substantially rectangular shape having its central portion raised to form a transverse U-shape channel having vertical openings in its bight portion adjacent each end to receive a link of the cross chain disposed within the channel, said channel being of sufficient depth to support the link above the plane of the bottom face of said plate and calks secured to the upper face of said plate on opposite sides of said channel extending upwardly above the bight of the channel.

2,824,594

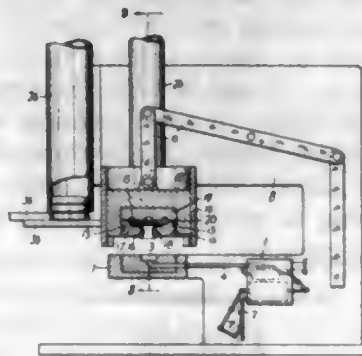
STRETCH-FORMING MACHINE HAVING A TEMPLATE FIXED TO THE DIE AND A STRETCH CONTROL TAPE EXTENDING FROM A WORK CLAMP TO THE TEMPLATE

Landon R. Gray, Palos Verdes Estates, Calif., assignor to T. W. & C. B. Sheridan Co., New York, N. Y., a corporation of New York

Application February 21, 1957, Serial No. 641,504
10 Claims. (Cl. 153-48)

1. A stretch-forming machine comprising a forming die, work clamping means, means for relatively moving said die and work clamping means for stretch-forming work around said die, a template fixed to said die, a flexible non-extensible element having at least one end portion movable relative to said clamping means and a portion engaging said template whereby said end portion will be moved relative to said clamping means during relative movement of said die and clamping means, means to maintain said element taut during said relative movement, and means controlled by movement of said end portion relative to said clamping means for controlling the moving means for said die and clamping means to prevent over stretching of said work.

2,824,595

METHOD OF FASTENING BUTTONS TO TEXTILE ARTICLESFrithjof Lehre, Oslo, Norway
Application January 18, 1954, Serial No. 404,519
4 Claims. (Cl. 154-1.6)

1. A method of fastening a button having a hole therein to textile material, including positioning a button over the material at the point where a button is to be fastened, moving the button to engage one side of the textile material, forcing liquidized thermosetting plastic through the textile material on the side opposite the button and through the hole, and then allowing the plastic to harden so as to cause the button to be fastened to the textile material.

2,824,596

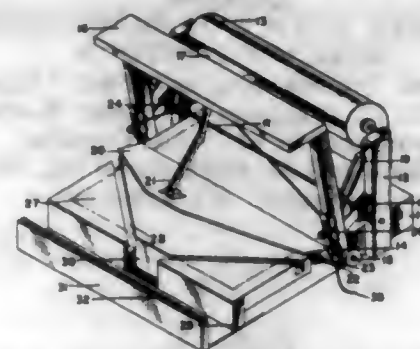
TUBE SEALING MACHINE

Andrew W. Crawford, Jr., New York, N. Y., assignor to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia

Application September 29, 1954, Serial No. 459,141
2 Claims. (Cl. 154-42)

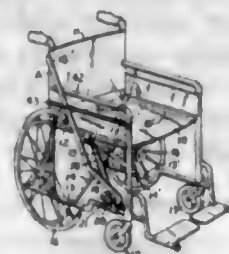
1. A tube sealing machine comprising a table member having supply roll brackets disposed at one end thereof and having recessed channels formed in the opposite end thereof, a frame member carrying a heat sealing means

straddling the table and hinged to the table intermediate said end portions, said frame member being rotatable in a direction which tends to move the heat sealing means towards the table, a pressure plate hinged to the table and to the frame member and adapted to rotate



with the frame member to engage and clamp matter to be disposed on the table prior to the presentation of the heat sealing means and a cutting block cooperating with the table and the frame member for severing predetermined lengths of the tube being sealed.

2,824,597

WHEEL CHAIR WIDTH CONTROLMonroe Arnold Lerman, Sunnyside, N. Y.
Application March 1, 1954, Serial No. 413,055
2 Claims. (Cl. 155-30)

2. In a collapsible wheel chair having a pair of side frame members connected by a scissor frame for lateral movement toward and away from each other and seat supporting frames on said scissor frame, said scissor frame being adapted to move the side frame members toward each other to narrow the wheel chair when the seat supporting frames are moved upwardly, the combination of: a bracket secured to one of said side frame members, an upwardly extending handle having a rearwardly extending arm at its lower end, a pivotal connection between said arm and said bracket for pivotally supporting said handle, a second bracket secured to one of said seat supporting frames, a vertically extending post, the lower end of said post being pivotally connected to said arm a spaced distance from the pivotal connection between said arm and the first mentioned bracket, the upper end of said post being pivotally connected to said second bracket, whereby forward movement of the handle on said first mentioned pivotal connection causes its said arm to elevate the post and thereby to raise the seat supporting frame to which the post is pivotally connected by means of the second bracket, thereby causing the scissor frame to move the side frame members toward each other to narrow the wheel chair, a guide rail carried by the side frame member on which said handle is pivotally supported for confining movement of said handle to a fixed path, and locking means carried by said side frame member for locking said handle in forward position.

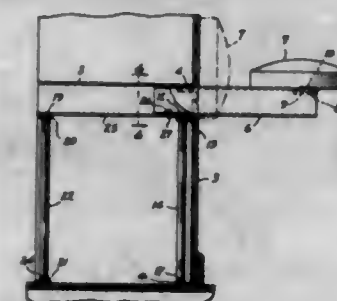
2,824,598

BAR HAVING ADJUSTABLE SEATS AND SUPPORTING MEANS THEREFORErnest J. Ertl, Cleveland, Ohio
Application August 3, 1953, Serial No. 371,999
8 Claims. (Cl. 155-78)

5. In combination with a bar having a counter and a front wall provided with an opening therein, a hori-

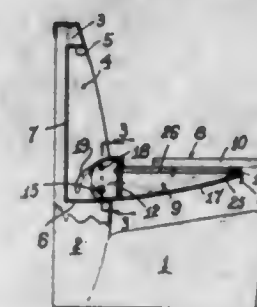
zontally extending sleeve arranged within and extending across said bar and having its outer end portion extending through the opening in the front wall and terminating substantially flush therewith, means arranged within the bar at a substantial distance from said front wall for supporting the other end portion of said sleeve, a horizontally extending seat-supporting bar slidable within said sleeve, a seat having a top portion and a bottom wall provided with a recess and a flat face, means associated with said seat and the outer end portion of said supporting bar including a member extending into said recess for pivotally mounting said seat on said bar and the flat face of said seat being in engagement with the upper

portion of the seat-supporting bar when said bar and seat are in their operative positions, said seat being movable on said pivoting means from a substantially horizontal position to a substantially vertical position in which it engages the end of the seat-supporting bar and said seat being movable with the supporting bar to a position in which the inner face of the bottom wall of the seat engages said front wall to limit the inward movement of said supporting bar and to obscure said supporting bar and said pivoting means, and additional means for supporting said seat and seat-supporting bar including a member having a base portion arranged in proximity to the front of the bar and in spaced relation to the inner sleeve-supporting means.



portion of the seat-supporting bar when said bar and seat are in their operative positions, said seat being movable on said pivoting means from a substantially horizontal position to a substantially vertical position in which it engages the end of the seat-supporting bar and said seat being movable with the supporting bar to a position in which the inner face of the bottom wall of the seat engages said front wall to limit the inward movement of said supporting bar and to obscure said supporting bar and said pivoting means, and additional means for supporting said seat and seat-supporting bar including a member having a base portion arranged in proximity to the front of the bar and in spaced relation to the inner sleeve-supporting means.

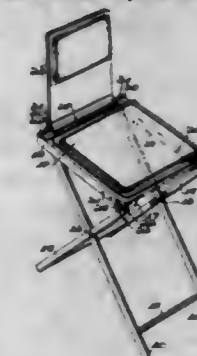
2,824,599

LOUNGE BOOTH-TYPE SEATSCharles W. Quinlan, Chicago, Ill.
Application June 29, 1956, Serial No. 594,958
4 Claims. (Cl. 155-112)

1. In combination with a seat having an upstanding covered back frame including a pair of parallel spaced substantially vertical supports defining a recess between them, a table assembly mounted on said back frame comprising a substantially rectangular shallow frame structure including spaced side walls each having a tail portion extending beyond one end of the frame structure, said tail portions extending into the recess and being pivotally secured to the supports by common pivot means for swinging movement of the frame structure from a position of substantial concealment within the recess into a substantially horizontal position of use, cooperating stop means on said tail portions and in the supports to limit pivotal movement of the frame structure, a table top supported on one face of the frame structure, said table top being of such size as to be movable with the frame structure into the recess, cooperating means on the table top and on the frame structure for securing

2,824,600
FOLDING CHAIR

William C. Baumgardner, Leonia, N. J., assignor to the United States of America as represented by the Secretary of the Army

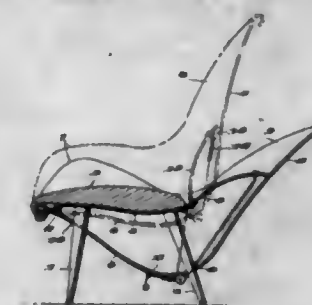
Application November 27, 1956, Serial No. 624,685
13 Claims. (Cl. 155-147)

1. In a folding chair, the combination with pivotally connected crossed pairs of front and rear legs having upper ends, a seat, means pivotally mounting said seat atop said upper ends of said legs for folding movement alongside said legs when the latter are folded; of a chair back pivoted to the upper ends of said front pair of legs for movement from an upstanding back-providing position to a stored position beneath said seat, latch means carried by said chair, and said latch means engaging said back in both of said positions to releasably retain the same in both of said positions.

2,824,601

RECLINING CHAIR

Herbert V. Thaden, High Point, N. C., assignor to Thaden Molding Corporation, High Point, N. C., a corporation of North Carolina

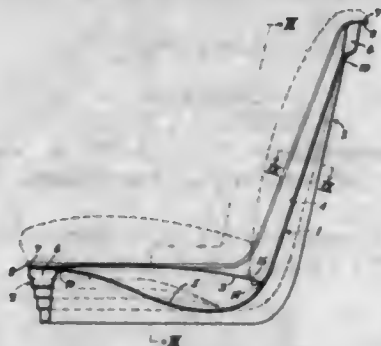
Application May 15, 1956, Serial No. 585,085
4 Claims. (Cl. 155-152)

1. A reclining chair comprising a seat frame, means for supporting said seat frame a fixed distance above a floor supporting surface, a rigid shell having a normally substantially vertically disposed back portion adapted to support the shoulders of an occupant and a bottom portion substantially at right angles to said back portion, means for pivotally connecting the forward edge of the bottom portion of said shell to said seat frame so that said shell may pivot rearwardly from an erect position to a reclined position with respect to said seat frame, a kidney plate adapted to support the small of the back of the occupant, said kidney plate being pivotally connected at its lower edge to the rear edge of said seat frame, and spring means intermediate said shell and said seat frame biasing said shell to its erect position with respect to said seat frame.

2,824,602

SEAT STRUCTURE

John W. Collins, Cuyahoga Falls, and Donald W. Richards, Akron, Ohio, assignors to Goodyear Aircraft Corporation, Akron, Ohio, a corporation of Delaware
Application May 10, 1956, Serial No. 584,132
7 Claims. (Cl. 155-191)

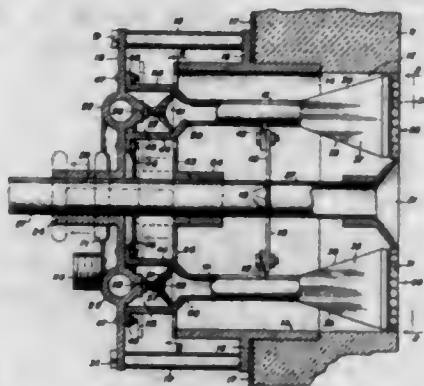


2. A seat frame structure of reinforced plastic including a first diaphragm of relatively thin springy material having a generally vertical upper portion forming the seat back and a concave upwardly curved lower portion forming the seat bottom and having the edges thereof inwardly curved to form a closed box section to reinforce and support the first diaphragm, a second diaphragm of relatively thin springy material generally overlying the concave lower portion of the first diaphragm and having a convex opposite curvature relative thereto and with the front edge of the second diaphragm contiguously overlying the front edge of the first diaphragm and the rear edge of the second diaphragm in substantially line contact with the transition zone between the upper and lower portions of the first diaphragm, and means rigidly affixing the front edge of the second diaphragm to the front edge of the first diaphragm.

2,824,603

GAS FUELED BURNER ASSEMBLY

Robert D. Reed, Tulsa, Okla., assignor, by mesne assignments, to John Zink Company, Tulsa, Okla., a corporation of Delaware
Application August 2, 1954, Serial No. 447,310
3 Claims. (Cl. 158-106)



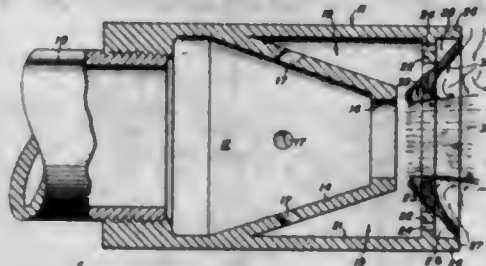
2. In a fuel burner assembly, an annular thimble, a front plate supported on the thimble in spaced relationship from one end thereof, an annular manifold carried by said front plate having discharge openings at an inner side of the front plate, means for supplying gaseous fuel into said manifold, a plurality of tubular members corresponding in number to said discharge openings, means securing ends of the tubular members to the front plate in positions to receive gaseous fuel from said discharge openings, means controlling the entry of air into ends of the tubular members for mixture with the gaseous fuel, a burner head carried by the other end of each tubular member, a disc shaped air door having a diameter as great as said thimble, means supporting the air door for movements between said end of the thimble and said front

plate, and said air door having openings therein fitting closely about said tubular members and said securing means.

2,824,604

FLAME RETENTION NOZZLES FOR GAS BURNERS

Robert D. Reed, Tulsa, Okla., assignor, by mesne assignments, to John Zink Company, Tulsa, Okla., a corporation of Delaware
Application November 8, 1954, Serial No. 467,398
2 Claims. (Cl. 158-116)

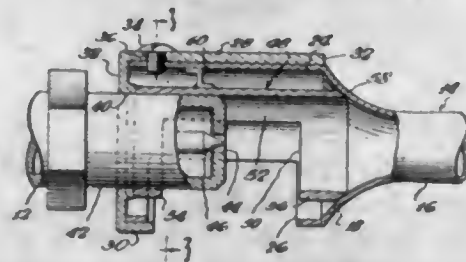


1. In a burner for gaseous fuel, a burner head having a cylindrical wall, a frusto-conical wall within said cylindrical wall forming an annular chamber therebetween, said frusto-conical wall having a discharge orifice at an apex end thereof with the frusto-conical wall tapering toward said discharge orifice, said frusto-conical wall having weep ports therethrough, an inturned radially disposed flange carried by an end of said cylindrical wall spaced downstream from said discharge orifice and having an opening therein axially aligned with the discharge orifice and of a larger diameter than the discharge orifice, means supplying a mixture of gas and air into the burner head within the frusto-conical wall for discharge through said orifice and through said weep ports into said annular chamber, said inturned flange having kindling ports therethrough arranged axially of the burner head at circumferentially spaced intervals for the escape of the air-gas mixture through said inturned flange adjacent the periphery of the burner head for diverting air downstream of the burner head as it rushes inwardly towards the periphery of the fuel mixture escaping through the discharge orifice.

2,824,605

FUEL-AIR MIXING TUBE FOR GAS BURNERS

John W. Dolby, Elgin, Ill., assignor to Configured Tube Products Company, a corporation of Illinois
Application January 12, 1955, Serial No. 481,372
4 Claims. (Cl. 158-118)



1. A mixing tube for use with a gas burner, comprising, in combination, a venturi tube having a narrow throat portion and outwardly flaring exit and entrance portions extending in opposite directions therefrom, a generally cylindrical bell portion connected to said entrance portion and defining an opening for admitting air thereto, a hood mounted in said bell portion and comprising a sleeve of substantially less outer diameter than the inner diameter of said bell portion and axially disposed therein, said sleeve having a slot formed in its lower and side wall portions and extending throughout a major portion of both the length and periphery of said sleeve, said sleeve having a cylindrical front portion disposed forwardly of said slot and extending into said flaring venturi

entrance portion, said sleeve also having a cylindrical rear portion disposed rearwardly of said slot and adapted to receive a gas nozzle, bracket means fixedly mounting said sleeve on said bell portion, said sleeve having an arcuate upper wall portion disposed above said slot and spaced a substantial distance downwardly from the top wall portion of said bell portion for diverting gas downwardly into said venturi entrance portion so that said mixing tube will provide a fuel-air mixture capable of maintaining a burner in operation at an extremely low rate of gas flow.

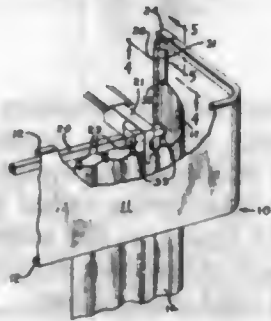
2,824,606

CORNICE FITTING

Hans K. Lorentzen, Montclair, N. J., assignor to Lorentzen Hardware Mfg. Corp., Hoboken, N. J., a corporation of New York

Application August 25, 1955, Serial No. 530,572

2 Claims. (Cl. 160—38)



1. An end fitting for a sheet-metal cornice having a generally flat face and rearwardly-and-inwardly-turned longitudinal edges, said fitting comprising: a unitary sheet-metal stamping having a body portion shaped to overlie and conform generally to the face and longitudinal edges of the cornice, a generally flat, rectangular plate portion extending across the end of the cornice in a plane perpendicular to the face thereof, and a retainer flange formed on an edge of the plate portion and extending in generally parallel spaced relation to that part of the body portion adapted to overlie the face of the cornice and terminating in a cornice-engaging end converging with said part of the body portion for resiliently engaging the back of the cornice, the retainer flange having a series of vertically aligned slots formed at the junction of the parallel and converging portions of the retainer flange.

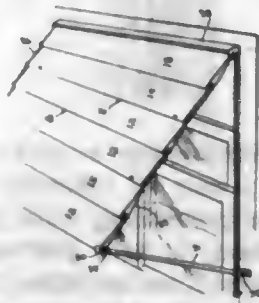
2,824,607

COLLAPSIBLE AWNING

Leon Sosower, Teaneck, N. J.

Application January 17, 1956, Serial No. 559,661

4 Claims. (Cl. 160—62)



1. In a collapsible awning, a series of rectangular slats arranged side by side with their long axes horizontal, said slats lying substantially within a common oblique plane when the awning is extended and being adjustable into zig-zag relation when the awning is collapsed, the lower edge of each slat overlapping the upper edge of the adjacent slat, each slat having its lower margin rolled downward to define tubular bearings at its opposite ends, each slat having its upper margin rolled upward to define similar tubular bearings at its opposite ends, a plurality

of U-shaped hinging elements connecting the slats, each element having its legs extending into a pair of adjacent bearings, and means for securing each U-shaped hinging element in non-rotative engagement with one but not the other of the pair of bearings into which its legs extend.

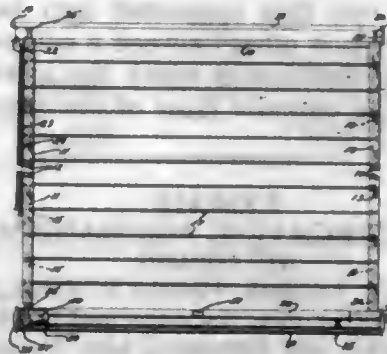
2,824,608

VENETIAN BLIND

Nicholas L. Etten, Waterloo, Iowa, assignor to Chamberlain Corporation, Waterloo, Iowa, a corporation of Iowa

Application September 27, 1955, Serial No. 536,921

1 Claim. (Cl. 160—170)



In a Venetian blind including a frame member arranged to be fixedly secured to a window frame, a top bar carried by said frame member, a plurality of pairs of vertical tapes secured at the upper ends thereof to said top bar, vertically spaced cross webs between each of said pairs of tapes, and slats supported on said cross webs, a bottom bar connected to the lower ends of said vertical tapes, a shaft journaled in said bottom bar and extending for substantially the full length thereof, a pair of reels fixed to said shaft adjacent the opposite ends thereof, a pair of vertical cords of flat strip form wound on said reels and extending upwardly from said reels through said slats, means securing the upper ends of said cords to portions of said frame member directly above said reels, spring means connected to said bottom bar and said shaft and wound on said shaft in a direction to urge said bar upwardly, latch means within said bottom bar acting between said bottom bar and said shaft for latching said shaft against rotation, and a manually actuatable member located centrally on said bottom bar and connected to said latching means for controlling release of the same.

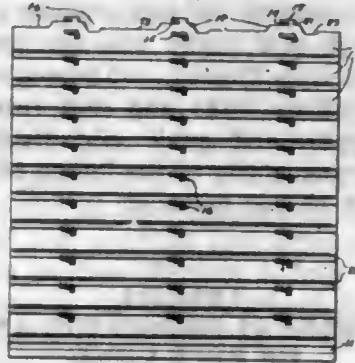
2,824,609

COLLAPSIBLE CLOSURES

Walter L. Roy, Saugus, Mass., assignor, by mesne assignments, to Harold B. Neal, Needham, Mass., as trustee

Application August 24, 1953, Serial No. 376,012

9 Claims. (Cl. 160—218)



1. A closure such as a blind, awning, and the like, said closure comprising a plurality of slats arranged in two series, each slat including a plurality of spaced tabs projecting from and disposed in parallel with one edge to define therewith pairs of locking portions and connecting webs, the free ends of said tabs being inclined in the

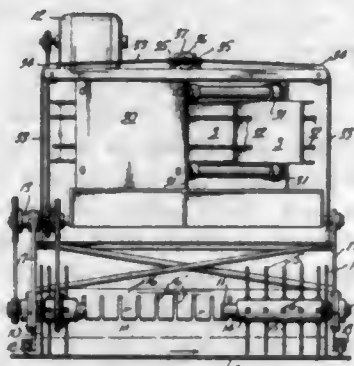
same direction with reference to one face of their slat, each slat also having a plurality of spaced apertures spaced equally from said edge through each of which extends one of the webs of a slat of the other series thus to be caught between the locking portions thereof, said apertures being dimensioned to enable the tabs and webs of a slat of the other series to be entered therethrough when two slats, one from each series, are assembled in face-to-face contact by relative endwise movement with the tabs of one overlapping the tabs of the other and in alignment with and inclined towards the apertures thereof, the slats of the two series being thus connected and provided with first and second parallel hinge axes spaced equally from but on opposite sides of a plane through the length of the blind, and any two thus connected slats being free to swing relative to each other between a collapsed position and an operative position in which the locking portions of one slat engage opposite faces of the other slat.

2,824,610

MAT SEGREGATING MECHANISM AND METHODS

Dale L. Schubert, Tacoma, Harold E. Erickson, Auburn, Norman E. Nelson, near Tacoma, and David A. Brown, Tacoma, Wash.; said Erickson, said Nelson, and said Brown assignors to said Schubert

Application August 23, 1952, Serial No. 305,962
6 Claims. (Cl. 164—76)



1. Mechanism for segregating a fiber mat into units spaced apart a substantial distance, comprising a disintegrating head including rotary cutting disks spaced apart a substantial distance and operable to sever from the fiber mat a swath of mat material between said rotary cutting disks of a width substantially equal to the spacing between said rotary cutting disks, suction means operable to remove the fibrous mat material of such swath from between said cutting disks, a rotor extending between said cutting disks and including a hollow sleeve concentric with the rotative axis of said cutting disks and carrying disintegrating fingers engageable with the mat material of such swath between and severed by said cutting disks from the fiber mat and operable to break it up to facilitate its removal by said suction means, a shaft extending through said sleeve and carrying said cutting disks on opposite ends thereof, and power means operable to rotate said cutting disks and said rotor, and means operable to support and guide said disintegrating head for movement transversely of the length of the mat to remove such swath of mat material.

2,824,611

SOLUBLE CHEMICAL DEPOSITOR AND METHOD OF RELEASING

Julius Gordon Burch, Borger, Tex.

Application October 28, 1955, Serial No. 543,530
1 Claim. (Cl. 166—38)

A means for unclogging a clogged well comprising a cylindrical water soluble gelatin casing closed at each end, caustic soda in said casing, a tubular depositor having a slot therein for said casing, a frangible inner wall

in said depositor providing a bottom support for said casing, a wall puncturing member loose in said depositor below said wall, a cylindrical slide fixed relative to said puncturing member and projecting below said depositor whereby contact of said slide with the well bottom will effect movement of said puncturing member relative to said depositor to thereby puncture said wall, a pin on said



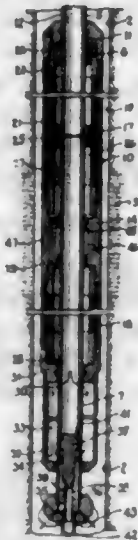
slide engaging in said slot for retaining said slide in slidable related assembly with said tubular depositor, said casing gravitatingly dropping downwardly to the well bottom, said depositor upon being raised upwardly effecting the exposing of said casing to the action of the liquid in the well whereby said casing will dissolve and the caustic soda will generate a solid melting heat.

2,824,612

MEANS FOR ISOLATING, TREATING, AND TESTING A SECTION OF WELL FORMATION

John Lynes, Albuquerque, N. Mex., assignor to Lynes, Inc., Houston, Tex., a corporation of Texas
Continuation of application Serial No. 243,307, August 23, 1951. This application March 24, 1954, Serial No. 418,352

12 Claims. (Cl. 166—187)



1. A well tool comprising, a packer assembly, said assembly including a pair of inflatable packers and an intermediate portion connecting said packers together, there being an opening in said portion communicating with the exterior thereof, an operating mandrel movable through said assembly, there being port means in said mandrel for directing fluid into said packers, said packer assembly movable axially relative to said mandrel as said packers inflate, means sealing said packer assembly about said mandrel whereby fluid may be retained in said packers, and cooperable means on said mandrel and said assembly for positioning said mandrel to first direct fluid to inflate said packers, and to thereafter position and align at least part of said mandrel port means and portion opening upon movement of said mandrel relative to said inflated packers.

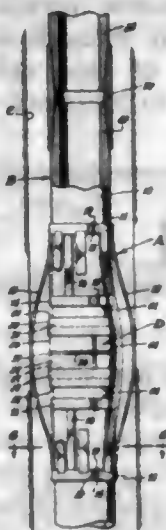
2,824,613

STOP DEVICES FOR WELL CONDUITS

Reuben C. Baker, Coalinga, and John R. Baker, Pasadena, Calif., assignors to Baker Oil Tools, Inc., Los Angeles, Calif., a corporation of California

Application March 24, 1952, Serial No. 278,182

9 Claims. (Cl. 166—241)



1. In a stop device adapted to be mounted on a tubular running-in string to be lowered in a well bore to engage an apparatus mounted on the tubular running-in string: a split collar having an inner surface adapted to grip the running-in string and an external tapered smooth surface; a longitudinally split inner ring encompassing and engaging said external tapered surface, said ring having an external tapered smooth surface; and a circumferentially continuous outer ring encompassing and engaging the smooth tapered surface of said inner ring, said outer ring being movable longitudinally and without rotation along said inner ring to wedge itself upon said inner ring, the smaller end of said split inner ring extending axially at least as far as said outer ring, whereby said inner ring is engageable with the apparatus mounted on the tubular running-in string to grip said collar with the running-in string.

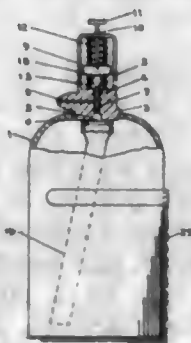
2,824,614

FIRE EXTINGUISHERS

Hyman D. Bowman, Raleigh, N. C.

Application November 23, 1956, Serial No. 624,165

3 Claims. (Cl. 169—26)



1. In combination: a container for liquid under pressure having an opening through a wall thereof, a valve head seated against the walls of said container and extending over and about said opening, a first compression spring located exterior to said chamber and connected between said valve head and the walls of said container so as to cause said valve head to press against the said walls about said opening, a second compression spring connected to said valve head so as to tend to force said valve head away from said opening, said second spring having a greater strength than said first spring, locking means connected to said second spring so as to hold said second spring in a compressed condition, said locking

means comprising two parts each of which is oriented so as to exert pressure on opposite end of said second spring, said two parts being held together by a material having a low melting point, so that said second spring is released when said two parts separate.

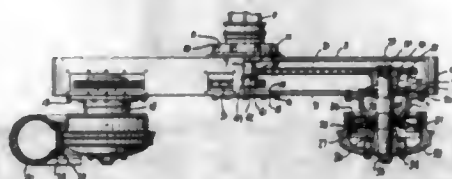
2,824,615

TANDEM DRIVE APPARATUS WITH IMPROVED WHEEL MOUNTING

Anthony Louis Lado, Rome, N. Y., assignor to Pettibone New York Corporation, Rome, N. Y., a corporation of New York

Application September 15, 1955, Serial No. 534,445

3 Claims. (Cl. 180—22)



1. In a tandem running gear for land vehicles, a driven axial shaft, a tandem wheel casing swivelly carried on said shaft and having an inward wall through which the driven axial shaft extends, and an outward wall spaced therefrom; a pair of longitudinally spaced stub axle assemblies each including a stub axle projecting through the outward wall, a pair of bearings surrounding and rotatably supporting that stub axle at points spaced longitudinally of the stub axle, a bearing hub supporting said bearings and carried detachably by said outward wall, and drive means secured to the inner end of the stub axle; and power transmission means connecting said shaft to said drive means in driving relationship; said outward wall having a hole therethrough surrounding each of the stub axle assemblies sufficiently large so that after the bearing hub is detached from the outward wall the remainder of the stub axle assembly may be removed with it while maintaining its relationship to the bearings and the stub axle.

2,824,616

AUTOMATIC SELF-STEERING VEHICLE

Kenneth K. Knight and William J. Wenzel, Great Falls, Mont.

Application January 17, 1955, Serial No. 482,367

9 Claims. (Cl. 180—79)



1. In combination with a self-propelled machine, a continuous flexible element of great length, storing means for said flexible element mounted on said machine, means forming a part of said storing means for paying out said flexible element from said storing means, and laying it down behind said machine, means forming a part of said storing means for taking up said flexible element in front of said machine, said taking up and paying out means being offset with respect to each other from the longitudinal axis of said machine, a steering mechanism for said machine mounted thereon, sensing means mounted on the front of said machine and arranged to sense the position of said flexible element before it is taken up, and means mounted on said machine and operative in response to sensings of said sensing means to actuate said steering mechanism.

ERRATUM

For Class 180—79.2 see:
Patent No. 2,824,447

2,824,617

SOUND REPRODUCING DEVICE

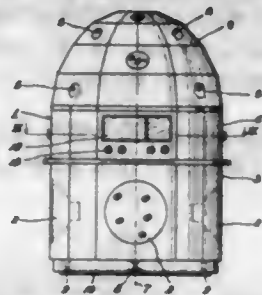
Jean Louis Roulet, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application August 3, 1953, Serial No. 372,065

Claims priority, application Netherlands

September 15, 1952

5 Claims. (Cl. 181-31)



1. A sound reproduction device comprising in combination a housing having an upper domed portion, a first plurality of loudspeakers for low frequencies arranged adjacent to the bottom of said housing and projecting sound radiations in a substantially horizontal direction, a second plurality of separate loudspeakers for high frequencies being arranged above said first plurality of loudspeakers in said upper domed portion and projecting sound radiations in diverse directions.

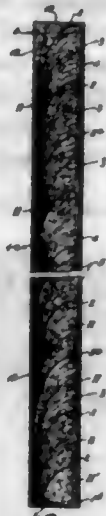
2,824,618

SOUND ABSORBING WALL PANELS

William L. Hartsfield, Washington, D. C.

Application July 27, 1956, Serial No. 600,631

20 Claims. (Cl. 181-33)



1. An acoustical panel for absorbing vibrational energy reaching the front face of the panel, comprising a frame; a plurality of acoustical horns in said frame, said horns having open mouths all disposed adjacent one another and lying in a common plane parallel to the front face of the panel, and said horns reducing in cross-sectional area rearwardly of the panel; and acoustical absorbing material filling each horn, the density of said material being smoothly graduated from a hard-packed density in the rear of each horn to a light density near the mouth of each horn.

2,824,619

MUFFLER

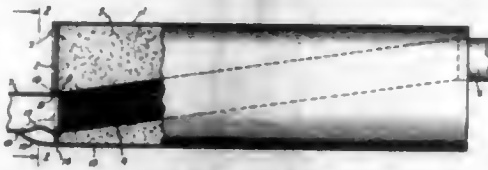
De La Wilmore Bremer and John F. Lovejoy, Jacksonville, Fla.

Application July 18, 1955, Serial No. 523,950

6 Claims. (Cl. 181-42)

1. An internal combustion marine engine wet exhaust muffler, comprising an elongated shell having a horizontally disposed lower side and end closure walls, an elongated hollow tubular open-mesh-walled cylindrical

member extending internally of said shell from one to the other said end closure and inclined from a connection at one end through an opening in the upper portion of said one end closure to a connection at the other end through an opening in the lower portion of said other end closure immediately adjacent said lower side of said shell, said member terminating at its said ends within said shell at the respective end closures thereof, external pipe means communicating directly through said end closure openings with said ends of said cylindrical member and adapted and arranged to introduce exhaust gases into said



one end thereof and to pass exhaust gases from said other end, a mass of elongated curved elements substantially filling said shell externally of said cylindrical member, said pipe means including a tail pipe communicating with said other end of said cylindrical member, and an external drain conduit communicating at one end of said conduit with the interior of said shell at and through an opening in the bottom corner of said shell immediately adjacent said other end closure and at the other end of said conduit communicating through an opening into said tail pipe externally of said shell and adjacent said other end closure.

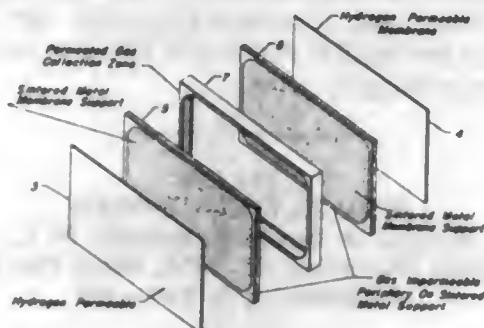
2,824,620

PURIFICATION OF HYDROGEN UTILIZING HYDROGEN-PERMEABLE MEMBRANES

Armand J. de Rosset, Clarendon Hills, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

Application September 12, 1955, Serial No. 533,870

8 Claims. (Cl. 183-2)



1. A process for increasing the concentration of hydrogen in a mixture of gases which comprises passing said mixture at an elevated pressure and temperature through a diffusion zone separated into an upstream portion and a downstream portion by a continuous, hydrogen-permeable membrane comprising a metal of group VIII of the periodic table, said membrane being supported on the downstream side by a porous matrix of compressed sintered metal particles and having sufficient structural rigidity to maintain the continuity of said membrane against the upstream pressure, collecting hydrogen on the downstream side of said membrane and the non-hydrogen components of said mixture on the upstream side of said matrix.

2,824,621

HEAT EXCHANGE APPARATUS

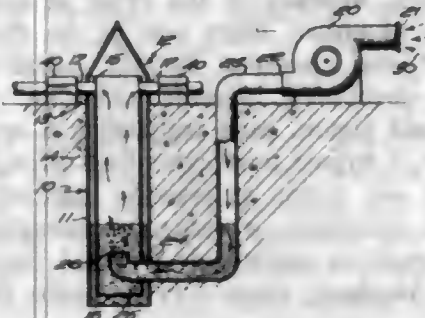
Henry Carrier, Portsmouth, R. I.

Application December 22, 1954, Serial No. 476,974

1 Claim. (Cl. 183-23)

In a gas handling apparatus for use with a well in the ground, concentric tubes extending vertically into the ground to below the water level in the well, a gas input

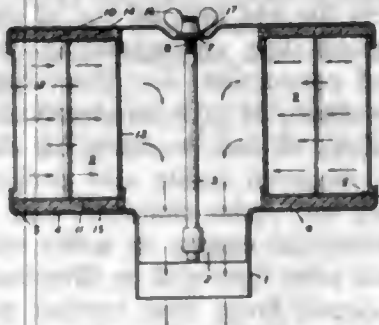
pipe extending through the walls of both tubes and terminating within the inner tube with its discharge end below the water level of the well, a gas outlet conduit from the inner tube above the water level, a vapor trap



having its walls in continuation of the walls of the outer of said tubes and communicating with the space between said tubes to condense water vapor and return it to the well through the space between said tubes.

2,824,622 GAS FILTER

Kenneth Ernest Buckman, Redbridge, Southampton, England, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application October 26, 1954, Serial No. 464,815
Claims priority, application Great Britain
November 14, 1953
2 Claims. (Cl. 183—71)



1. A filter element comprising an elongated sheet of filter material formed transversely of the length thereof to provide spaced folds and formed throughout the length thereof to provide an annular filter, the oppositely disposed parts of said sheet forming said folds being formed within said folds to provide spaced dimples providing supporting means, said oppositely disposed parts of said sheet being supported in engagement with one another by said dimples and providing continuous passage means within said folds in open communication with one side of said filter, said sheet on the surfaces thereof between said folds being spaced throughout the entire extent of said folds and being in open communication with the other side of said filter, certain folds of said folds being similarly formed to provide diverging branches dividing said certain folds between the extremities thereof and decreasing and tending to equalize the spacing between said certain folds and adjacent folds, and end plate means engaging the opposite edges of said sheets and said folds and retaining the parts of said filter in said formed relation.

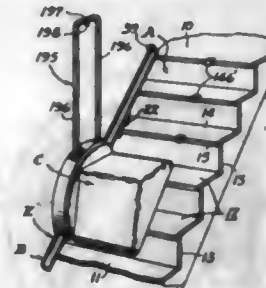
2,824,623

AUTOMATIC STAIRWAY ELEVATOR

Eric T. Nord, Oberlin, and Samuel Rosen, Lorain, Ohio, assignors to U. S. Automatic Corporation, Amherst, Ohio, a corporation of Ohio
Application August 2, 1954, Serial No. 447,149
4 Claims. (Cl. 187—12)

3. In a power-driven stairway elevator having a platform adapted to carry loads between an upper terminal and a lower terminal which may vary from a minimum to a maximum on different trips, said elevator having rotary

drive means for driving said platform at a predetermined velocity, said drive means including in combination an electric motor, a rotary speed-responsive clutch, operatively associated with said motor for disconnecting said motor from said drive means when said motor is de-energized and its speed drops below a predetermined speed below its full load operating speed, brake means engageable with the driven member of said clutch in re-

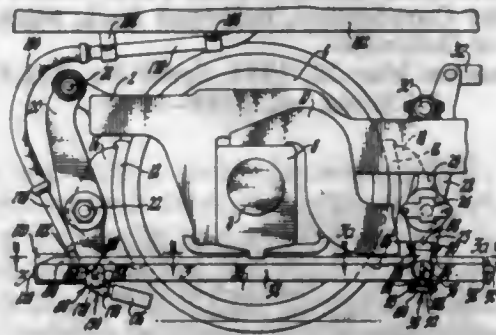


sponse to de-energization of said motor for braking said platform to a stop and a flywheel associated with the driven member of said clutch having a kinetic energy at the operating speed of said motor at least 1,000% greater than the kinetic energy of the maximum load to be carried by the platform at the predetermined velocity of movement of the platform whereby said brake will bring said platform to a stop in substantially the same distance irrespective of the load on said platform.

2,824,624

CLASP BRAKE RIGGING

William F. Hollin, Riverside, Ill., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application July 19, 1954, Serial No. 444,243
2 Claims. (Cl. 188—56)



1. In a clasp brake rigging for a wheel of a railway vehicle truck, a vertical live brake lever and a vertical dead brake lever operably supported by said truck on opposite sides of said wheel in the plane of said wheel, a single substantially horizontal tension bar having all portions thereof in a horizontal plane and having a longitudinal portion spaced laterally outwardly from and extending across an outer face of said wheel, said tension bar having the ends thereof turned to extend inwardly through and substantially at right angles to the plane of said wheel and means pivotally fastened to the lower ends of said levers and supporting the ends of said bar and said longitudinal portions adjacent the ends of said bar to stabilize said bar in its horizontal plane.

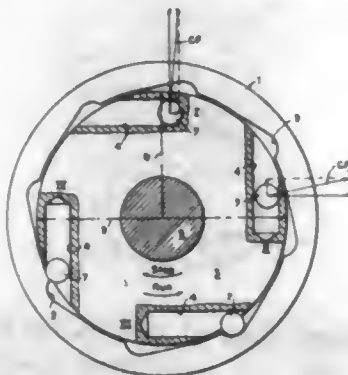
2,824,625

ONE-WAY BRAKE FOR VERTICAL MOTORS

Willard B. Rice, Jr., Los Gatos, Calif., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application August 9, 1954, Serial No. 448,516
6 Claims. (Cl. 188—82.84)

1. A one-way brake mechanism for preventing the reverse rotation of a shaft normally disposed in a vertical position, in combination, a stationary member having a vertically disposed generally right circular cylindrical in-

ternal surface, said surface being provided with a plurality of pockets which at their leading ends, considering the leading direction to be clockwise when viewed in plan, terminate in sectors of right circular cylinders having a selected diameter and forming the bottoms of the pockets, a shaft disposed coaxially of the said surface, a hub rigidly secured to the shaft, said hub being in the shape of a relatively flat right circular cylinder fitting with a small



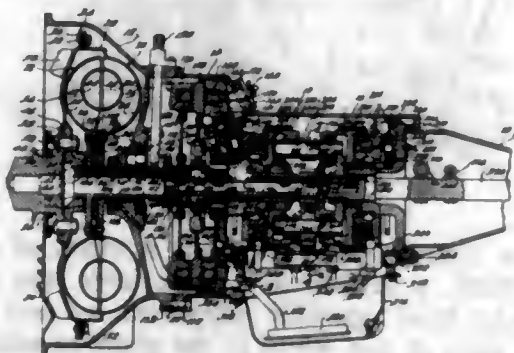
clearance into said surface of said stationary member, said hub being provided with a well, open at the peripheral cylindrical surface, and having an axis that is parallel to a first radius and perpendicular to a second radius of the hub, and having a depth in the leading direction sufficient to extend beyond said second radius a distance substantially equal to said selected diameter, and a ball in the well having a diameter a trifle less than said selected diameter.

2,824,626

COMBINED ELECTROMAGNETIC AND STRAP-TYPE BRAKE

John P. Butterfield, Grosse Pointe Park, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware

Application May 28, 1954, Serial No. 432,974
9 Claims. (Cl. 188—140)



9. In a power controlling mechanism comprising housing means, a brake member rotatably mounted on said housing means, a friction band encircling said brake member and having one end anchored to said housing means, a brake element movably mounted on said housing means, means for braking said brake member to said brake element, a cam surface carried by said brake element, a friction band actuator member, the other end of said band being operatively connected to one portion of said actuator member, another portion of said actuator member engaging said cam surface to be actuated thereby upon shifting of the latter.

2,824,627

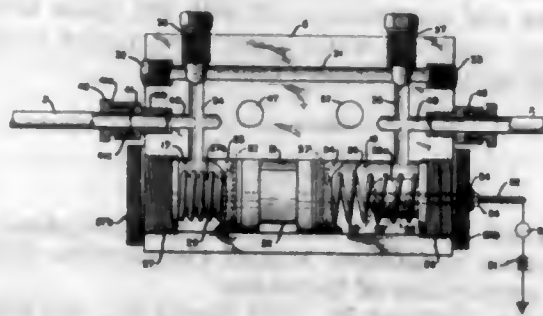
SAFETY CUT OFF VALVE FOR HYDRAULIC BRAKE SYSTEM

Raymond G. Winter, Jr., Pittsburgh, Pa.

Application January 30, 1956, Serial No. 562,145
1 Claim. (Cl. 188—151)

A safety cut off valve for a pressure line of a hydraulic brake system, comprising a valve body containing a

cylindrical bore, a piston slidably mounted in said bore and separating it into a liquid inlet chamber and a liquid outlet chamber, one of said chambers being connectable to a master cylinder and the other being connectable to brake cylinders, whereby in the event of leakage in the system outlet chamber, there will be no resultant leakage from the inlet chamber, flexible, liquid-sealing cups of electrical insulating material covering the working surfaces of said piston, each containing a spring-retainer metal washer, a bypass port extending through said bore exteriorly of said piston to provide intercommunication between said chambers, a valve for completely closing said bypass port to completely prevent liquid flow between said chambers, plugs screwed onto the end por-



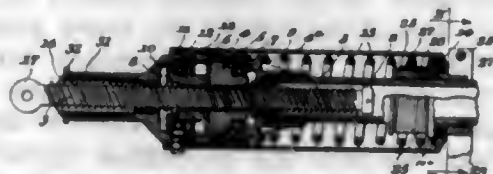
tions of said bore and having integral projections serving as stop elements for limiting the extent of sliding movement of said piston, a pair of springs, each having one end seated on the end face of one of said plugs and closely surrounding the corresponding projection to form a grounded connection, and the other end seated in one of said washers, to provide electrical connections through said springs to said washers, an electrical contact insulatingly mounted inside said projection on the screw cap closing the outlet chamber, and a pilot light and source of electrical energy in series with said contact, whereby said pilot light will be illuminated by completion of the circuit from said contact to the corresponding washer, spring and plug to ground.

2,824,628

AUTOMATIC SLACK ADJUSTER FOR BRAKES

Bert Henry Browall, Malmö, Sweden, assignor to Svenska Aktiebolaget Bromsregulator, Malmö, Sweden, a corporation of Sweden

Application January 5, 1953, Serial No. 329,552
Claims priority, application Sweden October 22, 1951
3 Claims. (Cl. 188—196)



1. An automatic brake slack adjuster of the character described, comprising a two-part brake rod, the first part of said brake rod being a tubular rod part, the second part of said brake rod being a threaded spindle with one end within one end of said tubular rod part, said threaded spindle being axially displaceable in said tubular rod part, a tubular operating member axially displaceable on said tubular rod part, spring means disposed between said tubular rod part and said operating member thereon urging said operating member toward the other end of said tubular rod part into a normal axial end position in relation thereto, said operating member having a seat therein, a feed nut in said operating member and threaded on said spindle and abutted by said seat in said operating member in the normal axial end position

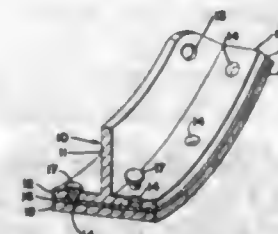
thereof and movable on said spindle away from said tubular rod part when not abutted by said seat in said operating member on axial displacement thereof against the force of said spring means, a housing on said one end of said tubular rod part, said housing being spaced from said operating member for permitting free rotation of said operating member relative to said housing, a coupling nut in said housing and threaded on said spindle between said feed nut and said one end of said tubular rod part, said housing having a seat therein spaced from said coupling nut when there is no tension between the parts of said brake rod and abutting said coupling nut for transmitting braking stress between said tubular rod part and said spindle, an antifriction thrust bearing between said coupling nut and said housing, said feed nut and said coupling nut being frictionally coupled for rotation together by the force of said spring means on said operating member in said normal axial end position thereof for holding said coupling nut out of engagement with said seat therefor in said housing when said operating member is in the normal axial end position, whereby rotation of said operating member, when in said normal axial end position on said tubular rod part, rotates both said nuts in unison with one another on said spindle for axially adjusting said spindle and said tubular rod part in relation to one another without rotating any one of them in relation to the other.

2,824,629

WELDED BRAKE SHOE ASSEMBLY

Samuel K. Wellman, Cleveland Heights, Ohio, assignor to S. K. Wellman Company, Bedford, Ohio, a corporation of Ohio

Application December 17, 1953, Serial No. 398,686
5 Claims. (Cl. 188—234)



1. As an article of manufacture, a metallic brake shoe assembly comprising an imperforate predominantly metallic sintered brake lining having a metallic backing plate integrally bonded thereto substantially co-extensive therewith, a web plate curved edgewise and disposed in a single plane, a flange portion disposed in part-cylindrical curvature and formed integral with the convex edge of the web plate, with said metallic backing plate being curved similarly to said flange portion and with the flange perforated and pins extending through the flange portion perforations welded to the backing plate for removably securing the backing plate to the flange portion.

2,824,630

DOORS

John A. Tolman, Hollywood, Calif., assignor to Andean Corporation, Pasadena, Calif., a corporation of California

Application April 30, 1951, Serial No. 223,728
12 Claims. (Cl. 189—46)

1. A building element comprising a pair of opposed parallel thin flexible sheet metal plates, and a spacer between said plates comprising a foraminous honeycomb reinforcement the open surfaces of which abut the surface of said plates, and one piece connectors extending along opposite marginal edges of said plates adjacent said reinforcement, each of said connectors being formed with spaced parallel seats for the marginal edges of said

plates and into which said marginal edges extend, each of said seats being contoured upon its faces in abutting

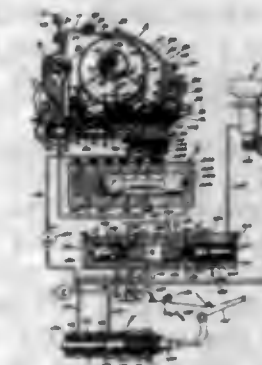


contact with a marginal edge to retain said edge in non-planar locking engagement.

2,824,631

SLIP DRIVE TRANSMISSION

John Z. De Lorean, Detroit, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan
Application April 7, 1954, Serial No. 421,599
30 Claims. (Cl. 192—3.2)



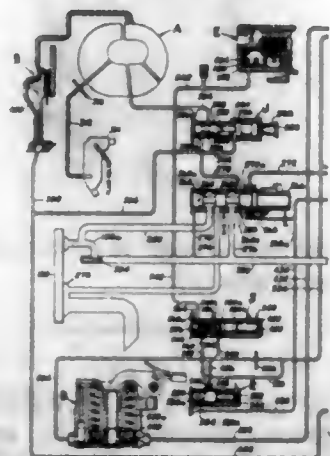
1. For use with a multi-element slip drive device including at least fluid connected pump and runner elements, a housing therefor having a main chamber for receiving the device adapted to be charged with fluid and including a pump connected member and a runner connected piston member disposed in closely spaced adjacency with their respective central portions in axial alignment, said pump-connected member forming a piston receiving end cylinder and together with the piston member being relatively shiftable to one another in an axial direction and in a direction about their common axis and having their central portions of a relatively relieved formation to define a pressure expansible and ventably collapsible piston operating fluid chamber radially within the outer periphery of the piston member, a continuously effective seal between the main and piston operating chambers carried by the piston member at its outer periphery and continuously sealing the same to and engaging the cylinder member, a continuously effective seal between the main and piston chambers and sealed to and engaging the inner periphery of the central portion of the piston member, two friction engaging surfaces carried by the piston and cylinder members respectively which when engaged due to depressurization and relative collapse of the piston chamber between the members frictionally hold the same together for conjoint rotation, means of communication for forming separate fluid passages between a source of pressure fluid and each of said main and piston operating chambers within the housing, and single valve means included in the means of communication for selectively opening to introduce pressure fluid into the passage for the piston chamber and creating back pressure therewithin or venting and de-

pressurizing the piston chamber to collapse the same causing engagement between the two friction engaging surfaces.

2,824,632

REGULATOR VALVE FOR TRANSMISSION HYDRAULIC CONTROL SYSTEM

Carroll J. Lucia, Birmingham, and John Z. De Lorean, Detroit, Mich., assignors to Studebaker-Packard Corporation, Detroit, Mich., a corporation of Michigan
Application March 31, 1955, Serial No. 498,407
5 Claims. (Cl. 192—3.2)



2. A hydraulic control system and a vehicle transmission comprising a torque converter, a hydraulically operated converter lock-up clutch, a fluid pressure reservoir, a valve comprising a valve chamber having closed ends, an outlet port communicating with the interior of the valve chamber, a fluid passageway connecting the outlet port with the converter, a fluid pressure return port near one end of the valve chamber, a branch conduit connecting the fluid passageway and the return port, an inlet port communicating with the interior of the valve chamber between the outlet and return ports, fluid conveying means connecting the inlet port with the pressure reservoir, a piston chamber disposed near the opposite end of the valve chamber, a valve member reciprocally mounted within the valve chamber to meter the fluid pressure flow between the inlet and outlet ports; the pressure delivered through said return port tending to position the valve member to reduce the pressure flow between the inlet and outlet ports, said valve member having an elongated valve stem which extends through an opening in the opposite end of the valve chamber and partially into the piston chamber, a piston member of larger cross sectional area than said valve stem reciprocally mounted within said piston chamber, spring means to urge the piston member into engagement with the valve stem, the valve member thereby being positioned to increase the pressure flow between the inlet and outlet ports of the valve chamber, a radial pressure inlet port communicating with the interior of the piston chamber, means to deliver fluid pressure to said pressure inlet port when the lock-up clutch is operated to move said piston member away from said valve stem, the pressure at said return port then positioning said valve member so that a reduced fluid pressure flows to the converter.

2,824,633

ELECTRIC POWER TRANSMITTER NEUTRAL POSITIONING DEVICES

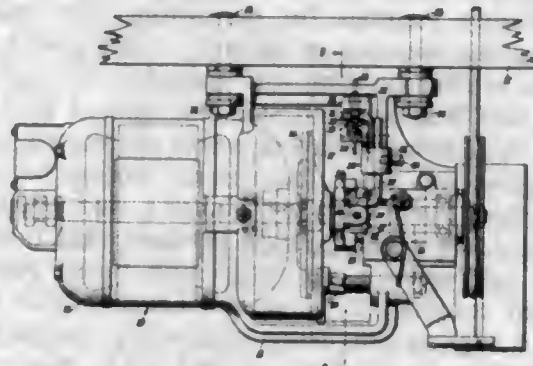
Edgar P. Turner, Fanwood, N. J., assignor to The Slinger Manufacturing Company, Elizabeth, N. J., a corporation of New Jersey

Application March 4, 1953, Serial No. 340,233

7 Claims. (Cl. 192—18)

1. An electric power transmitter comprising a frame, a rotatable driving member and a brake member carried by said frame, a rotatable and axially movable driven ele-

ment carried by said frame, a friction disc disposed between said members and secured to said driven element, means for moving said disc into engagement with said members including a manually operated actuating lever



having a pivotal axis, two substantially parallel leaf-type springs carried by said frame, and a link of adjustable length having one end disposed between and engageable with said springs and the other end pivotally connected to said lever.

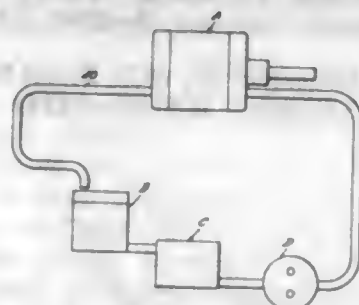
2,824,634

MAGNETIC FLUID DEVICE WITH COOLING MEANS

Horace H. Raymond, Berlin, Conn., assignor to Raymond Engineering Laboratory, Inc., Middletown, Conn., a corporation of Connecticut

Application September 7, 1950, Serial No. 183,590

15 Claims. (Cl. 192—21.5)



1. In a device of the character described, an outer member formed with a cylindrical cavity therein, an inner member mounted co-axially in the cavity for rotation relative to the outer member, said inner and outer members having a gap therebetween and said inner member being formed with a longitudinal liquid passageway in its outer surface communicating transversely throughout the gap, means for producing a magnetic flux between the inner and the outer member, a reservoir, a dilute dispersion of iron particles in water in said reservoir, and means for circulating the dispersion from the reservoir through said cavity and passageway, whereby the iron particles are available to provide linkages along the flux lines interconnecting the outer and inner members and the water provides a carrier for the particles and a cooling medium for the device.

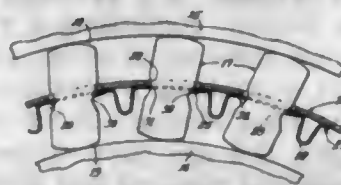
2,824,635

ONE-WAY ENGAGING DEVICE

Harry P. Troendly, La Grange Park, and Ernest A. Ferris, Oak Park, Ill., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application December 24, 1951, Serial No. 263,064

20 Claims. (Cl. 192—45.1)



1. A cage and gripper structure for a one-way engaging device comprising a ring of resilient sheet metal hav-

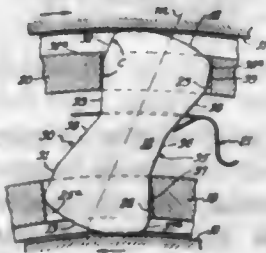
ing means defining a series of openings spaced around its periphery for receiving a plurality of tiltable grippers, said sheet metal ring including a series of integral tabs respectively extending into each of the openings for continuously biasing each of the grippers arcuately in the same direction, and means on each of said tabs defining a transverse wrinkle therein to thereby permit peripheral displacement of each of the grippers relative to the others without permanently distorting said ring.

2,824,636

ONE-WAY CLUTCH

Harry P. Troendly, La Grange Park, Ernest A. Ferris, Elmhurst, and Bertram A. Fulton, Jr., Glen Ellyn, Ill., assignors to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

Application September 11, 1953, Serial No. 379,534
36 Claims. (Cl. 192—45.1)



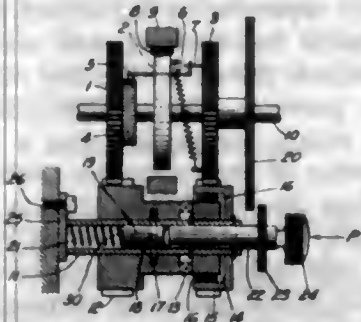
1. A one-way clutch adapted to operate between inner and outer coaxial races comprising a plurality of grippers adapted to be mounted between the races and tiltable into and out of wedging engagement with said races, relatively rotatable inner and outer cage rings adapted to be disposed between the races and each having peripherally spaced radially extending openings, said grippers being positioned between the races and having their end portions extending through said openings, said openings in said cage rings and the opposed peripherally facing sides of the related gripper being formed with sets of cooperating bearing surfaces, each of said sets of bearing surfaces including non-planar portions and being in continuous bearing contact between said cooperating surfaces during tilting movements of said grippers into and out of wedging engagement with said races and relative rotation of said cage rings.

2,824,637

TRANSMISSION DEVICE COMPRISING AN AUTOMATICALLY OPERATING OVERLOAD-RELEASE CLUTCH

Jacob Marinus Unk, Wilhelmus Lambertus Vervest, and Godfried Hendrik Waarle, Hilversum, Netherlands, assignors, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application August 7, 1951, Serial No. 240,754
Claims priority, application Netherlands August 30, 1950
5 Claims. (Cl. 192—150)



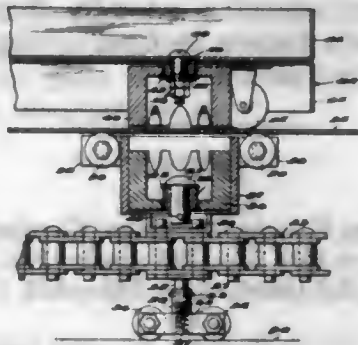
1. A transmission device comprising a driving part, a driven part, an automatically operating overload-release clutch coupling said driving and driven parts, said clutch coupling including a torque-transmitting auxiliary mem-

ber, spring means connecting said auxiliary member to said driven part and means for coupling and uncoupling said auxiliary member to said driving part, said driven part continuing to be subjected after complete disengagement of the driving and driven parts subsequent to overload, to a driving force operating in the direction of movement followed prior to disengagement, a one-way coupling coupling said driving and driven parts in one direction of movement only, said one-way coupling comprising means for automatically uncoupling said driven part relative to said driving part when overload occurs.

2,824,638

MAGNETIC CONVEYOR

Raymond J. De Burgh, Seattle, Wash.
Application June 25, 1954, Serial No. 439,383
8 Claims. (Cl. 198—41)

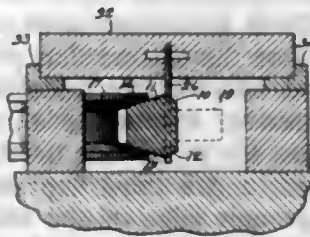


1. A conveyor of the class disclosed comprising, in combination, a wheeled carrier adapted to serve as a work support while moving along a supporting surface, a first magnet swivelly mounted on the underside of said carrier, a guideway mounted on the underside of the supporting surface, said guideway including a bottom member disposed parallel to but spaced from the supporting surface, means associated with said bottom member to adjust the depth of the guideway, driving means disposed in said guideway, said driving means mounting said second magnet for pivotal movement in the plane of movement of said driving means and for transverse movement within said guideway whereby said second magnet is movable to a position beneath the supporting surface in close adjacency to said first magnet.

2,824,639

ENDLESS CONVEYOR

David H. Rosendahl, Mount Prospect, Ill., assignor to Oak Mfg. Co., Chicago, Ill., a corporation of Illinois
Application March 1, 1955, Serial No. 491,283
5 Claims. (Cl. 198—189)



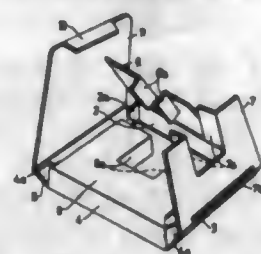
1. A conveyor comprising a flexible belt, pulleys and idlers for said belt, a plurality of generally U-shaped driving members of spring material, means on said belt into which said driving members may be sprung for supporting said driving members on said belt with the U being inverted in generally vertical position, a drive track on each side of the track taken by the driving members when the belt moves, support blocks resting on said tracks and means for coupling said driving members to said support blocks so that said blocks support the belt and travel therewith, said blocks carrying work thereon.

2,824,640
GETTER CONTAINERS AND A METHOD OF MANUFACTURING SUCH CONTAINERS
 Paolo Della Porta, Milan, Italy
 Application September 1, 1953, Serial No. 377,917
 Claims priority, application Italy September 27, 1952
 3 Claims. (Cl. 206—4)



2. A container for getter material comprising a channel shaped tube having opposing side walls and a bottom wall connecting the side walls within which a body of getter material is packed, one of said side walls having an upper portion bent laterally over onto the material and disposed substantially normal to the other side wall and spaced therefrom to define therewith a slit for the escape of getter vapors and the other side wall having an upper portion extending upwardly above the slit and disposed angularly thereto to form a wing for directing the vapors issuing from the slit.

2,824,641
CARTON
 Claus Koenig, Erlangen, Germany
 Application July 27, 1954, Serial No. 445,998
 6 Claims. (Cl. 206—52)

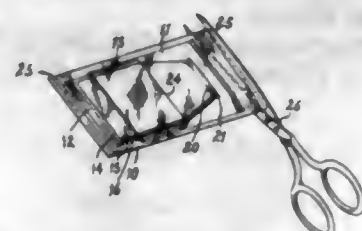


1. A carton constructed of bendable material and suitable for containing an annular object, comprising a rectangular bottom portion, a first pair of upwardly-extending side portions attached one each to a first pair of opposing edges of said bottom portion, a second pair of upwardly-extending side portions attached one each to the second pair of opposing edges of said bottom portion, a first flap portion extending inwardly from the outer edge of one of said first pair of side portions and in spaced parallel relationship with respect to said bottom portion, a second flap portion extending inwardly from the outer edge of one of said second pair of side portions and disposed in overlapping face-to-face relationship with respect to said first flap portion, each of said first and second flap portions being cut inwardly from its outer edge and cross-wise at the base of said inward cut to provide a pair of opposed rectangular tabs, said pairs of tabs being bent inwardly in the direction of said bottom portion, the bent tabs of the second flap portion extending transversely of and adjacent the ends of the bent tabs of the first flap portion, to provide a substantially rectangular interior post for supporting the core of the annular object contained, and a third flap portion extending inwardly from the outer edge of the other of said first pair of side portions and overlying said first and second flap portions to form a top cover for the container, and means for securing said top cover flap in place in substantially spaced parallel disposition with respect to said bottom portion.

2,824,642
PACKAGE FOR SURGICAL SUTURES
 James A. Stoltz, Roslyn Heights, N. Y.
 Application July 5, 1956, Serial No. 596,023
 3 Claims. (Cl. 206—63.3)

1. A sterile surgical suture package comprising a coiled suture; a label having a pair of oppositely disposed,

hinged-together flaps; the inner portion of the periphery of said coiled suture lying immediately adjacent the hinge of and between said flaps and the outer portion of the periphery of said coil lying in a plane substantially inwardly from the free ends of said flaps, the width and length of said flaps completely overextending marginally said periphery; said suture so marginally encased between said label being further marginally encased within an inner, telescoping, two-piece, top and base type of envelope of sterilizing agent-permeable, transparent, plastic material; the outer edge of said base lying substantially flush with the plane of the outer periphery of said coiled suture; said ends of said flaps projecting beyond said outer edge of said base of said inner envelope and being completely encased by said top thereof; said inner



envelope being encased within an outer one-piece, flat, tubular, envelope of sterilizing agent-permeable, transparent, plastic material; the opposed sides and ends of said outer envelope being spaced marginally from the corresponding sides and ends of said inner envelope and the opposed ends of said outer envelope being thermosealed; and the complete package being subjected to sterilization in a chamber wherein sterilizing agents capable of permeating the outer envelope, the inner envelope, the label, and the suture do permeate all of said elements and render them sterile; whereby one or a pair of adjoining edges of said outer envelope may be cut to facilitate the casual but assuredly sterile removal of the inner envelope and its suture therefrom by either a spilling or forcep technique.

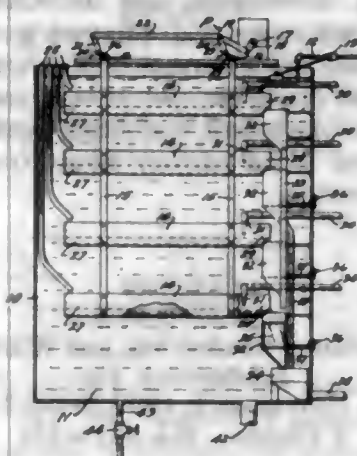
2,824,643
PROCESS FOR CONCENTRATING CALCIUM ORES
 Merle N. Shaw, Canon City, Colo.
 No Drawing. Application January 18, 1955
 Serial No. 482,674
 2 Claims. (Cl. 209—166)

1. The process for concentrating ores containing a calcium compound as the essential constituent and associated with gangue which comprises subjecting the ore to froth flotation separation in the presence of a flotation agent containing a substance selected from the group consisting of hydroxyethyl cellulose, carboxymethyl cellulose and a non-aqueous liquid.

2,824,644
STRATIFIER WITH SUCTION SEPARATION
 Theodore F. Garland, Fargo, N. Dak.
 Application January 15, 1954, Serial No. 404,318
 8 Claims. (Cl. 209—423)

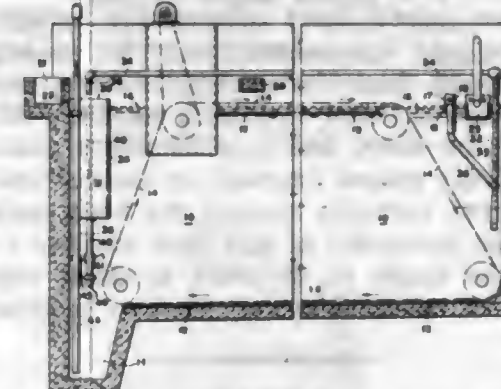
1. In a gravity separator of the submerged type being particularly adapted for cleaning and classifying gravel and the like which is mixed with other materials having various specific gravities, the combination of a liquid-confining tank; means for maintaining a liquid level in said tank; a number of separation beds shiftably mounted in said tank below the liquid level therein for oscillatory movement; supply means for delivering such a mixture of materials to said beds; an oscillator connected to said beds to cause the mixed materials therein to move from the ingress ends toward the egress ends of said beds and to cause the lighter materials of the mixture to rise in a layer above the heavier materials; a number of material-carrying conduits for respectively discharging the layer of light materials from each of said beds, each of said

conduits extending out of the tank and having its inlet end adjacent to the egress end of a bed and in spaced relation above the bottom thereof and having its outlet end disposed substantially below the liquid level in the tank, whereby the head of the liquid between the surface of the liquid and the outlet end of the conduit causes



liquid to flow turbulently in close proximity with and through the layer of light material and into and through said discharge conduit, and whereby the flowing liquid carries the light materials with it; the heavy materials continuing to move in the bed toward the egress end thereof; and means for collecting the heavy materials from the respective beds and discharging the same to without the tank.

2,824,645
DEWATERING SEWAGE SCUM
 Charles C. Griffith, Arlington, Va.
 Application August 11, 1955, Serial No. 527,669
 6 Claims. (Cl. 210—66)

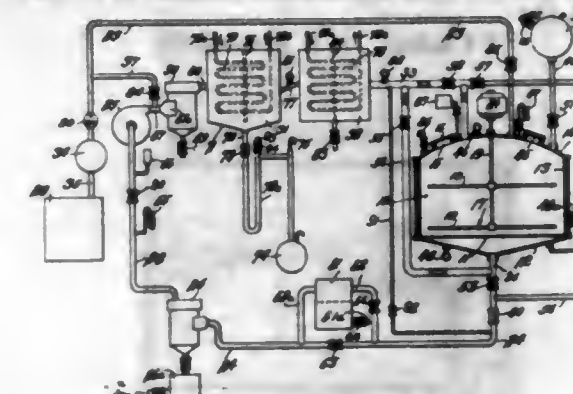


1. In a sewage system in which a scum layer is collected from the top of a primary settling tank and sludge from the bottom of the tank is discharged into a digester, the steps in the method of minimizing the amount of water carried to the digester with the scum, which comprise transferring the collected scum at the effluent end of the primary settling tank to a quiescent pool, maintaining the bottom of the pool in open communication with the tank contents while preventing lateral movement of the pool contents thus permitting water from the scum to pass out of the pool while holding the scum within the pool, then removing at intervals the partly dewatered scum from the top only of the pool and discharging it to the digester.

2,824,646
RECIRCULATION DRIER
 Walter J. Willenborg, Weehawken, N. J., assignor of one-fourth to J. Lawrence Robinson, Summit, and one-fourth to Joseph L. Kopf, Maplewood, N. J., and one-fourth to John Frank Biehl, Beechhurst, N. Y.
 Application April 13, 1955, Serial No. 501,137
 9 Claims. (Cl. 210—68)

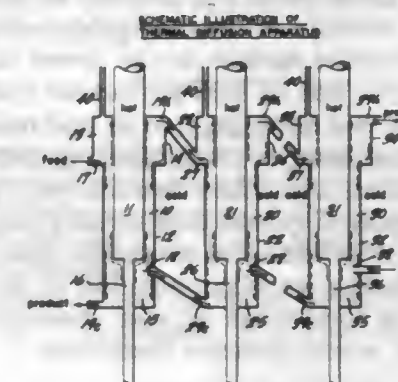
5. A process for producing a dry powdered crystalline material in a sealed tank comprising depositing a

water slurry in said tank, sealing said tank and filling said tank with an inert atmosphere, draining the water from said slurry under pressure of said atmosphere, im-



mersing said drained slurry in an alcohol, draining said alcohol under pressure of said atmosphere and circulating dry heated inert gases through said crystalline material to remove the remaining water.

2,824,647
THERMAL DIFFUSION APPARATUS
 David Frazier, Cleveland Heights, Ohio, assignor to The Standard Oil Company, Cleveland, Ohio, a corporation of Ohio
 Application June 20, 1956, Serial No. 592,664
 3 Claims. (Cl. 210—176)



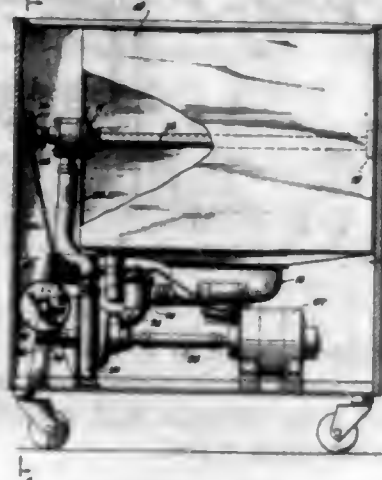
1. Thermal diffusion apparatus for separating a fluid mixture into fractions enriched with dissimilar components which comprises concentric, substantially vertical tubes defining between the outer surface of the inner tube and the inner surface of the outer tube an annular thermal diffusion separation chamber, one end of the outer tube having an increased diameter and defining, with the outer surface of the inner tube, a first annular reservoir communicating with one adjacent end of the thermal diffusion separation chamber and the other end of the inner tube having a reduced diameter for defining, with the inner surface of the outer tube, a second annular reservoir communicating with the other adjacent end of the annular thermal diffusion separation chamber; means for relatively heating the tube having a change in diameter at the lower end and relatively cooling the other tube to maintain a temperature gradient across the annular thermal diffusion separation chamber and separate liquid mixture in the chamber into an ascending fraction enriched in one dissimilar component and a descending fraction enriched in another dissimilar component; means for continuously introducing fluid mixture into the upper and lower reservoirs; and means for separately and continuously withdrawing from the upper and lower reservoirs fractions enriched with the dissimilar components contained in higher than initial concentrations in the ascending and descending fractions.

2,824,648

DISHWASHING MACHINES

James H. Bear, New York, N. Y.
Continuation of abandoned application Serial No. 226,027,
May 12, 1951. This application August 1, 1955, Serial
No. 525,444

2 Claims. (Cl. 210—238)



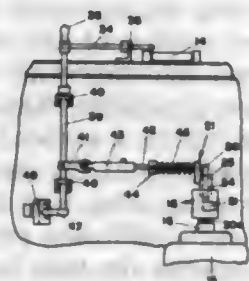
1. A unitary waste reservoir adapted to be removably positioned in a chamber having an upper opening in the bottom of a wash tank of a dishwashing machine, said reservoir comprising a cover portion for the opening of said chamber having waste receiving apertures therein, and a receptacle portion attached to said cover portion having an imperforate, vertical wall and three perforated walls, the latter three walls for passage of water there-through and for storage of waste particles therein, and having a tubular outlet section at the lower end thereof joined to said walls, one of said perforated walls sloping downwardly from said cover portion to said outlet section to form an inclined bottom for facilitating movement of said waste particles, the other two of said perforated walls being vertically disposed, said tubular outlet section being selectively closed so as to retain the waste particles in the reservoir during washing operation of the machine and being open at completion of said washing operation to discharge said waste particles therefrom.

2,824,649

LOCK FOR LAUNDRY EXTRACTOR COVERS

Ermon E. Smith, Pomona, Calif.
Application June 13, 1955, Serial No. 514,955

5 Claims. (Cl. 210—360)



2. A safety device for extractors having a stationary casing provided with an upper opening and a cover hinged to the casing for said opening and an electric motor for operating said extractor, comprising a fluid reservoir fixed on a vertical axis for rotation by the movement of the armature of said motor; a viscous fluid in said reservoir; a bracket fixed to said casing; a vertical arm journaled on a horizontal axis to said bracket for tilting movements in a vertical plane and disposed coaxial with said reservoir and extending downwardly

therein into said fluid; a blade on the lower end of said arm to impart tilting movement to said arm away from its normal gravitational position by means of pressure on said blade created by said fluid during rotation of said reservoir; cover locking means carried by said casing and resiliently urged into position locking said cover against opening movements, and including a reciprocal rod having its end supported adjacent to the upper end of said arm when in its normal gravitational position by said bracket, and the upper end of said arm being adapted to move into movement restricting position with relation to said rod when moved away from its normal gravitational position.

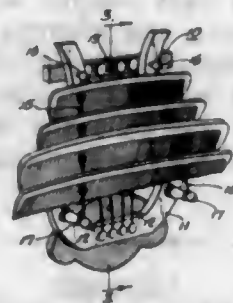
2,824,650

COMB RACK

William S. Conklin, Philadelphia, and William H. Brown,
Lansdowne, Pa.

Application November 2, 1954, Serial No. 466,334

3 Claims. (Cl. 211—13)



1. A rack for supporting combs and like articles having an elongated body and a series of spaced teeth depending therefrom comprising an upright base member, at least two spaced apart substantially upright strands mounted on said base member operable to engage and laterally support the body between the teeth, said strands having a cross-sectional dimension less than the normal spacing of the teeth, and stop members positioned at correspondingly spaced intervals on each of said strands to receive and vertically support the body, said strands being spaced outwardly of said base member a distance less than the length of the teeth to afford engagement of the tips of the teeth against the base member.

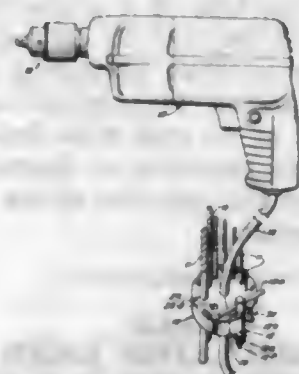
2,824,651

DRILL HOLDERS

Walter B. Davis, Chicago, Ill., assignor to Portable Electric Tools, Inc., Chicago, Ill., a corporation of Illinois

Application October 20, 1953, Serial No. 387,207

8 Claims. (Cl. 211—69)



1. A holder for drill bits adapted to be carried on the conductor cord of a portable electric drill comprising, a relatively thick disc of resilient material split radially and fashioned with an axial opening at the end of the split having a diameter such that the disc may be stably mounted about and grippingly engage said cord at a se-

lected location by expanding the disc along the split and inserting the cord in said opening, and a plurality of multi-sized mounting sockets formed in the upper face of the disc for grippingly receiving and holding upright a similar number of drill bits having corresponding sizes.

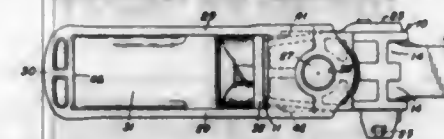
2,824,652

RAILWAY COUPLER ATTACHMENT

Loree Elwyn Furness, Groveport, Ohio, assignor to The
Buckeye Steel Castings Company, Columbus, Ohio

Application August 6, 1954, Serial No. 448,175

6 Claims. (Cl. 213—69)



1. In a draft rigging for railway vehicles, a coupler stem having a butt end, a yoke, a connecting member, a vertically disposed cylindrical pin connecting the butt end of the coupler stem to said member, a horizontally disposed cylindrical pin connecting said member to a forward portion of said yoke, a portion on said connecting member rearwardly of said horizontal pin integral with a forward portion, a flat butt end forming the rear extremity of said member, a draft gear and a front follower mounted within the yoke, and said rear butt end of the connecting member being in flat engagement with said follower in the absence of pulling or buffing forces on the coupler stem.

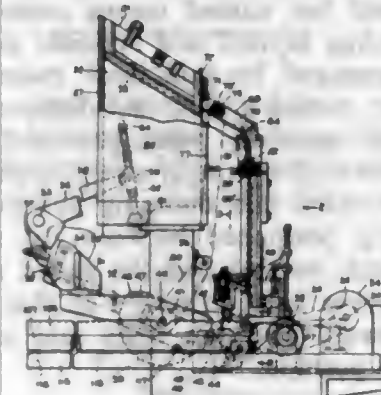
2,824,653

MACHINES FOR RACKING CHANNEL-LIKE DEVICES

Louis H. Morin, Bronx, N. Y.

Original application October 7, 1948, Serial No. 53,255,
now Patent No. 2,649,200, dated August 18, 1953.
Divided and this application August 23, 1952, Serial
No. 305,975

8 Claims. (Cl. 214—8)



1. In a machine for placing a series of channeled articles on a rack in spaced relation to each other, the combination of a downwardly sloping delivery chute having a discharge outlet at the lower end thereof, means in said chute for releasing articles in said chute one at a time to the discharge outlet, a rack located at the discharge outlet of the delivery chute for receiving articles therefrom, said rack being movable relative to the delivery chute, driving means for moving said rack in step by step movement relative to the delivery chute, wiper means for engaging with and moving articles from the discharge outlet of the chute onto the rack and means actuated by said wiper means for rendering said driving means inoperative upon failure of rack to receive an article from the delivery chute.

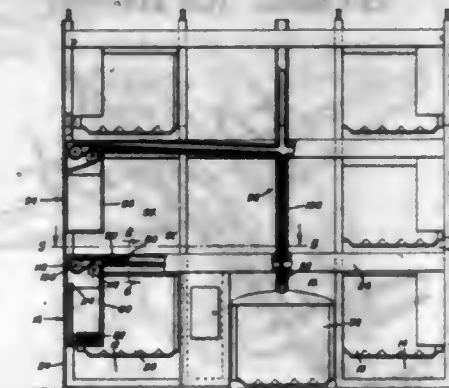
2,824,654

VEHICLE PARKING BUILDING

Frank J. Baume, San Francisco, Calif.

Application June 21, 1955, Serial No. 516,876

8 Claims. (Cl. 214—16.1)



1. In a parking device for vehicles, a frame structure which comprises a first cage stall and a second stall, said stalls being spaced from each other by an elevator hatch, overhead rails forming a part of said structure, a first cage in said first stall, a second cage in said second stall, chains guided by said rails and secured at their ends to said cages to support and move said cages into and from said hatch, means individually anchoring the opposite ends of said chains to said frame structure, a separate motor drivingly connected to the chains for the first cage and the chains for the second cage a generally vertical guide in said hatch and connected with each rail into which said chains are movable when its cage is being raised and lowered, and a support on each cage to constrain the movement of each cage, each of said supports being mounted to move in said rails and said guide when said cages are being moved.

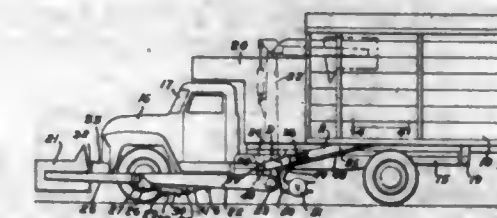
2,824,655

DUMP BODY AND FRONT END LOADER ACTUATING MECHANISM FOR DUMP TRUCKS

Henry C. Harbers, Pasadena, Calif., assignor to Cook
Bro. Equipment Co., Los Angeles, Calif., a corporation
of California

Application July 16, 1956, Serial No. 597,922

12 Claims. (Cl. 214—78)

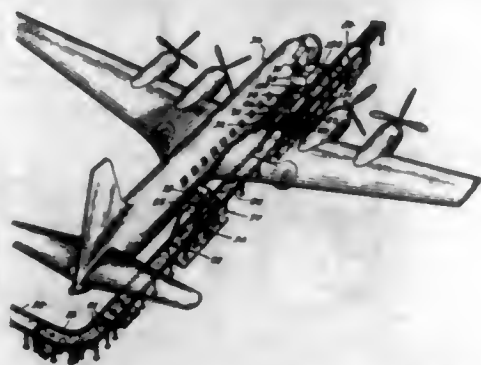


1. A dump truck, including: a frame; a body; means mounting the body on the frame for movement to occupy a load-carrying position and a load-dumping position; a pair of lifting arms one at each side of the frame; a loading element mounted on said arms; means supporting said arms for movement about an axis extending transversely of the frame to lift said element from a load-receiving position at the front end of the truck to a position above the body; and hydraulic mechanism including piston and cylinder members, one of said members operatively connected to said arms, and the other of said members operatively connected to the body, and valved means connected to the cylinder member and operable to supply fluid under pressure selectively to one side of the piston member to effect movement of said members relatively to move the body to dumping position while maintaining said arms against movement to lift the loading element, and to the other side of the piston member for effecting movement of said members relatively to move said arms to lift said element to a position above the body while maintaining the body in load-carrying position.

2,824,656

CARGO HANDLING APPARATUS

Elmer J. Renner, Aurora, Ill., assignor to Stephens-Adamson Mfg. Co., a corporation of Illinois
Application October 10, 1955, Serial No. 539,503
15 Claims. (Cl. 214-89)

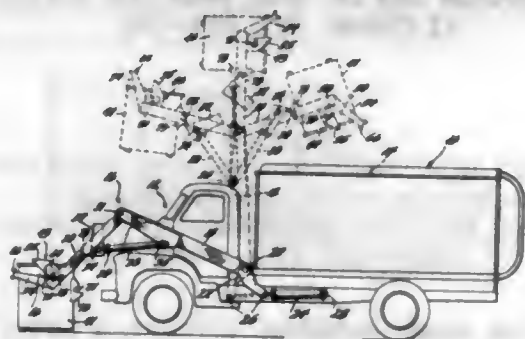


1. Cargo handling apparatus comprising: a hoist adapted to raise and lower cargo, said hoist including an elevating member; switch means for selectively actuating said elevating member to be raised or lowered; a mobile cargo pallet, said pallet including means adapted to trip said hoist switch automatically when the pallet is in a position in which it may be lifted by the hoist; a limit switch blocking further automatic rise of the elevating member of the hoist after it reaches a first predetermined height; manual switch means for actuating the hoist to lift said cargo from said first predetermined height to a second predetermined height; and propelling means for moving the pallet to said hoist, said propelling means being adapted to be rendered inoperative when the cargo pallet is raised a predetermined height above the position it occupies upon its arrival at the hoist.

2,824,657

DETACHABLE BUCKET ARRANGEMENT FOR SELF-LOADING VEHICLES

William A. Beasley, Daisy, Ernest W. Holmes, Jr., Chattanooga, and Harry W. Jones, Knoxville, Tenn.
Application March 3, 1955, Serial No. 491,848
9 Claims. (Cl. 214-302)

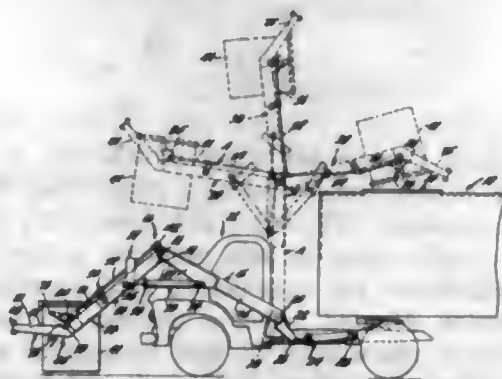


1. In combination with a self-loading cargo vehicle of the type having two spaced arm units pivotally supported on said vehicle for simultaneous rocking movement between a lowered position in which the free ends of said arm units extend beyond the plan outline of said vehicle and a raised position in which the free ends of said units are overturned above the cargo body of said vehicle, the improvement comprising two hook members, one attached to the free end of each of said arm units, each said hook member having a slot therein, a container having trunnions extending from opposite sides thereof, each of said trunnions being slidably and rotatably received in one of said slots, said slots being open at one end whereby said trunnions are detachably received therein, and means for limiting rotary movement of said container relative to said hook members, said last named means comprising abutment means extending beyond said opposite sides of said container and engaged by said hook members when said arm units are moved toward said dumping position, each of said hook members being provided with a groove which receives said abutment means when said arm units are moved toward said dumping position, each of said grooves being positioned between the free end of its respective hook member and the closed end of said slot, and said grooves being arranged so that they open in a generally upward direction when said arm units are in said lowered position.

2,824,658

DETACHABLE CONTAINER AND LATCHING HOOK ARRANGEMENT FOR SELF-LOADING VEHICLES

William A. Beasley, Daisy, Tenn.
Application March 23, 1955, Serial No. 496,230
5 Claims. (Cl. 214-302)

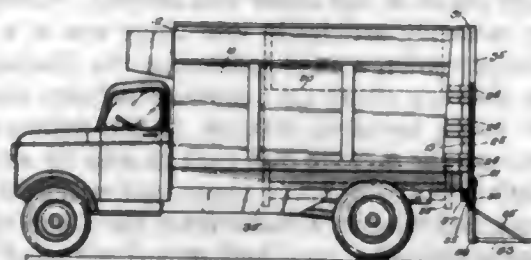


1. In combination with a self-loading cargo vehicle of the type having two spaced arm units pivotally supported on said vehicle for simultaneous rocking movement between a lowered position in which the free ends of said arm units extend beyond the plan outline of said vehicle and a dumping position in which the free ends of said units are positioned adjacent the top of the cargo body of said vehicle, the improvement comprising two hook members, one attached to the free end of each of said arm units, each said hook member having a slot therein, a container having trunnions extending from opposite sides thereof, each of said trunnions being slidably and rotatably received in one of said slots, said slots being open at one end whereby said trunnions are detachably received therein, and means for limiting rotary movement of said container relative to said hook members, said last named means comprising abutment means extending beyond said opposite sides of said container and engaged by said hook members when said arm units are moved toward said dumping position, each of said hook members being provided with a groove which receives said abutment means when said arm units are moved toward said dumping position, each of said grooves being positioned between the free end of its respective hook member and the closed end of said slot, and said grooves being arranged so that they open in a generally upward direction when said arm units are in said lowered position.

2,824,659

LIFT GATE FOR DUMP TRUCK

Atwood E. Erlinder, Chicago, Ill.
Application January 10, 1955, Serial No. 480,780
7 Claims. (Cl. 214-503)



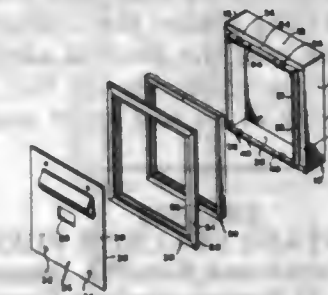
1. The combination with a dump truck body of the type pivoted at its rear end about a horizontal axis adjacent the floor level and having side panels and a tail

the container against rotation in either direction comprising a bar carried by said arms between said container and said pivotal support, and means on said container defining a groove opening generally toward said bar for reception of said bar at a predetermined point in the raising of said arms.

2,824,662

CONVERTIBLE FLUSH AND SURFACE MOUNTABLE PANELBOARD BOXES

Thomas M. Cole, Harrison, N. Y., assignor to Federal Electric Products Company, Newark, N. J., a corporation of Delaware
Application November 21, 1952, Serial No. 321,860
4 Claims. (Cl. 220-18)



1. A panel box, comprising a cabinet having a continuous peripheral side wall provided with an inwardly extending shoulder having an offset forwardly extending continuous peripheral wall portion defining a front opening, a cover for said front opening removably secured to said peripheral wall portion in position adjacent the front edge of the latter, said cover member being dimensioned so that the outer marginal edges thereof lie in the corresponding planes of said peripheral side wall of said cabinet, said cover and said inwardly extending shoulder defining a space for the reception of plaster when said box is mounted in a wall prior to the portion of said wall being plastered and for the reception of a filler member when the box is mounted on the surface of a wall, and a frame member removably interposed between said cover member and said cabinet adjacent said front opening and having a central opening in registry with said front opening of said cabinet, said frame member having a peripherally extending continuous surface extending laterally outwardly beyond the planes of said peripheral side wall of said cabinet so as to cover the space between said peripheral side wall of said cabinet and the portions of a wall surrounding said cabinet when said cabinet is mounted in a wall opening which is larger than said cabinet so as to overlie the front of the wall around said opening therein, said frame member being held in said interposed position by said cover member when the latter is secured to said cabinet.

2,824,661

BOTTLE CLOSURES

Henry O. Sonneman, Silverton, Ohio
Application April 29, 1955, Serial No. 504,770
2 Claims. (Cl. 215-55)

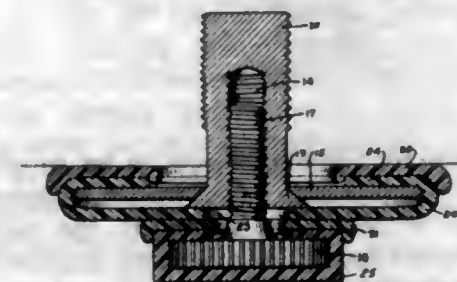


1. A closure for a bottle containing an effervescent liquid, which comprises a cup-shaped member mounted inside the neck of the bottle, said member comprising an elongated hollow cylindrical member frictionally engaging the inside wall of the neck and an elongated handle portion integrally formed with the mouth of the member, and a removable cap covering and closing the mouth of the bottle, the handle projection being deformed into the interior of the member, the cup-shaped member being adapted to be expelled from the bottle by internal pressure with an explosive sound when the cap is removed, the handle portion springing into an operative position projecting outwardly of the member when the cap is removed to provide a finger pull to initiate release of the cup-shaped member.

2,824,663

DEVICE FOR REPAIRING DAMAGED PLACES IN THE WALLS OF METALLIC CONTAINERS

Heinz Fischer, Basel, Switzerland, assignor to J. R. Geigy A.-G., Basel, Switzerland
Application March 5, 1957, Serial No. 643,965
Claims priority, application Switzerland March 8, 1956
5 Claims. (Cl. 220-39)

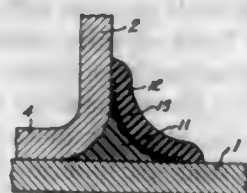


1. A device for repairing damaged places in the walls of metallic containers having a corrosion-proof coating thereon comprising a flat headed screw, said screw having a threaded axial bore therein extending axially from the head of said screw, a dished apertured washer through which said screw extends from the convex side of said washer, the underside of the head of said screw being beveled and the edge of said aperture in said dished washer being

beveled to receive the screw head, a headed securing bolt having a flat underside on the head thereof threadable into said threaded axial bore, said screw, washer and bolt being of metal, said metal consisting as its essential part of at least one metal of the metallic elements with an atomic weight between 52 and 66, an apertured cover over said washer with the aperture therein aligned with the aperture in said washer and having an edge bent around the edge of said washer and lying against the concave side of said washer, and a cover over the head of said bolt with an edge lying against the underside of the head of said bolt, said covers being of an acid-proof synthetic plastic.

2,824,664

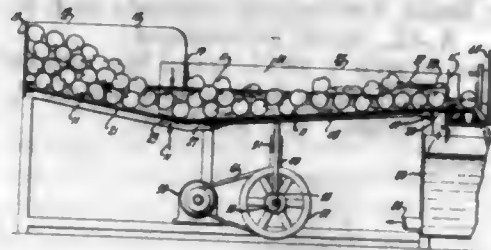
FLAME-RESISTANT SEAL FOR FUEL TANKS
Charles Kenneth French and Robert J. Dunsmoor, Seattle, Wash., assignors to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware
Application March 5, 1956, Serial No. 569,651
2 Claims. (Cl. 220-81)



1. A flame-resistant seal for the joint of an integral airplane fuel tank, wherein one wall joins a second wall to separate a dry bay from a wet bay, comprising two beads of Thiokol or the like applied in plastic form along the interior and along the exterior of such joint, respectively, a small-mesh glass cloth web in the form of a tape applied to and partially embedded within the exposed surface of each Thiokol bead, and at its edges extending beyond the bead's edges into contact with the walls, and a coating of neoprene or the like likewise applied in plastic form to and partially embedding the exposed surface of each glass mesh tape, and at its edges extending beyond the tape's edges into contact with the walls.

2,824,665

OBJECT ALINING APPARATUS
Lloyd H. Lamouria, Davis, Calif., assignor to The Regents of The University of California, Berkeley, Calif., a corporation of California
Application September 28, 1955, Serial No. 537,196
16 Claims. (Cl. 221-179)

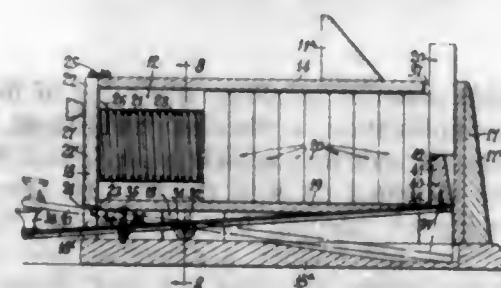


1. Mechanism for alining objects to be supplied to a conveyor system comprising a feed trough adapted to contain objects to be placed in alinement, the said trough having an elongated feed guide extending lengthwise thereof to a point whereat the objects are ejected, the bottom of the guide progressively and uniformly sloping gradually upwardly toward the ejection point, the sides of the guide being spaced by a distance only adequate to permit objects located therein to align themselves in single file, said trough being adapted to be filled with liquid varying from a minimum level at the point of object ejection to a maximum level in substantially the region of the trough in which the major portion of the objects are

to be placed and in which the guide is connected to provide a liquid head within the trough and the object-feed guide tending to move the objects along the guide toward the ejection end, means for circulating the liquid within the trough in a region inwardly of the object ejection end to cause propagation of the therein contained objects in a circulating orbital path toward and in the direction of the ejection end of the guide and to move the liquid at sufficient velocity to separate individual objects of those contained within the trough along the circulating path toward the ejection guide.

2,824,666

PACKAGE VENDING DEVICE
Karl Hansluden, Cheektowaga, N. Y.
Application July 16, 1954, Serial No. 443,810
3 Claims. (Cl. 221-232)



1. A package vending device comprising a housing formed to provide a chamber, a single partition extending longitudinally of the chamber and arranged to divide it into a larger upper compartment and a smaller lower compartment longitudinally coextensive therewith, said partition terminating short of one end wall of the housing to provide a passageway between said compartments, the upper compartment slidably receiving a plurality of end supported packages and being provided with a package delivery opening in its top wall opposite to and aligned with said passageway, means in the larger compartment for resiliently urging the packages toward said one end wall, over the passageway and beneath the delivery opening, and a single first-class lever pivotally mounted within and extending longitudinally through the lower compartment, the outer end of the lever being extended beyond the end wall of the housing remote from the passageway for operation by finger pressure and the inner end of the lever being formed and located for swinging movement through said passageway to move the foremost of the packages upwardly through the delivery opening when finger pressure is applied to the outer end of the lever.

2,824,667

PORTABLE COMBINATION CONTAINER AND DISPENSER
Harry E. Barnett, Chicago, Ill.
Application October 31, 1956, Serial No. 619,422
5 Claims. (Cl. 221-266)

4. In a portable dispenser for relatively small medication objects; a storage magazine having at least a pair of elongated cavities, at least one of said cavities capable of storing therein a column of said objects, the wall of said magazine having a dispensing opening formed near the bottom thereof in communication with said latter-mentioned cavity, a top portion of the wall of said magazine having a filling opening formed therethrough in communication with said latter-mentioned cavity, a dispensing cup pivotally mounted at the bottom of said latter-mentioned cavity and adjacent said dispensing opening, said column of objects supported on said dispensing cup, an actuating bar positioned through said other cavity, said actuating bar operatively associated with said dispensing member whereby said actuating bar

may be operated to rotate said dispensing member thereby ejecting at least one of said objects through said dispens-



ing opening, and a closure member mounted on said storage magazine whereby to close said filling opening.

2,824,668

LIQUID MEASURING AND FILLING DEVICE
James S. Montague and Philip S. Egan, Evanston, Ill.
Application July 12, 1954, Serial No. 442,606
1 Claim. (Cl. 222-23)



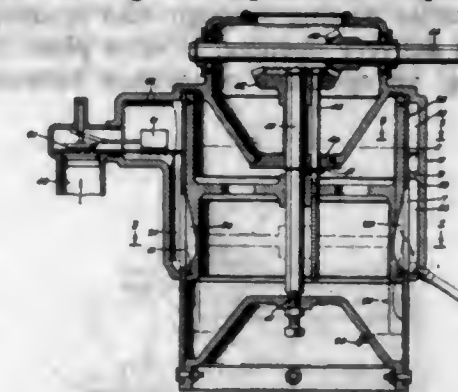
A liquid measuring and syphonic dispensing device, comprising a cup-shaped receptacle having a distortable and resilient side wall portion and a closed bottom wall, a substantially straight tube open at both ends and extending through said bottom wall, said tube having its inlet end disposed a relatively short distance below the upper end of said receptacle and its outlet end a relatively short distance beyond the bottom wall of said receptacle, the outlet portion of said tube serving as a spout adapted to be inserted within a filling nipple of a liquid magazine, indicia means on said side wall portion of the receptacle approximately level with the inlet opening of said tube, a generally cylindrical cap member having a closed end disposed over said tube within the receptacle and spaced from said tube and the bottom of the receptacle so as to provide a channel permitting liquid to enter the space between the cap and the tube and to be discharged from the receptacle through the tube, means disposed between the tube and said cap member at the sides and top thereof whereby the cap is maintained in spaced relation to the tube while providing channels for passage of liquid therebetween, the resilient side wall portion of the receptacle providing means whereby siphonic discharge of the liquid contents of the receptacle may be initiated.

2,824,669

VARIABLE LIQUID DISPENSING METER
Tobias Grether, Camarillo, Calif.
Application October 28, 1954, Serial No. 465,369
4 Claims. (Cl. 222-67)

1. A variable liquid meter comprising a vertically arranged cylindrical casing or housing having inlet cavities

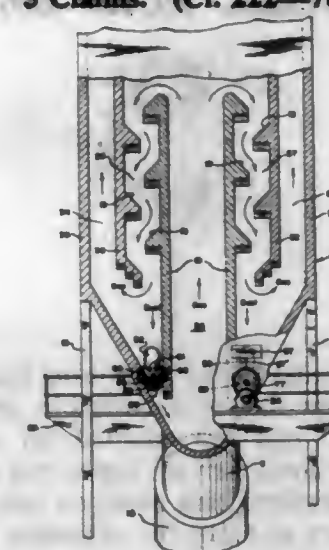
and outlet cavities arranged alternately about the interior thereof, a rotor sleeve rotatable about a vertical axis within the casing having cavities on the exterior thereof arranged to pass into and out of registration with the inlet and outlet cavities, means for filling the inlet cavities in the casing with liquid to be dispensed, and means



for conducting liquid from the outlet cavities which is carried thereto from the inlet cavities by the cavities on the sleeve, means for rotating the rotor sleeve, and means for axially varying the position of the sleeve relative to the casing whereby the amount of liquid released from the cavities in the sleeve into the outlet cavities in the casing may be varied.

2,824,670

ROTARY FEED AND DISTRIBUTOR VALVES AND OPERATING MECHANISM THEREFOR
Gerhard Niemitz, Bronx, N. Y., assignor to Kennedy-Van Saun Mfg. & Eng. Corp., New York, N. Y., a corporation of Delaware
Original application July 23, 1954, Serial No. 445,305. Divided and this application February 29, 1956, Serial No. 568,592
5 Claims. (Cl. 222-76)



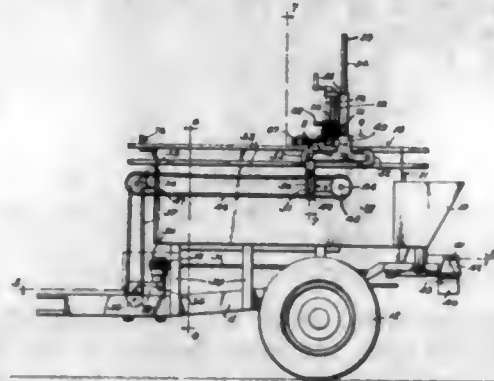
1. In an apparatus of the type described, a rotary valve type distributor for feeding and distributing finely-divided material, an electric motor for driving said rotary distributor, a pair of similar electric wiring circuits for respectively operating said motor in opposite directions, means responsive to an overload in the circuit in use for shifting the current supply to the motor to the other circuit, a relay in each of said circuits, and means responsive to the rotation of the motor when it is reversed for preparing a circuit for energizing the relay in the motor operating circuit not in use.

2,824,671

DEVICE FOR UNLOADING AGRICULTURAL MATERIALS
Henry H. Melnick, Astatula, Fla.
Application February 16, 1954, Serial No. 410,592
2 Claims. (Cl. 222-177)

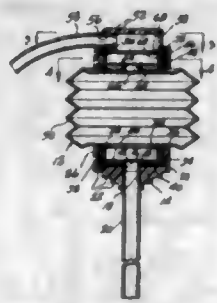
1. A spreader means comprising a frame, an axle rotatably carried by said frame, wheels on the opposite

sides of said frame, a differential between the ends of said axle, a vertical shaft extending upwardly from said differential, a hopper carried by said frame, said hopper having a rear wall formed with a discharge opening, a closure for said opening slidably carried by said rear wall, a trough carried by said rear wall and adapted to receive the material passing through said opening, said trough having a delivery opening, a valve plate for said delivery opening, an operative connection between said



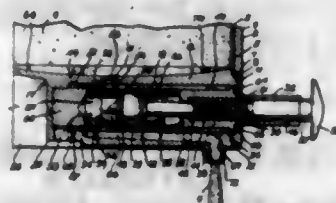
vertical shaft and said valve plate for reciprocating said plates, a carriage, means slidably disposing said carriage over the top of said hopper, means connected between said carriage and said vertical shaft for reciprocating said carriage, a horizontal scraper blade engaging in said hopper, a pair of vertical blade supporting members carried by said carriage, and means for vertically adjusting said blade supporting members relative to said hopper.

2,824,672
LIQUID DISPENSING PUMP
Jacob A. Werschling, Chicago, Ill.
Application March 9, 1956, Serial No. 570,552
10 Claims. (Cl. 222-207)



1. A pump type device for dispensing liquids from containers, comprising: means supportable on the container including a lower end cap adapted for seating on the mouth end of the container, an upper end cap, and a bellows connected between said caps; an inlet tube projecting from the lower end cap for extension into said container; a dispensing spout extending from the upper end cap; and inlet and outlet check valves within the lower and upper end caps, respectively.

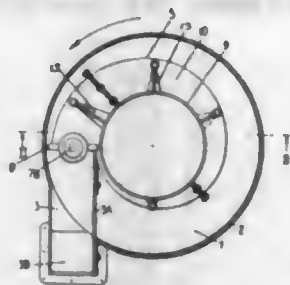
2,824,673
SOAP DISPENSER
Patrick G. Hanlon, Kansas City, Kans.
Application August 6, 1956, Serial No. 602,180
9 Claims. (Cl. 222-256)



9. In combination with a container for soap having a base provided with a longitudinal cylindrical chamber in said base, said chamber having an open end near one

side of the container and having a duct through which the soap is dispensed, valve means for dispensing said soap comprising, a sleeve member in said chamber having a port aligning with said duct and having a port in the opposite side offset longitudinally from the first port, a short sleeve having a closed end slidable in the sleeve member, said sleeve having a reduced portion in the closed end forming a compartment and having aligned openings through the sleeve and said compartment, and plunger means engaging in the open end of the chamber, including a piston and means for closing said first named port, whereby movement of the piston outwardly will create a vacuum in the compartment in the second sleeve to assist in movement of the soap from the container in measured amounts to said compartment and movement of the piston inwardly will move the second sleeve inwardly along with the piston to close the opening to the container and continued inward movement of the piston will force the soap from the compartment through the lower opening and through the duct in said base.

2,824,674
ADJUSTABLE HOPPER AND TURNABLE FOR CONTROLLED DISCHARGE OF GRANULAR MATERIAL
Thomas L. Rae, Newton Mearns, Scotland, assignor to Kelr and Cawder Limited, Glasgow, Scotland
Application September 21, 1954, Serial No. 457,487
2 Claims. (Cl. 222-285)

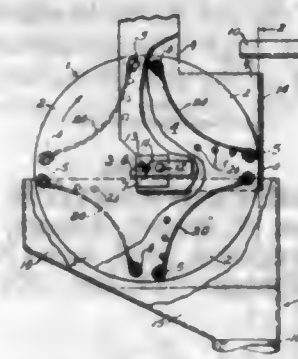


1. Device for controlled discharge of granular material, comprising a rotary turntable, a hopper having an outlet at its base located above said rotary turntable, a stationary wall of volute shape disposed just above said turntable and connected to said outlet to define an expanding passage for the material and diverging outwardly from said hopper in the direction of rotation of the turntable, means for effecting relative spacing adjustment between the hopper outlet and said turntable for coarse regulation of the outflow from the hopper into the expanding passage, and a gate at the outlet of the expanding passage, for fine adjustment of the outflow, whereby material within a wide range of granular sizes may be discharged in accurately predetermined quantities per unit time.

2,824,675
BATCH TRANSFER DEVICE FOR AUTOMATIC PACKAGING MACHINES
Vincent Pepitone, New York, N. Y., and Earle M. Chase, Wilbraham, Mass., assignors to Package Machinery Company, East Longmeadow, Mass., a corporation of Massachusetts
Application July 17, 1956, Serial No. 598,449
3 Claims. (Cl. 222-368)

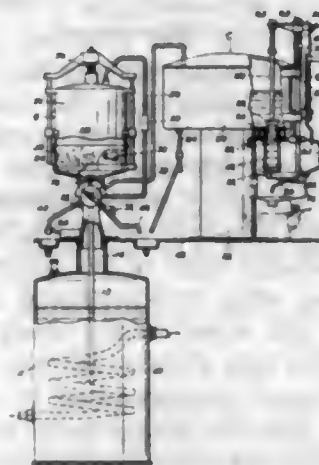
1. A transfer device for successively receiving and discharging measured amounts of comminuted material to the filling passage of a packaging machine comprising a rotatable wheel having a pair of spaced circular side walls and a plurality of flexible slightly resilient and smooth surfaced bottom wall strips arranged between said walls and dividing the wheel into a series of annularly arranged container compartments, each said strip being held in slack condition between its ends at positions radially spaced from the wheel axis, said wheel being rotatably

movable through a series of loading and unloading positions and at a loading position holding one of the slack bottom strips with its leading end at a lower elevation than its trailing end whereby said strip forms a mobile



bottom for the container to impart a constant movement of the particles of comminuted material relative to each other and to the strip as the wheel is moved from loading to unloading positions.

2,824,676
DISPENSING APPARATUS
Frederick W. Still and Audley Furneaux, London, England, assignors to W. M. Still & Sons Limited, London, England
Application January 31, 1955, Serial No. 485,183
4 Claims. (Cl. 222-442)

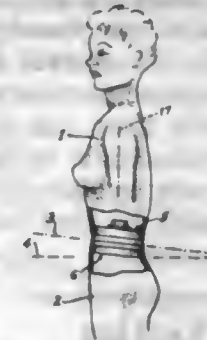


1. In apparatus for dispensing beverages comprising a boiler, an infuser and a dispenser: a dispenser comprising a main container for the beverage, a readily-detachable measuring chamber, a communicating passage between said main container and said measuring chamber, valve means for controlling liquid-flow through said communicating passage, a displaceable base portion forming part of said measuring chamber, linkage connecting means disposed outside said measuring chamber and connecting said valve means to said displaceable base portion, said linkage connecting means being operable whereby they may be moved into a position wherein said valve means close said communicating passage and said base portion of said measuring chamber is displaced by a substantial amount from the remaining portion of said measuring chamber, said measuring chamber being displaceable downwardly away from said communicating passage whereby atmospheric air may enter the upper part of said measuring chamber to facilitate discharge of the liquid contents thereof.

2,824,677
DISPLAY FORM OR MANNEQUIN
Sam Goldsmith, Malverne, N. Y.
Application September 27, 1954, Serial No. 458,578
4 Claims. (Cl. 223-68)

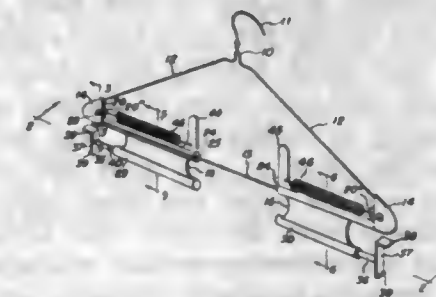
1. A display form conforming to the general contours of the human figure, comprising a hollow upper bust sec-

tion and a separate hollow lower torso section, said sections terminating substantially at the waist and in a plane inclined from the vertical axis of the form, a pair of circular closure plates, one for each of said sections, and means carried by the respective closure plates for interlocking the two sections so that the closure plates are in contacting relation and in parallel planes inclined from the vertical axis of the form, the construction be-



ing such that upon angular displacements to varying degrees of the bust section about its vertical axis with respect to the torso section, the bust section assumes a multiplicity of different attitudes of inclination with respect to the torso section while there is retained at all times a smooth continuity of surface contour at the juncture of the two sections by reason of the contacting relation of the closure plates in all angular displacements of the bust section.

2,824,678
SKIRT HANGER
Kenneth R. Paul, Corvallis, Oreg.
Application August 8, 1955, Serial No. 526,953
8 Claims. (Cl. 223-88)



1. An attachment for a garment hanger of the type having a horizontal supporting bar, comprising a pair of tubular members adapted to be slidably mounted on said bar, said tubular members having full length slots through the walls thereof for removably mounting said members on said bar, biasing means engageable with said members for urging said members in opposite directions, and means on said members for frictionally engaging a garment to be supported thereby.

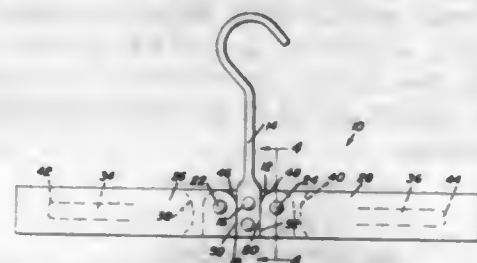
2,824,679
GARMENT HANGER
Reginald A. Gale, Colon, Panama
Application January 4, 1957, Serial No. 632,539
6 Claims. (Cl. 223-91)



1. A garment hanger comprising a pair of frames each including downwardly divergent coat support arms and a trousers support member connected between the divergent ends of the arms, said members having adjacent their respective ends laterally, outwardly projecting por-

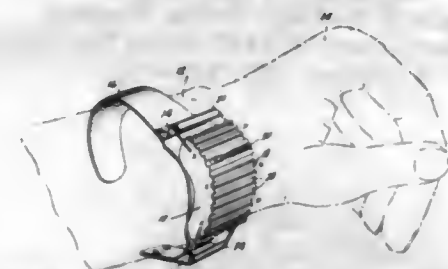
tions, corresponding projecting portions of the frames being transversely aligned and having surfaces converging toward the adjacent ends of the members; rings loosely receiving said members adjacent the ends thereof and connecting the frames for relative swinging movement in a direction transversely thereof about an axis extending longitudinally of said members, to space the arms of one frame laterally from the corresponding arms of the other frame, said rings being freely slidable along the members to ride onto said surfaces and thereby cammingly bias the members transversely toward each other into gripping relation to a garment disposed therebetween; a suspension hook projecting upwardly from one of the frames and including a hook-like extension at its base; and a keeper pivoted on the other frame and adapted for engagement in said hook-like extension to limit swinging movement of the frames in said direction.

2,824,680
GARMENT HANGER
Betty N. Robins, Detroit, Mich.
Application July 26, 1954, Serial No. 445,717
1 Claim. (Cl. 223-96)



A garment hanger comprising a mounting plate, a hook attached to said plate, said hook having a shank, said shank having opposed edges having flat surfaces, a pair of arms pivotally attached to said plate coplanar with said hook and having flat inner edges engaging the flat surfaces of said shank limiting the rotation of the arms when opened, said arms being of resilient construction and terminating in resilient leaves bent back upon said arms out of the plane of said hook and extending toward said hook with the upper and lower edges of said leaves being coplanar with the upper and lower edges of said arms, said leaves having resilient retainers struck therefrom, said retainers resiliently engaging said arms, said arms having cam shaped surfaces at their upper inner adjacent portions for rolling engagement with the flat surfaces on the opposed edges of said shank permitting said arms to be folded, said arms being foldable towards each other and receiving said hook between said arms and said leaves.

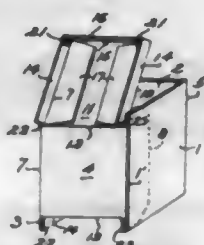
2,824,681
MAGNETIC BURR SUPPORT
Irving M. Sorkin, Washington, D. C.
Application October 26, 1955, Serial No. 542,899
2 Claims. (Cl. 224-28)



1. A dental accessory comprising a resilient, open ended wrist band of sufficient rigidity curved in a wrist conforming generally elliptical shape with sharply curved portions adjacent the ends thereof, whereby said band is adapted to be mounted upon the wrist and to firmly set there by virtue of its resiliency with said sharply curved portions disposed at the sides of the wrist; a pair of spaced

apart brackets disposed at one of the sharply curved portions of said band; a magnet positioned between and attached to said brackets and being thereby secured to said band, said magnet having grooves extending parallel to the north-south magnetic axis thereof, each groove being adapted to receive therein the underside of a dental burr, whereby when said band is mounted on the wrist, said magnet is disposed on the side of the wrist.

2,824,682
SHIPPING CARTONS
Truman W. Powell, Atlanta, Ga.
Application August 5, 1955, Serial No. 526,656
2 Claims. (Cl. 229-37)

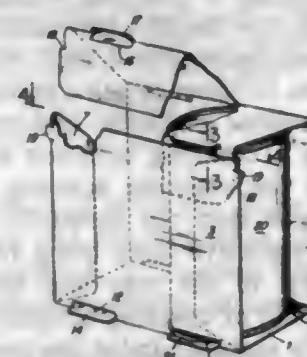


1. A substantially unitary carton-type box comprising a one-piece blank of rigid material including a plurality of aligned sections having opposite parallel sides and defined by substantially equally spaced parallel fold lines along which the sections are to be folded successively towards one another to form the side walls of the box, the aligned sections terminating in a terminal section of the blank having a free end provided with a terminal flange defined by a fold line making the terminal section substantially equal in area with the remaining aligned sections, closure-defining wing sections extending laterally from the terminal section and integral therewith, each of the laterally extending wing sections being defined with respect to the terminal section by a fold line inset relative to the parallel sides of the aligned sections, the laterally extending wing sections being top and bottom closures for the box when folded along the in-set fold lines and within the side walls of the box a distance from outer margins thereof corresponding to amount of inset of the fold lines, flat reinforcing panel members secured to outer surfaces of the wing sections provided with the lateral parallel fold lines flush with the sides of the wing sections, the fold lines defining upwardly extending lateral flanges for the wing sections engageable with the outer marginal portions of the side walls for reinforcement thereof, and terminal fold lines on the wing sections extending transversely across the laterally extending sections adjacent to outer ends thereof defining end flanges for the wing sections when folded into upright positions with respect to the side-wall sections of the box for reinforcing the side-wall thereof opposite to that defined by the terminal aligned section, the said terminal section being provided with parallel slits extending inwardly from parallel sides of the wing sections and additional slits along the terminal fold lines of the wing section, the first-mentioned parallel slits enabling the wing sections to be folded into closing position with respect to the side walls of the box, the additional slits defining reinforcing tabs for the lateral flanges for the wing closure sections of the box.

2,824,683
CARTON
Clarence F. Klein, Hartsdale, and Morton M. Dukehart, Jr., New Rochelle, N. Y., assignors to The Lord Baltimore Press, Incorporated, Baltimore, Md., a corporation of Maryland
Application June 27, 1956, Serial No. 594,192
7 Claims. (Cl. 229-40)

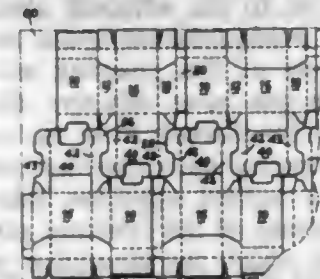
1. A blank for a can holding carton comprising a flat sheet of material having a bottom panel, first and

second side panels connected along opposite edges of said bottom panel at scored fold lines, a top panel connected to the first of said side panels along one edge of the top panel at a scored fold line and having a tuck flap articulated at a scored fold line to its opposite edge, end flaps articulated to opposite ends of said second side panel, elongated apertures at the scored fold line between said top panel and said tuck flap and at said scored fold lines between said panels, said apertures having



their center spaced from the edge of the side panels by approximately the radius of the cans and spaced from each other by approximately the diameter of the cans and being adapted to engage the rims of the cans held by the carton, projecting locking tabs on opposite ends of said tuck flap, and slots formed in the articulated connections between said second side panel and said end flaps positioned to engage said locking tabs when said carton is erected.

2,824,684
CARTON
Harold L. Ahlers, Lockland, Ohio, assignor, by mesne assignments, to The Diamond Match Company, New York, N. Y., a corporation of Delaware
Application April 16, 1956, Serial No. 578,323
5 Claims. (Cl. 229-44)



1. A unitary carton blank for forming a carton of the character described, comprising the combination of an outer member including outer rear, front and side panels and a glue flap arranged in longitudinal alignment for assembly into open tubular form, flaps on the upper and lower edges of said outer panels for forming top and bottom walls on the assembled said carton, an inner member including inner front and side panels of substantially the same width and length as the corresponding outer front and side panels, said inner side panels being connected on one side to opposite sides of said inner front panel, the other sides of said inner side panels defining peripheral parts of blank, means defining an integral folding connection between the lower ends of at least one of said outer panels and one of said inner panels providing for folding of said inner member onto said outer member prior to folding of the latter into tubular form to enfold said inner member within said outer member, and said inner side panels having recesses formed in said other sides thereof of a width equal to substantially one-half the full width of said inner side panels defining full width portions at the ends of said inner panels farthest from said folding connection, said full width portions having a length substantially equal to the length of said recesses providing for reception of the projecting parts

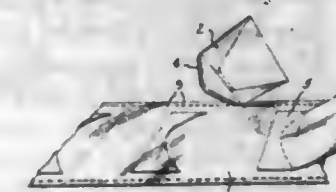
of such full width portions on similar blanks within the recesses on other similar such blanks to form an interlocking pattern of a plurality of said blanks on a sheet of material.

2,824,685
ASSEMBLY OF SERIES-CONNECTED ENVELOPES AND METHOD OF MAKING SAME
Theodore H. Patton, Chester, Conn., assignor to Uarco Incorporated, a corporation of Illinois
Application February 11, 1954, Serial No. 409,595
10 Claims. (Cl. 229-69)



6. An assembly of series-connected detachable envelopes for use in a writing machine, comprising: a pair of webs of superposed envelope sheet material, the first of said webs having portions forming the fronts and transversely extending flaps of said envelopes, and the second of said webs having a series of transversely extending cut-out portions extending inwardly of its opposite marginal edge portions and being longitudinally spaced to provide an envelope back portion between adjacent cut-out portions, each of the spaced cut-out portions exposing a transversely extending envelope flap on the first web, each back portion overlying and being joined to a corresponding envelope front to form a succession of individual envelope pockets, the opening of each of said pockets extending transversely of the assembly, said assembly being provided with a line of weakening between adjacent individual envelopes to enable said envelopes to be readily detached from each other.

2,824,686
CONTINUOUS ENVELOPE
William S. Hamilton, Newark, Del.
Application March 9, 1955, Serial No. 493,184
4 Claims. (Cl. 229-69)



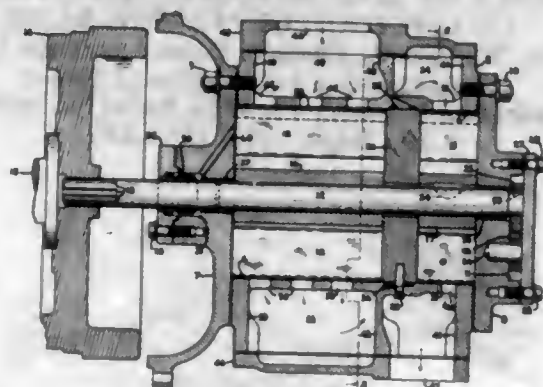
1. A continuous envelope device comprising an elongated base, a series of strips mounted on one surface of said base and spaced from each other longitudinally of said base, each of said strips being connected to said base at one portion thereof and having a second portion disconnected from said base, a line of weakness separating said first and second portions of each of said strips, said second portion comprising an envelope integrally connected to each of said strips, each of said envelopes comprising a top surface, integral with its corresponding strip, and an underfolded pocket surface, each of said envelopes being arranged on said base apart from each adjacent envelope, with its underfolded pocket surface in face-to-face, free relationship with said base and with its top surface aligned with its corresponding second portion.

2,824,687

ROTARY COMPRESSOR

Henry C. Osterkamp, Elm Grove, Wis., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application October 26, 1955, Serial No. 542,832
4 Claims. (Cl. 230-158)



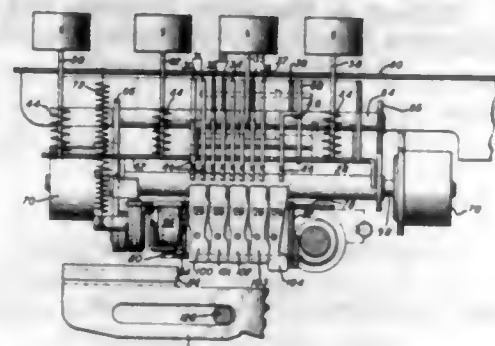
1. A rotary compressor comprising, a unitary generally cylindrical casing having a single bore of uniform diameter extending therethrough, end heads removably secured to each end of said casing to close the opposite ends of said bore, one of said end heads having an outwardly open recess therein, a single unitary shaft extending eccentrically through said bore and journaled for rotation in said end heads, low and high pressure rotors carried by said shaft for rotation therewith and each having radially extending sliding vanes cooperable with the wall of said bore, a partition disposed between said rotors and peripherally seated on the wall of said bore to form low and high pressure chambers therein, means forming an air communication passageway between said low and high pressure chambers, a lubricant pump housed entirely within said end head recess and driven directly by said shaft, and a flat removable cover plate for said recess to confine said pump therein.

2,824,688

TEN KEY ACTUATOR STOP MECHANISM FOR CALCULATING MACHINES

Thomas O. Mehan, Park Ridge, Ill., assignor to Victor Adding Machine Co., Chicago, Ill., a corporation of Illinois

Application August 17, 1954, Serial No. 450,295
3 Claims. (Cl. 235-60)



1. In a business machine, the combination of a plurality of movable actuators for transferring in the machine consecutive denominational orders of successive multiple digit numbers, a single stop abutment on each actuator, means for moving said respective actuators in a rearward number transferring direction, means coacting with each actuator to constrain rearward movement thereof to a predetermined path thus defining a predetermined path for rearward movement of the single abutment on the actuator, a stop pin assembly for precluding movement of the individual actuators rearwardly of ten differentially spaced numerical positions, said pin assembly including for each actuator a coacting set of five elongated stop pins disposed generally perpendicularly to said predetermined path of actuator stop abutment move-

ment and arranged in slidable side by side engagement with each other in a single row extending from front to rear generally parallel to said predetermined path of actuator stop abutment movement, means releasably supporting the five respective pins of each row in normal longitudinal positions, the rearmost pin of each row being dimensioned longitudinally with respect to said pin supporting means to protrude when supported by the latter in normal longitudinal position into said predetermined path of movement of a coacting actuator abutment; the four pins of each row located forwardly of said rearmost pin therein being dimensioned with respect to said pin supporting means to clear, when supported by the latter in normal longitudinal positions, said predetermined path of movement of a coacting actuator abutment; the end portion adjacent the coacting actuator abutment movement path of each stop pin forwardly of the rearmost stop pin in the respective rows being free to slidably engage the pin next to the rear and having an effective width along the path of coacting actuator abutment movement substantially equal to twice the predetermined spacing between successive numerical settings for the coacting actuator abutment, guide means coacting with the five stop pins of each row to constrain the pins for limited movement rearwardly, said guide means for each row of pins including abutment means located at the rear of the row, said rearmost stop pin of each row defining a ledge thereon facing the adjacent abutment means and located longitudinally along the pin to engage the abutment means when the rearmost pin is in normal longitudinal position to hold the rearmost pin and the four pins forwardly thereof against rearward movement, the longitudinal location of said ledge on each rearmost pin being such that the ledge clears the adjacent abutment means upon shifting of the pin longitudinally away from normal position into a set position extending farther across the path of movement of the coacting actuator abutment thus freeing the pin to be moved rearwardly, means defining a stop surface on each rearmost pin oriented in relation to the adjacent abutment means to limit to a single predetermined space between adjacent numerical positions of the coacting actuator rearward movement of the pin after effective disengagement of the said ledge surface thereon from the abutment means, and means for longitudinally moving the five stop pins of each row from normal positions individually toward the path of movement of the coacting actuator abutment to set positions in which the respective pins project into said last mentioned path of movement and the rearmost pin of the row is freed for rearward movement limited by engagement of said stop surface thereon with said coacting abutment means whereby the rearmost pin depending on the setting thereof can directly preclude movement of an actuator abutment rearwardly of either of two spaced numerical positions and each pin in the row forwardly of the rearmost pin can upon being set longitudinally into the path of movement of a coacting actuator abutment preclude movement of the abutment rearwardly of either of two spaced numerical positions depending on the setting of the pin and the setting of the rearmost pin.

2,824,689

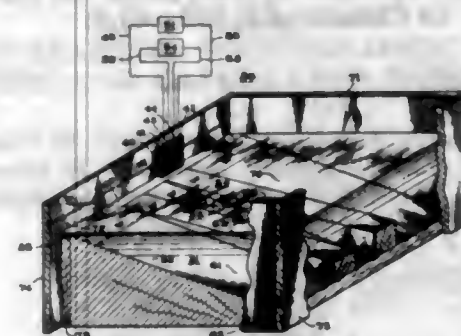
ELECTROLYTIC ANALOGUE

Julius S. Aronofsky, Dallas, Tex., assignor, by mesne assignments, to Socony Mobil Oil Company, Inc., a corporation of New York

Application November 7, 1951, Serial No. 255,271
11 Claims. (Cl. 235-61)

2. In an analogue representing a system having axial symmetry and containing regions having different values of a physical property affecting flow of a medium there-through, the combination which comprises a trough having side walls and a bottom, said trough being adapted

to contain a body of solution of electrolyte, a plurality of plane surfaces constituting the inner surface of said bottom of said trough, the slope of at least one of said



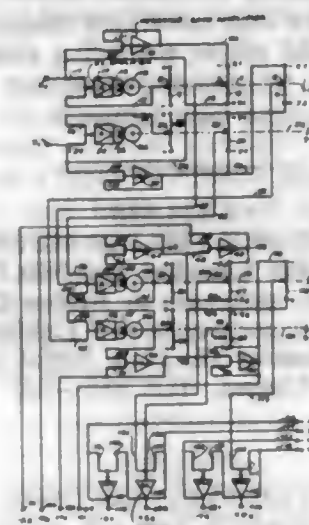
plane surfaces differing from the slope of one other of said plane surfaces and the projection of all of said plane surfaces leading towards a common line, and a pair of electrodes positioned interiorly of said trough.

2,824,690

ALGEBRAIC POLYNOMIAL GENERATOR

François Henri Raymond, Saint-Germain-en-Laye, France, assignor to Societe d'Electronique et d'Automatisme, Courbevoie, France

Application July 17, 1952, Serial No. 299,436
Claims priority, application France July 26, 1951
40 Claims. (Cl. 235-61)



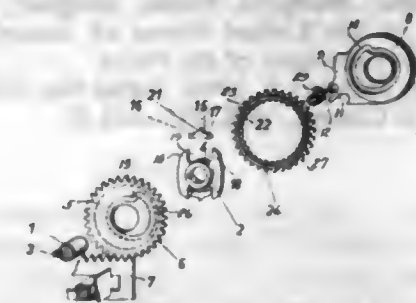
1. In a system for computing the real and imaginary portions of a polynomial $P(z)$ of n th degree, two pairs of adjustment means, the first pair of adjustments means being adjustable to positions corresponding to a pair of substitute variables representing the real and imaginary portions of z respectively, sources of reference potentials controlled by said first pair of adjustment means to reproduce potentials representing respectively said pair of substitute variables, means including sources of potentials representing said substitute variables and controlled by said first pair of adjustments means to produce a first pair of derivative variables and control said second pair of adjustment means, a number of groups of further sources of potentials corresponding to a number of other pairs of derivative variables, each particular pair of said other derivative variables being derived from derivative variables preceding said particular pair of derivative variables; each group of said further sources including two sources of potentials representing a preceding pair of derivative variables and controlled by said second pair of adjustment means to produce potentials representing a succeeding pair of derivative variables; a first pair of groups of potential multiplying means including a number of sources of potentials representing all said pairs of derivative variables and adjustment means adjusted to produce two series of product potentials of said derivative variables and the even coefficients of $P(z)$,

and a second pair of groups of potential multiplying means including a number of sources of potentials representing all said pairs of derivative variables and adjusted to produce two further series of product potentials of said derivative variables and the odd coefficients of $P(z)$, means for adding said further two series of product potentials respectively, to produce two output potentials representing the sums of said of each of said further two series of product potentials said output potentials derived from said odd coefficients being controlled by said first pair of adjustment means to produce four product potentials of sums of said second further pair of series of products multiplied by pairs of substitute variables; and two final means each for adding two of the last-mentioned product potentials derived from said last pairs of sources and one of the two series of product potentials derived from said even coefficients, to produce two output potentials representing respectively the real and imaginary portions of $P(z)$.

2,824,691

ACTUATING MECHANISM FOR CALCULATING MACHINES

Helmut Gelling, Ulm, Germany, assignor to Walther Büromaschinen Gesellschaft m. b. H., Gerstetten, Württemberg, Germany, a firm
Application December 27, 1955, Serial No. 555,737
Claims priority, application Germany January 7, 1955
8 Claims. (Cl. 235-61)



1. In an actuating mechanism for calculating machines comprising in each denomination, a cylindrically operable shaft, a drive element connected with said shaft for rotation therewith, a pawl supported by said drive element with limited freedom of movement in a radial direction and constrained by said drive element to move through an orbital path about said shaft, a driven member rotatably mounted about said shaft and operable by said pawl, a stationary disc having a cam groove, a settable disc having a cam groove and adapted to be rotatably adjusted differentially according to a set digital value, said pawl having two spaced pins each engaging one of said cam grooves, so that upon rocking the pawl by one of the cam grooves by means of the one pin the other pin serves as fulcrum for the pawl, whereby said pawl engages and drives said driven member differentially in accordance with the adjustment of said settable cam disc upon cyclic operation of said drive shaft.

2,824,692

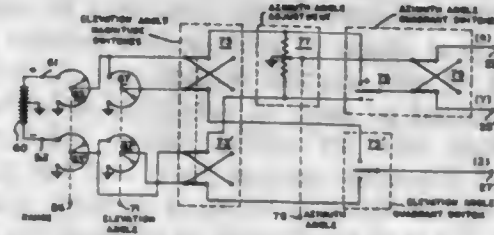
PARALLAX CORRECTION CIRCUIT

Nelson S. Fox, Metedeconk, N. J., assignor to the United States of America as represented by the Secretary of the Army

Application September 28, 1954, Serial No. 458,997
2 Claims. (Cl. 235-61.5)

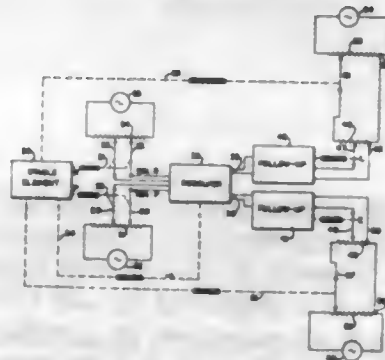
(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A parallax correction circuit comprising in combination a pair of input terminals adapted to be connected to a center tapped source of reference voltage, a range adjusting voltage divider means connected to said input terminals, an elevation angle adjusting voltage divider means connected to the outputs of said range adjusting voltage divider means, a pair of single pole, double

throw, polarity reversing switches, each switch having a pair of fixed contacts and a movable contact, reversing switch means connecting the outputs of said range adjusting voltage divider means and the outputs of said elevation angle adjusting voltage divider means to the fixed terminals of the pair of single pole, double throw, polarity reversing switches, a center-tapped azimuth angle adjusting voltage divider means connected across the fixed



contacts of a first one of said single pole, double throw, polarity reversing switches, means including a reversing switch connecting the output of said azimuth angle adjusting voltage divider means and the movable contact of said first one of said single pole, double throw switches to a pair of output terminals and means connecting the movable contact of the other of said single pole, double throw switches to a third output terminal.

2,824,693
COMPUTERS FOR STABILIZATION SYSTEMS
Hubert M. James, Belmont, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application January 5, 1946, Serial No. 639,460
6 Claims. (Cl. 235-61.5)



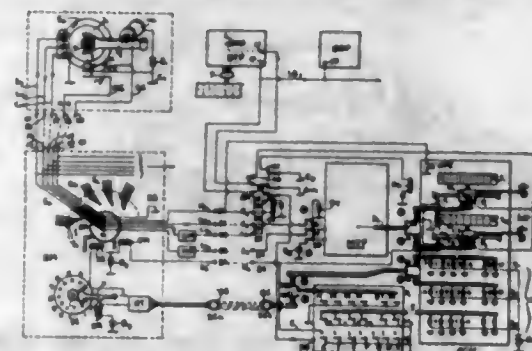
1. A computer for the simultaneous solution of equations in the form:

$$\sec P \sin L = -\sin R \sin \alpha + \tan P \cos \alpha$$

$$\cos R \tan Z = \tan P \sin \alpha + \sin R \cos \alpha$$

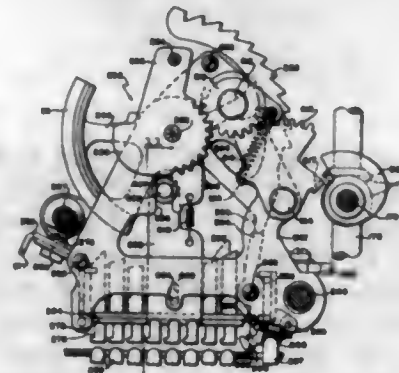
comprising, means for generating an alternating voltage proportional to $\sin R$, means for generating an alternating voltage proportional to $\tan P$, means for combining and modifying according to an angle α said voltages proportional to $\sin R$ and $\tan P$ for producing resultant voltages proportional to $(-\sin R \sin \alpha + \tan P \cos \alpha)$ and $(\tan P \sin \alpha + \sin R \cos \alpha)$, means for generating a voltage proportional to $\sec P$, means for generating a voltage proportional to $\cos R$, means for generating a voltage proportional to $\sin L$ including a first control element, means for generating a voltage proportional to $\tan Z$ including a second control element, a first means for combining said voltages proportional to $\sec P$ and $\sin L$ for generating a balancing voltage proportional to $(\sec P \sin L)$, and a second means for combining said voltages proportional to $\cos R$ and $\tan Z$ for generating a balancing voltage proportional to $(\cos R \tan Z)$, said first and second combining means including follow-up means for matching said resultant voltages and said balancing voltages respectively, said first and second control elements being mechanically coupled to said follow-up means and responsive thereto to control said balancing voltages, the displacements of said control elements being proportional to the quantities L and Z respectively.

2,824,694
ANALYTIC CALCULATING MACHINE
Alejandro Boni, Rome, Italy
Application September 6, 1956, Serial No. 183,367
14 Claims. (Cl. 235-61.6)



1. An analytic calculating machine comprising a group of arithmetical calculating machines each having an electromechanical inscribing means to set values into it and an exploring teleprinter means to read the result furnished by it, relays to determine the machines operated and the natures of their operations, a magnetic numbers storage device consisting of steel ring subdivisions for the separate recording of a plurality of data and numerical results, means to explore and inscribe numerical information in subdivisions of said storage device, relays to select a steel ring and determine whether it is to be explored or inscribed, and a settable command device consisting of a punched paper tape and associated teleprinter circuit for operating all of said relays, exploring means and inscribing means, and for transferring numerical information, in any preselected manner and sequence.

2,824,695
CONSTANT MULTIPLIER MECHANISM
Gilman Plunkett, San Leandro, and Nils H. Bergfelt, San Francisco, Calif., assignors to Friden Calculating Machine Co., Inc., a corporation of California
Application January 26, 1954, Serial No. 406,228
9 Claims. (Cl. 235-63)

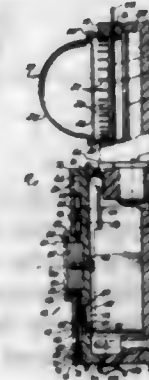


1. In a calculating machine having a register, differentially operative actuating means therefor, drive means for said actuating means, and means for controlling operation of said actuating means to perform a plural order multiplying operation, said last named means including a multiplier selection mechanism in which a multiplier factor is entered, ordinal elements differentially settable from a "0" position to represent the factor in said multiplier mechanism, holding means for maintaining said elements in the "0" position thereof, value entering means for disabling said holding means and setting said elements, latching means for retaining said holding means disabled, means operative by said drive means for incrementally returning the element in a preselected order to its "0" position during operation of said actuating means to control the ordinal series of operations in the preselected order, means normally operable by said drive means to restore said settable elements to "0" position and to disable said latching means upon termination of a multiply-

ing operation, a control key, and means positionable by said control key to disable the operation of said restore means.

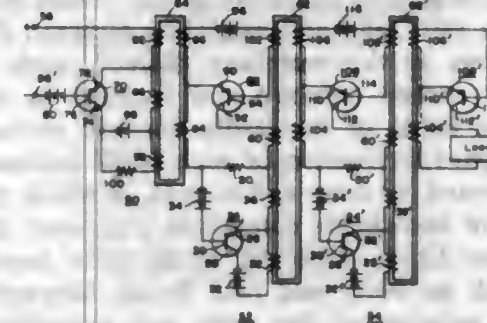
2,824,696
DIRECT-READING PHOTOGRAPHIC EXPOSURE METERS AND CALCULATOR DEVICES THEREFOR

Donald W. Norwood, Pasadena, Calif., assignor to Donald H. Norwood, Pasadena, Calif., as trustee
Application September 10, 1956, Serial No. 608,889
5 Claims. (Cl. 235-64.7)



1. A light meter comprising a body containing an indicator having a pointer electrically movable to different positions in accordance with the intensity of light to which the meter is subjected, said body having a front wall with a transparent portion through which the pointer is visible, a first rotatably adjustable calculator disc overlying and rotatable relative to said front wall of the body, said disc and said front wall of the body both being formed at least partially of a resinous plastic material, and a metal calculator disc rotatably adjustable relative to said body and said first disc about the same axis as the latter and positioned axially between said first disc and said body at a location essentially in front of said pointer to prevent the development of localized electrostatic charges on the body and first disc tending to deflect the pointer.

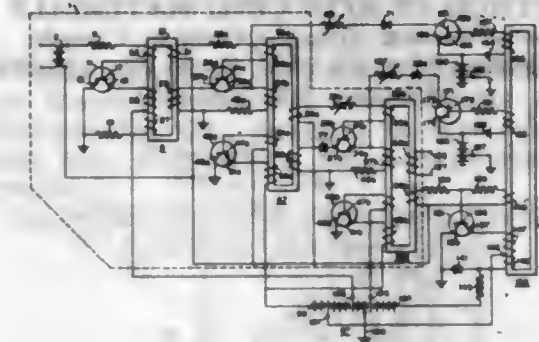
2,824,697
CONTROL APPARATUS
George F. Pittman, Jr., and Richard O. Decker, Pittsburgh, and Richard L. Bright, Adamsburg, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 8, 1954, Serial No. 435,211
8 Claims. (Cl. 235-92)



1. In a magnetic device responsive to input pulses and connected to supply output pulses to a load, the combination comprising, a magnetic core member, a main winding disposed in inductive relationship with the magnetic core member, circuit means for applying said input pulses to the main winding, whereby the magnetic core member saturates in one direction after a plurality of the said input pulses are applied to the main winding, a semiconductor device, a holding winding and a control winding disposed in inductive relationship with the magnetic core member, other circuit means, interconnected

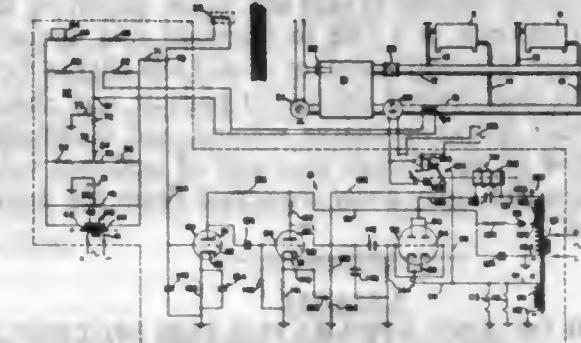
with the semiconductor device and with the holding winding, for maintaining the semiconductor device non-conductive while the said input pulses are being applied to the main winding and for rendering the semiconductor device conductive when the magnetic core member saturates in said one direction, further circuit means, interconnected with the semiconductor device and with the control winding, for effecting a flow of current through the control winding when the semiconductor device becomes conductive, to thereby drive the magnetic core member to saturation in the other direction, and means for connecting said load so as to be energized in accordance with the change in flux in the magnetic core member as produced by the current flow through the control winding.

2,824,698
RECYCLING PULSE COUNTER
Robert L. Van Nice, Shaler Township, Allegheny County, and Richard C. Lyman, Castle Shannon, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 4, 1955, Serial No. 538,438
15 Claims. (Cl. 235-92)



11. A counting circuit comprising a plurality of tandem-connected counter stages, saturable core means for each said counter stage, said saturable core means causing each said counter stage to store a number of input pulses before emitting an output pulse to a succeeding stage, control means for establishing an initial flux level in said saturable core means to selectively control the number of input pulses to a stage necessary to cause an output pulse.

2,824,699
CONTROL APPARATUS WITH VARIABLY BIASED AMPLIFIER
George F. Jenkins, St. Paul, and Harvey J. Smith, St. Louis Park, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware
Application September 3, 1953, Serial No. 378,196
4 Claims. (Cl. 236-91)

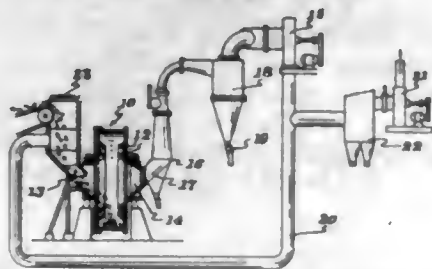


1. In a temperature control apparatus, relay means for controlling a temperature changing apparatus; network circuit means comprising a source of electrical power having two output terminals and a plurality of parallel circuit branches connected between said output terminals, a first branch including a resistance element with a movable tap thereon, a second branch including a tap and

an electrical impedance means variable in accordance with a condition indicative of a need of operation of the temperature changing apparatus, and a third branch including an output tap and an electrical impedance means variable in response to the heating load; connection means including a resistance element having a grounded movable tap thereon for connecting said tap of the second branch to said movable tap of the first branch; an electronic amplifier comprising a plurality of electron discharge devices; a resistance element having a movable tap thereon for connecting a cathode of one of said discharge devices to a ground connection; a second source of electrical potential; circuit means electrically isolated from said network circuit means including said relay means for connecting said second source to said resistance element; circuit connection means connecting said output tap to said amplifier means; and further circuit means for connecting said amplifier means in controlling relation to said relay means whereby the operating differential of said relay means is changed by the position of said movable tap as a portion of said second source is available to said cathode.

2,824,700

METHOD OF REDUCING MATERIALS
David Weston, Toronto, Ontario, Canada
Application May 25, 1954, Serial No. 432,200
3 Claims. (Cl. 241-19)



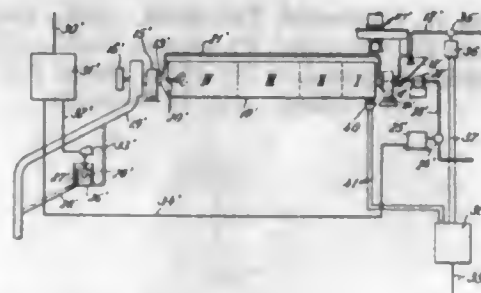
2. In a method of producing a comminuted product of controlled particle size from a combined dry crushing and grinding mill of the type wherein air is used as the product extracting medium and comprising a drum mounted for rotation on a horizontal axis, said drum having a diameter-length ratio of at least 2:1 and being provided with highly upstanding transverse crusher bars spaced apart about the interior periphery thereof, said mill being characterized by maximum tonnage throughput at a particular charge volume ranging from about 24% to 32% of the total mill volume, the steps comprising; providing an operating low charge volume of ore in said mill below said particular charge volume, said low charge volume being determined from established grinding characteristics of said ore in said mill based on the correlation of ore charge volume to average particle size in the resulting mill product wherein controlled coarse particle size is obtained by maintaining the operating charge volume at said low value, supplying feed material to the mill at a rate to maintain said operating charge volume relatively constant at said low charge thereby to obtain said desired controlled particle size characteristic of said operating charge volume, and maintaining sufficient flow of air through said mill of sufficient velocity to entrain and carry away from said drum the desired mill product.

2,824,701

METHOD OF AND APPARATUS FOR MULTIPLE STAGE WET GRINDING
Borge Vester and Tage Bent Olsen, Copenhagen, Denmark, assignors to F. L. Smith & Co., New York, N. Y., a corporation of New Jersey
Application November 21, 1952, Serial No. 321,898
3 Claims. (Cl. 241-21)

2. A method of controlling the viscosity of a slurry to be burned and produced by grinding material in a mill having a series of grinding compartments, through

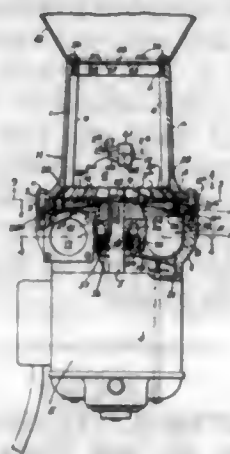
which the material passes, which comprises introducing into the first grinding compartment with the material to be ground a quantity of water insufficient to convert the ground material issuing from the mill into a slurry of a desired viscosity and conveniently transferable through a pipe line, varying the supply of water to the first grinding compartment inversely with variations in



the grinding noise in said compartment, grinding the material in the mill compartments ahead of the last compartment without addition of water, and introducing water into the last grinding compartment in response to variations in the viscosity of the slurry issuing from the mill to maintain said slurry at the desired viscosity.

2,824,702

COMMINUTING APPARATUS—GARBAGE GRINDER
Mark W. Lee, Alhambra, Calif.
Application June 11, 1953, Serial No. 361,043
20 Claims. (Cl. 241-46)



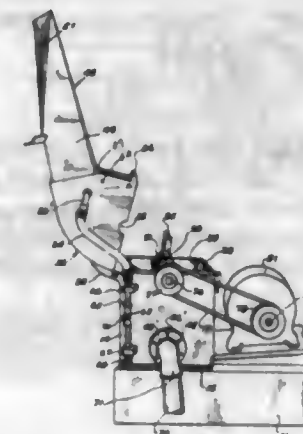
3. In an apparatus for the wet comminution of solid materials, the combination of a rotor mounted for rotating about a vertical axis, and means for rotating said rotor in one direction, said rotor having a generally disc shaped head and a plurality of angularly spaced blades projecting upward from said head and extending outward from the central portion to the periphery thereof, each of said blades being curved outward and forward in said one direction and being of forwardly concave curvature so that the forward inclination of each blade increases progressively toward the outer end thereof, in which the outer end portion of each blade extends in a forward direction almost tangent to the periphery of the rotor head and is provided with an outer end face facing forward in the direction of rotation of the rotor and extending transverse to the forward direction of the outer end portion of the blade.

2,824,703

DISPOSAL APPARATUS
Harry B. Van Hook, Detroit, Mich.
Application August 8, 1955, Serial No. 527,027
5 Claims. (Cl. 241-46)

2. In a refuse disposal apparatus, a body having a horizontally disposed upper open end and opposed downwardly and inwardly converging front and rear walls interconnected at their lower ends forming the bottom

of said body, there being an outlet in said body adjacent its bottom adapted for connection to a drain, an arcuate screen supportably nested within and below said open end spaced from said front and rear walls and extending laterally across said body, a power operated hammer-mill rotor partially within said open end journaled and supported thereon inwardly of said screen, a cover hingedly mounted upon the body with a lateral inlet and having a horizontally disposed lower open end registering with the open end of the body and secured thereon, completing with said body an enclosed pulverizing, grind-

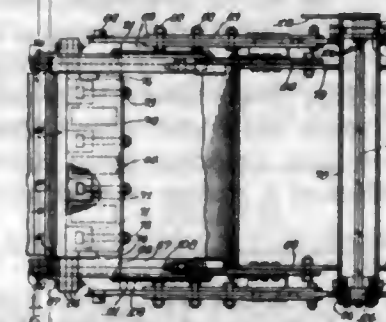


ing and shredding chamber, said body and cover including vertically registering side walls, there being opposed semi-circular slots formed in said registering side walls, spaced bearings centrally mounted upon the upper end of the body outwardly of said slots, said hammer-mill rotor including a driven shaft extending through said slots and bearings, a sealing ring mounted in said slots including flexible inner and outer annular sealing elements respectively engaging said shaft and the slot defining portions of said side walls, and means on opposite sides of said ring retainingly engaging opposite sides of the corresponding side walls.

2,824,704

STRIPPER BAR MOUNTING FOR ROCK BREAKER
Albert B. Hanse, Cedar Rapids, Iowa, and Fred W. Rollins, Danville, Pa., assignors to Pettibone Mulliken Corporation, Chicago, Ill., a corporation of Delaware
Original application December 18, 1950, Serial No. 201,364, now Patent No. 2,767,928, dated October 23, 1956. Divided and this application December 1, 1955, Serial No. 550,439

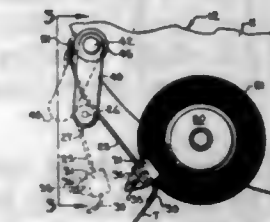
6 Claims. (Cl. 241-286)



5. A rock breaker including a driven rock-breaking member, an opposing member against which rock may be crushed by the driven member and means for yieldably holding the opposing member including two pairs of toggle links with the first link of each pair connecting opposite ends of the opposing member to the second links respectively, a rotatably-mounted tube on which said second links are secured, a plurality of bars of spring steel extending through said tube, and anchored to the tube at one end, a torsion plate to which the other ends of the bars are anchored, and means for twisting said torsion plate to load said spring bars.

2,824,705

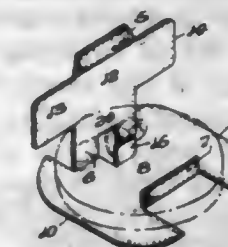
TAPE LET-OFF LOCATING AND TENSIONING DEVICE
Wade V. Bowman, Hickory, N. C.
Application June 28, 1954, Serial No. 439,668
11 Claims. (Cl. 242-75.4)



2. Apparatus for tensioning and guiding tape withdrawn from a spool loosely mounted on an elongated spindle comprising a tensioning arm of less width than the spool, means resiliently urging said arm against the periphery of the spool, a pair of guides carried by the said arm and having portions thereon adapted to straddle said spool, and means for adjusting said guides to vary the distance between the last-named portions to accommodate spools of varying width.

2,824,706

HOLDER FOR COILABLE MATERIAL
Adolph Rosset, Philadelphia, and Charles A. Stopper, Perkiomenville, Pa., assignors to Hancock Manufacturing, Inc., Philadelphia, Pa., a corporation of Pennsylvania
Application March 10, 1954, Serial No. 415,344
2 Claims. (Cl. 242-118.7)



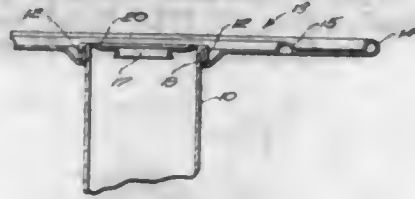
1. A collapsible holder for coilable objects formed from a single blank, said blank comprising a bottom member including a center section and a pair of ears extending therefrom of a width no greater than the width of said center section, a top member including a central section and a pair of ears extending therefrom and having their longer axes at right angles with the common axis of said first mentioned ears, the longer dimension of said last mentioned ears being substantially greater than the width of said central section, a pair of connecting means in-board of said ears flexibly joining said top member with said bottom member, an aperture in one of said connecting means for receiving one end of said coilable objects, and a tab cut from and hinged to said top member and having one edge thereof forming one of the boundaries of said aperture when in extended position and having said edge engageable with said bottom member when in folded position for spacing and supporting said top member away from said bottom member, and a surface of said tab biasing said end toward said aperture when in folded position.

2,824,707

SHEET METAL SPOOL
Walter V. Kennedy, Central Falls, R. I., assignor to Fram Corporation, Providence, R. I., a corporation of Rhode Island
Application December 2, 1955, Serial No. 550,575
3 Claims. (Cl. 242-118.8)

1. A spool comprising a metal barrel having projecting tabs at the ends thereof and a metal head at each end of the barrel, each head being provided with slots to receive the tabs and with an annular channel having a

wall disposed at right angles to the plane of the head and forming a ring that embraces an end portion of the barrel, and wherein said tabs project through said slots and are



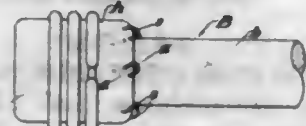
bent laterally away from the drum axis and downward into the channel to lie parallel to the body of the barrel to embrace said wall with the ends of the tabs abutting against the bottom of the channel.

2,824,708

MEANS FOR ATTACHING A STRAND TO A ROTARY MEMBER

Frank W. Higgins, Cranston, R. I., assignor to Universal Winding Company, Boston, Mass., a corporation of Massachusetts

Application December 11, 1953, Serial No. 397,683
3 Claims. (Cl. 242—125.1)



1. In a bobbin for holding filling yarn wound thereon and having a cylindrical head at one end with a relatively long barrel of less diameter than the head projecting axially therefrom, the combination of a plurality of prong-like elements located at intervals around said head and projecting from its end in overlying spaced relation to the peripheral surface of said barrel, said elements being inclined toward the axis of the bobbin and also inclined to cross said axis at an angle in the direction of rotation of said bobbin to adapt them to engage with a strand of yarn sliding along said barrel toward said head for attaching the end of said yarn to the barrel.

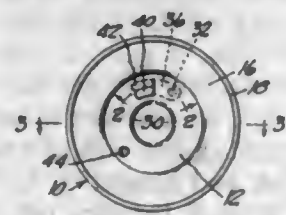
2,824,709

DISPENSER FOR FILAMENTARY MATERIAL

John M. Macy, South Bend, Ind., assignor to South Bend Tackle Company, Inc., South Bend, Ind., a corporation of Indiana

Application November 19, 1956, Serial No. 622,938

3 Claims. (Cl. 242—135)



1. A dispenser for filamentary material comprising two complementary registering parts interconnected to define a spool, at least one of said parts including a substantially flat central portion, a circular laterally projecting shoulder and an outer annular portion, said parts being interconnected adjacent said shoulder, the outer annular portions of said parts converging radially outwardly for substantially continuous peripheral tensioned engagement, the flat central portion of one of said parts having an aperture, and a cutter having a substantially flat end portion, an intermediate bent portion and an offset outer end portion having an angular projection with a cutting edge, said flat cutter end portion being confined between the central portions of said spool parts, said intermediate bent cutter portion passing through said aperture and said outer cutter portion extending alongside said apertured central

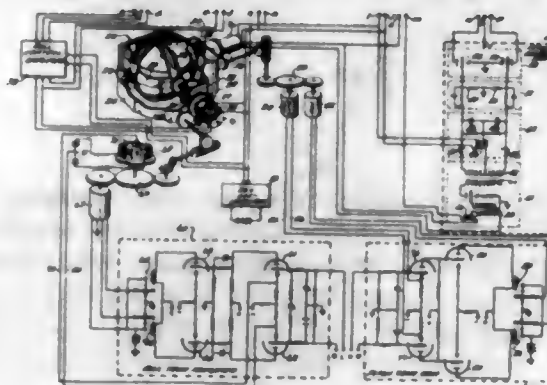
spool portion, the major part of said outer cutter portion lying between the central spool portion and the plane of the outermost lateral projection of the adjacent spool part.

2,824,710

CONTROL SYSTEM FOR GUIDED MISSILES

Albert C. Hall, Bloomfield Township, Oakland County, Mich., assignor to the United States of America as represented by the Secretary of the Air Force

Application January 5, 1949, Serial No. 69,364
7 Claims. (Cl. 244—14)



1. A control system for a homing missile of the glider type in which aerodynamic control of the glider is effected by elevons and in which means are provided for producing homing information in the form of right-left and up-down error signals, said system comprising means for establishing a roll reference angle and a pitch reference angle, means for measuring the angular difference between the roll angle of said glider and said roll reference angle, means for measuring the angular difference between the pitch angle of said glider and said pitch reference angle, means for producing a differential displacement of the elevons proportional to the difference between said roll angle and said roll reference angle and in the proper direction to reduce said difference, means for producing an average displacement of the elevons proportional to the difference between said pitch angle and said pitch reference angle and in the proper direction to reduce said difference to zero, means actuated by said right-left error signal for changing said roll reference angle from its original value by an amount proportional to the right-left error signal and in a direction determined by the right or left characteristic of the signal for producing a right-left correction in the flight of the glider, and means for changing said pitch reference angle at a rate proportional to the up-down error signal and in a direction determined by the up or down characteristic of the signal for producing an up-down correction in the flight of the glider, said last named means comprising means for producing a rate signal proportional to the rate of change of said pitch reference angle and means responsive to a difference between said up-down error signal and said rate signal for effecting a change in said pitch reference angle.

2,824,711

VEHICLE FOR TESTING CONTROL SYSTEMS AT SUPERSONIC SPEEDS

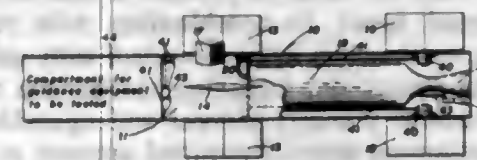
Henry H. Porter, Washington, D. C., assignor to the United States of America as represented by the Secretary of the Navy

Application March 22, 1950, Serial No. 151,115

3 Claims. (Cl. 244—14)

1. A self-propelled, guided aerial vehicle comprising an elongated hollow body, a transverse bulkhead in said body dividing it into two chambers, signal energized control equipment for the vehicle housed in the forward chamber, a sustaining rocket in the rear chamber, the forward end of said rocket abutting said bulkhead to apply the propelling thrust of said rocket thereto, a plurality

of airfoils pivotally mounted on said body adjacent the midsection thereof, a second group of airfoils pivotally mounted on said body adjacent the rear end thereof,



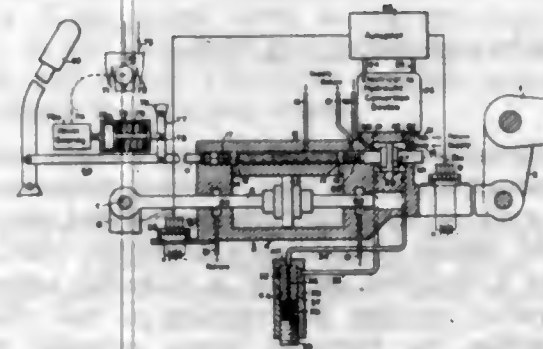
mechanical rotating means within the body for rotating said airfoils, said mechanical means being responsive to said control equipment, and means for initially launching said vehicle.

2,824,712

AIRCRAFT CONTROL SYSTEM FOR LIMITING AIRFRAME STRESS

Arne P. Rasmussen, Millersville, and Mark I. Place, Glen Burnie, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 18, 1955, Serial No. 482,452
7 Claims. (Cl. 244—78)



1. A hydraulic control system for an aircraft comprising: a hydraulic actuator having a moving part including a chamber housing therein, a piston, and a piston rod affixed thereto, said hydraulic actuator being adapted for connection to a control surface of an aircraft; a boost valve mounted on said moving part of said actuator and having a moving valve element for controlling the flow of hydraulic fluid to said actuator; a second hydraulically actuated piston adapted to reciprocate within a second chamber and biased to a central position within said chamber whereat said moving valve element cuts off fluid flow to said actuator and connected to said moving valve element to actuate said boost valve; a spring loaded valve member having openings therein in fluid communication with said second chamber on both sides of said second piston; said spring loaded valve member normally preventing fluid communication between said openings until a predetermined centrifugal force is imposed thereon by a change in attitude of said aircraft.

2,824,713

AIRPLANE WEIGHT RESPONSIVE WHEEL BRAKE APPARATUS

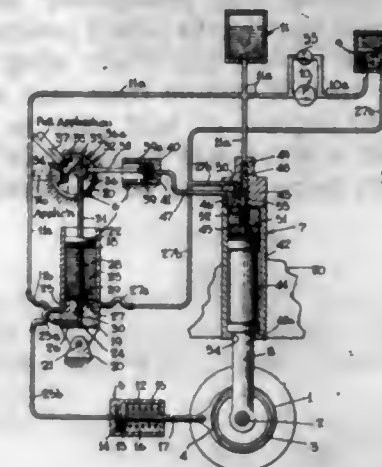
Cecil S. Kelley, Pittsburgh, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application March 27, 1953, Serial No. 344,971

3 Claims. (Cl. 244—111)

1. An apparatus for braking a wheel of a vehicle having a frame movable vertically relative to said wheel, fluid pressure operated braking means for applying a braking force to said wheel, first valve means for controlling pressure of fluid in said braking means, a movable abutment operably connected to said first valve means and subject at one side to pressure of fluid in said braking means and at the opposite side to an operator-controlled thrust force, wheel-supporting means one portion of which has sealing, slidable engagement with the wall of a gen-

erally vertical bore in said frame, said bore being closed adjacent its upper end for cooperation with said one portion to define a pressure chamber, second valve means controlled by position of said wheel-supporting means relative to said frame and operative to so control supply of fluid under pressure to and release of fluid under pressure from said chamber as to normally maintain in said chamber a fluid pressure which is proportional to the weight carried by said wheel, means controlled by pressure



of fluid in said chamber for converting such pressure into a corresponding weight-controlled thrust force, follower means connecting said last mentioned means to said movable abutment, and operator controlled cam means carried by said frame and having a cam surface substantially in the form of a segment chord and engaged by said follower means and also having a handle or the like for adjustment of the angular disposition of the cam surface relative to said follower means such that said operator-controlled force is regulatable to any desired ratio of said weight-controlled force.

2,824,714

INSTRUMENT MOUNTING PANEL AND CLIP

Elden W. Silvey, Galesburg, Ill., assignor to Midwest Manufacturing Corporation, Galesburg, Ill.

Application November 3, 1955, Serial No. 544,734

8 Claims. (Cl. 248—27)



1. In combination, a support panel having an opening therein, a supported element behind said opening in the panel, a cover in said opening in the support panel and having marginal edges spaced from the edges of said opening, an escutcheon at the front of said support panel presenting portions which engage the front of said support panel and the front of said cover, respectively, said escutcheon having rearwardly extending portions which project back between said marginal edges of the cover and the edges of said opening in the support panel to said supported element, and clip means connecting said rearwardly extending portions of the escutcheon to said supported element and presenting forwardly projecting portions which engage the back of said cover.

2,824,715

NON-CLOG STOCK VALVE

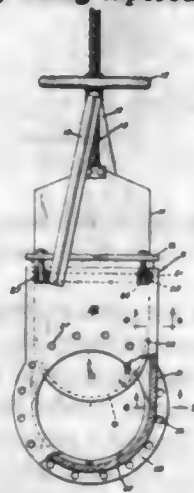
John L. Williams, Portland, Oreg.

Application June 4, 1956, Serial No. 589,193

1 Claim. (Cl. 251—329)

A stock valve comprising a valve body having a cylindrical flow passageway therethrough, said body provid-

ing a channel symmetrically intersecting said flow passageway and being wider than said flow passageway and having a semicircular end spaced from but concentrically disposed relative to said cylindrical flow passageway to provide a groove in the wall of said passageway, a gate blade within said channel having a semicircular end movable transversely across said passageway to a closed position with the edge of said semicircular end disposed within said groove, said body providing an annular seating surface surrounding said passageway and against which said gate blade seats in the closed position thereof, the semicircular edge of said gate blade being uniformly beveled at the side thereof remote from said seating surface for a full 180 degrees of said edge to provide a space between said side of said semicircular edge and said body, said body being tapered on the portion thereof

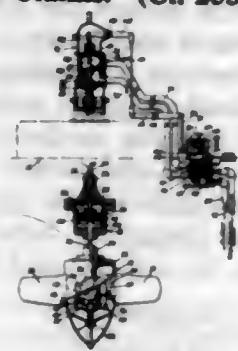


adjacent the semi-circular beveled edge of said gate blade in the closed position of said gate blade for a full 180 degrees solely in an axial direction relative to said flow passageway and in coextensive relation to the bevel of said gate blade thus to place the space between said beveled edge and said valve body in communication with said passageway so that stock fibers cannot be trapped and compressed between the semicircular edge of said blade and the valve body, the amount of taper being uniform throughout said full 180 degrees to facilitate the escape of stock fibers in a uniform manner, the valve body at the upper ends of the tapered portion being tapered in a radial direction so that the recesses formed by the tapering merge unobtrusively into the adjacent surfaces of the valve body to avoid the formation of crevices in which stock fibers could collect.

2,824,716

MECHANISM FOR LIMITING RUNAWAY SPEED OF ADJUSTABLE BLADE TURBINES

Grant H. Voaden, York, Pa., assignor to S. Morgan Smith Company, York, Pa., a corporation of Pennsylvania
Application December 27, 1952, Serial No. 328,161
14 Claims. (Cl. 253-143)



1. A hydraulic turbine comprising a runner having pivotally adjustable blades thereon, the blades and pivots thereof being so connected that said blades are hydraulically unbalanced for movement toward the open positions of said blades at speeds above normal, and normal positioning means utilizing hydraulic pressure which varies

in proportion to the speed of the turbine, said means being interconnected with said blades and operable normally to maintain said blades in desired positions of operation and vary the same to produce a desired turbine output at normal speed, in combination with runaway speed limiting mechanism interconnected with said normal positioning means and including mechanism responsive to the hydraulic pressure thereof and operable upon said pressure attaining a predetermined amount at speeds of the turbine above normal to free the blades from the control of said normal positioning means and permit the said hydraulic unbalance of said blades to move the same toward said open positions thereof, thereby limiting the runaway speed of the turbine to a value corresponding to that of the open position of the blades to which they have been moved by said hydraulic unbalance.

2,824,717

ATTACHING MEANS FOR LOAD BINDER OR BOOMER

James O. Yeager, McGregor, Tex.
Application December 21, 1953, Serial No. 399,250
1 Claim. (Cl. 254-78)



In an adjustable load binder having a chain adapted to be positioned around a load, securing means for securing the ends of the chain together around the load, said securing means comprising a U-shaped yoke, said yoke having a threaded opening, a threaded adjustable sleeve operating through the opening, a bolt slidably mounted within the threaded sleeve movable there-through, means at the ends of said bolt engageable with the ends of the sleeve restricting movement longitudinally of said bolt within the sleeve, a chain hook connected with one end of said bolt adapted to hook into a link of said chain, an operating lever including a forked member, means for pivotally connecting the forked end of said operating lever to said yoke normally lying within the confines of said yoke, a bar having one end thereof pivotally connected with the forked end of the operating lever, a second chain hook, and swivel means for connecting said second hook to said bar, said adjusting sleeve adapted to adjust said chain hooks with respect to each other independently of said operating lever.

2,824,718

MUD DECOUPLER

Gardner D. Currie, Altadena, Calif., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois

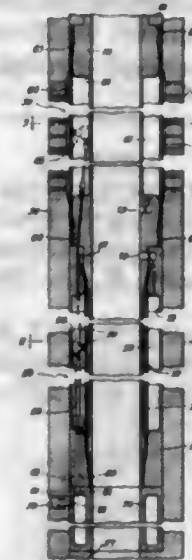
Application March 18, 1954, Serial No. 417,032

9 Claims. (Cl. 255-4.4)

1. Sonic decoupling means adapted to absorb energy consuming pressure surges of mud fluid in a well hole in the earth caused by sound waves generated by a longitudinally vibrating drill rod and bit, wherein the bit is disposed in contact with the bottom of the well hole and is vibrating at a frequency approximating the resonant vibration frequency of the rod and bit, and comprising a decoupler cell adapted to be mounted on a drill rod in a region thereof which is subject to said energy consuming pressure surges of mud fluid caused by said sound waves, said decoupler cell comprising a compressible chamber adapted to be filled with an inert gas under pressure, a high pressure source for said inert gas, and means including said compressible chamber responsive to the pressure of the mud fluid in said well hole for admitting gas from said source into said chamber when the pressure of the mud fluid increases to a predetermined pressure greater than the pressure within said

chamber and for shutting off the supply of gas from said source to said chamber when the pressure within the chamber increases to a predetermined pressure relative to the pressure of the mud fluid said compressible cham-

a plurality of substantially horizontal tubes extending entirely across the frame and opening into said vertical sides

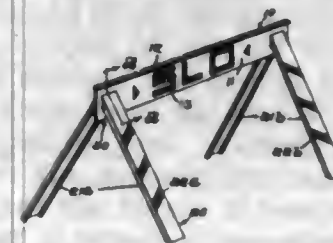


ber being cyclically compressible at the vibration frequency of the sound waves in response to the pressure surges in the mud fluid and being thereby effective to absorb said energy consuming pressure surges of mud fluid caused by said sound waves.

2,824,719

SAFETY APPARATUS OF THE BARRIER TYPE

Leslie J. Nutting, Needham, Mass.
Application November 29, 1956, Serial No. 625,036
2 Claims. (Cl. 256-64)



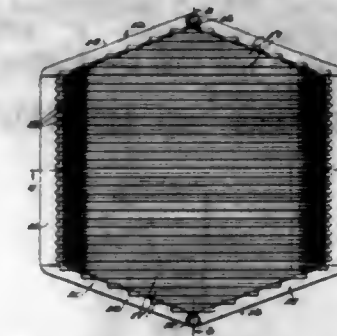
1. A safety barrier and warning device comprising a lateral bar, right angle flange on the bar, juxtaposed pivot bracket pairs rotatably supported at the ends of said bar, double headed bearing pins received through said bar and bracket pairs and retaining the bracket pairs in common axial back-to-back engagement against the opposite faces of the bar, pivot pins spanning the arms of said bracket pairs, channel legs interfitted with the brackets and swingable on said pins, said legs of differing widths and nested one within the other in the bar-parallel storage position, beveled inner ends on said legs projecting upwardly of said pins to engage said bar in the outwardly swung in-use position of said legs, means on said barrier for resisting the rotation of said bracket pairs from the storage position, and means on said barrier for stopping the rotation of the bracket pairs past the in-use position.

2,824,720

CONDENSER FOR REFRIGERATION SYSTEMS

Allan N. Johannesen, Framingham Center, Mass., assignor to the United States of America as represented by the Secretary of the Army
Application June 15, 1955, Serial No. 515,801
3 Claims. (Cl. 257-36)

(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A condenser for refrigeration systems comprising a polygonal tubular frame including substantially vertical sides and top and bottom substantially V-shaped ends having high and low points, inlet and outlet opening means for the high and low points of said V-shaped ends,

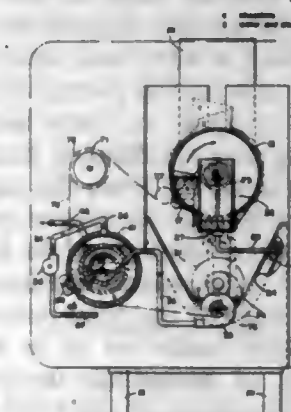


and the sides of the V-shaped ends, and a plurality of fins carried by said horizontal tubes.

2,824,721

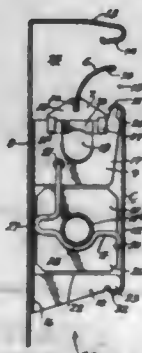
CHOCOLATE CONDITIONING MACHINE

Rowland E. Hill, Stoneham, Mass., assignor to J. W. Greer Company, Wilmington, Mass., a corporation of Massachusetts
Application September 30, 1954, Serial No. 459,229
1 Claim. (Cl. 257-86)



A machine for conditioning chocolate comprising a chocolate melting device, a collection chamber for the melted chocolate and a heat exchanger for conditioning the melted chocolate and maintaining the same in a fluid state at the required temperature, said melting device comprising a feed hopper for unmelted chocolate, a rotating drum having an inlet and an outlet for heat exchange medium, said feed hopper directing the unmelted chocolate to the periphery of said drum, said collection chamber comprising a heat exchanger tank provided with a jacket, said jacket having an inlet and an outlet for heat exchange medium to maintain the collected chocolate in a fluid condition, an outlet for the fluid chocolate, a conveyor agitator in said tank for transferring the fluid chocolate to said outlet, said heat exchanger comprising a pair of hollow cylindrical members having smooth cylindrical surfaces spaced concentrically with respect to one another and defining an annular passage therebetween, the outer cylinder being provided with a spaced wall defining a second annular passage, a conduit for passing fluid chocolate from said collection chamber to said first annular passage of said heat exchanger, pump means in said conduit for transferring fluid chocolate from said collection chamber through said first annular passage, means for rotating one of said heat exchange members with respect to the other to expose the chocolate uniformly to said surfaces as it flows through said first annular passage, means for passing heat exchange medium serially into said chocolate melting drum and into said jacket of said heat exchanger tank, a reservoir for another heat exchange medium, conduit means for transferring said other heat exchange medium from said reservoir interiorly of said inner hollow cylindrical member and said second annular passage to maintain said surfaces at a controlled temperature and thereafter back to said reservoir.

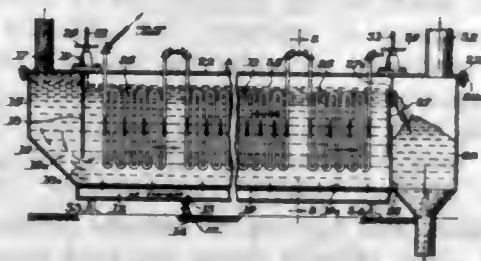
2,824,722
AIR-SPLITTER FOR BASEBOARD CONVECTORS
 Paul F. Brinen, Racine, Wis., assignor to Young Radiator Company, Racine, Wis., a corporation of Wisconsin
 Original application September 3, 1954, Serial No. 454,186. Divided and this application December 28, 1955, Serial No. 555,860
 2 Claims. (Cl. 257—133)



2. In combination with a base-board convector comprising a wall-mounting terminating in a horizontally-disposed top and supporting transversely-disposed flanges whereon is suspended a front panel with its upper edge disposed below the forward edge of the top to provide a heated-air outlet, an arcuate-shaped air-splitter panel one lateral edge of which is bent back upon itself to V-form, and a plurality of clips having prongs offset from the faces of the base part thereof to form longitudinally-aligned notches for seating over the flanges, each clip also having a notch extending inwardly from the top edge to seat the V-form latter edge of the air-splitter panel intermediate the mounting and the front panel to fixedly dispose the other lateral edge intermediate the forward edge of the top and the upper edge of the front panel and thereby subdivide the heated-air outlet so as to always direct two horizontal streams of heated air through the heated-air outlet.

2,824,723
FLUIDIZING COOLING CONVEYOR AND METHOD OF HEAT EXTRACTION
 Arthur C. Turney, Stefan Mitescu, and Boleslaw Joseph Zubrzycki, Arvida, Quebec, Canada, assignors, by mesne assignments, to F. L. Smith & Co., New York, N. Y.

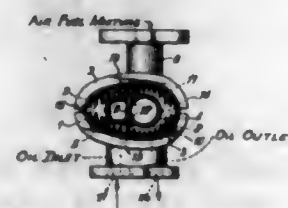
Application July 16, 1951, Serial No. 237,032
 Claims priority, application Canada July 20, 1950
 14 Claims. (Cl. 257—240)



1. A method of extracting heat from hot pulverulent materials by effecting heat exchange between said materials and a cooling medium circulated through heat exchange elements progressively arranged in contact with said pulverulent material comprising; forming an elongated substantially horizontal bed of said pulverulent materials around and about said heat exchange elements; passing a carefully controlled uniformly dispersed sufficient flow of gaseous medium upwardly through said bed to maintain the pulverulent material in fluidized condition; continuously feeding pulverulent material to one end of said bed adjacent the bottom thereof and withdrawing fluidized pulverulent material from the top of the other end of said bed and conducting away the gaseous medium as it separates from the material thus withdrawn whereby the particles of said pulverulent materials are

caused to flow substantially horizontally lengthwise of said bed while in fluidized condition and pass around and about said heat exchange elements to effect heat exchange therewith; and flowing a cooling medium through said heat exchange elements in counter-current relationship to the direction of flow of said pulverulent materials whereby the temperature of the material within said bed progressively decreases during its passage through the bed.

2,824,724
HEAT EXCHANGER FOR INTERNAL COMBUSTION ENGINES
 Ferdinand Porsche, Stuttgart, Germany, assignor to Dr. Ing. h. c. F. Porsche K.-G., Stuttgart-Zuffenhausen, Germany
 Application September 9, 1953, Serial No. 379,209
 Claims priority, application Germany October 8, 1952
 8 Claims. (Cl. 257—241)

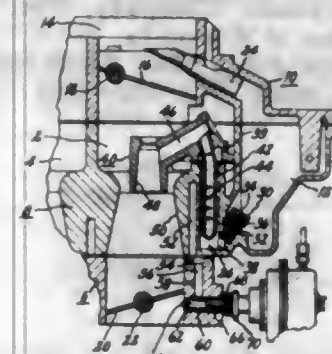


1. An apparatus for exchanging heat between fluids, comprising an elongated outer casing, an inner casing extending longitudinally through the outer casing in spaced relation to the interior thereof, a longitudinally-extending partition dividing said inner casing into a pair of non-communicating, fluid-flow passageways and forming a common heat-transferring wall for said passageways, fluid-flow connections at the ends of one of said passageways, separate fluid-flow connections at the ends of the other of said passageways, whereby fluids having different temperatures may flow through the respective passageways and exchange heat through said common wall, means dividing the space between the outer casing and the inner casing into two chambers, said dividing means being so located relative to said common wall that one of said passageways is located in one of said chambers and the other of said passageways is located in the other chamber, means defining a passageway at each end of the space between the outer and inner casings for interconnecting said chambers, an inlet connection for a third fluid leading into one of said chambers at a point located intermediate the end portions of said inner casing, and an outlet connection for said third fluid from the other of said chambers located intermediate the end portions of said inner casing, whereby said third fluid may be introduced into one of said chambers through said fluid inlet connection and flow through the chamber connected therewith in heat exchange with a higher temperature fluid in the passageway therein toward the respective end portions of said inner casing, flow through said passageways at the respective end portions of said inner casing into the other chamber and finally through the other chamber toward the fluid outlet connection in heat exchange with the lower temperature fluid in the passageway therein and through the fluid outlet connection from said other chamber.

2,824,725
CARBURETOR
 Howard H. Dietrich, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application November 17, 1955, Serial No. 547,404
 6 Claims. (Cl. 261—34)

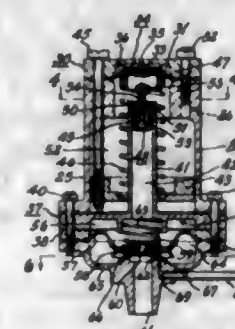
1. In a carburetor having a mixture passage adapted to supply a mixture of fuel and air to an internal combustion engine, a throttle valve for controlling the quantity of mixture supplied thereto, means for supplying fuel

and air to the mixture passage including a fuel conduit for supplying fuel to said passage at a point posterior to the throttle valve for idling and a fuel chamber supplying fuel to said conduit, means for controlling flow of fuel from said conduit into the mixture passage during deceleration upon movement of the throttle toward closed position, said last named means comprising a suction operated fuel valve movable to a position to prevent flow



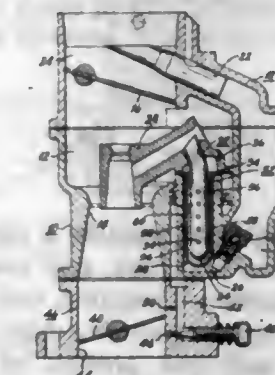
of fuel through said conduit when a predetermined suction is reached or exceeded in the mixture passage posterior to the throttle, means for moving said valve to open position when the suction in the mixture passage falls below said predetermined suction and a pump formed as a part of and operable by the valve as it is moved to open position to inject additional fuel into the mixture passage posterior to the throttle.

2,824,726
DEGASSER ATTACHMENT FOR INTERNAL COMBUSTION ENGINES
 Howard H. Dietrich, Berkley, Mich., and John M. Barr, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application November 8, 1955, Serial No. 545,717
 3 Claims. (Cl. 261—64)



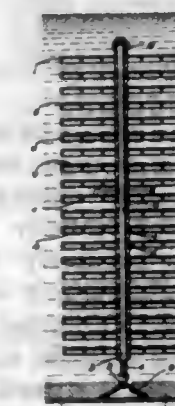
1. A degasser attachment for an internal combustion engine having an intake manifold and a carburetor, including, a housing assembly having a chamber subjected to manifold vacuum and an outlet passage operatively connected to said intake manifold, first motor means in said housing assembly, second motor means in said housing assembly, a pilot valve in said housing assembly capable of actuation by said first motor means when the manifold vacuum in said chamber exceeds a predetermined value during engine deceleration to subject said second motor means to manifold vacuum, a valve for closing said outlet passage or opening said outlet passage to atmosphere and operatively connected to said second motor means, and fuel passage means located adjacent said outlet passage for supplying fuel to the air admitted to the intake manifold through said outlet passage when said valve is open.

2,824,727
ANTI-PERCOLATING DEVICE FOR A CARBURETOR
 Richard J. Brunner and Milton C. Rohr, Rochester, N. Y., assignors to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application September 9, 1955, Serial No. 533,491
 2 Claims. (Cl. 261—65)



2. In a carburetor having an air intake, a venturi therein, a mixture outlet passage, a fuel supply chamber, a main fuel metering orifice, a main fuel well having side walls and connected to the supply chamber through said orifice, a main fuel nozzle having a portion disposed within said fuel well and discharging into said venturi, and an anti-percolation tube concentric with the main fuel nozzle and disposed between the main fuel well between the nozzle and the side walls of the main fuel well, said anti-percolation tube having perforate side walls and a closed end so as to prevent the formation of vapor bubbles between the side walls of the well and the nozzle.

2,824,728
AQUARIUM AERATOR
 Herbert C. Crawford, Grandview, Mo.
 Application December 10, 1956, Serial No. 627,211
 5 Claims. (Cl. 261—119)

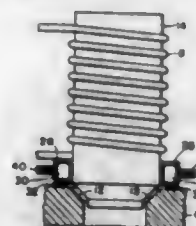


1. An aerator for aquariums having a bottom and a supply of water therein comprising, a rod, a plurality of members adjustably spaced vertically on said rod, said members having a plate portion with a plane upper surface and a depending flange around its outer periphery and a plurality of parallel flanges extending across the under surface of said member in one direction and a plurality of parallel flanges extending across the under surface of said member in another direction, said flanges being integral with the plate member and depending from said under surface, said depending flanges being perpendicular to the plate portion and terminating in lower edges which are co-planar and in a horizontal plane forming a plurality of cells therein whereby the water will trap air in said cells when the aerator is immersed in the water, said flanges and plate portion being impervious to water, and interengaging means on the lower end of the rod and on the bottom of the aquarium for retaining the aerator immersed in the water.

2,824,729

VALVE SEAT HEATING DEVICE

William A. Emerson, Baltimore, Robert M. Baker, Catonsville, and Francis B. Jaworski, Baltimore, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 21, 1954, Serial No. 438,066
9 Claims. (Cl. 266-4)

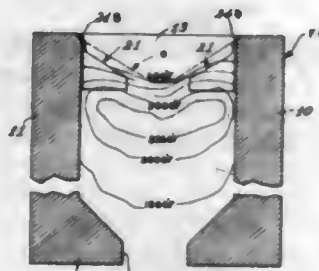


1. In apparatus for heat treating a surface of a workpiece, the combination of a core, said core having an end portion, a high frequency induction coil, said coil being positioned on said core to induce a high frequency magnetic flux therein, said end portion of the core being adapted for positioning adjacent to said workpiece, and a shading member, said shading member being positioned on said core between said end portion of the core and said coil and surrounding said core so as to cause substantially all of said flux to traverse said end portion.

2,824,730

DIVIDER PLATES FOR FURNACES

Frank J. Boron, Elyria, Ohio, assignor to American Brake Shoe Company, New York, N. Y., a corporation of Delaware
Application October 12, 1955, Serial No. 539,970
12 Claims. (Cl. 266-25)



4. A divider plate for a furnace of the kind described and adapted to maintain in a loose, unpacked condition charges fed to the furnace to undergo heat treatment therein and including a substantially vertically straight rear edge portion and a relatively narrow elongated flange which flange when operatively oriented in such a furnace will project inwardly in normal relation to a side wall of the furnace, opposite upper and lower edges of said flange being so related that at least a portion of said upper edge is sloped downwardly in a direction proceeding from said rear edge portion toward said lower edge, and said flange being provided with at least a serpentine rib and groove on opposite sides thereof between such opposite edges and which extend substantially parallel to one another and in a direction generally normal to the direction of said rear edge portion.

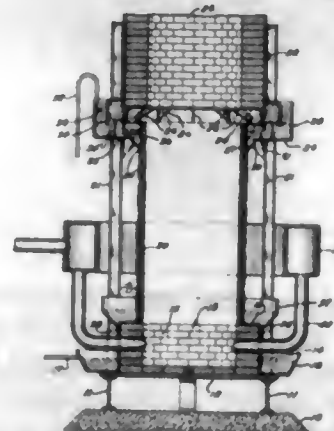
10. In a furnace of the kind described having a vertical side wall, a divider plate secured to the side wall of the furnace adapted to maintain in a loose, unpacked condition charges fed to the furnace to undergo heat treatment therein and including a substantially vertically straight rear edge portion aligned vertically with said side wall and a relatively narrow elongated flange extending forwardly from said edge portion, said flange being operatively oriented in said furnace so as to project inwardly in normal relation to said side wall of the furnace, at least a portion of the upper edge of said flange between the upper and lower edges thereof being off-set laterally to provide on opposite faces thereof an

elongated rib and groove each aligned in a direction generally normal to the direction of said rear edge portion and the vertical plane of said furnace side wall, and the upper edge of said flange at least in part being sloped downwardly in a direction proceeding from said rear edge portion to the lower edge of said flange.

2,824,731

CUPOLAS HAVING THIN WALL PORTIONS

Harold W. Schwengel, Port Washington, Wis., assignor to Modern Equipment Company, Port Washington, Wis., a corporation of Wisconsin
Application December 2, 1954, Serial No. 472,659
7 Claims. (Cl. 266-32)

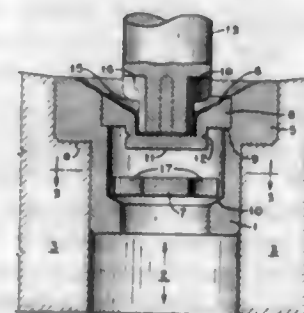


1. In a cupola having a bottom well portion, a relatively thin intermediate wall portion of greater height than the height of said well portion projection upwardly from said well portion and adapted to surround the melting zone, an upper cupola portion including a metal shell, means independent of the intermediate wall portion for supporting said upper cupola portion, a shelf secured to the shell of the upper cupola portion and projecting inwardly therefrom, the major portion of said shelf being outwardly of the exterior of said intermediate wall portion, a refractory lining for the upper portion of the cupola supported on said shelf, an expansion joint between the upper end of the intermediate wall portion and the lower part of the upper cupola portion and below said shelf and outwardly of the exterior of the intermediate wall portion to provide for relative vertical movement between said intermediate wall portion and said upper cupola portion, and means for maintaining a body of water around and below said expansion joint and in contact with the exterior of the lower part of the upper cupola portion and with the exterior of the upper end of the intermediate wall portion.

2,824,732

APPARATUS FOR MELTING AND POURING METAL

Fred A. Harris, Oak Ridge, Tenn., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application December 21, 1956, Serial No. 630,011
5 Claims. (Cl. 266-33)



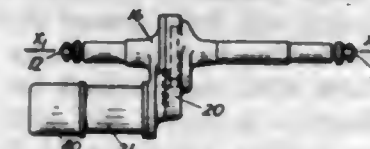
1. An improved apparatus for melting metal and pouring the resulting liquid metal comprising a melting crucible

having a lower portion defining an outlet with an elongated passageway, a frangible closure positioned in the passageway of said outlet and fragment retaining means permanently positioned in the passageway below said frangible closure to hold segments of said frangible closure while allowing the liquid metal to flow out of said crucible.

2,824,733

SPRING ADJUSTING MEANS

Friedrich K. H. Nallinger, Stuttgart, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Application November 18, 1952, Serial No. 321,086
Claims priority, application Germany November 20, 1951
7 Claims. (Cl. 267-57)

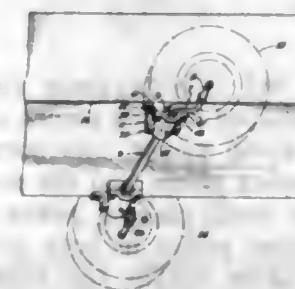


1. A device for adjusting the springing condition of a spring system of a vehicle comprising, a spring adjusting member displaceable from one end position into another end position, means including a motor operatively connected with and driving said spring adjusting member, a change-over switching device operatively connected with said motor for controlling the operation of said motor in one or the other direction of rotation, a switch actuating member, means for positively moving said switch actuating member by said motor, means including limitedly movable stop members within the range of movement of said switch actuating member, said switch actuating member upon movement after a travel in one or the other direction coming into abutting engagement with one or the other of said stop members and displacing said stop members by a limited travel, means for transmitting the movement of said stop members to said change-over switching device to shift said change-over switching device in accordance with the displacement of one or the other of said stop members in one or the other direction to thereby control the operation of said motor in one or the other direction of rotation, a separate supporting member for supporting thereon the entire switchgear including said change-over switching device, said switch actuating member, said stop members and said transmitting means as a subassembly, and means for detachably attaching said supporting member to said motor.

2,824,734

VEHICLE AXLE AND SUSPENSION THEREFOR

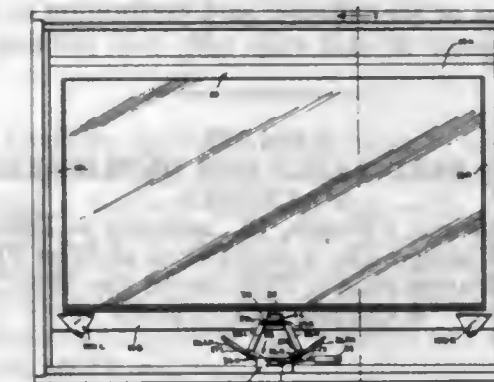
Frank F. Linn, Oakland, and John B. Long, Walnut Creek, Calif.
Application April 22, 1955, Serial No. 503,142
16 Claims. (Cl. 267-57.1)



1. An axle comprising, a shaft having exterior polygonal faces, an arm extending radially from said shaft, a wheel spindle extending from said arm eccentrically to said shaft, a rubber member composed of a plurality of contiguous articulated segments having flat sides dimensioned for positioning upon said faces upon wrap-

2,824,735

CLOSURE OPERATOR IMPROVEMENTS
Harold Louis Stavenau, Mankato, and Reuben W. Kaplan, Owatonna, Minn., assignors to Truth Tool Company, Mankato, Minn., a corporation of Minnesota
Application April 5, 1956, Serial No. 576,435
14 Claims. (Cl. 268-104)

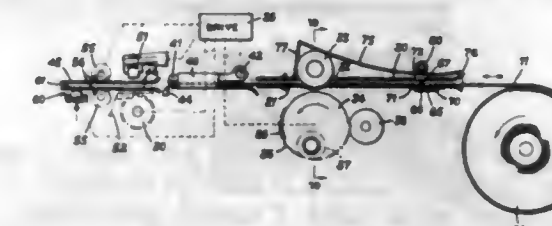


1. An operator for closing and opening windows, covers, doors and the like closures which are mounted for hinged swinging motion for moving said closure to its open, closed and intermediate positions and in so doing for translating a free-swinging edge of the closure which is opposite the hinged edge, toward and away from the cooperating edge of the opening comprising an operator frame having a manually movable actuator thereon, an arm pivotally mounted at a frame pivot on the operator frame for swinging movement in a normal plane generally perpendicular to the plane of the opening, said arm being connected to the actuator so as to be swung thereby from a first position generally parallel to and slightly inside the plane of the opening to a second position approaching one generally normal to the plane of said opening, said closure being provided with a clip surface which extends into the opening when the closure is closed, said clip surface being positioned so as to be engaged by said arm as it is swung to its first position for drawing the closure to closed position, and a link connected by a toggle pivot to the arm and connected to a point on the closure which is remote from said clip surface for actuating the closure, said arm and link forming a toggle.

2,824,736

TICKET PRINTER

Kenneth C. Allen, Dayton, Ohio, assignor to Hobart Manufacturing Company, Troy, Ohio, a corporation of Ohio
Application April 21, 1955, Serial No. 502,849
9 Claims. (Cl. 271-2.6)

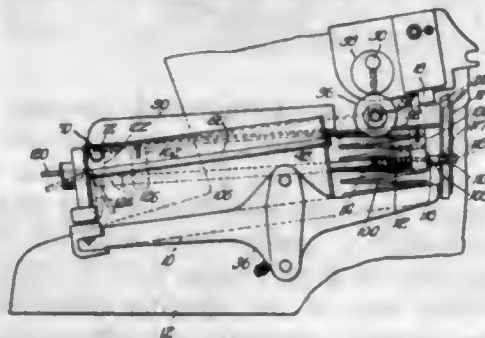


1. In a machine for printing at a printing station on successive ticket portions of a continuous strip of such tickets and severing successive tickets from said strip, apparatus for effecting accurately predetermined register of each such ticket with such printing station, comprising a strip of tickets having therein a plurality of perforations spaced lengthwise of said strip by distances accurately equal to the dimension of each said ticket lengthwise of

said strip, feeding means having a predetermined cycle of operation for effecting intermittent advance feeding of said strip a distance slightly greater than a single said ticket length for each said cycle thereof, a stop receivable in successive said perforations and located in a position spaced from said printing station by a distance accurately correlated with a whole number of said ticket lengths, and means having a driving connection with said feeding means for operation at substantially the end of the advance feeding movement of said strip during each said cycle of said feeding means for effecting limited reverse feeding of said strip into a position of engagement of said stop with the forward edge of the adjacent said perforation to establish accurate register of said strip with said printing station.

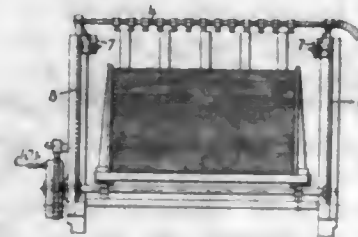
2,824,737 HAND FEED TABLE FOR DUPLICATING MACHINES

Herbert F. Bruns, Chicago, Ill., assignor to Ditto, Incorporated, Chicago, Ill., a corporation of West Virginia
Application June 6, 1952, Serial No. 292,174
9 Claims. (Cl. 271-8)



1. An auxiliary sheet supporting feed table for a duplicating machine having a sheet feeding mechanism, a stack supporting feed table and stack side guides, said auxiliary table comprising a plate having an outer end and an inner end, a pivot member at said outer end of said plate journaled in said stack side guides so that said plate is pivotally supported above said stack supporting feed table, an eccentric cam member coupled to said sheet feeding mechanism, a cam follower member carried by said plate, a resilient member normally urging said plate upwardly so that said cam follower is held in association with said eccentric cam member, and a locking mechanism located at said inner end for holding said plate out of association with said feed mechanism.

2,824,738
SHEET FEEDING MECHANISM
Artur Büttner, Heidelberg, Germany, assignor to Schnellpressenfabrik Aktiengesellschaft Heidelberg, Heidelberg, Germany, a corporation of Germany
Application May 3, 1955, Serial No. 505,761
Claims priority, application Germany May 7, 1954
1 Claim. (Cl. 271-62)



A reloading apparatus for sheet feeders comprising the combination of a plurality of like feed tables, a lifting and lowering mechanism for successively receiving and lifting the tables individually, said mechanism including a pair of toothed racks spaced apart a distance to receive a table between them for holding a stack of sheets thereon, a pair of connected pinions in driving engagement with each of said racks, a gear system driv-

ing said pinions to progressively raise the racks to continuously maintain the table in position for the top sheet of a stack of sheets to be in a predetermined position for taking by a sheet-taking device, a pair of opposite table carriers provided respectively on said racks spaced so as to releasably receive and support a table between them, said gear system being operable to selectively lower the racks to reload the sheet feeder with a second table having a new stack of sheets and normally after removal of an emptied table from the carriers upon exhausting the stack of sheets thereon, means actuated by said second table for automatically engaging said second table comprising latch bolts slidably supported by said carriers for longitudinal movement between a retracted and an extended position in which they engage said second table positioned between said carriers and means for biasing said bolts toward their extended position, said bolts having inclined surfaces engageable with said second table when said carriers are lowered and inclined in a direction to retract said bolts by said engagement, positive locking means on at least one of said carriers and means for quickly moving said locking means between a locked position in which it positively locks said table to said carriers and a released position.

2,824,739
GAME BOARD AND APPARATUS
Robert L. Frank, Nine Mile Falls, Wash.
Application October 21, 1955, Serial No. 541,933
4 Claims. (Cl. 273-126)



2. In combination with playing pieces of a predetermined size and resilient paddles for driving said playing pieces, a game board comprising a flat plane surface defined by upstanding marginal side and end walls; slidable receptacles one at each end of said plane surface and having a portion thereof covered by an end portion of said plane surface and the balance extending beyond said end walls; said end portions of said plane surface having apertures communicating with said receptacles; and said end walls having apertures therethrough and communicating with said receptacles.

2,824,740
DIAMOND-SHAPED PLAYING PIECES
Rael Cowan, Brooklyn, N. Y.
Application August 16, 1954, Serial No. 449,971
3 Claims. (Cl. 273-137)



1. A matching and tallying game comprising a plurality of diamond-shaped playing pieces, consisting of two groups of such playing pieces, one group consisting of relatively large playing pieces and the second group consisting of relatively small playing pieces, all of the sides of all of said playing pieces in both groups being substantially of the same length for matching purposes, whereby each playing piece may be placed immediately adjacent another playing piece in side-by-side abutment therewith, the larger playing pieces being provided with opposite corners which define 70 degree angles, the other opposite corners thereof defining angles of 110 degrees, the smaller playing pieces being provided with opposite corners defining 40 degree angles, the other opposite corners

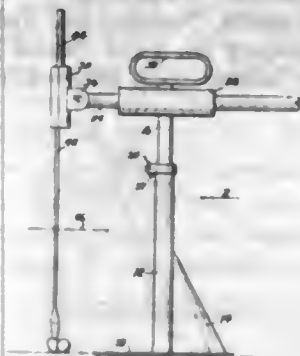
thereof defining angles of 140 degrees, whereby the smaller playing pieces may be inserted between said larger playing pieces when the latter are juxtaposed in side-by-side matching relationship, said larger and smaller playing pieces being marked with indicia of their respective values so that a tally may be taken of the total values of the matched juxtaposed playing pieces.

2,824,741
GAME
Hugh Wiley, Foresthill, Calif.
Application February 16, 1955, Serial No. 488,521
4 Claims. (Cl. 273-137)



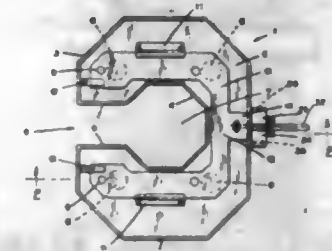
1. In a game apparatus, a set of game pieces, means on a face of each game piece dividing that face into first and second indicia areas there being a plurality of said pieces for each letter of the alphabet and each of said pieces of each plurality bearing a symbol representing its letter in the said first area of said game piece, each of the pieces of said set further bearing a symbol representing a single element of an arithmetic equation thereon, in its second area, those game pieces bearing the same letter symbol being each provided with a different element of an arithmetic equation and said game pieces being of such shape that a group thereof may be arranged in side-by-side relation with all of their first and second areas, respectively, aligned whereby said group may simultaneously form words and arithmetic equations.

2,824,742
PUTTING CLUB GUIDE
Arthur J. Fortin, Worcester, Mass.
Application May 13, 1955, Serial No. 508,219
3 Claims. (Cl. 273-192)



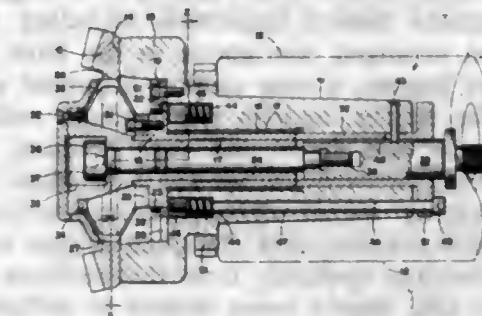
1. A putting practice device comprising a vertical stand, a horizontal tubular member fixed thereto at the upper end thereof at a height approximating the hands of the user while putting, a slidable rod guided in the tubular member, a club clamp on the rod to hold the club, a ball and socket for the clamp so that the rod may be swung, with the major part of the club below the rod the club being movable toward and away from the stand, so that the area in front of the user is free and clear.

2,824,743
FERTILIZER APPLICATOR DEVICE
Anne A. Humby, Victoria, British Columbia, Canada
Application January 12, 1956, Serial No. 558,776
7 Claims. (Cl. 275-11)



1. A fertilizer applicator comprising a container having a C-shaped configuration adapted to surround a plant and having a bottom, side and end walls, said bottom being formed with a plurality of passages therethrough, means carried by said bottom wall and in sliding engagement therewith and being slidable transversely thereof for closing and opening said passages and a handle for said container.

2,824,744
FLEXIBLE COLLET AND CHUCK EMPLOYING SAME
Joseph M. Peters, Rochester, N. Y., assignor to The Gleason Works, Rochester, N. Y., a corporation of New York
Application March 9, 1956, Serial No. 570,457
12 Claims. (Cl. 279-2)

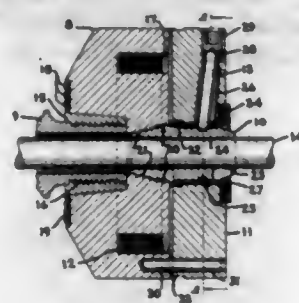


1. A chuck or other clamping device comprising a body adapted to be mounted on a machine spindle or the like and having a seat for engaging a back face of a part to be clamped, an annular collet for engaging a cylindrical surface of the part engaged with said seat, said collet having front and rear rims of which one is connected to the chuck body and a relatively flexible connecting section which is of truncated V-shape in axial section and has a cylindrical surface for engaging said cylindrical surface of the part, and actuating means for moving the other one of said rims axially toward said one of said rims to thereby compress the collet axially and cause said cylindrical surface thereof to grip the cylindrical surface of the part.

2,824,745
MAGNETIC CHUCK
Elmer L. Ruth and Stanley A. Reitzner, Appleton, Wis., assignors to Tom L. Cahoe, Appleton, Wis.
Application August 7, 1953, Serial No. 372,868
7 Claims. (Cl. 279-118)

5. A magnetic work driving chuck comprising, a chuck body, a work engaging collet carried by said body, means for positively preventing relative rotation between said collet and said body, a chuck plate axially movable toward and away from said body, means for magnetizing said body to move said plate toward said body, means for guiding said plate in its movement and for positively preventing relative rotation of said plate and said body, toggle means housed within said plate and operable upon

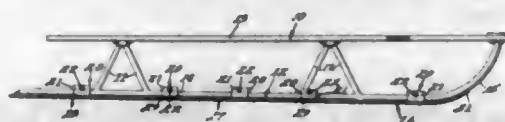
movement of said plate for applying radial work gripping pressure to said collet, and an auxiliary magnet car-



ried by said plate for neutralizing the effect of said body magnetizing means on said work.

2,824,746 SLED SKI

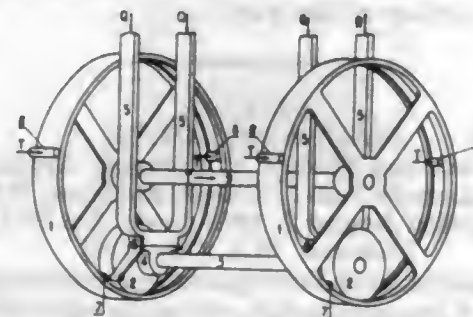
Nicholas Schummer, Trumbauersville, Pa.
Application May 3, 1955, Serial No. 505,663
1 Claim. (Cl. 280—28)



In a sled, a base, a plurality of braces depending from said base, a pair of runners secured to the lower ends of said braces and each including a major straight portion and a front curved portion, each of said runners being of substantial T-shape in cross section, skis detachably connected to said runners and arranged contiguous to the lower surface thereof, said skis including a front curved section arranged contiguous to the front curved portion of the runner, a rear section arranged adjacent the rear of the runner, and an intermediate section extending between said front and rear sections, curved flanges extending upwardly from the side edges of said sections, clamping means detachably connecting said sections to said runners, said clamping means comprising fingers extending upwardly from said sections and secured thereto, said fingers being shaped to include offset shoulders for snugly engaging said T-shaped runners, securing elements interconnecting said fingers together, reinforcing ribs arranged in said sections, the adjacent ends of said sections being arranged in overlapping relation with respect to each other, the front end of said front section being pointed, said sections being wider than said runners.

2,824,747 DEVICE FOR IMPROVING THE TRACTION OF VEHICLES

Marcos Panich, Buenos Aires, Argentina
Application December 14, 1954, Serial No. 475,160
2 Claims. (Cl. 280—29)

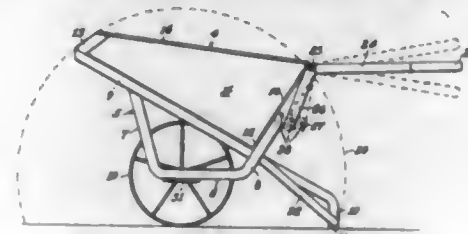


1. A device of the class described comprising, in combination, a drivable wheel, load supporting means, roller type means engaging only the lower inner side of said wheel, said load supporting means being supported by said roller type means independently of the axis of said wheel and said wheel thus being free to commence

rolling motion along the ground in the direction of travel before said load supporting means is put into motion in said direction of travel, a relatively thin arm extending from said load supporting means, and auxiliary roller means carried by said arm and contacting said wheel at a position peripherally spaced from the bottom of the wheel, said auxiliary roller and arm aiding the force of gravity in urging said load supporting means into motion in the direction of travel when initial rolling motion of said wheel has begun.

2,824,748

BALANCED WHEELBARROW
John Schoenberger, Cleveland, Ohio
Application November 10, 1954, Serial No. 467,910
2 Claims. (Cl. 280—47.26)

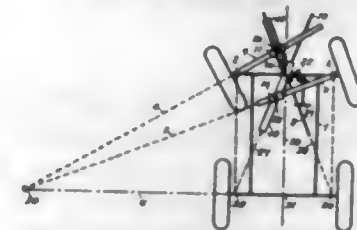


1. A balanced wheelbarrow comprising a body member adapted to contain a load, mounted on a frame member consisting of a pair of similar yokes spaced laterally apart, each yoke having a lower substantial horizontal portion with an upwardly forwardly projecting end and an upwardly rearwardly projecting end of greater length than said forwardly projecting end; rearwardly inclined side bars secured to each of said yokes, said bars being bent downwardly to terminate in a foot member adapted to support said body member in an upwardly inclined position; an axle secured to the lower horizontal portion of said yokes, said axle being so positioned that the center of gravity of the load is substantially directly above the center of said axle; wheels laterally spaced substantially at the center of said axle; one of said wheels fixed upon said axle, the other free to rotate thereon; height-adjustable handle means pivotally mounted on said body consisting of a pair of handle arms bent to form depending adjustable arms at their pivoted junction with said body, the lower extremity of said depending arms disposed for adjustable engagement with rearwardly projecting lugs on said body member.

2,824,749

STEERING MECHANISM FOR PRODUCING DIFFERENTIAL STEERING ANGLES FOR TWO OR MORE STEERABLE WHEELS

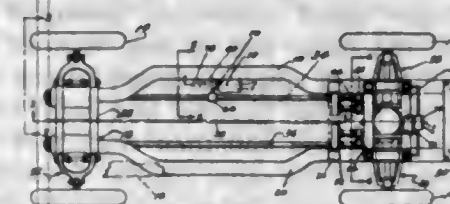
Yoshichiro Yasuda, Nakano-ku, Tokyo, Japan
Application January 24, 1955, Serial No. 483,684
4 Claims. (Cl. 280—87)



2. In steering mechanism of the class described, in combination, a vehicle frame, a steerable wheel connected thereto, parallelogram linkage connected to the wheel and the frame for turning the wheel, an arm on the frame for moving the linkage, drive means for the arm comprising a member slidably engaged therewith and drivably connected to a transversely extending operating member, and connections for causing movement of said operating member.

2,824,750

TORSION BAR WHEEL SUSPENSION
John Z. De Lorean, Detroit, Mich., assignor to Studebaker-Packard Corporation, a corporation of Michigan
Application August 5, 1954, Serial No. 448,065
20 Claims. (Cl. 280—106.5)



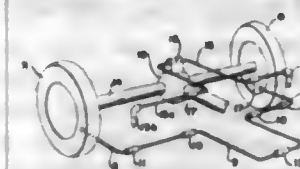
1. A vehicle comprising a load carrying supported part, wheels located on each longitudinal side of the supported part, a supporting rail part adjacent a plurality of wheels located on the same side of the supported part for supporting that side of the latter, said rail part having an incomplete box cross section presenting an open side, suspension means for suspending the supporting rail and supported part on the plurality of wheels aforesaid, bar means adjacent the open side of the rail part in side by side relationship with the latter, means mounted to a portion of the bar means at each end thereof for attachment to the suspension means for torsionally elastically urging the wheels of said plurality in different directions, and means mounted to a portion of the supporting rail part at each end thereof for attachment to the bar means at a corresponding end so as to complete the cross section of the former for structural strength stability in bending by placing the bar means in tension.

2,824,751

TORSION ROD SPRING SYSTEM FOR VEHICLES, ESPECIALLY MOTOR VEHICLES

Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany
Original application June 10, 1954, Serial No. 435,845.
Divided and this application May 23, 1955, Serial No. 511,733

Claims priority, application Germany July 1, 1953
6 Claims. (Cl. 280—124)



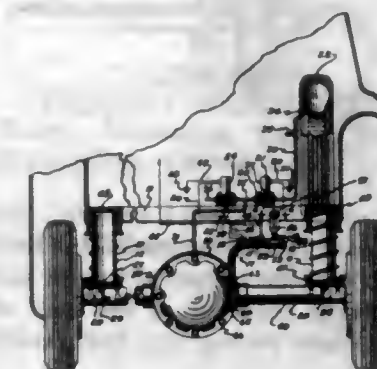
1. A torsion rod spring system for motor vehicles with axle means adapted to support opposite vehicle wheels comprising two superposed torsion rods, each of said torsion rods being provided with one bow-shaped portion disposed in an approximately horizontal plane, means including one of said torsion rods for suspending said opposite wheels of the vehicle, means including the other of said torsion rods for suspending said axle means of said wheels at the bow-shaped part of said other torsion rod, and bearing means for supporting said torsion rods at a fixed part of the vehicle.

2,824,752

MOTOR VEHICLE LOAD COMPENSATOR
Maximilian W. Schwartz, New Castle, Pa.
Application February 29, 1956, Serial No. 568,463
5 Claims. (Cl. 280—124)

1. A load compensator comprising sealed tubes, a supply reservoir, a supply tube connecting the sealed tubes to the reservoir, a solenoid actuated pressure valve in the supply tube, a chassis upon which the supply reservoir is positioned, a rear axle assembly, a coil spring having a

vertically disposed section and a horizontally disposed section, means mounting the vertically disposed section of the spring on the rear axle assembly, a bracket connecting the extended end of the horizontally disposed section of the coil spring to the chassis, electric switches mounted on the horizontally disposed section of the coil spring,

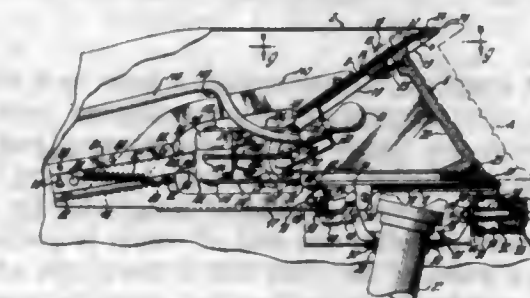


one of said switches being positioned to complete a circuit to the solenoid of the pressure valve, for opening the valve to admit air from the supply reservoir to the sealed tubes upon the application of a load to an object upon which the device is installed, and means for releasing air from the sealed tubes upon removal of said load.

2,824,753

VEHICLE REAR FENDER LAMP ASSEMBLY AND CLOSURE FOR FUEL INLET

Francis J. La Voie, Detroit, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application January 13, 1955, Serial No. 481,533
12 Claims. (Cl. 280—152)



1. In a vehicle body having an apertured portion and a fuel inlet adjacent the apertured portion, the combination comprising a vehicle lamp assembly including a lamp housing, a lamp, and a lens therefor, fitting within said apertured portion and concealing said inlet in the closed position of said assembly, and actuating means for bodily moving said assembly obliquely outwardly of said apertured portion to a position out of registry with said apertured portion, said means including pivotal connecting means therebetween and said assembly whereby said assembly may be moved relative to said means from said position to a position laterally of said apertured portion allowing access to the fuel inlet.

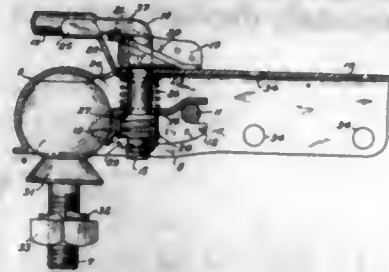
2,824,754

TRAILER COUPLING

Henry G. Bolmes, West Allis, and Bernard R. Weber, Wauwatosa, Wis., assignors to The Fulton Company, West Allis, Wis., a corporation of Wisconsin
Application January 3, 1956, Serial No. 556,883
5 Claims. (Cl. 280—512)

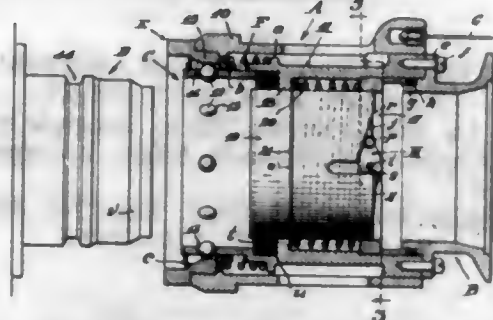
1. In a trailer coupling, coaxing universally relatively movable ball and socket members formed for attachment to hauling and trailing vehicles, a ball retainer clamp pivotally suspended from said socket member, a latch bolt having a shank journaled for rotation in said socket member and swingably supporting said retainer clamp at one end while its opposite end is provided with a lateral

handle, a cam carried by said socket member and coacting with said bolt handle to swing said retainer clamp into ball retaining position when said bolt shank is rotated, and a locking latch having a fulcrum seat at one end bear-



ing against said socket member and also having an opposite actuating end portion cooperable with said bolt handle to positively prevent rotation of the bolt when said retainer clamp has been swung into ball retaining position.

2,824,755
VALVED COUPLING
Walter Earl Lamphear, Los Angeles, Calif., assignor to Roylin Incorporated, a corporation of California
Application June 20, 1955, Serial No. 516,440
9 Claims. (Cl. 284-18)



1. In a coupling for connecting a hose to a nipple including a tubular coupling member adapted to telescopically receive the nipple at one end thereof and having means for interlocking the telescoped coupling member and nipple; a normally retracted longitudinally slidable sleeve in said member one end of which is positioned in the path of travel of the outer end of the nipple advancing into said member, a butterfly valve pivotally mounted in said coupling member and normally disposed in a closed position under the urge of air pressure imposed thereon, said valve having its periphery normally conforming to the inner periphery of said sleeve, a pin projecting from the margin of said valve from a region to one side of the pivotal axis of the valve and into the path of travel of said sleeve, and a cam on said sleeve engageable with said pin operable on advance of said sleeve to swing said valve to its open position.

2,824,756
CONDUIT FITTING WITH REMOVABLE INSERT
William Wagner, Rockaway, N. J.
Application April 7, 1954, Serial No. 421,549
2 Claims. (Cl. 285-12)



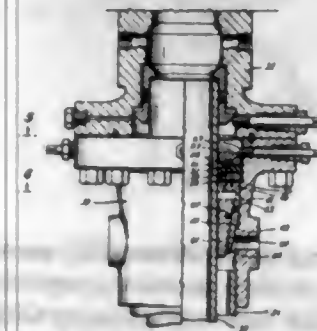
2. A conduit fitting having a tubular connecting portion provided with a conical outer end, a counterbore formed

in said tubular portion concentrically therewith and inwardly from its said conical outer end and defining a conical annular shoulder on the inside of said tubular portion a spaced distance below its said conical outer end, said tubular portion being relatively thin-walled in the area between said annular shoulder and said conical outer end, a tubular insert removably mounted within said counterbore, the inner end of said tubular insert being conical in shape and complementary to the said annular shoulder, said tubular portion and said tubular insert having a common axis and their respective conical ends having substantially the same angular relationship to said axis, said tubular insert being cylindrical throughout its outer dimension, the outer diameter of said tubular insert corresponding, substantially, to the diameter of said counterbore to provide a relatively snug fit of said tubular insert within said counterbore, the length of said tubular insert along its outer cylindrical dimension corresponding, substantially, to the length of the counterbore above said annular shoulder, the inner conical end of said tubular insert being seated against said annular shoulder, the outer end of said tubular insert being disposed adjacent the conical outer end of said tubular portion, and a counterbore formed in said tubular insert inwardly from its outer end and defining an annular shoulder on the inside of said tubular insert a spaced distance below its said outer end, said tubular insert being relatively thin-walled in the area between its said annular shoulder and its outer end, the inner diameter of said tubular insert below its said annular shoulder corresponding, substantially, to the inner diameter of said tubular portion below the annular shoulder within said tubular portion, said tubular insert being adapted to receive a conduit tube within its said counterbore, the annular shoulder within said tubular insert being adapted to seat the inner end of said conduit tube, whereby that part of the tubular portion below its annular shoulder and that part of the tubular insert below its annular shoulder are adapted to constitute a substantially continuous conduit with said conduit tube, whereby said thin-walled portions of the tubular portion and tubular insert are adapted to be soldered to each other and to the conduit tube, external screw threads being formed on said tubular portion below its conical outer end, and an inwardly flanged nut being mounted on said tubular portion in engagement with said external screw threads, said tubular insert being reversible within said tubular portion to bring its conical end into juxtaposition with the conical outer end of the tubular portion, the angles of the respective conical ends of said tubular portion and said tubular insert being substantially alike, whereby a substantially continuous conical surface is provided at said conical ends of said tubular portion and said tubular insert and whereby said continuous conical surface is adapted to seat the flared end of a flared conduit tube, whereby the flanged nut is adapted to clamp the flared end of said flared conduit tube to said continuous conical surface, and whereby said continuous conical surface is adapted to provide an adequate supporting seat for said flared end of the flared conduit tube under the pressure of said clamping action.

2,824,757
PIPE SUSPENSION AND SEALING MEANS WITH MEANS TO LIMIT COMPRESSION OF THE SEAL
Allen F. Rhodes, Houston, Tex., assignor to George A. Butler, Houston, Tex.
Application April 4, 1955, Serial No. 498,812
4 Claims. (Cl. 285-146)

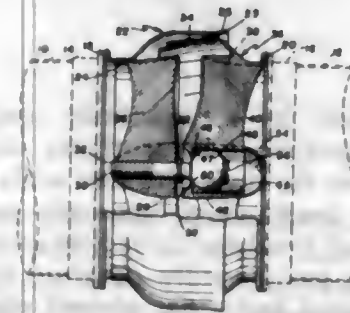
1. Pipe suspension and seal apparatus comprising a well head having spaced upper and lower seats, and a pipe hanger having upper and lower parts, said upper part having a shoulder adapted to engage said upper seat and said lower part having a shoulder adapted to engage said lower seat, the axial distance between said upper

and lower seats being greater than the axial distance between said shoulders when there is no pipe in said hanger whereby when said hanger is initially placed in said head without pipe load only the upper of said shoulders engages the corresponding seat, means connecting said upper and lower parts of said hanger for transfer of load on said lower part to said upper part, said hanger including sealing means for sealing between said hanger and well head, said sealing means being disposed in between upper and lower elements of said upper part to be axially compressed by said load transferred thereto, said upper part shoulder being on said lower element, and means on said



lower part of said hanger to engage a pipe to transfer weight to the lower part of the hanger, said sealing means shortening axially by a definite predetermined distance depending on the said axial distances between the said seats and between the said shoulders when pipe load is transmitted thereto to seat said lower part shoulder on the said lower seat, whereby the said axial compression of said sealing means does not exceed said predetermined distance, and lock screw means extending through said well head from the exterior thereof and engaging said upper element of said upper part of said hanger for loading said sealing means.

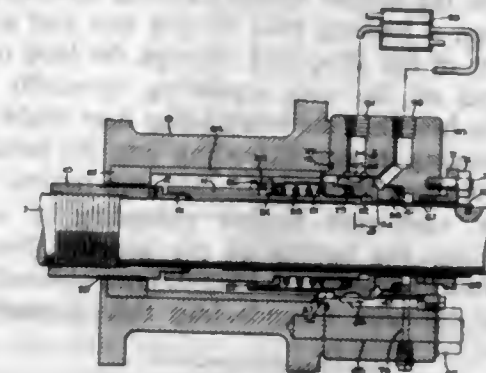
2,824,758
FLEXIBLE HIGH TEMPERATURE HIGH PRESSURE BALL TYPE PIPE JOINT
William M. Catrell, San Diego, Calif., assignor to The Ryan Aeronautical Co., San Diego, Calif., a corporation of California
Application July 18, 1955, Serial No. 522,617
1 Claim. (Cl. 285-187)



A flexible joint for connecting together two conduits intended to transmit fluids under pressures and temperatures above the ambient pressure and temperature, said joint comprising: a socket element having integral therewith a slightly flexible, resilient reentrant, frusto-conical metal annulus at the extremity thereof; a ball element within said socket element and comprising a portion of a hollow sphere in radially inwardly spaced relation to said socket element and in internal frictional contacting relationship with said annulus; and means for pivotally connecting said elements to maintain said relationship and comprising internal spiders in said elements, a thrust bearing connecting said spiders and positively holding said ball element from relative axial movement in one direction; said annulus constituting the sole means holding said ball element against relative movement in the opposite direction, and said sole means being positive by virtue of said annulus being metallic and having an

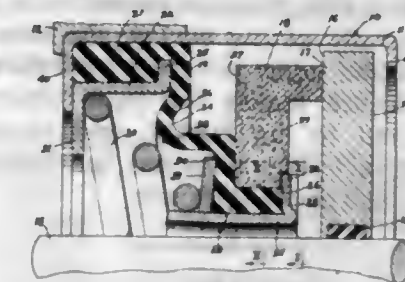
area of contact with said ball element of limited annular character approaching linear contact, said socket element being of a material having a lower coefficient of expansion than said ball element; to give an expansion differential increasing with the operating temperature as necessary to maintain a relatively low rate of leakage.

2,824,759
LIQUID COOLED SEAL
Herbert E. Tracy, Alhambra, Calif., assignor to Borg-Warner Corporation, Chicago, Ill., a corporation of Illinois
Application October 31, 1955, Serial No. 543,715
6 Claims. (Cl. 286-9)



1. An assembly for sealing a rotating shaft within a housing comprising a flange member detachably secured to and outside of the housing, seal means within the flange to prevent flow along the shaft outwardly of the flange member, said seal means including a part that rotates with the shaft, said part having impeller means formed on its periphery, a fluid inlet passage into the flange, an outlet passage out of the flange, said outlet passage being spaced axially of the assembly from said inlet passage, an annular pressure chamber formed within the flange and communicating with the innermost end of the outlet passage, said pressure chamber being immediately adjacent said impeller means.

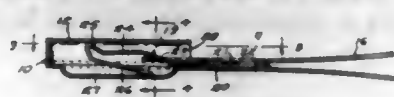
2,824,760
DIAPHRAGM TYPE SHAFT SEAL
Remi J. Glits, Hinsdale, Ill., assignor to Glits Bros. Mfg. Co., Chicago, Ill., a corporation of Illinois
Application November 1, 1955, Serial No. 544,139
4 Claims. (Cl. 286-11.14)



1. In a shaft seal or the like arranged to effect a seal between a pair of relatively rotatable elements, a seal ring having a sealing face arranged to coact with a like sealing face on one of the relatively rotatable elements and having surfaces facing in axially opposite directions, a support sleeve for said seal ring, means on said sleeve for engaging one of said surfaces, a resilient member for engaging the other of said surfaces, and means on said sleeve for urging said resilient member against said other of said surfaces and having an annular edge arranged to bitingly engage said resilient member at a point spaced radially outwardly a substantial distance from the inner surface of said seal ring.

2,824,761
SEAL

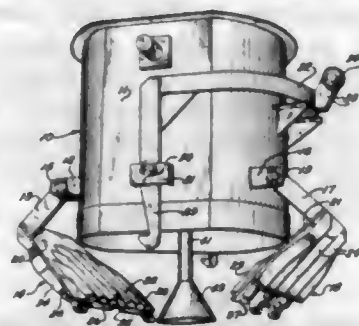
Wallace S. Shahan, San Marcos, Tex.
Application April 26, 1954, Serial No. 425,373
1 Claim. (Cl. 292—317)



A seal comprising a keeper housing having an end wall, side walls, and open at one end, and a bottom wall, the bottom wall having formed integrally therewith an elongated portion to form a strap, the strap at its end having a plurality of openings therethrough, the strap having a transverse score line between the openings, the strap adjacent the keeper housing having upwardly struck loop openings, a locking wire having one end extending longitudinally of the strap and through the loop openings, the other end of the wire extending upwardly and inwardly of the housing, the strap being bent midway of its length and having its end extending into the housing, the said wire extending through the opening nearest the end of the strap, said wire further extending in a V-bent portion and into the bottom of the housing, the bottom wall of the housing having a longitudinal channel formed therein, and the wire extends into this channel.

2,824,762
CHARGING BUCKETS

Francis T. Kaiser, Port Washington, Wis., assignor to Modern Equipment Company, Port Washington, Wis., a corporation of Wisconsin
Application January 4, 1956, Serial No. 557,335
6 Claims. (Cl. 294—69)



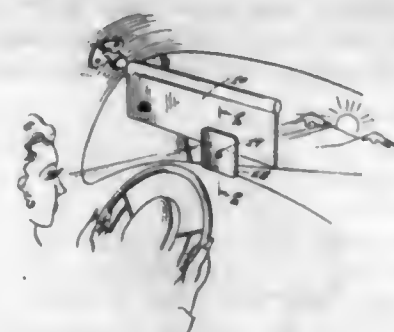
1. A cupola charging bucket comprising a bucket portion having a bottom opening, a cone of substantially less maximum diameter than the diameter of said bottom opening having an upwardly projecting stem, supporting means within said bucket to which the upper end of said stem is swingably connected to be suspended substantially centrally of the bucket, the stem being of such length that the cone is supported below the bottom opening, closure means for said bottom opening movably connected to the bucket, and means for releasably holding said closure means in closing position around said stem and above said cone.

2,824,763
ADJUSTABLE SUN SHIELD FOR ATTACHMENT TO A SUN VISOR

Lloyd L. Extrom, Morongo Valley, Calif.
Application May 3, 1956, Serial No. 582,602
1 Claim. (Cl. 296—97)

In combination with a sun visor having a universal joint connection mounting said visor within an automotive vehicle, an adjustable glare shield adjustably supported upon said sun visor for reciprocating longitudinal sliding and rolling movement within the plane of said sun visor and for rotational movement about an axis extending perpendicularly to said plane, said glare shield comprising a shield plate, a clamping plate disposed adjacent to said shield plate, both of said plates having

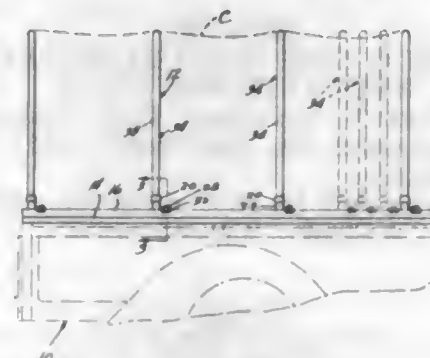
permanently aligned central openings, connecting means extending through said respective openings in said plates having one end adapted to engage one outer surface of said shield plate and having an opposite end adapted to engage one outer surface of said clamping plate, spring means urging both of said plates towards mating engagement with each other comprising a plurality of angularly adjustable leaf springs each having a centrally disposed



opening for receiving said connecting means, the outer extremities of said spring means comprising outwardly turned flanges for flat face engagement with said clamping plate, and securing means carried by said connecting means for adjusting the pressure of said spring means to effect an adjustable clamping pressure between said clamping plate and said shield plate to maintain said glare shield in an adjusted position with respect to said sun visor.

2,824,764
SLIDABLY ADJUSTABLE SUPPORT ASSEMBLY FOR CANOPIES, COVERS, AND THE LIKE

John Stirling, Klamath Falls, Oreg.
Application July 6, 1956, Serial No. 596,300
1 Claim. (Cl. 296—105)

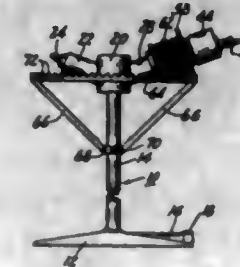


A canopy support for a truck body comprising elongated, straight, parallel, tubular tracks adapted to be fixedly mounted on the respective side walls of said body and formed with longitudinal, upwardly opening, guide slots; a plurality of brackets carried by each track, each bracket including an upwardly opening, tubular, internally threaded socket and a flat support plate rigid with the lower end of said socket and lying in a vertical plane disposed diametrically of the socket, said plate having a lower end extending downwardly through the guide slot of the adjacent track, an elongated inner clamp member extending longitudinally within the track and rigidly connected at one end to the lower end of the plate, said member having adjacent its other end a threaded opening, the slot, plate, and said opening being aligned longitudinally of the track, an outer clamp member overlying the track and said other end of the inner member adjacent the plate, the outer clamp member having an opening registered with the threaded opening, and a clamping bolt threadedly engaged in said opening of the guide member and extending through the opening of said outer clamp member, the bolt including a head overlying the outer clamp member for clampably engaging the track wall between said members; and a plurality of ribs each of approximately inverted U-shape, said ribs extending trans-

versely between the tracks with each rib including legs engaged threadedly in corresponding sockets of brackets carried by the respective tracks.

2,824,765
PATTERN SPRINKLER

Arthur T. Stangle, Vincennes Township, Knox County, Ind., and William F. Primus, Allison Township, Lawrence County, Ill.
Application September 9, 1955, Serial No. 533,310
4 Claims. (Cl. 299—18)

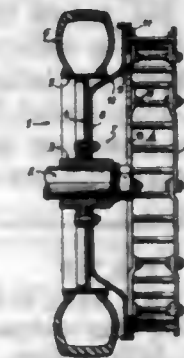


1. A pattern sprinkler comprising a support, a water discharge conduit rotatable on said support on a vertical axis and projecting laterally from said support, a member coaxial with and rotatable on the end of said conduit, a nozzle carried eccentrically by said member, means for rotating said member in predetermined timed relation to the rotation of said conduit and an eccentrically apertured member fixedly secured to and transversely spanning said conduit, said nozzle communicating with the eccentric aperture at all rotative positions thereof, said apertured member and rotatable member cooperating to define a valve.

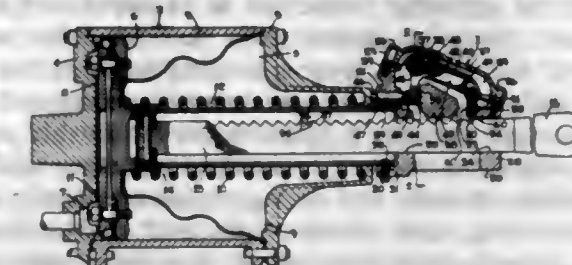
2,824,766
WHEEL STRUCTURE
George Albert Lyon, Detroit, Mich.
Application March 3, 1953, Serial No. 339,978
5 Claims. (Cl. 301—37)

5. In a cover for disposition at the outer side of a vehicle wheel including a wheel body and a tire rim having a radially inwardly facing annular flange, an annular cover portion for overlying the tire rim and having a radially outer marginal part thereof extending generally radially inwardly for overlying the rim flange and an axially inwardly extending part for disposition in generally telescoped radially inwardly spaced relation to the rim flange, said annular cover portion having intermediately thereof and adjacent juncture of the axially and radially extending parts thereof an inset portion by which at least the major extent of said axially extending part is inset substantially relative to the contiguous portion of the radially extending part, and a cover retaining structure carried by said annular cover portion and comprising a generally ring shaped portion disposed in nested relation behind said radially extending part and with cover retaining resilient fingers extending generally axially inwardly opposite said inset portion and projecting beyond said inset portion, said inset portion thereby remaining spaced radially inwardly from

the fingers and enabling radial flexure of the fingers upon engagement of retaining terminals on the fingers with the rim flange, said radially inward flexure being substantially resiliently stiffened by the backing up of the ring portion against the cover portion to the point where the fingers project axially inwardly beyond said insetting portion.

2,824,767
TREAD DEVICE FOR VEHICLES
Pierre Jean Marie Theodore Allard, Eaubonne, France
Application July 7, 1953, Serial No. 366,412
Claims priority, application France July 28, 1952
12 Claims. (Cl. 301—41)

1. A tread device for a vehicle wheel comprising: a mounting member having a symmetrical shape about an axis, tread elements symmetrically arranged on one side of the mounting member on a geometrical cylinder concentric with said axis and disposed axially to one side of the wheel, means holding the tread elements and the mounting member rigidly assembled, these means permitting of individual assembly of each tread element, each tread element comprising two plates spaced apart in the direction of said axis and lying in planes substantially perpendicular to the latter and cross-braces extending in a direction substantially parallel to said axis and connecting each pair of plates so as to constitute an independent rigid tread unit which has substantially radially extending through-way apertures the outermost points of the tread elements with respect to said axis lying on a geometric cylinder having a diameter which is slightly smaller than the maximum diameter of the wheel and means detachably securing the mounting member to the wheel in coaxial relationship thereto.

2,824,768
BRAKE CYLINDER LATCH ARRANGEMENT FOR EMPTY AND LOAD BRAKE EQUIPMENT
William J. Sands, East McKeesport, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania
Application September 22, 1955, Serial No. 535,888
9 Claims. (Cl. 303—6)

1. In a fluid pressure brake apparatus, the combination with a brake cylinder having a piston and also having a piston rod operable by said piston, and a transversely toothed push rod mounted in and projecting exteriorly of the piston rod, of a latch device comprising body means carried by the piston rod adjacent its projecting end, lever means rockably connected to said body means for arcuate movement in a direction lengthwise of the push rod, latch means pivotally connected to said lever means for arcuate movement in said direction relative to said

lever means, unlatching means normally maintaining said lever means in one position for thereby maintaining said latch means disengaged from the push rod, bias means acting on said lever means and effective during initial outward movement of the piston from a brake release position to rock said lever means from said one position for carrying said latch means into engagement with one of the push rod teeth, thereupon causing said latch means during continued outward movement of the piston to so fulcrum on said one tooth and pivot relative to said lever means as to fully seat against said one tooth or the tooth adjacent said one tooth, and thrust transmitting means rigidly carried by said body means and normally spaced from said latch means and effective during subsequent outward movement of the piston following such continued outward movement to successively engage said latch means and then force the latter against the tooth against which it is then fully seated for thereafter transmitting power from the piston to the push rod during further outward movement of the piston.

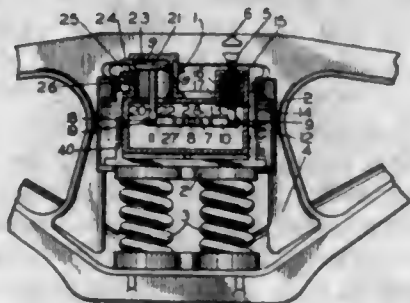
2,824,769

LOAD BRAKE MECHANISM

Glenn M. Thomas, Irwin, Pa., assignor to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application April 6, 1954, Serial No. 421,247

3 Claims. (Cl. 303—22)



1. In a load brake mechanism for a railway vehicle having a truck frame, a truck bolster, truck springs supporting the truck bolster and carried by the truck frame, and a stop element disposed above the truck bolster and affixed to the truck frame, the combination of casing means adapted to be mounted in a fixed position on the truck bolster, a measuring stem mounted in said casing means for vertical movement into and out of contact at its upper end with said stop element to sense the degree of the deflection of the truck springs, a piston mounted in said casing means for reciprocable movement along a vertical axis in laterally spaced-apart relationship with respect to said measuring stem and subject on its upper face to pressure of fluid in an expansible chamber defined by said casing means in cooperation with said piston, a piston rod operably connected at its upper end to said piston and extending downwardly therefrom for vertical movement therewith, a lever extending between the lower ends of said piston rod and said measuring stem and pivotally connected thereto, a fulcrum pin removably secured to said casing means and rockably supporting said lever intermediate its ends, and spring means constantly urging said measuring stem downwardly and said piston upwardly toward respective repose positions, said casing means being provided with a plurality of fulcrum pin attachment-accommodating stations enabling location of said fulcrum pin at any one of a plurality of points at spaced-apart intervals in the direction of extension of said lever when disposed according to the repose positions of said piston and measuring element, and said lever being provided with a corresponding number of fulcrum pin supportable stations to enable said fulcrum pin to be repositioned in said casing means relative to opposite ends of said lever.

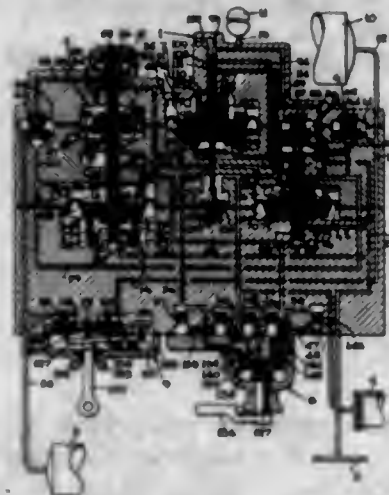
2,824,770

FLUID PRESSURE BRAKE EQUIPMENT

John W. Rush, Wilkesburg, and Glenn T. McClure, McKeesport, Pa., assignors to Westinghouse Air Brake Company, Wilmerding, Pa., a corporation of Pennsylvania

Application August 27, 1953, Serial No. 376,775

26 Claims. (Cl. 303—35)



1. In a fluid pressure brake apparatus, in combination, a brake pipe, a brake cylinder device, a supply reservoir, a control reservoir, a brake controlling valve device controlled by pressure of fluid in said brake pipe and opposing control reservoir pressure and operative upon a chosen reduction in brake pipe pressure relative to said opposing control reservoir pressure to supply fluid under pressure from said supply reservoir to said brake cylinder device, a quick service valve device controlled by brake pipe pressure and opposing control reservoir pressure and operative in response to a certain degree of reduction in brake pipe pressure less than said chosen reduction to establish a communication for effecting a quick service reduction in pressure in said brake pipe, a casing having a charging communication for conducting fluid under pressure supplied from said brake pipe to both of said reservoirs, one check valve for preventing flow of fluid under pressure from said supply reservoir to said charging communication, another check valve for preventing flow of fluid under pressure from said control reservoir to said charging communication, and valve means operated by said quick service valve device to open said charging communication when the brake pipe pressure is substantially equal to said opposing control reservoir pressure and to close said charging communication in response to said certain degree of reduction in brake pipe pressure.

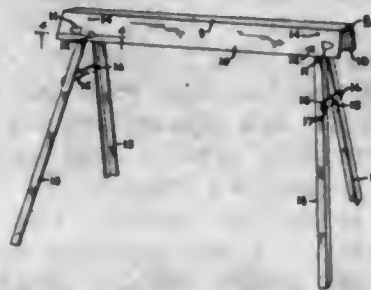
2,824,771

FOLDABLE SAWHORSE

Joseph Blenski, Milwaukee, Wis., assignor to Fred Riefschneider, Milwaukee, Wis.

Application April 19, 1954, Serial No. 423,930

2 Claims. (Cl. 304—5)



1. A portable sawhorse comprising, an elongated inverted substantially U-shaped work-supporting beam having the side walls thereof provided with opposed sets of spaced integral and inwardly directed wedge shaped lugs on their adjacent surfaces near opposite ends of said beam, the lug of each set nearest to the end of said beam

being larger than and located slightly above the other lug of said set, supporting legs pivotally secured to the side walls of said beam above and between the lugs of each set for nesting in the space between the walls and for swinging movement in a plane parallel to the plane of the wall to which the respective legs are secured and into seated position within the space between the lugs of the adjacent set and means cooperable with each pair of opposing legs for positively maintaining the same in spaced condition and in position within their respective seats.

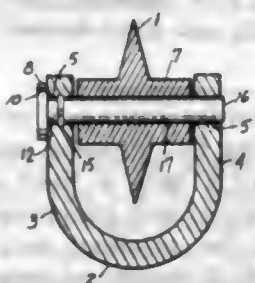
2,824,772

PIN SUPPORT

Thorvald Petersen, Erie, Pa., assignor to Reed Manufacturing Company, Erie, Pa., a corporation of Pennsylvania

Application March 28, 1955, Serial No. 497,139

1 Claim. (Cl. 308—18)



In a structure for removably supporting a pin and a hub journaled on the pin, spaced supporting walls having aligned pin receiving openings therein, a hub between the walls and provided with a bore, a pin extending through said openings and the bore of the hub to rotatably support the hub thereon, said pin having an enlarged head at one end only, non-circular surfaces on said head, complementary surfaces on one of said spaced walls providing a non-circular recess engaging the non-circular head to hold the pin against rotation, a groove in the pin adjacent the head of the pin, a snap ring in the groove and having a portion thereof projecting outside the periphery of the pin in its unstressed position, and an internal groove within the opening in said one wall adjacent the head end of the pin, the portion of the snap ring projecting outside the groove in the pin being received in the internal groove and releasably holding the pin in place.

2,824,773

BEARING FOR SMALL MOTORS

Joseph Bontempi, Pearl River, N. Y.

Application May 7, 1954, Serial No. 428,268

1 Claim. (Cl. 308—26)



A bearing comprising a cup, a felt washer placed in said cup and under compression in said cup, central openings in said washer and in said cup in registry with each other, and a flexible sleeve made of resiliently woven fiberglass positioned in the opening in said washer.

2,824,774

DISPENSING MACHINES

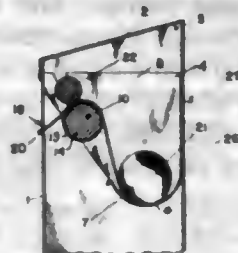
Chester D. Embree, Falls City, Oreg.

Application September 2, 1955, Serial No. 532,344

3 Claims. (Cl. 312—39)

1. In a dispensing machine for a roll of sheet material, a holder comprising a trough shaped member for loosely retaining a roll of sheet material and having upstanding side walls extending above and forwardly beyond the

front edge of the trough, said side walls having downwardly and rearwardly extending slots opening at their upper ends through the top edges thereof, a dispensing roller having the ends thereof journaled in said slots and being disposed above and forwardly of the front edge of said trough, said dispensing roller having a roughened cylindrical surface for frictionally engaging the web of a



roll of sheet material and unwinding the same from a roll of sheet material disposed in said trough as the roller is rotated, and a hold down roller journaled in said slots and gravitationally bearing against said dispensing roller for maintaining the web of a roll of sheet material to be dispensed in contact with the roughened surface of said dispensing roller.

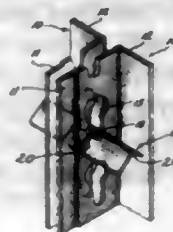
2,824,775

LOCKING KEY FOR ADJOINING CABINET UNITS

Richard W. Stiller, St. Charles, Ill., assignor to Aurora Equipment Company, Aurora, Ill., a corporation of Illinois

Application December 6, 1954, Serial No. 473,075

1 Claim. (Cl. 312—111)



In combination cabinet units each having supporting members provided with aligned pairs of spaced key receiving openings capable of inter-registration and attaching means insertable into the registered openings in said members to position fixedly said units in spaced relation by frictional camming engagement with margins of said openings, each of said attaching means comprising a key having spaced pairs of slots providing reduced sections between the pairs of slots, said key being inserted lengthwise through said aligned openings and being turned with edges of its slots cammingly engaging margins of said openings with each reduced section being disposed in one of said aligned openings, said key being of angled cross-section with divergent legs thereof having at the ends of said legs said edges of said slots including slotted edge portions defining said slots with bottom and inner side portions of said slotted edge portions inclined relative to and on opposite sides of the apex of said angled key in converging relation for wedging engagement along inclined lines with opposing portions of said edge portions defining said openings whereby the overall effective area of application of wedging pressure against said members is augmented and cocking of said key is minimized.

2,824,776

MAGNETIC RECORDING

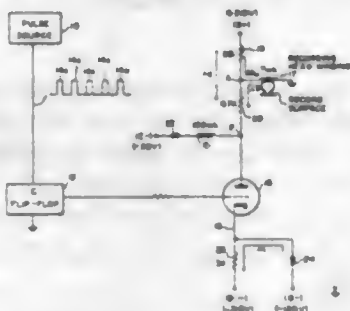
Alexander Elovic and Donald T. Best, Philadelphia, Pa., assignors to Burroughs Corporation, Detroit, Mich., a Michigan corporation

Application August 10, 1956, Serial No. 603,370

8 Claims. (Cl. 346—74)

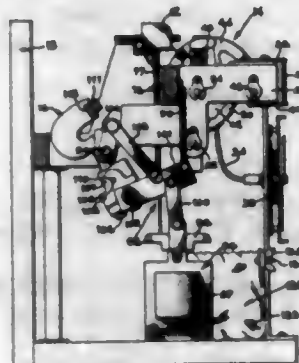
1. In a magnetic recording system; a magnetic recording-head winding and a first resistance, the resistance of

said winding to D.-C. current being negligible compared with that of said first resistance; a source of positive D.-C. potential connected across said first resistance and winding in series to drive a current through said winding; and means responsive to a signal for switching substantially instantly the direction of said current through said winding while maintaining substantially constant the magnitude of the steady-state current, said switching and regulating means comprising: a uni-directional conducting device having at least triode elements; a second resistance connecting the anode of said device to the common junction of said winding and said first resistance; a third resistance connecting the cathode of said device to a source



of negative D.-C. potential; a uni-directional conducting diode and a choke serially connecting the anode of said device to a source of intermediate D.-C. potential, said diode being so poled that its anode is connected to said source of intermediate D.-C. potential and its cathode is connected to said choke, the inductance of said choke being large relative to that of said winding, said intermediate D.-C. potential being negative relative to the potential at said common junction point but positive relative to the potential at said source of negative potential; and means connected to the grid-cathode circuit of said device and responsive to applied signals for changing the state of said device from non-conductive to conductive and from conductive to non-conductive.

2,824,777
TIME RECORDER
Carl K. Gleringer, Cincinnati, Ohio, assignor to The Cincinnati Time Recorder Company, Cincinnati, Ohio, a corporation of Ohio
Application June 13, 1951, Serial No. 231,393
4 Claims. (Cl. 346—83)

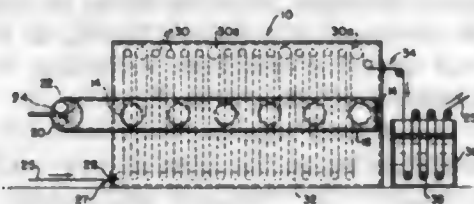


1. In a time recorder having a printing mechanism, a solenoid for driving said printing mechanism, a guideway for reception of a card, a fixed abutment member extending transversely of said guideway for engaging said card to position it for printing, means for preventing multiple printing, which means include a first switch and a second switch in series connection with said solenoid, said first switch having a card engaging finger disposed in said guideway and spaced from said abutment member, said second switch having a card engaging finger disposed in said guideway adjacent said abutment member, whereby said first switch is closed when a card is partially inserted in said tray and thereby conditions said second switch for control of the solenoid, and mechanical linkage means interconnecting said second switch finger and said solenoid for holding said finger closed so long as said solenoid is energized.

CHEMICAL

2,824,778
PROCESS FOR IMPARTING WATER REPELLENCY TO CELLULOSIC MATERIAL COMPRISING CELLULOSIC FIBERS BY REACTION WITH AN AEROSOL CONTAINING ORGANO SILICON HALIDE

Edward Robbart, Cambridge, Mass.
Application September 28, 1954, Serial No. 458,785
10 Claims. (Cl. 8—116)



1. In the method of reacting organo silicon halides having as organo substituents alkyl groups with between one and three carbon atoms, with cellulosic material comprising cellulosic fibers reactive with said organo silicon halides to form a water repellent surface coating by contacting said material with said organo silicon halide in vapor form, the improvement of advancing said material continuously into contact with an atmosphere comprising an aerosol mixture of liquid particles of said organo silicon halide dispersed in an inert gas and maintaining a constantly substantially saturated vapor phase of said organo silicon halide vapor adjacent to the surface of said material by supplying and maintaining dispersed liquid par-

ticles of said organo silicon halide in said atmosphere, maintaining said material in contact with said atmosphere until the organo silicon halide vapor reacts therewith and renders it water repellent, and continuously removing said material from said atmosphere.

2,824,779
CARBAMOYLETHYL, CARBOXYETHYL, AND AMINOETHYL CELLULOSE ETHER TEXTILE FIBERS AND PROCESS OF MAKING THE SAME
Wilson A. Reeves and John D. Guthrie, New Orleans, La., assignors to the United States of America as represented by the Secretary of Agriculture
No Drawing. Application March 9, 1955
Serial No. 493,313
10 Claims. (Cl. 8—117)
(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process for carbamoylating cellulosic textile fibers containing at least 1 free hydroxyl group per 5 to 6 anhydroglucose units which comprises reacting said fibers with about from 60 to 150% of the weight of the fibers of a solution comprising 1-55.2% of acrylamide and 1 to 12 weight percent of a strong base from the group consisting of an alkali metal hydroxide and a quaternary ammonium hydroxide until there is introduced into the cellulose molecules about from 1 carbamoyl group per 6 anhydroglucose units to 1 carbamoyl group per 2 anhydroglucose units.

2,824,780

FILAMENT FORMATION FROM POLYMERIC DISPERSIONS

Cameron B. Satterthwaite, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application April 10, 1953

Serial No. 348,120

7 Claims. (Cl. 18—54)

1. The process of preparing fibers from a synthetic fiber-forming polymer which comprises forming a smooth flowable paste by mixing the said polymer in the finely-divided state with a liquid vehicle of low volatility which is a poor solvent for the polymer at room temperature but has sufficient solvent power for the polymer at a temperature between 80° C. and 400° C. to coalesce the polymer, extruding the said paste through a spinneret while the polymer particles are in their particulate state to form a funicular structure, coalescing the polymer particles in the presence of the said vehicle by increasing the temperature thereof until the polymer loses its particulate state.

2,824,781

EXTRUSION PROCESS

Arthur F. Dellheim and Lee F. Samler, Baltimore, Md., assignors to The National Plastics Products Company, Odenton, Md., a corporation of Maryland

Application November 17, 1953, Serial No. 392,618

3 Claims. (Cl. 18—54)



1. In a process for forming and orienting polystyrene filaments, the steps of extruding molten polystyrene filaments into air, guiding the filaments into a liquid heated to a temperature of 240–260° F., stretching the filaments in said liquid cooling the filaments to a temperature below the softening range of the polystyrene, and maintaining the filaments in virtually uninterrupted straight line flow at all times that said filaments are at a temperature within the softening range of the polystyrene.

2,824,782

CORROSION INHIBITORS AND METHOD

Frank Ross and Charles Mellick, Chicago, Ill., assignors to Dearborn Chemical Company, Chicago, Ill., a corporation of Illinois

No Drawing. Application October 4, 1955

Serial No. 538,521

14 Claims. (Cl. 21—2.5)

1. A packaging material for inhibiting rusting and corrosion of metallic articles packaged therein, comprising an inert porous solid carrier containing an effective quantity of a vapor-phase corrosion inhibitor consisting essentially of an acid salt having the formula:



wherein M is an alkali metal and each RCO is a long chain fatty acyl group, and one of said R's is a $\text{C}_8\text{--C}_{11}$ radical and the other of said R's is a $\text{C}_8\text{--C}_{17}$ radical.

2,824,783

SEPARATION OF SCANDIUM FROM AQUEOUS SOLUTIONS

Donald F. Peppard, Oak Park, and Elliot S. Nachtman, Park Forest, Ill., assignors to the United States of America as represented by the United States Atomic Energy Commission

No Drawing. Application February 27, 1953

Serial No. 339,464

7 Claims. (Cl. 23—14.5)

1. The process of separating scandium values from aqueous mineral acid solutions which comprises contact-

ing an aqueous acidic solution containing said scandium values and mineral acid in a concentration of between 6 and 8 M with tributyl phosphate, and separating an aqueous phase and an extract phase containing said scandium values.

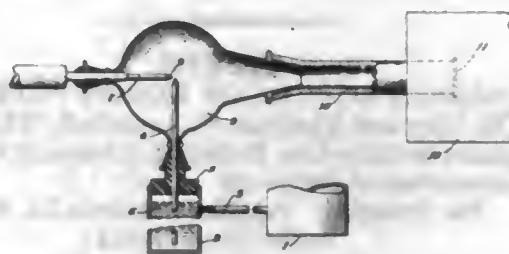
2,824,784

METHOD FOR THE PREPARATION OF STABLE ACTINIDE METAL OXIDE-CONTAINING SLURRIES AND OF THE OXIDES THEREFOR

Robert S. Hansen, Ames, Iowa, and Robert E. Minturn, Oak Ridge, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission

Application September 7, 1956, Serial No. 608,641

6 Claims. (Cl. 23—14.5)



1. A process of preparing a stable slurry of the oxide of an actinide element, comprising dissolving the nitrate of said actinide element in a combustible organic solvent, converting the solution obtained into a spray, igniting the spray whereby an oxide powder is obtained, slurring said oxide powder in an aqueous solution of a substance which is adsorbable by said oxides, dispersing the slurry in a colloid mill whereby a suspension is obtained, and electro dialyzing said suspension until a low specific conductance is reached.

2,824,785

PRODUCTION OF KH_2PO_4 , NaCl AND SODIUM PHOSPHATES

Menahem Merlhub-Sobel, Jersey City, N. J., assignor to Horizons Incorporated, Princeton, N. J., a corporation of New Jersey

No Drawing. Application February 20, 1956

Serial No. 566,359

4 Claims. (Cl. 23—107)

1. In a process for producing potassium dihydrogen phosphate which includes in a first portion, the recovery of a substantial portion of the potassium dihydrogen phosphate by crystallization from a solution of potassium chloride and sodium dihydrogen phosphate, the improvement which comprises: separately recovering the potassium and phosphate values in the solution remaining after crystallization and removal of a substantial portion of the potassium dihydrogen phosphate from the solution originally formed of potassium chloride and sodium dihydrogen phosphate by adding a base from the group consisting of caustic soda and soda ash and mixtures thereof to the remaining solution, thereby precipitating at least one sodium phosphate from the group consisting of Na_2HPO_4 and Na_3PO_4 ; recovering the insoluble phosphate from the remaining liquid; heating the liquid to boil off a portion of the water contained therein, thereby precipitating sodium chloride; separating the solid sodium chloride; and recovering the potassium values in the liquid separated from the sodium chloride precipitate by returning the said liquid to the process for preparation of an additional solution of KCl and NaH_2PO_4 from which KH_2PO_4 is to be recovered in a repetition of the process.

2,824,786

MANUFACTURE OF KH_2PO_4
Menahem Merlhub-Sobel, Jersey City, N. J., assignor to
Horizons Incorporated, Princeton, N. J., a corporation
of New Jersey

No Drawing. Application February 20, 1956

Serial No. 566,360

7 Claims. (Cl. 23-107)

1. A process for producing potassium dihydrogen phosphate which comprises: forming a water solution at a relatively high temperature from potassium chloride and sodium dihydrogen phosphate, cooling the solution to below the boiling point of an organic liquid to be added thereto, adding an organic liquid to the solution from the group consisting of alcohols and ketones boiling below 100°C ., cooling the resulting product to precipitate the potassium dihydrogen phosphate formed by interaction of the ingredients in the solution, and separating and recovering the crystals from the remaining liquor.

2,824,787

MANUFACTURE OF BORON NITRIDE
Frank H. May and Vladimir V. Levasheff, Whittier, Calif.,
assignors to American Potash & Chemical Corporation,
a corporation of Delaware

No Drawing. Application June 22, 1955

Serial No. 517,352

9 Claims. (Cl. 23-191)

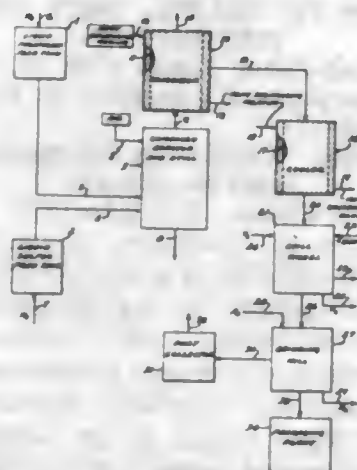
1. In a process for producing boron nitride the steps of producing a boron complex comprising reacting ammonia and methyl borate at a temperature above about 850°C ., the ammonia being present in at least a slight excess over a mole to mole ratio with methyl borate, and recovering the product of reaction.

2,824,788

**PROCESS OF PREPARING BRIGHT YELLOW
COLORED PHOSPHORUS SULFIDE**
John W. Lefforge, Danvers, Mass., assignor to Monsanto
Chemical Company, St. Louis, Mo., a corporation of
Delaware

Application July 23, 1954, Serial No. 445,349

6 Claims. (Cl. 23-206)



1. The method of preparing bright yellow colored phosphorus sulfides which comprises introducing free oxygen-containing gas into a mass of darkly colored phosphorus sulfide while subjecting the resulting product to distillation to separate said phosphorus sulfide in the form of a product having a bright canary yellow color, said free oxygen-containing gas being employed in an amount sufficient to produce said color improvement.

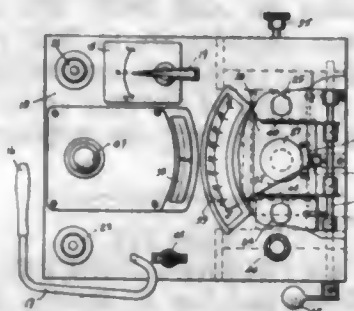
2,824,789

APPARATUS FOR ANALYZING A GAS
Robert F. Borkenstein, Indianapolis, Ind.
Application May 10, 1954, Serial No. 428,559

1 Claim. (Cl. 23-254)

An apparatus for analyzing a gas including a light transmitting container having therein a chemical solution

affected in its light transmission characteristics by a charge of the gas to be passed therethrough, a comparative light transmitting medium spaced from said container, a gas measuring cylinder, a tube leading from a source of gas supply to one end of said cylinder, a three-way valve in said tube, a pipe leading from said valve to said light transmitting container, said valve when in one position establishing communication between said source and said cylinder and closing said pipe and when in a second position closing off said source and establishing communication between said tube and said pipe and closing off all passage of gas when in its third position, means for venting the preliminary flow of gas from said source from said cylinder and trapping a selected portion and prede-



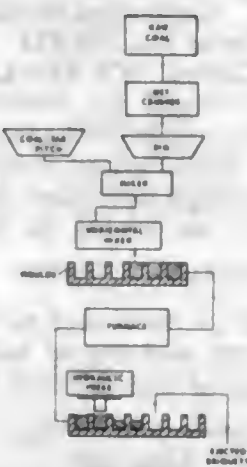
termined quantity of said gas therein, a movable light source positioned between said container and medium, photo voltaic cells mounted on the opposite far sides of said container and media to receive light rays passing through the solution and media respectively, a null meter, an electric circuit connecting said cells and said null meter, means for adjusting the relative position of said light source between said container and media to balance the flow of current from said cells through said null meter, and an indicator operably associated with said light source to indicate the degree of movement thereof from a cell balanced position to the flow of gas through said solution to a balanced position following the flow of gas there-through.

2,824,790

BRIQUETTING OF COAL
Douglas Haig Gregory, Cheltenham, and John Charles
Anthony Kaye, Gloucester, England, assignors to Coal
Industry (Patents) Limited, London, England

Application August 2, 1954, Serial No. 447,433

7 Claims. (Cl. 44-19)



1. A coal briquetting process in which coal to be briquetted is heated to its fusing temperature after admixture with less than 8% of a fluxing agent selected from the group consisting of coal tar, coal tar by-products, pitch, bitumen, by-products of the distillation of petroleum, and tars and oils recovered from the distillation of wood, and the hot fused mixture is briquetted by the application of pressure whilst the mixture is fused and is at a temperature exceeding 250°C . and below the decomposition temperature of the coal used.

2,824,791

**HIGH ENERGY FUELS CONTAINING
ETHYLENE IMINE**

Hans Osborg, Port Washington, N. Y., David Horvitz,
Hyattsville, Md., and Amos H. Pope, Washington,
D. C., assignors, by mesne assignments, to Chemrad
Corporation, a corporation of New York

No Drawing. Application June 22, 1951

Serial No. 233,108

5 Claims. (Cl. 52-5)

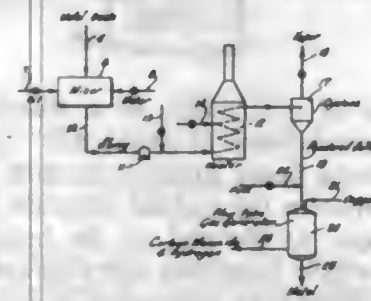
1. A fuel composition of matter consisting essentially of gasoline and ethylene imine in an amount to give the composition hypergolic properties.

2,824,792

METHOD OF REDUCING METAL OXIDES
Harry V. Rees, Chappaqua, and Frederick Burton Sellers,
Tarrytown, N. Y., assignors to Texaco Development
Corporation, New York, N. Y., a corporation of Del-
aware

Application February 15, 1955, Serial No. 488,248

8 Claims. (Cl. 75-26)



1. A process for the simultaneous reduction of a reducible solid metal oxide and the production of carbon monoxide and hydrogen which comprises admixing said metal oxide in solid particle form with sufficient liquid hydrocarbon to form a slurry; passing said slurry as a confined stream in turbulent flow through a tubular heating zone; heating said slurry to an elevated temperature at least sufficient to vaporize said liquid hydrocarbon; discharging the resulting dispersion comprising heated solid and hydrocarbon vapor into a reaction zone into admixture with gas containing free oxygen; effecting interaction of said metal oxide, hydrocarbon and oxygen in the reaction zone at a temperature above about $2,000^\circ\text{F}$. and recovering from the reaction zone the reduction product of the metal oxide and a gaseous product comprising carbon monoxide and hydrogen.

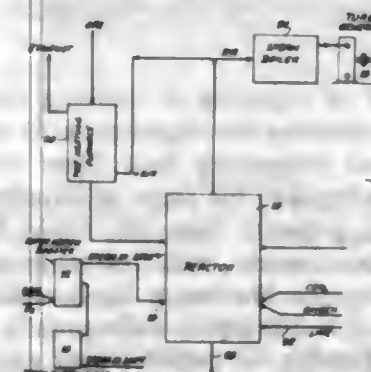
2,824,793

**PROCESS FOR PRODUCING STEEL BY HIGH
TEMPERATURE GASEOUS REDUCTION OF
IRON OXIDE**

Fredrik W. de Jahn, Scarsdale, N. Y., assignor of one-
half to Alan N. Mann, Scarsdale, N. Y.

Application November 27, 1956, Serial No. 624,646

8 Claims. (Cl. 75-40)



1. The process of reducing iron oxide which comprises burning coal with oxygen and superheated steam to produce an atmosphere comprising carbon monoxide and hydrogen and a small percentage of carbon dioxide and

dropping into the combustion zone through the rising column of combustion gases, small particles of iron oxide preheated to a temperature above 1000°F . but not above the temperature at which they stick together whereby a temperature is maintained in the combustion zone high enough to raise the temperature of the charge to between the melting point of iron and 3400°F . and the iron ore is reduced and molten iron is produced.

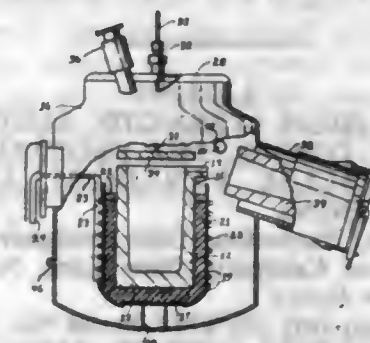
2,824,794

**PROCESS FOR FUSION OF HIGH-MELTING
METALS**

Augustus J. Hathaway III, Niagara Falls, N. Y., assignor
to National Lead Company, New York, N. Y., a cor-
poration of New Jersey

Application May 18, 1954, Serial No. 430,615

4 Claims. (Cl. 75-84)



1. A process for fusing high-melting reactive metals of the class consisting of titanium and titanium-base alloys without significantly increasing the hardness thereof which comprises heating such a metal in an inert atmosphere in contact with only a refractory consisting essentially of CaO , ZrO_2 and TiO_2 .

2,824,795

**FORGEABLE HIGH STRENGTH AUSTENITIC
ALLOY WITH COPPER, MOLYBDENUM,
AND COLUMBIUM-TANTALUM ADDITIONS**
Fritz T. Eberle, Barberton, Ohio, assignor to The Bab-
cock & Wilcox Company, New York, N. Y., a corpora-
tion of New Jersey

Application July 30, 1954, Serial No. 446,876

4 Claims. (Cl. 75-125)

1. A forgeable austenitic steel alloy having superior stress resistance and corrosion resistance properties, and freedom from impact embrittlement, in extended service under stress at temperatures of the order of 1300°F .; said alloy having the following composition:

	Percent
Cr	15.00-20.00
Ni	12.00-18.00
C	0.02-0.15
Mn	0.25-2.50
Si	0.10-1.00
Cu-Ta	1.50-3.50
Cu	2.00-3.00
Mo	1.00-2.00

Balance iron with the usual impurities.

2,824,796

**FORGEABLE HIGH STRENGTH AUSTENITIC
ALLOY WITH COPPER, MOLYBDENUM,
TANTALUM AND NITROGEN ADDITIONS**
Fritz T. Eberle, Barberton, Ohio, and Clark L. Corey,
Ann Arbor, Mich., assignors to The Babcock & Wilcox
Company, New York, N. Y., a corporation of New
Jersey

Application July 30, 1954, Serial No. 446,877

8 Claims. (Cl. 75-125)

1. A forgeable austenitic steel alloy having superior stress resistance and corrosion resistance properties, and

freedom from impact embrittlement, in extended service under stress at temperatures of the order of 1300° F.; said alloy having the following composition:

	Percent
Cr	15.00-20.00
Ni	12.00-18.00
C	0.02-0.15
Mn	0.25-2.50
Si	0.10-1.00
Cu	2.00-3.00
Mo	2.00-3.00
Ta	0.50-2.00
N	0.15-0.25

Balance iron with the usual impurities; said alloy having a rupture strength, after 100 hours under stress at 1350° F., of at least 28,000 p. s. i. and, after 1000 hours under stress at 1350° F., of at least 20,500 p. s. i.

2,824,797

FORGEABLE HIGH STRENGTH AUSTENITIC ALLOY WITH COPPER, MOLYBDENUM, COLUMBIUM-TANTALUM, VANADIUM, AND NITROGEN ADDITIONS

Fritz T. Eberle, Barberton, Ohio, assignor to The Babcock & Wilcox Company, New York, N. Y., a corporation of New Jersey

Application July 30, 1954, Serial No. 446,879

6 Claims. (Cl. 75-125)

1. A forgeable austenitic steel alloy having superior stress resistance and corrosion resistance properties, and freedom from impact embrittlement, in extended service under stress at temperatures of the order of 1300° F.; said alloy having the following composition:

	Percent
Cr	15.00-20.00
Ni	12.00-18.00
C	0.02-0.15
Mn	0.25-2.50
Si	0.10-1.00
Cu	2.00-3.00
Mo	1.00-2.00
Cb-Ta	0.50-2.00
V	0.20-1.00
N	0.10-0.25

Balance iron with the usual impurities; said alloy having a rupture strength, after 1000 hours under stress at 1350° F., of at least 18,000 p. s. i.; and after 5000 hours under stress at 1350° F., of at least 16,000 p. s. i.

2,824,798

AUSTENITIC ALLOYS

Wasi W. Dyrkacz, Newtonville, Richard K. Pitter, Albany, and Henry M. Butler, Watervliet, N. Y., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania

No Drawing. Application April 25, 1957

Serial No. 655,000

5 Claims. (Cl. 75-126)

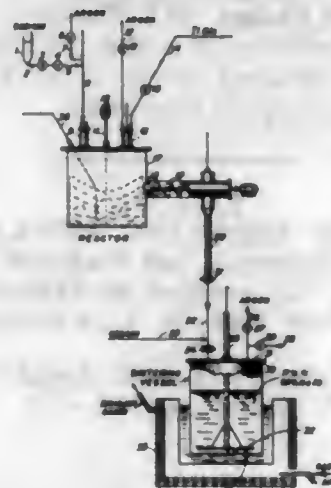
5. As an article of manufacture for use at elevated temperatures of up to 1600° F., an alloy consisting of from 0.60% to 1.0% carbon, from 8.0% to 15.0% manganese, from 0.25% to 1.25% silicon, from 9.0% to 15.0% chromium, from 1.5% to 4.0% molybdenum and the balance iron with incidental impurities, the alloy being formed to the predetermined shape of the article and being in the age hardened condition resulting from quenching the alloy from a temperature in the range between 1900° F. and 2200° F., and aging the alloy at a temperature in the range between 1300° F. and 1600° F. for a time period ranging between 8 and 40 hours and thereafter air cooling to room temperature.

2,824,799 PROCESS FOR SINTERING AND RECOVERING SPONGE METAL

Virgil L. Hansley and Stuart Schott, Cincinnati, Ohio, assignors to National Distillers and Chemical Corporation, New York, N. Y., a corporation of Virginia

Application August 24, 1955, Serial No. 530,276

2 Claims. (Cl. 75-223)



1. In a process of production of a titanium sponge by heating at a temperature of about 850° to 1050° C. a mixture comprising finely divided titanium metal and sodium chloride wherein the sodium chloride is essentially in a molten state at the end of the heating period, the improvement which comprises carrying out said heating in a closed heating zone containing a perforated lifting zone containing a mixture of finely divided titanium metal and sodium chloride and, at the end of said heating period while the sodium chloride is molten, lifting the perforated lifting zone, containing titanium sponge formed during said heating, out of contact with the molten body of sodium chloride in the heating zone and permitting adhering molten sodium chloride to drain from the titanium sponge in said lifting zone while the lifting zone is out of contact with the body of molten sodium chloride and while the titanium sponge is not exposed to the atmosphere.

2,824,800

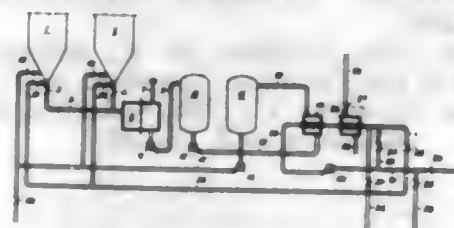
METHOD OF COOKING SULPHITE PULP

Curt Fredrik Rosenblad, Princeton, N. J., assignor to Aktiebolaget Rosenblads Patent, Stockholm, Sweden, a corporation of Sweden

Application July 6, 1955, Serial No. 520,223

Claims priority, application Sweden July 6, 1954

3 Claims. (Cl. 92-11)



1. In a method of digesting or cooking sulphite pulp, the process of preheating the digestion acid when charging a digester and recovering heat from waste liquor, comprising in combination the steps of blowing a digester to an atmospheric pressure blow pit, while flushing and cooling the digester content with low temperature waste liquor, withdrawing the hot waste liquor from the blow pit and storing said waste liquor substantially at its blow pit temperature, passing, in indirect heat exchange relation to each other, digestion acid which is being charged to a digester and stored hot waste liquor, so as in a first stage to heat the digestion acid and to cool the liquor, storing the cooled waste liquor separately from the hot waste liquor, passing the heated digestion acid and steam

in indirect heat exchange relation to each other, so as to increase in a second stage the temperature of the digestion acid to the desired preheating temperature, passing the digestion acid to the digester at said preheating temperature and utilizing stored cooled spent liquor as flushing and cooling agent in a digester blowing process.

2,824,801

PROCESS OF TREATING CHOCOLATE LIQUOR

William J. Hale, Midland, Mich., assignor to Verdurin Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application December 15, 1953

Serial No. 398,405

8 Claims. (Cl. 99-23)

1. A method of improving chocolate and cocoa which comprises admixing such chocolate and cocoa with a solution of a non-toxic oxygen-carrying porphyrin capable of taking up and releasing oxygen from air and heating the mass while incorporating air therein to a temperature and for a time sufficient to destroy a substantial portion of nitrogenous substances other than the normally present theobromine.

2,824,802

WITHDRAWN

2,824,803

PRODUCTION OF HOP EXTRACT AND BEER

Fortney H. Stark, Milwaukee, Wis.

No Drawing. Application February 23, 1954

Serial No. 412,113

18 Claims. (Cl. 99-50.5)

1. A method of providing a hops concentrate in a wort soluble form usable in brewing or the like, which method comprises making an extraction of soft resins and volatile oils by subjecting vine-fresh hops to the action of a solvent in which alpha and beta soft resins and volatile oils are substantially soluble and separating from the vegetative material the extract containing such resins and oils.

2,824,804

PROCESS FOR MAKING A FERMENTED MILK, AND ITS PRODUCT

Kaiun Mishima, Tokyo, Japan

No Drawing. Application April 11, 1955

Serial No. 500,657

8 Claims. (Cl. 99-59)

1. A process of producing a yoghurt-like doubly fermented product containing active yoghurt bacteria which comprises the steps of effecting a first fermentation of milk by inoculation with a *Saccharomyces* yeast effective to produce alcohol and aroma, and with a first quantity of yoghurt bacteria, adding mucilage and natural fruit products to the thus-fermented milk, adjusting the pH of the mixture to 5.0-5.5, adding a further quantity of milk, heat pasteurizing the resulting mixture and cooling it, and effecting a lactic acid second fermentation of the mixture by inoculation with a further quantity of yoghurt bacteria.

2,824,805

PROCESS OF TREATING COFFEE

William J. Hale, Midland, Mich., assignor to Verdurin Company, Detroit, Mich., a corporation of Michigan

No Drawing. Application August 15, 1952

Serial No. 304,650

5 Claims. (Cl. 99-68)

1. A method of preparing coffee having a decreased amount of chlorogenic acid and trigonelline which comprises: impregnating green coffee with an aqueous solution of a non-toxic oxygen-carrying porphyrin containing a non-toxic sulfonated amino-alcohol amidified long chain

fatty acid, and, roasting the coffee up to a temperature of not substantially in excess of 400 degrees Fahrenheit for a period of time sufficient to destroy a substantial portion of the chlorogenic acid and trigonelline ordinarily present in green coffee beans.

2,824,806

PROCESS FOR MANUFACTURING COMPRESSED CEREAL BARS

Samuel A. Matz, Chicago, Ill., assignor to the United States of America as represented by the Secretary of the Army

No Drawing. Application August 27, 1953

Serial No. 377,003

2 Claims. (Cl. 99-83)

(Granted under Title 35, U. S. Code (1952), sec. 266)

1. A process of making cereal bars capable of withstanding rough handling which comprises slowly adding 1 to 6% by weight of water to a sugar-coated processed particulate cereal whereby the cereal particles are rendered adhesive, mixing the dampened cereal, adding a small amount of non-fat milk solids and mixing again, adding a small amount of melted shortening and mixing again, then forming the bar, and subjecting the formed bar to a pressure of not less than 500 p. s. i. nor more than 2000 p. s. i.

2,824,807

SPRAY DRYING PROCESS

Richard Laster, Newtonville, Mass., Harvey S. Bower, Evansville, Ind., Menelaos Doumas, Hudson Heights, N. J., and Arno Huste, Forest Hills, N. Y., assignors to General Foods Corporation, White Plains, N. Y., a corporation of Delaware

No Drawing. Application February 17, 1955

Serial No. 488,986

10 Claims. (Cl. 99-130)

1. In a process of spray drying a gelatin solution, the improvement comprising the step of atomizing the solution into a cool air zone prior to introduction of the atomized solution into a drying zone.

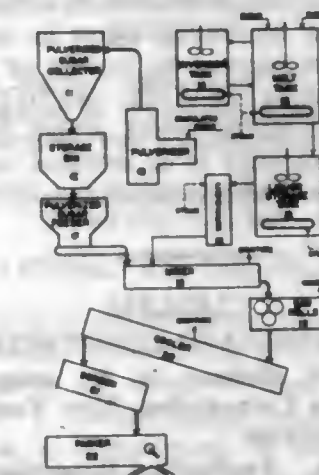
2,824,808

FONDANT AND DRY FONDANT SUGAR PRODUCT AND METHOD OF MANUFACTURE

Eugene C. Gillett and Richard N. Prince, Crockett, Calif., assignors to California and Hawaiian Sugar Refining Corporation, San Francisco, Calif., a corporation of California

Application June 10, 1955, Serial No. 514,498

10 Claims. (Cl. 99-134)



1. An improved dry granular fondant containing less than 2% by weight moisture, comprising a mixture of finely pulverized sucrose crystal fragments having a particle size not essentially in excess of 40 microns with

microscopic sucrose crystals of 25 microns or less held together in loose aggregates by partially dehydrated sugar syrup and said microscopic crystals.

2,824,809 MEAT CURING METHOD AND COMPOSITION THEREFOR

Walter S. Schoch, Chicago, Ill., assignor to Armour and Company, Chicago, Ill., a corporation of Illinois
No Drawing. Application June 17, 1954
Serial No. 437,550
11 Claims. (Cl. 99—159)

1. The method of curing meat characterized by treating the meat with a salt brine containing active concentrations of dialkali metal phosphate and a linear alkali metal phosphate polymer, said phosphates being employed in relative proportions of 1 part by weight of said dialkali metal phosphate per 1 to 5 parts of said phosphate polymer.

2,824,810 PROCESS FOR FIRING CHERRIES

Dante G. Guadagni, Lafayette, Calif., assignor to United States of America as represented by the Secretary of Agriculture
No Drawing. Application March 18, 1957
Serial No. 646,938
3 Claims. (Cl. 99—193)

(Granted under Title 35, U. S. Code (1952), sec. 266)
1. A process for improving the textural qualities of cherries which comprises freezing fresh cherries, then directly subjecting the cherries to a conditioning treatment wherein they are maintained in a thawed condition at a temperature just above their freezing temperature, within the range from about 25° F. to about 35° F., from about 1/2 to about 6 days, whereby to cause firming of the cherry tissue.

2,824,811 LEAD-FREE IMPRESSION MATERIAL

Wallace A. Erickson, Hartley C. Erickson, and Vytautas Grakauskas, Chicago, Ill., assignors to Wallace A. Erickson & Co., a corporation of Illinois
No Drawing. Application November 12, 1953
Serial No. 391,732
7 Claims. (Cl. 106—38.5)

1. A substantially lead-free dental impression material consisting essentially of a non-reversible hydrocolloid, a water-soluble calcium compound which provides calcium ions in solution which are chemically reactive in solution with said hydrocolloid, said calcium compound being present in said material in an amount sufficient to form an elastic gel by reacting with said hydrocolloid in solution, one to fifteen percent by weight of zinc oxide which serves as a hardening agent in an acid solution, and one to fifteen percent by weight of a fluoride from the group consisting of TiF_4 , $MgTiF_6$ and Me_3TiF_6 , wherein Me is an alkali metal, which provides fluoride ions when said material is in solution and, at the same time, provides an acidic medium which solubilizes the zinc oxide.

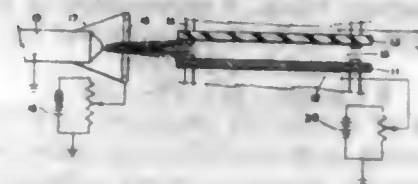
2,824,812 HECTOGRAPH COMPOSITION

Walter G. Drautz, Delmar, N. Y., assignor to General Aniline & Film Corporation, New York, N. Y., a corporation of Delaware
No Drawing. Application December 20, 1954
Serial No. 476,603
10 Claims. (Cl. 106—145)

1. A hectograph ink vehicle consisting essentially of oils and waxes of which about 20 to 35 percent by weight consists of sugar cane wax having a melting point of from about 160 to 185° F.

2,824,813 METHOD FOR DEVELOPING ELECTROSTATIC LATENT IMAGES

Donald L. Fauser, Cincinnati, and Omar A. Ullrich, Jr., Worthington, Ohio, assignors, by mesne assignments, to The Haloid Company
Application May 12, 1952, Serial No. 287,275
1 Claim. (Cl. 117—17.5)



The method of developing by making visible charge gradients induced on an equipotential conducting surface across a free space from an actual electrostatic latent image on an electrostatic latent image bearing member said method comprising, positioning an equipotential conducting surface closely adjacent to an actual electrostatic latent image bearing member with a small free space between said equipotential conducting surface and said image bearing member, positioning an image receiving web against said equipotential surface and between said equipotential surface and said image bearing member, said image bearing member carrying on its surface an actual electrostatic latent image comprising in image configuration electrostatic charges all of the same first polarity in respect to the equipotential surface, applying a potential to said equipotential conductive surface opposite in polarity with respect to the polarity of the electrostatic latent image and at a potential difference in respect to the highest potential of the electrostatic image substantially equal to the highest potential of the electrostatic image whereby charges opposite in polarity to the actual electrostatic image are induced on said equipotential surface in configuration conforming with the actual electrostatic latent image, directing a suspension of electrostatically charged particles into the space between said image bearing member and said image receiving material, said particles being electrostatically charged to the same polarity as the actual electrostatic latent image on the electrostatic latent image bearing member, and developing by making visible the charge gradients by deposition of the charged particles on the image receiving web through their attraction to said equipotential surface in configuration conforming with the actual electrostatic latent image.

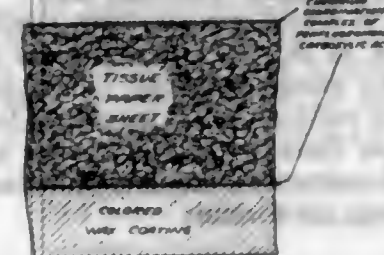
2,824,814 FLUORESCENT COATING PROCESS

Shannon Jones, East Cleveland, and Mary V. Hoffman, South Euclid, Ohio, assignors to General Electric Company, a corporation of New York
No Drawing. Application May 24, 1954
Serial No. 432,042
2 Claims. (Cl. 117—33.5)

1. The process of coating a vitreous surface with powdered luminescent material which includes the steps of flowing over said surface a suspension of said luminescent material in a water binder solution of a water-soluble cellulose derivative comprising essentially ammonium carboxymethyl cellulose, draining the excess suspension from said surface and drying the resultant coating, and thereafter heating the coating so formed to a temperature at which said water-soluble cellulose derivative is essentially expelled.

2,824,815 CARBON PAPER AND METHOD OF MAKING SAME

Martin L. Downes and Robert C. Dressler, Appleton, Wis., assignors to Thilmann Pulp & Paper Company, Kaukauna, Wis., a corporation of Wisconsin
Application January 18, 1956, Serial No. 559,790
3 Claims. (Cl. 117—36)



1. An improved process for the manufacture of carbon paper comprising the steps of applying a non-film forming chromium coordination complex of saturated perfluoromonocarboxylic acid, the acid molecule having more than 4 and less than 10 carbon atoms in the molecule, to a sheet having a basis weight of between about 4 pounds and about 15 pounds per ream (20 inches by 30 inches for 500 sheets), said material being applied to said sheet in an amount of between about .02 and .5 percent of the weight of said sheet, and coating said sheet with a melted pigmented wax vehicle.

2,824,816 METHOD FOR TREATING LEATHER

Isa C. Somerville, Willow Grove, and Richard F. M. Fisher, Jenkintown, Pa., assignors to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware
No Drawing. Application May 13, 1954
Serial No. 429,704
19 Claims. (Cl. 117—135.5)

1. The method of treating leather comprising agitating the air-dry leather with a solution in a volatile hydrophobic organic solvent medium of a hydrophobic impregnant until substantial impregnation is effected, adding a water-soluble hydrophilic solvent selected from the group consisting of volatile organic solvent and aqueous solutions of volatile organic solvents comprising at least a predominant proportion of organic solvent in which the impregnant has substantially less solubility as compared to the hydrophobic solvent while continuing the agitation until additional impregnation is effected, removing the leather from the liquid system, draining it, and drying it.

2,824,817 ARC-WELDING ELECTRODES

Robert C. Shutt, South Euclid, Ohio, assignor to The Lincoln Electric Company, Cleveland, Ohio, a corporation of Ohio
Application July 2, 1954, Serial No. 441,181
11 Claims. (Cl. 117—205)



1. A coated welding electrode comprised of a metallic core and a coating, said coating consisting of the following principal ingredients after baking:

	Percent
Iron powder	30-60
TiO ₂	15-25
Silicates and silicate forming materials (nonsoluble)	5-12
Ferro alloys	5-12
Organics	Trace
Binder	1 to 4
	7-15

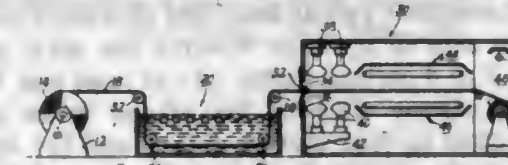
2,824,818 WELDING OF METALS HAVING HOT-SHORT CHARACTERISTICS

Oscar E. Swenson, Annapolis, Md.
No Drawing. Application October 15, 1954
Serial No. 462,633
5 Claims. (Cl. 148—4)

1. A method of arc welding metals that have the characteristic of being more brittle at arc welding temperatures than at normal room temperature, comprising the steps of peening the edges to be welded and an area immediately adjacent to said edges to the extent necessary to place compression stresses in the metal sufficient to compensate for tensile stresses developed during heating to welding temperature, cooling said peened edges and area to a sub-zero temperature of at least -40° F., arc welding a small increment of weld metal between said edges, removing the accumulated welding slag from the deposited metal, quenching the welded area and the area immediately adjacent thereto to a temperature of at least -40° F., and repeating the above sequence of steps to lay down successive weld increments until said weld is completed.

2,824,819 METHOD FOR OXIDE INSULATING ALUMINUM CONDUCTORS

Millard F. Smith, Westport, Conn.
Application May 11, 1956, Serial No. 584,325
6 Claims. (Cl. 148—6.3)



1. In a method of coiling oxide insulated aluminum conductor, the step of winding said conductor into a coil in an atmosphere containing nascent oxygen to reinsulate the areas of said strip where cracking of the original oxide insulation has occurred.

2,824,820 METHOD OF SPHEROIDIZING HYPEREUTECTOID STEELS

Adolph J. Lena, Sarver, and Glenn W. Bush, State College, Pa., assignors to Allegheny Ludlum Steel Corporation, Brackenridge, Pa., a corporation of Pennsylvania
No Drawing. Application January 8, 1957
Serial No. 632,957
4 Claims. (Cl. 148—21.5)

1. In the method of spheroidizing hypereutectoid steels, the steps comprising, austenitizing a hypereutectoid steel at a temperature in the range between about 1900° F. and about 2000° F., isothermally transforming the austenitized steel at a temperature in the range between about 650° F. and about 900° F., and spheroidizing the steel at a temperature in the range between about 1300° F. and 1350° F. to produce a steel having a carbide particle size ranging between pinpoint and 2.2 mm. in diameter when viewed at a magnification of 1500 times substantially uniformly distributed within a ferrite matrix.

2,824,821

ADHESIVE COMPOSITION AND PROCESS OF BONDING THEREWITH

Günther Nischk, Leverkusen-Woodorf, and Karl Erwin Müller and Otto Bayer, Leverkusen-Bayerwerk, Germany, assignors to Farbenfabriken Bayer Aktiengesellschaft, Leverkusen, Germany, a corporation of Germany

No Drawing. Application February 25, 1953
Serial No. 338,908

Claims priority, application Germany March 1, 1952
11 Claims. (Cl. 154—140)

1. A process of bonding materials which comprises reacting under polymerization conditions a mixture consisting essentially of (1) a compound obtained by reacting anhydrides of alpha, beta ethylenically unsaturated dicarboxylic acids with polyesters devoid of aliphatic carbon to carbon unsaturation and having free hydroxyl groups to produce polyesters with end groups consisting of half-ester groups of alpha, beta ethylenically unsaturated dicarboxylic acids and (2) at least one monomeric vinyl compound, at the connecting surfaces.

2,824,822

INSECT REPELLENT METHOD AND COMPOSITION

Lyle D. Goodhue, Bartlesville, and Kenneth E. Cantrel, Dewey, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application June 21, 1955
Serial No. 517,054

20 Claims. (Cl. 167—22)

1. A ternary synergistic repellent composition comprising the following three components as the essential active repellent composition: (a) at least one di-n-alkyl ester of a dicarboxylic acid of pyridine wherein the alkyl groups contain from 2 to 4 carbon atoms, (b) at least one 1-acetoxy-3-phenyl-2-alkene wherein the alkene is an alkene having from three to four carbon atoms, and (c) at least one N-alkyl imide of bicyclo[2.2.1]-5-heptene-2,3-dicarboxylic acid wherein the alkyl radical contains not more than 12 carbon atoms, wherein said alkyl imide is present in the ternary composition in an amount in the range from 25 to 75 percent, on an undiluted basis of said ternary composition and the ratio of said ester of said pyridine carboxylic acid to said 1-acetoxy-3-phenyl-2-alkene is in the range from 4:1 to 1:4.

2,824,823

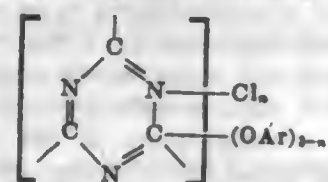
TRIAZINE FUNGICIDAL COMPOSITIONS AND METHOD OF APPLYING

Calvin N. Wolf, New York, N. Y., assignor, by mesne assignments, to Pittsburgh Coke and Chemical Company, a corporation of Pennsylvania

No Drawing. Application September 10, 1954
Serial No. 455,358

11 Claims. (Cl. 167—33)

1. A fungitoxic composition consisting essentially of a fungicide having the general formula



wherein Ar is a radical selected from the group consisting of phenyl, naphthyl, hydrocarbon-substituted phenyl, hydrocarbon-substituted naphthyl, chloro-substituted phenyl and chloro-substituted naphthyl radicals, and n is an integer from 1 to 2 inclusive, an inert fungicidal adjuvant as a carrier therefor and a surface active agent.

2,824,824

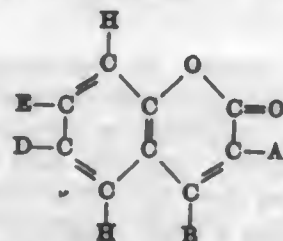
INSECT REPELLENT AND METHOD OF STABILIZING SAME

Lyle D. Goodhue, Bartlesville, and Kenneth E. Cantrel, Dewey, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware

No Drawing. Application May 11, 1955
Serial No. 507,743

21 Claims. (Cl. 167—33)

3. A method of stabilizing an insect repellent composition comprising as an essential ingredient a compound selected from the group consisting of the diethyl-, di-n-propyl-, and di-n-butyl esters of pyridine-2,5-dicarboxylic acid and mixtures thereof which comprises adding thereto a compound selected from the group consisting of compounds having the formula



and mixtures of said compounds wherein A is one of hydrogen, bromine and chlorine, B is one of hydrogen and an alkyl radical containing not more than three carbon atoms, D is one of hydrogen, hydroxyl and a nitro radical, and E is one of hydrogen, hydroxyl, an alkoxy radical containing not more than three carbon atoms, and an amino group in which the hydrogen is substituted by not more than two alkyl groups containing not more than three carbon atoms and when E is an alkoxy radical, B is hydrogen.

2,824,825

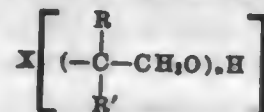
SOLUBILIZED PHENYL MERCURY ACETATE COMPOSITIONS

Joseph Fath, Morristown, George J. Leitner, Iselin, and Milton Nowak, Union, N. J., assignors, by mesne assignments, to Heyden Newport Chemical Corporation, a corporation of Delaware

No Drawing. Application August 19, 1955
Serial No. 529,568

4 Claims. (Cl. 167—42)

1. A composition of matter comprising phenyl mercury acetate solubilized by being in commingled state with a non-ionic surface active compound having the formula



wherein n is an integer greater than 1 and less than 50, R and R' are selected from the group consisting of hydrogen and alkyl having 1-2 carbon atoms, X is derived from compounds having at least one replaceable hydrogen atom and selected from the group consisting of phenols, water-insoluble alcohols, fatty acids having at least 8 carbon atoms, polyols, polyol esters, hydroxy esters, water-insoluble mercaptans having at least 6 carbon atoms, and a represents the number of reactive hydrogen atoms in the compound from which X is derived, said composition being a non-aqueous homogeneous solution containing 5%-30% of phenyl mercury acetate and 95%-70% of said compound.

2,824,826

PROTECTING OBJECTS FROM RODENT ATTACK

Constantine Katsaros, Lake Geneva, Wis., and Andrew A. Baldoni, Woodstock, Ill.

No Drawing. Application June 1, 1954
Serial No. 433,823

6 Claims. (Cl. 167—46)

1. A method for protecting an object from rodent attack, comprising encompassing the object with a rodent repellent barrier comprising a material selected from the

group consisting of 2,4,6-trinitrotoluene, 2,4,6-trinitrotoluene-beta naphthol complex, 2,4,6-trinitrotoluene-o-anisidine complex, 2,4,6-trinitrotoluene-alpha naphthylamine complex and 2,4,6-trinitrotoluene-acenaphthene complex, and a carrier therefor.

2,824,827

METHOD AND APPARATUS FOR THE LOW TEMPERATURE TREATMENT OF MATERIALS CONTAINING CARBONACEOUS CONSTITUENTS

Harold G. Tufty, Washington, D. C., assignor to Wood Associates, Inc., Washington, D. C., a corporation of Delaware

Application July 23, 1952, Serial No. 300,552
10 Claims. (Cl. 202—266)



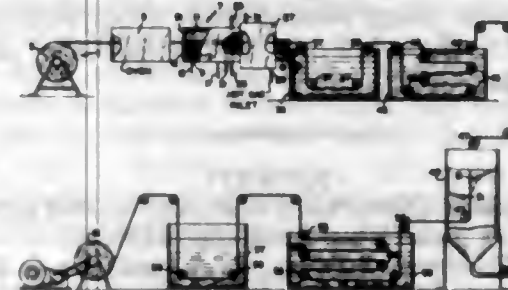
10. Apparatus for the low temperature treatment of various materials comprising a foundation, an open end retort vertically positioned on said foundation, a cover for each open end of said retort, a plurality of vertically extending rods mounted on said foundation with a pair thereof adjacent to and on opposite sides of said retort, an arm slidably and pivotally mounted on said pair of rods adjacent said retort, means for fastening the free end of said arm to the other rod of said pair, a hydraulic cylinder carried by said arm, the piston of said hydraulic cylinder being connected to one of said retort covers, means for supplying and withdrawing pressure from said cylinder as desired, a series of superimposed spaced baffles slidably and pivotally mounted in said retort and means for supplying superheated inert gas to said retort.

2,824,828

COLORLESS GLASS FIBERS AND METHOD OF PRODUCING THE SAME

Howard J. Homer and John R. Whitacre, Dayton, Ohio, assignors to The Commonwealth Engineering Company of Ohio, Dayton, Ohio, a corporation of Ohio

Application May 12, 1955, Serial No. 507,828
3 Claims. (Cl. 204—20)



3. The method of coloring glass fibers which comprises contacting heated glass fiber surfaces at a vacuum to an atmospheric pressure with a heat decomposable organic salt of aluminum having the general formula Al(R)₃, wherein R is a radical selected from the group of lower aliphatic and aryl radicals to deposit a coating of aluminum on the fiber surfaces, anodizing the coating to form aluminum oxide, dyeing the anodized coating, and then subjecting the dyed coating to a hot aqueous treatment to hydrate the aluminum oxide, all while maintaining the fibers flexible.

2,824,829

ELECTRODEPOSITING BLACK CHROMIUM-VANADIUM COATINGS AND MEMBERS THEREWITH

Martin F. Quasely, Montclair, N. J., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

No Drawing. Application June 8, 1956
Serial No. 590,113

4 Claims. (Cl. 204—43)

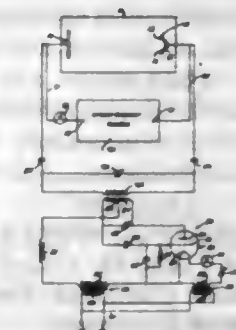
3. In the process of electrodepositing an adherent highly heat-resistant black finish on a member, the step comprising making the member a cathode in an aqueous electroplating electrolyte comprising essentially from 150 to 385 grams per liter of chromic acid, from 1.8 to 10 grams per liter of vanadium in soluble compound form, there being present from 100 to 9.5 parts by weight of chromium per part of vanadium, and from 3 to 20 grams per liter of a water soluble carboxylic acid, and passing a plating electrical current through the member at a current density of from 400 to 2,000 amperes per square foot, the electrolyte being maintained at a temperature of from 30° C. to 50° C.

4. A member having on its surface an adherent, highly heat resistant, black coating consisting of chromium, vanadium and oxygen, the vanadium being present primarily as vanadium trioxide and the chromium primarily as metallic chromium with a minor proportion of chromium oxide, there being a total of from 180 to 2 atoms of chromium per atom of oxygen combined therewith, and from 100 to 9.5 parts by weight of chromium per part by weight of vanadium.

2,824,830

ELECTROPLATING

Johann Karl Hauser, Chicago, Ill.
Application August 3, 1955, Serial No. 526,193
6 Claims. (Cl. 204—45)



1. A process for electroplating with an electrolyte which comprises immersing an electrode and an article to be plated in the electrolyte, connecting the electrode and the article to a direct current source through a pair of conductors, connecting to said conductors an alternating current source having a frequency such that said conductors form a transmission line of substantial electrical length as compared to one wavelength, determining the resonant and anti-resonant positions of said conductors by moving the high frequency connection points along said conductors, and obtaining a maximum high frequency field in the electrolyte by adjusting the high frequency connection points to resonant positions.

2,824,831

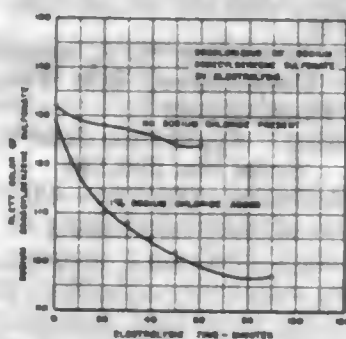
PURIFICATION OF ALKYL ARYL SULFONATES

John W. Conwell and William C. Ziegenhain, Ponca City, Okla., assignors to Continental Oil Company, Ponca City, Okla., a corporation of Delaware

Application October 10, 1956, Serial No. 615,080
7 Claims. (Cl. 204—131)

1. A process of bleaching an organic compound selected from the group consisting of an alkyl aryl sulfonic acid and a salt thereof which comprises subjecting an

aqueous mixture of said organic compound to electrolysis in the presence of a metal halide, at an E. M. F. within



the range of 1 to 12 volts and at a current density varying from 0.05 to 1.5 amperes per square decimeter.

2,824,832

TEXTILE LUBRICATING COMPOSITIONS

Henry F. Leupold, Nutley, and Charles H. Lighthipe, Bloomfield, N. J., assignors to Nopco Chemical Company, Harrison, N. J., a corporation of New Jersey
No Drawing. Application October 21, 1953
Serial No. 387,531

14 Claims. (Cl. 252-8.9)

1. A textile lubricating composition which comprises a blend of (1) from about 10% to about 35% by weight of a blown oil selected from the group consisting of blown semi-drying oils and blown non-drying oils (2) from about 45% to about 65% by weight of a mineral oil having a viscosity of from about 50 to about 300 Saybolt seconds at 100° F. (3) from about 8% to about 25% by weight of a product produced by condensing at least equimolar proportions of an alkyl phenol and ethylene oxide, the alkyl groups in said alkyl phenol having from about 4 to about 12 carbon atoms in their carbon chain and (4) from about 3% to about 17% by weight of a fatty material selected from the group consisting of a fatty acid having a carbon chain length of from about 8 to about 22 carbon atoms, mixtures of said fatty acids, and mixtures of said fatty acids with esters prepared by reacting a fatty acid having a carbon chain length of from about 8 to about 22 carbon atoms and mixtures thereof with monohydric aliphatic alcohols having a carbon chain of from 1 to about 5 carbon atoms.

2,824,833

ACIDIZING WELLS

Paul H. Cardwell and Louis H. Eilers, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application May 11, 1953
Serial No. 354,415

20 Claims. (Cl. 252-8.55)

1. In a method of acidizing an earth formation penetrated by the bore of a well, the step which consists in injecting into the earth formation through the well bore an aqueous solution containing hydrochloric acid and having a gum dispersed therein, said gum being selected from the group consisting of karaya, carrageenin, psyllium seed, ghatti, tragacanth, pershir, and shiraz in amount between about 1.1 percent and 8 percent of the weight of the acid solution, and said gum on being dispersed in the aqueous solution having in admixture a non-aqueous water-insoluble liquid inert to the gum in amount sufficient to moisten the gum with the said non-aqueous liquid.

2,824,834

ACIDIZING WELLS

Paul H. Cardwell and Louis H. Eilers, Tulsa, Okla., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application May 11, 1953
Serial No. 354,416

12 Claims. (Cl. 252-8.55)

1. In a method of acidizing an earth formation penetrated by a well bore the step which consists in introduc-

ing into the well and thence into the earth formation a charge of hydrochloric acid solution containing 2 to 25 percent of HCl having dispersed therein between 0.1 and 1.0 percent of a water-soluble gum selected from the group consisting of karaya, carrageenin (Irish moss), psyllium seed, ghatti, alginate, tragacanth, pershir, and shiraz, said gum before dispersal in the acid solution being moistened with a water-insoluble non-aqueous liquid inert to the gum and to the acid solution.

2,824,835

CORROSION PREVENTION

Howard F. Keller, Jr., Fullerton, Calif., assignor to Union Oil Company of California, Los Angeles, Calif., a corporation of California
No Drawing. Application October 8, 1956
Serial No. 614,374

16 Claims. (Cl. 252-8.55)

1. The method for reducing the corrosiveness of oil and gas well fluids comprising moisture and at least one acidic material selected from the class consisting of carbon dioxide and hydrogen sulfide towards ferrous metals under conditions of elevated temperature and pressure which comprises introducing into said well fluid a corrosion inhibiting amount of a product prepared by reacting a vinyl ester of a fatty acid containing from 12 to 22 carbon atoms with an ethylene polyamine of the general formula:



wherein "x" represents an integer from 1 to 5, inclusive, said reaction being carried out at a temperature below that at which any substantial amounts of amides are formed and between about 1 and about 6, but not more than about x+1, moles of said vinyl ester being employed per mole of said ethylene polyamine.

2,824,836

LUBRICATING OIL COMPOSITIONS

Harlan M. Smith, Roselle, William Hoernner, Linden, and James R. Davidson, Iselin, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application November 1, 1954
Serial No. 466,196

4 Claims. (Cl. 252-32.7)

1. A lubricating composition comprising a major proportion of a mineral lubricating oil, in the range of 0.1 to 1.5 wt. percent of a zinc dialkyl dithiophosphate having in the range of 8 to 16 carbon atoms per molecule, and in the range of 0.2 to 0.7 wt. percent of a polyricinoleic acid ester of a polyethylene glycol, said glycol having a molecular weight in the range of 200 to 800 and said ester being formed from a polyricinoleic acid containing in the range of 2 to 4 molecules of self-esterified ricinoleic acid.

2,824,837

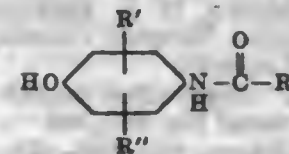
SOAP-SALT COMPLEX GREASE CONTAINING n-ACYL p-AMINOPHENOL

Arnold J. Morway, Rahway, N. J., assignor to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application April 30, 1954
Serial No. 426,927

12 Claims. (Cl. 252-40.7)

1. A lubricating grease composition which comprises a major proportion of a lubricating oil and a minor but grease thickening amount of a soap-salt complex, said complex comprising an alkaline earth metal soap of at least one high molecular weight fatty acid with an alkaline earth metal salt of a low molecular weight monocarboxylic acid containing from 2 to 6 carbon atoms, the molar ratio of said salt to said soap in said complex being be-

tween about 7.5:1 to 20:1, said lubricating grease composition containing a minor amount sufficient to eliminate crust formation and hardening of a material of the formula



wherein R is an alkyl group of from 10 to 22 carbon atoms and wherein R' and R'' are each selected from the group consisting of hydrogen atoms and alkyl groups containing from 1 to 20 carbon atoms.

2,824,838

LUBRICATING GREASE COMPOSITIONS CONTAINING N-ACYL-p-AMINO PHENOLS

David W. Young, Westfield, and Delmer L. Cottle, Highland Park, N. J., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Original application June 4, 1954, Serial No. 434,676. Divided and this application January 13, 1955, Serial No. 481,696

7 Claims. (Cl. 252-42.1)

1. A lubricating grease composition consisting essentially of a lubricating oil thickened to a grease consistency with a grease making metal soap of a fatty acid having combined therein a minor, but oxidation resistance improving amount, of a compound having the formula—



wherein R is an alkyl group having from 10 to 18 carbon atoms.

2,824,839

LUBRICANTS

Glen C. Templeman, Robinson, Ill., assignor to The Ohio Oil Company, Findlay, Ohio, a corporation of Ohio
No Drawing. Application March 12, 1954
Serial No. 415,961

9 Claims. (Cl. 252-49.9)

1. A mineral oil lubricant composition comprising (a) a major proportion of a mineral oil lubricant selected from the class consisting of mineral oils and greases, and (b) as the film strength enhancing constituent of said composition a small amount, sufficient to enhance the film strength of the lubricant, of a di(halo-alkyl), mono-olefinic aliphatic hydrocarbon-radical-substituted phosphonate additive wherein the mono-olefinic hydrocarbon radical is linked by a carbon directly to the phosphorus and each of the two halo-alkyl radicals is linked respectively to a separate one of the oxygens linked to the phosphorus, which additive is soluble in the lubricant ingredient at least in said small amount and, in such small concentration in the lubricant, is inert to water, stable at elevated temperatures, and non-corrosive to the ferrous and non-ferrous metals and their alloys that are used in devices requiring lubricants; said composition having enhanced film strength over that which the mineral-type lubricant itself has without this additive.

2,824,840

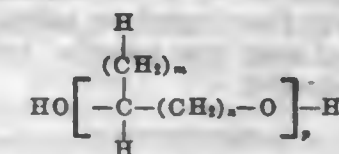
LUBRICATING OIL COMPOSITION

Edward P. Cashman, Bayonne, N. J., and Ethel J. Corcoran, New York, N. Y., assignors to Esso Research and Engineering Company, a corporation of Delaware
No Drawing. Application April 1, 1953
Serial No. 346,287

10 Claims. (Cl. 252-56)

1. A lubricating oil composition comprising a major proportion of a lubricating oil and a minor pour depressing amount of an oil-soluble polymeric material having a molecular weight of at least about 1000 selected from

the group consisting of (1) polymers of a complex ester, (2) copolymers of said complex ester with a diester and (3) copolymers of said complex ester with vinyl acetate, said complex ester being prepared by esterifying 2 moles of an alpha, beta unsaturated dicarboxylic acid having 4 to 7 carbon atoms per molecule with 1 mole of a glycol having the formula



where m is an integer from 0 to 10; n is an integer from 1 to 10 and p is an integer from 1 to 5, to form a partial ester and then completely esterifying said partial ester with 2 moles of substantially saturated aliphatic monohydric alcohol having about 8 to 20 carbon atoms per molecule to form said complex ester, said diester being derived from an acid and a monohydric alcohol each as defined above, said copolymers containing at least about 20% by weight of the complex ester component.

2,824,841

SCINTILLATOR COMPOSITION FOR COUNTERS AND METHOD OF MAKING

Warren L. Buck, Park Forest, and Robert K. Swank, Downers Grove, Ill., assignors to The United States of America as represented by the United States Atomic Energy Commission
No Drawing. Application October 20, 1953
Serial No. 387,337

8 Claims. (Cl. 252-301.2)

5. A scintillator composition for scintillation counters consisting of a polymerized mixture of a solvent selected from the group consisting of styrene, methylstyrene wherein the methyl group is attached to a ring carbon and p-vinylbiphenyl, from 3 to 5% by weight of p-terphenyl as a fluor and from 0.01 to 0.3% of a second fluor selected from the group consisting of 1,1,4,4-tetra-phenyl-1,3-butadiene and p,p'-quaterphenyl.

2,824,842

URINE CALCIUM TEST

Hirsh Sulkowitch, Newton, Mass.
No Drawing. Application June 9, 1954
Serial No. 435,639

4 Claims. (Cl. 252-408)

1. A reagent in dry solid form for semiquantitatively estimating the calcium content of body fluids comprising oxalic acid and ammonium oxalate in the proportion of about 25-40 parts by weight of oxalic acid to 25 parts ammonium oxalate, a buffer adapted to maintain a pH in the range between 2.8 and 5.5 when the reagent is added to the fluid to be tested, said buffer being the combination of: (A), a monoalkali metal salt of an acid selected from the group consisting of phosphoric acid, maleic acid, malonic acid and succinic acid; and (B), a monoalkali metal salt of an acid selected from the group consisting of phthalic acid, glutaric acid, itaconic acid, malic acid, pimelic acid and pyrotartaric acid, and a pH indicator adapted to produce a predetermined color when the pH of the fluid to be tested, after addition of reagent, exceeds pH 5.5.

2,824,843

TREATMENT OF CALCIUM NICKEL PHOSPHATE-CONTAINING CATALYSTS

Andrew J. Dietzler and Charles R. Noddings, Midland, and John W. Corey, Sanford, Mich., assignors to The Dow Chemical Company, Midland, Mich., a corporation of Delaware
No Drawing. Application February 20, 1953
Serial No. 338,146

4 Claims. (Cl. 252-437)

1. A method which comprises heating a calcium nickel phosphate catalyst, which contains an average of from

6.5 to 12 atoms of calcium per atom of nickel and is substantially free of carbonaceous material, at a temperature of from 650° to 800° C. in contact with at least one gas of the class consisting of steam, oxygen, and air for a time of at least 5 hours and sufficient to increase the selective activity of the catalyst, for catalyzing the thermal dehydrogenation of a normal butylene in the presence of steam to form butadiene rather than catalyzing side reactions, over the selective activity initially possessed by the catalyst.

2,824,844

AMINATED ION EXCHANGE RESINS CONTAINING DIVINYL SUBSTITUTED HETEROCYCLIC COMONOMERS AS CROSS-LINKERS

Martin E. Gilwood, Oceanside, N. Y., assignor to Pfandier Permutit Inc., a corporation of New York

No Drawing. Application May 20, 1953
Serial No. 356,293

18 Claims. (Cl. 260—2.1)

1. An anion exchange resin which comprises a copolymer resin of between about 60% and 99.9% on a molar basis of a monovinyl aromatic compound selected from the class consisting of a monovinyl aromatic hydrocarbon and a monovinyl ring containing nitrogen aromatic heterocyclic compound crosslinked with between about 40% and 0.1% on a molar basis of a divinyl ring-containing nitrogen aromatic heterocyclic cross-linking comonomer selected from the class consisting of a divinyl pyridine, divinyl pyrrol, divinyl quinoline and divinyl isoquinoline, in which said copolymer resin contains amino lower alkylene substituent groups on the aromatic nuclei.

2,824,845

EPISULFIDE COMPOUNDS AND STABILIZED POLYMER COMPOSITIONS CONTAINING SAME

Milton Kosmin, Dayton, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 26, 1954
Serial No. 412,945

3 Claims. (Cl. 260—23)

1. A composition of matter comprising (1) a polymer of at least 70% by weight of a vinyl halide monomer and from 0 to 30% by weight of a polymerizable organic compound containing at least one olefinic carbon pair ($>C=C<$) and (2) between about 0.5% by weight and about 10% by weight, based upon the weight of said polymer, of an aryloxypropene-1,2-sulfide.

2,824,846

POLYMERS OF STYRENE, PROCESS FOR POLYMERIZATION, AND COMPOSITIONS CONTAINING SAME

Ival O. Salyer, James A. Herbig, and Joachim Dazzi, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application March 17, 1954
Serial No. 416,958

16 Claims. (Cl. 260—23)

1. Styrene polymer prepared by polymerizing styrene containing a small quantity of an adduct of an unsaturated non-hydroxylated fatty oil and a fumarate selected from the group consisting of dialkyl fumarates, dialkoxyalkyl fumarates, and alkyl alkoxyalkyl fumarates.

2,824,847 VINYL CHLORIDE POLYMER STABILIZED WITH THIOPHOSPHITE AND POLYVALENT METAL SOAP

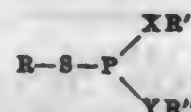
Joseph Fath, Morristown, N. J., assignor, by mesne assignments, to Heyden Newport Chemical Corporation, a corporation of Delaware

No Drawing. Application August 25, 1954

Serial No. 452,206

8 Claims. (Cl. 260—23)

1. A resinous polymer of vinyl chloride, stabilized against the deteriorating effects of light and heat by a stabilizing amount of an admixture of at least one soap of a polyvalent metal and an additive represented by the formula



in which R is selected from the group consisting of alkyl, aryl, alkaryl, and carbalkoxy alkyl, R' and R'' are selected from the group consisting of alkyl, aryl, alkaryl, and carbalkoxy alkyl, and X and Y are selected from the group consisting of sulphur and oxygen.

2,824,848

POLYAMIDE RESIN SUSPENSIDS

Harold Wittcoff, Minneapolis, Minn., assignor to General Mills, Inc., a corporation of Delaware

No Drawing. Application August 8, 1956

Serial No. 602,916

8 Claims. (Cl. 260—29.2)

1. A suspensoid in an aqueous medium of (a) from 20–90% of a first polyamide melting within the approximate range of 130–210° C. and being derived from a mixture of from 85–98% polymeric fat acids and from 2–15% of non-fatty polycarboxylic acid in which the carboxyl groups are separated by from 3 to 8 carbon atoms, and an aliphatic diamine and (b) from 10–80% of a second polyamide melting below 100° C. and being derived from polymeric fat acids and an aliphatic polyamine, the amino groups primarily involved in the polyamide formation being separated by at least 3 atoms; the mixture of polyamides having an amine number of at least 5 and being dispersed in an aqueous medium by means of sufficient acid to produce a stable suspensoid.

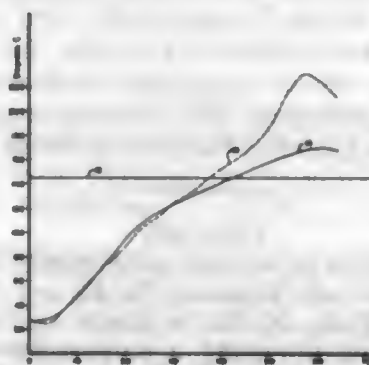
2,824,849

DICYANDIAMIDE PHENOLALDEHYDE RESIN VARNISH AND PROCESS OF PREPARATION

Joseph F. Boiney, Hampton, S. C., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application April 26, 1956. Serial No. 580,862

4 Claims. (Cl. 260—33.4)



1. In the process of producing a dicyandiamidephenol-aldehyde resin varnish, the steps comprising refluxing one mole of a phenol, from 0.8 mole to 2.0 moles of dicyandiamide and from 0.5 to 0.9 mole of aqueous formaldehyde for each mole of the combined phenol and dicyandiamide for a period of time of from 1/2 hour to 2 hours in the

presence of from 0.1% to 5.0%, based on the weight of the phenol, of an alkylamine catalyst having not over 4 carbon atoms in the alkyl radicals, evacuating the refluxed reaction product to a vacuum of at least 25 inches of mercury while applying heat during the evacuation to a point where a sample of resin is brittle at room temperature, thereafter adding to the refluxed reaction product a volatile solvent selected from at least one of the groups consisting of one to three carbon atom monohydric aliphatic alcohols with not over 50° by weight of water, a sufficient amount of hexamethylenetetramine to bring the ratio of the total amount of formaldehyde to the combined phenol and dicyandiamide to a value of from 0.95 to 1.5, refluxing for a period of time of from 1/2 hour to 2 hours, and thereafter cooling the varnish to room temperature.

2,824,850

REACTION PRODUCT OF A COMPOUND CAPABLE OF REACTING WITH HYDROXYL GROUPS, WITH AN ETHERIFICATION PRODUCT OF A POLYGLYCIDYL ETHER

Gustav Widmer, Basel, and Paul Zuppinger, Binningen, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Original application December 15, 1952, Serial No. 326,151, now Patent No. 2,700,030, dated January 18, 1955. Divided and this application January 17, 1955, Serial No. 482,396

Claims priority, application Switzerland
December 21, 1951

2 Claims. (Cl. 260—43)

1. A composition of matter comprising the reaction product of (a) the etherification product of a polyglycidyl ether with a higher monohydric alcohol containing a carbon chain of more than 10 carbon atoms, said polyglycidyl ether being a polyglycidyl ether of a polyhydroxy compound which contains at least two hydroxyl groups and its free from other substituents capable of reacting with epoxide groups, said etherification product being free from epoxy groups, and (b) condensation products containing methylol groups obtained from formaldehyde and a compound of the group consisting of phenol, urea and aminotriazine containing at least 2 NH_2 -groups, the methylol groups of the condensation products being at least partially etherified with a lower alcohol containing 1–4 carbon atoms.

2,824,851

ACRYLIC ACID DERIVATIVES OF EPOXIDE RESINS AND METHOD OF CURING SAME

Myron W. Hall, St. Paul, Minn., assignor to Minnesota Mining & Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application August 24, 1953

Serial No. 376,267

6 Claims. (Cl. 260—45.5)

4. A composition of matter in liquid form free of volatile vehicle and consisting essentially of (a) at least one glycidyl ether of a hydroxy compound of the class consisting of phenol, polyhydric phenols, and polyhydric aliphatic alcohols, said glycidyl ether having at least one epoxy radical per molecule, (b) at least one liquid organic carboxylic acid of the class consisting of acrylic acid and methacrylic acid, and (c) an amine catalyst; the ratio of epoxy radicals to carboxyl radicals being about 1:1 to about 4:1, and the weight of amine catalyst being about 0.01–7.0 percent of the weight of said glycidyl ether.

2,824,852 CURED MIXTURE OF POLYMERIC 2-CYANOETHYL ACRYLATE AND A POLYMERIC CYANOETHER ESTER AND PROCESS OF PREPARING THE SAME

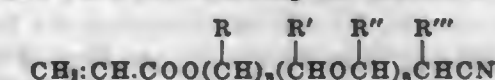
Roland J. Kern, Miamisburg, Ohio, assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 18, 1955

Serial No. 529,312

6 Claims. (Cl. 260—45.5)

1. A rubbery product comprising a metal oxide cured mixture of polymeric 2-cyanoethyl acrylate and a polymeric cyano ether ester having the formula:



in which R, R', R'' and R''' are selected from the class consisting of hydrogen and the methyl radical and n is in an integer of from 1 to 3, the polymer content of said mixture being from 50 to 90 parts by weight of the polymeric cyano ether ester and from 10 to 50 parts by weight of the polymeric 2-cyanoethyl acrylate, said metal oxide being an oxide of a metal of groups II–IV and VIII of the periodic system and said curing having been conducted at a temperature of from 100° C. to 200° C. and a pressure of from atmospheric to 1,000 p. s. i.

2,824,853

BIS(SALICYLOYL) BENZENE DERIVATIVES AND COMPOSITIONS CONTAINING THE SAME

David A. Gordon, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 1, 1955

Serial No. 550,478

2 Claims. (Cl. 260—45.95)

2. A thermoplastic composition comprising a haloethylene polymer and from 0.5 to 6.0 percent by weight of ortho-bis (3,4,6-trichlorosalicyloyl) tetra chlorobenzene.

2,824,854

BIS(SALICYLOYL) BENZENE DERIVATIVES AND COMPOSITIONS CONTAINING THE SAME

David A. Gordon, Midland, Mich., assignor to The Dow Chemical Company, Midland, Mich., a corporation of Delaware

No Drawing. Application December 1, 1955

Serial No. 550,479

2 Claims. (Cl. 260—45.95)

2. A thermoplastic composition comprising a haloethylene polymer and from 0.5 to 6.0 percent by weight of meta-bis (5-chlorosalicyloyl) benzene.

2,824,855

PREPARATION OF EPOXIDE RESINS

Stephen E. Freeman, Milwaukee, and Gordon W. Gottschalk, Port Washington, Wis., assignors to Freeman Chemical Corporation, a corporation of Wisconsin

No Drawing. Application December 20, 1954

Serial No. 476,596

14 Claims. (Cl. 260—47)

1. A method of removing water from an epoxide resin reaction product containing water, an epoxide resin which is produced by the condensation of a haloalcohol and a polyfunctional phenol in the presence of caustic alkali, and remaining alkali-containing residual matter that is present after the epoxide is formed from said condensation reaction without necessitating further polymerization of the epoxide resin to a gel, which comprises distilling water from said reaction product, prior to the removal of residual matter from the epoxide resin, with the aid of a stripping liquid which boils from said reaction product at a temperature of about 71–99° C.

2,824,856

RESINOUS ADHESIVE MATERIALS

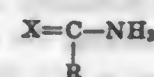
James H. Saunders, Anniston, Ala., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application June 29, 1953

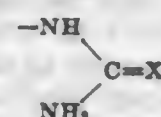
Serial No. 364,930

5 Claims. (Cl. 260-77.5)

1. The resinous condensation product obtained by heating to a temperature of at least 90° C., a mixture comprising the following reactants: (1) a compound of the formula:



where X is selected from the group consisting of O, S and NH and R is selected from the group consisting of -NH₂ and



(2) a glycol and (3) a triamine, said triamine containing only NH₂ groups and no other active hydrogen containing groups, the relative proportions of said reactants in said mixture being such as to satisfy the ratio:

$$\frac{\text{Moles } \text{X}-\text{C}-\text{NH}_2}{\text{Active hydrogen groups}} =$$

at least 0.25 but not in excess of 1.

in which ratio the active hydrogen groups are the active hydrogen groups present in said glycol and triamine, the relative proportions of said reactants also satisfying the ratio:

$$\frac{\text{Moles of triamine}}{\text{Moles of glycol}} = \text{at least 0.25 but not in excess of 1.5}$$

2,824,857

REACTION PRODUCTS OF AN ALKYLENEIMINE AND AN ORGANIC CARBONATE

Erhart K. Drechsel, Springdale, Conn., assignor to American Cyanamid Company, New York, N. Y., a corporation of Maine

No Drawing. Application June 28, 1954

Serial No. 439,923

16 Claims. (Cl. 260-77.5)

1. A composition comprising a product of reaction, at a temperature of from about 20° C. to about 100° C. of ingredients comprising (1) a 1,2-alkyleneimine wherein the nitrogen atom is unsubstituted and (2) a cyclic carbonate composed of carbon, hydrogen and oxygen atoms, and wherein the ring oxygen atoms adjacent the carbonyl grouping are each bonded to a ring carbon atom, the ring containing the said oxygen and carbon atoms having only three carbon atoms and no carbon-to-carbon unsaturation, and the said reaction product in linear polymeric form being characterized by the fact that it contains reactive terminal groups, one of which is hydroxy and the other of which is the residue of an alkyleneimine corresponding to the alkyleneimine of (1).

2,824,858

POLYMERIZABLE POLY-ETHYLENICALLY UNSATURATED COMPOUNDS, POLYMERS THEREOF, AND THEIR PREPARATION

Sidney Melamed, Philadelphia, Pa., assignor to Rohm & Haas Company, Philadelphia, Pa., a corporation of Delaware

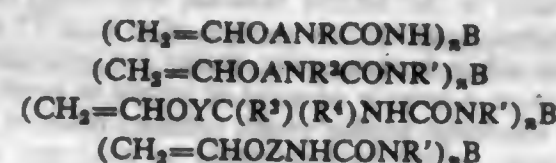
No Drawing. Application September 27, 1954

Serial No. 458,691

15 Claims. (Cl. 260-77.5)

1. A composition of matter comprising a compound

selected from the group consisting of those having one of the general formulas:



where n is an integer having a value of 2 to 3, A is selected from the group consisting of cyclohexylene and alkylene groups having 2 to 18 carbon atoms, of which a chain of at least two is connected between the adjoining nitrogen and oxygen atoms, R is selected from the group consisting of hydrogen, monovalent hydrocarbon groups having 1 to 18 carbon atoms, and monovalent hydrocarbon groups having 1 to 18 carbon atoms substituted by a member selected from the group consisting of hydroxyl, halogens, nitro, cyano, and tertiary-nitrogen-containing amino groups, B is selected from the group consisting of divalent and trivalent aliphatic and alicyclic hydrocarbon groups having 2 to 18 carbon atoms, divalent and trivalent hydrocarbon residues of a member selected from the group consisting of benzene, naphthalene, diphenyl, diphenylalkanes, and triphenylalkanes, R', when not connected to another R' group, is selected from the group consisting of hydrogen, aliphatic and cycloaliphatic hydrocarbon groups having 1 to 24 carbon atoms, and aliphatic and cycloaliphatic hydrocarbon groups substituted by a member selected from the group consisting of hydroxyl, halogens, nitro, cyano, and tertiary-nitrogen-containing amino groups, R', when connected to another R' group, is a methylene group, n being 2 and B being ethylene in this event, R² is selected from the group consisting of monovalent hydrocarbon groups having 1 to 18 carbon atoms, and monovalent hydrocarbon groups having 1 to 18 carbon atoms substituted by a member selected from the group consisting of hydroxyl, halogens, nitro, cyano, and tertiary-nitrogen-containing amino groups, Y is an alkylene group of 1 to 2 carbon atoms, R¹ is an alkyl group of 1 to 4 carbon atoms, R² is an alkyl group of 1 to 4 carbon atoms, and Z is selected from the group consisting of cyclohexylene and alkylene groups having 4 to 18 carbon atoms of which a chain of at least 4 is connected between the adjoining nitrogen and oxygen atoms.

2,824,859

PRODUCTION OF RESINS BY REACTION OF MALEIC ANHYDRIDE WITH STEAM-CRACKED FRACTIONS

Egl V. Fasce, Baton Rouge, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application March 18, 1953

Serial No. 343,266

3 Claims. (Cl. 260-78.5)

1. A separation process which comprises extracting normal aliphatic olefins and paraffins contained in a steam-cracked petroleum fraction boiling between about 200° and 600° F. with urea and removing therefrom the resulting solid extract to obtain a raffinate containing diolefins, branched-chain olefins, aromatic hydrocarbons and cyclic olefins; condensing the branched-chain olefins and diolefins contained in said raffinate with maleic anhydride at a temperature of at least 75° F. and removing therefrom the resulting condensate, and recovering the remaining aromatic hydrocarbons and cyclic olefins.

2,824,860

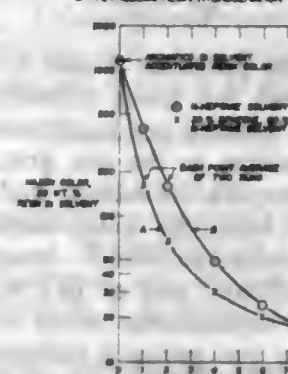
HYDROGENATED RESIN AND PROCESS THEREFOR

Clyde Lee Aldridge, Baker, and Augustus Bailey Small, Baton Rouge, La., assignors to Esso Research and Engineering Company, a corporation of Delaware

Application June 29, 1955, Serial No. 518,878

5 Claims. (Cl. 260-82)

EFFECT OF REDUCING ON RATE OF PETROLEUM RESIN HYDROGENATION



1. A process of preparing improved petroleum resins at a rapid rate which comprises polymerizing a substantially cycloolefin-free steam cracked petroleum fraction boiling within the range of about 50° F.-450° F. to form a resinous polymer, stripping the thus formed resin to remove unreacted material and to increase the softening point thereof, dissolving said resin in an aromatic hydrocarbon containing solvent in an amount sufficient to materially increase the rate of hydrogenation and hydrogenating the entire solution at 100-6000 p. s. i. g. and 100-600° F. in the presence of a hydrogenation catalyst, the conditions of hydrogenation being sufficiently severe to result in the conversion of said aromatic hydrocarbons to cycloparaffinic hydrocarbons.

2,824,861

QUATERNARY COMPOUNDS

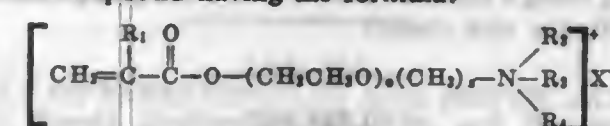
John P. Conbere and Firmin P. Reed, Providence, R. I., assignors to Arnold, Hoffman & Co., Incorporated, Providence, R. I., a corporation of Rhode Island

No Drawing. Application May 19, 1955

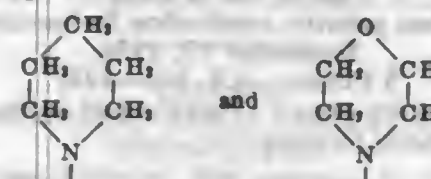
Serial No. 509,676

16 Claims. (Cl. 260-89.5)

1. A compound having the formula:



wherein R₁ is selected from the group consisting of hydrogen and methyl, R₂ and R₃ are selected from the group consisting of (a) alkyl groups having 1 to 4 carbon atoms and (b) are joined together to form with the nitrogen atom a heterocyclic ring selected from the group consisting of



R₄ is selected from the group consisting of methyl and ethyl, n is an integer from 1 to 5 inclusive, z is an integer from 2 to 4 inclusive and X is an anion.

2,824,862

SUSPENSION POLYMERIZATION OF VINYL HALIDE PRODUCTS

Raymond I. Longley, Jr., and Richard H. Martin, Jr., Springfield, Mass., assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application August 26, 1955

Serial No. 530,881

12 Claims. (Cl. 260-92.8)

1. In a process for preparing polymerization products in granular form, the improvement which comprises

polymerizing an aqueous dispersion of a polymerizable material containing a vinyl halide from the group consisting of vinyl fluoride, vinyl chloride and vinyl bromide in the presence of, as a dispersing agent, an interpolymers of a monomeric mixture consisting of essentially equimolar proportions of ethylene and a maleic compound selected from the group consisting of maleic acid, maleic anhydride and mixtures thereof, said interpolymers being partially esterified with a monohydric alcohol containing 1-10 carbon atoms, said dispersing agent being further characterized by (1) the interpolymers of ethylene and the maleic compound, prior to esterification and when in the anhydride form, having a specific viscosity of at least 1.1, as determined in a 1% solution in dimethylformamide at 25° C., (2) having up to 15 mol percent of the carboxyl groups of the interpolymers esterified with said monohydric alcohol and being otherwise free of reactive functional groups, the alcohol portion of said ester groups constituting not over 20 weight percent of the dispersing agent, and (3) being free of salt groups.

2,824,863

ACYLMERCAPTO COMPOUNDS

Robert Schwyzer, Riehen, Switzerland, assignor to Ciba Pharmaceutical Products, Inc., Summit, N. J.

No Drawing. Application November 12, 1953

Serial No. 391,738

Claims priority, application Switzerland

November 14, 1952

14 Claims. (Cl. 260-112)

1. A member selected from the group consisting of amino-thiolcarboxylic acid esters of the formula



wherein A represents a member of the group consisting of a free amino group, an amino group acylated by the acyl radical of a carboxylic acid of the group consisting of natural aminocarboxylic acids and peptide carboxylic acids, and an amino group protected by an aromatic carboxylic acid residue selected from the group consisting of benzoyl, phthalyl and carbobenzoxy, X stands for the divalent radical linking the amino and carboxyl group of a natural lower aliphatic amino acid, Y stands for a member of the group consisting of lower alkylene and phenylene radicals and Z represents a carboxyl group, and salts thereof.

2,824,864

COMPLEX COBALT COMPOUNDS

Arthur Buehler, Rheinfelden, Switzerland, assignor to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application February 5, 1954

Serial No. 408,587

Claims priority, application Switzerland February 11, 1953

10 Claims. (Cl. 260-145)

1. A complex cobalt compound containing one atom of cobalt bound in complex union with two monoazo dye-stuffs free from sulfonic and carboxylic acid groups, of which one contains a member selected from the group consisting of a sulfone and a sulfonamide group bound to an aromatic nucleus of the dyestuff molecule which corresponds to the formula



wherein R represents a hydroxybenzene radical bound to the azo linkage in ortho position relatively to the hydroxyl group, Y represents a member of the group consisting of a lower alkyl, a lower hydroxyalkyl and a benzene radical, and A represents a naphthalene radical bound to the azo linkage in 1-position and bearing the NH-Y group in 2-position, the second dyestuff bound to the cobalt atom being a member selected from the group consisting of an ortho:ortho'-dihydroxy monoazo dyestuff

containing a hydroxybenzene radical bound to the azo group in ortho position relatively to the hydroxyl group and a dyestuff of said Formula 1.

2,824,865

DISAZO- AND POLYAZO-DYESTUFFS AND COMPLEX METAL COMPOUNDS THEREOF AND PROCESS FOR THEIR MANUFACTURE

Oskar Weber, Reinach, Walter Anderau and Raymond Gunst, Binningen, and Bernhard Ruetimyer, Neuall-schwil, Switzerland, assignors to Ciba Limited, Basel, Switzerland, a Swiss firm

No Drawing. Application August 29, 1955

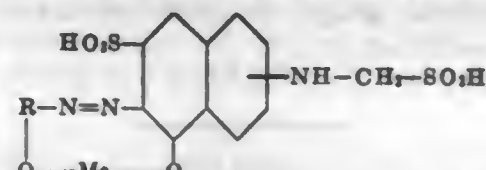
Serial No. 531,256

Claims priority, application Switzerland

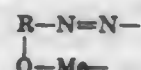
September 2, 1954

7 Claims. (Cl. 260-146)

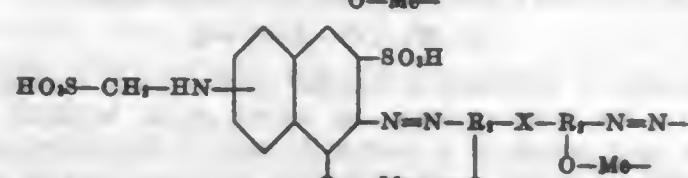
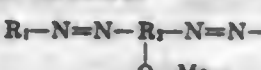
1. A metalliferous azo-dyestuff of the formula



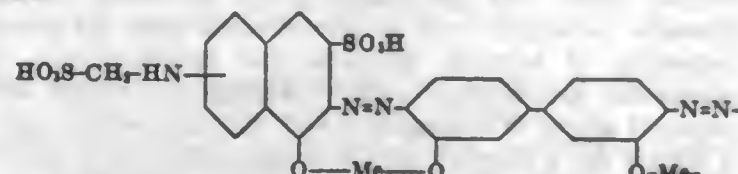
in which the $-NH-CH_2-SO_3H$ group occupies a β -position and



represents a radical selected from the group consisting of the radicals of the formulae



and



wherein R_1 represents the radical of a 2-(aminophenyl)-benzthiazole sulfonic acid, R_2 represents a benzene radical, X represents a member selected from the group consisting of azo- and azoxy groups, Me represents a metal having an atomic number of at least 28 and at the most 29 and all the $-O-Me-$ groups are in ortho-position to the azo linkages.

2,824,866

DISAZO DYESTUFFS AND THEIR METAL COMPLEX COMPOUNDS

Hans Ischer and Lukas Schneider, Basel, Switzerland, assignors, by mesne assignments, to Saul & Co., Newark, N. J., as nominee of Fidelity Union Trust Company, executive trustee under Sandoz trust

No Drawing. Application December 13, 1954

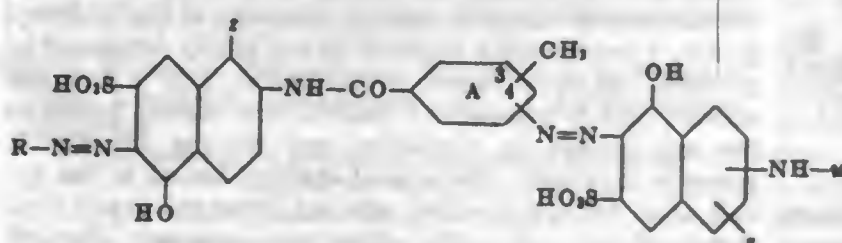
Serial No. 474,970

Claims priority, application Switzerland

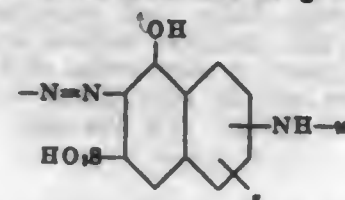
December 18, 1953

7 Claims. (Cl. 260-148)

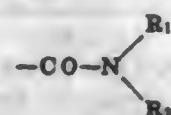
1. A member selected from the group consisting of disazo dyestuffs which correspond to the formula



and the complex copper and nickel compounds thereof, wherein the $-CH_3$ on nucleus A is in one of the said positions 3 and 4 of the latter and the grouping



is in the other of the positions 3 and 4; R stands for a member selected from the group consisting of (a) aromatic radicals of the benzene and naphthalene series which contain in ortho-position to the azo group a substituent capable of metal-complex formation and also contain a substituent selected from the class consisting of lower alkyl sulfonyl, cyclohexylsulfonyl, benzylsulfonyl and mononuclear arylsulfonyl, and of (b) aromatic radicals of the benzene and naphthalene series which contain in ortho-position to the azo group a substituent capable of metal-complex formation but are free from substituted sulfonyl groups; z stands for a member selected from the group consisting of hydrogen, chlorine and $-SO_3H$; and w stands, when R contains a substituted sulfonyl group, for an acyl radical selected from the group consisting of radicals of saturated and unsaturated monocarboxylic acids of the lower aliphatic, phenyl-aliphatic and phenoxy-aliphatic series, radicals of mononuclear aromatic monocarboxylic acids, radicals of substituted carbamic acids, the substituents being chosen from the class consisting of lower alkyl, cyclohexyl, benzyl, phenyl, acetylaminophenyl, propionylaminophenyl, benzoylaminophenyl, aminosulfonylphenyl, sulfophenyl and diphenyl residues, and stands, when R is free from substituted sulfonyl groups, for the grouping



R_1 being a member selected from the group consisting of hydrogen, lower alkyl, cyclohexyl, benzyl, phenyl, acetylaminophenyl, propionylaminophenyl, benzoylaminophenyl, aminosulfonylphenyl, sulfophenyl and diphenyl residues, and R_2 being a member selected from the group consisting of hydrogen and methyl.

2,824,867

COMPLEX COPPER COMPOUNDS OF DISAZO DYESTUFFS

Ernst Keller, Binningen, and Rudolf Dürig, Basel, Switzerland, assignors to J. R. Gelgy A. G., Basel, Switzerland, a Swiss firm

No Drawing. Application September 6, 1955

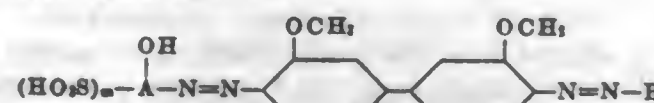
Serial No. 532,773

Claims priority, application Switzerland

September 17, 1954

5 Claims. (Cl. 260-148)

1. The complex copper compound of a disazo dyestuff having the general formula:



wherein A represents a naphthalene radical bound to the azo group in ortho-position to the hydroxyl group and being otherwise free from sulphacetyl amino groups bound

direct to the naphthalene ring, B represents the radical of a hydroxynaphthalene compound bound to the azo group in ortho-position to the hydroxyl group selected from the group consisting of 2-(ω -sulphacetyl amino)-8-hydroxynaphthalene-6-sulphonic acid, 2-(ω -sulphacetyl amino)-6-hydroxynaphthalene-8-sulphonic acid, 1-(ω -sulphacetyl amino)-5-hydroxynaphthalene-7-sulphonic acid, 1-(ω -sulphacetyl amino)-7-hydroxynaphthalene-3-sulphonic acid, 1-(ω -sulphacetyl amino)-8-hydroxynaphthalene-4-sulphonic acid, 1-(ω -sulphacetyl amino)-7-hydroxynaphthalene, and m is one of the integers 1 and 2.

2,824,868

COMPLEX COPPER COMPOUNDS OF DISAZO DYESTUFFS

Ernst Keller, Binningen, and Rudolf Dürig, Basel, Switzerland, assignors to J. R. Gelgy A. G., Basel, Switzerland

No Drawing. Application September 6, 1955

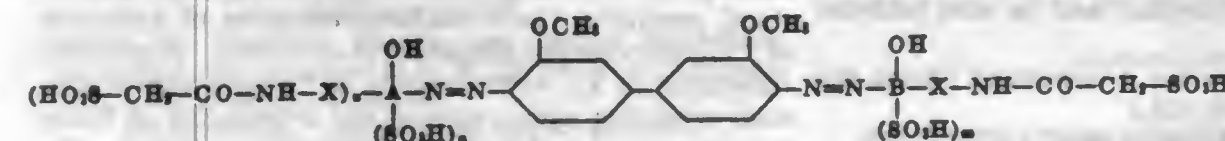
Serial No. 532,774

Claims priority, application Switzerland

November 17, 1954

6 Claims. (Cl. 260-148)

1. The copper complex compound of a disazo dyestuff having the general formula:



wherein:

A and B each represent a naphthalene radical bound to the azo group in ortho-position to the hydroxyl group, X represents a member selected from the group consisting of the $-NH-Ph-$, $-NH-CO-Ph-$ and $-NH-CO-NH-Ph-$

radicals wherein Ph represents a phenylene radical, u and m are each one of the integers 0 and 1, and n is one of the integers 1, 2 and 3,

A and B being otherwise free from further sulphacetyl amino groups.

2,824,869

SALT OF STREPTOMYCIN AND PHYTIC ACID

Frank Harold Buckwalter, De Witt, and Edmund S. Granatek, East Syracuse, N. Y., assignors to Bristol Laboratories Inc., Syracuse, N. Y., a corporation of New York

No Drawing. Application August 4, 1954

Serial No. 447,984

3 Claims. (Cl. 260-210)

1. The salt of streptomycin and phytic acid.

2,824,870

UREA-MODIFIED ALKALI METAL STARCH PHOSPHATES

Hans Neukom, Chicago, Ill., assignor to International Minerals & Chemical Corporation, a corporation of New York

No Drawing. Application September 16, 1954

Serial No. 456,622

4 Claims. (Cl. 260-233.5)

1. In a process for preparing an alkali-metal starch phosphate, which process comprises commingling starch with an aqueous solution containing at least about 2.5% by weight of an alkali-metal phosphate and having a pH between about 3.0 and about 8.0, the proportion of water present in said solution, agitating the resulting slurry for at least about 5 minutes, separating the treated starch from the liquid phase, drying the surface moisture from the treated starch at a temperature below the point

at which the starch gelatinizes, and heating the treated starch at a temperature between about 120 and about 175° C. for between about 1 and about 15 hours, the improvement which comprises incorporating in said aqueous solution between about 2 and about 5% by weight of urea prior to treatment of starch therewith, whereby a urea-modified alkali-metal starch phosphate is obtained capable of producing aqueous solutions of increased viscosity.

2. A urea-modified alkali-metal starch phosphate, prepared according to the method of claim 1, and containing between about 1 and about 5% by weight of bound phosphorus, based on the original starch, and between about 1 and about 2 moles of alkali metal per mole of bound phosphorus.

2,824,871

STERIOD COMPOUNDS AND PROCESS

Robert H. Levin and Barney J. Magerlein, Kalamazoo, Mich., assignors to The Upjohn Company, Kalamazoo, Mich., a corporation of Michigan

No Drawing. Application November 29, 1951

Serial No. 259,008

15 Claims. (Cl. 260-239.55)

6. A process for the preparation of pregnane-3 α ,11 β -di-

ol-20-one comprising treating pregnane-3 α -ol-11,20-dione with ethylene glycol to prepare the corresponding 20-ethylene ketal, selectively reducing the pregnane-3 α -ol-11,20-dione-20-ethylene ketal within lithium aluminum hydride to produce pregnane-3 α ,11 β -diol-20-one-ethylene ketal.

2,824,872

MORPHOLINO PHENYL CARBAMATES AND PRODUCTION THEREOF

Pierre Chabrier de Lassunière, Paris, France, assignor to Les Laboratoires Danne (Société Anonyme), Paris, France, a French company

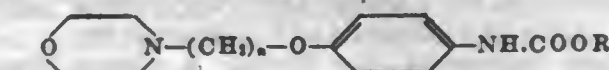
No Drawing. Application February 2, 1956

Serial No. 563,139

Claims priority, application France February 5, 1955

8 Claims. (Cl. 260-247.2)

1. A compound selected from the class consisting of compounds of the general formula



where n is at least 2 and at most 3, and R is an alkyl group having from 1 to 14 carbon atoms, and the acid addition salts thereof.

2,824,873

PRODUCTION OF PYRIDAZONE DERIVATIVES

Kaethe Bartram, Ludwigshafen (Rhine), Germany, assignor to Badische Anilin- & Soda-Fabrik Aktiengesellschaft, Ludwigshafen (Rhine), Germany

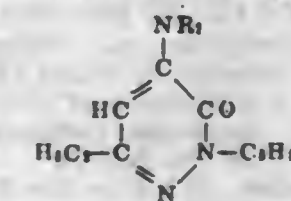
No Drawing. Application May 1, 1956

Serial No. 581,850

Claims priority, application Germany May 7, 1955

7 Claims. (Cl. 260-247.5)

1. Pyridazone derivatives of the general formula



in which $-NR_1$ is the radical of a saturated secondary

amine, the two R together having a sequence of from 2 to 6 members.

6. 2-phenyl-4-morpholino-6-ethylpyridazone-(3).

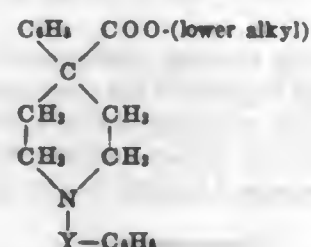
2,824,874
RESERPIC ACID AND DERIVATIVES
Emil Schlittler, Madison, N. J.
No Drawing. Application August 5, 1955
Serial No. 526,780
11 Claims. (Cl. 260-286)

1. Reserpilic acid alkyl esters with a free hydroxyl group.

2,824,875
**LOWER ALKYL 4-PHENYL-1-(3-PHENYL-ALKE-
NYL AND -ALKYNYL) PIPERIDINE-4-CAR-
BOXYLATES AND SYNTHESIS THEREOF**
Bill Elpern, Delmar, N. Y., assignor to Sterling Drug Inc.,
New York, N. Y., a corporation of Delaware
No Drawing. Application September 12, 1955
Serial No. 533,894
14 Claims. (Cl. 260-294.3)

1. A compound selected from the group consisting of a lower alkyl 4-phenyl-1-(3-phenyl-propenyl)pi-
peridine-4-carboxylate, a lower alkyl 4-phenyl-1-(3-phenyl-
propynyl)piperidine-4-carboxylate; and its acid addition
salts.

10. The process of preparing a compound having the
formula



where Y is selected from the group consisting of propenyl
and propynyl radicals, which comprises reacting a lower
alkyl 4-phenylpiperidine-4-carboxylate with an ester hav-
ing the formula



where An is selected from the group consisting of anions
of a strong inorganic acid and an organic sulfonic acid.

2,824,876
**PRODUCTION OF 4-MERCAPTONICOTINIC ACID
AND INTERMEDIATE THEREFOR**
Leon Katz, Springfield, and Murray S. Cohen, Dover,
N. J., and William Schroeder, West Lafayette, Ind.,
assignors to Schenley Industries, Inc., New York, N. Y.,
a corporation of Delaware
No Drawing. Application February 23, 1955
Serial No. 490,136
4 Claims. (Cl. 260-294.8)

1. A process for the production of 4-mercaptionicotinic
acid which comprises the reaction of 4-hydroxynicotinic
acid with phosphorus pentasulfide to form 5-aza-1,2,3-
benzodithiole-3-thione, alkaline hydrolysis of the resulting
compound, and subsequent re-recovery of 4-mercaptionicotinic
acid from the hydrolyzate.

2,824,877
BENZYL-PENICILLATE OF TETRACYCLINE
Lee C. Cheney, Fayetteville, and William J. Gottstein,
Syracuse, N. Y., assignors to Bristol Laboratories Inc.,
Syracuse, N. Y., a corporation of New York
No Drawing. Application February 1, 1956
Serial No. 562,630
4 Claims. (Cl. 260-306.7)

1. Tetracycline penicillate.

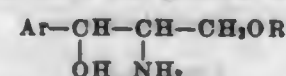
2,824,878
**SYNTHESIS OF PHENYLAMINO PROPANEDIOL
ALKYLETHERS AND INTERMEDIATES OB-
TAINED THEREBY**
Carlo G. Alberti, Milan, Luigi Bernardi and Giovanni
Larini, Settimo Torinese, and Alberto Vercellone,
Milan, Italy, assignors to Societa Farmaceutici Italia, a
corporation of Italy

No Drawing. Application October 18, 1955

Serial No. 541,532

Claims priority, application Italy October 22, 1954

1. The process of preparing 1-aryl-2-amino-3-alkoxy-
propane-1-ols that have the general formula



wherein Ar represents an aryl and R represents a lower
alkyl, said process comprising reacting an aryl aldehyde
with an α -halo- β -alkoxy alkyl propionate in an anhy-
drous solvent solution and in the presence of zinc at a
temperature between 0° and 100° C., cooling, taking
up with water, acidifying against Congo paper, separat-
ing and dehydrating the solvent layer, evaporating the
solvent, distilling the residue in high vacuum, dissolving
distilled α -alkoxy-methyl- β -hydroxy- β -aryl alkyl propio-
nate in anhydrous alcohol, adding hydrazine hydrate,
heating on a boiling water-bath, letting the solution
stand, separating the crystalline precipitate of hydrazide
of α -alkoxy-methyl- β -hydroxy- β -aryl-alkyl propionate,
suspending in ice water, treating in the cold with nitrous
acid, extracting with a solvent and evaporating in vacuo
to separate 5-aryl-4-alkoxy-methyl-2-oxazolidone, dis-
solving in alcohol, refluxing for 2 to 10 hours with a
saponifying agent, and separating the resulting 1-aryl-2-
amino-3-alkoxypropane-1-ol.

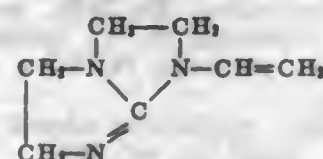
2,824,879
NOVEL VINYL DERIVATIVE
Arthur Ferguson McKay, Pointe Claire, Quebec, and
Maria-Elisabeth Krelling, Montreal, Quebec, Canada, as-
signors to Monsanto Canada Limited, Quebec, Quebec,
Canada

No Drawing. Application June 4, 1957

Serial No. 663,352

Claims priority, application Great Britain July 28, 1956

2 Claims. (Cl. 260-309.6)
1. 1-vinyl-2,3,5,6-tetrahydro-1-imidaz (1,2a) imidaz-
ole of the structural formula:



2,824,880
**PROCESS FOR THE MANUFACTURE OF ANTHRA-
QUINONE FROM ANTHRACENE BY CATA-
LYTIC OXIDATION**
Walter Wettstein, Kaiseraugst, Switzerland, assignor to
Ciba Limited, Basel, Switzerland
No Drawing. Original application April 5, 1954, Serial
No. 421,159. Divided and this application June 7,
1955, Serial No. 516,799
Claims priority, application Switzerland April 10, 1953
7 Claims. (Cl. 260-385)

1. A process for the manufacture of anthraquinone
from anthracene by catalytic oxidation, which comprises
catalytically oxidizing anthracene in the presence of an
oxidation catalyst containing a vanadium compound select-
ed from the group consisting of vanadic acid and
vanadium oxide, said vanadium compound being incorpo-
rated with a metal compound selected from the group
consisting of alkali metal oxides, alkali metal hydroxides,
alkali metal vanadates, salts of an alkali metal with a
volatile acid, alkaline earth metal oxides, alkaline earth

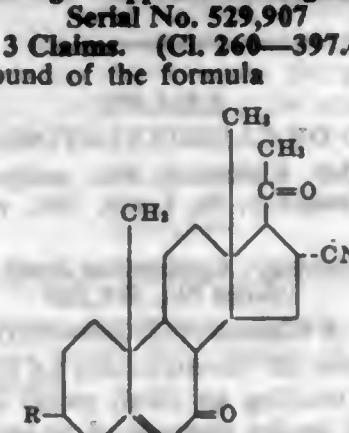
metal hydroxides, alkaline earth metal vanadates and
salts of an alkaline earth metal with a volatile acid in
a proportion of 0.4 to 0.7 equivalent of said metal com-
pound per atomic proportion of vanadium present.

2,824,881
**PROCESS FOR THE MANUFACTURE OF ANTHRA-
QUINONE BY OXIDATION OF ANTHRACENE**
Walter Wettstein, Kaiseraugst, Switzerland, assignor to
Ciba Limited, Basel, Switzerland
No Drawing. Original application April 5, 1954, Serial
No. 421,160. Divided and this application June 7,
1955, Serial No. 516,800
Claims priority, application Switzerland April 10, 1953
6 Claims. (Cl. 260-385)

1. In the process for the manufacture of anthraquinone
by oxidation of anthracene with an oxygen-containing gas
in the presence of a vanadium catalyst, the improvement
which comprises regenerating and keeping constant the
catalytic activity of said catalyst by neutralizing acid com-
pounds which are formed during the use of the catalyst
and remain in the catalytic mass.

2,824,882
**16-CYANO-7-OXOPREGNENOLONE AND
DERIVATIVES**
Charles W. Marshall, Skokie, and Robert H. Mazur,
Evanston, Ill., assignors to G. D. Searle & Co., Chicago,
Ill., a corporation of Illinois
No Drawing. Application August 22, 1955
Serial No. 529,907
3 Claims. (Cl. 260-397.4)

1. A compound of the formula



wherein R is selected from the group consisting of hy-
droxy and lower alkanoyloxy radicals.

2,824,883
**AMIDE SYNTHESIS USING ANION EXCHANGE
RESIN CATALYSTS**
Mitchell F. Zienty, Elkhart, Ind., assignor to Miles Lab-
oratories, Inc., Elkhart, Ind., a corporation of Indiana
No Drawing. Application October 7, 1953
Serial No. 384,781
10 Claims. (Cl. 260-404)

1. A process for producing amides which comprises
condensing, in the presence of an anion exchange resin,
an amine with an aliphatic acid.

2,824,884
**AMIDES OF PERCHLOROFLUOROCARBOXYLIC
ACIDS AND PROCESS FOR THE PREPARA-
TION THEREOF**
William S. Barnhart, Cranford, and Joseph L. Zollinger,
Bloomfield, N. J., assignors, by memo assignments, to
Minnesota Mining and Manufacturing Company, St.
Paul, Minn., a corporation of Delaware
No Drawing. Application April 5, 1955
Serial No. 499,512
28 Claims. (Cl. 260-404)

1. An amide of a perchlorofluorocarboxylic acid hav-
ing from 4 to 20 carbon atoms.

17. A process which comprises reacting a perchloro-
fluorocarboxylic acid halide having from 4 to 20 carbon

atoms with a compound selected from the group consist-
ing of ammonia, hydrazine, hydroxylamine, methylene
diamine, p-p'-diaminodiphenylmethane, sulfanilic acid
and lower alkyl amines.

2,824,885
REFINING TRIGLYCERIDE OILS
George C. Cavanagh, Fresno, Calif., assignor to Ranchers
Cotton Oil, Fresno, Calif.
No Drawing. Application January 3, 1955
Serial No. 479,653
8 Claims. (Cl. 260-424)

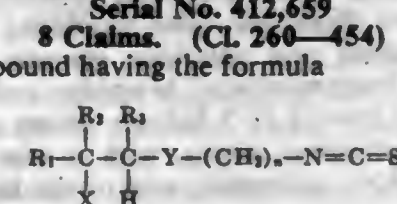
4. A process of further refining an alkali refined triglyc-
eride oil in miscella containing traces of soapstock com-
prising converting the residual traces of soapstock in the
miscella to free fatty acids and water soluble salts by in-
timately mixing an aqueous acid solution, containing an
acid in a quantity sufficient to provide an hydrogen ion
concentration of from about .01 to .033 normal with sub-
stantially all of the remainder of the solution being water,
with the miscella whereby the free fatty acids dissolve
in the miscella and the salts dissolve in the water of the
aqueous solution; removing the aqueous solution con-
taining the water soluble salts from the miscella contain-
ing the free fatty acids; and subsequently extracting the
free fatty acids from the miscella.

2,824,886
**REGENERATION OF CUPROUS AMMONIUM
SALT MATERIAL**
Martin J. Barry, Ridgewood, and Theodore S. Williams,
Asbury Park, N. J., assignors to M. W. Kellogg Com-
pany, Jersey City, N. J., a corporation of Delaware
Application June 25, 1953, Serial No. 364,038
10 Claims. (Cl. 260-438)

1. The process for the removal of carbon monoxide
from a solution of a cuprous ammonium salt containing
the same which comprises: contacting said solution with
an ammonia-containing gas in an absorption zone at a
temperature of about 25° F. to about 150° F. to absorb
at least part of the ammonia; passing the thus-enriched
solution to a stripping zone; introducing into said strip-
ping zone a gasiform stripping agent; countercurrently
contacting the enriched solution from the absorption
zone with said stripping agent in said stripping zone at
a temperature of about 100° F. to about 300° F. such
that at least part of the carbon monoxide is dissociated
from the cuprous ammonium salt; and heating the thus-
stripped solution to a temperature of about 125° F. to
about 350° F. to dissociate additional carbon monoxide
from said solution.

2,824,887
**SUBSTITUTED ETHYL ALKYL
ISOTHIOCYANATES**
Hein L. Klopping, Wilmington, Del., assignor to E. I. du
Pont de Nemours and Company, Wilmington, Del., a
corporation of Delaware
No Drawing. Application February 25, 1954
Serial No. 412,659
8 Claims. (Cl. 260-454)

1. A compound having the formula



where R₁, R₂ and R₃ are members of the class consisting
of hydrogen and alkyl radicals having from 1 to 3 carbon
atoms, X is a member of the group consisting of halogen
and hydroxy radicals, Y is a divalent radical of the class
consisting of S, SO, and SO₂, and n is an integer of from
2 to 6.

2,824,888

 α,α -DIFLUORO-SUBSTITUTED ACIDS OF THE TRICARBOXYLIC ACID CYCLE, THEIR SALTS, AMIDES AND ESTERS

Maynard S. Raasch, Wilmington, Del., assignor to E. I. du Pont de Nemours and Company, Wilmington, Del., a corporation of Delaware

No Drawing. Application September 20, 1955
Serial No. 535,538

7 Claims. (Cl. 260-483)

1. A fluorine-containing compound selected from the class consisting of acids of the tricarboxylic acid cycle having a methylene carbon atom alpha to a carboxyl group and having directly attached to this methylene carbon atom two fluorine atoms, their metal and ammonium salts, their alkyl esters wherein the alkyl group contains 1 to 8 carbon atoms, their amides and their N-alkyl and N-dialkyl substituted amides wherein the alkyl groups contain 1 to 8 carbon atoms.

2,824,889

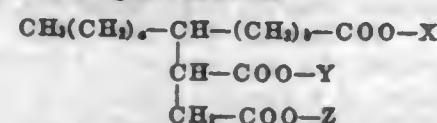
SATURATED ALIPHATIC TRICARBOXYLIC ACID ESTERS

Herman A. Bruson and John D. Newkirk, New Haven, Conn., assignors to Olin Mathieson Chemical Corporation, New Haven, Conn., a corporation of Virginia

No Drawing. Application June 21, 1955
Serial No. 517,068

8 Claims. (Cl. 260-485)

1. An ester having the formula



wherein a is an integer from 6 to 9 inclusive, b is equal to $(15-a)$; and X, Y, and Z are chosen from the group consisting of alkyl and alkyl-(O-A) $_n$ -radicals wherein A is an alkylene group having 2 to 3 carbon atoms, and n is an integer from 1 to 3 inclusive; the sum of carbon atoms in X, Y, and Z being not less than 6 nor more than 81; said ester having a pour point at least as low as -40° .

2,824,890

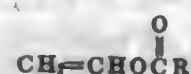
ADDUCTS OF HALOGENATED BENZENE SULFENYL HALIDES AND VINYL ESTERS AND PROCESS

Samuel Allen Heininger and Gail H. Birum, Dayton, Ohio, assignors to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application February 21, 1957
Serial No. 641,491

8 Claims. (Cl. 260-488)

1. The method which comprises contacting a sulfenyl halide selected from the class consisting of benzene-sulfenyl bromides and chlorides wherein the benzene ring of said benzenesulfenyl bromides and chlorides is substituted by from 1 to 5 halogen atoms selected from chlorine and bromine atoms, with a vinyl ester of a saturated aliphatic carboxylic acid of the formula



where R represents a lower alkyl radical containing from 1 to 6 carbon atoms, and thereby forming a reaction product comprising compounds containing sulfur atoms and carboxylate radicals.

2,824,891

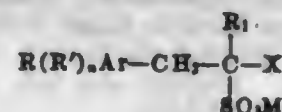
SURFACE ACTIVE AGENTS DERIVED FROM AROMATIC ALDEHYDE INTERMEDIATES

Ernest L. Pollitzer, La Grange, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application November 7, 1955
Serial No. 545,518

12 Claims. (Cl. 260-505)

1. A compound having the structural formula



wherein Ar is a polyvalent aromatic hydrocarbon radical selected from the mono- and dinuclear aromatic hydrocarbons, R is an alkyl group containing from 5 to about 9 carbon atoms when Ar is bicyclic and from 8 to about 18 carbon atoms when Ar is monocyclic, R' is a short chain alkyl group containing from 1 to 2 carbon atoms per group, n is a small whole number having a value of from 0 to 2, R_1 is a radical selected from the group consisting of hydrogen and alkyl containing from 1 to 4 carbon atoms, X is a radical selected from the group consisting of nitro, amino, ω -hydroxy-(alkylene-oxy)-amino, containing from 1 to about 20 oxyalkylene units per radical of which the alkylene group contains from 2 to 3 carbon atoms, and alkyl amino containing from 1 to 6 carbon atoms per alkyl group, and M is an electro-positive ion selected from the group consisting of hydrogen, alkali metal, and ammonium radicals.

2,824,892

METHOD OF CARBOXYLATING PHENOLS

Lloyd B. Barkley, Kirkwood, Mo., assignor to Monsanto Chemical Company, St. Louis, Mo., a corporation of Delaware

No Drawing. Application April 2, 1956

Serial No. 575,350

8 Claims. (Cl. 260-521)

1. In a process for carboxylating an hydroxy aromatic compound by reacting an alkali metal salt thereof with carbon dioxide in the absence of water, the step comprising reacting, at temperatures of at least 120°C ., carbon dioxide with an alkali metal salt of the hydroxy aromatic compound in an anhydrous medium comprising hydroxy aromatic compound and aliphatic alcohol containing at least 5 and not more than 20 carbon atoms.

2,824,893

PREPARATION OF AROMATIC CARBOXYLIC ACIDS

William G. Toland, Jr., San Rafael, Calif., assignor to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application January 9, 1956, Serial No. 558,086

3 Claims. (Cl. 260-524)

1. A process for producing phthalic acids of high purity which comprises heating a xylene with ammonium sulfate, a water-soluble sulfide and water to a temperature in the range about 550°F . to 700°F . under a superatmospheric pressure sufficient to maintain a part of the water in liquid phase, evaporating ammonia, hydrogen sulfide and a part of the water from the reaction product mixture at a temperature in the range from 240°F . to 600°F ., settling the evaporated reaction product to separate an upper aqueous phase containing phthalic acid amides and ammonium salts and substantially completely free of elemental sulfur and a lower liquid sulfur phase and hydrolyzing the aqueous phase to precipitate phthalic acids.

2,824,894

HYDROXYETHYL-PHENOXYBENZYL-DICHLOROACETAMIDE

Willy Logemann and Luigi Almirante, Milan, Italy, assignors to Carlo Erba S. p. A., Milan, Italy

No Drawing. Application July 13, 1956
Serial No. 597,595

Claims priority, application Italy July 22, 1955

1 Claim. (Cl. 260-562)

N-(β -hydroxyethyl)-N-[p-phenoxy-(4'-nitro)-benzyl]-dichloroacetamide:

2,824,895

ALKYLATION OF ARYLAMINES

John P. Lavist, Riverside, Ill., assignor to Universal Oil Products Company, Des Plaines, Ill., a corporation of Delaware

No Drawing. Application August 29, 1955
Serial No. 531,295

9 Claims. (Cl. 260-578)

1. A process for the preparation of a nuclearly substituted arylamine which comprises reacting an organic halide selected from the group consisting of alkyl and aryl halides with an arylamine in the presence of an alkali metal sand, and recovering the resultant nuclearly substituted arylamine.

2,824,896

KETONE AND ALCOHOLS

Joseph Donald Surmatia, Pompton Plains, N. J., assignor to Hoffmann-La Roche Inc., Nutley, N. J., a corporation of New Jersey

No Drawing. Application August 18, 1955
Serial No. 529,354

3 Claims. (Cl. 260-593)

- 6,8-dimethyl-2-nonanone.
- 3,7,9-trimethyl-1-decyn-3-ol.
- 3,7,9-trimethyl-1-decen-3-ol.

2,824,897

PERCHLOROFLUORO ALCOHOLS

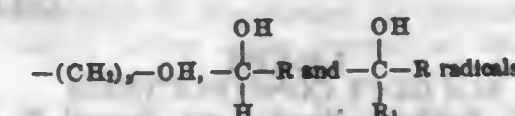
Donald W. Wujciak, Union, Robert H. Wade, West Paterson, and William S. Barnhart, Cranford, N. J., assignors, by mesne assignments, to Minnesota Mining and Manufacturing Company, St. Paul, Minn., a corporation of Delaware

No Drawing. Application June 24, 1955
Serial No. 517,928

15 Claims. (Cl. 260-633)

1. An alcohol having a perfluorochlorocarbon chain having the recurring unit, $-\text{CF}_2\text{CFCl}-$, said chain being bonded at one terminus by a radical selected from the group consisting of a chlorine atom, a perhalomethyl radical having an atomic weight not in excess of 146.5, a $-\text{CF}_2\text{CFHCF}_2-$ divalent radical, a $-\text{CF}_2\text{CFH}-$ divalent radical, a $-\text{CFCl}-$ divalent radical, a $-\text{CFHCFCl}-$ divalent radical and a $-\text{CF}_2-$ divalent radical, said perfluorochlorocarbon chain being bonded at its other terminus only by one of said divalent radicals, and in which each of said divalent radicals is additionally

bonded to a hydroxyl-containing group selected from the group consisting of



wherein y is an integer from 1 to 3, and R and R_1 are selected from the group consisting of alkyl, aryl, alkenyl, cycloalkyl, cycloalkenyl and heterocyclic radicals having not in excess of 20 carbon atoms per radical.

2,824,898

REMOVAL OF SOAP FROM OXO BOTTOMS BY SOLID ADSORBENTS

Rhea N. Watts, St. Francisville, La., assignor to Esso Research and Engineering Company, a corporation of Delaware

No Drawing. Application February 24, 1956
Serial No. 567,447

7 Claims. (Cl. 260-643)

1. A method of treating an oxygenated solvent containing alcohol as a principal component, said solvent being contaminated with a minor amount of precipitate-forming soap which comprises contacting said solvent with a solid adsorbent having an average pore diameter between about 60-110 A. to selectively adsorb said soap and separating the soap free solvent from the adsorbent.

2,824,899

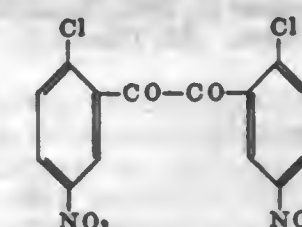
AROMATIC HALONITRO COMPOSITION

Henri Moureu and Paul Chovin, Paris, France, assignors to Societe des Usines Chimiques Rhone-Poulenc, Paris, France, a French body corporate

No Drawing. Application June 24, 1957
Serial No. 667,696

1 Claim. (Cl. 260-646)

As a new composition of matter 5:5'-dinitro-2:2'-dichlorobenzil of the formula:



2,824,900

PROCESS FOR THE PRODUCTION OF 1,1,1-TRIFLUORO-2-CHLOROETHANE

Marcello Terruzzi, Milan, Italy, assignor to Montecatini, Societa Generale per l'Industria Mineraria e Chimica, a corporation of Italy

No Drawing. Application May 10, 1955
Serial No. 507,480

4 Claims. (Cl. 260-653)

1. The process of preparing 1,1,1-trifluoro-2-chloroethane which comprises heating, in an atmosphere of chlorine gas adjusted to about 5 atm. pressure at room temperature, at least one member of the group consisting of symmetrical tetrachloroethane, 1,1-difluoro-2,2-dichloroethane and 1-fluoro-1-chloro-2,2-dichloroethane, up to 20% excess over the molar requirements of liquid anhydrous hydrofluoric acid and from 0.1 to 0.5 mol of antimony pentachloride, maintaining a temperature between 90 and 170°C ., and maintaining the pressure at least 5 atm. above the vapor pressure of anhydrous hydrofluoric acid at the selected reaction temperature.

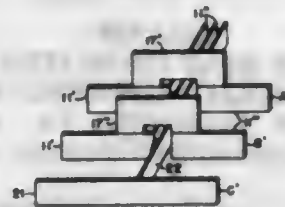
ELECTRICAL

2,824,901

BUS DUCT CONSTRUCTIONS

Howard E. Reichert, Beaver, and Samuel S. Fosse, Alliquippa, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 2, 1953, Serial No. 334,644
4 Claims. (Cl. 174-72)



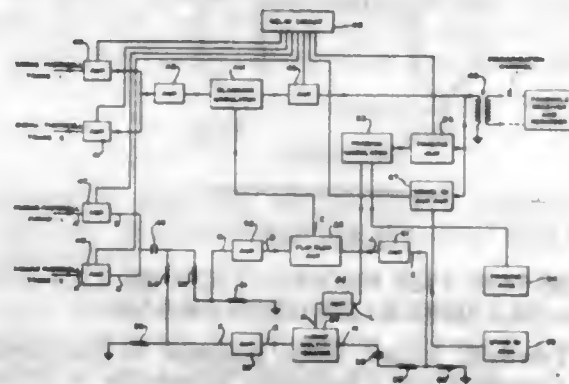
1. In a T for a three-phase bus duct having a plurality of juxtaposed bus bars, a substantially flat phase bar bent sidewise to form an angularly extending portion and an additional substantially flat bar for each one of two phases, a third substantially flat bar having another bar secured thereto perpendicularly for the third phase, and a substantially flat tie bar for each one of the first two phases, each tie bar having an edge portion joined to an edge portion of the phase bar and another edge portion joined to an edge portion of the additional bar for its corresponding phase and spanning the angularly extending portions of the bars for other phases.

2,824,902

FACSIMILE TELEGRAPH APPARATUS FOR VARIABLE BLANKING AND CARRIAGE RETURN

Leon G. Pollard, Southampton, Clarence R. Delbert, Water Mill, Frank T. Turner, Hampton Bays, and Robert H. Sulder, Southampton, N. Y., assignors to The Western Union Telegraph Company, New York, N. Y., a corporation of New York

Application December 13, 1951, Serial No. 261,461
29 Claims. (Cl. 178-7.1)



7. Facsimile transmission apparatus, comprising scanning means for scanning a rolled transmitting blank having the subject matter to be transmitted delineated thereon thereby to produce a facsimile signal and in which the adjacent edges of the rolled blank are spaced from each other by a longitudinal gap, and including means operative periodically to produce an electrical impulse having a first time duration determined by the width of the gap between the adjacent edges of said transmitting blank, an output circuit, normally conductive modulator means for applying said facsimile signal to said output circuit, means responsive to said electrical impulse for generating a blanking impulse having a second time duration including said first time duration, and means to apply said blanking impulse to said modulator thereby to render said modulator non-conductive for a time interval substantially co-extensive with said second time duration.

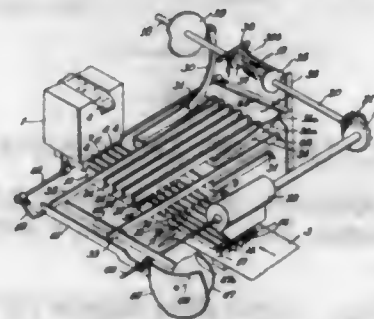
848

2,824,903

METHOD OF AND APPARATUS FOR CONTROLLING A TYPE-IMAGE TELEPRINTER SYSTEM BY A TYPE-PRINTER SYSTEM

Rudolf Zimmermann and Herbert Wüsteney, Munich, Fritz Hennig, Munich-Solln, and Walter Demant and Otto Steiner, Munich, Germany, assignors to Siemens & Halske Aktiengesellschaft, Berlin and Munich, Germany, a corporation of Germany

Application August 10, 1954, Serial No. 458,531
(Filed under Rule 47(a) and 35 U. S. C. 116)
Claims priority, application Germany August 19, 1953
13 Claims. (Cl. 178-5)



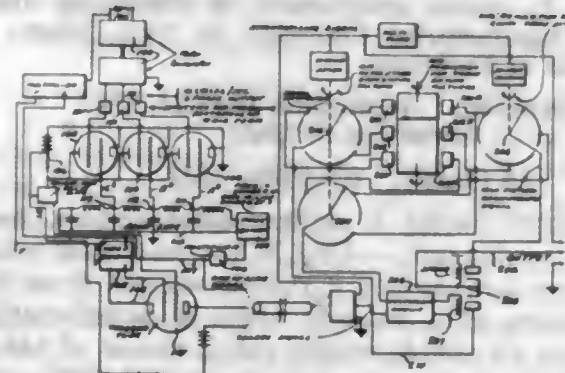
1. Apparatus for controlling a type-image teleprinter system by a type-printer system in which the teleprinter symbols are transmitted with desired spacing comprising a converter for start-stop scanning a first perforated tape adapted for type-printer operation, means in said converter responsive to said scanning for correspondingly punching a second multi-row tape adapted for use in type-image transmission and recording, said second tape having a number of code-forming perforation rows exceeding that of the first tape, means in said converter for punching in at least one row of said second tape type-group markers, and for completely suppressing certain impulses representing perforation combinations appearing on said first tape, with punched perforation combinations in said second tape appearing consecutively without gaps, a device for converting into type-image symbols all teleprinter symbols required for type-image transmission and recording, and an intermediate storage device for start-stop recording and continuously retransmitting said type-image symbols.

2,824,904

BAND COMPRESSION TELEVISION SYSTEM

Pierre Marie Gabriel Toulon, New York, N. Y., assignor, by mesne assignments, to Moore and Hall, Washington, D. C., a partnership

Application June 3, 1950, Serial No. 166,013
Claims priority, application France June 9, 1949
35 Claims. (Cl. 178-6)



1. In a system for transmitting with reduced bandwidth a signal that periodically repeats itself and which may have changes in the signal shape during repetitions thereof, in combination, means for transmitting impulses

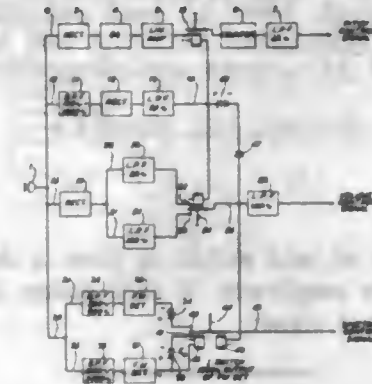
FEBRUARY 25, 1958

ELECTRICAL

849

respectively representative of the amplitudes of equally spaced points along the signal and thereafter transmitting impulses representative of points along the next signal which points are time displaced from the origin of the second signal at values intermediate the values of time displacements of said points of the first signal, said means including means for intermittently repeating its transmissions to send impulses representative of points along succeeding signals that are complementary to the points involved in the first two aforesaid transmissions, and a receiver for reconstituting the transmitted signals comprising recording means for recording the transmitted signals in the order that they are received, and comparison means for comparing the recorded values with the values subsequently received which are representative of the same points along the signal that are represented by the recorded values, said comparison means including an output and switching means for connecting the recorder to the output when the comparison means indicates no difference between the values being compared and connecting the received signals directly to said output when the comparison means indicates a difference in the values being compared.

interdependent characteristics thereof, means for selecting from among said characteristics that one which is chiefly significant in determining the character of said speech sound, means under control of said selecting



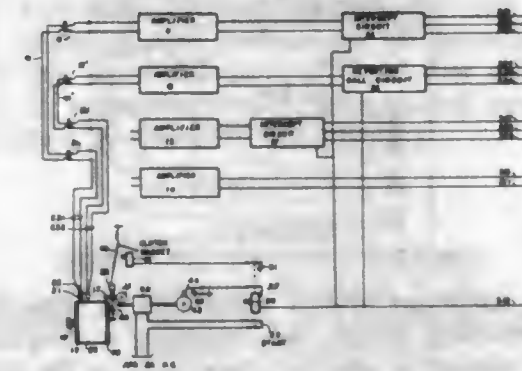
means for deriving a control signal which is representative of the identity of said selected characteristic, and means for varying said control signal conformably with variations of said selected characteristic.

2,824,907

MULTI-CHANNEL MESSAGE ANNOUNCER FOR USE IN TELEPHONE SYSTEMS

Edward S. Peterson, Elmwood Park, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application October 6, 1954, Serial No. 460,663
8 Claims. (Cl. 179-6)



1. In a telephone system, a message announcer, an endless tape in said announcer, means for recording a plurality of messages on said tape, a plurality of play back heads in said announcer, means for moving said tape past said play back heads, a plurality of amplifiers, means for causing said play back heads to transmit different ones of said messages to each of said amplifiers responsive to the movement of said tape past said play back heads, telephones, connecting means for selectively connecting said telephones to said amplifiers, starting means for starting the movement of said tape, and connections between said connecting means and said starting means for controlling said starting means whereby movement of said tape is started responsive to connection of a telephone to one of said amplifiers.

2,824,908

TELEVISION SYSTEM METHOD AND APPARATUS FOR MULTIPLEX SIGNALING

Richard C. Palmer, Pompton Plains, N. J., assignor to Allen B. Du Mont Laboratories, Inc., Clifton, N. J., a corporation of Delaware

Application August 7, 1952, Serial No. 303,049
5 Claims. (Cl. 179-15)

1. The method of multiplexing electrical signals comprising the steps of generating a series of electrical pulses having lagging and leading edges, said leading edges forming a first group and said lagging edges forming a second group; varying the timing of one of said groups of edges in accordance with a first one of said signals; separately

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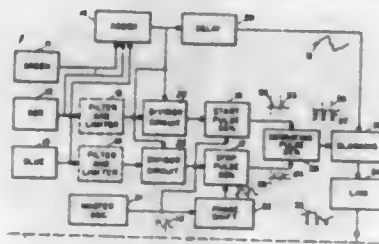
TRANSMISSION AND RECONSTRUCTION OF ARTIFICIAL SPEECH

Ralph L. Miller, Chatham, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York

Application April 3, 1952, Serial No. 280,337
12 Claims. (Cl. 179-1)

1. In a system for deriving control signals of use in artificial production of speech, means for analyzing a speech sound to determine and segregate at least two

mixing said first signal with a second signal to form a mixed signal; delaying said mixed signal by a period of time substantially equal to the period of time between



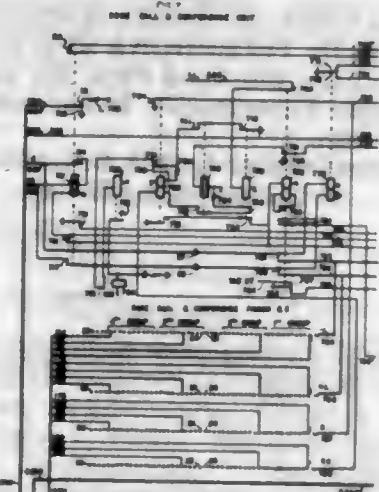
successive ones of said pulses to form a delayed signal; and varying the amplitude of said pulses in accordance with said delayed signal.

2,824,909

TELEPHONE SYSTEM

Clarence E. Lomax, Chicago, Ill., assignor to General Telephone Laboratories, Incorporated, a corporation of Delaware

Application September 13, 1952, Serial No. 309,476
19 Claims. (Cl. 179-18)



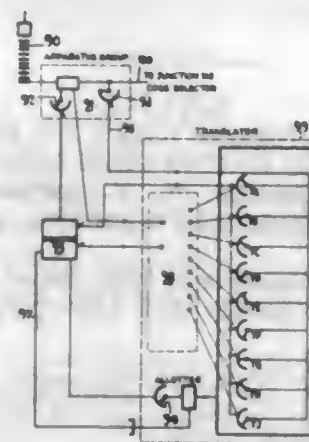
1. In a telephone system a plurality of subscriber stations, connecting means for extending a telephone call from one station to another responsive to the receipt of numerical impulses, special service apparatus comprising numerical selecting means common to code calls and conference calls, code call sender means operable to transmit a coded signal characteristic of the subscriber to be code-called, and conference switching means operable to cause a conference connection to be set up between a number of subscriber stations, said connecting means being operable under the control of a calling station to cause said special service apparatus to be seized, and said selecting means being effective depending on numerical impulses sent under the control of said calling station subsequent to such seizure for recording the identity of a subscriber to be code-called by said sender means or for making said conference switching means operative.

2,824,910

ELECTRICAL TELECOMMUNICATION SYSTEMS
John Scowcroft, Coventry, England, assignor to The General Electric Company Limited, London, England
Application March 4, 1955, Serial No. 492,063
13 Claims. (Cl. 179-18)

1. Equipment for use at one of the exchanges in a telephone system which serves a plurality of exchanges designated by individual multi-digit exchange codes comprising a predetermined number of digits, each exchange serving a plurality of lines designated by individual multi-digit line numbers, said equipment comprising a plurality of apparatus groups, a lesser plurality of registers and a single translator, the translator including allotter means to allot the translator to any one of said registers

causing a start signal to be applied to the allotter means, a plurality of switching devices and control means individual to each said switching device for switching the associated switching device to a condition characteristic of signals applied thereto, each apparatus group having an input side for receiving the individual digits of called exchange codes and of called line numbers, an output side, first switching means to select, according to the value of the digit applied thereto, one of said control means, second switching means to select an available one of the registers upon the extension of a calling line to the input side of the apparatus group, means to apply to the first switching means the first digit of a called exchange code supplied to said input side, means to apply to the register selected by the second switching means the remaining digits after the first of said called exchange code and the digits of the called line number and means responsive to the selection of a register to connect that register to the outgoing side of the apparatus group, each register including means to register the individual digits applied thereto, start means to apply a start



signal to said allotter means upon the registration of said remaining digits of a called exchange code and means to signal the selecting apparatus group upon the connection of the translator to the register and to apply electric signals characteristic of the called exchange code digits registered in the register to the particular switching device in the translator having its control means selected by said selecting apparatus group, each apparatus group further including means which, upon the aforesaid signaling of the apparatus group by one of the registers, is adapted to operate the control means selected by the apparatus group, the translator further including means to apply routing signals characteristic of the routing digits represented by the switched condition of the selected switching device to the particular register causing said switching device to be switched to that condition and each register further including means which, upon the aforesaid application of routing signals to the register, is adapted to supply the corresponding individual routing digits to the said connection which is to the outgoing side of the apparatus group selecting the register.

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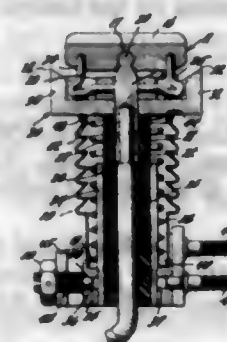
COLLECTOR SHOE AND CONDUCTOR BUS BAR

Ashton B. Taylor, Pittsburgh, Pa.

Application December 3, 1953, Serial No. 395,950
2 Claims. (Cl. 191-25)

1. An electrical trolley system comprising a conductor bus bar element, an insulating shield surrounding said bus bar and having depending abutting wings extending below said bar, a collector shoe comprising an elongated block of conducting material adapted to engage and slide along said conductor bus bar, a support for said shoe including a universal joint between the support and shoe, flexible shunt wires connecting said shoe and support and a spreader on said support beneath said wires for spread-

ing apart the wings of an insulating shield surrounding said bus bar, said spreader having pockets therein hous-



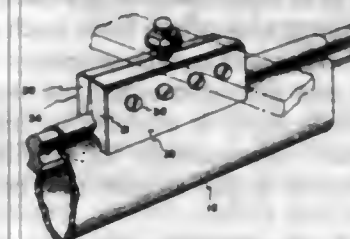
ing said wires to prevent contact with and damage to said wires.

2,824,912

ELECTRICAL TROLLEY SYSTEM SUPPORT

Ashton B. Taylor, Pittsburgh, Pa.

Application September 17, 1953, Serial No. 380,645
5 Claims. (Cl. 191-35)



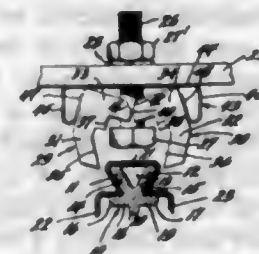
1. In a trolley system, a bus bar, means for supporting said bus bar comprising blocks on opposite sides thereof and engaging the bus bar therebetween, said blocks having aligned, transversely extending recesses in their upper edges, reinforcing plates on the outer faces of said blocks terminating in inwardly directed flanges at their upper end overlying the recesses in said block, a supporting bolt projecting between said flanges and having an enlarged head lying in said recesses beneath and engaging said flanges, and means for securing said bolt to a support.

2,824,913

HANGER FOR ELECTRICAL TROLLEY

Ashton B. Taylor, Pittsburgh, Pa.

Application January 5, 1954, Serial No. 402,205
1 Claim. (Cl. 191-43)



A hanger for bus bars comprising a bus bar, a support, a pair of inverted L-shaped clamps one engaging each side of said bus bar, said clamps comprising opposed toe portions lying between the bus bar and support and leg portions extending along the sides of the bus bar, an operating member for clamping the toe portions against said support and forcing the leg portions against the opposite faces of the bus bar, said operating member passing between said toe portions, and a spring clip lying between said clamps and the support, said clip having projecting resilient arms at opposite ends provided with return bends providing converging resilient legs engaging the outer faces of said clamping members, said legs being under compression when the clamps engage the support.

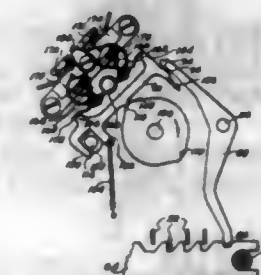
2,824,914

CONTACT STRUCTURE

Edward F. Kleinschmidt, Wilmette, and Carl P. Anderson, Evanston, Ill., assignors to Kleinschmidt Laboratories Inc., Deerfield, Ill., a corporation of Delaware

Original application June 14, 1951, Serial No. 231,554, now Patent No. 2,754,364, dated July 10, 1956. Divided and this application October 10, 1955, Serial No. 539,489

8 Claims. (Cl. 200-5)



1. In an electric switch: a rotatable switch operating member; means for rotating said member; a freely pivotable unbiased bail disposed in the proximity of said rotatable member and mounted on an axis intermediate its ends to be positively moved in both directions by force applied to one or the other side of said pivot axis; a first contact fixed on said bail in insulated relation thereto; a second spring biased contact; means fixing said second contact in the path of movement of said first contact; a bail operating member disposed between said rotatable member and said bail and operable by said rotatable member to engage said bail on one or the other side of its pivot axis to positively move said first contact into and out of engagement with said second contact, dependent upon direction of bail pivoting.

2,824,915

ELECTRIC SWITCH GUARD

John Butaruga, Brooklyn, N. Y.

Application November 29, 1956, Serial No. 625,154
2 Claims. (Cl. 200-42)

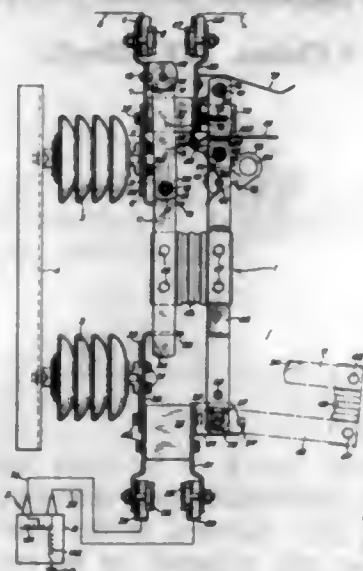


1. A guard adapted to prevent accidental actuation of a switch button comprising a planar outer flange and a transverse projection encompassed by said flange including means for mounting said guard on a flat supporting surface, including a channel separating opposing portions of the projection having a base in substantial planar alignment with the flange, said base having an aperture adapted to receive the button with sufficient clearance whereby the button can be reciprocated between on and off positions, the said opposing portions of the projections being substantially the same transverse distance from the flange as the button when the guard is mounted over the button, said channel being of sufficient width to permit the insertion of a human finger therein for the purpose of actuating the button, said projection having inclined outer surfaces that taper outwardly and gradually from the channel to the flange providing smooth aesthetic surfaces which prevent accidental button actuation without presenting hazardous sharp edges.

2,824,916

ELECTRICAL SWITCH

Alvin G. Steimayer, Milwaukee, Wis., and Donald K. Jones, Bellevue, Wash., assignors to McGraw-Edison Company, a corporation of Delaware
Application October 24, 1956, Serial No. 618,013
10 Claims. (Cl. 200-50)

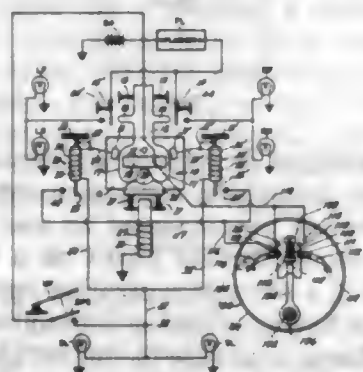


1. A disconnect switch comprising a first and a second stationary contact in spaced insulating relationship and lying in a common plane, first and second switch blade members insulatingly spaced from one another and each supported for concurrent movement in said common plane into and out of electrical contact with a respective one of said first and second stationary contacts, a bypass switch member supported for movement into and out of bridging electrical engagement with said spaced stationary contacts to provide a means of by-passing electrical energy from one to the other of said contacts, said switch blades being operatively associated with said bypass member to actuate said member towards movement into and out of bridging electrical engagement with said stationary contacts during respective alternative operation of said blades towards disengagement and engagement with the said respective stationary contacts.

2,824,917

TURN SIGNALING ARRANGEMENT

Jesse R. Hollins, Brooklyn, N. Y.
Application March 11, 1955, Serial No. 493,617
8 Claims. (Cl. 200-61.54)



1. A motor vehicle steering mechanism actuated switch comprising, in combination, switch means mounted for movement toward a closed position responsive to turning movements of the steering mechanism; an oscillatably mounted operator engaged with said switch means and selectively effective to move the latter to its closed position; means, including an element operable by the vehicle steering mechanism, effective to oscillate said operator; said operator being oscillated by said element to move said switch means to its closed position only upon return of the steering mechanism to a substantially straight

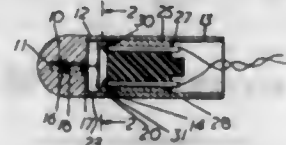
course position after completion of a predetermined degree of turning movement of the steering mechanism; and a pair of contacts interconnected by said switch means only in the closed position of the latter.

2,824,918

AERODYNAMIC AND LIKE INSTRUMENTS

Peter Sidney Saunders, Hillington, Glasgow, Scotland, assignor to Kelvin & Hughes Limited, Glasgow, Scotland

Application June 6, 1955, Serial No. 513,194
Claims priority, application Great Britain July 2, 1954
9 Claims. (Cl. 200-81.9)

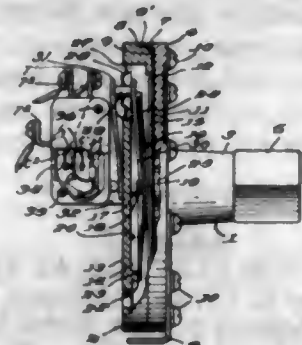


1. An incidence indicating or controlling device comprising a cylinder having holes therein offset from each other along the axis of the cylinder, differential pressure responsive means disposed in the cylinder between the holes and responsive to differences of pressure between said holes, said holes being also offset from each other around the axis of the cylinder and means whereby movement of the said means in one direction closes an electrical circuit for operating an indicating or controlling means whereby the effective vector representing the incidence of said device with respect to a gas stream can be indicated or controlled.

2,824,919

PRESSURE RESPONSIVE SWITCH

Allen V. C. Davis, Burbank, Calif.
Application October 5, 1954, Serial No. 460,457
10 Claims. (Cl. 200-83)



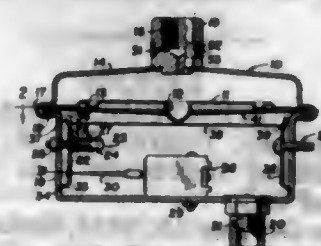
1. In a pressure responsive electric switch having snap action movement in one direction in response to a predetermined higher pressure and a snap action movement in the opposite direction in response to a predetermined lower pressure, a frame structure enclosing a chamber having an orifice affording means of connection of said chamber with a source of pressure, a diaphragm attached to said frame structure and forming a wall of said chamber operative to yield in response to pressure in said chamber, means engaging said diaphragm exteriorly of said chamber operative to yieldingly oppose pressure imposed loads on said diaphragm including a snap action spring reacting against a fixed abutment on said frame structure, a snap action switch carried by said frame structure and having a spring biased operating member, means extending between said diaphragm engaging means and said switch operating member effective to transmit movements of said diaphragm in response to imposed higher pressure to said switch operating member in opposition to the spring bias of said switch operating member, and means for compensating for variations in the combined load imposed on said diaphragm by said snap action spring and said spring biased switch operating member comprising a spring having a portion thereof engaging

an adjustable abutment carried by said frame structure and another portion yieldingly exerting force against said diaphragm; the adjustment of said abutment being effective to determine the extent of force exerted against said diaphragm by said last named spring relative to the forces imposed thereon by said snap action spring and said spring biased switch operating member with resultant accurate determination by adjustment of said adjustable abutment of the point at which said diaphragm will respond by snap action to increase of pressure in said chamber.

2,824,920

PRESSURE SENSITIVE CONTROL DEVICE

Marion W. Humphreys, Chesterland, Ohio, assignor to Technitrol Corporation, Chesterland, Ohio, a corporation of Ohio
Application September 6, 1955, Serial No. 532,427
11 Claims. (Cl. 200-83)



1. A pressure sensitive control device comprising a flexible diaphragm member, a flexible longitudinal element adjacent said diaphragm member, said element being connected between several anchor points at least one of which shall be movable, whereby the flexible diaphragm member deflects the flexible longitudinal element causing the distance between the anchor points to shorten, and means in combination with the movement of said movable anchor point for actuating a mechanism.

2,824,921

SPEED CHANGE WARNING SYSTEM

William M. Baumheckel, Indianapolis, Ind.
Application February 2, 1955, Serial No. 485,666
1 Claim. (Cl. 200-86.5)

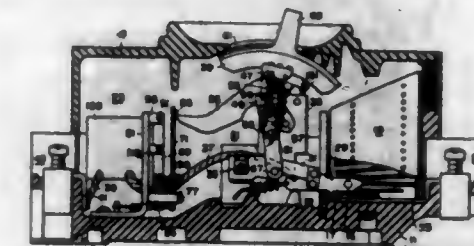


The combination with a foot throttle member hingedly supported at one end; of a member overlying said foot member in spaced relation therefrom and secured thereto at its hinged end; said overlying member being yieldingly shiftable toward said foot member; a spring member fixed by one end to the underside of said overlying member and extending longitudinally therealong; a contact on said other end of the spring member; an element carried by the spring member disposed intermediate the ends thereof and directed toward but normally free of contact with said foot member; a second contact carried by said overlying member; said spring member contact normally bearing in closed circuit relation on said second contact; a gap between said contacts being produced by pressing the overlying member toward the foot member and bringing said element into contact with the foot member to set up a bending action in said spring member; a lever carried by said overlying member rockably mounted about a pivot with lever portions extending oppositely from the pivot; one of said portions being between said spring member

2,824,922

CIRCUIT CONTROL DEVICE

Oliver S. Jennings, Fall River, Mass., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application May 11, 1953, Serial No. 353,944
19 Claims. (Cl. 200-88)

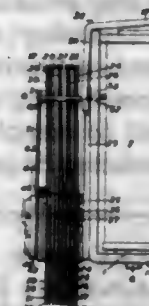


1. In a trip device having a support member, a member movable to effect an operation, a linearly expandable tube having an open end secured to said support member and expandable in response to increase in temperature, connecting means interconnecting a closed end of said expandable tube and said movable member, said tube moving only in a linear direction to positively actuate said movable member upon predetermined lineal expansion of said tube, and a coil surrounding said tube inductively heating said tube.

2,824,923

ELECTROMAGNETIC RELAY

André Jean Montchaussé, Paris, and Daniel Dautry, Clamart, France, assignors to International Standard Electric Corporation, New York, N. Y., a corporation of Delaware
Application December 30, 1953, Serial No. 401,287
Claims priority, application France December 31, 1952
7 Claims. (Cl. 200-104)



1. A multi-contact relay, comprising an electromagnet and a cooperating armature, a mounting yoke attached to said electromagnet, a pile-up of cooperating fixed and movable contact blades, a pair of identical guide bars of insulating material, one of said bars under control of said armature, each of said bars having a series of spaced notches along an edge thereof, said bars being oppositely positioned so that the notched edges thereof are mutually adjacent the notches in said bars adapted to accommodate said fixed and movable contacts, respectively, means for maintaining an end of each of said bars a different distance from said yoke in one condition of operation of said relay, whereby the notches of each bar are staggered with respect to the corresponding notches of the other, the staggered distance being equal to the difference in the distance of the ends of each of said bars

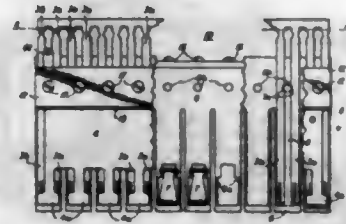
from said yoke, said means comprising a shoulder cut into a first end of each of said bars, support means intermediate said yoke and said bars, said support means adapted to abut against the shoulder of a first of said bars and against the end of the second of said bars, said armature adapted to cooperate with the shoulder of said second bar to urge same out of abutment with said support means.

2,824,924

MULTIPLE RELAY ASSEMBLY

Kenneth W. Graybill, Elmhurst, and Hans Sengebusch, Ingleside, Ill., assignors to General Telephone Laboratories, Incorporated, Chicago, Ill., a corporation of Delaware

Application January 23, 1957, Serial No. 635,792
6 Claims. (Cl. 200—104)



1. In a multiple relay assembly, an L-shaped heelpiece, a plurality of electromagnets mounted side by side on one branch of said L-shaped heelpiece so that their longitudinal axes lie in a common plane parallel to the other branch of said heelpiece, a plurality of L-shaped armatures corresponding respectively to said electromagnets, a contact spring assembly mounted on said other branch of said L-shaped heelpiece and parallel to the longitudinal axes of said electromagnets, said contact spring assembly containing in part a retaining member having a plurality of apertures for pivotally supporting each armature, said contact spring assembly comprising a plurality of contact springs and a single contact plate with a pair of contact springs corresponding to each electromagnet, said contact spring assembly containing an insulating plate having a plurality of projections thereon corresponding to each pair of contact springs, each insulating plate projection acting independently in combination with one pair of contact springs to resiliently hold one side of one of said armatures against said retaining member, means responsive to the energization of one of said electromagnets for attracting the corresponding armature to thereby pivot the armature within said retaining member aperture, the pivoting of said armature tensioning said insulating plate projection and the corresponding pair of spring contacts against said contact plate to complete an electrical circuit between said pair of contact springs and said contact plate.

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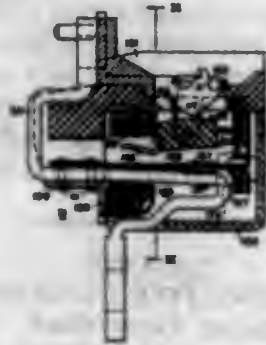
ELECTROMAGNETIC TRIP CIRCUIT INTERRUPTERS

George G. Grisinger, Wilkesburg, and Jerome Sandin and Ture Lindstrom, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application June 23, 1951, Serial No. 233,212
18 Claims. (Cl. 200—109)

1. A circuit interrupting device comprising an energizing winding, a U-shaped fixed core structure disposed to be energized by overload currents of predetermined value flowing in said winding, an armature pivotally supported on one leg of said U-shaped core structure, biasing means disposed adjacent the pivot of said armature normally biasing said armature to unattracted position, non-magnetic means mounted on said armature and having an angular portion extending from the armature and adjacent the other leg of said U-shaped core structure, a rotatable cam member engaging said non-magnetic mem-

ber and rotatable to adjust the position of said armature relative to said U-shaped core structure, manual means operatively related to said cam member for rotating said



cam member, and adjusting means supported in said non-magnetic member and adjustably engaging said cam member for varying the initial position of said armature.

2,824,926

MOVING COIL RELAY

Arthur W. Daschke, Denville, N. J., assignor to The Triplet Electrical Instrument Co., Bluffton, Ohio, a corporation of Ohio

Application October 13, 1954, Serial No. 462,063
3 Claims. (Cl. 200—110)



1. In a sensitive relay; an instrument movement having a permanent magnet frame with opposed pole faces and a coil movably suspended between the pole faces, a dial, a pointer carried by the coil to move over the dial, a counterweight arm projecting from the opposite side of the coil from the pointer, a portion of the length of the counterweight arm being magnetic, resilient movable contact means carried by and electrically connected with the pointer, stationary contact means insulatingly carried by the dial positioned to be engaged by the resilient movable contact means on the pointer upon movement of the coil a predetermined distance from its rest position, and magnet means positioned to be approached by the magnetic portion of the counterweight arm to define an air gap therewith as said contacts close, the magnet means and magnetic portion of the counterweight being adapted to be brought into contact thereby to develop pressure between said contacts, said magnet means comprising support means and permanent magnet means therein.

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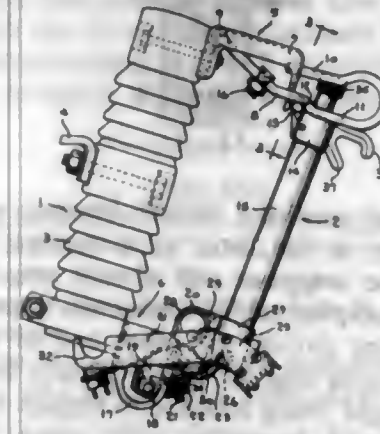
FUSE CONSTRUCTION

George R. McCloud, Cudahy, Wis., assignor to McGraw-Edison Company, a corporation of Delaware

Application February 25, 1955, Serial No. 490,465
6 Claims. (Cl. 200—114)

1. An expulsion fuse construction comprising a support assembly having an upper and a lower stationary contact; and a fuse tube assembly having pivot means pivoted on said support assembly for rocking motion of said fuse tube assembly outwardly from said support assembly, said fuse tube assembly including a fuse tube having an open lower end and an upper movable contact normally engaging the upper stationary contact, a fuse link in said tube electrically connecting the upper movable contact

with the lower stationary contact, said pivot means including a supporting lever pivoted on said fuse tube and on said support assembly, and an operating lever pivoted at a fixed point on said fuse tube assembly and normally operatively associated with said supporting lever for mechanically moving said supporting lever for rupturing said fuse link when said operating lever is rocked downwardly, said operating lever being wholly out of contact



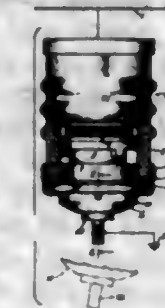
with said fuse link at all times and having a free end movable downwardly when force is applied thereto, said free end being located inwardly of the pivot means of said fuse tube assembly, whereby when said free end is forced downwardly said fuse tube assembly will tend to rock inwardly toward said support assembly and prevent premature separation of said movable upper contact from said stationary upper contact.

2,824,928

CIRCUIT INTERRUPTER

Roland G. M. Hedlund, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York

Application June 22, 1955, Serial No. 517,199
12 Claims. (Cl. 200—115)



1. In a lightning arrester unit enclosed within a generally cylindrical electrical insulating material housing and providing an electrically conductive path there-through to ground, means for isolating said unit from ground when said unit fails to interrupt power follow currents of predetermined magnitude and duration, said isolating means comprising a generally shallow hollow cup-shaped frangible electrical insulating material member adapted to be disposed in closing relationship with respect to one end of said cylindrical housing, a generally semi-circular electrical insulating slab positioned in the hollow of said cup-shaped member, said slab having an elongated slot formed therein commencing at the generally diametrical edge thereof and extending therefrom towards but short of an opposite edge thereof, said slot extending through the opposite sides of said slab, said slot having interior gas evolving surfaces, the commencing end of said slot being in open communication with an expansion chamber defined within said hollow between the interior surfaces thereof and said diametrical edge, the opposite end of said slot being closed by integral portions of said slab, a pair of electrically conductive metallic members positioned on opposite sides of said slab and closing the opposite open sides of said slot, said metallic members having a minimum spacing adjacent said closed

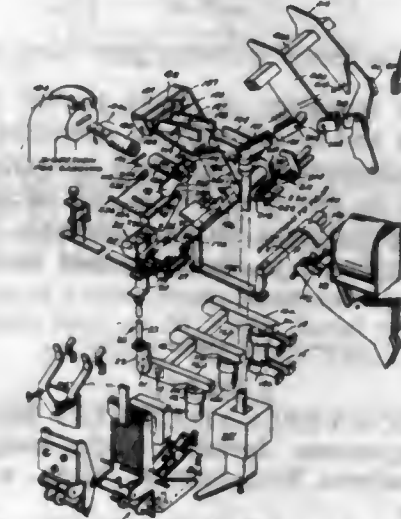
end and extending therefrom towards said open end, a ground connecting terminal connected to said frangible member, and an explosive cartridge located in said open end for rupturing said frangible member to isolate said unit from ground.

2,824,929

MECHANICAL TRIP MEANS FOR CIRCUIT BREAKER CURRENT LIMITING DEVICE COMBINATION

William Harold Edmunds, Havertown, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application November 12, 1954, Serial No. 468,343
3 Claims. (Cl. 200—116)



1. A circuit protective arrangement comprised of a multipole circuit breaker and a current limiting device associated with each pole thereof; each pole of said circuit breaker having a pair of cooperating contacts and a first trip means; said first trip means operatively connected to a common tripper bar to effect simultaneous disengagement of the cooperating contacts associated with each pole of said circuit breaker; said first trip device rendered operative on the occurrence of a fault current below a first predetermined current magnitude; each of said pair of cooperating contacts having a current limiting device connected in electrical series therewith; said current limiting device effective to interrupt current flow above said first predetermined current magnitude; said current limiting device having a striker pin normally held in an inoperative position; a mechanical device operatively connecting each of said striker pins to said common tripper bar; said mechanical device being comprised of an auxiliary common tripper bar and a linkage; said auxiliary common tripper bar having relatively long extensions extending in a direction and positioned to be engaged respectively by said striker pin of one of said current limiting devices associated therewith; said auxiliary common tripper bar having a relatively short extension; said short extension being operatively connected to said common tripper bar by said linkage; said auxiliary common tripper bar along with its plurality of long extensions and short extension serving as a force multiplying means for said current limiting devices.

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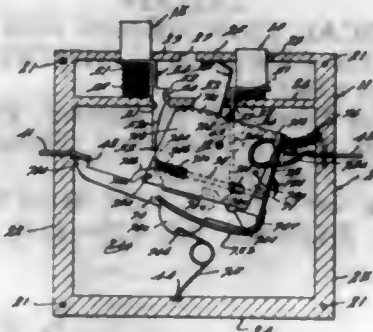
CIRCUIT BREAKER

Elwood T. Platz and Joseph A. Messing, Detroit, Mich., assignors to Bulldog Electric Products Co., Detroit, Mich., a corporation of West Virginia

Application January 14, 1955, Serial No. 481,792
23 Claims. (Cl. 200—116)

1. In a circuit breaker including a housing, a fixed contact, a control mechanism disposed in said housing, resilient means for biasing said mechanism to the open and closed circuit position, said mechanism including a

contactor having a movable contact arranged to engage said fixed contact, a carriage pivoted to said housing and pivotally supporting said contactor, a fault responsive means secured to said carriage and engageable with said contactor upon movement of said contactor to the closed circuit position from the open circuit position and automatically and manually disengageable from said contactor



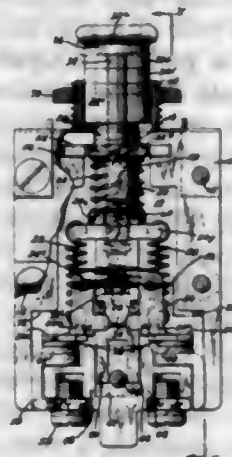
to permit said contactor to move to the open circuit position, a first and second manual operators engageable with said mechanism for initiating movement of said circuit breaker to the open and closed circuit positions, said carriage including a member biasable by said first operator and arranged to disengage said fault responsive means from said contactor.

2,824,931

ELECTRIC OVERLOAD CIRCUIT BREAKER

Richard C. Ingwersen, Jackson, Mich., assignor to Mechanical Products, Inc., Jackson, Mich., a corporation of Michigan

Application March 7, 1955, Serial No. 492,508
7 Claims. (Cl. 200-116)



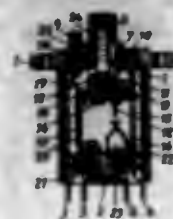
1. In a manually operable switch having automatic current overload protection, the combination with an actuator plunger for moving movable contact means into closed or open position with respect to fixed contact means, said contacts being within a casing structure, of means mounting said plunger for rectilinear motion with respect to said casing structure, said plunger including an end portion projecting to the outside of said casing and said mounting means including spring means acting to urge said plunger in one direction with respect to said casing, said movable contact means being connected with latch means responsive to the conducted current and said actuator plunger including an abutment for said latch means, said latch means being automatically releasable from said abutment upon the occurrence of a predetermined overload current, and said casing including means engageable with said actuator plunger to maintain the plunger in a first position in which said contacts are closed and said plunger projects a certain distance outside said casing, said spring means being operative to move the plunger to a second position, upon release of said latch from said abutment, in which said plunger projects a different distance outside the casing than said certain distance.

2,824,932

THERMAL OVERLOAD CIRCUIT BREAKER

Jakob Ellenberger, Altdorf, near Nurnberg, Germany, assignor to Ellenberger & Poensgen G. m. b. H., a corporation of Germany

Application July 15, 1955, Serial No. 522,305
9 Claims. (Cl. 200-116)



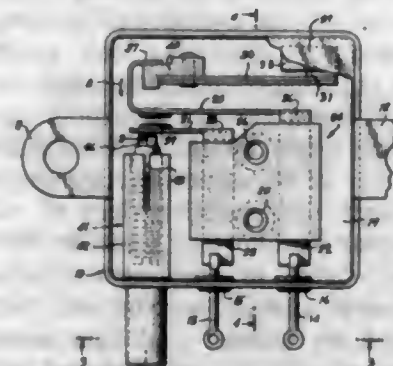
1. A thermal overload circuit breaker comprising a contact member in the form of a contact bridge, a resilient bimetallic strip, one end of said strip being fixedly mounted and adapted to be connected to one line of an electric operating circuit, the other end of said strip being freely movable and having a contact finger thereon, said contact finger being adapted to engage with said contact member, said bimetallic strip when heated being adapted to bend and thereby disengage said contact finger from said contact member, a stationary contact element adapted to be connected with said contact member when said contact finger is engaged with said contact member, said contact finger being electrically connected solely with the contact member if the contact member is electrically connected with the said stationary contact element, said contact element adapted to be connected to the other line of said operating circuit, means for mounting said contact member and for moving the same from a first position in which an auxiliary circuit is closed into a second position wherein said contact member engages with and forms an electrical connection to said contact finger and said contact element so as to close said operating circuit, the said contact member being rigidly connected with the said mounting means, resilient means engaging against said mounting means and tending to maintain said contact member in said first position and to return the same to said first position when said contact member is disengaged from said contact finger, a second contact member rigidly mounted on said mounting means and electrically insulated from said first contact member, and a pair of contacts adapted to be connected to the auxiliary current circuit, said second contact member being adapted to interconnect said pair of contacts when said mounting means are in said first position.

2,824,933

MINIATURE SWITCH

John P. Shanley, Oakland, N. J., assignor to Control Products Inc., Harrison, N. J., a corporation of New Jersey

Application June 6, 1956, Serial No. 589,677
6 Claims. (Cl. 200-138)



1. A thermal switch comprising a casing, an elongated thermostatic member secured, at one end, to said casing and movable in the casing, a contact mounted in said

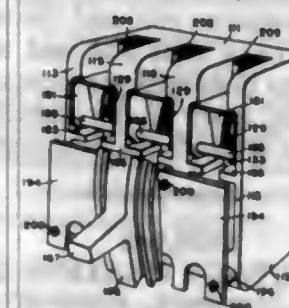
casing, in spaced relation to the elongated thermostatic member, and an elongated contact spring secured, at one end, to said switch and extending from said end generally parallel to the elongated thermostatic member and intermediate and in spaced relation to said thermostatic member, and contact terminals in said switch connected to said contact and spring member, and means on said spring member engaging the thermostatic member whereby said spring member will selectively move into and out of engagement with the contact, in accordance with the movement of the thermostatic member, responsive to temperature changes to which the casing is subjected.

2,824,934

VISIBLE-BLADE ARC-EXTINGUISHING DISCONNECTING SWITCH

Charles L. Jones, Beaver, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 9, 1954, Serial No. 474,164
13 Claims. (Cl. 200-144)



1. A switch for controlling an electric circuit comprising a base of one piece molded insulating material, barriers molded integral with said base forming separate compartments, stationary and movable butt contacts in each of said compartments, a movable switch arm in each compartment having the movable butt contact thereon, said compartments being open at the top at least adjacent said contacts so that said contacts are visible from the front of the switch at least in the open position thereof, an arc extinguisher in each compartment, a cross barrier in each compartment adjacent the arc extinguisher, operating mechanism for said switch arms disposed in one of said compartments comprising an overset toggle having one end mounted on a fixed support and adapted to lock said switch arms closed against fault currents, a terminal at one end of said base, and a flexible conductor brazed at one end to said terminal and at the other end to said movable contact forming a solid current path.

2,824,935

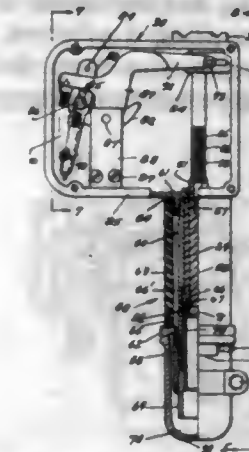
INTERRUPTER ATTACHMENT FOR DISCONNECT SWITCH

Paul M. Haslam, Greensburg, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application January 24, 1955, Serial No. 483,737
10 Claims. (Cl. 200-146)

1. An interrupter attachment for disconnect switch comprising a housing and interrupting chamber; a pair of cooperating contacts positioned within said interrupting chamber; said pair of cooperating contacts being comprised of a stationary contact and a movable contact, operating means associated with said housing to control the operation of said movable contact; a stationary guide means for said movable contact; said movable contact being in electrical and mechanical engagement with said guide means; said operating means operatively connected

to said movable contact to move said movable contact with respect to said guide means; said guide means



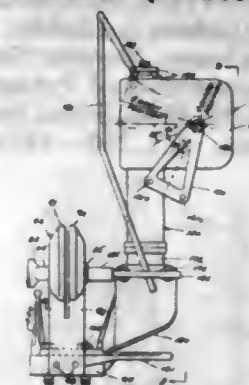
operative to guide said movable contacts in straight-line motion.

2,824,936

COMBINED DUAL MOTION DISCONNECT SWITCH AND INTERRUPTER ATTACHMENT

Charles Reynolds Huttlinger, Greensburg, Pa., assignor to I-T-E Circuit Breaker Company, Philadelphia, Pa., a corporation of Pennsylvania

Application January 31, 1955, Serial No. 485,223
5 Claims. (Cl. 200-146)



1. A disconnect switch having a hinge end and a jaw end; a blade pivotally supported at said hinge end; means to rotate said blade about said hinge end and about its own axis into high pressure contact engagement with said jaw end; an interrupter attachment being comprised of a housing section and an interrupter section; an operating lever extending from one side of said housing section for controlling the opening and closing of cooperating contacts within said interrupter section; a conducting bus on said interrupter section mounted at the jaw end of said disconnect switch; a stationary shunt horn mounted on the housing of said interrupter attachment; said blade of said disconnect switch having an extension made of conducting material; said stationary shunt horn operatively positioned in electrical engagement with said extension of said blade; said extension engaging said operating lever during the opening operation of said disconnect switch while maintaining electrical engagement with said stationary shunt horn; said extension operative to rotate said operative lever to effect contact disengagement within said arc chamber while maintaining electrical engagement with said stationary shunt horn; said extension disengaging said stationary shunt horn when said blade of said disconnect switch is moved to a fully open position.

2,824,937

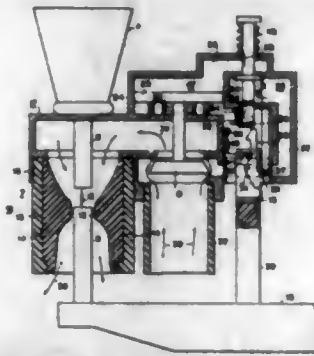
CIRCUIT INTERRUPTERS

Albert P. Strom, Pittsburgh, Pa., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application December 30, 1954, Serial No. 478,636
17 Claims. (Cl. 200-148)

1. A circuit interrupter of the compressed gas type including a main tank containing gas, a pair of terminal

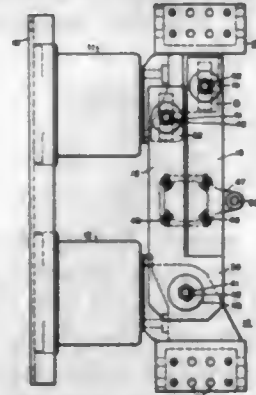
bushings extending within the tank, a pair of arc-extinguishing units disposed adjacent the interior ends of the terminal bushings, a conducting crossbar electrically interconnecting the units, a pressure container containing gas at a higher pressure than the main tank, a blast tube pneumatically interconnecting the pressure



container with each arc extinguishing unit, and blast valve means actuated by opening movement of the cross-bar for permitting high pressure gas to flow from the pressure container through the blast tubes and into the two arc-extinguishing units to effect extinction of the arcs drawn therein.

2,824,938

DISCONNECTING SWITCH FOR HIGH CURRENT
Harold H. Rugg and Herbert J. Crabbs, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application June 30, 1954, Serial No. 440,474
9 Claims. (Cl. 200-162)



1. In an electric switch, in combination, a support, hinge tongue terminal means mounted on said support, break tongue terminal means also mounted on the support and having contact surfaces thereon in an upper level and a lower level, the surfaces on the lower level being in planes offset laterally from the planes of the surfaces on the upper level, a plurality of pairs of switch blades mounted on the hinge tongue terminal means and movable to engage the break tongue terminal means, said pairs of switch blades being disposed in an upper level and a lower level to form substantially a hollow square and having overlapping hinge portions, said blades being disposed in offset planes corresponding to the planes of the contact surfaces on the break tongue terminal means, and all of said blades hinging about a common axis extending transversely of the switch through the overlapping portions of all of said blades and the hinge tongue terminal means.

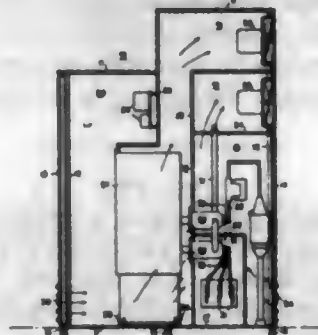
2,824,939

COOLING MEANS FOR METAL-CLAD SWITCHGEAR

Glen L. Claybourn and Charles P. West, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, a corporation of Pennsylvania
Application March 17, 1955, Serial No. 494,995
6 Claims. (Cl. 200-166)

1. In a switchgear structure, in combination, a housing having a plurality of compartments therein, a circuit

breaker unit removably disposed in one of said compartments, power conductors disposed in two other separate compartments, a plurality of primary disconnecting contacts for the circuit breaker, half of said contacts being connected to the conductors in one compartment and half being connected to the conductors in the other compartment, an individual insulating bushing surrounding each disconnecting contact, each bushing having an open end



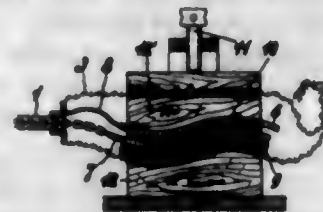
accessible from the breaker compartment, a separate ventilating tube for each bushing, said tubes exhausting into still another compartment, means for causing a fluid to flow around the breaker unit and through said bushings by way of said open ends and said tubes to reduce the temperature of the disconnecting contacts, and means for separating exhaust gases of the circuit breaker from the fluid which flows through the bushings.

2,824,940

HIGH-FREQUENCY HEATING DEVICE

Walter Kuhlmann, Hamburg, Germany, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application July 15, 1954, Serial No. 443,586
Claims priority, application Germany October 14, 1953
5 Claims. (Cl. 219-10.55)



1. A high-frequency heating device comprising electrically conductive material forming an enclosure, a coaxial cable, a pair of spaced heating electrodes positioned in said enclosure, means for supplying energy from said cable to said pair of electrodes and to said enclosure, and means for spacing one of said pair of electrodes from said enclosure in a manner whereby the electrical capacitance between said one electrode and said enclosure is substantially greater than the electrical capacitance between said pair of electrodes, said last-mentioned capacitance being in parallel with said first-mentioned capacitance.

2,824,941

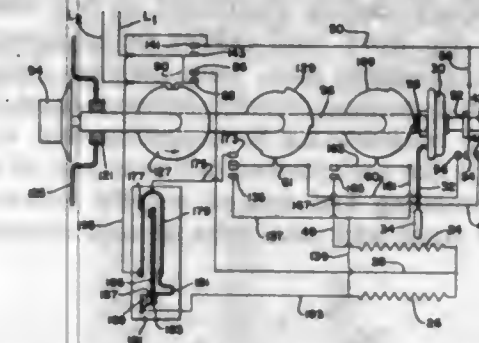
DOMESTIC APPLIANCE

Millard E. Fry, Dayton, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application July 18, 1955, Serial No. 522,478
9 Claims. (Cl. 219-20)

1. An electrical heating system for heating receptacles on the top of a support including supply connections, an electric surface heating means having connected sections and three terminals, an adjustable two step thermostat substantially responsive to the temperature of any receptacle upon the surface heating means, said thermostat having successively operating first and second step switches connected to one of said supply connections, con-

ductors connecting said first step switch to one of said terminals, a conductor connecting a second terminal of said heating means to a second supply connection, an intermittently opening and closing switch having one terminal connected to a third terminal of said heating means and having second and third terminals providing different



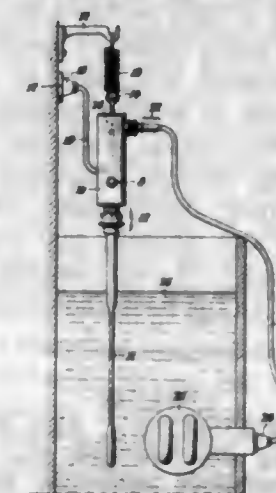
proportions of closed time, conductor and selective switch means electrically connecting said second step switch selectively to the second terminal of said intermittent switch and to a third terminal of said heating means, and a conductor connecting the third terminal of said intermittent switch and said one supply connection.

2,824,942

TEMPERATURE REGULATING DEVICE

Hugo Engelhardt, Meadowbrook, and Howard R. Schwartz, Overlook Hills, Pa., assignors to Hugh Engelhardt and J. Leonard Schwartz, doing business as Philadelphia Thermometer Company, Philadelphia, Pa., a partnership

Application October 28, 1955, Serial No. 543,556
6 Claims. (Cl. 219-20)



1. A temperature indicating device comprising an elongated tubular cartridge, a thermostat having a temperature-sensitive element inserted in the bottom of said cartridge, said temperature-sensitive element being remote from said cartridge, a pair of radially spaced electrical sockets in said cartridge, heating means outside said cartridge and electrically connected to one of said sockets, an electric power source connected to the other of said sockets, a glass covered opening in the side of said cartridge and a pilot light in said cartridge disposed adjacent said opening, said electrical sockets, light bulb and thermostat being electrically connected in said cartridge to supply electric power to said heater and light bulb simultaneously when the thermostat reaches a predetermined temperature and to cut off the supply of electric power thereto when the thermostat falls below said temperature.

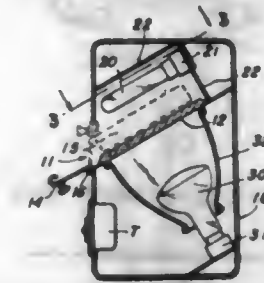
2,824,943

BAKERY PRODUCT HEATER

Myron P. Laughlin, St. Petersburg, Fla.
Application June 28, 1954, Serial No. 439,647
3 Claims. (Cl. 219-35)

1. In a food product fast heater, a walled housing, an infra-red heat source within said housing and mounted

opposite a transparent and substantially non-responsive product support, said support having its upper face inclined to the housing and one of its ends registering with an opening in a wall of said housing, a movable closure for said opening in the housing, said closure operating to control the position of the product on said support,



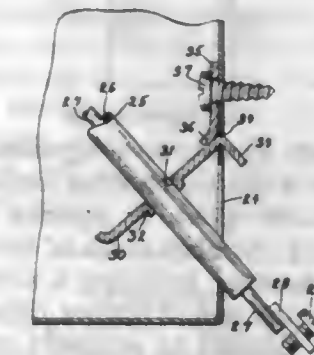
reflecting surfaces also mounted within said housing and cooperating with said support to pass the infra-red rays therethrough and thereover, said reflector surfaces arranged about said support, and a timing device also within said housing and controlling the exposure of said product to the rays from said source.

2,824,944

ELECTRIC HEATING APPARATUS

George Edward Ammerman, Oakmont, Pa., assignor to The Edwin L. Wiegand Company, Pittsburgh, Pa., a corporation of Pennsylvania

Application December 9, 1954, Serial No. 474,114
24 Claims. (Cl. 219-37)



24. An electric heating assembly for removable connection to an apertured wall of an oven, comprising a generally flat plate member, means carried by and extending transversely of said plate member and in part providing hinge means by which said plate member is pivotally secured to said apertured wall for flatwise swinging movement to a position overlying said wall and at least partially closing the wall aperture, and a sheathed electric heating element secured to said plate member for swinging movement therewith and for extension through said wall aperture.

2,824,945

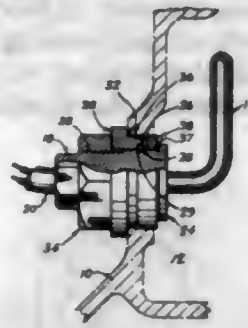
PLUG FOR CORE HOLES OR THE LIKE

Alfred E. Derumaux, Oshawa, Ontario, Canada, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application February 23, 1954, Serial No. 411,682
3 Claims. (Cl. 219-38)

1. In association with a coolant jacket surrounding a combustion engine, said jacket having an untapped hole therein, an assembly comprising: an electrical heating element disposed within the chamber formed by said jacket, said heating element being carried by a plug member extending through said hole, said plug member being formed to accommodate electrical leads connected to said element, adapter means at the inner end of said plug having a body portion and an expansible portion of relatively thin section, said body portion including a shoul-

der which with said expansible portion provides a pocket, and means received in said pocket to expand said ex-



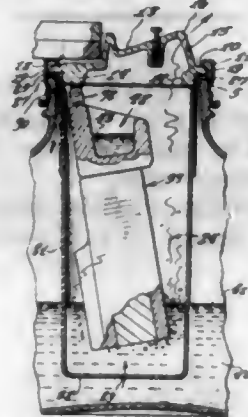
pansible portion into engagement with the wall of said untapped hole.

2,824,946

ELECTRIC VAPORIZERS

Lawrence Katzman, New York, and Meyer L. Block, Port Washington, N. Y., assignors to Kaz Manufacturing Co., Inc., New York, N. Y., a corporation of New York

Application July 20, 1956, Serial No. 599,120
10 Claims. (Cl. 219-40)



4. In an electric vaporizer, a vaporizer jar, a neck in said vaporizer jar, a closure member including a base portion and an emission spout, an opening in said emission spout, a vaporizing chamber made of insulating material, said vaporizing chamber including a side wall, a bottom wall and an open top end, a seating ridge on the interior of said side wall adapted to generally support said base portion of said closure member, a one piece medicament and electrode holder suspended and contained within said vaporizing chamber, said medicament and electrode holder being suspended from the base portion of said closure member, sealing means to engage said closure member and said vaporizing chamber in vapor-tight engagement, said sealing means including a screw cap, an opening in the center portion of said screw cap, the edge of said center opening being downwardly flanged, ridges on the exterior of the open neck of said vaporizing jar adapted to receive said screw cap, an outwardly extending flange on the base portion of the closure member and an outwardly extending flange peripherally surrounding the vaporizing chamber adjacent the open end of said chamber and means to introduce liquid into said vaporizing chamber including an opening in a wall of said vaporizing chamber below the liquid level of the reacting liquid and a tortuous path for air whose pressure forces the reacting liquid to enter the vaporizer jar through said opening in said vaporizing chamber wall.

2,824,947

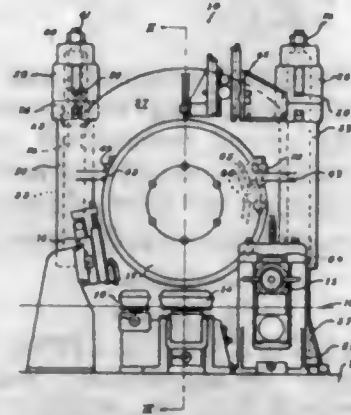
TUBE MILL HOUSING

Halton A. Billetter, Youngstown, Ohio, assignor to The McKay Machine Company, Youngstown, Ohio, a corporation of Ohio

Application January 6, 1956, Serial No. 557,730
5 Claims. (Cl. 219-63)

1. In an electric resistance welding station for a continuous butt-weld tube mill the combination of a base,

a rotary transformer and electrode assembly, and means to support and journal said rotary transformer at spaced points intermediate the ends thereof and above said base whereby said electrode assembly is supported in overhanging relation with respect to the pass line of the work; the improvement in said means to support comprising a unitary casting positioned to one side of the pass line of the work, said casting being generally rectangular in horizontal plan, four columns forming the corners of said casting thereby defining front and rear pairs of said columns, an arch joining said front pair of columns, a like arch joining said rear pair of columns, vertically extending and spaced parallel sidewalls connecting said front and rear pairs of said columns, each



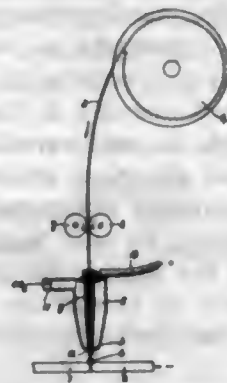
of said arches having a generally semi-circular base portion spanning the pair of columns associated therewith intermediate the height thereof, horizontally spaced and vertically extending bosses integrally formed on said base portion of each of said arches adjacent each of said columns, said bosses being vertically apertured, an annular bearing carrier associated with each of said arches and rigidly attached hereto in nesting relation with said base portion by attachment means anchored on said bosses, said annular bearing carriers encircling and journaling said rotary transformer intermediate its length for rotation about its own axis whereby said electrode assembly is positioned forwardly of said casting in overhanging relation with respect to the pass line of the work.

2,824,948

METHOD OF ELECTRIC ARC-WELDING

Paul Christiaan van der Willigen and Henri Blenfalt, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application March 8, 1954, Serial No. 414,832
Claims priority, application Netherlands March 7, 1953
3 Claims. (Cl. 219-74)



1. A method of electric arc welding on a work piece of rimmed steel or semi-killed steel comprising striking an arc between a welding wire and said work piece in a region adjacent to the area of said work piece to be welded, continuously feeding the wire to said area to be welded, depositing melted welding wire in said area, and delivering approximately 100 percent carbon dioxide ad-

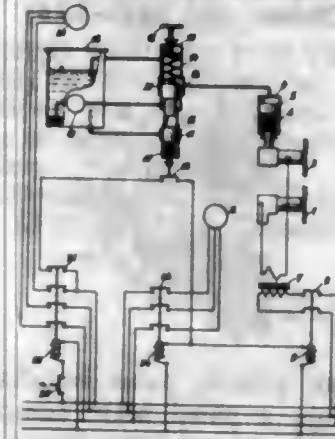
jacent the arc, said wire being constituted of iron alloyed with at least 0.3% by weight of manganese and at least 0.3% by weight of a strongly reducing metal.

2,824,949

HYDRAULIC CONTROL DEVICE FOR RESISTANCE SEAM-WELDING MACHINES

Milan Vitavsky, Bratislava, Czechoslovakia

Application March 30, 1956, Serial No. 575,097
Claims priority, application Czechoslovakia April 2, 1955
4 Claims. (Cl. 219-81)



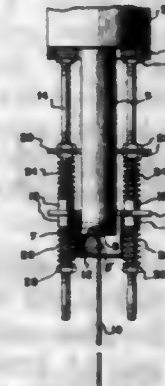
1. In a resistance seam-welding machine having rotatable welding rollers, pressure fluid operated motor means for moving the welding rollers towards each other to press an object to be welded therebetween, a source of fluid under pressure for operating said pressure fluid operated means, electric motor means for rotating said rollers, a source of welding current for said rollers, and normally open switch means for controlling the operation of the electric motor means and the supplying of welding current from the source of the latter to the welding rollers; an hydraulic control device comprising a valve housing, a valve member slidable in said housing, a pressure fluid supply line leading from the source of fluid under pressure to said housing, a conduit extending from said housing to the pressure fluid operated motor means for carrying pressure fluid to and from the latter, a first return line extending from said housing back to the source of fluid under pressure, a chamber integral with said housing and having a piston movable therein for closing the normally open suitable means in response to the admission of fluid under pressure from said housing into said chamber, a second return line extending from said chamber back to the source of fluid under pressure, said valve member being movable by fluid under pressure admitted to said housing through said supply line from one extreme position, wherein said valve member obstructs communications between said housing and chamber and between said supply line and said conduit while permitting communication between said conduit and said first return line through said housing, to an intermediate position wherein said valve member continues to obstruct communication between said housing and chamber and interrupts communication between said conduit and said first return line, while establishing communication through said housing between said conduit and said supply line so that fluid under pressure is then supplied to the pressure fluid operated motor means for moving the welding rollers toward each other, and to an opposite extreme position, wherein said valve member continues to obstruct communication between said conduit and first return line, while permitting communication between said housing and chamber for effecting closing of the switch means and continuing to establish communication between said supply line and conduit, and adjustable means yieldably urging said valve member to said one extreme position thereof and thereby determining the fluid pressures necessary for moving said valve member to said intermediate position, respectively.

2,824,950

ULTRASONIC COUPLING FOR WELDING ROD

Howard R. Johnson, Collingswood, N. J., and Jesse Eugene Boyer, Coatesville, Pa., assignors to Lukens Steel Company, Coatesville, Pa., a corporation of Pennsylvania

Application November 22, 1955, Serial No. 548,304
11 Claims. (Cl. 219-130)



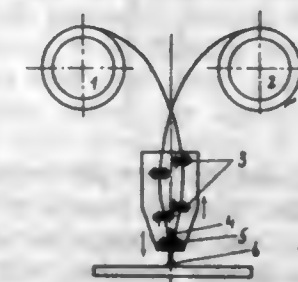
1. A welding rod holder comprising a transducer housing, a transducer shaft projecting from said housing, said shaft being adapted to transmit ultrasonic vibrations to a welding rod carried by said holder, an axially movable member enclosing the outer end of said shaft and having its end wall spaced therefrom, means mounting said member on said transducer housing independent of said shaft comprising a spaced stationary abutment means carried by said housing and arranged around said shaft, a flange extending laterally from said member and positioned between said stationary abutment means, a spring means mounted between one stationary abutment means and one side of said flange, a second spring means mounted between the other stationary abutment means and the other side of said flange, said spring means being mounted around said shaft, and means carried by said member for securing a welding rod to said member.

2,824,951

WELDING PROCESS

Harald Strohmeier, Kapfenberg, Steiermark, Austria, assignor to Gebr. Bohler & Co. Aktiengesellschaft, Vienna, Austria

Application November 12, 1954, Serial No. 468,504
Claims priority, application Austria November 13, 1953
3 Claims. (Cl. 219-137)



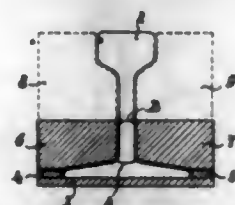
1. A continuous method of welding which comprises forming two substantially identically shaped circular welding wires of substantial length and having each a conductive core and a coating having a cross-sectional shape of a ring lacking a segment the radial height of which is equal to the radial thickness of the coating, feeding said wires past a current supply zone contacting said cores where they are exposed due to the absence of said segment-shaped cross-sectional parts of the coatings, joining said cores at said exposed portions to form a single, elongated totally coated electrode immediately in advance of the point of welding, and feeding said electrode to the point of welding.

2,824,952

METHOD OF WELDING RAILS

Gerrit Zoethout, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware

Application May 12, 1955, Serial No. 507,783
Claims priority, application Netherlands May 21, 1954
2 Claims. (Cl. 219—137)



1. A method of electric arc welding end surfaces of two rails positioned in end-to-end relationship comprising placing a relatively flat plate under said adjacent rail ends, arranging a first pair of auxiliary pieces on said flat plate and on either side of the juncture of said rails at the foot portions thereof and being no higher than the foot portion thereof to form a partially enclosed space, welding said rails at the foot portions thereof by means of a low hydrogen welding electrode being melted down in said space, placing a second pair of auxiliary pieces on said first pair of auxiliary pieces and adjacent to part of the body portions of said rails immediately after said foot joint has been established, both pairs of said auxiliary pieces being spaced from said rails in order to form a continuous gap therebetween, and welding part of said body portions by means of said electrode without interruption of the welding operation to remove the slag formed.

2,824,953

PHOTOGRAPHIC FLASH UNIT

Kingsley C. Rock, Englewood, Colo., assignor to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application February 27, 1956, Serial No. 568,031
2 Claims. (Cl. 240—1.3)



1. A high voltage electric type photographic flash unit comprising; a tubular metallic handle member adapted to be hand held, a high voltage electrolytic capacitor within said metallic handle member, said handle member providing a rigid outer case for said capacitor, said electrolytic capacitor being formed of a pair of metallic strips separated by a dielectric to form a tubular capacitor having an outer diameter of approximately the same order as the inner diameter of said tubular handle, a bag of thin insulating material having a high dielectric constant and arranged to separate said electrolytic capacitor from said metallic handle member to thereby prevent electrical contact between said capacitor electrodes and said metallic handle member and to prevent the electrolyte of said electrolytic capacitor from contact with said metallic handle member, such insulating material being so thin that any excess material folded about the capacitor does not add appreciably to the diameter of the assembled capacitor and bag, a housing member having a

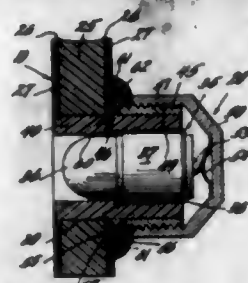
reflector and a high voltage photoflash tube, means connecting the terminals of said capacitor to said photoflash tube and arranged to cause said photoflash tube to flash when desired, and means coupling said housing member to the open end of said metallic handle member.

2,824,954

INSTRUMENT PANEL LIGHTING

John M. Roper, Washington, D. C., assignor to Grimes Manufacturing Company, Urbana, Ohio, a corporation of Ohio

Application June 28, 1954, Serial No. 439,796
9 Claims. (Cl. 240—3.16)



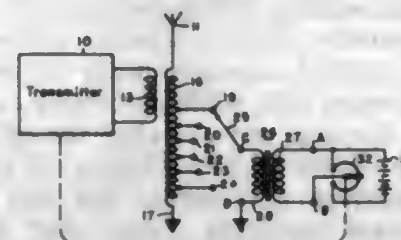
1. An instrument console panel installation comprising, in combination, a panel plate composed of light transmitting material, opaque outer layers on both sides of said panel plate, apertures in the outer layer on the forward surface of said panel, said apertures defining indicia, an aperture in said panel plate, a cylindrical plastic bushing secured in said aperture and having an annular rib engaging one surface of said panel plate, a metal sleeve located within said bushing and having a finger terminal extending radially through said bushing between said rib and the surface of said plate, a lamp secured in said sleeve, said lamp comprising a bulb, a cylindrical cap which defines one electrical contact for said bulb and a central base contact extending from said cap, said metal sleeve defining another electrical contact for said bulb, a metallic shell engaging the portion of said bushing extending from said rib, said shell having a finger terminal thereon and having an internal annular groove interlocked with said rib, said shell being threaded on its outer periphery, and a plastic annular ring encircling said bushing in the region of the forward surface of said panel plate and engaging the finger terminal of said metal sleeve and the finger terminal of said metal shell, said cap having an internally threaded tubular portion, said internally threaded tubular portion engaging the outer periphery of said metal shell, one of said outer layers extending around the outer periphery of said annular plastic ring, said tubular portion engaging said outer layer extension to provide a waterproof seal.

2,824,955

RADIO TRANSMITTING SYSTEM

Reuben Lee, Linthicum Heights, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 9, 1950, Serial No. 148,533
3 Claims. (Cl. 250—17)



1. In combination, a frequency modulated transmitter for generating and delivering radio frequency energy to an output circuit, an antenna for radiating energy gener-

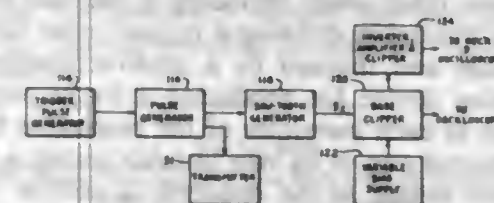
ated by said transmitter, a tuning coil connected in series with said antenna, means for transferring radio frequency energy from said output circuit to said tuning coil, and a saturable reactor having an alternating current winding and a control winding, said alternating current winding being connected in shunt with a portion of said tuning coil, and means connecting said control winding to a source of control potential which varies as a function of the modulating frequency whereby said antenna is tuned to maintain maximum transfer of energy from said output circuit to said antenna.

2,824,956

PULSE CONTROL CIRCUIT FOR TRANSMITTING AND RECEIVING JAMMING SYSTEM

Freeman M. Hom, San Diego, Calif., assignor to the United States of America as represented by the Secretary of the Navy

Application December 14, 1945, Serial No. 635,096
13 Claims. (Cl. 250—17)



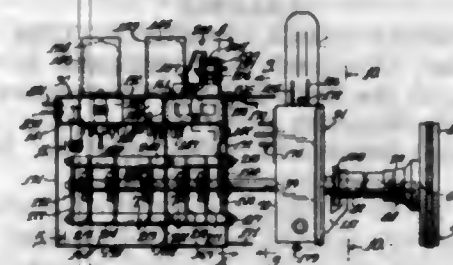
1. A radio system comprising a radio receiver, a radio transmitter, and apparatus for alternating the on and off periods of said receiver and said transmitter, said apparatus comprising means generating a pair of potentials, one of said potentials being adapted to be applied to said transmitter to render said transmitter inoperative to transmit signals for a first predetermined time interval and the other of said potentials being adapted to be applied to said receiver to render said receiver operative to receive radio signals for a second predetermined time interval, said time intervals having simultaneous terminations and means cooperable with said potential-generating means for providing a time delay between the onset of said first time interval and the onset of said second time interval, said time delay defining an interval during which the receiver and transmitter are both off.

2,824,957

VERY HIGH FREQUENCY TELEVISION TUNER HAVING AN ULTRA HIGH FREQUENCY ADAPTER

Stanley R. Meadows, Chalmers H. Lewis, Jr., and Carl E. Pearson, Bloomington, Ind., assignors to Sarnes Tarzian, Inc., Bloomington, Ind., a corporation of Indiana

Application October 20, 1954, Serial No. 463,416
14 Claims. (Cl. 250—20)



3. A combined V. H. F.-U. H. F. television tuner, comprising a V. H. F. tuner section, a plurality of variable tuning elements mounted within said V. H. F. tuner section, a first tuning shaft journaled in said V. H. F. tuner section and operatively connected to said tuning elements, a U. H. F. tuner section, a plurality of separate compartments in said U. H. F. tuner section, a U. H. F. tuning shaft journaled in said U. H. F. tuner section and extending through said U. H. F. tuner compartments at one end

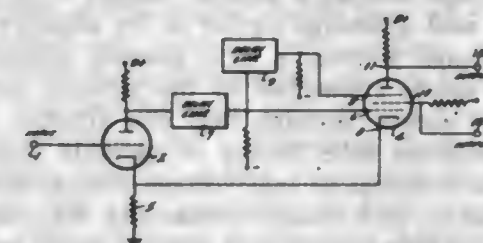
of said U. H. F. tuner section, a plurality of variable tuning elements respectively mounted in a plurality of said U. H. F. tuner compartments near said one end and operatively connected to said U. H. F. tuning shaft whereby the values of said elements are varied by rotating said U. H. F. tuning shaft, an oscillator tube mounted at the other end of said U. H. F. tuner section and electrically connected to one of said tuning elements, said first tuning shaft and said U. H. F. tuning shaft being perpendicular to one another, said first tuning shaft extending into one of said U. H. F. tuner compartments intermediate said U. H. F. tuning shaft and said other end, said one U. H. F. tuner compartment being devoid of said variable tuning elements, a second tuning shaft concentric with at least a portion of said first tuning shaft, and means interconnecting said U. H. F. tuning shaft and said second tuning shaft whereby said U. H. F. tuning shaft may be rotated by rotation of said second tuning shaft.

2,824,958

ELECTRONIC PULSE DECODER

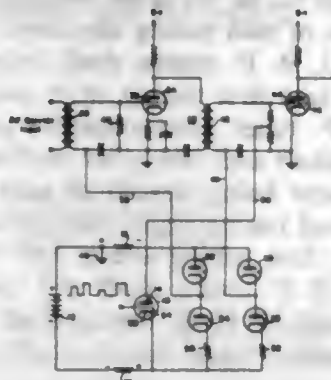
Jenius Lamar Dunn, Tonawanda, N. Y., assignor to the United States of America as represented by the Secretary of the Air Force

Application November 26, 1952, Serial No. 322,782
1 Claim. (Cl. 250—27)



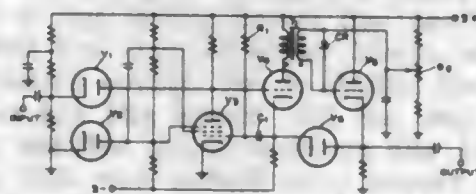
An electronic pulse decoder comprising means to produce a first series of pulses having a negative polarity and a second series of pulses occurring at the same time as the first series of pulses and having a positive polarity, an electron discharge device having a cathode, a plate, a first control grid, an anode grid and a second control grid, said grids being situated between said cathode and plate such that the electron flow from said cathode to said plate passes through said first control grid, said anode grid and said second control grid in succession in the order named, means to apply said first series of pulses to said cathode of said electron discharge device, means to bias said first control grid and said second control grid with potentials having sufficient magnitude to prevent current from flowing from said cathode to said anode grid and said plate even though said first series of negative pulses are applied to said cathode, means to delay said second series of pulses by a predetermined amount of time and said second series of pulses by an amount equal to twice said predetermined amount of time, means to apply said second series of pulses which have been delayed by said predetermined amount to said first control grid and to apply said second series of pulses which have been delayed by twice that predetermined amount to said second control grid, said pulses applied to said first control grid and said second control grid having an amplitude sufficient to cause current to flow to said anode grid and said plate provided said first series of pulses are present on said cathode whereby when said first series of pulses and said second series of pulses have a repetition period equal to said predetermined amount of time and said series includes two pulses a single pulse will appear at said anode grid and when said first series of pulses and said second series of pulses have a pulse repetition period equal to said predetermined amount of time and include three pulses a single pulse will appear at said plate.

2,824,959
KEYING CIRCUIT
 John L. Johnson, Rock Hill Beach, Md., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
 Application October 29, 1954, Serial No. 465,502
 5 Claims. (Cl. 250-27)



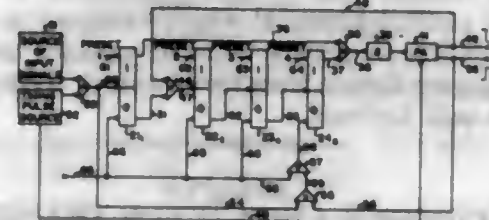
1. A system for applying and removing a blocking voltage at the grid of a vacuum tube comprising an electron discharge device having an anode, a cathode, and at least one grid included therein, means for applying a pulsed voltage to the grid of said device, a source of anode voltage for said device, a first resistor connecting the anode of said discharge device to the positive terminal of said voltage source, a second resistor connecting the cathode of said discharge device to the negative terminal of said voltage source, a first gaseous discharge tube having its anode connected to the positive terminal of said voltage source through said first resistor, a second gaseous discharge tube having its cathode connected to the negative terminal of said voltage source through said second resistor, and means connecting the cathode and anode of said first and second gaseous tubes respectively to the grid of said vacuum tube.

2,824,960
PHANTASTRON CIRCUITS
 Burton L. Cordry, Baltimore, Md., assignor to Bendix Aviation Corporation, Towson, Md., a corporation of Delaware
 Application December 13, 1954, Serial No. 474,885
 5 Claims. (Cl. 250-27)



1. In a phantastron circuit of the type utilizing a cathode follower in the feedback circuit to provide a low resistance recharging path for the timing capacitor, a means to provide a terminal end-point for the run-down of the said phantastron circuit that does not coincide with the bottoming-point thereof and to provide an output pulse at the occurrence of the said end-point, comprising: a second cathode follower; voltage producing means in the plate circuit of the first said cathode follower sensitive to the rate of change in a decreasing sense of the current there-through; means coupling the last said means to the input of the said second cathode follower so that the signals on the grid of the said second cathode follower are in phase with those on the plate of the said first cathode follower; a polarity and amplitude voltage sensitive means; means connecting the said voltage sensitive means between the cathodes of the said cathode followers so that a current will flow therethrough when the potential on the cathode of the said second cathode follower exceeds the potential on the cathode of the said first cathode follower.

2,824,961
DECADE COUNTER FOR PRODUCING AN OUTPUT AT THE COUNT OF NINE
 John O. Paivinen, Berwyn, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
 Application March 4, 1955, Serial No. 492,202
 3 Claims. (Cl. 250-27)

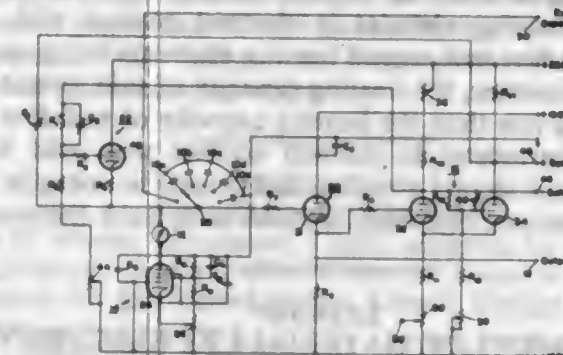


1. A binary decade counter for producing an output signal at the count of nine, said counter comprising four intercoupled bistable-state flip-flop binary counter stages each having the same preselected state at the beginning of the count, the intercoupling means at least from one stage to one other stage including a cathode impedance tuned to a frequency defining a trigger pulse for the succeeding stage and shunted by a unidirectionally conductive damping device for producing a single output pulse in response to each transition of the respective flip flop to said preselected one of its two bistable states; a source of input signal pulses to be counted; a source of timing pulses; means including a coincidence gate responsive to the concurrence of input signals and timing signals for applying said signal pulses to be counted to the first stage; an output circuit coupled to and jointly controlled by the first and fourth stages for delivering a count-of-nine D-C. signal in response to the ninth input signal pulse, said output circuit including a coincidence detector circuit for detecting D-C. level signals at said first and fourth stages and for delivering a D-C. signal when each said first and fourth stages is concurrently in that one of its two bistable states which is opposite from the said preselected state, output means responsive to said count-of-nine D-C. signal and to the succeeding timing pulse for developing a count-of-nine output pulse at the time of said succeeding timing pulse; an inhibit circuit coupled to and controlled by said output means for disconnecting the second flip-flop stage from the first stage in response to said count-of-nine output pulse, thereby to prevent a tenth input signal pulse from passing the first stage; and a clearing circuit coupled to and jointly controlled by both the source of input signal pulses and the output means for clearing the fourth stage in response to every tenth input signal pulse, said clearing circuit including a coincidence detector which in response to a count-of-nine output pulse and the tenth input signal pulse delivers a clearing signal to set the fourth state in its said preselected state.

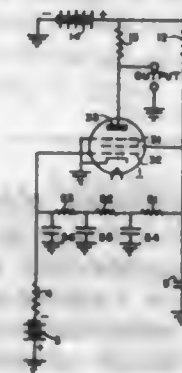
2,824,962
SWEEP CIRCUIT OSCILLATOR
 David S. Wise, Cleveland, Ohio, assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
 Application October 25, 1955, Serial No. 542,793
 1 Claim. (Cl. 250-27)

A sweep circuit oscillator comprising a charging capacitor, a current generator circuit including a pentode connected to the charging capacitor, a bistable multivibrator having a first tube and a second tube providing an initial state and a second state, a cathode follower connecting the output of the capacitor to said tubes of the multivibrator and being operable to change the multivibrator from its initial state to its second state when the voltage across the capacitor increases to a first predetermined value, a discharge circuit responsive to the multivibrator output and operable to discharge the capacitor when the capacitor reaches a second predetermined value, said multivibrator returning from its second

state to its initial state when the capacitor is discharged, a first variable resistance means in the plate circuit of one of the multivibrator tubes for selectively setting the initial state of the multivibrator and a second variable resistance means in the grid circuit of the other multivibrator tube for selectively setting the second state of the multivibrator and a potentiometer in the current generator circuit for selectively setting the grid bias of the pentode to thereby establish a constant charge rate to the capacitor.



2,824,963
SCREEN-GRID-TO-CONTROL-GRID FEEDBACK CIRCUITS
 Paul M. Tedder, Gainesville, Fla.
 Application February 7, 1955, Serial No. 486,739
 7 Claims. (Cl. 250-36)

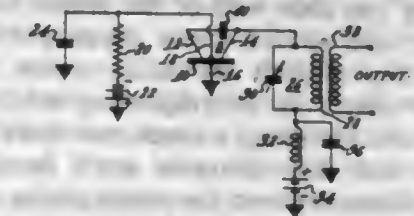


1. A stabilized amplifier comprising: an electron tube having a cathode, a control grid, a plate, and a screen grid between said control grid and said plate; a first battery connected between said cathode through a first network to said plate and said screen grid; a second network connected between said cathode through a second network to said control grid; and a two-terminal resistor having only a first and a second electrical connection, said first electrical connection being made directly to said screen grid and said second electrical connection being made directly to said control grid, the resistance of said networks and of said resistor being such in relation to said direct current sources as to maintain said control grid negative with respect to said cathode and to provide substantial direct-current negative feedback from said screen grid to said control grid.

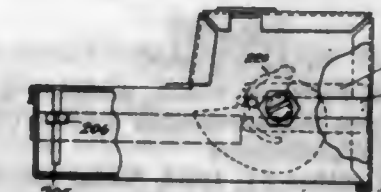
2,824,964
SEMI-CONDUCTOR OSCILLATOR CIRCUITS
 Hoo-Bing Yin, Collingswood, N. J., assignor to Radio Corporation of America, a corporation of Delaware
 Application June 28, 1955, Serial No. 518,460
 6 Claims. (Cl. 250-36)

1. A high frequency sine wave oscillator circuit comprising, in combination, a semi-conductor device having a collector, an emitter, a normal base and an auxiliary base electrode, means for applying energizing potentials solely to said normal base, auxiliary base, and collector electrodes to provide a negative resistance characteristic in the collector circuit of said semi-conductor device,

a frequency determining circuit connected with said collector electrode, and a coupling capacitor connected between said emitter electrode and the junction of said collector electrode and said frequency determining circuit.

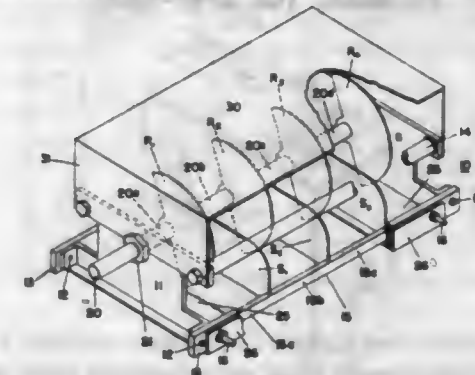


2,824,965
ULTRA-HIGH FREQUENCY MULTI-SECTION TUNER
 Edward D. Chalmers, Evanston, Ill., assignor to Oak Mfg. Co., Chicago, Ill., a corporation of Illinois
 Application January 25, 1954, Serial No. 405,964
 17 Claims. (Cl. 250-40)



1. A tuner of the coaxial cavity type, said tuner comprising at least two cascaded tuner sections, said sections including metal walls defining two cavities with a common partition wall therebetween, each section having an axial conductor extending for a substantial part of the length of the cavity, metallic means connecting the cavity and one end of said axial conductor to form a low potential end, said axial conductor at the other high potential end having parallel flat faces, a shaft passing through the cavity walls and carrying metal rotor blades for cooperation with the flat faces of the high potential end of said axial conductor in each section, said rotor blades and faces of the axial conductor cooperating to provide capacitive loading for frequency selection in each tuner section, said shaft having means cooperating with the cavity walls for providing a current path between the rotor blades and cavity walls, the partition wall between said cascaded tuner sections being slotted adjacent the low potential end of the cavity and metallic means adjustable along said slot for controlling the amount of coupling through said slot between the adjacent cavities, said metallic means extending across said slot and providing a current path across said slot sides, the position of said current-conducting path determining the degree of coupling between adjacent cavities.

2,824,966
HIGH FREQUENCY RESONANT CIRCUIT
 Rodman V. Buggy, Philadelphia, Pa.
 Application March 16, 1956, Serial No. 572,168
 1 Claim. (Cl. 250-40)
 (Granted under Title 35, U. S. Code (1952), sec. 266)

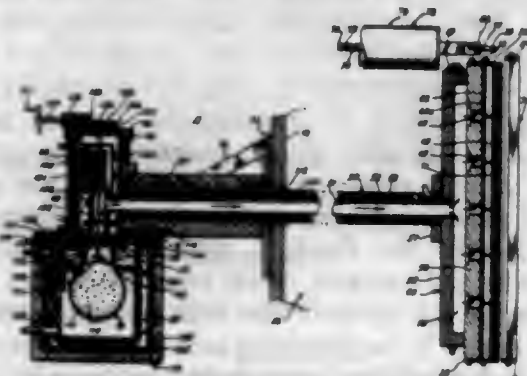


In a high frequency resonant circuit comprising a capacitor having side and end walls forming a frame, a

row of spaced vertical stator plates disposed within the frame and parallel to its end walls, a conductor strip extending along one side wall of the frame and in contact with each of said spaced stator plates providing a conductor therefor, a shaft mounting a row of vertically spaced rotor plates in interdigitating relation with the stator plates and providing a conductor therefor, said conductor strip and said rotatable shaft forming inherent inductor segments between the stator plates and the rotor plates respectively, an upper plate having depending end flanges supporting the shaft at its ends and being in conductive relation therewith, a lower plate secured to the frame and in conducting relationship with said conductor strip, said upper and lower plates being substantially coextensive with the frame providing an enclosure for the rotor and stator plates and also forming shunt paths which parallel the shaft inductor segments and the conductor strip inductor segments whereby the inherent inductance in the rotor and stator structure is materially reduced.

2,824,967 CALUTRON

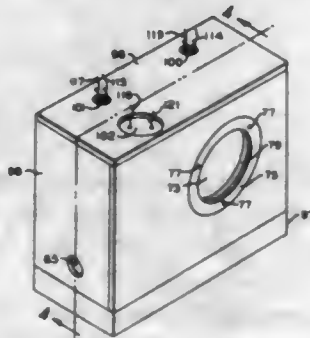
Martin D. Kamen, Berkeley, Calif., assignor to the United States of America as represented by the United States Atomic Energy Commission
Application October 31, 1944, Serial No. 561,272
9 Claims. (Cl. 250-41.9)



2. An ion source unit capable of being evacuated comprising a member having a normally opened port therethrough, a normally closed receptacle containing a charge and secured to said member in surrounding relation with respect to said port, and mechanism carried by said member for opening said receptacle and then for closing at least partially said port, whereby the charge in said receptacle is placed into communication with said port so that it is conducted therethrough and then the opening of said port is controlled in order to regulate the flow of the charge therethrough.

2,824,968 ANALYZER

Marshall S. Sparks, Jr., and Marvin E. Reinecke, Bartlesville, Okla., assignors to Phillips Petroleum Company, a corporation of Delaware
Application May 9, 1955, Serial No. 506,702
8 Claims. (Cl. 250-43.5)



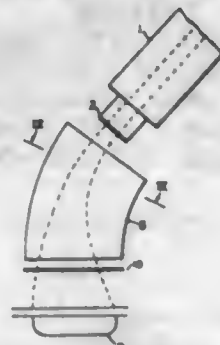
1. A sample cell for use in an optical analyzer comprising a block of heat conductive material having a first

radiation transparent passage therethrough, means forming an elongated inlet fluid passage in said block between said first passage and a region exterior of said block, means forming an outlet passage in said block between said first passage and a region exterior of said block, a first heating element in thermal contact with said block, a second heating element in thermal contact with said block, said first and second heating elements being spaced from one another, the heating capacity of said second element being less than the heating capacity of said first element, a thermostat in thermal contact with said block adjacent said second element, and means to energize said first and second elements responsive to said thermostat.

2,824,969

TREATMENT OF MATERIALS BY ELECTRONIC BOMBARDMENT

Michael Crowley Crowley-Milling, Colwyn Bay, Wales, assignor to Metropolitan-Vickers Electrical Company Limited, London, England, a company of Great Britain
Application January 17, 1955, Serial No. 482,287
Claims priority, application Great Britain February 1, 1954
6 Claims. (Cl. 250-49.5)

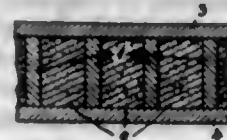


5. Apparatus for irradiating objects with electrons, comprising means for projecting an electron beam, a magnet for producing a magnetic field across said beam to cause said beam to follow a curved path, pole pieces for said magnet having a separation which decreases progressively towards the centre of curvature of the beam and which are elongated on the inside of the plane of curvature of the beam whereby the beam is split into two component beams separated in the plane of curvature, and the beam's cross-section is elongated in the plane of curvature, material of graded magnetic reluctance inserted between said pole pieces to assist in controlling the intensity of the electron beam over its cross-section, means for producing a second magnetic field across one of said component beams so as to deflect it through an angle of approximately 180°, so that in operation objects may be irradiated on two opposite sides by said two component beams, and a conveyor to transport said object through said component electron beams.

2,824,970

SECONDARY DIAPHRAGMS FOR X-RAY RADIOGRAPHY

Sven Harald Ledin, Hagersten, Sweden
Application March 30, 1953, Serial No. 345,662
Claims priority, application Sweden April 4, 1952
9 Claims. (Cl. 250-63)



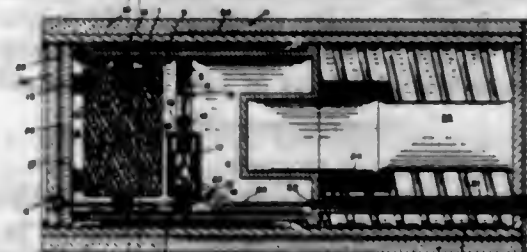
1. Secondary diaphragm for X-ray radiography comprising screening strips of an X-ray absorbing material placed on edge to form a screening grid and define passageways for X-rays extending between said strips, and

discriminating material of less absorptive capacity for primary radiation than said screening strips evenly distributed over the entire cross section of said passageways and containing at least one element having atomic number (Z) higher than 13 in the periodic system and a K-absorption edge at a wavelength shorter than 7 angstrom units, the proportion of said discriminating material being at least 22.500Z⁻³ percent by weight of the total material between the screening strips.

2,824,971

NEUTRON DETECTOR

Ivan F. Weeks, Livermore, Calif., assignor, by mesne assignments, to the United States of America as represented by the United States Atomic Energy Commission
Application May 16, 1955, Serial No. 508,366
8 Claims. (Cl. 250-83.1)

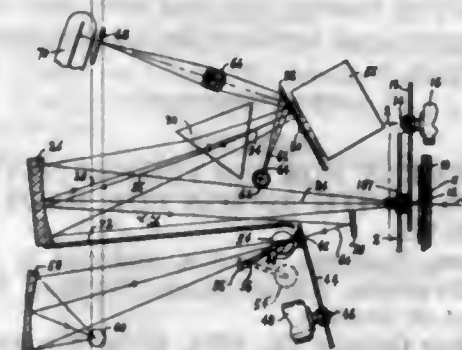


1. A neutron detector comprising a sealed chamber for exposure to incident neutrons, a gas in said chamber, a mass of a substance having a good neutron absorption cross-section positioned in said sealed chamber, and means responsive to the temperature of said gas in said sealed chamber for producing a signal.

2,824,972

SPECTROGRAPHIC APPARATUS

Richard C. Beltz, Amherst, N. Y., assignor to American Optical Company, Southbridge, Mass., a voluntary association of Massachusetts
Application April 20, 1953, Serial No. 349,712
15 Claims. (Cl. 250-83.3)



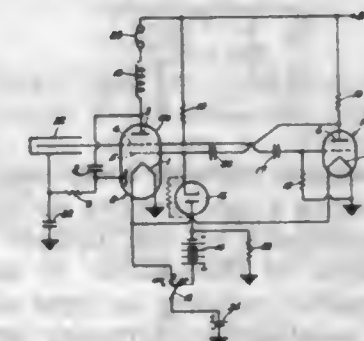
12. Spectrographic apparatus for displaying substantially instantaneous changes in the spectral distribution characteristics of radiant energy coming from a radiant energy source to be analyzed, said apparatus comprising a normally stationary entrance slit for admitting said radiant energy to be analyzed to said apparatus, stationary prism means for forming a spectrum of said energy comprehending substantially wave lengths between 10,000 angstrom units and 2.8 microns, a normally stationary exit slit, oscillating means for repeatedly moving said spectrum in a given direction across said exit slit substantially at a relatively large predetermined number of times per second, electrical means including an infrared sensitive photoconducting element operatively positioned to receive the portion of said radiant energy passing through said exit slit and provide an electrical signal which varies in strength in accordance with the amount of radiant energy being received thereby, said photoconductor being connected in series in a peaking circuit producing an

A. C. current so as to have said signal superimposed thereon, coupling and amplifying means for amplifying said signal, a cathode ray tube having a viewing screen, means for deflecting an electron beam of said tube in a first direction upon said screen substantially in predetermined phase relation to the movement of said spectrum in said given direction, means for simultaneously deflecting said electron beam in a different predetermined direction upon said screen in accordance with the varying strength of said amplified electrical signal, and rapidly operating opaque means positioned in said apparatus so as to periodically prevent the transmission of radiant energy to said photosensitive element and arranged to operate in predetermined phase relation to said movement of said spectrum in said given direction across said exit slit, whereby a luminous trace indicative of the relative intensities of different wave lengths of the spectrum of the radiant energy entering said apparatus relative to a zero intensity will be provided upon said viewing screen.

2,824,973

RADIATION DETECTOR SYSTEM

Joseph C. Gundlach, Loudon County, and George G. Kelley, Kingston, Tenn., assignors to the United States of America as represented by the United States Atomic Energy Commission
Application February 11, 1954, Serial No. 409,784
10 Claims. (Cl. 250-83.6)

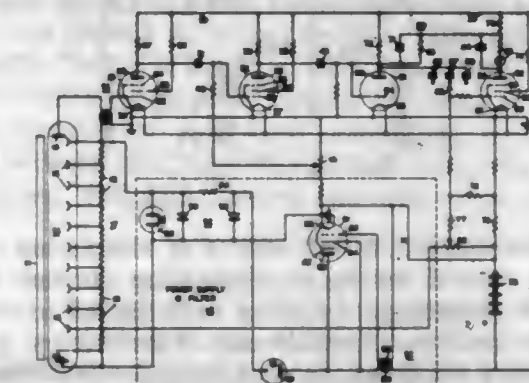


1. A system for detecting radiation comprising a Geiger-Mueller detector for producing pulses, a multivibrator for supplying power to the detector, means in the multivibrator circuit for supplying a large voltage, a storage circuit for supplying power to the detector, and means for coupling the multivibrator to the storage circuit for supplying a charge when the multivibrator operates from the multivibrator to the storage circuit.

2,824,974

RADIATION DETECTOR

John R. Parsons, Pennsauken, N. J., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application August 14, 1953, Serial No. 374,458
8 Claims. (Cl. 250-207)



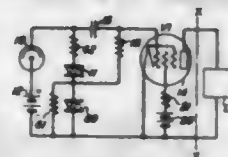
1. In a nuclear radiation detector in which a photo-multiplier tube responsive to light from a phosphor transducer exposed to the nuclear radiation creates voltage pulses at a rate proportional to the strength of said radiation,

tion, a voltage amplifier coupled to the output of said photomultiplier tube, a voltage discriminator connected to said amplifier to pass pulses exceeding a predetermined minimum amplitude, said voltage discriminator comprising a negatively biased voltage amplifier, an indicator comprising a meter and a parallel integrating capacitor connected to said voltage discriminator to indicate the strength of said radiations, and a power supply for said photomultiplier tube, said power supply comprising a battery having a positive terminal and a negative terminal, an oscillator tube having at least a cathode, a control grid, and an anode, a transformer having a first transformer winding connected between said anode and said positive terminal and a second transformer winding connected between said control grid and said negative terminal, a rectifier, and a voltage regulator tube having one electrode connected through the rectifier to said anode and having its other electrode connected to the oscillator tube cathode and said negative terminal.

2,824,975

ELECTRO-OPTICAL SYSTEM

Kenneth D. Smith, White Plains, N. Y., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 5, 1944, Serial No. 529,639
19 Claims. (Cl. 250-214)

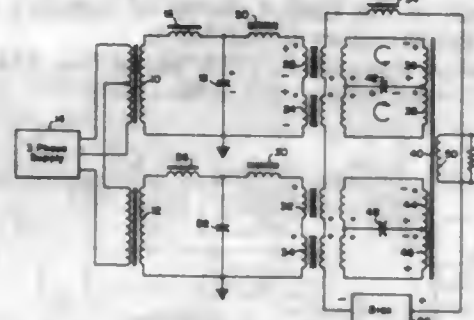


1. An electro-optical system comprising a primary series circuit including a light sensitive electric device and a resistor, the resistance of said resistor changing in response to changes of illumination of said device, a vacuum tube amplifier including an input circuit and an output circuit, a coupling for alternating current components only between said series circuit and said input circuit, a conductive coupling including an impedance also between said series circuit and said input circuit, and a load circuit connected to said output circuit.

2,824,976

PULSE GENERATOR

Norman L. Weinberg and Joseph E. Sunderlin, Baltimore, Md., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application October 18, 1956, Serial No. 616,759
8 Claims. (Cl. 307-88)



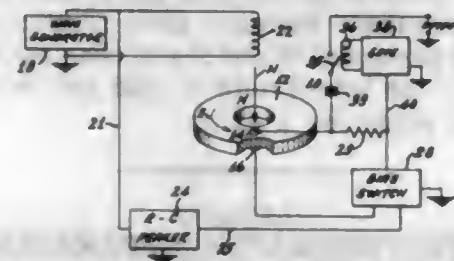
1. In combination, a first source of alternating current voltage, a second source of alternating current voltage which is 90 degrees out of phase with respect to said first voltage source, four saturable core transformers, primary and secondary windings for each of said transformers, an output transformer having four primary windings and a single secondary winding, a first inductor and a first capacitor connected in series across said first voltage source, a second inductor, and a second capacitor connected in series across said second voltage source, a first saturable

reactor connected in series with the first capacitor and the primary windings of two of said saturable core transformers to form a closed circuit loop, a second saturable reactor connected in series with the second capacitor and the primary windings of the other two of the saturable core transformers to form a closed circuit loop, a third capacitor connected in a closed loop circuit arrangement with the secondary winding of a first of said saturable transformers and a first primary winding of said output transformer, means connecting said third capacitor in a closed loop circuit arrangement with the secondary winding of a second of said saturable transformers and with a second primary winding of said output transformer, a fourth capacitor connected in a closed loop circuit arrangement with the secondary winding of a third of said saturable transformers and a third primary winding of said output transformer, means connecting the fourth capacitor in a closed loop circuit arrangement with the secondary winding of a fourth said saturable transformers and with the fourth primary winding of said output transformer, and means for deriving an output voltage from across the secondary winding of said output transformer.

2,824,977

SEMICONDUCTOR DEVICES AND SYSTEMS

Jacques L. Pankove, Princeton, N. J., assignor to Radio Corporation of America, a corporation of Delaware
Application December 24, 1954, Serial No. 477,494
6 Claims. (Cl. 307-88.5)



1. A semiconductor device comprising a generally ring-shaped body of semiconductor material providing a closed loop path for current flow, a base electrode in contact with said body, and a single emitter and collector electrode in rectifying contact with said body and comprising the starting point and terminus for current flow in said closed loop path.

2,824,978

ARRANGEMENT FOR POLYPHASE NETWORKS PROVIDED WITH MEANS FOR HIGH SPEED RECLOSING

Niels Knudsen, Vasteras, Sweden, assignor to Allmanna Svenska Elektriska Aktiebolaget, Vasteras, Sweden, a corporation of Sweden
Application October 26, 1954, Serial No. 464,857
Claims priority, application Sweden November 9, 1953
9 Claims. (Cl. 307-105)



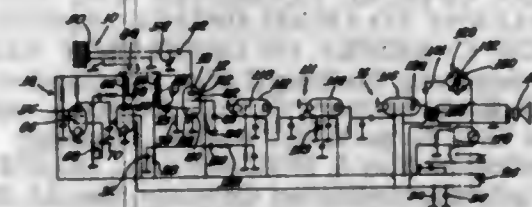
1. Arrangement in polyphase networks, the neutral of which is directly earthed and which are provided with

means for single-phase high speed reclosing of the circuit breakers in the faulty phases, comprising reactors arranged on the line-side of the said breakers and so designed that their inductances compensate the phase-to-phase and the phase-to-earth capacitances of the line to such a degree that an arc, formed between a faulty phase and earth and fed by coupling from the sound phases, can extinguish.

2,824,979

ULTRASONIC FISSURE DETECTOR

Richard W. McKee, Winnetka, Ill., assignor to Welding Service, Inc., Chicago, Ill., a corporation of California
Application December 19, 1955, Serial No. 553,885
5 Claims. (Cl. 310-8.1)

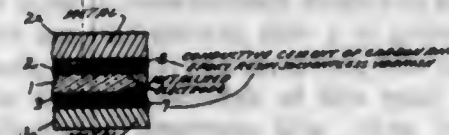


1. An ultrasonic fissure detector comprising an oscillator having a frequency determining inductance, an electro-mechanical transducer electrically coupled to the oscillator, a second inductance mounted parallel to the first inductance, a bar, spring mounting means secured to the bar between the first and second inductances pivotally mounting said bar adjacent to both inductances, a pair of ferromagnetic members mounted to the bar, one of said members being adjacent each of the inductances, means to periodically conduct an electrical current through the second of said inductances, whereby the bar is attracted to the second inductance and away from the first inductance to change the frequency of resonance of the oscillator, a transducer connected to the main circuit of the oscillator, an amplifier having its lead connected to the main circuit of the oscillator, and means connected to the delivery lead of the amplifier for translating amplified frequencies to audible signals.

2,824,980

PIEZOELECTRIC TRANSDUCERS

Howard I. Oshry and John W. Schell, Erie, Pa., assignors to Erie Resistor Corporation, Erie, Pa., a corporation of Pennsylvania
Application March 14, 1952, Serial No. 276,501
1 Claim. (Cl. 310-8.3)

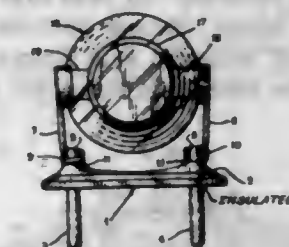


A transducer subject to impact comprising a piezoelectric body of barium titanate having opposite faces coated with metallized electrode coatings, a metal plate overlying each electrode coating for distributing the impact energy over the entire electroded area of the body, said metal plates being both electrically and mechanically connected to the underlying electrode coating by an intervening conductive cement film of a mixture of carbon and epoxy resin solventless varnish polymerized by addendum polymerization.

2,824,981

PIEZOELECTRIC CRYSTAL HOLDER

Walter J. Warden, West Long Branch, N. J.
Application November 3, 1954, Serial No. 466,704
1 Claim. (Cl. 310-9.4)
(Granted under Title 35, U. S. Code (1952), sec. 266)
Piezoelectric crystal holder for holding a crystal blank peripherally without touching its faces and without im-



pairing its characteristic as an oscillator comprising a base of insulating material, terminal contact pins secured in said base, the ends of said contact pins extending above the base, resilient spring clamps connected to the ends of said contact pins, said spring clamps being toed in to provide spring action for securely holding said crystal blank, the free ends of said spring clamps terminating into

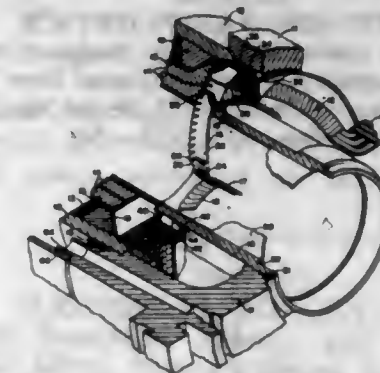
2,824,982

WITHDRAWN

2,824,983

ELECTRIC MOTOR COOLING

Benjamin Cametti, Forest Hills, and William M. Wepfer, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application November 2, 1954, Serial No. 466,247
12 Claims. (Cl. 310-64)



1. An electric motor comprising, a hollow motor frame, a stator having a winding and a central rotor opening mounted in said motor frame, a rotor rotatably mounted in said motor frame, cooling means for the end turns of said stator windings, comprising metallic fins placed between adjacent end turns and electrically insulated therefrom, said fins having tabs projecting at right angles from the portion of said fin placed between adjacent end turns, a metallic foil surrounding said tabs, said foil being tightly banded on its outer surface by a wire member and a ring member of good heat conducting material positioned between said banding and said motor frame and in engagement with said banding and said motor frame.

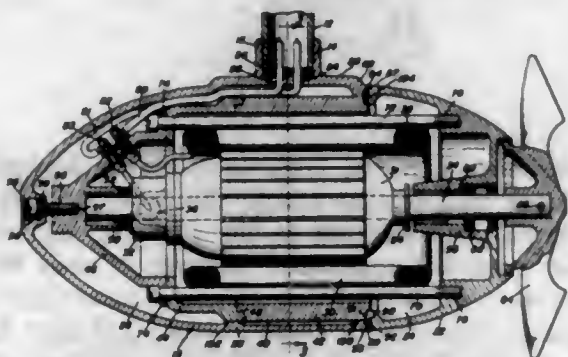
2,824,984

ELECTRIC MOTOR HOUSING

Garrett H. Harris, Jackson, Miss.
Application May 15, 1956, Serial No. 584,949
2 Claims. (Cl. 310-87)

1. In an electric outboard motor for a boat, a housing having a longitudinal axis and consisting of a first and a second hollow housing section, said sections having confronting open ends, one end having a flat surface generally

perpendicular to said axis, the other end having a similarly disposed surface of smaller width than the first-mentioned surface to form therewith a groove inwardly of said surfaces, a flexible gasket in said groove to seal the junction of said sections with the external edges of said surfaces flush, a motor unit having a shaft and a frame, said first section having a passage through which said shaft passes, a shoulder on said first section against which said frame abuts, means securing said unit in said first section and bringing said frame tightly against said shoulder, means accessible from the exterior of said

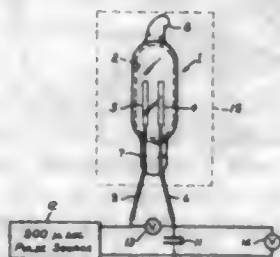


housing and connected to said frame for pulling said unit in such direction that said first section has its end drawn toward said end of said second section, the last-mentioned means comprising a bolt having a head, a countersunk opening in said second section accommodating said head, a sealing compound in said countersunk opening, a socket on said second section and having an axis at an angle to said housing axis in which to accommodate a support for the motor housing, electric wires for the motor in said socket, said housing having a hole which opens into said socket and through which said wires are passed, and a sealing compound in said socket.

2,824,985

GLOW DISCHARGE DEVICE

Ted E. Foulke, Cleveland, Ohio, assignor to General Electric Company, a corporation of New York
Application December 11, 1953, Serial No. 397,646
6 Claims. (Cl. 313-54)



1. A gaseous electric glow discharge device comprising an envelope containing an inert gas at a pressure of from approximately 70 to 200 millimeters of mercury and a pair of closely spaced cold electrodes sealed therein, and an electron-emissive coating on said electrodes containing 15 to 30 mol percent thorium oxide, 20 to 40 mol percent barium oxide, and with the balance consisting of strontium oxide.

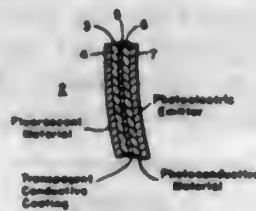
2,824,986

INCREASING CONTRAST OF THE IMAGE INTENSIFIER

Martin Rome, Elmira Heights, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application April 19, 1954, Serial No. 424,073
8 Claims. (Cl. 313-65)

7. A screen member for detecting radiations of the given wave length comprising a layer of photoconductive material sandwiched between a layer of electrically conductive material and a layer of photoelectrically-emissive

material, said photoconductive layer and said conductive material being transmissive to a substantial portion of

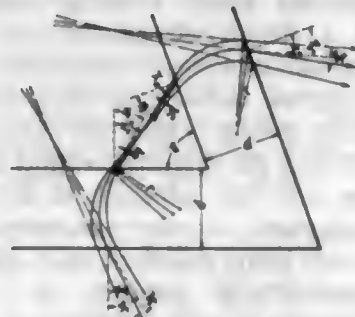


said radiations to be detected by said photoelectrically-emissive layer.

2,824,987

ELECTRON OPTICAL ELEMENTS AND SYSTEMS EQUIVALENT TO LIGHT OPTICAL PRISMS FOR CHARGE CARRIERS IN DISCHARGE VESSELS

Gustav Weissenberg, Marburg (Lahn), and Gunther Bartz, Marbach Kreis Marburg (Lahn), Germany, assignors to Ernst Leitz G. m. b. H., Wetzlar, Germany
Application May 5, 1953, Serial No. 353,078
Claims priority, application Germany May 12, 1952
6 Claims. (Cl. 313-76)



1. An anastigmatic electron-optical prism of the class described, for deflecting a beam of charged particles through a total predetermined angle, said prism comprising: a pair of pole pieces having oppositely disposed coextensive parallel plane pole faces, said pole faces having equal widths determined by spaced parallel boundary planes perpendicular to said pole faces; flux producing means operatively associated with said pole pieces for causing magnetic flux to flow therebetween substantially parallel to said boundary planes and perpendicularly with respect to said plane pole faces; and fringe effect correcting means comprising magnetically permeable apertured diaphragm members, each having a plane surface extending in proximity to and parallel to one of said boundary planes for shunting the stray fringe field; said pole pieces being disposed to receive therebetween a beam of charged particles traveling in a path passing between said boundary planes and said pole faces and lying in a plane parallel to said pole faces will be deflected through said predetermined total angle, said apertures in said diaphragms being disposed to permit passage therethrough of said beam both before and after said deflection, said total angle of deflection being in accordance with the relationship:

$$d \cdot B = \frac{mv}{c} (\sin x_1 - \sin x_1^*)$$

where

d is the width of the deflecting field between the boundary planes;

B is the magnetic flux density of the deflecting field;

m is the individual mass of the charged particles;

v is the velocity of the charged particles;

e is the individual charge of each particle;

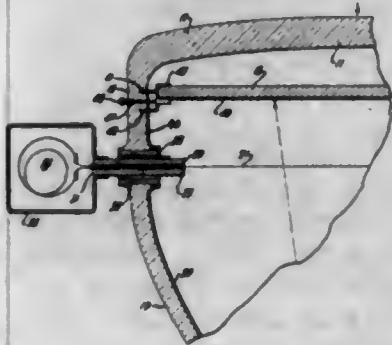
x_1 is the angle of incidence of the beam axis with respect to the normal to the boundary planes;

x_1^* is the angle of emergence of the beam axis with respect to the normal to the boundary planes;

$x_1 - x_1^*$ = the magnitude of the predetermined total angle of deflection.

2,824,988

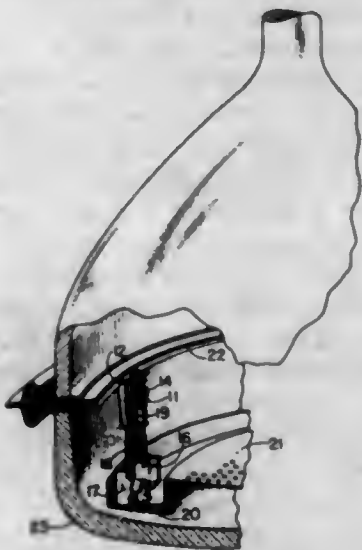
GRID STRUCTURE FOR CATHODE-RAY TUBES
 Donald R. Cone, Oakland, Calif., assignor to Chromatic Television Laboratories, Inc., New York, N. Y., a corporation of California
 Application May 26, 1955, Serial No. 511,150
 8 Claims. (Cl. 313-78)



1. A cathode-ray tube for color television comprising a grid support frame consisting of a pair of support rings each having a central opening of area and configuration generally corresponding to that of an image to be produced within the tube for viewing, a multiplicity of tautly strung parallelly positioned linear conductors overlapping opposite edges of the support rings and located therebetween, a glass seal between the support rings imbedding the overlapping linear conductors and serving for sealing the support rings to each other in sandwich fashion and for anchoring the tautly strung conductors between the support rings in sandwich fashion, a face panel and a funnel section, means to seal and secure the face panel to one outer surface of the sandwich supporting the linear conductors and means to seal the funnel section to the opposite outer surface of the sandwich supporting the linear conductors to provide a tube wall section which will be vacuum-tight upon tube exhaust.

2,824,989

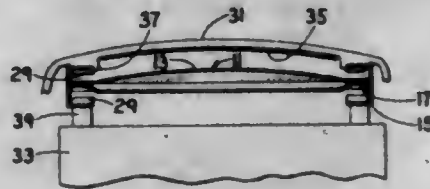
COLOR TUBE MASK POSITIONER
 James Christofferson, West Newbury, Mass., assignor to Columbia Broadcasting System, Inc., Danvers, Mass., a corporation of New York, doing business under the name of CBS-Hytron, a division
 Application December 21, 1954, Serial No. 476,635
 8 Claims. (Cl. 313-85)



1. A color television picture tube having a shadow mask secured therein with a plurality of adjustably resilient retaining members within said tube each said retaining member being independently adjustable.

2,824,990

SUPPORT ASSEMBLY
 Paul Haas, Seneca Falls, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts
 Application June 2, 1955, Serial No. 512,647
 5 Claims. (Cl. 313-85)



1. An aperture mask positioning assembly for a color picture tube comprising a mask supporting brace with a plurality of brackets mounted thereon, said brackets comprising a central section and oppositely disposed end portions formed to provide substantially V-shaped grooves for operatively positioning the aperture mask.

2,824,991

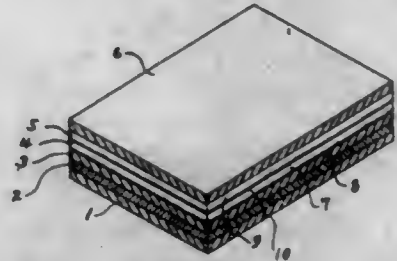
METHYLAL QUENCH PROPORTIONAL COUNTER GAS FILLING
 Charles F. Hendee, Irvington-on-Hudson, and Samuel Fine, New York, N. Y., assignors, by mesne assignments, to North American Phillips Company, Inc., New York, N. Y., a corporation of Delaware
 Application January 8, 1954, Serial No. 402,842
 7 Claims. (Cl. 313-93)



7. A proportional counter discharge tube comprising a tubular envelope having a conductive surface serving as a cathode, an anode wire disposed within said tubular envelope, and an ionizable gas-filling within said envelope, said gas-filling consisting essentially of a rare gas, methylal, and a trace of a gaseous member selected from the group consisting of halogens and organic halides.

2,824,992

ELECTROLUMINESCENT LAMP
 George H. Bouchard, Ipswich, and Joseph A. Dombrowski, Salem, Mass., assignors to Sylvania Electric Products Inc., Salem, Mass., a corporation of Massachusetts
 Application January 17, 1955, Serial No. 482,126
 2 Claims. (Cl. 313-108)

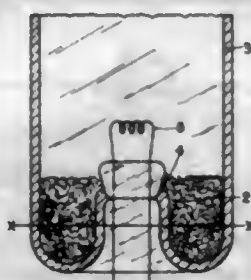


1. An electroluminescent lamp comprising an electrode, a coating of phosphor and dielectric material over said electrode, a second coating of phosphor and dielectric material over said first coating, and a transparent electrode over said second coating, each of said coatings varying in composition from a nearly clear glass on one side of the coating to a nearly pure layer of phosphor on the other.

2,824,993

TUBULAR FLUORESCENT LAMP

Johannes Adriann de Vriend and Wilhelm Honing, Eindhoven, Netherlands, assignors, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware
Application March 9, 1954, Serial No. 414,944
Claims priority, application Netherlands March 30, 1953
8 Claims. (Cl. 313-109)

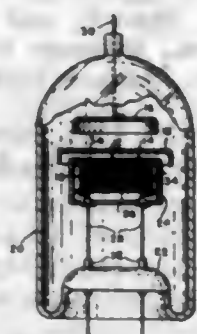


1. A tubular fluorescent lamp adapted to operate in a potentially-explosive, gas-containing environment, comprising an envelope, a low-pressure ionizable medium within said envelope, a pair of thermionic electrodes disposed in the envelope each spaced a small distance from one end of said envelope, and a pair of filling masses each disposed within the envelope completely between one end thereof and the adjacent thermionic electrode for controlling the flow of gas into the lamp due to envelope breakage to prevent explosion, each of said filling masses being electrically insulated from and free from contact with the adjacent thermionic electrode, said filling masses possessing a structure having open passages whose dimensions are such that traversal thereof by the gas in the envelope causes sufficient change in the character of the gas such that explosion becomes impossible.

2,824,994

GAS DISCHARGE TUBE CATHODES

Kenneth J. Germeshausen, Newton Center, and Seymour Goldberg, Lexington, Mass., assignors to the United States of America as represented by the Secretary of the Army
Application March 8, 1956, Serial No. 570,400
2 Claims. (Cl. 313-213)



1. A gaseous discharge device comprising an envelope having therein an ionizable medium, an anode, and a cathode, said cathode comprising a plurality of spaced elements having electron emitting surfaces extending in a direction which is substantially perpendicular to the surface of the anode, the length of said electron emitting surface being approximately equal to the value given by the following equation:

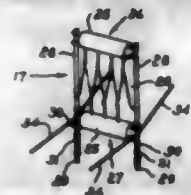
$$L_m = \frac{1}{2} \sqrt{\frac{2i_r R_o}{P(E_o - \frac{dV_o}{dx})}}$$

where the quantities are as defined in the specification.

2,824,995

ELECTRIC INCANDESCENT LAMP

William W. Kirk, Lyndhurst, Ohio, assignor to General Electric Company, a corporation of New York
Application December 29, 1953, Serial No. 400,893
7 Claims. (Cl. 313-271)

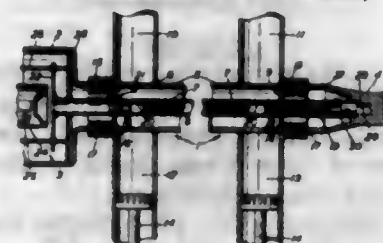


1. An electric lamp comprising an envelope at least a portion of which is radiation-transmissive, a filament in said envelope, inner lead-in conductors anchored to and supported from the wall of said envelope at one end only of the conductors and extending into the envelope from their wall anchorages in wholly spaced relation to the envelope wall and unengaged therewith to permit lateral deflection of the conductors within the envelope, said conductors being connected at their inner ends to said filament and including intermediate resilient portions deflectable laterally of the conductors but subject to a permanent set upon deflection beyond a predetermined amount, and stop means carried by the innermost portions of said conductors and extending toward but terminating short of the wall of said envelope so as to be engageable therewith upon deflection of said intermediate and innermost conductor portions to a degree less than the said predetermined amount.

2,824,996

TRAVELLING WAVE TUBES

Douglas Cecil Rogers and Peter Francis Conway Burke, London, England, assignors to International Standard Electric Corporation, New York, N. Y.
Application August 2, 1954, Serial No. 447,173
Claims priority, application Great Britain October 14, 1953
5 Claims. (Cl. 315-3.5)



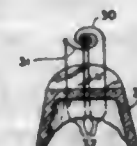
2. A travelling wave tube comprising: an electron gun for producing an electron beam; a helical coil of conducting material supported inside a tube of insulating material; a pair of waveguide choke inner sleeve members, each supporting one end of the said tube of insulating material; an outer envelope surrounding the said electron gun, the said tube of insulating material and the said sleeve members; an electron collector electrode closing the end of the said envelope opposite the electron gun; a tube of conducting material surrounding the electron beam secured to the structure of the electron gun and to the adjacent said sleeve member; and tubular supporting means surrounding the electron beam and secured to the other said sleeve member seated within the said electron collector electrode in such manner that the said sleeve member and the said electron collector electrode are insulated one from the other.

2,824,997

ELECTRON WAVE TUBE

Andrew V. Haefl, Washington, D. C.
Application October 14, 1949, Serial No. 121,435
2 Claims. (Cl. 315-5.39)
(Granted under Title 35, U. S. Code (1952), sec. 266)
2. A signal amplifying device comprising shield means establishing a beam transmitting path of uniform poten-

tial along an extended portion of its length, a single cathode gun means positioned to inject an inhomogeneous beam of charged particles at different velocities into said shield means, said gun means having a single emitting surface and adapted to produce a single beam of said particles having a relatively large cross-sectional area, resonant chamber modulating means encompassing at least said emitting surface of said particle gun means

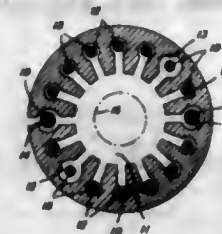


and operative to modulate beam particles at a high signal frequency, said gun means being adjustable to supply an average beam current which is a fraction not less than about half of the maximum beam current transmissible through the shield means transmitting path, and beam modulation responsive means operative at the signal frequency positioned to receive the modulated beam particles after passage through the beam transmitting path.

2,824,998

MAGNETRONS

Julius P. Molnar, Summit, N. J., assignor to Bell Telephone Laboratories, Incorporated, New York, N. Y., a corporation of New York
Application April 13, 1953, Serial No. 348,218
7 Claims. (Cl. 315-39)

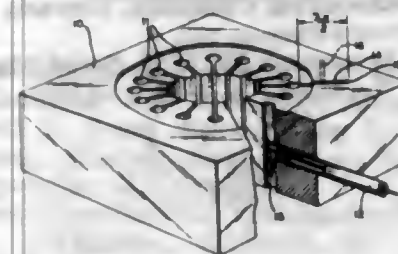


1. A resonant circuit comprising a conductive member defining a plurality of cavity resonators arranged in a circular array, energy transfer means coupled to one of said resonators, said one resonator being larger than the majority of the remainder of said resonators, and a tuning pin insertable into each of said resonators, the majority of said tuning pins being all dimensionally equal but said tuning pin insertable into said enlarged resonator being larger than said dimensionally equal tuning pins.

2,824,999

ANODE BLOCK FOR MAGNETRONS

Laurence R. Walker, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 21, 1946, Serial No. 649,418
3 Claims. (Cl. 315-39.75)



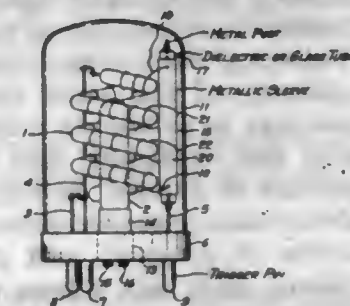
1. In a magnetron, a magnetron anode block adapted to attenuate energy in undesired modes of oscillation in said magnetron, said anode block being formed with a multiplicity of substantially identical axial cavity resonators arranged in a circle and spaced at equi-angular distances about the center of said circle, said anode block being further formed with an axial slot substantially one

half wave length long at the frequency of the desired mode of oscillation of said magnetron, said slot being terminated at one end by said anode block and at the other end thereof by the cavity of one of said cavity resonators.

2,825,000

PHOTOGRAPHIC LIGHT UNIT

Eric J. G. Beeson, Rugby, England, assignor to General Electric Company, a corporation of New York
Application October 6, 1954, Serial No. 460,602
Claims priority, application Great Britain October 8, 1953
2 Claims. (Cl. 315-60)

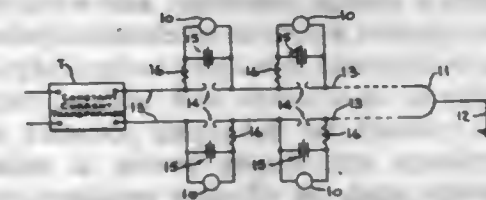


1. A photographic light unit comprising in combination, a supporting base of electrically insulating material, conductive supports upstanding from and attached to said base and a flashtube attached to said supports and having a tubular vitreous envelope containing an ionizable atmosphere and subject to puncture by passage of a high capacitive current through the wall thereof, an external electrode on said envelope for ionizing the atmosphere therein by capacitive action through said envelope wall to flash the flashtube, one of said conductive supports constituting a capacitor and being connected in series with said external starting electrode for minimizing the tendency for breakdown of the vitreous envelope by reducing the capacitive current through the said envelope wall, a part of the tubular envelope of said flashtube between the ends thereof being secured to said capacitor support.

2,825,001

SYSTEM OF MERCURY VAPOR LIGHTING

Herman O. Stoelting, Milwaukee, Wis., assignor to McGraw-Edison Company, a corporation of Delaware
Application January 17, 1955, Serial No. 482,017
9 Claims. (Cl. 315-122)



1. A series system of mercury vapor lighting comprising a plurality of mercury vapor lamps connected in series in a main line, a source of high voltage alternating current, a cut-out shunted across each mercury vapor lamp for shorting out any lamp upon failure thereof and constituting a parallel circuit with the corresponding lamp, an impedance connected in series with each parallel circuit and constituting therewith a compound circuit, and a spark gap directly in series with said main line and bridging each compound circuit consisting of the series impedance and the parallel circuit.

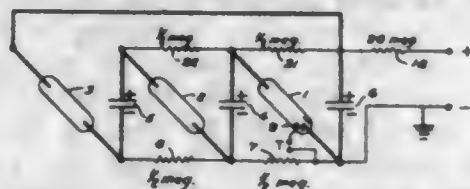
2,825,002

LIGHT PULSE PRODUCING APPARATUS

Robert A. Brown, Milford, Conn., assignor to Remington Arms Company, Inc., Bridgeport, Conn., a corporation of Delaware
Application September 22, 1953, Serial No. 381,688
2 Claims. (Cl. 315-166)

1. Apparatus for producing a resultant short duration light flash of very high intensity by timing and combining

the lower intensity light flashes of a plurality of gaseous discharge photographic flash lamps, comprising a plurality of normally non-conductive gaseous discharge photographic flash lamps positioned and arranged so that the light flash from each illuminates a common area and connected in alternating sequence in a continuous series circuit with an equal number of energy storage capacitors each charged to a potential less than the normal flash-over potential of any one of said photographic flash lamps, and means to sequentially initiate conduction in said photographic lamps, said photographic flash lamps after initiation conducting current simultaneously to produce a single short duration photographic light flash which is effectively in intensity the summation of the light flash intensities of the individual flash lamps, including, without breaking the continuity of said series circuit, means to connect said capacitors in parallel to a source of potential for recharging said capacitors, said means of connecting the capacitors in parallel including isolating resistors of high ohmic value connected between said capacitors and said source of potential, said capacitors being progressively isolated from said source of potential by progressively greater total value of ohmic resistance in said isolating resistors, whereby said capacitors are charged progressively and in the order of their separation

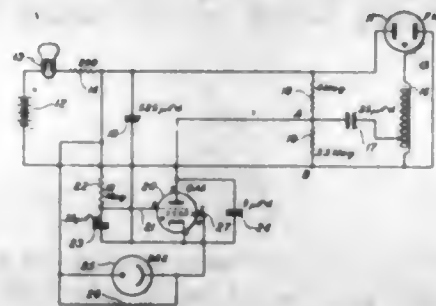


from said source, said means to initiate conduction in said lamps including a trigger electrode for one of said lamps, means to apply a triggering voltage pulse to said trigger electrode, a coupling resistor shunted across the said triggered flash lamp and the storage capacitor adjacent thereto in said series circuit; and coupling resistors shunted across succeeding series pairs of lamps and storage capacitors, said coupling resistors individually having a resistance many times greater than the effective resistance of an ionized flash lamp, said coupling resistors serving to connect together the capacitor electrodes bearing charges of like sign, said series circuit being grounded at one of the common junctions between a flash lamp, a storage capacitor, and a coupling resistor, means to connect a source of electrical potential for recharging said storage capacitors to the underground junctions between said lamps and storage capacitors, said means to connect the recharging potential including isolating resistors individually having a resistance many times greater than the effective resistance of an ionized lamp, said source of potential being connected to one of said ungrounded junctions and said other ungrounded junctions being connected to each other and to the said first-mentioned ungrounded junction through the isolating resistors.

2,825,003
FLASHING LIGHT
George E. H. Hanson, Glendale, Calif.
Application May 3, 1954, Serial No. 427,109
1 Claim. (Cl. 315-204)

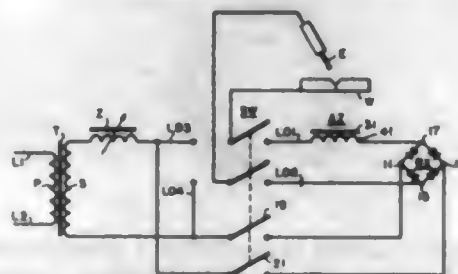
In apparatus for providing periodic flashes of light including direct current supply means having a positive side and a negative side, a flash tube having at least two electrodes between which is disposed an ionizable gas, a first storage capacitor coupled between the two electrodes, means coupling the first storage capacitor between the positive and negative sides of the direct current supply means, an auxiliary electrode for the flash tube, a transformer coupled to the auxiliary electrode, and a second storage capacitor coupled to the transformer, the improvement

which comprises a second gas filled tube having a cathode, an anode, and having a first grid electrode for actuating the tube, a third capacitor coupled between the cathode and first grid electrode of the second tube, an electrical resistance coupled between said first grid electrode and the positive side of the direct current supply means for auto-



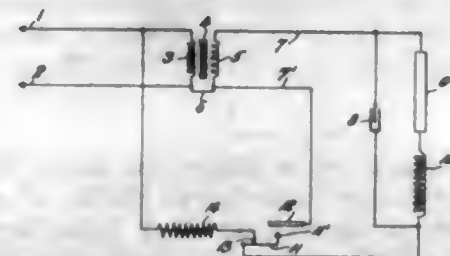
matically charging the third capacitor, the second gas filled tube also having a second grid electrode, and disabling means including a photocell coupled to the second grid electrode for disabling the second tube during daylight hours whenever the light striking the photocell exceeds a predetermined level.

2,825,004
ARC-WELDING APPARATUS
Martin Rebuffoni, Williamsville, and Lewis F. Pettit, Jr., Kenmore, N. Y., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application March 15, 1955, Serial No. 494,370
6 Claims. (Cl. 315-205)



1. Arc welding apparatus comprising a pair of load conductors to be connected to a welding electrode, a plurality of single-phase alternating-current power supply conductors, a rectifier means connected to said supply conductors and having output terminals from which direct current is derivable and means including a reactor connecting said output terminals to said load conductors, the said apparatus being characterized by a reactor of such small dimensions that it begins to saturate at a current of between 10 and 30 amperes.

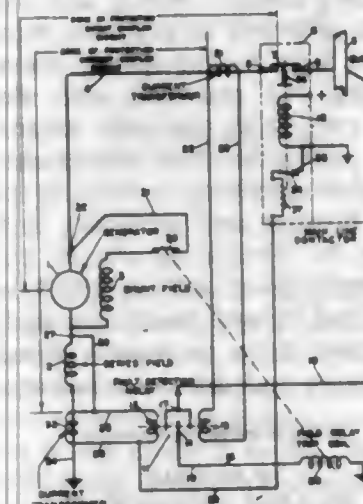
2,825,005
OPERATING CIRCUITS FOR ELECTRICAL DISCHARGE LAMPS
Lester F. Bird, Newark, N. J., assignor to Hanovia Chemical and Manufacturing Company, Newark, N. J., a corporation of New Jersey
Application September 26, 1955, Serial No. 536,592
3 Claims. (Cl. 315-239)



1. A starting and operating system for high pressure gaseous discharge lamps, comprising a transformer having a core with primary and secondary windings thereon, in-

put means connected across said primary winding, electrical conducting means bridging said primary and secondary windings, conductors connected across said secondary winding, a gaseous discharge lamp, a pulse type ignition system comprising a coil connected in series with said lamp, said conductors, discharge lamp, and coil comprising a series circuit connected across said secondary winding, make-before-break switch means in said series circuit between said coil and said secondary winding, and a ballasting resistance circuit connecting said switch mean to said input means, whereby the said switch means operates to sequentially connect said series circuit across said transformer secondary winding and disconnect said ballasting resistance circuit.

2,825,006
GROUND FAULT PROTECTOR
Ralph J. Leppla, Maple Heights, Ohio, assignor to Jack & Heintz, Inc., Cleveland, Ohio, a corporation of Delaware
Application May 29, 1953, Serial No. 358,395
5 Claims. (Cl. 317-13)

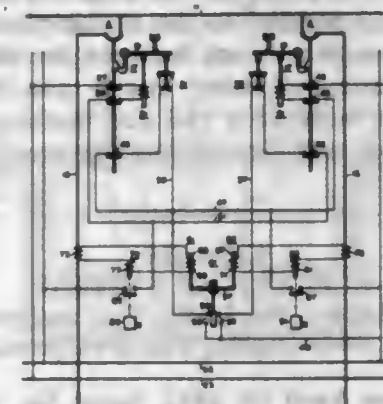


5. A ground fault protection system for a generator powered electrical system comprising means for connecting said generator to a bus, means for deenergizing the shunt field of said generator, means directly coupled to the generator for actuating the deenergizing means upon the occurrence of a ground fault in the electrical system during the build-up period of the generator with said connecting means being in open circuit condition and means indirectly coupled to both sides of the generator for actuating the deenergizing means upon the occurrence of a ground fault in the electrical system during normal running periods of the generator with the connecting means in closed circuit condition, the said directly coupled means being open circuited by the closure of said connecting means at the termination of the generator build-up period.

2,825,007
HIGH SPEED BLOCKING OF RELAYS
Robert F. Karlcek, Scott Township, Allegheny County, and Russell E. Frink, Forest Hills, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania
Application September 30, 1954, Serial No. 459,352
8 Claims. (Cl. 317-26)

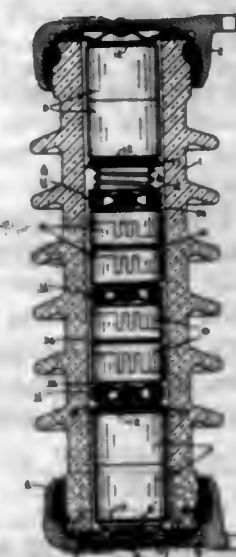
1. In a circuit breaker system comprising parallel-connected circuits, a circuit breaker in each of said circuits, a current-balance relay common to said circuits and connected in said circuits to be operated in response to unbalanced current conditions in either of said parallel circuits to effect tripping of the circuit breaker in the circuit traversed by the higher current, and switch means responsive to the tripping operation of one of

said circuit breakers connected to prevent tripping of the circuit breaker in the unaffected circuit during the



tripping operation of said one circuit breaker and before said one circuit breaker starts its opening movement.

2,825,008
LIGHTNING ARRESTERS
John W. Kalb, Wadsworth, Ohio, assignor to The Ohio Brass Company, Mansfield, Ohio, a corporation of New Jersey
Application June 2, 1953, Serial No. 359,140
28 Claims. (Cl. 317-70)



1. A lightning arrester which comprises a tubular housing of insulating material with metallic terminal means at each end of the housing, a control pile positioned within the housing, the pile comprising the series connection of a plurality of voltage sensitive valve blocks and a plurality of electro-magnetically controlled arc interrupting units having near the arc extinguishing point an appreciable voltage drop relative to the voltage drop of said valve blocks, each arc interrupting unit comprising a pair of chambered insulating bodies of vitreous material in registering relation, each pair of bodies in assembled relation having parallel faces at right angles to the longitudinal axis of the pile and an arc recess chamber positioned at one side of the assembled bodies and substantially closed to the arrester atmosphere, a pair of gap electrodes with spaced terminals within the arc recess chamber forming a fixed arc gap, an arc suppressing chamber connected to the arc recess by a restricted opening, a plurality of ribs integral with each body and extending from the said opening to and through the opposite side of the assembled bodies, the ribs being substantially parallel and interleaved with restricted spaces between adjacent ribs through which spaces an arc formed in the arc recess chamber is passed whereby the arc is materially lengthened and eventually suppressed, the spaces opening to arrester atmosphere at the said opposite side of the assembled bodies and means partially closing the said openings, electro-magnetic control

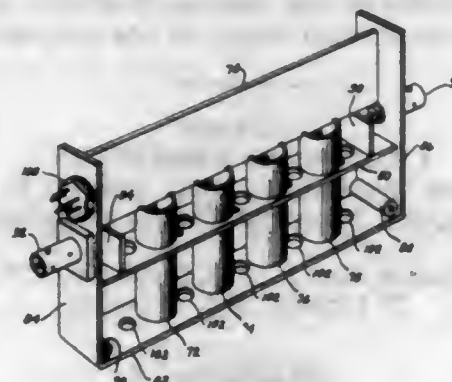
means associated with at least one face of each arc interrupting unit and comprising a coil in series connection with the electrodes of the arc interrupting unit, the plane of the coil being parallel to the arcing plane of the gap electrodes for moving an arc between the electrodes into the arc suppressing chamber and a non-linear resistor means in shunt with each coil for limiting the current through the coil and controlling the movement of the arc.

2,825,009

ELECTRICAL SYSTEM

Claudius T. McCoy, Narberth, Pa., assignor to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application April 19, 1952, Serial No. 283,216
18 Claims. (Cl. 317-101)



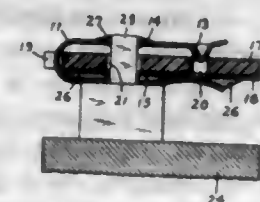
1. A compact, self-shielding chassis for an electronic circuit including a plurality of electron tubes, said chassis comprising a flat, rigid, continuous, metallic wiring plate, a plurality of conductive, sleeve-like members disposed with the longitudinal axes thereof substantially in the plane of said plate, each of said members being electrically and mechanically joined at one end thereof to an edge of said plate, said edge dividing the joined end of said sleeve-like member into two openings lying on opposite sides of said plate, said sleeve-like members being of a size to receive and support said electron tubes there-within.

2,825,010

METHOD AND MEANS FOR MOUNTING PRINTED CIRCUITS

Stanford B. Silverschotz, New York, N. Y., assignor to Columbia Broadcasting System, Inc., New York, N. Y., a corporation of New York

Application July 13, 1956, Serial No. 597,610
2 Claims. (Cl. 317-101)



1. In combination, an insulated board carrying a printed electrical circuit including a contact portion near one edge of said board, said board having an outwardly projecting portion at said one edge near said contact portion and first and second spaced apart apertures extending therethrough, a substantially U-shaped clip made of electrically conductive material mounted on said board at said one edge, said clip being provided with apertures in the opposite legs thereof registering with said first aperture in the board, and a positioning slot at the folded edge thereof through which said projecting portion of the board extends, means forming a depression in one of the legs of said clip extending into said second aperture in the board, a solder connection between one leg of the clip and said board contact portion, a chassis

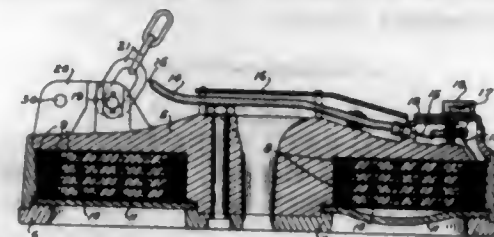
having an electrically conductive stud extending through the apertures in the legs of the clip and through said first aperture in the board, and a solder connection between said stud and the other leg of the clip.

2,825,011

ELECTRICALLY ENERGIZED LIFTING MAGNET

Stanley G. Injeski, Jr., Milwaukee, Wis., assignor to Dings Magnetic Separator Co., Milwaukee, Wis., a corporation of Wisconsin

Application June 29, 1953, Serial No. 364,594
6 Claims. (Cl. 317-123)



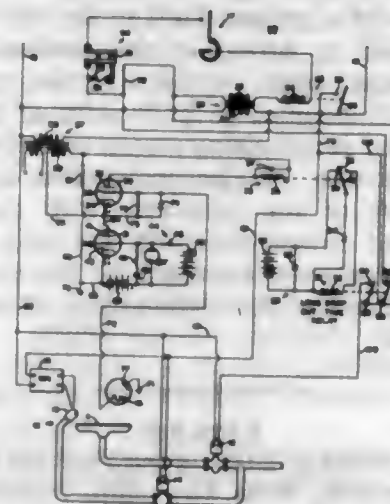
1. In an electrically energized lifting magnet installation having a main control switch and counter current discharge resistor disposed at a station remote from the magnet, a magnet body having spaced lower lifting poles and an energizing coil provided with electric current supply terminals carried by the body, means for suspending said body to permit universal movement thereof, flexible conductors for supplying current to said coil from a remote source through said terminals, and an auxiliary discharge resistor for dissipating counter currents in said coil mounted directly upon said universally movable body and being connected to said terminals, said auxiliary resistor being operable upon severance of said conductors between said magnet and the main resistor.

2,825,012

FLAME DETECTOR

Robert E. Consoliver and Fred T. Deziel, Minneapolis, Minn., assignors to Minneapolis-Honeywell Regulator Company, Minneapolis, Minn., a corporation of Delaware

Application February 14, 1955, Serial No. 487,733
4 Claims. (Cl. 317-130)



1. Flame detecting apparatus comprising: an electrical flame sensor, a source of operating voltage, means connecting said source of voltage in a circuit to said flame sensor, a continuously operable electronic oscillator having an output, means connecting the output of said oscillator in circuit with said flame sensor and said source of voltage to cause a cyclic voltage to be applied to said flame sensor independent of the condition to which said flame sensor is subjected so as to render said flame sensor operative to sense flame during a first portion of the cyclic voltage and inoperative to sense flame during a second

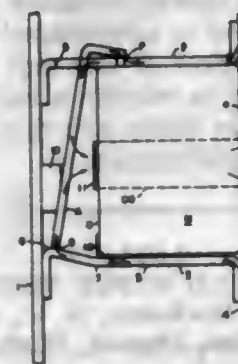
portion of the cyclic voltage, an electron discharge device having a normal state of conduction, circuit means connecting said flame sensor in controlling relation to said discharge device to change the normal state of conduction of said discharge device when said flame sensor senses flame during said first portion of the cyclic voltage, and means controlled by said electron discharge device and responsive only to a state of conduction of said electron discharge device wherein the conduction cycles between said normal state and said changed state of conduction.

2,825,013

A. C. CONTACTOR WITH D. C. MAGNET CONSTRUCTION

Vincent G. Krenke, Granger, Ind., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application May 11, 1955, Serial No. 507,597
12 Claims. (Cl. 317-165)



2. In an electromagnetically operable contractor, in combination, a base, a solid metal element of good magnetic characteristics secured to the base and projecting from the base, a solid metal armature of substantially the same magnetic characteristics pivoted on the element near the connection of the element to the base and depending for arcuate movement from the element, a second similar solid metal element secured to the base and projecting in the same direction from the base, said second element being disposed adjacent to the lower end of the depending armature with a portion of the second element being bent to substantially conform to the arcuate movement of the lower end of the armature to thus provide a small air gap between the second element and lower end of the armature during arcuate movement of the armature, a solid metal connecting member of good magnetic characteristics secured to the free ends of the two elements, a solid metal coil supporting core of good magnetic characteristics secured to the connecting member between the two elements, said core projecting toward the depending armature, and a magnetizing coil on the core, whereby energization of the coil magnetizes the armature, the two elements, and the connecting member in two magnetic loops, one loop including the core, the upper portion of the armature, the upper element, and the upper portion of the connecting member, and the second loop including the core, the lower portion of the armature, the lower element, and the lower portion of the connecting member.

2,825,014

SEMI-CONDUCTOR DEVICE

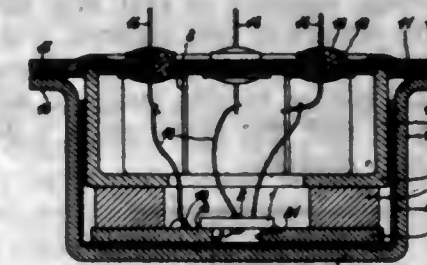
Theo Willem Willemse, Eindhoven, Netherlands, assignor, by mesne assignments, to North American Philips Company, Inc., New York, N. Y., a corporation of Delaware

Application October 19, 1954, Serial No. 463,271
Claims priority, application Netherlands November 30, 1953

3 Claims. (Cl. 317-234)

1. An electrical device comprising a substantially cylindrical housing having wall portions including a bottom portion and an open top, a closure secured to and sealing

said open top of said housing, a semi-conductor device including a semi-conductive body and at least one electrode coupled thereto, a cooling plate, said semi-conductor device being mounted on and secured to said cooling plate, said cooling plate and semi-conductor device mount-



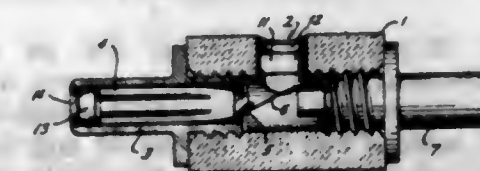
ed thereon being disposed within said housing, and elastic pressure-transmitting means disposed within the housing between the closure and the cooling plate and being urged by said closure against the cooling plate, which in turn is urged against a wall portion of said housing.

2,825,015

CONTACTING ARRANGEMENT FOR SEMICONDUCTOR DEVICE AND METHOD FOR THE FABRICATION THEREOF

Jacob W. Stineman, Jr., Villanova, and Samuel A. Robinson, Lanadale, Pa., assignors to Philco Corporation, Philadelphia, Pa., a corporation of Pennsylvania

Application April 12, 1954, Serial No. 422,352
14 Claims. (Cl. 317-236)



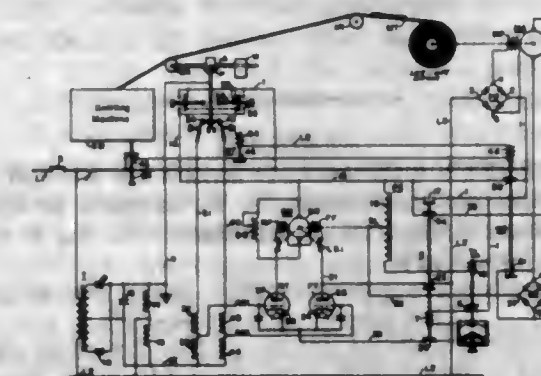
1. Apparatus for providing gentle yet stable spring contact to a predetermined, small region of an integral semiconductive structure, comprising a resilient, filamentary, contacting member fixedly supported at one point and having one end thereof in light spring contact with said predetermined region of said structure, and a body of cementitious material bonding said member to said structure at a point intermediate said point of support and said point of contact, and adjacent to but spaced from said point of contact.

2,825,016

ELECTRIC MOTOR CONTROL SYSTEM

Francis T. Bailey, East Aurora, N. Y., assignor to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application February 15, 1954, Serial No. 410,279
16 Claims. (Cl. 318-6)



1. A control system comprising a material let-off member, a first motor for driving said member, an electric power source, means including voltage varying means connecting said motor to said source, means in-

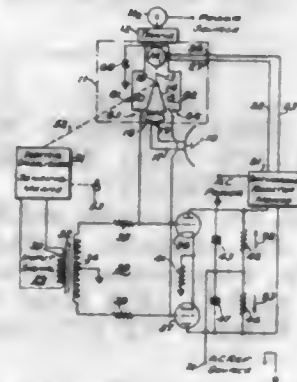
cluding a reversible motor for adjusting said voltage varying means, and means including means responsive to variations in the tension of material let off from said member for causing said reversible motor to rotate in one direction to adjust said voltage varying means to increase the voltage supplied to said first motor upon an increase in the tension of said material, and for causing said reversible motor to rotate in the opposite direction to adjust said voltage varying means to decrease the voltage supplied to said first motor upon a decrease in the tension of said material.

2,825,017

LIMIT CONTROL CIRCUIT

Paul M. Cunningham, Irving, Tex., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa

Application November 19, 1956, Serial No. 623,159
6 Claims. (Cl. 318-28)



6. Position torque-limiting means for an antenna driven to mechanical limits by a servo system, including a bidirectional servo motor, sector-gear means coupled between said antenna and the output of said motor, a phase detector including a pair of electron-control means, each having at least one control electrode, a reference signal source, first direct-current filtering means connected between said reference source and the plate of said first electron-control means, second direct-current filtering means connected between said reference source and the plate of said second electron-control means, phase-splitting means, an input signal for controlling the direction of rotation of said motor by sequentially opposite phases, means connecting the phase splitting means outputs to the respective control electrodes of said electron-control means, saturable-reactor means connected between filtered output of said phase detector and the input to said motor to drive said motor according to the polarity of said phase-detector output, a pair of switches, an actuating means for each switch oppositely disposed in the line-of-movement of said sector-gear means, a diode having one side connected to ground, one of said switches being connected in series with said diode and one of said control electrodes, the other of said switches connected in series with said diode and the other of said control electrodes, with said diode having its cathode connected to ground.

2,825,018

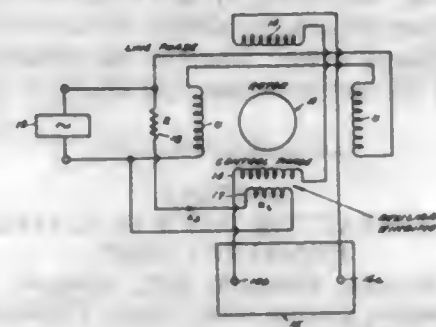
INDUCTIVELY OPERATED ROTARY MECHANISM

Albert Diamond, Levittown, N. Y., assignor to Kollman Instrument Corporation, Elmhurst, N. Y., a corporation of New York

Application September 1, 1954, Serial No. 453,541
11 Claims. (Cl. 318-207)

1. A rotary electrical device of the character described comprising a line winding connectable to a line source of alternating current of reference phase and frequency, a control winding in space quadrature with respect to said line winding connectable to a control signal of said reference frequency and in quadrature with the reference phase, a rotor magnetically relative to said windings, the

speed and direction of rotation of said rotor being determined by the relative magnitude and phase of the control signal applied to said control winding, the magnetic circuit of said device having an air gap flux component in quadrature with respect to said reference phase inducing a corresponding null voltage into said control



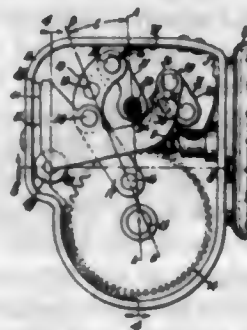
winding algebraically additive with said control signal, and electromagnetic means including an auxiliary winding inductively related to said control winding for materially changing the effect of said null voltage induced in said control winding to provide a balanced condition of starting of rotation in either direction of said rotor with respect to control signal magnitude.

2,825,019

WINDSHIELD WIPER MECHANISM

Walter D. Harrison, Rochester, N. Y., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware

Application November 27, 1953, Serial No. 394,771
13 Claims. (Cl. 318-466)



1. In apparatus of the character described, an element mounted to be alternately oscillated, a movable operating member connected at one end to oscillate said element, a setting link having a cam surface thereon movably connected at the other end of said operating member, means applying swinging force to said member and link at a point substantially intermediate the ends of said member, a movable pivot point connection for the free end of said setting link, and retractable means constructed and arranged to engage the cam surface of said setting link during its swinging movement so as to automatically displace said movable pivot connection.

2,825,020

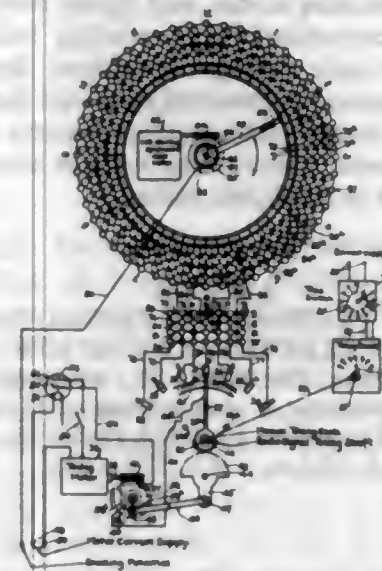
AUTOMATIC TIMING STATION SELECTORS FOR RADIO AND TELEVISION RECEPTION AND THE LIKE

William V. Johnson and Thomas A. Banning, Jr., Chicago, Ill.

Application November 3, 1953, Serial No. 390,004
8 Claims. (Cl. 318-467)

1. The combination with the rock shaft of the station tuning element of a radio receiver or the like, of means to rock said shaft to pre-selected station tuning positions of rock during successive preselected time lapse intervals, said means including a unidirectional rotation motor element, a driving connection from the motor element to the rock shaft including means to rock the shaft back and

forth between upper and lower tuning positions of rock with unidirectional motor rotation, a contact movable along a path of travel, a group of stationary contacts located in successive positions along the path of travel of the movable contact, means in connection with the rock shaft rocking means to move said movable contact back and forth along said path of travel between extreme limits of movement including all of the stationary contacts with said unidirectional motor rotation, operator selective means to individually electrify preselected contacts of the



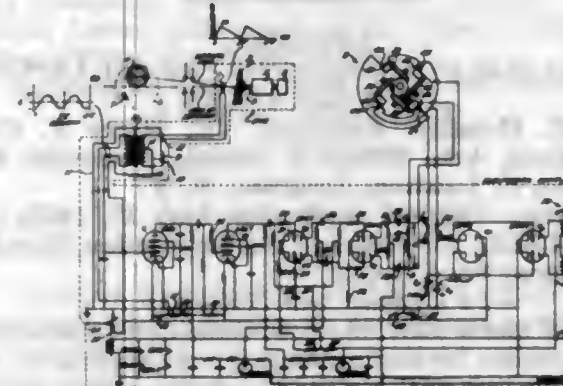
group of stationary contacts during preselected time intervals and according to a preselected sequence, means to normally supply current to the motor element for continuous unidirectional operation of said motor element, and means to discontinue such supply of current to said motor element during intervals while the movable contact is in engagement with any electrified stationary contact and to cause supply of current to the motor element during intervals while the movable contact is not in engagement with any electrified stationary contact.

2,825,021

CONTROL FOR HEAT-HOMING BOMB

Albert W. Friend, Cambridge, Mass., assignor to the United States of America as represented by the Secretary of War

Application November 21, 1946, Serial No. 711,456
4 Claims. (Cl. 318-489)



1. A control system for a target seeking bomb comprising a circular scanning device and a thermal infrared sensitive device the resistance of which changes with temperature changes due to changes in the amount of infrared radiation falling thereon, said scanning device and said infrared sensitive device cooperating to produce a cyclic variation in the resistance of the infrared sensitive device at the frequency of the scanning cycle whenever a source of infrared radiation appears in the scanned field, the phase relation between said cyclic resistance

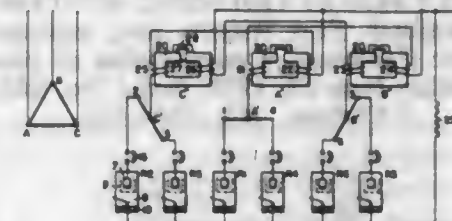
variation and said scanning cycle being determined by the position of the source of infrared radiation in the scanned field, means for changing said cyclic resistance variation into substantially a sine wave of voltage having the same frequency as the resistance variation, said changing means having an output circuit that is unbalanced with respect to ground, means for amplifying said voltage wave and converting said unbalanced output circuit into a circuit that is balanced with respect to ground, said amplifying and converting means also containing means for clipping the sine wave of voltage so that a substantially square wave of voltage is produced in said balanced circuit, commutating means comprising a cam and four sets of contacts, cam follower means contacting said cam at points ninety degrees apart and arranged to open and close said contacts, said cam being shaped to close each set of contacts for slightly less than one hundred and eighty degrees of the cam's rotation, two condensers with one side of each connected to ground, means connecting the electrical center of said balanced circuit to ground through a source of constant direct voltage, means connecting one side of said balanced circuit through two of said sets of contacts operated by adjacent cam followers to the ungrounded side of each of said condensers, means connecting the other side of said balanced circuit through the remaining two of said sets of contacts to the ungrounded side of each of said condensers, a plurality of control circuits associated with the steering mechanism of the bomb, relay means for opening and closing said control circuits, and means utilizing the voltage across said condensers to control the operation of said relay means.

2,825,022

TRIPLE-DIAMETRIC RECTIFIER-CONNECTIONS

John L. Boyer, Pittsburgh, Pa., and Charles R. Marcum, Newton Highlands, Mass., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application March 19, 1954, Serial No. 417,334
21 Claims. (Cl. 321-26)



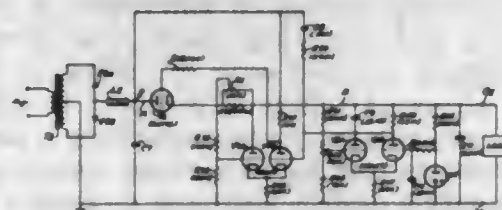
1. An electric-power translation-system, including direct-current power-leads, three-phase power-leads, six-phase power-leads, a power-transformer connected between said three-phase power-leads and said six-phase power-leads, a plurality of entirely separate single-phase asymmetrically conducting devices of a type in which the rating of each device is determined more by the peak current carried by the device than by the average current of the device, and a triple-diametric connection-means for providing three double-wave single-phase connections for operatively connecting said asymmetrically conducting devices between said direct-current power-leads and the three pairs of diametrically opposite terminals of said six-phase power-leads, said triple-diametric connection-means including a load-balancing reactor-means for substantially balancing the direct currents of the respective asymmetrically conducting devices, and said load-balancing reactor-means having one or more air-gapped magnetizable cores having a core-section large enough for the expected unbalanced currents, and having a smaller-sectioned magnetizable core-part bypassing the air gap to reduce the magnetizing currents of the load-balancing reactor-means at very low loads.

2,825,023

LOAD COMPENSATED VOLTAGE REGULATED POWER SUPPLIES

William F. Marantette, Manhattan Beach, Calif., assignor to Boeing Airplane Company, a corporation of Delaware

Application March 23, 1954, Serial No. 418,011
5 Claims. (Cl. 323-22)



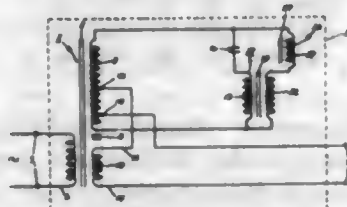
1. In combination, a source of direct voltage, a load circuit, means including a variable resistance device carrying load current from said source to said load circuit and having control means operable to vary the resistance of said device in accordance with variations of voltage applied to said control means and thereby vary the voltage drop occurring in such device, said circuit means further including a resistance element carrying at least a portion of such load current and thereby developing a first control voltage proportional to such load current, means providing a substantially constant reference voltage, means comparing said constant reference voltage with a variable voltage proportional to that applied to said load circuit for producing a resultant second control voltage proportional to the difference between said constant reference voltage and said variable voltage, hence proportional to departures of said load voltage from a normal value, and circuit means applying said first and second control voltages in additive relationship to the control means of said variable resistance device whereby the resistance of said variable resistance device, hence the voltage drop therein, is increased in response to an increase of voltage applied to the load circuit and in response to a decrease of load current.

2,825,024

VOLTAGE STABILIZING SYSTEM

Robert R. Berghoff, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application June 12, 1957, Serial No. 665,183
6 Claims. (Cl. 323-61)



1. A voltage stabilizing system providing an output voltage low in harmonic content comprising: a high reactance transformer having a magnetic core with a primary and a secondary winding thereon, said secondary winding being loosely coupled to said primary winding; a pair of alternating current input terminals adapted to be connected to a source of alternating current voltage of predetermined frequency; said primary winding being connected across said alternating current input terminals; an output circuit connected across at least a part of said secondary winding; a linear reactor-transformer having a magnetic core with windings thereon; a capacitor connected in circuit across at least a part of said transformer secondary winding and proportioned to draw leading current therethrough thereby causing saturation of said transformer core and the development of a voltage containing substantial amounts of 3rd, 5th, 7th and higher odd harmonics of said predetermined frequency across said capacitor, said linear-transformer reactor winding

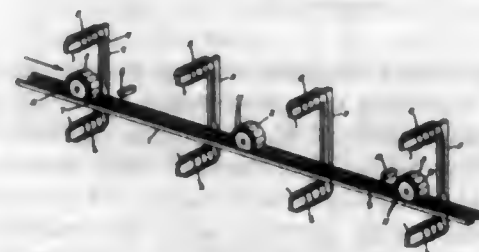
being connected in circuit with said capacitor and being proportioned to be resonant therewith for the 3rd harmonic of said predetermined frequency thereby developing a 3rd harmonic voltage across said linear reactor winding; and a non-linear saturating reactor having a core with a winding thereon, said non-linear reactor winding being connected in circuit with said linear reactor-transformer winding and being proportioned to draw current containing substantial amounts of 5th, 7th and higher odd harmonics of said predetermined frequency thereby developing a voltage containing 5th, 7th and higher odd harmonics across said linear reactor winding; said linear reactor-transformer winding being arranged so that the harmonic voltages developed thereacross are substantially in phase opposition with said harmonic voltages developed across said capacitor thereby substantially cancelling the same whereby the voltage across said output circuit is low in harmonic content.

2,825,025

METHOD OF TESTING THE CONDUCTIVITY OF AN ELECTRICAL CIRCUIT

William R. Fischer, De Kalb, Ill., assignor to General Electric Company, a corporation of New York

Application December 12, 1955, Serial No. 552,331
4 Claims. (Cl. 324-51)



1. A method of testing the conductivity of a complete electrical circuit formed of nonmagnetic material comprising the steps of subjecting the construction including said circuit to a predetermined force to move it through a magnetic field thereby to generate an electromotive force in said circuit, measuring the time consumed for said construction to move a predetermined distance through said field, and comparing the time so consumed to the time for such a construction to move said predetermined distance without the influence of a magnetic field.

2,825,026

METHOD FOR DETERMINING THE OIL CONTENT OF SUBSTANCES

Charles E. Holaday, Arlington, Va., Harry F. Cooke, Little Rock, Ark., Wilbur K. Marble, Stoneville, Miss., and John E. Larrison, Syracuse, N. Y.

No Drawing. Original application May 27, 1955, Serial No. 511,812. Divided and this application March 29, 1956, Serial No. 577,432

3 Claims. (Cl. 324-61)

(Granted under Title 35, U. S. Code (1952), sec. 266)

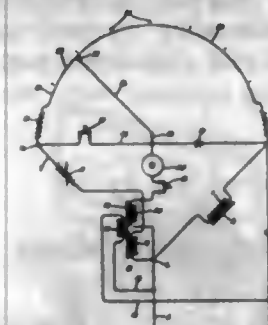
1. A process for determining the oil content of seeds which comprises adding to a standard weight of seed a standard volume of organic solvent for the oil, said organic solvent having a known dielectric constant, and a desiccant in sufficient amount to absorb water normally present in the seed and to prevent absorption of said water by the solution of oil, said desiccant being insoluble in both the oil and the organic solvent and being nonabsorbent for both the oil and organic solvent, macerating the mixture of seed, organic solvent, and desiccant, separating the solution of oil in organic solvent from the macerated seed and desiccant, and measuring the dielectric constant of the solution.

2,825,027

CIRCUIT FOR MEASURING THE TEMPERATURE OR RESISTANCE CHANGE OF ENERGIZED ALTERNATING CURRENT APPARATUS

Richard E. Seely, Fort Wayne, Ind., assignor to General Electric Company, a corporation of New York

Application July 25, 1955, Serial No. 524,034
6 Claims. (Cl. 324-62)



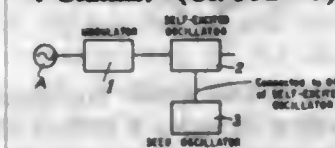
1. A circuit for measuring the temperature or resistance change of alternating current apparatus while it is connected across a source of alternating current power comprising a first conductor including a variable resistance adapted to be connected in series with said apparatus, a second conductor adapted to be connected across said first conductor and said apparatus, a calibrated resistance adapted to be connected across said first conductor and said apparatus, a third conductor adapted to be connected at one end to the junction of said first conductor and said apparatus and having its other end movably connected to said calibrated resistance intermediate the ends thereof, a source of direct current connected in one of said second and third conductors, current detecting means connected in the other of said second and third conductors, a transformer having a primary winding adapted to be connected across said source of alternating current power, a first secondary winding in said first conductor in series with said variable resistance, a second secondary winding in said third conductor, said secondary windings being arranged to develop voltages thereacross respectively substantially equal to and in phase with the voltage across said apparatus, and direct current blocking means connected in said circuit to block the direct current from traveling outside said circuit.

2,825,028

PULSE TIME MODULATION SIGNAL TRANSMISSION SYSTEM

Kojiro Kinoshita, Ichiji Yasuda, and Hisashi Fukukita, Tokyo, Japan, assignors to Japan Broadcasting Corporation, Chiyoda-ku, Tokyo, Japan

Application May 17, 1955, Serial No. 508,984
4 Claims. (Cl. 332-9)



1. A system of pulse time modulation signal transmission comprising a modulator, a self-excited oscillator having a grid potential modulated by said modulator, and an independent auxiliary oscillator, said auxiliary oscillator producing a signal of superaudio frequency superposed on said self-excited oscillator.

2,825,029

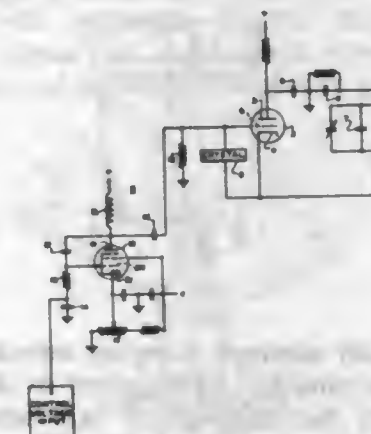
REACTANCE TUBE CIRCUITRY

Stephen Yando, Huntington, N. Y., assignor to Sylvania Electric Products Inc., a corporation of Massachusetts

Application June 3, 1955, Serial No. 512,987
4 Claims. (Cl. 332-28)

1. In combination with an oscillator including an oscillator tube having an anode, a cathode and a control grid,

and further including a first tuned circuit coupled between the grid and cathode of the oscillator tube and a second tuned circuit coupled between the anode and cathode of the oscillator tube, a reactance tube arrangement including a reactance tube having a cathode, an anode and a control grid and further including a phase shifting net-



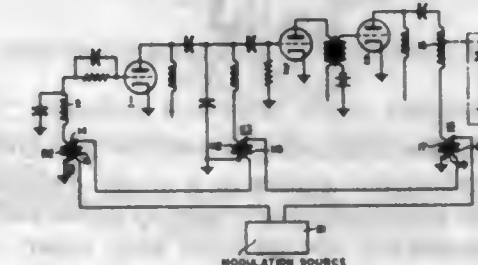
work coupled between the anode and grid of the reactance tube to cause the current through the reactance tube to be in quadrature with the anode voltage thereon, the anode-cathode current path through said reactance tube being interposed between the grid and a connection point intermediate said anode and said second circuit of said oscillator tube.

2,825,030

FREQUENCY MODULATED V. L. F. TRANSMITTER

William Altar and Patrick Conley, Pittsburgh, Pa., assignors to Westinghouse Electric Corporation, East Pittsburgh, Pa., a corporation of Pennsylvania

Application January 19, 1949, Serial No. 71,566
23 Claims. (Cl. 332-29)



1. In combination a source of radio frequency oscillations having a predetermined normal frequency of oscillation, a low loss resonant load circuit normally tuned to resonance at said normal frequency, means comprising a saturable reactor for recurrently displacing the frequency of oscillation of said source of radio frequency oscillations from said predetermined normal frequency at a recurrence rate adapted to induce substantial transient responses in said low loss resonant load circuit, and means for substantially reducing the duration of said transient responses comprising a saturable reactor for tuning said load circuit to maintain substantial frequency synchronization between the frequency of said source of radio frequency oscillations and the resonant frequency of said low loss resonant load circuit.

2,825,031

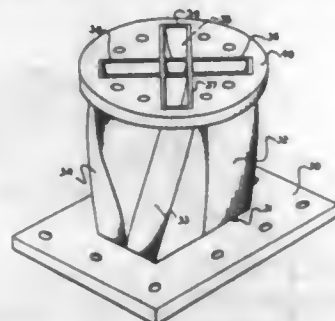
METHOD OF CONVERTING MODES OF WAVE MOTION FOR TRANSMISSION FROM RECTANGULAR TO CIRCULAR WAVE GUIDES

Frank E. Parial, Waban, Mass., assignor to Andrew Alford, Boston, Mass.

Application December 15, 1951, Serial No. 261,882
4 Claims. (Cl. 333-21)

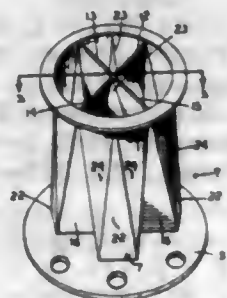
1. An apparatus for producing a $TE_{0,1}$ mode of propagation in a circular wave guide comprising two sections, said first section having four rectangular wave guides, each having propagational modes of $TE_{1,0}$ having gradual

spiral twists into positions forming a pattern of a uniform cross with a square center formed of the short sides of the wave guides, said second section fitting to said first section and having a central conductive core element fitting over said square and tapering to a point in axial alignment with the center of symmetry of said



pattern and wall elements tapering outwardly from the sides of the rectangular wave guides to diagonal planes coinciding with the diagonals of said square and from the outer ends and sides of the rectangular guides to cylindrical walls coaxial with said center of symmetry and said cylindrical wall elements.

2,825,032
WAVE GUIDE MODE TRANSFORMER
Andrew Alford, Cambridge, Mass.
Application March 10, 1953, Serial No. 341,505
8 Claims. (Cl. 333-21)

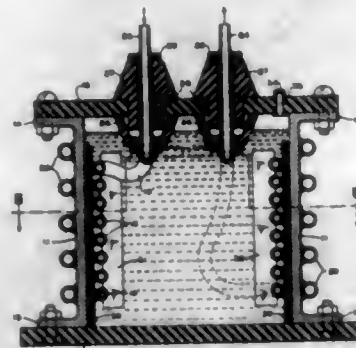


1. A wave guide connecting system for converting from a group of rectangular guides to a single circular guide, the rectangular guides being arranged symmetrically about a center equiangularly spaced from each other, with the long sides of the rectangles parallel to the radius between the sides comprising means forming rectangular apertures adapted to coincide with the ends of said rectangular guides, a plurality of conductive partitions aligned in radial planes 90° apart at the circular guide with an axis coaxially aligned with the circular guide, a wall enclosure having a cylindrical shape at one end with the axis thereof coinciding with the axis of the circular guide and a plurality of wall elements forming isosceles triangles with the vertices of some of said triangular wall elements formed at the intersection of adjacent walls of the rectangular apertures and the vertices of the other of said triangular wall elements formed at the intersection of the partitions with each other and with the wall at the cylindrical end and also at the cylindrical end midway between the intersection of said partitions and the cylindrical wall.

2,825,033
RADIO FREQUENCY TRANSFORMER
Wallace C. Rudd, Larchmont, and Robert J. Stanton, Brooklyn, N. Y., assignors to Magnetic Heating Corp., New Rochelle, N. Y., a corporation of New York
Application October 18, 1955, Serial No. 541,143
1 Claim. (Cl. 336-58)

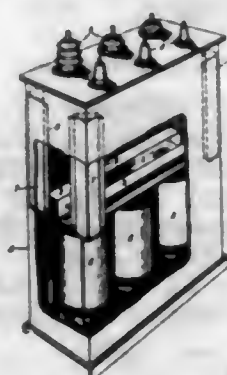
A radio frequency power transformer comprising in combination: a closed casing having upper and lower insulation plates and a cylindrical metal wall portion the ends of which are secured to and covered by said plates, the metal of such wall portion being interrupted along

one side by a strip of insulation; output terminals attached to said metal wall portion at either side of said interruption whereby such wall portion is made to constitute a single-turn secondary of the transformer; terminal means for connection of the terminals respectively of a work circuit directly to said secondary at opposite sides of said insulation strip; a primary coil of several turns mounted within said casing coaxially therewith and with its turns each extending circumferentially close to the interior surface of said cylindrical metal wall portion, said primary coil being covered with tetrafluoroethylene



tape substantially filling the space between said primary and the inner surface of said cylindrical metal wall portion; insulation means for supporting and positioning the primary turns respectively in spaced relation; a gas-free filling of oil contained in said casing and permeating the interstices about said primary turns and the insulation tape thereon, said primary being formed of hollow tubing adapted to contain a stream of cooling fluid; and conduit means adapted to contain a stream of cooling fluid in heat exchange relation with the outside of said single-turn secondary.

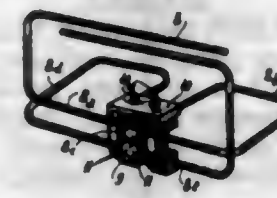
2,825,034
COOLING SYSTEM
Wayne E. Birchard, Pittsfield, Mass., assignor to General Electric Company, a corporation of New York
Application April 12, 1956, Serial No. 577,750
6 Claims. (Cl. 336-61)



1. In an electric transformer component which has a thermal cycle which includes a period of relatively low temperature and may include a period of relatively high temperature, said high temperature period being of relatively short time duration as compared to the total time duration of said cycle, and said component being positioned inside a main tank, means for limiting the temperature rise of said component during said short time period to a desired maximum temperature, said means comprising a predetermined mass of material having a high latent heat of fusion, said heat of fusion being relatively large as compared to the specific heat of said component, said material being disposed in a container which is positioned inside said tank and in thermal absorbing relationship with respect to said component, said material having a melting point temperature which is below said maximum temperature but above said low temperature and said material being thermally reversible whereby said mate-

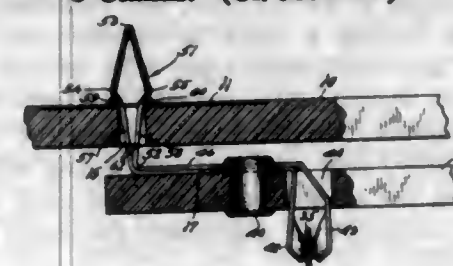
rial will change from a solid to a liquid state during said short time period and then revert to said solid state during said low temperature period.

2,825,035
APPARATUS FOR THE INSTANTANEOUS HEATING OF LIQUIDS
Henri Arnaud, Paris, France
Application April 23, 1956, Serial No. 580,091
3 Claims. (Cl. 336-220)



1. An apparatus for heating liquids comprising in combination a transformer of the closed core type having branches connected together by upright parts; a metallic tube, a portion of which is adapted to constitute the secondary circuit of said transformer, said portion being bent into a pair of open loops partially surrounding each of said upright parts respectively, said loops being separated by an elbow portion passing between said parts and the extremities of said portion passing along one of said branches close to said elbow portion; and means for connecting said extremities with said elbow portion.

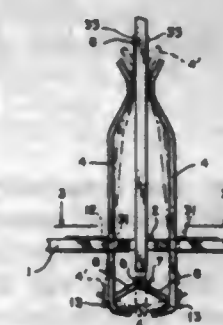
2,825,036
LUG STRUCTURE FOR PRINTED CIRCUITS
Readar W. Sorensen, Arlington Heights, Ill., assignor to Oak Mfg. Co., Chicago, Ill., a corporation of Illinois
Application February 15, 1954, Serial No. 410,345
5 Claims. (Cl. 339-17)



1. A contact for direct mounting upon an insulating panel carrying printed circuitry at apertures through the insulation and printed circuit, said contact being of flat, spring strip metal doubled across a transverse line at a tip and having a body portion and lug portion, said tip being on the lug portion, the lug portion being narrower than the body portion to form stopping shoulders at the junction of the lug and body portions, the body portion having the two metal thicknesses in contact, the lug portion having the metal layers spread so that from the edges of the metal, the lug has the general shape of a diamond with the long or major axis of the diamond extending from the tip to the stopping shoulders, the minor axis being substantially shorter than the major axis, the lug portion being symmetrical with respect to the major axis, and, the contact being adapted to be sprung through apertures which will accommodate the lug only when flattened to shorten the minor axis, the shoulders limiting the contact insertion and the panel thickness being small enough so that the lug from the minor axis to tip will be beyond the panel.

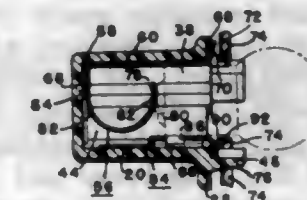
2,825,037
PRINTED-CIRCUIT CARD CLAMP
Harry H. French, Interlaken Estates, N. J.
Application February 4, 1955, Serial No. 486,301
3 Claims. (Cl. 339-17)
(Granted under Title 35, U. S. Code (1952), sec. 266)
1. In combination, first and second printed circuit cards having discrete printed circuits thereon, a pair of

opposing electrically conductive clamping arms for effecting electrical contact between the circuits of said cards and for supporting said cards perpendicular to each other, said clamping arms having a first pair of free ends and a second pair of ends engaged by a toggle joint, each of said arms extending through an opening in said first card, said toggle joint having arms, the ends of which are engaged with respective discrete engaged ends of said clamping arms, said toggle joint having a first operative position and a second inoperative position where-



in when said toggle is in its first operative position the straight line distance between the ends of said toggle arms is greater than when said toggle is in its second inoperative position, and the free ends of said clamping arms are urged into substantial engagement with each other, whereby when said second card is introduced into said opening and against said toggle joint, said joint will be urged into its first operative position and the free ends of said clamping arms will be urged toward each other to engage and hold said second card.

2,825,038
LAMP SOCKET WITH PRINTED CIRCUIT MOUNTING
Robert C. Woofter, Cortland, Ohio, assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
Application November 7, 1956, Serial No. 620,890
13 Claims. (Cl. 339-17)



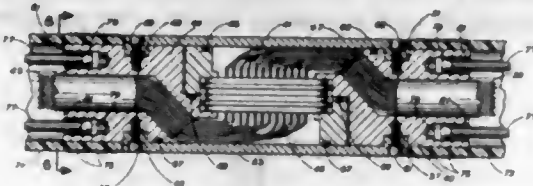
1. In combination, comprising, an insulating panel having a printed circuit conducting material on one side thereof and at least one hole therethrough with slots cut out at peripherally spaced portions of the hole, a wireless electric lamp socket formed of suitable insulating material having a chamber formed therein adapted to receive a base of an electric light bulb, a radially outwardly extending shoulder formed with said socket, said shoulder and chamber having recesses therewith, a pair of terminal strips insertable from one end of said socket into the recesses, a bent-over portion on each of said strips extending between said shoulder and said panel in electrical conducting contact with said printed circuit conducting material to complete an electrical circuit through the electric lamp bulb insertable in said socket, and bayonet fastening lugs extending axially of said socket cooperable with the slots cut out at peripherally spaced portions of the hole in said panel, said lugs locking said socket to said panel as the socket is pushed into place and turned axially.

2,825,039

CONNECTOR FOR DETECTOR CABLE

Glenn A. Schurman, Whittier, and Paul M. Aagaard, Rivera, Calif., assignors to California Research Corporation, San Francisco, Calif., a corporation of Delaware

Application March 24, 1954, Serial No. 418,391
1 Claim. (Cl. 339—92)



A connector means for detachably connecting two sections of a submarine seismic detector cable together electrically and mechanically comprising a first end element secured to and closing an end of one of said sections and extending outwardly therefrom, an axially disposed passageway extending through said end element and communicating with the interior of said cable section, a radially displaced offset of said passageway extending said passageway to the exterior of said end element, a group of electrical conductors disposed through said passageway and said offset and extending from the interior of the cable section to the exterior of said end element, a first plug board connected to the exterior ends of said electrical conductors and having respective separate connections for each of said electrical conductors, a shoulder on said end element to support a surface of said first plug board in an axial plane with respect to said connector means, a second end element similar to the first said end element and secured to and closing an end of another section of said seismic detector cable, a second group of electrical conductors disposed through an axial passageway and offset and extending from the interior of the said other section of said seismic cable to the exterior of said second end element, a second plug board connected to the exterior ends of said second group of electrical conductors and having respective separate connections for each of said electrical conductors, a shoulder on said second end element to support a surface of said second plug board in an axial plane with respect to said connector means and in a position closely adjacent to and in alignment with the said surface of said first plug board, said separate connections on said first plug board and said second plug board comprising complementary separable electrical contact means between the said first plug board and the said second plug board to connect individual electrical conductors of the first said group of electrical conductors to individual conductors of the said second group of electrical conductors, a stress-transmitting cover formed of similar complementary semi-cylindrical half portions detachably connecting together the said first and the said second end elements and enclosing the connected plug boards within a fluid-tight chamber, a first circumferential groove formed in the radially exterior surface of the said first end element, a first integral protrusion extending radially inwardly from the inner surface of said cover adjacent one axial end thereof and engaging said first groove, a second circumferential groove formed in the radially exterior surface of said second end element, a second integral protrusion extending radially inwardly from the inner surface of said cover adjacent the other axial end thereof and engaging said second groove, means to secure said cover portions to said first and said second end elements, and flexible sealing means positioned between said end elements and said cover to exclude water from said electrical conductors and said electrical contact means at said plug board.

2,825,040

ORNAMENTAL ILLUMINATING DEVICE

Robert T. Dorsey, South Euclid, Ohio, assignor to General Electric Company, a corporation of New York
Application March 31, 1955, Serial No. 498,172
1 Claim. (Cl. 339—100)



An ornamental illuminating device comprising a pair of relatively stiff current conductors each consisting of a conductive core wire having a skin-tight sheathing of relatively low yieldability plastic insulating material thereon, said conductors being interlocked with each other to form a self-supporting composite conductor assembly the respective conductors of which terminate approximately abreast of each other at one end of the conductor assembly, the core wire of each of said conductors being tapered at a slight angle, at one side of the wire, for a short distance inwardly from the said end of the conductor assembly, and an incandescent lamp detachably supported directly on the said end of the conductor assembly, said lamp comprising a sealed glass bulb containing a filament and a pair of rigid terminal pins projecting outwardly from the bulb, said terminal pins being inserted and having a force fit between the insulative sheath and the conductive core wire of the respective conductors to electrically connect the lamp to the core wires and support it in place on the said end of the conductor assembly, said terminal pins being withdrawable from between the insulative sheath and core wire of the respective conductors to disconnect the lamp therefrom.

2,825,041

ELECTRIC TERMINAL ASSEMBLY

George H. Meyer, Seattle, Wash., assignor to Boeing Airplane Company, Seattle, Wash., a corporation of Delaware

Application December 10, 1956, Serial No. 627,274
7 Claims. (Cl. 339—198)



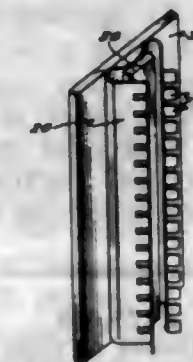
1. An electric terminal assembly comprising a conductive body having a cylindrical recess therein with a threaded longitudinal wall, said wall having at least two longitudinal grooves therein spaced apart around said wall, at least two electric conductor terminal elements each comprising a generally flat contact portion adapted for insertion disposed transversely in said recess to the base thereof, one upon the other, and further comprising an elongated shank portion projecting transversely from

said flat contact portion at an edge location thereon, said shank portion being adapted for connection to an electric conductor and for reception in one of said grooves with the terminal element contact portion so inserted in said recess, and an externally threaded cylindrical plug element adapted to be threaded removably into said recess to press said contact portions against each other and the base of said recess.

2,825,042

SPRING CONTACT FINGERS FOR SHIELD PLATES

Robert D. Tollefson, Cedar Rapids, and Charles E. Ottaway, Robins, Iowa, assignors to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application June 24, 1954, Serial No. 438,892
2 Claims. (Cl. 339—253)



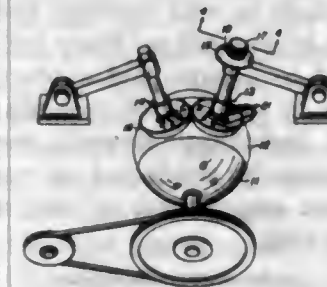
1. An electrical contact and retaining device for shield plates comprising a support plate, a resilient, electrically conductive channel member, each of the sides of said member being formed with a plurality of inwardly directed, opposed fingers, the base of said channel member engaging one side of said support plate and being formed with a re-entrant portion, a movable plate within said channel and adjacent said re-entrant portion, said plate extending substantially the length of said channel, plural spaced screw-threaded fasteners having a headed portion engaging the other side of said support plate and shank portion in threaded engagement with said movable plate, a shield plate positioned transversely of said support plate and between said opposed fingers, whereby flexure of said re-entrant portion by tightening said fasteners against said support plate causes said fingers to grip said shield plate.

2,825,043

MAGNETIC TYPE TIME COMPENSATOR FOR BEAM STEERING

Frank Riley Abbott, San Diego, Calif.
Application April 20, 1954, Serial No. 424,530
18 Claims. (Cl. 340—16)

(Granted under Title 35, U. S. Code (1952), sec. 266)



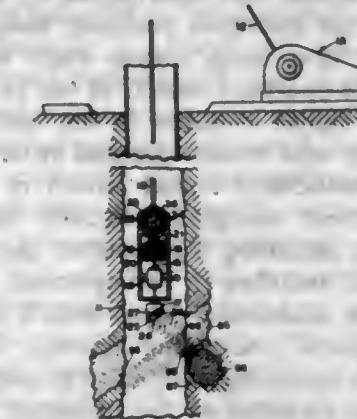
1. Apparatus of the type described comprising in combination compensating means for a plurality of energy detecting devices in spaced relationship to compensate for the time delay between the time the energy signal reaches the closest detector to the energy source and the time the same signal reaches the other detectors, and means to determine when the time delay has been correctly adjusted, said compensating means comprising recording cartridges mounted in a rotatable assembly, reproducing cartridges

2,825,044

METHOD OF AND APPARATUS FOR INVESTIGATING SUBTERRANEAN STRATA

Glen Peterson, Tulsa, Okla.
Application August 2, 1949, Serial No. 108,179
27 Claims. (Cl. 340—18)

(Granted under Title 35, U. S. Code (1952), sec. 266)

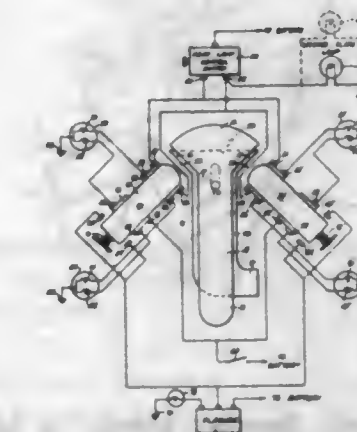


1. The method of investigating subterranean formations adjoining a bore hole which comprises transmitting from a fixed position and at a known azimuth angle a pulsed beam of ultrasonic radiation through said bore hole in an inclined path against said adjoining formations, detecting at a fixed position and substantially from said known azimuth angle ultrasonic radiation reflected and scattered from said adjoining formations, the path length of said radiation varying with the depth of said formation from which it is reflected, relative to said positions of transmission and detection, and measuring the time interval between the transmission of said pulse and the detection of the individual reflected radiations, thereby to determine the profile of said formations.

2,825,045

SIGNALLING DEVICES

Jesse R. Hollins, Brooklyn, N. Y.
Application April 30, 1953, Serial No. 352,161
2 Claims. (Cl. 340—81)

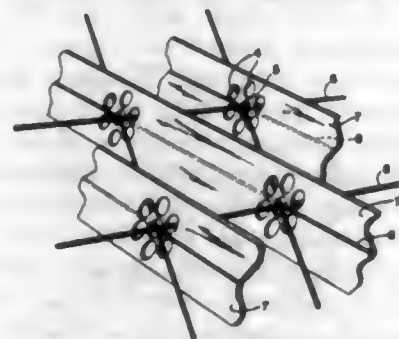


1. In a vehicle lamp arrangement including parking lamp means and signal lamp means mounted on either side of the front of the vehicle, tail lamp means and stop lamp means mounted on either side of the rear of the vehicle, license plate lamp means mounted on the rear of the vehicle, a source of electrical energy, a headlamp control switch having an input tap, a parking lamp

tap, and a tail lamp tap and selectively operable, in one position, to connect said parking and tail lamp taps to said input tap and, in a second position, to connect said headlamp and tail lamp taps to said input tap, a flasher connected to said source, and a brake pedal operated switch connected to said source; a pair of turn signal switches each movable between a normal position and an operated position; means biasing said signal switches to the normal position; steady energizing circuits for said parking lamp means each including said source, the input and parking lamp taps of said control switch, and one of said signal switches in the normal position, and interrupted by the associated signal switch in the operated position; steady energizing circuits for said tail lamp means each including said source, the input and tail lamp taps of said control switch, and one of said signal switches in the normal position, and interrupted by the associated signal switch in the operated position; steady energizing circuits for said stop lamp means each including said source, said brake-operated switch in the closed position, and one of said signal switches in the normal position, and interrupted by said brake-operated switch in the open position or the associated signal switch in the operated position; intermittent energizing circuits for said signal lamp means each including said source, said flasher, and one of said signal switches in the operated position, and interrupted by the associated signal switch in the normal position; intermittent energizing circuits for said stop lamp means each including said source, said flasher, and one of said signal switches in the operated position, and interrupted by the associated signal switch in the normal position; a steady energizing circuit for said license plate lamp means including said source, the input and tail lamp taps of said control switch, and conductor means directly connecting said tail lamp tap to said license plate lamp means; and an operator associated with said signal switches and selectively operable to move either signal switch to the operated position.

2,825,046 PRODUCTION OF MAGNETIC MATERIAL FOR USE IN COMPUTERS OR MAGNETIC MEMORY SYSTEMS

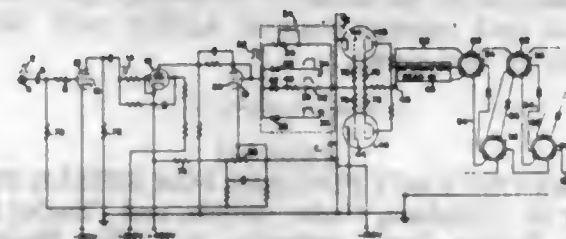
John M. Herbert, Horton, and Anthony W. Simpson, Radcliffe-on-Trent, England, assignors to The Plessey Company Limited, Ilford, England, a British company
Application June 22, 1955, Serial No. 517,223
3 Claims. (Cl. 340-174)



1. In a magnetic memory system, a panel member comprising a sheet of ferromagnetic material, said sheet including at least two clusters of holes, each of said clusters of holes comprising a central hole and an array of equally spaced holes surrounding the central hole, said array of equally spaced holes being closely spaced to each other whereby the central hole serves as the opening in a core defined by the ferromagnetic material between the central hole and the array of holes.

2,825,047 MAGNETIC CORE CURRENT DRIVER

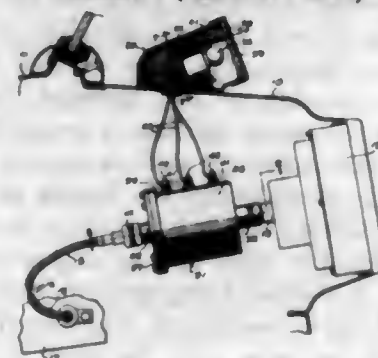
John Paul Jones, Pottstown, Pa., assignor to Burroughs Corporation, Detroit, Mich., a corporation of Michigan
Application November 1, 1955, Serial No. 544,190
6 Claims. (Cl. 340-174)



3. In a magnetic shift register including an array of bistable magnetic cores, means for reading "ones" into said bistable cores, a common shift winding coupled to said cores, and means for applying shift current pulses to said common shift winding so as to return said cores to their respective "zero" states comprising plural circuit means for modifying either or both leading and trailing edges of said rectangular pulses, and a switch coupled to the output of said plurality circuit means for coupling any of the pulse modifying circuits to said shift winding.

2,825,048 SAFETY SPEED-INDICATING DEVICE FOR MOTOR VEHICLES

Floyd R. Jaynes, Fairgrove, Mich.
Application February 10, 1956, Serial No. 564,761
6 Claims. (Cl. 340-264)



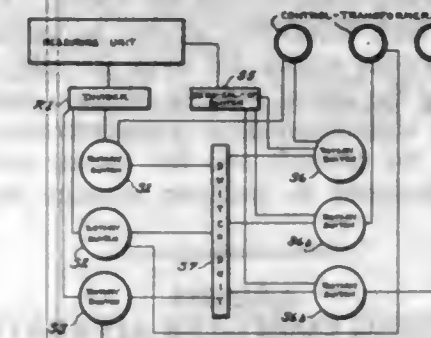
1. A safety speed indicator for motor vehicles having a speedometer and a flexible drive cable detachably connected to a rotary part of said speedometer, said speed indicator comprising a housing having a cylindrical wall, a shaft mounted in said housing for rotary movement, connection means at opposite ends of the shaft and adapted to be connected to the rotary part of said speedometer and to said flexible drive cable by interposing said shaft between said rotary part and said flexible drive cable, a stationary electric contact ring fixed to the inner side of the cylindrical wall of said housing and insulated therefrom, a spring-retained movable contact carried by said shaft in said housing and adapted to be moved outwardly by centrifugal force and against tension of the spring and to engage said contact ring at a predetermined speed of rotation of said shaft, and an electrically operated indicating element mounted on said vehicle and electrically connected to said contact ring for operation upon engagement of said movable contact with said contact ring.

2,825,049 ACCURACY MEASURING DEVICE

Roscoe H. Canaday and William C. Klein, Rochester, N. Y., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Air Force
Application January 31, 1956, Serial No. 562,619
6 Claims. (Cl. 340-268)

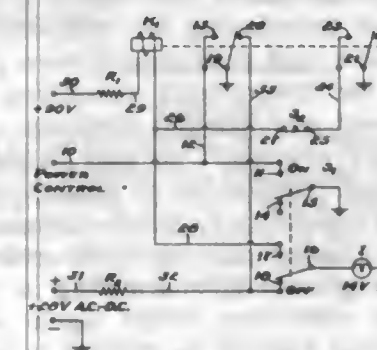
1. An accuracy measuring device for determining deviation of a shaft from a predetermined position comprising

ing a synchro control transformer having a rotor adapted for connection to said shaft, a source of alternating current for said synchro control transformer, a phase discriminator connected to receive signals from said synchro control transformer, such signals being caused by voltages induced in said synchro control transformer upon deviations of said shaft from said predetermined position, means for measuring the instantaneous voltage



2,825,050 SAFETY INTERLOCK CIRCUIT

David R. Hausten, Wheaton, Ill., assignor to Collins Radio Company, Cedar Rapids, Iowa, a corporation of Iowa
Application February 8, 1955, Serial No. 486,952
5 Claims. (Cl. 340-282)

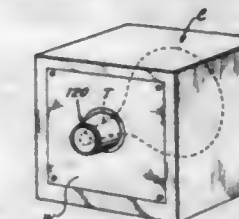


1. A safety interlock circuit comprising, a first control switch which is double-pole, double-throw, a second control switch which is single-throw, single-pole, a power control line connected to a first contact on the first control switch, a first movable contact on the first switch connected to ground and movable between first and second stationary contacts, said second contact open-circuited, a relay with one side connected to a power supply, the other side of the relay connected to the third stationary contact of the first switch, an indicator connected in series to ground with the second movable contact of the first control switch, said second movable contact movable between the third and fourth stationary contacts of the first switch, a second voltage source connected between ground and the fourth stationary contact of the first switch, a pair of relay switches actuated by said relay and with their movable contacts connected to ground, a first stationary contact of the first relay switch connected to a first stationary contact of the first control switch, the second stationary contact of the first relay switch connected to the fourth stationary contact of the first control switch, the first stationary contact of the second relay switch connected to one side of the second control switch, the other side of the second control switch connected to the relay.

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2,825,051 TELEVISION TUBE SHIELD

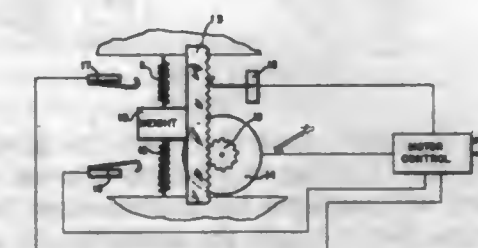
John B. Seever, Chicago, Ill., assignor to Cortland Industries, Inc., Chicago, Ill., a corporation of Illinois
Application April 29, 1954, Serial No. 426,524
4 Claims. (Cl. 340-367)



1. A shield adapted to be mounted on one wall of a cabinet for housing a cathode ray tube having the end thereof projected beyond said wall comprising, a hollow housing closed at one end and open at the other, an annular rim formed about the peripheral edge of said housing at the open end with the forwardmost portion thereof disposed in a plane substantially normal to the longitudinal central axis of said housing so as to engage flush against one side of said wall, a plurality of segmental ears formed integrally with said rim at the open end of said housing so as to be spaced opposite said rim to provide with said forwardmost portion of said rim a plurality of radial outwardly opening spaced apart circumferential recesses about the open end of said shield in which portions of said wall may be disposed to mount the shield on said wall against axial displacement, and axially directed projections disposed normal to the planes of said ears and provided on said shield in spaced circumferential relation about said rim and adapted to engage abutments on said cabinet wall to limit rotative displacement of said shield relative to said cabinet wall.

2,825,052 MECHANICALLY RESONANT SECTOR SCANNER

David B. Nicholson, Elmhurst, N. Y., and Willoughby M. Cady, Pasadena, Calif., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 20, 1946, Serial No. 678,030
7 Claims. (Cl. 340-765)



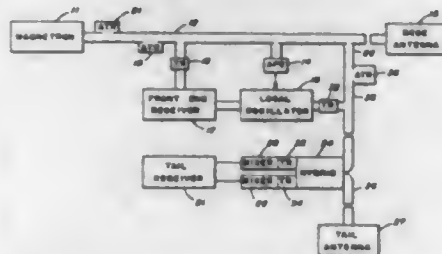
4. A mechanically resonant rapid scanning system for use with an antenna assembly having an antenna, a reflector and supporting structure comprising, in combination, spring means connected to said antenna assembly and permitting said assembly to oscillate about a neutral position, the resonant frequency of said spring means determining the frequency of oscillation of said assembly, motor means coupled to said assembly for supplying additional oscillatory energy thereto so as to compensate for the damping effects acting on said assembly, and means for rendering said motor means operative during a portion of each half cycle of oscillation whereby said antenna assembly is maintained oscillating at a predetermined constant amplitude.

2,825,053

RADAR SYSTEM

Edward R. Mittelman and Myron S. Wheeler, Baltimore, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy

Application June 14, 1956, Serial No. 591,508
7 Claims. (Cl. 343-5)

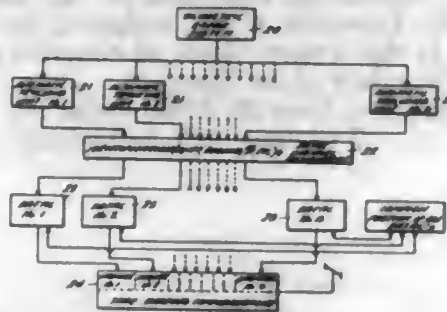


7. An auxiliary radar system for use in conjunction with a main radar system having a magnetron and a local oscillator, said auxiliary radar system comprising: first means for conducting high frequency signals, power divider means for coupling a predetermined portion of the signal generated by said magnetron into said first means, second means for conducting high frequency signals, a radar antenna coupled to said second means, third means for coupling the local oscillator signal from said local oscillator into said first means and for preventing any of this local oscillator signal from entering said main radar system, a radar receiver, and fourth means for coupling the high frequency signal from said first means into said second means and for conducting the local oscillator signal in said first means and the received signal from said antenna from said second means in balanced form to said radar receiver.

2,825,054

DYNAMIC AUTOMATIC TRAFFIC ANALYZER CONTROLLER

Martin L. Ernst, Washington, D. C.
Application September 15, 1953, Serial No. 380,382
18 Claims. (Cl. 343-6)
(Granted under Title 35, U. S. Code (1952), sec. 266)



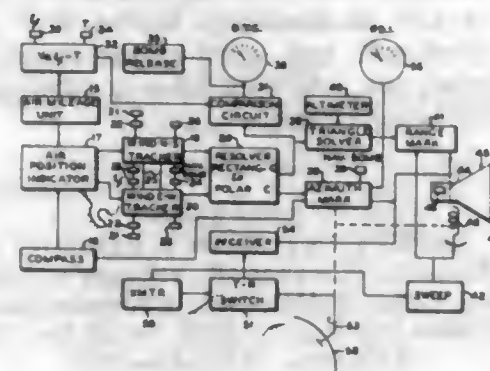
1. In an air traffic control system for governing the flight of aircraft desiring to land on a given runway in which means are provided for continuously determining for each controlled aircraft the azimuth (θ) of the aircraft from a predetermined turn-on point on the extended axis of said runway, the range from said turn-on point and the altitude, and in which means are provided for transmitting flight instruction to said aircraft, computing means for converting said azimuth, range and altitude data into said flight instructions, said computing means comprising: means for determining from the azimuth, range and altitude of each aircraft brought under control proper flight instructions for placing the aircraft inside a predefined volume consisting of all suitable approach start points; means operative when a controlled aircraft is in said volume for continuously computing from the range and azimuth of the aircraft the angle ($\pm\delta$) between the bearing from the aircraft to the turn-on point and the direct flight pattern to the turn-on point, said direct pattern being a straight line tangentially joining a final turn arc of preestablished radius; means for determining for

each aircraft the direct pattern flight time (t_d) based on a constant aircraft speed; scheduling means for establishing a plurality of discrete times-of-arrival at said turn-on point and for continuously indicating the time-to-go (t_g) until each time of arrival; means operative when a controlled aircraft is in said volume for selecting therefor the shortest available t_g greater than t_d ; means for deriving for each controlled aircraft an offset angle ($\pm\beta$) proportional to the ratio t_d/t_g ; means for adding ($\theta \pm 180^\circ$) to ($\pm\delta \pm \beta$) for each controlled aircraft to produce the desired instantaneous course for each aircraft; and means for comparing the actual altitude of each controlled aircraft with an altitude equal to a predetermined multiple of the t_g for the aircraft and for issuing altitude flight instructions designed to maintain equality between said altitudes.

2,825,055

BOMBING COMPUTER APPARATUS

Britton Chance, Cambridge, Mass., assignor, by mesne assignments, to the United States of America as represented by the Secretary of War
Application June 7, 1945, Serial No. 598,165
14 Claims. (Cl. 343-7)



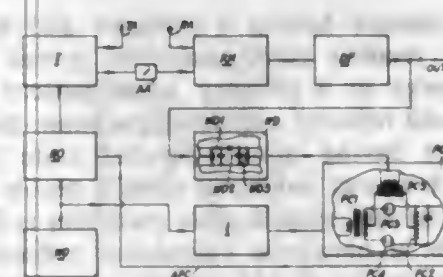
2. An aircraft navigation and bombing system comprising means for determining the components of range and direction from said craft to a chosen point on the ground, means for continuously measuring the components of air speed and heading direction of the craft, means operatively responsive to said measuring means for converting said components to produce in two channels signals corresponding to vector components of air speed in two rectangularly coordinate reference directions, means for generating and adding in each of said channels a rate correction vector signal simulating a component of wind velocity to provide in said channels resultant signal vector components of ground speed in said coordinate directions, means for integrating in each of said channels said vector components of ground speed continuously to provide ground range vectors corresponding to the components of travel of the craft in said coordinate directions, means for setting in each of said channels initial magnitudes of said ground range vectors to correspond to the location in said coordinate directions of said craft relative to said point, means for resolving said ground range vectors from both of said channels to polar components of calculated ground range and direction to said point, means for comparing said calculated and said determined range components and direction components, and means for adjusting in each of said channels said rate correction generating means and said ground range setting means to effect in said comparing means a continuing agreement of said calculated and said measured range and direction components, said means for determining range and direction components comprising a pulse type radar for determining slant range and azimuth of objects on the ground and having a map type of display scope to serve as said comparing means; the system further comprising means for converting said calculated ground range component signal to slant range marker pulses synchronously re-

current at the radar pulsing rate, means for converting said calculated direction component signal to an azimuth marker pulse and means for applying said pulses to said display scope to simulate cross-hair indices.

2,825,056

RADAR SYSTEMS

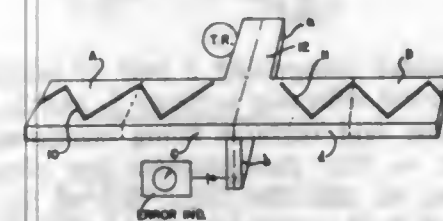
Noel Meyer Rust, Worthing, England, assignor to Marconi's Wireless Telegraph Company Limited, London, England, a British company
Application April 12, 1954, Serial No. 422,609
Claims priority, application Great Britain April 16, 1953
6 Claims. (Cl. 343-14)



1. A radar system comprising a transmitter, a ranging oscillator connected thereto to modulate the frequency thereof, a source of wobble oscillations, said source being connected to the ranging oscillator to wobble the oscillations thereof, an echo signal receiver, a mixer for mixing received signals with signals derived direct from the transmitter, means for extracting from the resultant of such mixing a component of the wobble frequency, means for comparing the extracted component with a reference frequency taken from said source to produce an error signal, and means for utilizing said error signal to control the mean frequency of the ranging oscillator to maintain said oscillator ranged upon the target from which the echo signals are reflected.

2,825,057

SIMULTANEOUS LOBE MATCHING DEVICE
Harvey R. Worthington, Jr., Pittsburgh, Pa., assignor, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application June 18, 1946, Serial No. 677,446
6 Claims. (Cl. 343-16)

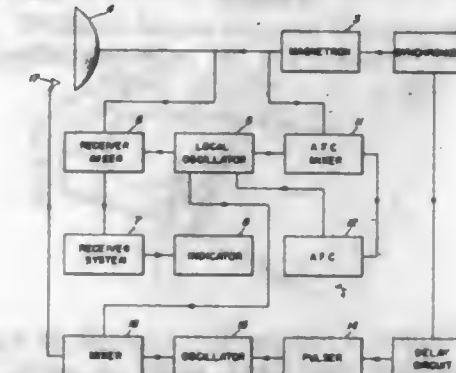


1. In an electrical system including a transmit-receive unit, a combined directional radiating system and direction indicator comprising, a magic tee having four arms, the construction of said magic tee being such that a signal applied to a first arm appears at second and third arms in equal amplitudes and in phase, and such that a signal equal to the vector difference of signals applied simultaneously to said second and third arms appears at said fourth arm and a signal equal to the vector sum of said two simultaneously applied signals appears at said first arm, said transmit-receive unit being coupled to said first arm, first and second antenna arrays coupled to said second and third arms, respectively, and signal detecting means coupled to said fourth arm, said signal detecting means providing an output indicative of the amplitude of the signal in said fourth arm.

2,825,058

TARGET SIMULATOR FOR RADAR SYSTEM CHECKING

Earl H. Rix, Harmon, and Leon W. Rustad, Linthicum, Md., assignors, by mesne assignments, to the United States of America as represented by the Secretary of the Navy
Application February 4, 1955, Serial No. 486,298
5 Claims. (Cl. 343-17.7)

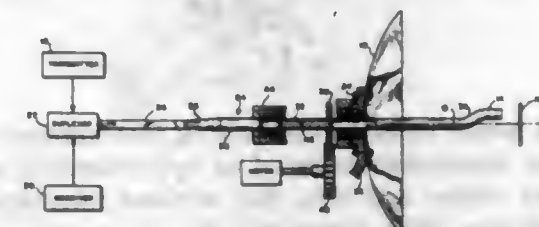


1. A target simulator for checking a radar system, said radar system having a synchronizer, local oscillator and antenna, the simulator comprising: pulse means connected to be triggered by the synchronizer for producing a delayed pulse of frequency equal to the radar system intermediate frequency, mixer means connected to receive a continuous wave signal from the local oscillator and a delayed pulse from said pulse means for producing a mixed pulse, and a horn positioned to radiate the mixed pulse into the system antenna as a delayed target.

2,825,059

CONICAL SCANNING SYSTEM

Leonard Hatkin, Elberon, N. J., assignor to the United States of America as represented by the Secretary of the Army
Application October 4, 1954, Serial No. 460,285
8 Claims. (Cl. 343-756)
(Granted under Title 35, U. S. Code (1952), sec. 266)



5. A conical scanning antenna structure comprising a parabolic reflector having a prescribed axis and adapted to provide a narrow pencil beam of directional radiation characteristic, a circular waveguide feed axially aligned with said axis, the output end of said waveguide being terminated at the focus of said reflector and offset with respect to said axis, means for supplying to the input end of said circular waveguide radio-frequency energy which is plane polarized, means for axially rotating said circular waveguide at a prescribed rate whereby said characteristic described a conical scan, and means included in said waveguide and simultaneously rotatable therewith at said prescribed rate whereby the polarization at said output end rotates at twice the prescribed rate.

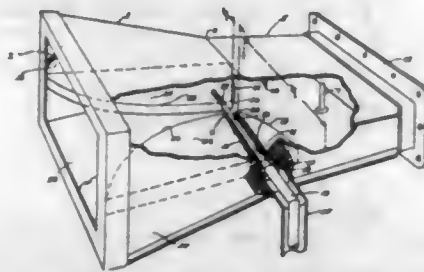
2,825,060

DUAL-POLARIZATION ANTENNA

John Ruze, Boston, Mass., assignor to The Gabriel Company, Cleveland, Ohio, a corporation of Ohio
Application October 18, 1954, Serial No. 462,826
13 Claims. (Cl. 343-756)

1. A wave guide having, in combination, means for launching or receiving radio waves of a predetermined frequency and a predetermined direction of electric-vector

polarization, a pair of substantially planar conducting ridges disposed within the wave guide displaced from the first-named means and each extending inward of the wave guide in substantially the same plane substantially perpendicular to the said predetermined direction, the inner edges of the ridges being separated along the complete length thereof and shaped to provide a successively increasing separation therebetween from a first region where the separation between opposite walls of the wave guide



adjacent the ridges is too small to permit of wave-guided propagation within the wave guide of radio waves of electric-vector polarization substantially perpendicular to the said predetermined direction to a second region thereof where the separation is sufficient to permit of such wave-guided propagation within the wave guide, and means comprising a two-conductor transmission line having one conductor connected to one ridge and the other conductor extending between the ridges near the said first region and terminating upon the other ridge.

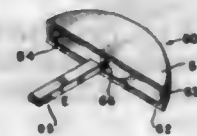
2,825,061 WAVE RADIATOR

Howard J. Rowland, Brookline, Mass., assignor, by mesne assignments, to The Gabriel Company, Cleveland, Ohio, a corporation of Ohio
Application November 21, 1951, Serial No. 257,547
26 Claims. (Cl. 343-770)



1. A wave radiator comprising two antenna-loop sections of conductive material of approximately equal rectangular shape and size, the sections intersecting along their shorter sides symmetrically at approximately right angles, and a transmission line having two conductor elements, a branch of said feed line leading to approximately opposite regions of respective longer sides of one section, and a second branch of said line leading in parallel to opposite regions of respective longer sides of the other section, and phase-shift-producing means connected with said branches for defining with said sections a phase shift of approximately 90 degrees between the waves on the respective sections.

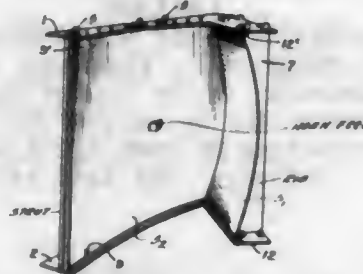
2,825,062
ANTENNA
Lan Jen Chu, Brookline, and Chia-Shan Pao, Cambridge, Mass., assignors, by mesne assignments, to the United States of America as represented by the Secretary of War
Original application July 9, 1945, Serial No. 604,022. Divided and this application April 17, 1953, Serial No. 349,450
3 Claims. (Cl. 343-780)



1. An antenna having a reflector and a wave guide means for feeding electromagnetic waves of high frequency energy in a primary beam pattern toward said reflector, said reflector comprising a beam-shaping reflecting element having spaced parallel plate members between which energy having its electric vector oriented perpendicular to said spaced plate members is fed from said wave guide, a parabolic cylindrical reflecting strip enclosing one portion of said element whereby said energy is reflected from said element along a path between said parallel plates through an unenclosed portion of said element to produce said primary beam, and a metallic pin conductively connected to said parallel plates and located in the path of energy fed by said wave guide into said beam-reflecting element, said pin being spaced a predetermined distance from said wave guide to modify the shape of said primary beam.

2,825,063 DOUBLE PARABOLIC CYLINDER PENCIL BEAM ANTENNA

Roy C. Spencer, Arlington, Mass.
Application November 20, 1953, Serial No. 393,527
6 Claims. (Cl. 343-837)
(Granted under Title 35, U. S. Code (1952), sec. 266)

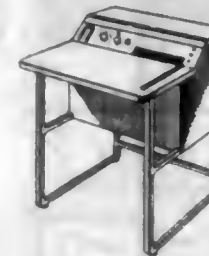


3. A radiator comprising a pair of intersecting parabolic cylindrical reflecting surfaces S_1 and S_2 having equal focal lengths; said surfaces being positioned relative to each other so that their straight-line elements are at right angles, so that the focal line of S_1 intersects S_2 at a point F, and so that the focal line of S_2 coincides with the image of the point F in S_1 ; and a point source of radiant energy located at F and directed toward S_1 .

DESIGNS

FEBRUARY 25, 1958

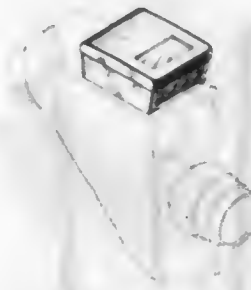
182,153
MICROFILM CAMERA
Harold Adler, Lincoln, Mass.
Application May 15, 1957, Serial No. 46,177
Term of patent 14 years
(Cl. D61-1)



182,154
BABY'S EXERCISER
Robert Y. Allen and Melvin Shaw, Los Angeles, Calif., assignors to Hoover Products, Inc., Youngstown, Ohio, a corporation of Ohio
Application April 29, 1957, Serial No. 45,936
Term of patent 3½ years
(Cl. D34-15)



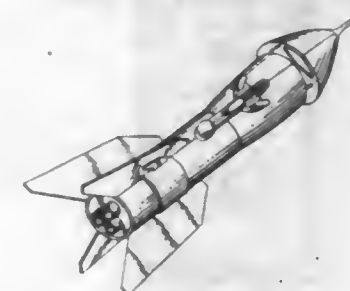
182,155
EXPOSURE METER
Walter A. Baldwin, Lynn, and Roger B. Kerr, Marblehead, Mass., assignors to General Electric Company, a corporation of New York
Application December 7, 1956, Serial No. 44,111
Term of patent 14 years
(Cl. D61-1)



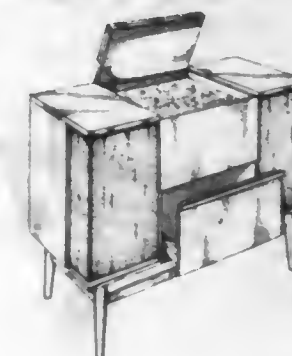
182,156
EASEL
William James Borgen, Waukegan, Ill.
Application May 10, 1957, Serial No. 46,098
Term of patent 14 years
(Cl. D29-20)



182,157
ACTION TOY SAVINGS BANK
Steven Berzack, Hazel Park, and John Berzac, St. Clair Shores, Mich.
Application May 1, 1957, Serial No. 45,961
Term of patent 14 years
(Cl. D34-11)



182,158
PHONOGRAPH AND LOUDSPEAKER CABINET
Melvin H. Best, Pasadena, Robert K. Fujloka, Los Angeles, and William J. Ward, Monterey Park, Calif., assignors to Ampex Corporation, Redwood City, Calif., a corporation of California
Application November 28, 1956, Serial No. 43,978
Term of patent 14 years
(Cl. D56-4)



182,159

HAND EXERCISER

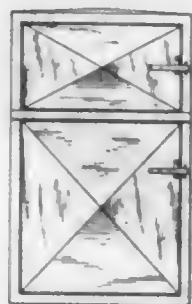
Henry A. Blake, West Newton, Mass., assignor to Blake Industries, Inc., a corporation of Massachusetts
Application March 13, 1957, Serial No. 45,241
Term of patent 14 years
(Cl. D83—1)



182,160

COMBINED GARBAGE CAN CABINET AND UTILITY RECEPTACLE

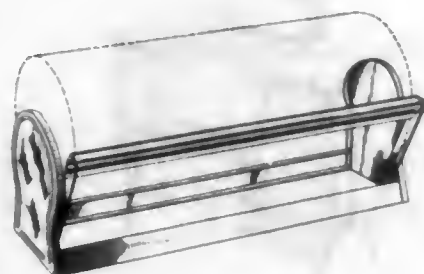
Abraham N. Block, Miami, Fla., assignor to Everglades Industries, Inc., Miami, Fla., a corporation of Florida
Application April 24, 1957, Serial No. 45,877
Term of patent 14 years
(Cl. D33—19)



182,161

ROLL PAPER HOLDER

Elvah O. Bulman, Grand Rapids, Mich., assignor to The E. O. Bulman Manufacturing Company, Inc., Grand Rapids, Mich., a corporation of Michigan
Application February 13, 1956, Serial No. 40,120
Term of patent 7 years
(Cl. D4—3)



182,162

WRITING INSTRUMENT OR SIMILAR ARTICLE

Joseph Carreiro, Levittown, Pa., assignor to The Esterbrook Pen Company, Camden, N. J., a corporation of New Jersey
Application October 3, 1956, Serial No. 43,209
Term of patent 14 years
(Cl. D74—17)



182,163

CAP FOR A FOUNTAIN PEN OR SIMILAR ARTICLE

Joseph Carreiro, Levittown, Pa., assignor to The Esterbrook Pen Company, Camden, N. J., a corporation of New Jersey
Application October 3, 1956, Serial No. 43,210
Term of patent 14 years
(Cl. D74—1)



182,164

CLIP FOR A FOUNTAIN PEN OR SIMILAR ARTICLE

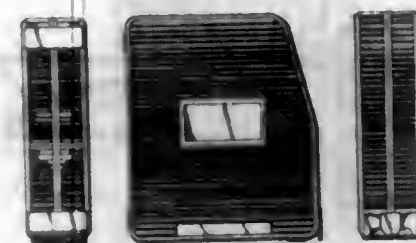
Joseph Carreiro, Levittown, Pa., assignor to The Esterbrook Pen Company, Camden, N. J., a corporation of New Jersey
Application October 3, 1956, Serial No. 43,213
Term of patent 14 years
(Cl. D74—1)



182,165

COMBINED LEVEL AND MEASURING TAPE CASE

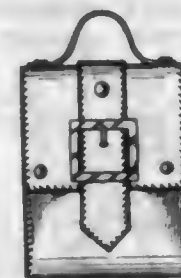
Joseph Caruso, Jersey City, N. J., assignor to Keuffel & Esser Company, Hoboken, N. J., a corporation of New Jersey
Application August 30, 1956, Serial No. 42,792
Term of patent 14 years
(Cl. D52—1)



182,166

BILLFOLD

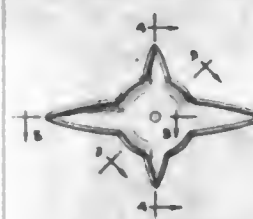
Herbert S. Chase, Woodmere, N. Y., assignor to Bernard Cahn Co., Inc., New York, N. Y.
Application June 24, 1957, Serial No. 46,715
Term of patent 7 years
(Cl. D87—3)



182,167

ESCUTCHEON PLATE

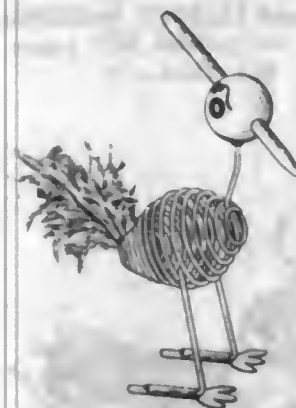
La Verne E. Clayton, Rockford, Ill., assignor to Amerock Corporation, Rockford, Ill., a corporation of Illinois
Application March 20, 1957, Serial No. 45,359
Term of patent 14 years
(Cl. D50—6)



182,168

NOVELTY DESK SET

Harry Dearling, New York, and Edward Malan, Brooklyn, N. Y., assignors to Rubicon Inc., New York, N. Y., a corporation of New York
Application June 20, 1957, Serial No. 46,670
Term of patent 7 years
(Cl. D74—1)



182,169

DECANTER

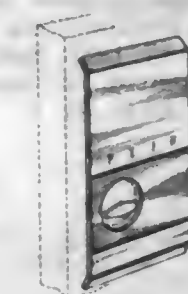
Ernest L. Du Pree, Weston, Conn., assignor to Schenley Industries, Inc., New York, N. Y., a corporation of Delaware
Application December 5, 1956, Serial No. 44,071
Term of patent 14 years
(Cl. D58—8)



182,170

PUSH HANDLE

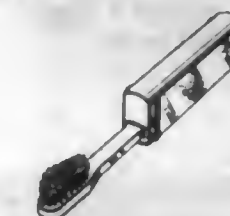
Robert R. Fink, Niles, Mich., assignor, by mesne assignments, to Kawneer Company, Niles, Mich., a corporation of Delaware
Application December 20, 1954, Serial No. 33,621
Term of patent 3½ years
(Cl. D10—8)



182,171

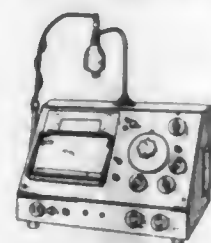
COMBINATION TOOTH BRUSH AND CASING

Harold Fredrickson, Minneapolis, Minn., assignor to Lactona, Inc., Ramsey County, Minn., a corporation of Minnesota
Application April 19, 1956, Serial No. 41,132
Term of patent 14 years
(Cl. D9—2)

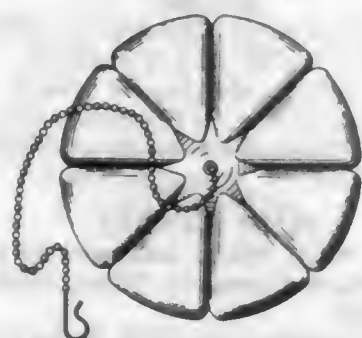


182,172
SHUTTER FLASH SYNCHRONIZING APPARATUS
FOR PHOTOGRAPHIC EQUIPMENT OR SIMILAR
ARTICLE

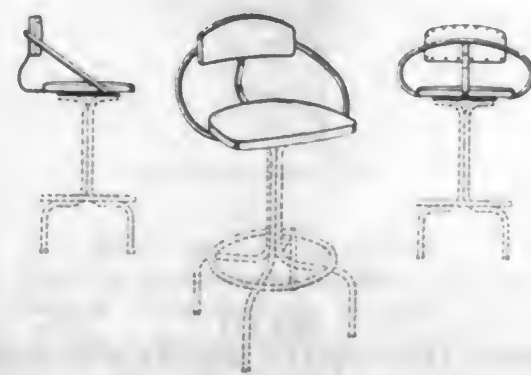
Ralph T. Gardner, Denver, Colo.
 Application February 11, 1957, Serial No. 44,840
 Term of patent 14 years
 (Cl. D61-1)



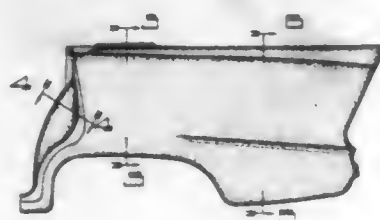
182,173
STOCKING HANGER
 Donald F. Garland, St. Paul, Minn., assignor to Cosom Industries, Inc., Hennepin, Minn., a corporation of Minnesota
 Application February 18, 1957, Serial No. 44,903
 Term of patent 14 years
 (Cl. D33-8)



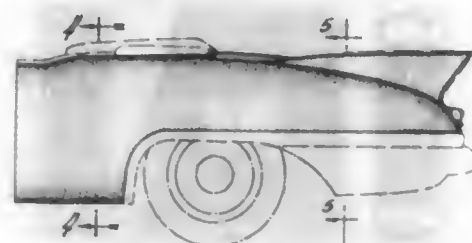
182,174
STOOL
 Mac Gelman, Chicago, Ill., assignor to Comfort Lines, Inc., Chicago, Ill., a corporation of Illinois
 Application December 17, 1956, Serial No. 44,213
 Term of patent 14 years
 (Cl. D15-8)



182,175
AUTOMOBILE FENDER
 Charles F. Gitschlag, Jr., St. Clair Shores, Mich., assignor to Chrysler Corporation, Highland Park, Mich., a corporation of Delaware
 Application June 11, 1956, Serial No. 41,856
 Term of patent 7 years
 (Cl. D14-6)



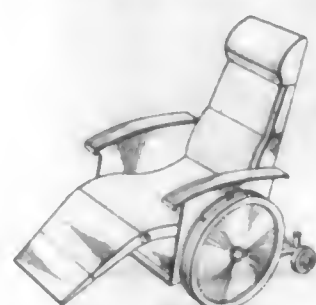
182,176
FENDER FOR AN AUTOMOBILE
 Edward E. Glowacke, Birmingham, Mich., assignor to General Motors Corporation, Detroit, Mich., a corporation of Delaware
 Application June 6, 1957, Serial No. 46,509
 Term of patent 7 years
 (Cl. D14-6)



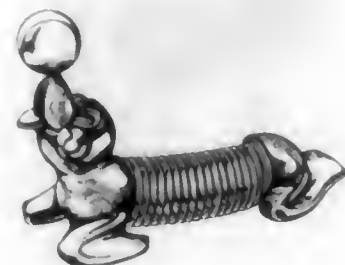
182,177
DECK CHAIR OR SIMILAR ARTICLE
 Sanford S. Golden, West Los Angeles, Calif.
 Application July 5, 1957, Serial No. 46,836
 Term of patent 14 years
 (Cl. D15-11)



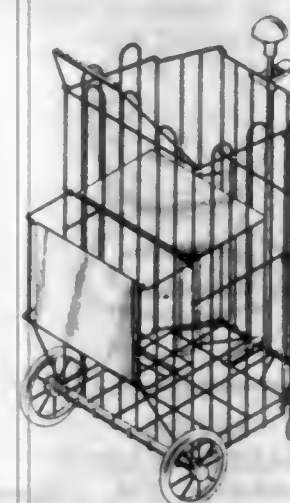
182,178
WHEEL CHAIR
 Sanford S. Golden, West Los Angeles, Calif.
 Application July 5, 1957, Serial No. 46,840
 Term of patent 14 years
 (Cl. D15-11)



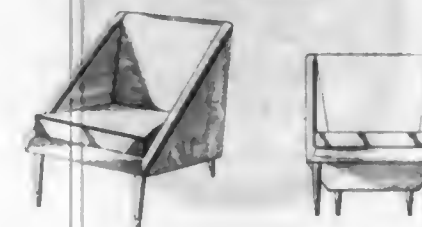
182,179
TOY SEAL
 Iva E. Graupensperger, Altoona, Pa., assignor to James Industries, Inc., Philadelphia, Pa., a corporation of Pennsylvania
 Application June 11, 1957, Serial No. 46,553
 Term of patent 3 1/2 years
 (Cl. D34-2)



182,180
SHOPPING CART
 Wolfe Grebow, Baltimore, Md.
 Application February 13, 1957, Serial No. 44,858
 Term of patent 14 years
 (Cl. D14-3)



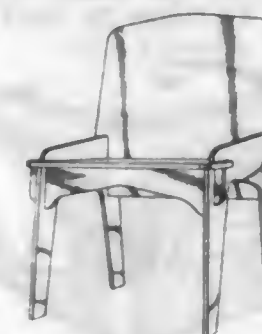
182,181
CHAIR
 Joseph D. Haas, Memphis, Tenn., assignor to Southern Woodworking Company, Memphis, Tenn., a corporation of Tennessee
 Application June 10, 1957, Serial No. 46,529
 Term of patent 7 years
 (Cl. D15-1)



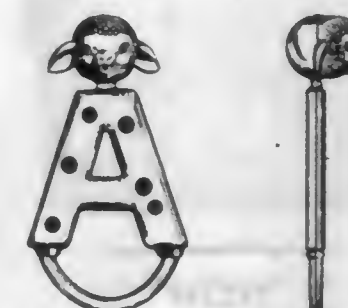
182,182
COLLAPSIBLE ROCKING CHAIR
 George C. Herschell, Portland, Oreg.
 Application December 10, 1956, Serial No. 44,141
 Term of patent 14 years
 (Cl. D15-6)



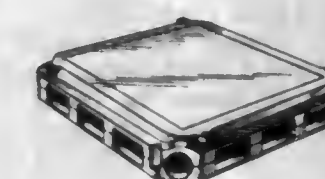
182,183
COLLAPSIBLE CHAIR
 George C. Herschell, Portland, Oreg.
 Application December 10, 1956, Serial No. 44,142
 Term of patent 14 years
 (Cl. D15-1)



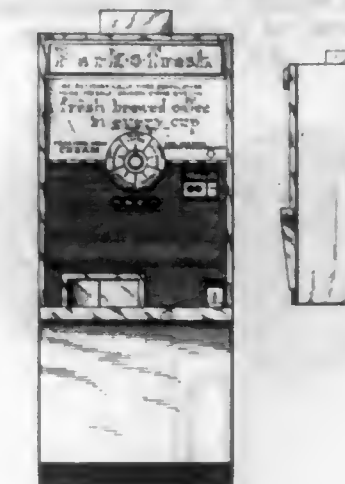
182,184
BABY'S RATTLE
 Frank M. Hoover, Youngstown, Ohio, assignor to Hoover Products, Inc., Youngstown, Ohio, a corporation of Ohio
 Application May 20, 1957, Serial No. 46,226
 Term of patent 3 1/2 years
 (Cl. D34-15)



182,185
ELECTRICAL JUNCTION BOX
 James Wesley Hudson, Elmhurst, Ill., assignor, by mesne assignments, to The National Supply Company, a corporation of Pennsylvania
 Application September 27, 1955, Serial No. 38,113
 Term of patent 14 years
 (Cl. D26-1)



182,186
COMBINATION BEVERAGE PREPARING AND DISPENSING MACHINE
 Leon Hyzen, Chicago, Ill., assignor to United Coffee Corp., a corporation of Illinois
 Application May 9, 1957, Serial No. 46,077
 Term of patent 14 years
 (Cl. D52-3)



182,187

MATERNITY DRESS TOPWilliam F. Johnston, Pasadena, and Phyllis C. Perron,
North Hollywood, Calif.

Application January 14, 1957, Serial No. 44,498

Term of patent 3½ years
(Cl. D3—25)

182,191

COMBINED MIRROR AND LIPSTICK HOLDER

Benita E. McCormick, Chicago, Ill.

Application March 7, 1957, Serial No. 45,138

Term of patent 3½ years
(Cl. D86—10)

182,188

COMBINED PICTURE FRAME AND MIRROR

Lloyd S. Kyle, Sr., Vermillion, Ohio

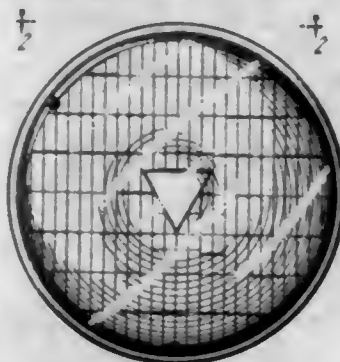
Application August 10, 1955, Serial No. 37,406

Term of patent 14 years
(Cl. D29—20)

182,192

HEADLAMP LENSHoward C. Mead, Anderson, Ind., assignor to General
Motors Corporation, Detroit, Mich., a corporation of
Delaware

Application August 29, 1955, Serial No. 37,690

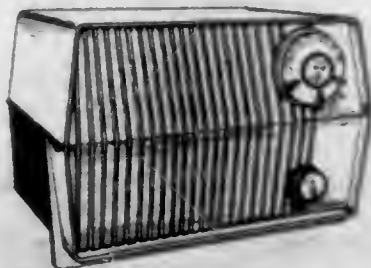
Term of patent 14 years
(Cl. D48—32)

182,189

RADIO CABINET

John W. Mason, Glenview, Ill.

Application April 5, 1957, Serial No. 45,605

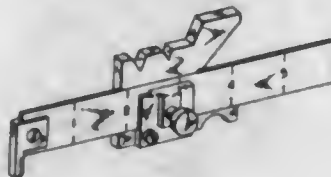
Term of patent 14 years
(Cl. D56—4)

182,193

**COMBINATION RULE, SLIDING CALIPER, AND
MULTIPLE GAUGE**

Stanley Minors, Youngstown, Ohio

Application June 25, 1956, Serial No. 42,012

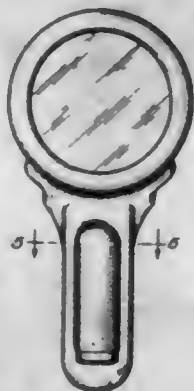
Term of patent 14 years
(Cl. D52—1)

182,190

COMBINED MIRROR AND LIPSTICK HOLDER

Benita E. McCormick, Chicago, Ill.

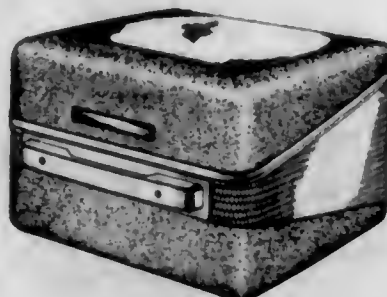
Application March 7, 1957, Serial No. 45,137

Term of patent 3½ years
(Cl. D86—10)

182,194

TAPE RECORDER CASE OR SIMILAR ARTICLEHarris E. Nelson, Evanston, Ill., assignor to Bell &
Howell Company, Chicago, Ill., a corporation of Illi-
nois

Application May 29, 1957, Serial No. 46,412

Term of patent 14 years
(Cl. D26—14)

182,195
DISPLAY RACK

Herbert O. Nelson, San Rafael, Calif., assignor to International Minerals & Chemical Corporation, a corporation of New York

Application September 26, 1955, Serial No. 38,097

Term of patent 14 years
(Cl. D80—9)



182,196
TOY GUN

Talley Webber Nichols, Jacksonville, Tex.
Application April 3, 1957, Serial No. 45,570

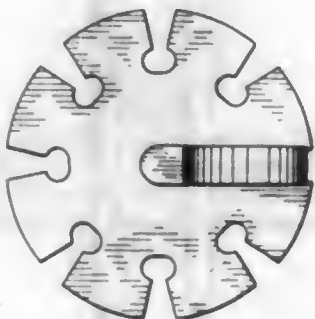
Term of patent 14 years
(Cl. D34—15)



182,197
TOOTHBRUSH HOLDER FOR MEDICINE CABINETS

Maria B. Olmstead, Hermosa, S. Dak.
Application June 11, 1956, Serial No. 41,841

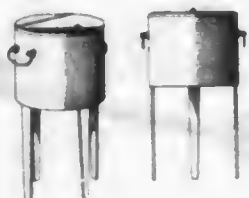
Term of patent 7 years
(Cl. D4—3)



182,198
SEWING STAND

Catharine A. Platt, La Grange, Ill.
Application December 6, 1955, Serial No. 39,178

Term of patent 14 years
(Cl. D3—19)

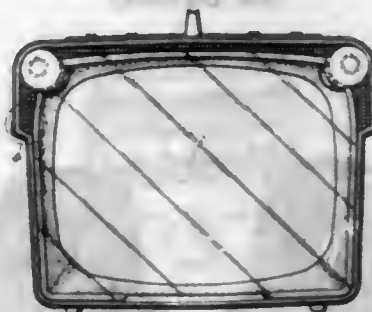


182,199
PORTABLE TELEVISION SET

Jean O. Reinecke, Oak Park, Ill., assignor to Zenith Radio Corporation, a corporation of Illinois

Application January 30, 1957, Serial No. 44,658

Term of patent 7 years
(Cl. D56—4)

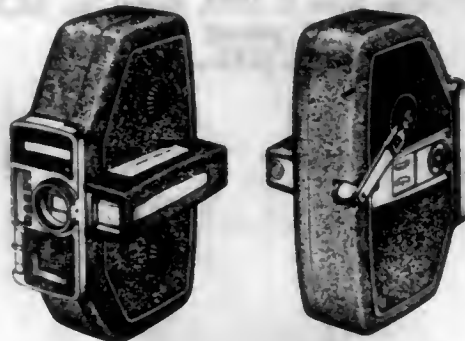


182,200
PHOTOGRAPHIC CAMERA CASE OR SIMILAR ARTICLE

Paul Richartz, Lincolnwood, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

Application May 29, 1957, Serial No. 46,410

Term of patent 14 years
(Cl. D61—1)

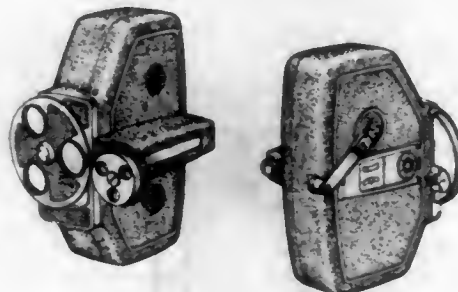


182,201
PHOTOGRAPHIC CAMERA CASE OR SIMILAR ARTICLE

Paul Richartz, Lincolnwood, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

Application June 3, 1957, Serial No. 46,440

Term of patent 14 years
(Cl. D61—1)

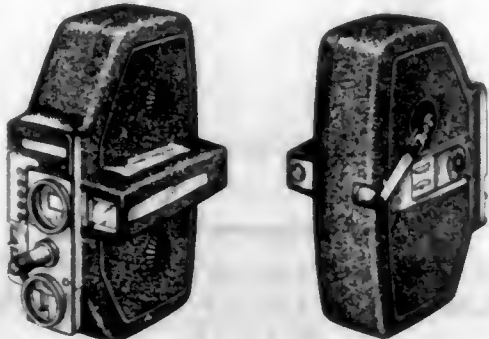


182,202

PHOTOGRAPHIC CAMERA CASE OR SIMILAR ARTICLE

Paul Richartz, Lincolnwood, Ill., assignor to Bell & Howell Company, Chicago, Ill., a corporation of Illinois

Application June 3, 1957, Serial No. 46,464
Term of patent 14 years
(Cl. D61—1)



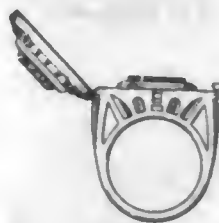
182,205

COMBINED FINGER RING AND WATCH

Murray Schreiber, New York, N. Y.

Application June 5, 1957, Serial No. 46,498

Term of patent 3½ years
(Cl. D45—10)



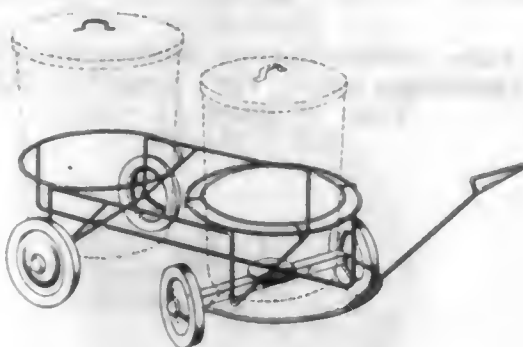
182,206

CAN WAGON

William L. Shepherd, Norfolk, Va.

Application October 30, 1956, Serial No. 43,595

Term of patent 14 years
(Cl. D14—3)

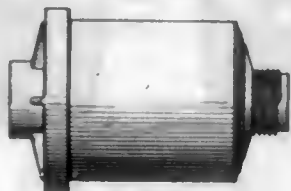


182,203

LAWN FERTILIZING ATTACHMENT FOR A GARDEN HOSE

Shelley Riskin, Chicago, Ill., assignor to Walter Ratner, Chicago, Ill.

Application June 2, 1955, Serial No. 36,336
Term of patent 14 years
(Cl. D35—2)



182,207

BALL POINT PEN OR SIMILAR ARTICLE

William S. Sherman, Chicago, Ill., assignor to Cory Corporation, Chicago, Ill., a corporation of Delaware

Application June 29, 1956, Serial No. 42,095

Term of patent 14 years
(Cl. D74—17)

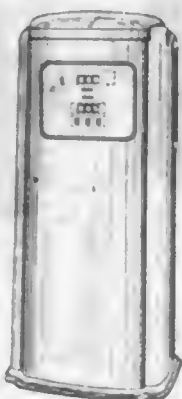


182,204

MOTOR FUEL DISPENSER WITH INTERNALLY ILLUMINATED, TRANSLUCENT, COLORED DOME

Otto R. Scheurer, Fort Wayne, Ind., assignor to Tokheim Corporation, Fort Wayne, Ind., a corporation of Indiana

Application January 18, 1956, Serial No. 39,836
Term of patent 7 years
(Cl. D52—2)



182,208

RACK FOR TOWELS AND THE LIKE

Clarence Sova, Windsor, Ontario, Canada

Application March 15, 1956, Serial No. 40,639

Term of patent 14 years
(Cl. D4—3)



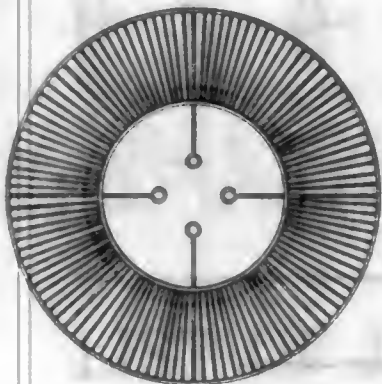
182,209

FAN GUARD

Oscar M. Stanley, New York, N. Y., assignor to United Steel & Wire Company, Battle Creek, Mich., a corporation of Michigan

Application March 14, 1957, Serial No. 45,260

Term of patent 7 years
(Cl. D26—7)



182,212

TRAVELLING CASE

Samuel L. Weiner, West Pittsburg, Pa.

Application October 19, 1956, Serial No. 43,425

Term of patent 14 years
(Cl. D87—6)



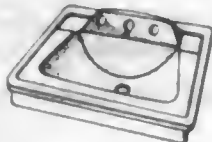
182,210

LAVATORY

Lee K. Watkins, Louisville, Ky., assignor to American Radiator & Standard Sanitary Corporation, New York, N. Y., a corporation of Delaware

Application December 13, 1955, Serial No. 39,318

Term of patent 14 years
(Cl. D4—2)



182,213

STOOL

Harold C. Wiederhold, Oak Park, Ill., assignor to Empire Works, Inc., Chicago, Ill., a corporation of Illinois

Application June 20, 1957, Serial No. 46,668

Term of patent 7 years
(Cl. D15—8)



182,211

CHAIR

Bruno R. Weill, York, Pa., assignor to Thonet Industries, Inc., New York, N. Y., a corporation of Delaware

Application June 26, 1957, Serial No. 46,747

Term of patent 14 years
(Cl. D15—1)



182,214

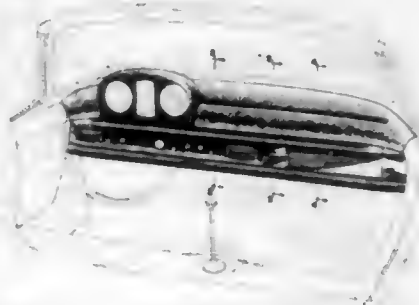
DASHBOARD FOR AN AUTOMOBILE

Karl Wilfert, Stuttgart-Degerloch, Germany, assignor to Daimler-Benz Aktiengesellschaft, Stuttgart-Unterturkheim, Germany

Application May 4, 1956, Serial No. 41,352

Claims priority, application Germany November 21, 1955

Term of patent 14 years
(Cl. D14—6)



182,215

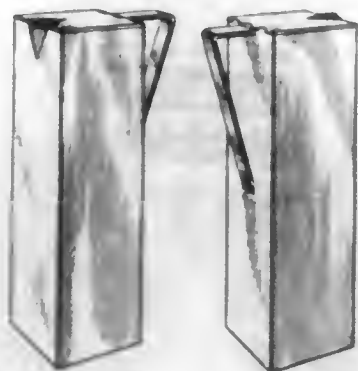
MILK CARTON RECEIVING PITCHER

Mary Helen Wilson, St. Joseph, Mo.

Application October 29, 1956, Serial No. 43,569

Term of patent 7 years

(Cl. D44—21)



182,216

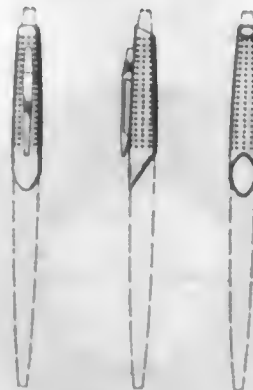
WRITING IMPLEMENT OR THE LIKE

Clarence Zierhut, Los Angeles, Calif., assignor to Paper Mate Manufacturing Company, Culver City, Calif., a corporation of Delaware

Application February 1, 1957, Serial No. 44,718

Term of patent 14 years

(Cl. D74—17)



PA

NOTE.—A

De Luca, Frank
Jacobson,
24,436.
Gillfert, James
Jacobson,
24,436.
Jacobson, Mose
Mruk, by M.
change detec
Lyon, George
301—37.

Adler, Harold.
D61—1.
Allen, Robert
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Clayton, I
Ampex Corp.:
Best, Melv
Baldwin, Walt
Exposure me
Bargen, Willia
Bell & Howell
Nelson, H
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Richartz,
Richartz,
Berzac, John:
Berzack, S
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Bulman, I
Bulman, Elval
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Cahn, Bernard
Chase, He
Carreiro, Jose
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Carreiro, Jose
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D74—1.
Carreiro, Jose
fountain pe
D74—1.
Caruso, Josep
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Gitschlag
Clayton, La V
182,167, 2-2
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Garland,
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Carreiro,
Carreiro,
Everglades In
Block, Ab
Fink, Robert
2-25-58, Cl

LIST OF REISSUE PATENTEEES

TO WHOM

PATENTS WERE ISSUED ON THE 25TH DAY OF FEBRUARY, 1958

NOTE.—Arranged in accordance with the first significant character or word of the name (in accordance with city and telephone directory practice).

- De Luca, Frank J.: See—
Jacobson, Moses G., Gilfert, De Luca, and Mruk. Re. 24,436.
Gilfert, James C.: See—
Jacobson, Moses G., Gilfert, De Luca, and Mruk. Re. 24,436.
Jacobson, Moses G., J. C. Gilfert, F. J. De Luca, and W. F. Mruk, by Mine Safety Appliances Co. Sensitive heat exchange detector. Re. 24,436, 2-25-58, Cl. 201-63.
Lyon, George A. Wheel cover. Re. 24,437, 2-25-58, Cl. 301-37.
- Mine Safety Appliances Co.: See—
Jacobson, Moses G., Gilfert, De Luca, and Mruk. Re. 24,436.
Moorhead, Walter H. Self locking flexible grommet. Re. 24,438, 2-25-58, Cl. 174-153.
Mruk, Walter F.: See—
Jacobson, Moses G., Gilfert, De Luca, and Mruk. Re. 24,436.

LIST OF DESIGN PATENTEEES

- Adler, Harold. Microfilm camera. 182,153, 2-25-58, Cl. D61-1.
Allen, Robert Y., and M. Shaw, to Hoover Products, Inc. Baby's exerciser. 182,154, 2-25-58, Cl. D34-15.
American Radiator & Standard Sanitary Corp.: See—
Watkins, Lee K. 182,210.
Amerock Corp.: See—
Clayton, La Verne E. 182,167.
Ampex Corp.: See—
Best, Melvin H., Fujioaka, and Ward. 182,158.
Baldwin, Walter A., and R. B. Kerr, to General Electric Co. Exposure meter. 182,155, 2-25-58, Cl. D61-1.
Bargen, William J. Easel. 182,156, 2-25-58, Cl. D29-20.
Bell & Howell Co.: See—
Nelson, Harris E. 182,194.
Richartz, Paul. 182,200.
Richartz, Paul. 182,201.
Richartz, Paul. 182,202.
Berzac, John: See—
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- Young, David W., and D. L. Cottle, to Esso Research and Engineering Co. Lubricating grease compositions containing n-acyl-p-amino phenols. 2,824,838, 2-25-58, Cl. 252-42.1.
- Young Radiator Co.: See—
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- Zienty, Mitchell P., to Miles Laboratories, Inc. Amide synthesis using anion exchange resin catalysts. 2,824,883, 2-25-58, Cl. 260-404.
- Zifferer, Lothar R. Apparatus and method for curing a formed granular article. 2,824,345, 2-25-58, Cl. 22-9.
- Zimmermann, Rudolf, H. Wustaney, F. Hennig, W. Demant, and O. Steiner, to Siemens & Halske Aktiengesellschaft. Method of and apparatus for controlling a type-image teleprinter system by a type-printer system. 2,824,903, 2-25-58, Cl. 178-5.
- Zink, John, Co.: See—
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- Zollinger, Joseph L.: See—
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- Zucker, Armand S., to Mitchell Mfg. Co. Means for circulating and distributing air. 2,824,429, 2-25-58, Cl. 62-129.
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Des. 182,197	Des. 182,183	D33— 8: Des. 182,173	D50— 6: Des. 182,167	Des. 182,172	D80— 9: Des. 182,195
Des. 182,208	Des. 182,211	19: Des. 182,160	D52— 1: Des. 182,165	Des. 182,200	D83— 1: Des. 182,159
D 9— 2: Des. 182,171	6: Des. 182,182	D34— 2: Des. 182,179	Des. 182,193	Des. 182,201	D86— 10: Des. 182,190
D10— 8: Des. 182,170	8: Des. 182,174	11: Des. 182,157	2: Des. 182,204	Des. 182,202	Des. 182,191
D14— 3: Des. 182,180	Des. 182,213	15: Des. 182,154	3: Des. 182,186	D74— 1: Des. 182,163	D87— 3: Des. 182,166
Des. 182,206	11: Des. 182,177	Des. 182,184	D56— 4: Des. 182,158	Des. 182,164	5: Des. 182,212
6: Des. 182,175	D26— 1: Des. 182,185	Des. 182,196	Des. 182,189		

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Des. 182,168
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OFFICE

February

A petition
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Notices unde

TM 29,502
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TRADEMARKS NOTICES

Service by Publication

A petition to cancel each of the registrations identified below having been filed, and the notice of such proceedings sent by registered mail to each registrant at the last known address having been returned by the post office as undeliverable, notice is hereby given that unless the registrants listed herein, their assigns or legal representatives, shall enter an appearance within thirty days from the date of this publication, the cancellation will be proceeded with as in the case of default.

Laher Spring and Tire Corporation, Oakland, Calif. Reg. No. 530,051, Canc. No. 7008.

Mary Muffet, Inc., St. Louis, Mo., Reg. No. 368,920, Canc. No. 7024.

DAPHNE LEEDS,

Assistant Commissioner of Patents.

Trademark Suits.

Notices under 15 U. S. C. 1116; Trademark Act of July 5, 1946

TM 29,502 (WISH BONE AND DESIGN), J. F. Humphreys & Co., Certain named foods, beverages, and condiments, filed Jan. 22, 1958, D. C., E. D. Mo. (St. Louis), Doc. 58c45(2), *Campbell Holton & Co. v. Wishbone Products, Inc.*

TM 79,462 (DESIGN FOR BEER CONTAINERS), P. Ballentine & Sons, Ale, beer, and other malt liquors; TM 119,244, same, Trademark for lager-beer; TM 332,890 (PURITY BODY FLAVOR AND DESIGN), same, filed Jan. 24, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18410, *P. Ballentine & Sons v. 3 Rings Cafe, Inc.*

TM 119,244. (See TM 79,462.)

TM 203,122 (ATRAUMATIC), Davis & Geck, Inc., Surgical and dental needles and combined needles and sutures; TM 392,068 (DERMALON), same, Surgical ligatures and sutures, filed Jan. 22, 1958, D. C. Oreg. (Portland), Doc. 9584, *American Cyanamid Co. v. Lionhaven, Ltd.*

TM 282,214 (ADAM HATS AND DESIGN), Adam Hat Stores, Inc., Men's hats; TM 324,106 (ADAM AND DESIGN), same; TM 324,107, same; TM 324,108, same; TM 343,348 (ADAMFONE), same, Megaphones; TM 379,047 (ADAM-EDGE), same, Men's hats; TM 390,567 (AH), same, Men's hats, shirts, underwear etc.; TM 390,568 (ADAMIZED), same, Men's hats; TM 390,569, same, Fabrics used in making men's shirts and ties; TM 383,186 (LADY ADAM), same, Women's hats; TM 411,001 (ADAM), same, Men's hats, shirts, underwear, etc.; TM 543,652 (ADAM AND DESIGN), same, Men's hats, filed Jan. 13, 1958, D. C., S. D. N. Y., Doc. 128/382, *Miller Bros. Hat Co., Inc. v. Adam Management Corp. et al.*

TM 324,106. (See TM 282,214.)

TM 324,107. (See TM 282,214.)

TM 324,108. (See TM 282,214.)

TM 332,890. (See TM 79,462.)

TM 343,348. (See TM 282,214.)

TM 347,501 (SILVER CLOUD), The International Bedding Co., Cotton mattresses, cotton felt mattresses, etc.; TM 347,502 (NEW WHITE CLOUD), same; TM 347,526 (BLUE CLOUD), same; TM 347,527 (CLOUD), same; TM 347,528 (FLEECY CLOUD), same; TM 347,530 (GRAY CLOUD),

CONDITION OF TRADEMARK APPLICATIONS AS OF DECEMBER 31, 1957

Total number of applications awaiting action [excluding renewals and Sec. 12 (c)]..... 11,274
Date of oldest new application..... May 8, 1957
Date of oldest amended application..... May 14, 1957

J. H. MERCHANT, Director, Trademark Examining Operation		Oldest Application	
TRADEMARK EXAMINING DIVISIONS, EXAMINERS AND TRADEMARK CLASSES UNDER EXAMINATION		New	Amended
C. M. WENDT, Deputy Director, Trademark Examining Operation			
(I) J. R. STERBA, Classes 4, 5, 12, 13, 14, 16, 19, 21, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 50		5-8-57	5-14-57
(II) R. F. SHRYOCK, Classes 6, 18, 46, 51; Service Mark Classes 100, 101, 102, 103, 104, 105, 106, 107; Collective Membership Marks Class 200		7-17-57	9-5-57
(III) K. I. HANCOCK (Acting), Classes 1, 2, 3, 7, 8, 9, 10, 11, 15, 17, 20, 22, 29, 37, 38, 39, 40, 41, 42, 43, 45, 47, 48, 49, 52; and Certification Marks		6-18-57	6-17-57
Renewals (All Classes)		11-18-57	12-16-57
Sec. 12 (c) Publications (All Classes)		10-3-57	

Applications Filed During the Month of December 1957—1,703

Registrations Issued..... 280—No. 658,652 to No. 658,931
Renewals Issued..... 57

The TRADEMARK SECTION of the OFFICIAL GAZETTE, issued weekly, is mailed under the direction of the Superintendent of Documents, Government Printing Office, Washington 25, D. C., to whom all subscriptions should be made payable and all communications addressed; subscription price, \$10.00 per annum, foreign mailing \$2.00 additional; single copies, 20 cents each.

same; TM 360,172 (SNOW CLOUD), same; TM 529,908 (BABY CLOUD), same; TM 529,909 (DREAM CLOUD), same; TM 564,402 (CLOUD-O-PEDIC), same, filed Jan. 16, 1958, D. C. Md. (Baltimore), Doc. 10291, *Huntington National Mattress Co. v. Celanese Corp. of America.*

TM 347,592. (See TM 347,591.)
 TM 347,826. (See TM 347,591.)
 TM 347,827. (See TM 347,591.)
 TM 347,828. (See TM 347,591.)
 TM 347,829. (See TM 347,591.)
 TM 360,172. (See TM 347,591.)
 TM 379,047. (See TM 282,214.)
 TM 380,567. (See TM 282,214.)

TM 380,568. (See TM 282,214.)
 TM 380,569. (See TM 282,214.)
 TM 383,186. (See TM 282,214.)
 TM 392,068. (See TM 203,122.)
 TM 411,001. (See TM 282,214.)
 TM 529,908. (See TM 347,591.)
 TM 529,909. (See TM 347,591.)
 TM 543,652. (See TM 282,214.)
 TM 564,402. (See TM 347,591.)

TM 614,005 (GRIL-LETS), Kleen-Kole, Inc., Artificial fuel of compressed sawdust, filed Jan. 24, 1958, D. C., E. D. N. Y. (Brooklyn), Doc. 18408, *Kleen-Kole Inc. v. Renuzit Home Products Co.*

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Class 1

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MARKS PUBLISHED FOR OPPOSITION

The following marks are published in compliance with section 12(a) of the Trademark Act of 1946. Notice of opposition under section 13 may be filed within thirty days of this publication. See Rules 20.1 to 20.5.
As provided by section 31 of said act, a fee of twenty-five dollars must accompany each notice of opposition.

Class 1—Raw or Partly Prepared Materials

SN 16,513. Anderson, Clayton & Co., Dallas, Tex. Filed Sept. 27, 1956.

MATCH LITE

For Charcoal.
First use Sept. 1, 1956.

SN 20,969. Sna Viscosa Società Nazionale Industria Applicazioni Viscosa, Milan, Italy. Filed Dec. 12, 1956.

VISCOL

Owner of Italian Reg. No. 41,418, dated July 10, 1931.
For Viscose Fibre Having a Laminar Form.

SN 21,384. Mobay Chemical Company, St. Louis, Mo. Filed Dec. 20, 1956.

MULTRATHANE

Owner of Reg. No. 643,119.
For Solid Synthetic Resins for Use in Processing in Industrial Arts.
First use Mar. 9, 1956.

SN 23,696. Fulton-Cole Seed Co., Alturas, Fla. Filed Feb. 4, 1957.



The drawing is lined for red and green. The representation of the State of Florida is disclaimed apart from the mark as shown.

For Grass Seeds and Grass Seed Mixture.
First use July 1953.

SN 28,347. The Goodyear Tire & Rubber Company, Akron, Ohio. Filed Apr. 17, 1957.

PLIOFOAM

For Synthetic Rubber.
First use Mar. 29, 1957.

SN 29,148. Extruders, Inc., Hawthorne, Calif. Filed Apr. 30, 1957.

FILM-GARD

For Films Made From Synthetic Resins for Use in Agriculture, Industry, and Construction.
First use Mar. 5, 1957.

SN 29,563. The Stearns & Foster Company, Lockland, Cincinnati, Ohio. Filed May 7, 1957.

RESPAD

For Felted Padding Material Sold in Sheet Form.
First use Apr. 29, 1957.

SN 30,430. The Hill & Griffith Company, Cincinnati, Ohio. Filed May 21, 1957.

CHARBO

For Pulverized Furfural Residue Blended With Carbonaceous Materials and Used as an Additive for Molding Sand.
First use Feb. 1, 1957.

SN 32,604. Johns-Manville Corporation, New York, N. Y. Filed June 25, 1957.

CHROMOSORB

For Granular Absorbent for Partition Chromatography.
First use Apr. 24, 1957.

SN 33,740. Raymond D. Payne, d. b. a. Lone Star Rose Nursery, Tyler, Tex. Filed July 15, 1957.

TROPHY

For Rose Plants.
First use Feb. 9, 1956.

SN 35,360. The Lawn Seed Corporation, Milwaukee, Wis. Filed Aug. 12, 1957.

PATIO

For Lawn Seed.
First use Aug. 1, 1957.

SN 35,362. The Lawn Seed Corporation, Milwaukee, Wis. Filed Aug. 12, 1957.

SHOW PLACE

For Lawn Seed.
First use Aug. 1, 1957.

Class 2—Receptacles

SN 11,356. Fern Hawaii Company, Inc., Wilmington, Calif. Filed July 2, 1956.



For Octagonal Redwood Tubs, Square Planter Tubs, and Redwood Hanging Baskets.
First use June 25, 1956.

SN 18,920. Sutherland Paper Company, Kalamazoo, Mich.
Filed Nov. 7, 1936.

SAF-EG

For Egg Cartons.
First use Jan. 15, 1936.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

SN 16,657. Atlantic Products Corp., Trenton, N. J. Filed Oct. 1, 1956.



The drawing is lined for red and brown, however, the colors are not a material part of the mark. "Bert Bacharach" is the name of a living individual, whose consent is of record.
For Luggage.
First use Aug. 7, 1956.

SN 16,658. Atlantic Products Corp., Trenton, N. J. Filed Oct. 1, 1956.

MALE BAGS

For Luggage.
First use Aug. 7, 1956.

SN 36,208. Philip Mitchell & Sons, Inc., Brooklyn, N. Y. Filed Aug. 26, 1957.



The drawing is lined for blue.
For Wallets, Billfolds, and Ladies' Handbags.
First use in December 1954.

SN 36,257. Texas Trunk Company, Inc., San Antonio, Tex. Filed Aug. 26, 1957.



For Hand Luggage and Trunks.
First use Aug. 10, 1956.

Class 4 — Abrasives and Polishing Materials

SN 25,587. Bay State Abrasive Products Company, Westboro, Mass. Filed Mar. 6, 1957.

KRETE-KUT

For Grinding, Abrading, and Polishing Wheels, Including Cut-Off Wheels and Coping Blades, Wheels or Saws.
First use on or about Nov. 20, 1956.

Class 5 — Adhesives

SN 23,793. Household Aids, Inc., Hackensack, N. J. Filed Feb. 5, 1957.

BULBET

For Encapsulated Adhesive Materials.
First use Jan. 30, 1957.

SN 30,215. American Cyanamid Company, New York, N. Y. Filed May 17, 1957.

CYZAC

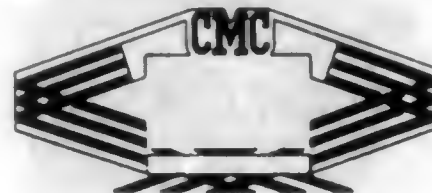
For Synthetic Laminating Resin.
First use Apr. 4, 1957.

SN 31,688. S & F Chemical Co., Inc., Nashville, Tenn. Filed June 10, 1957.

ULTRABOND

For Solvent Rubber Cement.
First use May 8, 1957.

SN 32,582. Chicago Mastic Company, Chicago, Ill. Filed June 25, 1957.



Owner of Reg. No. 544,802.
For Latex Type of Mastic Adhesive Cement.
First use about March 1954.

SN 32,618. Frank Mottola, Los Angeles, Calif. Filed June 25, 1957.

SINTOLIT

For Paste for Binding, Mending, Filling, and Sticking Together Parts of Marble, Granite, Ceramics, Wood, Iron, Etc.
First use Jan. 15, 1957.

Class 6 — Chemicals and Chemical Compositions

SN 10,512. British Fire Extinguishers Ltd., Toronto, Ontario, Canada. Filed June 19, 1956.

APEX

For Foam Liquid for Fire Extinguishers.
First use Apr. 9, 1956.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 99

SN 15,273. Fleetwood Chemical Co., Inc., Webster, Mass. Filed Sept. 7, 1956.

SN 30,229. Commercial Solvents Corporation, New York, N. Y. Filed May 17, 1957.



The drawing is lined for blue.
For Alkali or Acid Defoamers.
First use Dec. 8, 1949.

SN 20,060. Shulton, Inc., Clifton, N. J. Filed Nov. 28, 1956.

SPACE

For Home Deodorant.
First use Oct. 20, 1956.

SN 21,664. American Mineral Spirits Company, Chicago, Ill. Filed Dec. 27, 1956.

AMSCO

For Hydrocarbon and Chlorinated Solvents, Alcohols, Esters, Ketones, Plasticizers, Glycols, Nitrogen Derivatives, Organic Acids, Anhydrides, Aldehydes, and Glycol Ethers.
First use May 1932.

SN 24,288. Shulton, Inc., Clifton, N. J. Filed Feb. 12, 1957.

SESOXANE

For Insecticide Synergist for Pyrethrins, Allethrin, Cy-
clethrin.
First use Jan. 20, 1957.

SN 24,970. Hoechst Chemical Corporation, West Warwick, R. I. Filed Feb. 25, 1957.

HOSTAMINE

For Dyestuffs.
First use Feb. 11, 1957.

SN 26,265. Gordon Chemical Co., Inc., Kansas City, Kans. Filed Mar. 15, 1957. Sec. 2(f).



For Insecticides, Herbicides, and Wood Preservatives.
First use Mar. 1, 1949.

SN 27,922. American Cyanamid Company, New York, N. Y. Filed Apr. 11, 1957.

CYANALUBE

Owner of Reg. Nos. 587,090 and 641,228.
For Softener for Use as a Lubricant in Sewing Cloth.
First use Mar. 26, 1957.

SN 29,046. Diamond Black Leaf Company, Cleveland, Ohio, to Diamond Alkali Company, Cleveland, Ohio. Filed Apr. 29, 1957.

ROSE LEAF

Owner of Reg. No. 47,961.
For Floral Dust for the Control of Insects and Plant Disease.
First use Feb. 27, 1957.

FLOFORM

For Carbon Black Used for Various Industrial Purposes, and Especially for Compounding With Rubber.
First use Apr. 22, 1957.

SN 30,466. American Alcolac Corporation, Baltimore, Md. Filed May 22, 1957.

SIPONATE

Owner of Reg. No. 562,373.
For Surface Active Agents, Such as Wetting, Dispersing, Penetrating, or Emulsifying Agents.
First use on or about Mar. 4, 1957.

SN 30,780. Hukill Chemical Corporation, Cleveland, Ohio. Filed May 27, 1957.



For Synthetic Resins.
First use January 1948.

SN 32,028. Jacques Wolf & Co., Clifton, N. J. Filed June 14, 1957.

HYDROZIN

For Normal Zinc Formaldehyde Sulphoxylate Used for Dis-
charge Printing on Acetate Grounds and for Stripping Wool, Acetates, and Nylon, as Well as a Catalyst for Polymerization of Vinylmonomers.
First use Mar. 27, 1946.

SN 33,380. S. G. Stevens, Toledo, Ohio. Filed July 8, 1957.

PENETRO-WET

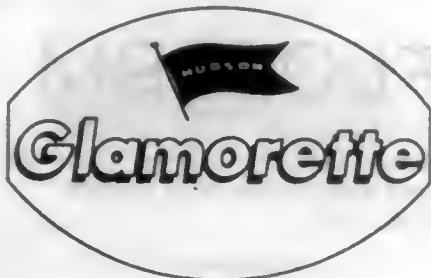
For Liquids Having Low Surface Tension and Other Desir-
able Characteristics for Fighting Fire.
First use June 14, 1957.

SN 33,489. Minnesota Mining and Manufacturing Company, St. Paul, Minn. Filed July 10, 1957.

KYLOTHIN

Owner of Reg. Nos. 622,509 and 645,285.
For Additive Used in Lowering the Viscosities of Aqueous Slurries, Particularly Drilling Fluids Useful in the Drilling of Oil, Gas, and/or Water Wells.
First use Nov. 16, 1956.

SN 33,812. Hudson Fur Cleaning Company, Providence, R. I.
Filed July 16, 1957.



For Chemical Compound in Liquid Form for Use as a Finishing Agent for the Purpose of Imparting Gloss and Sheen to Furs and All Manmade Furs.
First use Nov. 10, 1956.

SN 34,320. C. H. Patrick & Co., Inc., Greenville, S. C. Filed July 24, 1957.

FABRITONE

For Lubricant and Softener for Fabrics.
First use June 27, 1955.

SN 34,909. Brockway Glass Company, Inc., Brockway, Pa. Filed Aug. 5, 1957.

PERMACOTE

For Clear Colorless Silicone Solution for Treating Glassware.
First use Sept. 15, 1956.

SN 34,980. Neville Chemical Company, Pittsburgh, Pa. Filed Aug. 5, 1957.

PARADENE

Owner of Reg. No. 348,819.
For Fluid and Solid Resins of the Coumarone-Indene Type Useful as Aluminum Paste Vehicles, Core Oils, Impregnating Compounds, and in the Manufacture of Mastic Floor Tile, Rubber Floor Tile, Rubber Compounds, Concrete Sealers, Coatings, and Other Industrial Uses.
First use on or about Jan. 1, 1934.

Class 8 — Smokers' Articles, Not Including Tobacco Products

SN 674,329. Dur-O-Lite Pencil Company, d. b. a. Dur-O-Lite Company, Melrose Park, Ill. Filed Oct. 5, 1954.

Dur O Lite

Applicant disclaims the word "Lite" apart from the mark as shown. Owner of Reg. No. 432,098.
For Cigarette Lighters
First use Sept. 17, 1954.

SN 23,858. Shore Manufacturing Corporation, Roslyn Heights, N. Y. Filed Feb. 5, 1957.

MINILITE

For Lighters for Cigarettes and Cigars.
First use Apr. 1, 1956.

Class 10 — Fertilizers

SN 20,207. Northwest Nitro-Chemicals Ltd., Medicine Hat, Alberta, Canada. Filed Nov. 30, 1956.

NORTHWEST

For Fertilizers.
First use Oct. 12, 1956; in commerce Oct. 12, 1956.

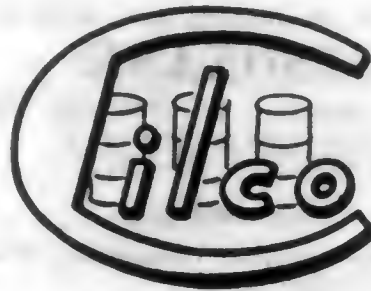
SN 20,208. Northwest Nitro-Chemicals Ltd., Medicine Hat, Alberta, Canada. Filed Nov. 30, 1956.

NITRO-CUBES

For Fertilizers.
First use Oct. 12, 1956; in commerce Oct. 12, 1956.

Class 11 — Inks and Inking Materials

SN 22,796. Commercial Ink & Lacquer Co. Inc., Fair Lawn, N. J. Filed Jan. 18, 1957.



For Inks.
First use Apr. 1, 1955.

Class 12 — Construction Materials

SN 8,070. The General Tire & Rubber Company, Akron, Ohio. Filed May 10, 1956.



The drawing is lined for yellow and red. The word "Floor" is disclaimed apart from the mark. Owner of Reg. Nos. 578,050 and 627,220.

For Vinyl Floor Covering Including Sheet Material, Tile, Feature Strip, and Cove Molding.
First use Jan. 4, 1956.

SN 16,106. Driscoll Incorporated, Bethesda, Md. Filed Sept. 21, 1956.

NYFON

For Drywall Cement.
First use Feb. 11, 1955.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 101

SN 20,309. The Sicilian Asphalt Paving Company, New York, N. Y. Filed Dec. 3, 1956.

SN 26,945. Industrial Acoustics Company, Inc., New York, N. Y. Filed Mar. 26, 1957.

INSTANT-PAVE

For Ready to Use Cold Asphalt Paving Mixture.
First use May 14, 1956.

SN 21,233. Warren Brothers Company, Cambridge, Mass.
Filed Dec. 17, 1956.

WARREN BLUE

Owner of Reg. Nos. 77,349, 78,559, and 132,068.
For Lumber Treated With Wood Preservative.
First use on or before Oct. 23, 1956.

SN 22,439. Kilby Steel Company, Anniston, Ala. Filed Jan. 11, 1957.

CHANNELOX

For Steel Sheets With Interlocking Edges Adapted for Building Floors, Walls, Ceilings, and the Like.
First use Jan. 7, 1957.

SN 22,575. Revertex Limited, London, England. Filed Jan. 14, 1957.

SITUFLEX

Owner of British Reg. No. 743,743, dated June 24, 1955.
For Jointless, Non-Metallic Covering and Filler Substance Containing Polyvinyl Acetate as Binder for Use in Situ for Application to Floors and Wall Surfaces of Plaster of Paris, Cement, Metal, and Ceramics.

SN 22,987. Terra-Block, Inc., Kansas City, Mo. Filed Jan. 22, 1957.

TERRA-BLOCKS

For Haydite Building Blocks With Terrazzo Facing.
First use May 19, 1955.

SN 23,640. Roddis Plywood Corporation, Marshfield, Wis.
Filed Feb. 1, 1957.

CADENCE

For Decorative Wood Panel.
First use Nov. 2, 1956.

SN 23,994. Johns-Manville Corporation, New York, N. Y.
Filed Feb. 7, 1957.

R-T

Owner of Reg. No. 560,641.
For Pipe Connections and Elements Thereof.
First use Mar. 27, 1954.

SN 25,631. Nitterhouse Concrete Products, Chambersburg, Pa. Filed Mar. 6, 1957.

RANDOM-ROCK

For Precast Split Masonry Unit Which Resembles Stone.
First use 1948.

QUIET-DUCT

For Prefabricated Sound Elimination Ducts Which Eliminate Noise From Air Conditioning and Ventilating Systems.
First use January 1957.

SN 28,181. The S. Obermayer Company, d. b. a. The Ramtite Company, Chicago, Ill. Filed Apr. 15, 1957.

90-RAM

Owner of Reg. Nos. 192,777 and 613,768.
For High Alumina Plastic Refractory Used for Lining High Temperature Furnaces.
First use Feb. 18, 1957.

SN 29,064. Grand Sheet Metal Products Company, Melrose Park, Ill. Filed Apr. 29, 1957.



The word "House" is disclaimed apart from the mark.
For Prefabricated House.
First use Jan. 30, 1957.

SN 29,065. Grand Sheet Metal Products Company, Melrose Park, Ill. Filed Apr. 29, 1957.



For Prefabricated Screen House.
First use Jan. 15, 1957.

SN 29,066. Grand Sheet Metal Products Company, Melrose Park, Ill. Filed Apr. 29, 1957.



"Screen House" is disclaimed apart from the mark.
For Prefabricated Screen House.
First use Feb. 14, 1956.

SN 29,393. Sawhill Tubular Products, Inc., Sharon, Pa.
Filed May 3, 1957.

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The word "Post" is disclaimed apart from the mark. Owner of Reg. No. 555,332.
For Adjustable Floor Levelling and Supporting Posts.
First use Dec. 6, 1956.

SN 31,008. Harbison-Walker Refractories Company, Pittsburgh, Pa. Filed May 29, 1957.

OXIMIX

Owner of Reg. No. 321,533.
For Refractory Ramming Mix of Magnesia and Dolomite.
First use Mar. 23, 1956.

SN 35,001. Russell Reinforced Plastics Corporation, Lindenhurst, N. Y. Filed Aug. 5, 1957.

CATHEDRAL TROPIGLAS

Owner of Reg. No. 608,186.
For Tinted, Glass Fiber Reinforced, Plastic Panels and Slats Utilized in Wall Openings of Buildings and Wall Sections or Partitions.
First use Mar. 14, 1957.

SN 35,675. Permanente Cement Company, Oakland, Calif.
Filed Aug. 16, 1957.

PRONTO!

Owner of Reg. No. 543,674.
For Modified High Early Strength Cement.
First use on or about Feb. 11, 1946.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

SN 5,012. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Mar. 22, 1956.

X-WELD

For Chains and Chain Links.
First use Jan. 8, 1954.

SN 30,208. United States Steel Corporation, Pittsburgh, Pa. Filed May 16, 1957.

TIGER

Owner of Reg. Nos. 181,153, 546,354, and others.
For Wire Rope Fittings.
First use Aug. 1, 1924.

Class 14—Metals and Metal Castings and Forgings

SN 692,473. The International Nickel Company, Inc., New York, N. Y. Filed Aug. 4, 1955.

"135"

For Metal Welding Electrodes.
First use July 12, 1955.

SN 18,082. Kenoh Products Co., Covington, Ky. Filed Oct. 24, 1956.

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For Metal Plastic Filler for Repairing Dents and Holes in Metal.
First use Jan. 14, 1956.

Class 15—Oils and Greases

SN 31,524. Victrylite Candle Company, Oshkosh, Wis. Filed June 6, 1957.

PARAGON

Owner of Reg. No. 574,966.
For Candles and More Particularly Taper Candles, Candles Used for Religious Purposes, and Novelty Candles.
First use prior to Dec. 11, 1925.

SN 32,494. Imperial Distributors, Minneapolis, Minn. Filed June 24, 1957.



For Oils and Greases.
First use May 13, 1957.

SN 32,708. United States Pipe and Foundry Company, Birmingham, Ala. Filed June 26, 1957.

TYTON JOINT

Owner of Reg. No. 646,725.
For Lubricants Consisting of Soft Soaps.
First use June 11, 1957.

SN 33,127. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

KREMOL

Owner of Reg. Nos. 170,190 and 254,993.
For White Mineral Oil.
First use Jan. 16, 1932.

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SN 33,128. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

SHEROLATUM

Owner of Reg. No. 176,315.
For Petrolatum.
First use Aug. 21, 1935.

SN 33,134. Continental Oil Company, Ponca City, Okla. Filed July 3, 1957.

SHEROSOL

For Soluble Oil Bases.
First use July 21, 1934.

SN 33,254. Magie Bros. Oil Co., Franklin Park, Ill. Filed July 5, 1957.

Indigo

For Lubricating Coolant for Use in Cutting Metal.
First use May 29, 1957.

Class 16—Protective and Decorative Coatings

SN 10,033. Société Anonyme dite: Etablissements L. Van Malderen, Paris, France. Filed June 11, 1956.



Applicant disclaims the French words "Peinture Petrifiante" apart from the mark as used. The French words "Peinture Petrifiante" mean "petrifiable paint" when translated into English. Owner of French Reg. No. 43,659, dated Jan. 29, 1943 (Seine); Natl. Inst. No. 340,651.

For Silicious Products (Powders, Oxides, Liquids, Chlorides) Used in the Hardening and the Silicization of Stones, Plasters, Concretes, Cements, Briquets, and Used for Preserving All Materials as Well as a Paint Used as Facing To Imitate the Stone.

SN 25,383. Allentown Paint Manufacturing Company, Allentown, Pa. Filed Mar. 4, 1957.



The drawing is lined for red, green, and yellow; however, no claim is made to color per se.
For White Enamel Paint.
First use Apr. 1, 1956.

SN 25,726. Steel Corner Tape Corp., South Ozone Park, N. Y. Filed Mar. 7, 1957.

EZY

For Wood Graining Compound for Applying Simulated Wood Graining to Cabinets, Furniture, and Indoor Woodwork and Doors.

First use Dec. 18, 1956.

TM 727 O. G.—8

SN 29,743. Nobema Products Corporation, New York, N. Y. Filed May 9, 1957.

DURER

For Artists' Brushes, Artists' Colors, Water Color Papers, Water Colors in Tablets and Blocks, Drawing Instruments, Drawing Pencils, Drafting Pencils, and Pencil Leads.
First use April 1935.

SN 35,089. William T. Deacon, d. b. a. Solvents and Plastics Company, St. Louis, Mo. Filed Aug. 7, 1957.

WEBSEAL

For Liquid Composition for Producing Protective Coverings for Metallic and Non-Metallic Objects.
First use June 21, 1957.

SN 37,830. Walico Kjemisk Industri A/S, Oslo, Norway. Filed Sept. 25, 1957.

WALLCO

Owner of Norwegian Reg. No. 35,147, dated Feb. 3, 1948.
For Ski Wax.

Class 18—Medicines and Pharmaceutical Preparations

SN 18,197. Anthony Ted Spano, d. b. a. All American Food Supplement Co., Los Angeles, Calif. Filed Oct. 25, 1956.

ALL AMERICAN

For Vitamin, Mineral Food Supplement.
First use Oct. 12, 1956.

SN 23,317. Harper Feed Mills, Incorporated, Washington, Pa. Filed Jan. 28, 1957.

HARCO

MEDICATED RUMENTRATE

Applicant disclaims exclusive right to use of the word "Medicated." Owner of Reg. Nos. 352,979, 440,798, and others.

For Medicated Supplements for Use in Live Stock Feeds.
First use Nov. 15, 1956.

SN 24,125. Coralite Dental Products, Chicago, Ill. Filed Feb. 11, 1957.

CORA-CAINE

Owner of Reg. No. 429,762.
For Analgesic Adhesive for Relieving Discomfort of Dentures.
First use Jan. 15, 1957.

SN 24,414. Roger Bellon, Neuilly-sur-Seine, France. Filed Feb. 14, 1957.

PLASMABEL

Owner of French Reg. No. 460,879, dated Nov. 12, 1956 (Seine); Natl. Inst. No. 81,333.
For Pharmaceutical Preparation Adapted for Use as a Substitute for Blood Plasma.

SN 25,466. D. Richard Ricotta, d. b. a. Sun-Gal Herb Tea Co., Passaic, N. J. Filed Mar. 4, 1957.

SUN-GAL

For Medicinal Herb Tea.
First use July 23, 1952.

SN 29,256. Armour and Company, Chicago, Ill. Filed May 2, 1957.

AEROCAPS

For Inhalation Capsules Containing Medicated Powders.
First use Apr. 12, 1957.

SN 29,961. Garner Drug Corporation, Baltimore, Md. Filed Apr. 4, 1957.

ALKAFEN

For Analgesic.
First use Mar. 14, 1957.

SN 30,089. The Integrity Magnesia Corporation, Philadelphia, Pa. Filed May 15, 1957.

BLUE SEAL

For Pharmaceutical Preparations—Namely, Citrate of Magnesia, Isopropyl Alcohol, Wintergreen Alcohol, Witch Hazel, Cod Liver Oil, Mouth Wash, and Milk of Magnesia.
First use July 1934.

SN 30,818. Organon Inc., Orange, N. J. Filed May 27, 1957.

PREDASMAL

For Medicinal Hormone Preparation To Be Used Internally for the Treatment of Bronchial Asthma, Hay Fever, and Related Conditions.
First use Apr. 17, 1957.

SN 32,147. Texas Pharmacal Company, San Antonio, Tex. Filed June 17, 1957.



For Pharmaceutical Preparations, Preparations for Dermatitis and Antifungals, and Medicinal Skin Preparation.
First use prior to 1942.

SN 32,462. C. H. Boehringer Sohn, Ingelheim am Rhein, Germany. Filed June 24, 1957.

VITAGERAL

Owner of German Reg. No. 701,257, dated Mar. 23, 1957.
For Pharmaceutical Preparation for the Treatment of Disorders of Old Age.

SN 32,522. Nutritional Quality Controls, Inc., New York, N. Y. Filed June 24, 1957.

NATUREX

For Antacid Tablets.
First use June 14, 1957.

SN 32,972. Carson J. Morris, Northridge, Calif. Filed July 1, 1957.

BOUNCE

For Multi-Vitamin Food Supplement.
First use Mar. 4, 1957.

SN 34,192. The Upjohn Company, Kalamazoo, Mich. Filed July 22, 1957.

ZYMBASIC

For Vitamin Preparation.
First use Nov. 20, 1956.

SN 34,463. Schering Corporation, Bloomfield, N. J. Filed July 26, 1957.

METI

Owner of Reg. Nos. 619,365, 642,506, and others.
For Steroid Preparations.
First use July 2, 1957.

SN 35,141. The Upjohn Company, Kalamazoo, Mich. Filed Aug. 7, 1957.

AQUATEF

Owner of Reg. Nos. 583,191 and 564,645.
For Medicinal Hormone Preparation.
First use Jan. 29, 1957.

SN 35,244. Cosmos Drugs, Inc., New York, N. Y. Filed Aug. 9, 1957.

RAY-BURN

For Ointment.
First use Aug. 5, 1957.

SN 35,285. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 9, 1957.

TETRASTATIN

For Antibiotic Preparation.
First use Apr. 25, 1957.

SN 35,286. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 9, 1957.

SIGNESTATIN

For Antibiotic Preparation.
First use June 11, 1957.

SN 35,287. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 9, 1957.

TERRASTATIN

For Antibiotic Preparation.
First use Apr. 25, 1957.

SN 35,434. Jensen-Salsbery Laboratories Inc., Kansas City, Mo. Filed Aug. 13, 1957.

TRICORTAN

For Pharmaceutical Preparation for the Treatment of Animals, Where Antistress, Anti-Inflammatory, Antiallergic or Gluconeogenic Action Is Indicated.
First use July 23, 1957.

SN 35,450. Chas. Pfizer & Co., Inc., Brooklyn, N. Y. Filed Aug. 13, 1957.

ANGINAX

For Tranquillizer-Vasodilator Preparation.
First use Apr. 5, 1957.

Class 19—Vehicles

SN 6,456. Napco Industries, Inc., Minneapolis, Minn. Filed Apr. 16, 1956.



The words "Accepted World Wide Automotive Products" are disclaimed apart from the mark as shown. Owner of Reg. Nos. 592,955 and 606,969.

For Sanders for Vehicles, Front Axles, and Dual Vehicle Wheel Adapters.
First use Mar. 31, 1955.

SN 7,892. Western Rubber Products Company, Inc., St. Louis, Mo. Filed Sept. 12, 1957.

TONEE

For Bumper for Towboats.
First use Mar. 12, 1956.

SN 13,440. General Motors Corporation, Detroit, Mich. Filed Aug. 6, 1956. Sec. 2(f) as to "Aeroproducts."



The words "Turbo" and "Propeller" are disclaimed apart from the mark as shown.

For Airplane Propellers and Parts Thereof.
First use June 25, 1956.

SN 22,576. Clay Robison, d. b. a. Robison Impl. Co., Maxwell, Iowa. Filed Jan. 14, 1957.

SEA-LAN

For Land and Water Marine Cruiser.
First use July 1, 1956.

SN 26,262. Forward-Henes Company, Minneapolis, Minn. Filed Mar. 15, 1957.

DRAG-STRIPS

For Traction Devices Consisting in Generally Flat Sections for Insertion Under the Driving Wheels of Automotive Vehicles.
First use Nov. 27, 1956.

SN 32,750. General Motors Corporation, Detroit, Mich. Filed June 27, 1957.

YEOMAN

For Automobiles.
First use Apr. 30, 1957.

SN 33,164. Markt & Hammacher Company, New York, N. Y. Filed July 3, 1957.

HERO

Owner of Reg. Nos. 83,503, 559,073, and others.
For Automotive Parts—Namely, Hydraulic Brake Parts, Leaf Springs and Leaves, Coil Springs, Tie Rod Ends, Drag Links, Front End Suspension Parts, and King Bolt Sets.
First use Aug. 1, 1954.

Class 21—Electrical Apparatus, Machines, and Supplies

SN 22,207. Mosler Research Products, Inc., Danbury, Conn. Filed Jan. 7, 1957.



For Radio Transmitters and Receivers for Limited Range Communication; Security Alarm Systems Operating Upon the Principle of Voltage Disturbance Upon Approach of an Intruder for the Protection of Industrial, Military and Other Areas Against Intrusion; Fence Antenna Systems for Use in Such Security Systems; and Electronic Amplifiers and Electrically Operated Guard Units for Indicating the Presence of an Intruder for Use in Such Security Systems.
First use Nov. 28, 1956.

SN 22,314. Helmco, Inc., Chicago, Ill. Filed Jan. 9, 1957.

WHIRL A DOG

For Electrically Operated Frankfurter Cooker.
First use Nov. 19, 1956.

SN 23,389. The Electric Storage Battery Company, Philadelphia, Pa. Filed Jan. 29, 1957.

PUSH BUTTON

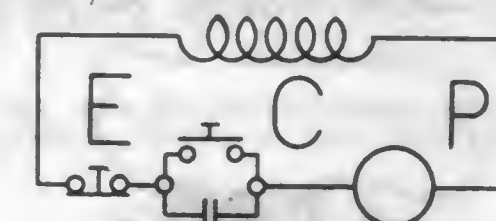
For Electric Batteries.
First use Feb. 20, 1952.

SN 24,673. Barrett Electronics Corporation, Northbrook, Ill. Filed Feb. 19, 1957.

GUIDE-O-MATIC

For Electronic Controls for Automatic Direction and Programming of Materials Handling Equipment.
First use Feb. 10, 1956.

SN 31,479. ECP Corporation, Cleveland, Ohio. Filed June 6, 1957.



For Electrical Apparatus Control Panels, Electrical wire Markers, Electrical Wire Clamps, and Electrical Wire Receiving Ducts.
First use June 1, 1952.

SN 31,493. Lambda Electronics Corporation, College Point, N. Y. Filed June 6, 1957.

COM-PAK

For Electronic Power Supplies for Industrial Uses.
First use Mar. 15, 1957.

SN 32,815. S. Gluck & Co., Inc., Philadelphia, Pa. Filed June 28, 1957.



For Electric Lamp Shades.
First use on or about Jan. 5, 1945.

SN 32,993. San Fernando Electric Manufacturing Co., San Fernando, Calif. Filed July 1, 1957.

GENERAL SCIENTIFIC

For Potentiometers.
First use Feb. 10, 1953.

SN 33,005. Thermo Materials, Inc., Menlo Park, Calif. Filed July 1, 1957.

T M I

For Ferrites Designed for Computer Memory and Switching Usage, Telephony, Microwave, Radio-Television Components and Circuitry.

First use on or about June 1, 1956.

SN 33,268. Dorothy Mielke, Indianapolis, Ind. Filed July 5, 1957.

ANOCAP

For Anode Protectors, Specifically a Flexible Cover Which Is Stretched Over the Hanger End of the Anode To Prevent Burning Off by Contact With the Acid.

First use Sept. 21, 1956.

SN 33,370. The Plessey Company Limited, Ilford, England. Filed July 8, 1957.

PLESSEY

Owner of British Reg. No. 648,762, dated June 13, 1946. For Plugs, Sockets, Junction Boxes, Condensers, Switches, Lamp Holders, Volume Control for Electric Sound Reproducing Equipment, Resistances, Transformers, Chokes, Ballast Units, Vibrators, Electronic Tube Socket, Radio Receivers, Radio Transmitters.

SN 33,533. Candace, Inc., Chicago, Ill. Filed July 11, 1957.



For Electrically Heated Mattress Pads.
First use December 1949.

SN 33,574. W. H. Sanders (Electronics) Limited, London, England. Filed July 11, 1957.

GRADECK

Owner of British Reg. No. 761,312, dated Jan. 11, 1957. For Instruments and Apparatus for Sound Recording and Sound Reproducing Apparatus and Instruments, Magnetic Tape for Use as Sound Recording and Reproducing Media, and Parts of These Goods.

Class 22—Games, Toys, and Sporting Goods

SN 682,149. The Holiday Line Inc., New York, N. Y. Filed Feb. 23, 1955.

EXPANDO ACCORDION POOL

Applicant disclaims exclusive right to use of the word "Pool" as the same appears in the mark.

For Wading Pools.

First use Nov. 15, 1954.

SN 94. The Program Aids Company, Inc., Tuckahoe, N. Y. Filed Jan. 3, 1956.



The term "Coaching Aids" is disclaimed apart from the mark shown.

For Coaching Kits Used by Coaches and Physical Education Teachers, for Illustrating Formations, Plays, and Strategy.

First use Sept. 15, 1955.

SN 15,818. Phoenix Gummiwerke Aktiengesellschaft, Hamburg-Harburg, Germany. Filed Sept. 17, 1956.



Owner of German Reg. No. 608,901, dated July 9, 1951. For Football Bladders.

SN 27,762. Wilson Sporting Goods Co., River Grove, Ill. Filed Apr. 8, 1957. Sec. 2(f).



For Golf Clubs.
First use Nov. 15, 1928.

SN 27,885. Phillips Fly & Tackle Company, Alexandria, Pa. Filed Apr. 10, 1957.

WIGGLE JIG

Applicant disclaims any rights in the word "Jig" apart from the mark as shown.

For Fishing Lure of the Artificial Type.

First use Oct. 1, 1952.

SN 28,289. Hyman Walter Shafer, d. b. a. H. W. Shafer Game Co., New York, N. Y. Filed Apr. 16, 1957.



For Game Consisting of a Playing Board and Well Finished Wood Planets and Moons and the Sun of Our Solar System With Wood Rocketships for Travelling About the Playing Board.

First use January 1953.

SN 28,879. Pacific Laminates, Incorporated, Costa Mesa, Calif. Filed Apr. 25, 1957.

MAGNUM

For Fishing Rods.
First use Feb. 28, 1957.

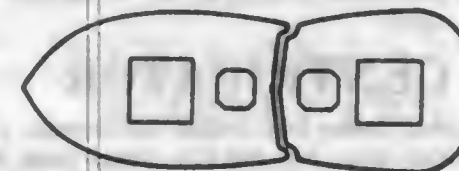
SN 30,405. H. J. Clay, Clarks Summit, Pa. Filed May 21, 1957.

"CHINCHO"

For Stuffed Toy Modeled From the Animal Known as a Chinchilla.

First use Mar. 27, 1957.

SN 32,326. Manning Manufacturing Corporation, Chicago, Ill. Filed June 20, 1957.



For Roller Skates.
First use May 3, 1957.

SN 33,919. Southern Toy Manufacturing Company, Waco, Tex., to Wonder Products Company, Collierville, Tenn. Filed July 17, 1957.

TEXAS BRONC

For Toy Hobby Horses.
First use as early as Mar. 15, 1954.

SN 34,294. M-B Corporation, New Holstein, Wis. Filed July 24, 1957.

GEP-ROD

For Fishing Rods.
First use June 21, 1957.

SN 34,347. Engineering Development Corporation, Berkeley, Calif. Filed July 25, 1957.

EDCO

Owner of Reg. Nos. 623,101 and 623,102. For Skin-Diving Apparel and Equipment Associated Therewith.
First use October 1953.

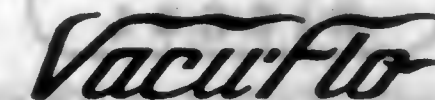
Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

SN 697,430. Wales-Strippit Corporation, North Tonawanda, N. Y., to Houdaille Industries, Inc., Buffalo, N. Y. Filed Oct. 31, 1955.

E

For Self-Contained Perforating Implements.
First use January 1941.

SN 1,714. D. W. Onan & Sons Inc., Minneapolis, Minn. Filed Jan. 30, 1956.



For Cooling Systems for Stationary Engines.
First use December 1955.

SN 25,238. L. A. Young Spring & Wire Corporation, also d. b. a. Daybrook Hydraulic Div., Detroit, Mich. Filed Feb. 28, 1957.



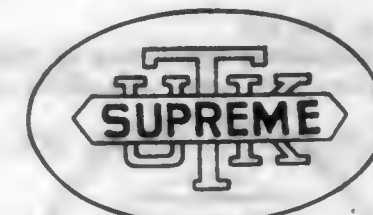
For Power Hoists, Power Gates, Power Packers Thereof and Parts Thereof.
First use Feb. 4, 1957.

SN 26,454. Eversharp Food Slicing Machine Company, Kansas City, Mo. Filed Mar. 19, 1957.

EVERSHARP

For Food Slicing Machines.
First use Mar. 4, 1957.

SN 26,900. Utica Cutlery Company, Utica, N. Y. Filed Mar. 25, 1957.



For Knives.
First use July 1, 1910.

SN 27,315. Ingersoll-Rand Company, New York, N. Y. Filed Apr. 1, 1957.



Owner of Reg. Nos. 577,554, 602,997, and others. For Portable Self-Propelled Drilling Rig.
First use Feb. 20, 1957.

SN 27,411. Akim Engineering Company, Incorporated, d. b. a. The Akim Co., Willimantic, Conn. Filed Apr. 29, 1957.



For Machines for Applying Garment Fastening Devices.
First use in July 1956.

SN 27,565. E. W. Bliss Company, Pittsburgh, Pa. Filed Apr. 5, 1957. Sec. 2(f).

MACKINTOSH-HEMPHILL

For Rolls, Straighteners, Lathes, and Other Massive Machinery, Tools and Parts Thereof.
First use on or about 1952.

SN 31,413. Motoren-Werke Mannheim A. G. vorm. Benz Abt. Stat. Motorenbau, Mannheim, Germany. Filed June 5, 1957.



Applicant disclaims the exclusive right to the word "Diesel" apart from the mark. Owner of German Reg. No. 699,544, dated Jan. 29, 1957.
For Diesel Engines.

SN 32,453. B-I-F Industries, Inc., Providence, R. I. Filed June 24, 1957.



For Lime Slakers, Variable Speed Transmission, Mechanical Controllers for Producing a Variable Direction Rotative Output, Bag Opening Devices, and Hopper Agitators, and Proportioning Apparatus.
First use in November 1955.

SN 33,360. Microdot Inc., South Pasadena, Calif. Filed July 8, 1957.

MICRODOT

Owner of Reg. No. 636,399.
For Tools for Assembling Connectors on Cables and Tools for Assembling Electrical Cable Assemblies and Electrical Harnesses.
First use May 29, 1954; on May 27, 1953, in a different style of lettering.

SN 34,661. Burndy Corporation, Norwalk, Conn. Filed July 31, 1957.

BURNDY

For Tools for Installing Electrical Connectors.
First use July 1942.

SN 35,152. American Chain & Cable Company, Inc., Bridgeport, Conn. Filed Aug. 8, 1957.

CUTALATOR

For Abrasive Cutting Machines, Exclusive of Abrasive Elements.
First use Mar. 23, 1942.

SN 38,507. Utica Cutlery Company, Utica, N. Y. Filed Oct. 7, 1957.

SATISFACTION

For Table Knives, Forks and Spoons, and Pie Knives, All of Base Metal.
First use Aug. 22, 1957.

SN 38,816. General Corrugated Machinery Company, Palisades, N. J. Filed Oct. 14, 1957.



For Machinery for Making Paper Board Cartons of Various Types and for Sealing Same, Including Gluing Machines, Lift Tables, Counter Stackers, Tape Applicators for Manufacturer's Joint, Case Sealers (Tape and/or Glue), Tear Strip Applicators.
First use December 1946.

Class 24 — Laundry Appliances and Machines

SN 24,575. The Don-Jon Company, St. Paul, Minn., to Cosum Industries, Inc., Minneapolis, Minn. Filed Feb. 18, 1957.



For Supporting Device for Holding Hosiery While Drying.
First use Aug. 15, 1954.

SN 33,114. American Machine and Metals, Inc., East Moline, Ill. Filed July 3, 1957.

LAUNDRITE

Owner of Reg. No. 613,069.
For Washers and Extractors.
First use Aug. 20, 1952, on washers.

Class 26 — Measuring and Scientific Appliances

SN 13,196. Centricator G. m. b. H., Munchen, Germany. Filed Aug. 1, 1956.

CENTRICATOR

Priority claimed under Sec. 44(d) on German application filed Feb. 3, 1956; Reg. No. 693,721, dated Aug. 9, 1956.
For Measuring, Observation, and Controlling Instruments and Tools Especially for Use on Machine Tools, Particularly Centering and Testing Devices for Observing and Measuring Trueness, Eccentricity, and Squareness.

SN 13,197. Centricator G. m. b. H., Munchen, Germany. Filed Aug. 1, 1956.



Priority claimed under Sec. 44(d) on German application filed Feb. 2, 1956; Reg. No. 693,722, dated Aug. 9, 1956.
For Measuring, Observation, and Controlling Instruments and Tools Especially for Use on Machine Tools, Particularly Centering and Testing Devices for Observing and Measuring Trueness, Eccentricity, and Squareness.

SN 16,469. Optische Werke G. Rodenstock, Munich, Germany. Filed Sept. 23, 1957.

HELIGARON

Owner of German Reg. No. 659,044, dated June 23, 1954.
For Camera Lenses and Cameras, Taking Lenses for Cine Cameras, Projector Lenses, Condensers, Optical Lenses, Field Glasses, Prism Binoculars, Opera Glasses, Spectacles, Folders, Spectacle Lenses, Magnifiers, Reading Glasses, Ophthalmological Instruments, Projection Instruments, and Cine Cameras.

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SN 17,917. Industrial Instruments, Inc., Cedar Grove, N. J. Filed Oct. 22, 1956. Sec. 2(f).
SN 30,720. Bourns Laboratories, Inc., Riverside, Calif. Filed May 27, 1957.

Auto-Bridge

For Electrical Test Equipment Employed in Automatic and Semi-Automatic Apparatus for Checking and Sorting Electronic Components.

First use 1945.

SN 28,025. Robert F. Borkenstein, Indianapolis, Ind. Filed Apr. 12, 1957.

BREATHALYZER

For Apparatus for Measuring the Alcoholic Content of Individuals.

First use Aug. 3, 1955.

SN 28,072. Sylvania Electric Products, Inc., New York, N. Y. Filed Apr. 12, 1957.

CINTAGON

Owner of Reg. No. 360,082.
For Camera Lens Assemblies.
First use March 1956.

SN 28,464. Special Instruments Laboratory, Inc., Knoxville, Tenn. Filed Apr. 18, 1957.

SPINLAB

For Instruments for Testing and Measuring Textile Fibers.
First use in 1949.

SN 28,734. Sprague Products Company, North Adams, Mass. Filed Apr. 23, 1957.

TRANSIMULATOR

For Electronic Circuit Simulating Instruments for Facilitating the Design of Transistor Circuits.
First use Mar. 16, 1957.

SN 30,035. Plasti-Card Co., Bronx, N. Y., to Bernard Ulano, Brooklyn, N. Y. Filed May 14, 1957.

PLASTI-CARD

For Knitting Machine Pattern and Stitch Selectors.
First use in July 1956.

SN 30,041. Service Manufacturing Company, Inc., Yonkers, N. Y. Filed May 14, 1957.

SUN VALLEY

For Leather Containers for Photographic Equipment.
First use Apr. 11, 1957.

SN 30,497. Kay Electric Company, Pine Brook, N. J. Filed May 22, 1957.

AUDIOLATOR

For All Transistorized Beat Frequency Audio Oscillator.
First use Apr. 16, 1957.

SN 30,543. Aerojet-General Corporation, Azusa, Calif. Filed May 23, 1957.



Owner of Reg. Nos. 409,006, 426,781, and 633,548.
For Nuclear Reactors and Accessory Equipment.
First use in or about May 1956.

TRIMPOT JR.

Owner of Reg. Nos. 602,968 and 629,473.
For Potentiometers.
First use Mar. 4, 1955.

Class 27 — Horological Instruments

SN 33,893. Enicar S. A. (Enicar Ag.) (Enicar Ltd.), Lengnau near Bienne, Switzerland. Filed July 17, 1957.

CAROLINE

Owner of Swiss Reg. No. 164,549, dated Mar. 14, 1957.
For All Horological Products—Namely, Watches, Watch Movements, Watch Casings, Watch Dials, and Parts of Watches.

Class 28 — Jewelry and Precious-Metal Ware

SN 30,047. Speidel Corporation, Providence, R. I. Filed May 14, 1957.

LORD LEATHER

No claim is made to the word "Leather" apart from the remainder of the mark.

For Watch Bracelets (Not Including Watches).
First use May 3, 1957.

Class 30 — Crockery, Earthenware, and Porcelain

SN 11,385. Mediterranean Commercial Corp., New York, N. Y. Filed July 2, 1956.



For Earthenware Plates and Vases.
First use Nov. 14, 1955.

Class 31 — Filters and Refrigerators

SN 15,827. Albert A. Robbins, West Covina, Calif. Filed Sept. 17, 1956.

KWIK-KOLD

For Chemical Freezing Package Which Maintains a Freezing Temperature and Is Placed in a Food Container or the Like.

First use Aug. 16, 1956.

SN 30,576. Evenflo Filters Inc., Providence, R. I. Filed May 23, 1957.

EVENFLO

For Filter Cartridges for Combustion Engines.
First use June 1, 1956.

SN 36,361. The Cuno Engineering Corporation, Meriden, Conn. Filed Aug. 28, 1957.

FILTRAPOL

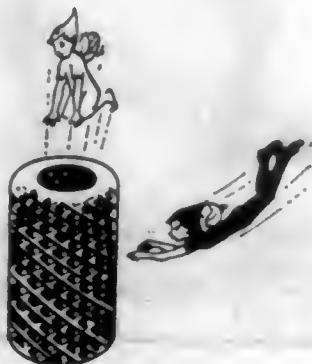
For Straining and Filtering Apparatus and Components Thereof.
First use Jan. 25, 1957.

SN 38,630. Parker Rust Proof Company, Detroit, Mich. Filed Oct. 9, 1957.

PARKER REACTIFIER

For Ion Exchange Equipment.
First use May 9, 1957.

SN 38,909. Evenflo Filters Inc., Providence, R. I. Filed Oct. 15, 1957.



For Filter Cartridges.
First use July 1, 1957.

Class 32 — Furniture and Upholstery

SN 19,750. Raleigh A. Dresser, d. b. a. Dresser Equipment Company, Hartford, Conn. Filed Nov. 23, 1956.

"KITCHENS of DISTINCTION"

For Kitchen Cabinets, Wall Cabinets, Undersink Cabinets, Base Cabinets, Cabinet Tops, and Counter Tops.
First use June 16, 1955.

SN 29,810. A. Marchand, Inc., New York, N. Y. Filed May 10, 1957. Sec. 2(f).

CONCEALITE

For Bathroom Wall Cabinets.
First use Nov. 11, 1936.

SN 29,811. A. Marchand, Inc., New York, N. Y. Filed May 10, 1957. Sec. 2(f).

MARCHAND

For Bathroom Wall Cabinets, Mirrors, and Recessed Shelving.
First use May 1939.

SN 37,009. Hanover Manufacturing Company, Hanover, Ill. Filed Sept. 11, 1957.

HANOVER



No claim is made to the word "Hanover" apart from the mark.

For Infant's Chair With Handles.
First use July 18, 1957.

SN 38,236. Schulta & Hirsch Co., Chicago, Ill. Filed Oct. 2, 1957.



Owner of Reg. No. 173,878.
For Mattresses and Box Springs.
First use on or about Jan. 15, 1957.

SN 38,370. Nachman Corporation, Chicago, Ill. Filed Oct. 4, 1957.

ECONOFLEX

For Spring Assemblies for Furniture.
First use Aug. 8, 1957.

SN 38,785. Allen Industries, Inc., Detroit, Mich. Filed Oct. 14, 1957.

HASSO-SEAT

For Furniture—Namely, Stools and the Like.
First use Aug. 30, 1957.

SN 38,996. The Kenmar Manufacturing Company, East Palestine, Ohio. Filed Oct. 16, 1957.



For Upholstered Furniture, Including Reclining Chairs.
First use Sept. 13, 1957.

SN 40,535. C. H. Page Bedding Company, Johnstown, Pa. Filed Oct. 17, 1957.



For Mattresses, Box Springs, Studio Couches, and Day Beds.
First use June 15, 1954.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 111

Class 33 — Glassware

SN 17,373. Jenaer Glaswerk Schott & Gen., Mainz, Germany.
Filed Oct. 12, 1956.

MAXOS

For Glass Plates.

First use 1917; in commerce July 1, 1935.

Class 34 — Heating, Lighting, and Ventilating Apparatus

SN 16,780. Western Auto Supply Company, Kansas City, Mo.
Filed Oct. 1, 1956.

WIZARD

Owner of Reg. Nos. 295,879, 631,788, and others.

For Air Conditioning Units.

First use June 1952.

SN 31,610. U. S. Industries, Inc., Goleta, Calif. Filed June 7, 1957.



For Gas Circulating Apparatus Including Blowers and Air Valve Actuators.

First use Dec. 12, 1956.

Class 35 — Belting, Hose, Machinery Packing, and Nonmetallic Tires

SN 28,021. The Belmont Packing & Rubber Company, Philadelphia, Pa. Filed Apr. 12, 1957.

BELMONT

Owner of Reg. Nos. 312,661 and 321,984.

For Mechanical Packings Made of Various Materials—Namely, Leather, Metals, Fibrous Materials, Granular Materials, Rubber Compounds, Synthetic Rubber Compounds, Plastics and Various Combinations Thereof; Gaskets and Gasket Materials, Insulation Tapes, Tubing, Sheetting, Pump Cups, Valves, and Discs.

First use Jan. 30, 1895.

SN 29,193. The Belmont Packing & Rubber Company, Philadelphia, Pa. Filed May 1, 1957.



The term "Philadelphia, U. S. A." is disclaimed apart from the mark shown. Owner of Reg. Nos. 312,661 and 321,984.

For Mechanical Packings Made of Various Materials—Namely, Leather, Metals, Fibrous Materials, Granular Materials, Rubber Compounds, Synthetic Rubber Compounds, Plastics and Various Combinations Thereof; Gaskets and Gasket Materials, Insulation Tapes, Tubing, Sheetting, Pump Cups, Valves and Discs.

First use Mar. 21, 1932.

SN 32,234. OK Tires Inc., Columbus, Ga. Filed June 19, 1957.

BIG 7

For Tires.

First use Jan. 30, 1957.

SN 32,530. H. K. Porter Company (Delaware), Philadelphia, Pa. Filed June 24, 1957.

TUFF-EDGE

For Fire Hose.

First use Mar. 1, 1957.

SN 32,598. William H. Harvey, d. b. a. Wm. H. Harvey Co., Omaha, Nebr. Filed June 25, 1957. Sec. 2(f).

BOL-WAX

Owner of Reg. Nos. 421,649 and 547,634.

For Preformed Gaskets for Setting Toilet Bowls.

First use Feb. 15, 1945.

Class 36 — Musical Instruments and Supplies

SN 34,880. Zenith Radio Corporation, Chicago, Ill. Filed Aug. 2, 1957.



Owner of Reg. Nos. 164,341, 26,308, and others.

For Phonographs and Parts Thereof and Accessories Therefor.

First use in 1922.

SN 34,896. Accordion Manufacturers and Wholesalers Outlet, Chicago, Ill. Filed Aug. 5, 1957.

CORONET

For Accordions and Grooved Phonograph Records.

First use on or before Apr. 15, 1950.

SN 35,083. Capitol Records, Inc., Los Angeles, Calif. Filed Aug. 7, 1957.



For Phonograph Records.

First use July 12, 1957.

Class 37 — Paper and Stationery

SN 21,695. Kadrill S. A., Moutier, Berne, Switzerland. Filed Dec. 27, 1956.

cameleon

Owner of Swiss Reg. No. 159,738, dated Jan. 9, 1956.

For Ball Point Pens, and Particularly Ball Point Pens Capable of Writing in Four Colors.

Class 38 — Prints and Publications

SN 20,081. Autrey Brothers, Inc., Denver, Colo. Filed Nov. 29, 1956.

Autrex

For Graduation and Wedding Invitations and Announcements, Wedding Reception Cards, and Business Announcements and Cards.

First use on or about Sept. 20, 1956.

SN 26,680. Broadcasting Publications, Inc., Washington, D. C. Filed Mar. 22, 1957. Sec. 2(f) as to "Broadcasting Telecasting."



**BROADCASTING
TELECASTING**

The drawing is lined for red, black, and silver or gray, but color is disclaimed. Owner of Reg. No. 542,051.

For Periodical.

First use Oct. 15, 1956; May 1, 1944, as to "Broadcasting Telecasting."

SN 29,353. Galen Gavel, Providence, R. I. Filed May 3, 1957.

MECKI

For Lithographic Prints.

First use Nov. 30, 1956.

SN 31,880. The Virginia Gazette, Williamsburg, Va. Filed June 12, 1957. Sec. 2(f).

THE VIRGINIA GAZETTE

For Weekly Newspaper.

First use Jan. 10, 1930.

SN 32,725. Audiocom, Inc., Great Barrington, Mass. Filed June 27, 1957. Sec. 2(f).

High Fidelity

Owner of Reg. No. 606,208.

For Magazines.

First use Apr. 27, 1951.

SN 33,038. Associated Credit Bureaus of America, Inc., St. Louis, Mo. Filed July 2, 1957.

Factbitt **FLASHES**

For Monthly Credit Bulletin Published for Its Members.
First use July 1946.

Class 39 — Clothing

SN 15,629. Penobscot Shoe Company, Boston, Mass. Filed Sept. 13, 1956.

Trés jolie

For Shoes.

First use July 10, 1956.

SN 18,493. The Cashmere Corporation of America, Weaver-ville, N. C. Filed Oct. 31, 1956.

**THE ICELANDER BY
HADLEY**

Owner of Reg. Nos. 502,901, 617,520, and 617,533.
For Men's, Women's, and Children's Knitted Woolen Sweaters, Cardigans, and Pullovers.
First use Oct. 10, 1956.

SN 23,903. F. & F. Shoe Company, Chippewa Falls, Wis. Filed Feb. 6, 1957.

FIELD AND STREAM

For Leather and Rubber Boots and Shoes for Men, Women, and Children.

First use Jan. 24, 1957.

SN 24,277. National Transparent Plastics Company, Springfield, Indian Orchard, Mass. Filed Feb. 12, 1957.

Rain Queens

For Plastic Overshoes and Boots.

First use on or about Jan. 2, 1957.

SN 25,000. Kingsboro Mills, Inc., Daisy, Tenn. Filed Feb. 25, 1957.

Normandie

Owner of Reg. No. 346,040.

For Ladies' and Children's Knitted Vests, Bloomers, Panties, Night Gowns, and Pajamas.

First use Jan. 5, 1932.

SN 25,001. Kingsboro Mills, Inc., Daisy, Tenn. Filed Feb. 25, 1957.

Rogers

VISIONETTES

Owner of Reg. No. 347,568.

For Ladies' and Children's Knitted Vests, Bloomers, Panties, Night Gowns, and Pajamas.

First use Jan. 5, 1932.

SN 25,888. Rainbow Shops, Inc., Brooklyn, N. Y. Filed Mar. 11, 1957.

BEAU D'OR

For Ladies' and Misses' Lingerie—Namely, Slips, Panties, Brassieres, Girdles, Pajamas, Nightgowns, Lounging Robes, Bed Jackets.

First use Jan. 10, 1957.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 113

SN 27,974. Piedmont Shirt Company, Greenville, S. C. Filed Apr. 11, 1957.

WINGS

Owner of Reg. Nos. 253,701, 638,817, and others.
For Women's, Girls', and Misses' Shirts, Blouses, Nightgowns, Pajamas, and Jackets.
First use Dec. 17, 1943, on women's, girls', and misses' pajamas.

SN 29,427. Boyston Shirt Co., Inc., New York, N. Y., now by change of name Boys' Tone Shirt Co., Inc. Filed May 6, 1957.

Boys' Tone

For Men's and Boys' Dress and Sport Shirts.
First use Apr. 22, 1957.

SN 30,663. Moe Kalina, New York, N. Y. Filed May 24, 1957.

**Kalee
KLASSIC**

Applicant disclaims the term "Klassic" apart from the mark as shown.

For Children's, Girls', Teens', Misses', and Ladies' Knitted and Textile Blouses, Dresses, Skirts, Slacks, Jackets, and Boleros.

First use Apr. 3, 1945.

SN 31,701. Standard Textile Company, Inc., Memphis, Tenn. Filed June 10, 1957.

BLUE GOOSE

The drawing is lined for red and blue, but no claim is made to color.

For Men's Work Shirts and Men's and Boys' Overalls, Men's and Boys' Pants, Vests, and Jackets.

First use Sept. 1, 1924.

SN 31,913. Eagle Clothes, Inc., Brooklyn, N. Y. Filed June 13, 1957.

JONATHAN SCOTT

Owner of Reg. Nos. 549,205 and 550,708.
For Men's Overcoats, Topcoats, and Suits.
First use Mar. 21, 1957.

SN 32,112. N. R. Enterprises, New York, N. Y. Filed June 17, 1957.

**Nettie
Rosenstein**

"Nettie Rosenstein" is the name of a living individual, whose consent is of record.

For Brassieres, Girdles, and Foundation Garments.
First use May 17, 1957.

SN 32,318. Indianapolis Glove Company, Inc., Indianapolis, Ind. Filed June 20, 1957.

Rozbud

For House and Garden Gloves.
First use June 10, 1957.

SN 32,327. The Louis Marcus Corporation, Baltimore, Md. Filed June 20, 1957. Sec. 2(f).

DUOLINER

Owner of Reg. No. 553,256.
For Ladies' Suits and Coats.
First use Apr. 1, 1947.

SN 32,545. D. J. Schwartz & Co., Inc., New York, N. Y. Filed June 24, 1957.

Dá Vid

For Ladies' and Misses' Outerwear—Namely, Coats, Suits, Jackets, Skirts, and Coat and Suit Ensembles.
First use Mar. 28, 1955.

SN 35,144. Wall St., Clothes, Inc., New York, N. Y. Filed Aug. 7, 1957.

WALL ST.

Owner of Reg. Nos. 299,714 and 300,255.
For Suits, Coats, Slacks, Gloves, Belts, Shirts, Neckties, Pajamas, and Sport Jackets, for Men, Women, and Children.
First use Nov. 6, 1923.

Class 40—Fancy Goods, Furnishings, and Notions

SN 22,239. Ambassador Leather Products, Inc., New York, N. Y. Filed Dec. 12, 1956.



"His Majesty the Baby"

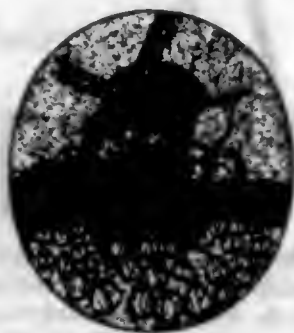
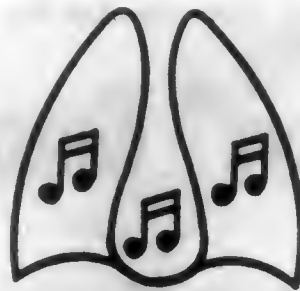
Applicant disclaims the right to the exclusive use of the words "Safety Guard."

For Infant's Safety Belt.
First use May 2, 1947.

SN 29,769. Velcro S. A., Lenzerheide, Grisons, Switzerland. Filed May 9, 1957.

Velcro

Owner of Swiss Reg. No. 161,751, dated July 10, 1956.
For Notion—Namely, a Synthetic Material Sold in Ribbon, Sheet, or Piece Goods Form, Said Material Having Complementary Parts Which Adhere to Each Other When Pressed Together and Adapted for Use as a Closure, Fastener, or Button for Closing Garments, Curtains, or the Like.

**Class 42—Knitted, Netted, and Textile
Fabrics, and Substitutes Therefor**SN 16,902. Albert Müller, Köln-Ehrenfeld, Germany. Filed
Oct. 3, 1956.**PRENOLINE**Owner of German Reg. No. 688,839, dated Mar. 21, 1956.
For Interlining for Skirts, Coats, and Collars, Linen and
Insulating Material, All Goods Being Sold in the Bolt.SN 30,313. Elniger Mills, Inc., New York, N. Y. Filed May
20, 1957.**KARISA**For Piece Goods for Dresses and Coats.
First use May 5, 1957.SN 32,994. Sea Island Mills, Inc., New York, N. Y. Filed
July 1, 1957. Sec. 2(f).Owner of Reg. Nos. 349,142, 327,727, and 327,728.
For Knitted and Textile Fabrics in the Piece Consisting
of Cotton, Wool, Natural and Artificial Silk, and Mixture
Thereof.
First use in 1908.SN 40,539. Paca Manufacturing Co. Inc., Baltimore, Md.
Filed Nov. 1, 1957.For Furniture Slip Covers Made of Cloth.
First use Oct. 31, 1948.**Class 43—Thread and Yarn**SN 696,758. Wool Trading Company, Inc., New York, N. Y.
Filed Oct. 19, 1955.**HOLLAND
WINDMILL**For Wool Yarn.
First use Feb. 9, 1954.SN 33,401. Courtaulds Limited, London, England. Filed
July 9, 1957.**VISCA**Owner of British Reg. No. 430,712, dated Oct. 21, 1922;
and U. S. Reg. Nos. 370,971, 396,186, and others.
For Single Flat Cellulose Filaments in the Nature of Yarns
and Threads.**Class 44—Dental, Medical, and Surgical
Appliances**SN 15,498. United States Plastic Bandage Company, Buffalo,
N. Y. Filed Sept. 11, 1956.**FORM-CUT**For Bandages—Namely, Fingertip Dressings.
First use Apr. 25, 1955.SN 22,480. Sunbeam Corporation, Chicago, Ill. Filed Jan.
11, 1957. Sec. 2(f).**STEWART**For Dehorner.
First use Aug. 15, 1951.SN 30,862. Oliver E. Turner, Pittsburgh, Pa. Filed May
27, 1957.**AMPLISCOPE**For Heart Detection Instrument Which Consists of a Port-
able Electronic Self-Contained Pocket-Size Stethoscope Not
Requiring Electrical Wiring or Tubing to the Ears, and the
Same Amplifies Heart, Lung, Abdominal, and Peristaltic
Sounds.

First use Oct. 15, 1946.

SN 34,833. Zimmer Manufacturing Company, Warsaw, Ind.
Filed Aug. 1, 1957.**ZIMFOAM**For Fracture Splints.
First use July 15, 1957.SN 34,882. Zenith Radio Corporation, Chicago, Ill. Filed
Aug. 2, 1957.Owner of Reg. Nos. 164,341, 26,308, and others.
For Hearing Aids, and Parts Therefor and Accessories
Therefor.
First use 1938.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 115

SN 35,271. S. H. Kress and Company, New York, N. Y. Filed Aug. 9, 1957. SN 19,794. Mosemann Company, Lancaster, Pa. Filed Nov. 23, 1956. Sec. 2(f) as to "Mosemann's."

SANIKLEEN

Owner of Reg. Nos. 351,509, 567,058, and others.
For Dental Floss.
First use Mar. 10, 1938.

Class 45—Soft Drinks and Carbonated Waters

SN 32,113. National NuGrape Company, Atlanta, Ga. Filed June 17, 1957.

GOLD DOT

For Carbonated Soft Drinks and Extracts Used in Making the Same.
First use Feb. 3, 1939.

Class 46—Foods and Ingredients of Foods

SN 700,563. Bell Brand Foods, Ltd., Los Angeles, Calif. Filed Dec. 27, 1955.

IF IT'S BELL—IT'S SWELL!

Owner of Reg. Nos. 583,519, 583,772, and others.
For Potato Chips, Cheese Puffs, Corn Chips, French Fried Potatoes, Pretzels, and Peanut Butter.
First use June 6, 1946.

SN 4,407. United Biscuit Company of America, Melrose Park, Ill. Filed Mar. 12, 1956.

LITTLE JACK HORNER

For Cookie Sandwiches, Comprising a Plurality of Cookies Having a Filling Therebetween.
First use Oct. 1, 1931.

SN 4,548. Lee Israel, Ville Platte, La., to I-Ron Pot Packing Company, Inc., Ville Platte, La. Filed Mar. 14, 1956.

I-IRON POT

For Instant Roux.
First use Nov. 21, 1955.

SN 10,023. Kurt Reiss, Toronto, Ontario, Canada. Filed June 11, 1956.

AMERICL X

Owner of Canadian Reg. No. 106,746, dated May 24, 1957.
For Fresh and Dried Eggs.

SN 19,259. National Dairy Products Corporation, New York, N. Y. Filed Nov. 14, 1956.

Regency

For Ice Cream.
First use July 10, 1947.



No exclusive claim is made to the words "Pennsylvania Dutch" apart from the mark as shown.
For Peanut Butter.
First use Oct. 1, 1956.

SN 20,776. Nichols Incorporated, Kingston, N. H. Filed Dec. 10, 1956. Sec. 2(f).



For Fresh Eggs.
First use May 1951.

SN 21,151. Guest Quality Foods, Inc., Waterloo, Iowa. Filed Dec. 17, 1956.



The word "Quality" is disclaimed apart from the mark as shown.
For Dates, Cheese, Cheese Spreads, Candy, and Smoked Hams and Bacon.
First use Sept. 17, 1956.

SN 21,280. Sunkist Growers, Inc., Los Angeles, Calif. Filed Dec. 18, 1956.

SEEL-PEEL

For Dehydrated Citrus Peel.
First use Nov. 23, 1956.

SN 21,485. United Salt Corporation, Houston, Tex. Filed Dec. 21, 1956. SN 30,443. Producentforeningen af Danish Blue Cheese og Mycella, Odense, Denmark. Filed May 21, 1957. COLLECTIVE MARK.



The phrase "In Any Weather It Will Shake" is disclaimed apart from the mark as shown. Owner of Reg. No. 572,704. For Table Salt. First use Apr. 1, 1955.

SN 24,436. Goren Packing Co., Inc., East Boston, Mass. Filed Feb. 14, 1957.

VIBRA-DIPT

For Frozen Steaks. First use Feb. 4, 1957.

SN 25,103. The Manhattan Coffee Company, St. Louis, Mo. Filed Feb. 26, 1957.

MIRACLE PROCESS

For Coffee. First use January 1955.

SN 27,798. Paul Hooze, d. b. a. L. A. Hooze Co., San Antonio, Tex. Filed Apr. 9, 1957.

BELGIUM BOY

For Fresh Fruits and Vegetables. First use Feb. 1, 1956.

SN 27,802. George M. Karam, d. b. a. Karam Frozen Foods, Nogales, Ariz. Filed Apr. 9, 1957.

Evening Star

For Frozen Shrimp. First use Oct. 20, 1956.

SN 28,157. Samuel S. Krum, d. b. a. S. S. Krum & Co., New York, N. Y. Filed Apr. 15, 1957. Sec. 2(f).

KRUM'S

For Canned Goods of the Following: Mushrooms, Dill Cucumbers, Sauerkraut, and Cooked Ham. First use February 1950.

SN 28,474. Wilno Kosher Sausage Company, Chicago, Ill. Filed Apr. 18, 1957.

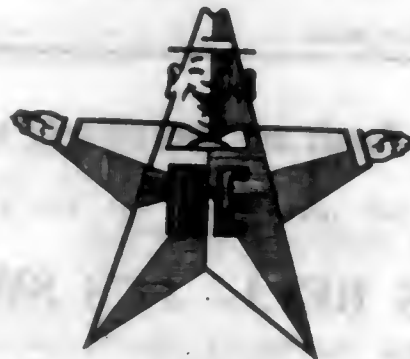
KRISP-IT

For Kosher Beef in the Nature of Bacon. First use Jan. 1, 1945.



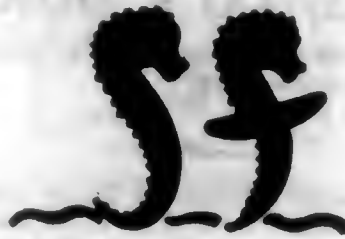
For Cheese. First use Jan. 5, 1957; in commerce Mar. 8, 1957.

SN 31,172. Central Carolina Farmers Exchange, Inc., Durham, N. C. Filed May 17, 1957.



The drawing is lined to indicate the colors red and blue but no claim is made to color. For Feed for Livestock, Poultry, and Dogs. First use July 1, 1955.

SN 32,261. Saltwater Farm Incorporated, Damariscotta, Maine. Filed June 19, 1957.



Owner of Reg. No. 556,452. For Live Shellfish, Herring Fillets, and Canned Shellfish, Fish and Shellfish Soups, Newburg Sauce Base, Fish and Shellfish Spreads, and Indian Pudding. First use May 1949 on live lobsters and live clams.

SN 34,306. Raymond Confections, Inc., Chicago, Ill. Filed July 24, 1957.

COM-ETTES

For Candy, and Candy in Colored Granular or Other Finely Divided Form for Decorating and Coloring of Foods and Beverages. First use Aug. 21, 1956.

SN 35,344. Gemüsebau A. G. Tägerwilen, Tägerwilen, Switzerland. Filed Aug. 12, 1957.



Biotta

Owner of Swiss Reg. No. 164,676, dated Mar. 22, 1957. For Vegetable Juice.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 117

SN 35,718. American Breddo Corp., New York, N. Y. Filed Aug. 19, 1957.

BREM

For Cake Emulsifier.
First use July 16, 1957.

SN 35,796. Mid-State Horticultural Co., Fresno, Calif. Filed Aug. 19, 1957.

GOLDEN ELK

Owner of Reg. Nos. 601,097 and 601,098.
For Fresh Grapes.
First use in July 1957; in 1930 as to "Elk" and elkhead design.

SN 36,441. A. E. Illes Company, Dallas, Tex. Filed Aug. 29, 1957.

HULA SWISH

For Sherbet and Soft Drink Flavoring Concentrates.
First use Aug. 17, 1957.

SN 37,215. Eugene A. Bozzo, d. b. a. Geneda Products Co., Gilroy, Calif. Filed Sept. 16, 1957.

GENEDA

For Processed Prunes.
First use on or about Sept. 15, 1956.

Class 47 — Wines

SN 20,676. Alta Vineyards Company, d. b. a. B. Cribari & Sons, Fresno, Calif. Filed Dec. 10, 1956.



The word "Famiglia" is the Italian equivalent of the English word "family." Owner of Reg. Nos. 351,751 and 428,231.
For Wines.
First use September 1951.

SN 22,403. Champagne Ayala (Société Anonyme), Ay, Marne, France. Filed Jan. 7, 1957. Sec. 2(f).



For Wines.
First use 1875; in commerce 1933.

Class 48 — Malt Beverages and Liquors

SN 33,892. Cervecería Corona, Inc., New York, N. Y. Filed July 17, 1957.

Malta Corona

No registration rights are claimed for the word "Malta" apart from the mark shown and applicant waives no common-law or other rights in said word. "Corona" in Spanish means "crown" and "Malta" means "malt."

For Non-Alcoholic Malt Beverage Made From Malt, Hops, and Cereals.
First use August 1934.

Class 49 — Distilled Alcoholic Liquors

SN 605,152. The Fleischmann Distilling Corp., New York, N. Y. Filed Oct. 19, 1950.

OLDE HEIRLOOM

For Whiskey.
First use Feb. 8, 1934.

SN 18,833. Erven Lucas Bols Incorporated, Englewood, N. J. Filed Nov. 6, 1956.



't LOOTSJE

The Dutch word "'t Lootsje" means "the shed."
For Aquavit.
First use Oct. 19, 1956.

SN 35,686. Schenley Industries, Inc., New York, N. Y. Filed Aug. 16, 1957.

**SCOTS' ELEGANCE
BY SCHENLEY**

For Whiskey.
First use July 17, 1957.

Class 50—Merchandise Not Otherwise Classified

SN 16,229. Max Kruse, d. b. a. Käthe Kruse Werkstätten Donauwörth, Donauworth, Germany. Filed Sept. 24, 1956.

Käthe Kruse

Owner of German Reg. No. 154,722, dated Feb. 8, 1912.
For Mannequins in the Nature of Human Figures of All Age Groups With Those Figures of Infant and Young Children Age Groups Also Being Capable of Use as Dolls.

SN 23,754. Bernhard Ulmann Co. Inc., Long Island City, N. Y. Filed Feb. 4, 1957.

NYLOKRAFT

For Ornamental Christmas Decorations Composed of a Blend of Nylon and Cotton—Namely, Place Mats, Table Runners, Tree Skirts, and Christmas Stockings.
First use June 6, 1956.

SN 34,693. The General Tire & Rubber Company, Akron, Ohio. Filed July 31, 1957.



Applicant disclaims "Plastics" except as a part of the mark shown. Owner of Reg. Nos. 114,963, 395,212, and others.
For Plastic Sheet Material, Both Supported and Unsupported, for Use as Seat Covers, Interior Trim, Shower Curtains, Drapes, Luggage, and the Like.
First use about January 1955.

Class 51—Cosmetics and Toilet Preparations

SN 8,091. Lydia O'Leary, Inc., New York, N. Y. Filed May 10, 1956.

LIFETONE

Owner of Reg. No. 334,015.
For Liquid Make Up Foundation.
First use Apr. 15, 1956.

SN 10,934. Societe Monsavon-L'Oreal, Societe Anonyme, Paris, France. Filed June 25, 1956.

L'OREAL

Owner of U. S. Reg. Nos. 540,541 and 564,689.
For Hair Colorings, Color Rinses, Hair Bleaches, Color Developers, Color Intensifiers, and Hair Conditioners.
First use Feb. 22, 1921; in commerce Feb. 22, 1921.

SN 15,140. Pharmetics Corporation, Baltimore, Md. Filed Sept. 5, 1956.



The drawing is lined for red and blue, however no claim is made to color. Owner of Reg. No. 378,477.

For Hair Dressing, Quinine Hair Tonic, Mouth Wash, Witch Hazel, Sun Tan Oil, Brillantine, Glycerine and Rosewater Used as a Hand Lotion, Talcum Powder, Cold Cream, Pomades for Hair, Face and Body Lotions, and Peroxide of Hydrogen as Hair Bleach.

First use May 18, 1937.

SN 16,066. Roma Lind, d. b. a. Roma Lind Co., Hollywood, Calif. Filed Sept. 20, 1956.

ROMA LIND

For Skin Cleansers, Skin Fresheners, Night Creams, and Beauty Masques.

First use Sept. 1, 1947.

SN 20,673. Vapon, Inc., Montclair, N. J. Filed Dec. 7, 1956.

VAPON

For Cosmetic Preparations—Namely, Hair Waving Lotion, Shampoo, Hair and Scalp Lotion for Dry Scalp and for Removing Scale, and Hand Cream.

First use July 26, 1927, on preparation for hair and scalp.

SN 30,556. Hazel Bishop, Inc., New York, N. Y. Filed May 23, 1957.



For Face Powder, a Compacted Combination of Face Powder and Make-Up Base.
First use Jan. 3, 1957.

SN 31,358. Charles Stutzer, d. b. a. Royal Luxury Perfumes Distributors, New York, N. Y. Filed June 4, 1957.

PARDON

For Perfumes and Toilet Waters.
First use May 2, 1957.

SN 34,160. Middlebrooke Lancaster, Inc., Brooklyn, N. Y. Filed July 22, 1957.

M-L

For Cold Wave Lotion Used in the Permanent Wave Treatment of the Hair.
First use June 14, 1956.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 119

SN 35,603. Societe Anonyme des Laboratoires Charles Roger, Boulogne-sur-Seine (Seine), France. Filed Aug. 13, 1957.

SN 27,811. Nopco Chemical Company, Harrison, N. J. Filed Apr. 9, 1957.

TAKY

For Depilatories in Liquid and Cream Form.
First use Mar. 1, 1924; in commerce Mar. 13, 1924.

Class 52 — Detergents and Soaps

SN 7,424. Helene Curtis Industries, Inc., Chicago, Ill. Filed May 1, 1956.

IMPERIAL

For Shampoo Concentrate.
First use on or about Mar. 29, 1956.

SN 11,701. The Rapp-Ramsey Company, Shenandoah, Iowa. Filed July 6, 1956.

FAST

For Detergent for Use in Washing Machines.
First use Sept. 14, 1953.

SN 24,612. Mac's Super Gloss Co., Inc., Los Angeles, Calif. Filed Feb. 18, 1957.

MAC'S

Owner of Reg. Nos. 425,262, 503,054, and 610,506.
For Automobile Cooling System Cleanser; and White Side-wall Tire Cleaner.
First use August 1952.

HYONIC

For Detergents and Foam Stabilizing Additives and for Detergents for Household and/or Industrial Uses.
First use September 1954.

SN 32,786. United Chemical Corporation of New England, Providence, R. I. Filed June 27, 1957.

NI-PLEX

For Metal Stripping Compound.
First use June 7, 1957.

SN 32,952. Heatbath Corporation, Indian Orchard, Mass. Filed July 1, 1957.

CHEMBURR

For Acid Bath for Removal of Excess Metal Resulting From Casting, Machining, and/or Stamping Operations.
First use Mar. 6, 1957.

SN 36,132. Wilbert Products Co., Inc., New York, N. Y. Filed Aug. 23, 1957.

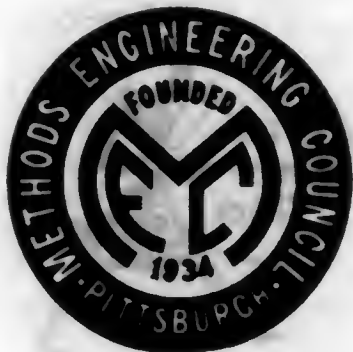
JAVEX

For Liquid Preparation for Bleaching, Cleaning, Removing Stains, Disinfecting, and Deodorizing.
First use June 7, 1919.

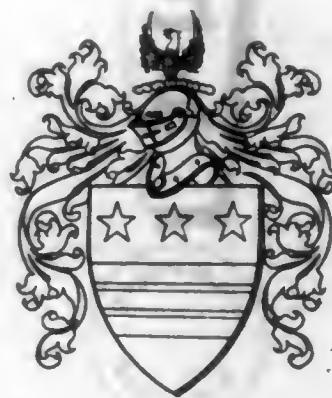
SERVICE MARKS

Class 100 — Miscellaneous

SN 19,982. H. B. Maynard and Company Incorporated, Wilkesburg, Pittsburgh, Pa., formerly known as Methods Engineering Council Incorporated. Filed Nov. 27, 1956.



For Services as Industrial Engineering Consultants Including Linear Study, Advice and Training of Personnel in Programming, Inventory Management, Management Audits, Plant Layouts, Personnel Appraisals and Time and Motion Studies and Miscellaneous Industrial Management Problems.
First use Dec. 30, 1941.



For Furnishing Individuals With Information Regarding the Coats of Arms Used by Their Ancestors.
First use Nov. 15, 1956.

SN 31,301. Archery Manufacturers and Dealers Association, Waverly, Iowa. Filed June 4, 1957.

AMADA

For Trade Association Services—Namely, Promoting the Sport of Archery and the Dissemination of Information Among Its Members and General Public.

First use July 10, 1954.

Class 101—Advertising and Business

SN 3,333. Advertising Distributors of America, Inc., New York, N. Y. Filed Feb. 27, 1956.



For Conducting Public Opinion Surveys, Complete Operation of Premium Merchandising Plans for Others, Advertising the Goods and Services of Others Through the Medium of Contests and Direct Mailing Campaigns.

First use 1935.

SN 4,350. National Machine Accountants Association, Paris, Ill. Filed Mar. 12, 1956.



For Disseminating Information to Members Relative to Sound Principles, and Methods of Machine Accounting by Means of Periodic Publications, Conventions, and Correspondence.

First use Sept. 1, 1951.

SN 10,099. New England Advertising, Newton Highlands, Mass. Filed June 12, 1956.

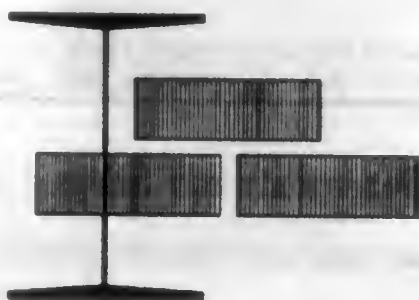


For Promotional Advertising Services—Namely, Submitting Promotional Advertising Plans to Clients, Suggesting and Procuring Advertising Specialties To Promote the Sale of the Clients' Goods.

First use Feb. 1, 1956.

Class 102—Insurance and Financial

SN 19,450. Virginus H. Goodman, Richmond, Va. Filed Nov. 19, 1956.



The drawing is lined to indicate the color red.

For Real Estate Transactions—Namely, the Appraisal, Sale, and Leasing of Real Property of Others, and Arranging for Financing of Such Transactions.

First use Dec. 22, 1954.

SN 29,280. Future Planning Corporation, New York, N. Y. Filed May 2, 1957.



For Investing the Funds of Others in Diversified Securities.

First use June 18, 1956.

SN 35,255. The First National Bank of Edmond, Edmond, Okla. Filed Aug. 9, 1957.



For Checking Account Services.

First use July 20, 1957.

FEBRUARY 25, 1958

U. S. PATENT OFFICE

TM 121

Class 103 — Construction and RepairSN 31,990. Pacific Intermountain Express Co., Oakland, Calif.
Filed June 14, 1957.SN 27,888. The Pure Oil Company, Chicago, Ill. Filed Apr.
10, 1957.

The drawing is lined for red and blue. Owner of Reg. Nos. 531,875, 562,042, and 588,008.

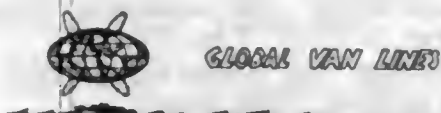
For Services Rendered to Automobiles, Trucks, and Other Automotive Vehicles—Namely, Lubrication, Washing, Polishing, Repairing, Motor Tuning, Battery Charging, Tire Repairing and Changing, Air Cleaner Maintenance and Repair, Spark Plug Cleaning and Regapping.

First use Sept. 9, 1955.



The drawing is lined for shading only and not to represent any particular color, no claim being made to any color as such. Owner of Reg. No. 517,539.

For Transportation by Truck of Miscellaneous Freight.
First use in 1952.

Class 105 — Transportation and StorageSN 28,587. Global Van Lines, Inc., Long Beach, Calif. Filed
Apr. 22, 1957.

For Transportation of the Goods of Others, Especially Household Goods, by Motor Vehicles.
First use May 1, 1956.

Class 107 — Education and EntertainmentSN 31,809. Beautyrama Incorporated, Kansas City, Mo.
Filed June 12, 1957.

For Title of a Television Program—Namely, Entertainment in the Form of Motion Pictures Presenting Drama, Comedies, and Musical Comedies Through the Medium of Television.
First use Jan. 4, 1957.

TRADEMARK REGISTRATIONS ISSUED PRINCIPAL REGISTER

Class 2 — Receptacles

658,652. ARROWHEAD. Arrowhead & Puritas Waters, Inc. SN 22,153. Pub. 12-10-57. Filed 1-7-57.

658,653. BUTT-IN-SKEE. Louis S. Silver, d. b. a. Silver Industries. SN 29,106. Pub. 12-10-57. Filed 4-29-57.

Class 3 — Baggage, Animal Equipments, Portfolios, and Pocketbooks

658,654. STARFROST. The Baltimore Luggage Co. SN 29,515. Pub. 12-10-57. Filed 5-7-57.

Class 5 — Adhesives

658,655. VERSILAD. Diamond Alkali Company. SN 26,787. Pub. 9-3-57. Filed 3-25-57.

658,656. VERSILAD. Diamond Alkali Company. SN 26,788. Pub. 9-3-57. Filed 3-25-57.

658,657. VERSILATE. Diamond Alkali Company. SN 26,789. Pub. 9-3-57. Filed 3-25-57.

Class 6 — Chemicals and Chemical Compositions

658,658. POLYCOR. Ciba Limited. SN 11,144. Pub. 3-5-57. Filed 6-28-56.

658,659. DETERGER. Dowell Incorporated. SN 16,594. Pub. 5-28-57. Filed 9-28-56.

658,660. HEIKO ETC. AND DESIGN. Heine & Co. SN 18,637. Pub. 12-10-57. Filed 11-2-56.

658,661. SEPTIC-LIFE. John R. Wertz. SN 23,647. Pub. 12-10-57. Filed 2-1-57.

658,662. HYPROSE. The Dow Chemical Company. SN 28,035. Pub. 12-10-57. Filed 4-12-57.

658,663. HYPRIN. The Dow Chemical Company. SN 28,036. Pub. 12-10-57. Filed 4-12-57.

Class 10 — Fertilizers

658,664. HERBAGERE. Niamco, Inc. SN 31,859. Pub. 12-10-57. Filed 6-12-57.

Class 13 — Hardware and Plumbing and Steam-Fitting Supplies

658,665. KITCHEN QUEEN. International Housewares. SN 697,167. Pub. 3-27-56. Filed 10-26-55.

658,666. CHEMIPIPE. Ethylene Chemical Corporation. SN 24,843. Pub. 12-10-57. Filed 2-21-57.

658,667. AIR-LOK AND DESIGN. Jack Stolteben. SN 25,474. Pub. 12-10-57. Filed 3-4-57.

Class 14 — Metals and Metal Castings and Forgings

658,668. NEVER-STAIN. Nichols Wire & Aluminum Co. SN 12,739. Pub. 12-10-57. Filed 7-24-56.

658,669. SOMERS THIN STRIP AND DESIGN. Somers Brass Company, Inc. SN 14,592. Pub. 12-10-57. Filed 8-24-56.

658,670. 22H. Blaw-Knox Company. SN 16,172. Pub. 12-10-57. Filed 9-24-56.

658,671. WHITEHEAD METALS AND DESIGN. Whitehead Metal Products Company, Inc. SN 21,347. Pub. 12-10-57. Filed 12-19-56.

658,672. INCO H AND DESIGN. The International Nickel Company, Inc. SN 26,697. Pub. 12-10-57. Filed 8-22-57.

658,673. INCO NISILOY AND DESIGN. The International Nickel Company, Inc. SN 26,698. Pub. 12-10-57. Filed 3-22-57.

658,674. "CB" MONEL. The International Nickel Company, Inc. SN 26,699. Pub. 12-10-57. Filed 3-22-57.

658,675. MANGA-KOTE. The Resisto-Loy Company, Inc. SN 27,732. Pub. 12-10-57. Filed 4-8-57.

658,676. TWO-TONE. The Resisto-Loy Company, Inc. SN 27,733. Pub. 12-10-57. Filed 4-8-57.

658,677. MANGA-TONE. The Resisto-Loy Company, Inc. SN 27,734. Pub. 12-10-57. Filed 4-8-57.

658,678. FLINTYPE. The Resisto-Loy Company, Inc. SN 27,736. Pub. 12-10-57. Filed 4-8-57.

658,679. OILGRAPH. Allegheny Ludlum Steel Corporation. SN 28,827. Pub. 12-10-57. Filed 4-25-57.

658,680. CHI-TEN AND DESIGN. Herring-Hall-Marvin Safe Company. SN 31,396. Pub. 12-10-57. Filed 6-5-57.

658,681. GEMINOL. Driver-Harris Company. SN 31,644. Pub. 12-10-57. Filed 6-10-57.

Class 15 — Oils and Greases

658,682. CHEVRON. Standard Oil Company of California. SN 31,043. Pub. 12-10-57. Filed 5-29-57.

Class 16 — Protective and Decorative Coatings

658,683. SLIP-KNOT AND DESIGN. Norm-Mil Marine Paint Company. SN 438. Pub. 12-10-57. Filed 1-10-56.

658,684. ACETEX. United States Rubber Company. SN 2,670. Pub. 12-10-57. Filed 2-14-56.

658,685. GUARDEX. Steuart Petroleum Company. SN 31,519. Pub. 12-10-57. Filed 6-6-57.

658,686. DURHIDE. Durable Paint Co., Inc. SN 32,030. Pub. 12-10-57. Filed 6-14-57.

658,687. DOW CORNING AND DESIGN. Dow Corning Corporation, Incorporated. SN 34,407. Pub. 12-10-57. Filed 7-26-57.

658,688. SEDA-TEX. The Sherwin-Williams Company. SN 34,466. Pub. 12-10-57. Filed 7-26-57.

Class 18 — Medicines and Pharmaceutical Preparations

658,689. CARDOJEL. Physicians' Drug & Supply Co. SN 648,790. Pub. 2-9-54. Filed 6-15-53.

- 658,690. ZOTOX. Frederick G. Mayer, to Zotox Pharmacal Company, Incorporated. SN 658,296. Pub. 6-15-54. Filed 12-21-53.
- 658,691. ZOTOX AND DESIGN. Frederick G. Mayer, to Zotox Pharmacal Company, Incorporated. SN 660,213. Pub. 8-24-54. Filed 1-27-54.
- 658,692. GREEN CROSS AND DESIGN. Fred B. Ogilvie, d. b. a. Green Cross Laboratories. SN 5,740. Pub. 10-8-57. Filed 4-3-56.
- 658,693. TITAN. Barnes-Hind Laboratories, Inc. SN 11,219. Pub. 5-7-57. Filed 6-29-56.
- 658,694. GALINID. Farbenfabriken Bayer Aktiengesellschaft. SN 13,973. Pub. 12-10-57. Filed 8-15-56.
- 658,695. NERVESS. Miles Laboratories, Inc. SN 14,463. Pub. 12-10-57. Filed 8-23-56.
- 658,696. NERVESSA. Miles Laboratories, Inc. SN 14,464. Pub. 12-10-57. Filed 8-23-56.
- 658,697. BAMADEX. American Cyanamid Company. SN 16,084. Pub. 12-10-57. Filed 9-6-57.
- 658,698. DYMASYL. Dow Corning Corporation. SN 19,659. Pub. 12-10-57. Filed 11-21-56.
- 658,699. SYNABON. Irwin, Neisler and Company. SN 20,629. Pub. 12-10-57. Filed 12-7-56.
- 658,700. VYMP. Feed Products, Inc. SN 22,102. Pub. 12-10-57. Filed 1-4-57.
- 658,701. GERUSIAN. Nordmark-Werke Gesellschaft mit beschränkter Haftung. SN 23,497. Pub. 12-10-57. Filed 1-30-57.
- 658,702. BACICAINE. Nopco Chemical Company. SN 24,068. Pub. 12-10-57. Filed 2-8-57.
- 658,703. PROPERDAL. Laboratoires Millot, Société à Responsabilité Limitée. SN 25,621. Pub. 12-10-57. Filed 3-6-57.
- 658,704. DI-JETS. Ardo, Incorporated. SN 25,839. Pub. 12-10-57. Filed 3-11-57.
- 658,705. CITRUPLEX. Metabolic Products Corporation. SN 26,372. Pub. 12-10-57. Filed 3-18-57.
- 658,706. BLOOMIT. John Edward Ronicker, d. b. a. J. E. Ronicker Co. SN 27,738. Pub. 12-10-57. Filed 4-8-57.
- 658,707. BLISTIK. Blistex Company. SN 28,100. Pub. 12-10-57. Filed 4-15-57.
- 658,708. BENZOSPRAY. The Denver Chemical Manufacturing Company. SN 28,121. Pub. 12-10-57. Filed 4-15-57.
- 658,709. SENOKAP. The Purdue Frederick Company. SN 28,278. Pub. 12-10-57. Filed 4-16-57.
- 658,710. REZAMID. Dermik Pharmacal Co., Inc. SN 29,043. Pub. 12-10-57. Filed 4-29-57.
- 658,711. AQUABICIN. Shugan's Professional Pharmacy, Inc. SN 29,174. Pub. 12-10-57. Filed 4-30-57.
- 658,712. CYVAC. American Cyanamid Company. SN 29,335. Pub. 11-5-57. Filed 5-3-57.
- 658,713. TROPHENIUM. Duncan, Flockhart & Company Limited. SN 29,882. Pub. 12-10-57. Filed 5-13-57.
- 658,714. MEPROSONE. Merck & Co., Inc. SN 30,259. Pub. 12-10-57. Filed 5-17-57.
- 658,715. ELIPTEN. Ciba Pharmaceutical Products Inc. SN 30,568. Pub. 12-10-57. Filed 5-23-57.
- 658,716. SIGNEMYCIN. Chas. Pfizer & Co., Inc. SN 30,603. Pub. 12-10-57. Filed 5-23-57.
- 658,717. METIPHOS. Schering Corporation. SN 30,687. Pub. 12-10-57. Filed 5-24-57.
- 658,718. ABRILON. Schering Corporation. SN 30,688. Pub. 12-10-57. Filed 5-24-57.
- 658,719. ANIMALAB. Animalab Products, Inc. SN 30,712. Pub. 12-10-57. Filed 5-27-57.
- 658,720. BARBICAINE. Cutter Laboratories. SN 30,744. Pub. 12-10-57. Filed 5-27-57.
- 658,721. PROTRIM. Nutritional Science Corporation. SN 30,814. Pub. 12-10-57. Filed 5-27-57.
- 658,722. RECTENS. Organon Inc. SN 30,817. Pub. 12-10-57. Filed 5-27-57.
- 658,723. PROVASCULIN. White Laboratories, Inc. SN 31,801. Pub. 12-10-57. Filed 6-11-57.
- 658,724. ACID CLOAK. Dome Chemicals, Inc. SN 31,827. Pub. 12-10-57. Filed 6-12-57.
- 658,725. ERAVAC. Jensen-Salsbery Laboratories, Inc. SN 32,090. Pub. 12-10-57. Filed 6-17-57.
- 658,726. SULFORCIN. Texas Pharmacal Company. SN 32,146. Pub. 12-10-57. Filed 6-17-57.
- 658,727. LIQUIMAT. Texas Pharmacal Company. SN 32,149. Pub. 12-10-57. Filed 6-17-57.
- 658,728. ARMATHOID. Armour and Company. SN 32,445. Pub. 12-10-57. Filed 6-24-57.
- 658,729. ARVA. Armour and Company. SN 32,446. Pub. 12-10-57. Filed 6-24-57.
- 658,730. ARMOCALM. Armour and Company. SN 32,447. Pub. 12-10-57. Filed 6-24-57.
- 658,731. DUOTRATE. Marion Laboratories, Inc. SN 32,508. Pub. 12-10-57. Filed 6-24-57.
- 658,732. ZAMITOL #1. Marion Laboratories, Inc. SN 32,509. Pub. 12-10-57. Filed 6-24-57.
- 658,733. VELVAC. Marion Laboratories, Inc. SN 32,510. Pub. 12-10-57. Filed 6-24-57.
- 658,734. DYLADE. Phebus Inc. SN 32,526. Pub. 12-10-57. Filed 6-24-57.
- 658,735. DOXAN. Lloyd Brothers, Inc. SN 36,005. Pub. 12-10-57. Filed 8-22-57.
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- ### Class 19 - Vehides
- 658,736. ROMANY. Airstream Trailers, Inc. SN 693,646. Pub. 12-10-57. Filed 8-25-55.
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- ### Class 21 - Electrical Apparatus, Machines, and Supplies
- 658,737. ELECTRIDUCT. Electrifact Company. SN 696,783. Pub. 11-20-56. Filed 10-20-55.
- 658,738. SIMMER-SAFE. Sunbeam Corporation. SN 12,755. Pub. 12-10-57. Filed 7-24-56.
- 658,739. NATIONAL. National Electronics, Inc. SN 15,619. Pub. 7-2-57. Filed 9-13-56.
- 658,740. DYNAMIKE. The Gray Manufacturing Company. SN 19,964. Pub. 12-10-57. Filed 11-27-56.
- 658,741. TAPECASTING AND DESIGN. Richard L. Kenny, d. b. a. Dick Kenny. SN 25,864. Pub. 12-10-57. Filed 3-11-57.
- 658,742. DYNASTIC. Sound. SN 26,505. Pub. 12-10-57. Filed 3-19-57.
- 658,743. QD. Beckman Instruments, Inc. SN 26,530. Pub. 12-10-57. Filed 3-20-57.
- 658,744. OMEGA. The Wakefield Company. SN 26,994. Pub. 8-27-57. Filed 3-26-57.
- 658,745. ODORMASTER. Aireactor Corporation. SN 27,160. Pub. 12-10-57. Filed 3-29-57.
- 658,746. VISA-VOLT. Advance Transformer Co. SN 27,261. Pub. 12-10-57. Filed 4-1-57.
- 658,747. RAPITROL. James A. Viola, d. b. a. Rapid Electric Service Company. SN 28,000. Pub. 12-10-57. Filed 4-11-57.
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- ### Class 22 - Games, Toys, and Sporting Goods
- 658,748. TOMMY-BURP. Mattel, Incorporated. SN 21,921. Pub. 12-10-57. Filed 12-31-56.
- 658,749. FANNER-50. Mattel, Incorporated. SN 21,922. Pub. 12-10-57. Filed 12-31-56.
- 658,750. PETER PANDA. Mattel, Incorporated. SN 21,923. Pub. 12-10-57. Filed 12-31-56.
- 658,751. GINGER DOLL-ER. Cosmopolitan Doll & Toy Corporation. SN 27,775. Pub. 10-22-57. Filed 4-9-57.

- 658,752. MISS GINGER. Cosmopolitan Doll & Toy Corporation. SN 27,848. Pub. 10-22-57. Filed 4-10-57.
 658,753. LITTLE MISS GINGER. Cosmopolitan Doll & Toy Corporation. SN 27,847. Pub. 10-22-57. Filed 4-10-57.
 658,754. WARDROBE DOLLS. Wardrobe Dolls, Inc. SN 28,308. Pub. 12-10-57. Filed 4-16-57.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

- 658,755. SAS. Fortuna-Werke Spezialmaschinenfabrik Aktiengesellschaft. SN 650,496. Pub. 7-5-55. Filed 7-20-53.
 658,756. SENIOR. Wilson Manufacturing Company. SN 692,982. Pub. 12-10-57. Filed 8-12-55.
 658,757. MOGUL. Wilson Manufacturing Company. SN 692,983. Pub. 12-10-57. Filed 8-12-55.
 658,758. SUPER. Wilson Manufacturing Company. SN 692,984. Pub. 12-10-57. Filed 8-12-55.
 658,759. GIANT. Wilson Manufacturing Company. SN 692,985. Pub. 12-10-57. Filed 8-12-55.
 658,760. TITAN. Wilson Manufacturing Company. SN 692,986. Pub. 12-10-57. Filed 8-12-55.
 658,761. ATLAS. Wilson Manufacturing Company. SN 692,987. Pub. 12-10-57. Filed 8-12-55.
 658,762. SMOOTH-TONE. Paser Manufacturing Company. SN 5,451. Pub. 12-10-57. Filed 3-29-56.
 658,763. REX RECORD. Schnellpressenfabrik Koenig & Bauer Aktiengesellschaft. SN 23,591. Pub. 12-10-57. Filed 1-29-57.
 658,764. PECO PRODUCTS AND DESIGN. The Projectile & Engineering Company Limited. SN 25,463. Pub. 12-10-57. Filed 3-4-57.
 658,765. PRUDENTIAL. Prudential-Wares, Inc. SN 30,265. Pub. 12-10-57. Filed 5-17-57.
 658,766. "QUICK-HITCH." Simplicity Manufacturing Company. SN 30,608. Pub. 12-10-57. Filed 5-23-57.
 658,767. PARLIAMENT. Imperial International Corp. SN 31,123. Pub. 12-10-57. Filed 5-31-57.
 658,768. POROX. The Patterson Foundry and Machine Company. SN 32,694. Pub. 12-10-57. Filed 6-26-57.
 658,769. ARLCITE. The Patterson Foundry and Machine Company. SN 32,696. Pub. 12-10-57. Filed 6-26-57.
 658,770. LILT. Wallace Silversmiths, Inc. SN 32,788. Pub. 12-10-57. Filed 6-27-57.
 658,771. MAXIMAT. Maier & Co. Fabrik fur Spezialmaschinen. SN 33,423. Pub. 12-10-57. Filed 7-9-57.
 658,772. EMCO. Emco Service. SN 33,545. Pub. 12-10-57. Filed 7-11-57.
 658,773. REICH. Reich Bros. Mfg. Co., Inc. SN 33,571. Pub. 12-10-57. Filed 7-11-57.
 658,774. MICROME. Danly Machine Specialties, Inc. SN 34,403. Pub. 12-10-57. Filed 7-26-57.
 658,775. CHANNEL-FLO. Ingersoll-Rand Company. SN 34,534. Pub. 12-10-57. Filed 7-29-57.
 658,776. MIRAGE. The International Silver Company. SN 34,535. Pub. 12-10-57. Filed 7-29-57.
 658,777. GENIE. E. R. Wagner Manufacturing Company. SN 34,570. Pub. 12-10-57. Filed 7-29-57.

Class 24—Laundry Appliances and Machines

- 658,778. KRESTVIC. Vic Manufacturing Co., d. b. a. Vic Cleaning Machine Company. SN 34,024. Pub. 12-10-57. Filed 7-18-57.
 658,779. COMMANDER. The Murray Corporation of America. SN 34,975. Pub. 12-10-57. Filed 8-5-57.
 658,780. PATRICIAN. The Murray Corporation of America. SN 34,976. Pub. 12-10-57. Filed 8-5-57.

Class 26—Measuring and Scientific Appliances

- 658,781. B L BOURNS AND DESIGN. Bourns Laboratories, Inc., from Marlan E. Bourns, d. b. a. Bourns Laboratories. SN 636,680. Pub. 12-10-57. Filed 10-16-52.
 658,782. ILOCA. Wilhelm Witt, d. b. a. Iloca Camera. SN 687,160. Pub. 8-9-55. Filed 5-9-55.
 658,783. SPRAY-VUE AND DESIGN. Spray-Vue Enterprises, Inc. SN 11,972. Pub. 12-10-57. Filed 7-11-56.
 658,784. STARFLEX. Eastman Kodak Company. SN 13,824. Pub. 12-10-57. Filed 8-13-56.
 658,785. LUSTREX. General Aniline & Film Corporation. SN 23,229. Pub. 10-1-57. Filed 1-25-57.
 658,786. ALINA AND DESIGN. Alina Corporation. SN 25,068. Pub. 12-10-57. Filed 2-26-57.
 658,787. DW AND DESIGN. David White Instrument Company. SN 25,240. Pub. 11-5-57. Filed 2-28-57.
 658,788. LIAD. Assembly Products, Inc. SN 26,438. Pub. 12-10-57. Filed 3-19-57.
 658,789. UNI-MATIC. Harper-Wyman Company. SN 26,461. Pub. 12-10-57. Filed 3-19-57.
 658,790. AVIGON. Futura Camera Corporation of America. SN 27,096. Pub. 12-10-57. Filed 3-28-57.
 658,791. SERVOSAFE. Servo Corporation of America. SN 27,143. Pub. 12-10-57. Filed 3-28-57.

Class 27—Horological Instruments

- 658,792. EL PRADO. Mepa Watch Corp. SN 28,623. Pub. 12-10-57. Filed 4-22-57.
 658,793. TIMELY TRIO. Taylor Jewelry Co. Inc. SN 31,797. Pub. 12-10-57. Filed 6-11-57.
 658,794. ELECTORA. Gebruder Junghans Aktiengesellschaft. SN 33,231. Pub. 12-10-57. Filed 7-5-57.
 658,795. S AND DESIGN. Institut Dr. Ing. Reinhard Straumann A. G. SN 33,354. Pub. 12-10-57. Filed 7-8-57.

Class 28—Jewelry and Precious-Metal Ware

- 658,796. CYNTHIA. Samuel Kirk & Son, Inc. SN 31,231. Pub. 12-10-57. Filed 6-3-57.
 658,797. CYNTHIA PLAIN. Samuel Kirk & Son, Inc. SN 31,232. Pub. 12-10-57. Filed 6-3-57.
 658,798. STAR-MATES. David Karp Company, Inc. SN 31,399. Pub. 12-10-57. Filed 6-5-57.
 658,799. MINERVA. Luis F. Bared, d. b. a. New York Export & Sales Co. SN 31,743. Pub. 12-10-57. Filed 6-11-57.
 658,800. GLORIFIED. Feature Ring Company, Inc. SN 31,834. Pub. 12-10-57. Filed 6-12-57.
 658,801. CLAUDETTE. Premier Jewelry Co. Inc. SN 32,697. Pub. 12-10-57. Filed 6-26-57.

Class 31—Filters and Refrigerators

- 658,802. ZEROSOFT. Zero Water Softener Mfg. Co. SN 27,364. Pub. 12-10-57. Filed 4-1-57.
 658,803. LONG B-W BORG-WARNER AND DESIGN. Borg-Warner Corporation. SN 33,458. Pub. 12-10-57. Filed 7-10-57.
 658,804. CHIPMASTER. Carrier Corporation. SN 33,948. Pub. 12-10-57. Filed 7-18-57.

Class 32 — Furniture and Upholstery

- 658,805. CASTLETON OF CALIFORNIA. Electroweld Steel Corporation. SN 22,667. Pub. 12-10-57. Filed 1-16-57.
658,806. HASTINGS SQUARE. Grand Rapids Bookcase & Chair Co. SN 22,907. Pub. 12-10-57. Filed 1-22-57.
658,807. DESIGN OF TOWN SQUARE. Grand Rapids Bookcase & Chair Co. SN 22,908. Pub. 12-10-57. Filed 1-22-57.
658,808. SPEED-A-TERIA. Delmar D. Rhoads, d. b. a. Lincoln Mfg. Co., to Lincoln Manufacturing Company, Inc. SN 23,346. Pub. 12-10-57. Filed 1-28-57.
658,809. BROYHILL. Broyhill Furniture Factories. SN 34,911. Pub. 12-10-57. Filed 8-5-57.

Class 33 — Glassware

- 658,810. STORYTOWN U. S. A. Storytown, U. S. A. Inc. SN 24,643. Pub. 12-10-57. Filed 2-18-57.

Class 34 — Heating, Lighting, and Ventilating Apparatus

- 658,811. ALBERGER. Adasco Industries, Inc., to Yuba Consolidated Industries, Inc. SN 23,968. Pub. 12-10-57. Filed 2-7-57.
658,812. ELECTROSALT. Joseph A. Kozma, Sr., d. b. a. J. A. Kozma Company. SN 28,049. Pub. 12-10-57. Filed 4-12-57.
658,813. FRED MEYER OF CALIFORNIA. Fred Meyer of California, Inc. SN 28,055. Pub. 12-10-57. Filed 4-12-57.

Class 36 — Musical Instruments and Supplies

- 658,814. ROULETTE AND DESIGN. Roulette Records, Inc. SN 32,133. Pub. 12-10-57. Filed 6-17-57.
658,815. AF AND DESIGN. Audiofidelity, Inc. SN 32,575. Pub. 12-10-57. Filed 6-25-57.

Class 37 — Paper and Stationery

- 658,816. EATON'S HIGHLAND LINEN. Eaton Paper Corporation. SN 26,453. Pub. 12-10-57. Filed 3-19-57.

Class 38 — Prints and Publications

- 658,817. LITTLE BRAVE. United Feature Syndicate, Inc. SN 8,292. Pub. 12-10-57. Filed 5-14-56.
658,818. INTERNATIONAL LABOR PRESS AFL-CIO ETC. AND DESIGN. International Labor Press Association, AFL-CIO. SN 18,430. COLLECTIVE MARK. Pub. 12-10-57. Filed 10-30-56.
658,819. COLLINS AND DESIGN. Collins Radio Company. SN 20,707. Pub. 12-10-57. Filed 12-10-56.
658,820. TOMORROW'S MAN. Tomorrow's Man Publishing Co. Inc. SN 29,113. Pub. 12-10-57. Filed 4-29-57.

Class 39 — Clothing

- 658,821. KLEPPER AND FLAG DESIGN. Hans Klepper, d. b. a. Klepper-Werke. SN 16,808. Pub. 12-10-57. Filed 10-2-56.
658,822. WOOLLATON. William Gibson and Son Limited. SN 18,240. Pub. 12-3-57. Filed 10-26-56.

- 658,823. DEBRA DEAN. Haims & Ettlinger, Inc. SN 19,887. Pub. 12-10-57. Filed 11-26-56.

- 658,824. SKILCRAFT ETC. AND DESIGN. National Industries for the Blind. SN 20,648. Pub. 12-10-57. Filed 12-7-56.

- 658,825. FASHIONMAKER. Slimaker Dress Corporation, Inc. SN 23,352. Pub. 12-10-57. Filed 1-28-57.

- 658,826. PER-MA-RAY. S & W Sportswear Corporation, d. b. a. Tu Wae Sportswear. SN 26,518. Pub. 12-10-57. Filed 3-20-57.

- 658,827. PESO PLUMA. A. Sagner's Son. SN 27,053. Pub. 12-10-57. Filed 3-27-57.

- 658,828. LES KAY. Slimaker Dress Corporation, Inc. SN 27,352. Pub. 12-10-57. Filed 4-1-57.

- 658,829. DUTCHESS. Merrimac Hat Corporation. SN 28,532. Pub. 12-10-57. Filed 4-19-57.

- 658,830. QU-EM. Quality Mills, Incorporated. SN 29,946. Pub. 12-10-57. Filed 5-13-57.

- 658,831. KITTY-LAM. Ellison of California. SN 30,076. Pub. 12-10-57. Filed 5-15-57.

- 658,832. SNAPPI-DIDI. Lucy Frock, Inc. SN 30,506. Pub. 12-10-57. Filed 5-22-57.

Class 44 — Dental, Medical, and Surgical Appliances

- 658,833. Z AND DESIGN. Zimmer Manufacturing Company. SN 28,823. Pub. 12-10-57. Filed 4-24-57.

Class 45 — Soft Drinks and Carbonated Waters

- 658,834. FROLIC. The Cloverdale Spring Company. SN 31,386. Pub. 12-10-57. Filed 6-5-57.

Class 46 — Foods and Ingredients of Foods

- 658,835. BAR-B-QUIK AND DESIGN. Henry L. Lewis. SN 661,811. Pub. 6-7-55. Filed 3-1-54.

- 658,836. ABC AND DESIGN. Weston Biscuit Company Inc., d. b. a. American Biscuit Company. SN 667,003. Pub. 6-18-57. Filed 5-24-54.

- 658,837. SALTERS. Morton Salt Company. SN 682,657. Pub. 12-10-57. Filed 3-2-55.

- 658,838. ALL AMERICAN. All American Nut Co., Inc. SN 692,692. Pub. 12-10-57. Filed 8-9-55.

- 658,839. BROIL KING. King Shoyu Company, Ltd. SN 696,991. Pub. 12-10-57. Filed 10-24-55.

- 658,840. CRANDY. Merrill Candy Company. SN 698,445. Pub. 11-5-57. Filed 11-17-55.

- 658,841. LUCHOW'S AND DESIGN. Luchow Products Corporation. SN 151. Pub. 12-10-57. Filed 1-4-56.

- 658,842. CRESTWOOD. The Great Atlantic and Pacific Tea Company. SN 1,685. Pub. 12-10-57. Filed 1-30-56.

- 658,843. SILVER STAR AND DESIGN. Hammond Standish & Co. SN 3,849. Pub. 12-10-57. Filed 3-5-56.

- 658,844. COLONNA. J. Colonna Bros. SN 4,774. Pub. 12-10-57. Filed 3-19-56.

- 658,845. TOWER OF PIZZA AND DESIGN. Tower of Pizza. SN 5,750. Pub. 12-10-57. Filed 4-3-56.

- 658,846. ITSA DILLEY. Gibbons Food Products. SN 9,538. Pub. 12-10-57. Filed 6-4-56.

- 658,847. DESIGN OF THREE BANDS. Norton & McElroy Produce, Inc., by change of name from Westside Farms. SN 10,048. Pub. 12-10-57. Filed 6-11-56.

- 658,848. THE FINISHING TOUCH. Girard's, Inc. SN 11,247. Pub. 12-10-57. Filed 6-29-56.

- 658,849. ELGIN. Shedd-Bartush Foods, Inc. SN 11,801. Pub. 12-10-57. Filed 7-9-56.

- 658,850. STAUFFER'S KRACKT WEET THINS. D. F. Stauffer Biscuit Company, Inc. SN 11,973. Pub. 9-10-57. Filed 7-11-56.
- 658,851. TRIO 3 IN 1. American Chewing Products Corp. SN 12,323. Pub. 12-10-57. Filed 7-18-56.
- 658,852. PAN O' GOLD. Armour and Company, d. b. a. Armour Creameries. SN 12,328. Pub. 12-10-57. Filed 7-18-56.
- 658,853. IOWANA. Iowa Farms Milk Co. SN 13,373. Pub. 12-10-57. Filed 8-3-56.
- 658,854. PHYLLIS WHEATLEY. Edith M. Washington, d. b. a. Washington Candy Company. SN 14,193. Pub. 12-10-57. Filed 8-17-56.
- 658,855. ROBBINS ISLAND OYSTERS ETC. AND DESIGN. The Andrew Radel Oyster Company. SN 14,519. Pub. 12-10-57. Filed 8-27-56.
- 658,856. GOLDEN-EYE. Tyler & Nicholson, d. b. a. Tyler & Nicholson Ranch. SN 14,710. Pub. 12-10-57. Filed 8-27-56.
- 658,857. POLKA AND DESIGN. Pikle-Rite Company, Inc. SN 15,490. Pub. 12-10-57. Filed 9-11-56.
- 658,858. BIG WHEEL AND DESIGN. Oak Point Dairies of New Jersey. SN 15,899. Pub. 12-10-57. Filed 9-18-56.
- 658,859. TIVOLI. Cooperativa Pesquera Panamena, S. A., d. b. a. Panama Cooperative Fisheries, Inc. SN 16,182. Pub. 12-10-57. Filed 9-24-56.
- 658,860. HILLS BROS AND DESIGN. Hills Bros. Coffee, Inc. SN 17,808. Pub. 12-10-57. Filed 10-19-56.
- 658,861. GOLDEN BROWN. Consolidated Dressed Beef Company, Inc. SN 18,062. Pub. 12-10-57. Filed 10-24-56.
- 658,862. FROSTEE-FYNE. B. Schwartz & Co. SN 18,193. Pub. 12-10-57. Filed 10-25-56.
- 658,863. FABULOUS LADY. R. A. Bos, d. b. a. Fabulous Products Company, to Fabulous Products, Inc. SN 18,703. Pub. 10-29-57. Filed 11-5-56.
- 658,864. COCKTAIL. Planters Nut & Chocolate Co. SN 19,403. Pub. 2-12-57. Filed 12-3-56.
- 658,865. KARO. Corn Products Refining Company. SN 20,993. Pub. 12-10-57. Filed 12-13-56.
- 658,866. SUGAR CANE. Halben Food Manufacturing Co., Inc. SN 21,152. Pub. 12-10-57. Filed 12-17-56.
- 658,867. KRIM-KO TOPPS. Krim-Ko Corporation. SN 22,441. Pub. 12-10-57. Filed 1-11-57.
- 658,868. TJAP BAPAK TANI AND DESIGN. Faibish Corporation. SN 23,045. Pub. 12-10-57. Filed 1-23-57.
- 658,869. CHERRY STAR. Dalichai Bussan Kaisha, Ltd. SN 25,600. Pub. 12-10-57. Filed 3-6-57.
- 658,870. KITCHEN QUICK. Holiday Coffee Corporation. SN 25,776. Pub. 12-10-57. Filed 3-8-57.
- 658,871. SQUAW. C. S. Watson. SN 25,913. Pub. 12-10-57. Filed 3-11-57.
- 658,872. BLUHILL INDIAN GRILL AND DESIGN. Bluhill Foods, Inc. SN 26,677. Pub. 12-10-57. Filed 3-22-57.
- 658,873. CHICK-NIC. Leroy Imel. SN 26,943. Pub. 12-10-57. Filed 3-26-57.
- 658,874. PORTER AND DESIGN. Porter-Scarpelli Macaroni Company. SN 27,343. Pub. 12-10-57. Filed 4-1-57.
- 658,875. TOT POPS. Crystal Pure Candy Company. SN 27,371. Pub. 12-10-57. Filed 4-2-57.
- 658,876. MEAF. Wilson & Co., Inc. SN 28,088. Pub. 12-10-57. Filed 4-12-57.
- 658,877. SPARKLE. General Mills, Inc. SN 28,142. Pub. 12-10-57. Filed 4-15-57.
- 658,878. EHLERS P AND DESIGN. Albert Ehlers, Inc. SN 28,244. Pub. 12-10-57. Filed 4-16-57.
- 658,879. EHLERS AND DESIGN. Albert Ehlers, Inc. SN 28,245. Pub. 12-10-57. Filed 4-16-57.
- 658,880. TIFFE'S AND DESIGN. Clarence T. De Roussele, d. b. a. C. De Roussele. SN 28,437. Pub. 12-10-57. Filed 4-18-57.
- 658,881. W. Wilno Kosher Sausage Company. SN 28,473. Pub. 12-10-57. Filed 4-18-57.
- 658,882. FAIR-ACRE. Lindsey-Robinson & Company, Inc. SN 28,714. Pub. 12-10-57. Filed 4-23-57.
- 658,883. TWIXT. Twixt, Incorporated. SN 28,737. Pub. 12-10-57. Filed 4-23-57.
- 658,884. KOLLEST. Swift & Company. SN 29,110. Pub. 12-10-57. Filed 4-29-57.
- 658,885. DIP-A-CONE. John B. Lipkin, d. b. a. Sterling Sales Co. SN 29,371. Pub. 12-10-57. Filed 5-3-57.
- 658,886. FANTASIA. C. & R. Faslo. SN 30,418. Pub. 12-10-57. Filed 5-21-57.
- 658,887. TRU-MIX. Fruit Belt Preserving Company. SN 30,900. Pub. 12-10-57. Filed 5-28-57.
- 658,888. ALGINADE. Alginate Industries Limited. SN 31,064. Pub. 12-10-57. Filed 5-31-57.
- 658,889. ANDY SCHULZE'S DREAM. Andrew R. Schulze, d. b. a. Andy Schulze. SN 32,418. Pub. 12-10-57. Filed 6-21-57.
- 658,890. BACHMAN AND DESIGN. Bachman Bakeries Corporation. SN 32,661. Pub. 12-10-57. Filed 6-26-57.
- 658,891. DIXIE GARDEN. Dixie Garden Foods, Inc. SN 32,741. Pub. 12-10-57. Filed 6-27-57.
- 658,892. BAR D BRAND AND DESIGN. William T. Colville, Jr., d. b. a. B & B Packing Co. SN 32,917. Pub. 12-10-57. Filed 7-1-57.
- 658,893. LITTLE DAVID. C. D. Kirk & Associates, Inc. SN 32,961. Pub. 12-10-57. Filed 7-1-57.
- 658,894. TEN-O'CLOCK TESTED AND DESIGN. The Crosse & Blackwell Company. SN 33,060. Pub. 12-10-57. Filed 7-2-57.
- 658,895. BERNCATLER DOCTOR ETC. AND DESIGN. Weingut J. Lauerburg, Fam. G. m. b. H. SN 3,941. Pub. 12-10-57. Filed 3-6-56.
- 658,896. E. P. L. James Robertson Company. SN 30,269. Pub. 12-10-57. Filed 5-17-57.
- 658,897. 3-DEPTH DORAMA. Vowip Mfg. & Eng. Co. Inc. SN 19,550. Pub. 12-10-57. Filed 11-19-56.
- 658,898. CON-TACT. United Merchants and Manufacturers, Inc. SN 26,132. Pub. 12-10-57. Filed 3-13-57.
- 658,899. OASETTE. The V. L. Smithers Manufacturing Company. SN 31,950. Pub. 12-10-57. Filed 6-13-57.
- 658,900. HALLMARK AND DESIGN. Hallmark Cards, Incorporated. SN 32,080. Pub. 12-10-57. Filed 6-17-57.
- 658,901. SPARKLE-TOP. Eastern Wine Corporation. SN 32,669. Pub. 12-10-57. Filed 6-26-57.
- 658,902. SAHEE. Juan Llurba Vila, d. b. a. Llurba. SN 686,866. Pub. 12-10-57. Filed 5-4-55.
- 658,903. ESTROMEDIC. Para Laboratories. SN 6,186. Pub. 12-10-57. Filed 4-11-56.
- 658,904. ALBERTO VO5 AND DESIGN. Lobco, Inc., d. b. a. Alberto-Culver Co. SN 10,609. Pub. 12-10-57. Filed 6-20-56.
- 658,905. MANSFIELD. Bourjois, Inc. SN 18,705. Pub. 12-10-57. Filed 11-5-56.
- 658,906. ROCK AND ROLLS. Marquay, S. a. r. l. SN 19,790. Pub. 12-10-57. Filed 11-23-56.
- 658,907. STRAPLESS. Gratia Barre Inc., d. b. a. Gratia Barre. SN 23,668. Pub. 12-10-57. Filed 2-4-57.

Class 47—Wines

Class 49—Distilled Alcoholic Liquors

Class 50—Merchandise Not Otherwise Classified

Class 51—Cosmetics and Toilet Preparations

- 658,908. LANO GARDE. Rolley, Inc., to Botany Mills, Inc. SN 25,035. Pub. 12-10-57. Filed 2-25-57.
- 658,909. VERA STEWART. Vera Stewart Company. SN 25,130. Pub. 12-10-57. Filed 2-26-57.

Class 52—Detergents and Soaps

- 658,910. PARKE'S. L. H. Parke Company. SN 687,886. Pub. 12-10-57. Filed 5-19-55.
- 658,911. CHESEBROUGH-POND'S. Chesebrough-Pond's Inc. SN 9,945. Pub. 12-10-57. Filed 6-11-56.
- 658,912. 'ROUND THE CLOCK PROTECTION. Armour and Company. SN 16,581. Pub. 12-10-57. Filed 9-28-56.
- 658,913. TYDEEN AND DESIGN. Morris Weita. SN 17,973. Pub. 12-10-57. Filed 10-22-56.
- 658,914. REPRESENTATION OF DIAMOND AND DESIGN. Diamond Alkali Company. SN 28,243. Pub. 12-10-57. Filed 4-16-57.
- 658,915. MR. CLEAN. The Procter & Gamble Company. SN 31,261. Pub. 12-10-57. Filed 6-3-57.
- 658,916. FRIENDLY MESSAGE AND DESIGN. Alejo Rodriguez. SN 31,336. Pub. 12-10-57. Filed 6-4-57.

Service Marks

Class 100—Miscellaneous

- 658,917. NEPCO ETC. AND DESIGN. National Export Packing Corporation. SN 14,161. Pub. 12-10-57. Filed 8-17-56.

SUPPLEMENTAL REGISTER

These registrations are not subject to opposition.

Class 13—Hardware and Plumbing and Steam-Fitting Supplies

- 658,924. William J. McManus, d. b. a. McManus Manufacturing, Hollywood, Calif. SN 12,519. Filed P. R. 7-20-56. Am. S. R. 12-16-57.

E-Z TACKLE LOK

For Rope Lock.
First use Nov. 30, 1955.

- 658,925. Karlson's Automatic Water Conditioner, Inc., Park Ridge, Ill. SN 21,814. Filed P. R. 12-28-56. Am. S. R. 10-10-57.

KARLSON AUTOMATIC

For Water Conditioners Consisting of a Receptacle, Metal Tubing, and Valves for Feeding Chemicals to a Water System.
First use Oct. 10, 1956.

TM 727 O. G.—9

Class 103—Construction and Repair

- 658,918. DESIGN OF EMBLEM. General Motors Corporation. SN 3,844. Pub. 12-10-57. Filed 3-5-56.
- 658,919. ARTISTIC. Advance Pool Builders, Inc. SN 20,435. Pub. 12-10-57. Filed 12-5-56.

Class 104—Communication

- 658,920. ELECTRONIC LONGHAND. Telautograph Corporation. SN 694,274. Pub. 12-10-57. Filed 9-6-55.

Class 106—Material Treatment

- 658,921. DEANESS. D & S Processing Company. SN 27,373. Pub. 12-10-57. Filed 4-2-57.

Class 107—Education and Entertainment

- 658,922. CONTACT. Gotham Broadcasting Corporation. SN 26,549. Pub. 12-10-57. Filed 3-20-57.

Certification Mark

Class B—Services

- 658,923. PFC ETC. AND DESIGN. Ruel F. Halladay, d. b. a. PFC. SN 671,336. Pub. 12-10-57. Filed 8-9-54.

WELDTITE

For Self-Fluxing Solder and Welding Rods.
First use Dec. 8, 1956, on welding rods.

Class 18—Medicines and Pharmaceutical Preparations

- 658,927. The Iso-Sol Company, Inc., Lindenburt, N. Y. SN 691,300. Filed P. R. 7-14-55. Am. S. R. 12-2-57.

Dropperettes

For Medicated Ophthalmic Solution Sold in a Sealed Applicator.
First use on or about Jan. 1, 1955.

Class 23—Cutlery, Machinery, and Tools, and Parts Thereof

658,928. Wenger Mixer Manufacturing Co., Sabetha, Kans. SN 25,488. Filed P. R. 3-4-57. Am. S. R. 12-20-57.

Multi-Blender

For Livestock Feed Mixing Machines.
First use Feb. 9, 1956.

**Class 46—Foods and Ingredients of Foods**

658,929. Foster's Finer Foods, Wichita Falls, Tex. SN 17,799. Filed 10-19-56.

Foster's

For Mixes for Pie Fillings and Cookies.
First use Feb. 1, 1953.

Owner of British Reg. No. 753,122, dated Apr. 23, 1956;
and U. S. Reg. No. 224,147.
For Rolled Oats for Human Consumption.

658,931. American Maple Products Corporation, Newport, Vt. SN 23,204. Filed P. R. 1-25-57. Am. S. R. 11-18-57.

OLD VERMONT

For Candy.
First use Aug. 1, 1956.

TRADEMARK REGISTRATIONS RENEWED

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|---|---|
| 15,013. LUBRICANT AND DESIGN. Cl. 15. 12-13-1887. | 355,600. MORAIRE. Cl. 39. 3-22-38. |
| 119,773. SANOFORM. Cl. 6. 12-11-17. | 355,782. VITA-FUL. Cl. 46. 3-29-38. |
| 120,159. DESIGN OF WOMAN'S HEAD. Cl. 46. 1-15-18. | 356,134. FASHIONED AT TAILOR TOWN AND DESIGN. Cl. 39. 4-12-38. |
| 120,160. AUNT JEMIMA AND DESIGN. Cl. 46. 1-15-18. | 356,240. XACTOMOUNT. Cl. 26. 4-19-38. |
| 120,275. SUPREMACY AND DESIGN. Cl. 39. 1-29-18. | 356,386. HYDROHONE. Cl. 23. 4-26-38. |
| 120,555. KORDEK. Cl. 5. 2-19-18. | 356,605. EARLY MORN AND DESIGN. Cl. 45. 5-3-38. |
| 121,187. K-W AND DESIGN. Cl. 2. 4-16-18. | 356,688. AMERICAN TRUCKING ASSNS. INC. ATA AND DESIGN. Cl. 38. 5-10-38. |
| 350,365. CARBURETOR. Cl. 8. 9-28-37. | 356,744. AHCO. Cl. 6. 5-10-38. |
| 352,070. OLAV THE GREAT AND DESIGN. Cl. 46. 11-16-37. | 356,745. AHCOL. Cl. 6. 5-10-38. |
| 352,782. ZOLO-NUT. Cl. 46. 12-14-37. | 356,747. SYNTHRAPOL. Cl. 6. 5-10-38. |
| 352,924. SLEEPY HEAD. Cl. 39. 12-14-37. | 356,748. SYNTHAROL. Cl. 6. 5-10-38. |
| 352,933. SWALLOW AND DESIGN. Cl. 39. 12-21-37. | 356,749. SYNTHRAVON. Cl. 6. 5-10-38. |
| 352,984. THE WALES AND DESIGN. Cl. 39. 12-21-37. | 356,794. SLIPCO. Cl. 39. 5-10-38. |
| 353,196. DRESINATE. Cl. 6. 12-28-37. | 356,802. DESIGN OF WOMAN AND FLOWERS. Cl. 51. 5-10-38. |
| 353,411. FIORELLA. Cl. 46. 1-4-38. | 356,803. DESIGN OF WOMAN HOLDING BASKET ETC. Cl. 51. 5-10-38. |
| 353,604. CSP. Cl. 21. 1-11-38. | 356,805. DESIGN OF MAN AND WOMAN ETC. Cl. 51. 5-10-38. |
| 353,615. BIG 6 LINE AND DESIGN. Cl. 16. 1-11-38. | 356,923. EARLY MORN AND DESIGN. Cl. 46. 5-17-38. |
| 353,925. TRENDS. Cl. 38. 1-25-38. | 356,941. REVOLITE. Cl. 24. 5-17-38. |
| 353,980. DESIGN OF BLUE LABEL. Cl. 16. 1-25-38. | 357,009. ALL DAY AND DESIGN. Cl. 51. 5-24-38. |
| 354,148. OLD WHALER. Cl. 49. 2-1-38. | 357,078. HAPPY JIM AND DESIGN. Cl. 39. 5-24-38. |
| 354,332. BETTER ROADS. Cl. 38. 2-8-38. | 357,094. ADCO AND DESIGN. Cl. 6. 5-24-38. |
| 354,371. LAND O' NOD. Cl. 1. 2-8-38. | 357,121. GALATEST. Cl. 6. 5-24-38. |
| 354,486. FOUNTAIN GROVE AND DESIGN. Cl. 47. 2-15-38. | 357,161. ARESKAP. Cl. 6. 5-24-38. |
| 354,620. DESIGN OF RED, BLUE, AND GOLD LABEL. Cl. 46. 2-15-38. | 357,162. ARESKET. Cl. 6. 5-24-38. |
| 354,655. WIEDEMANN. Cl. 48. 2-15-38. | 357,163. ARESKLENE. Cl. 6. 5-24-38. |
| 354,914. CRESTKNIT THE TOPCOAT WITH COMFORT CONTROL AND DESIGN. Cl. 39. 3-1-38. | 357,190. SELENAC. Cl. 6. 5-24-38. |
| 355,156. MONOGRAM PICTURES AND DESIGN. Cl. 26. 3-8-38. | 357,204. HERCULOCK. Cl. 25. 5-24-38. |
| 355,402. DESIGN OF SHIELD. Cl. 39. 3-15-38. | 357,210. NITE-GUARD. Cl. 39. 5-24-38. |
| 355,432. DEVILAC. Cl. 16. 3-15-38. | |

TRADEMARK REGISTRATIONS CANCELED**Section 7**

595,850. JET-O-MAT. Cl. 21. 9-28-54.

Section 8

257,735. DR. WEST'S ETC. AND DESIGN. Cl. 51. 6-18-29.
391,180. FRIEND PENN AND DESIGN. Cl. 15. 10-28-41.

531,911. GARDEN SORCERY ETC. AND DESIGN. Cl. 10. 10-10-50.
532,497. SIFON-AIRE AND DESIGN. Cl. 34. 10-24-50.
533,336. OILTITE. Cl. 16. 11-14-50.
533,889. MUNROSPUN. Cl. 39. 11-28-50.
534,730. LANDAU PRODUCT AND DESIGN. Cl. 16. 12-12-50.

- 534,752. WINK. Cl. 32. 12-12-50.
535,550. SNO-SHU CHAIRS. Cl. 32. 1-2-51.
535,691. THE SAFE-AT-HOME. Cl. 32. 1-2-51.
537,310. MISS RED WING AND DESIGN. Cl. 39. 2-6-51.
537,311. RED WING SHOES AND DESIGN. Cl. 39. 2-6-51.
538,549. SUGAR PONE DOWDY BY GOGGIN AND DESIGN. Cl. 46. 2-27-51.
538,808. LOEB AND DESIGN. Cl. 46. 2-27-51.
539,272. TELERAMIC AND DESIGN. Cl. 21. 3-13-51.
539,281. SUMMER-AID. Cl. 18. 3-13-51.
540,020. COAT O' PAINT. Cl. 39. 3-27-51.
552,759. DEAN. Cl. 23. 1-1-52.
552,793. WANDA. Cl. 32. 1-1-52.

The following registrations issued Jan. 8, 1952

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| 552,922. TRI CHEK ETC. Cl. 16. | 553,125. I.P.C. Cl. 21. |
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316,349. "QUEEN OF SCOTS." Cl. 49. 8-21-34.
383,933. DUNHILL. Cl. 37. 12-24-40.
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426,076. BROWN LINE ETC. Cl. 33. 12-17-46.
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588,708. TERRY-FOAM. Cl. 32. 4-20-54.
604,606. RUST-O-LENE. Cl. 52. 8-16-55.
610,862. H. A. COLES. Cl. 52. 8-16-55.

TRADEMARK REGISTRATIONS AMENDED, DISCLAIMED, CORRECTED, ETC.

131,386. WELLMAN FOODS AND DESIGN. Cl. 46. 5-11-20. Wellman-Peck & Co. Wellman Coffee Company, Los Angeles, Calif. Amended: The second paragraph of the statement is deleted, and the drawing is amended to appear:

WELLMAN

531,808. TRI-VI-SOL. Cl. 18. 10-10-50. Mead Johnson & Company, Evansville, Ind. Amended: In line 8 of the statement, "liquid" is deleted.

532,894. TRI-VI-SOL. Cl. 46. 10-31-50. Mead Johnson & Company, Evansville, Ind. Amended: In line 8 of the statement, "liquid" is deleted.

534,836. LOAD-N-GATE. Cl. 19. 2-12-52. Hercules Steel Products Corporation, Gallon, Ohio. Corrected: In line 3 of the certificate, and in line 2 of the statement, "Ohio" should be *Delaware*.

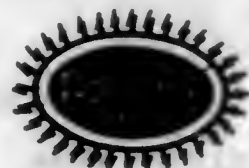
644,960. E-Z LITE. Cl. 1. 5-7-57. Black Panther Company, Inc., Sanford, N. C. Corrected: In column 2, line 2, "Mar. 14, 1956" and "Mar. 15, 1956" should be *September 28, 1956*.

REGISTRATIONS PUBLISHED UNDER SEC. 12(c)

The following marks registered under the act of 1905, or the act of 1881, are published under the provisions of section 12(c) of the Trademark Act of 1946. These registrations are not subject to opposition but are subject to cancellation under section 14 of the act of 1946.

Class 2—Receptacles

351,910. Nov. 16, 1937. The Interstate Folding Box Company, Middletown, Ohio. Pub. by registrant.



For Empty Cartons.

Class 6—Chemicals and Chemical Compositions

351,557. Nov. 2, 1937. Hercules Powder Company, Wilmington, Del. Pub. by registrant.

HERCOSETT

For Chemical Finishing Agent for Textiles.

Class 16—Protective and Decorative Coatings

353,996. Jan. 25, 1938. Cook Paint & Varnish Company, North Kansas City, Mo. Pub. by registrant.

TRUELIGHT FLAT

For Ready-Mixed Paints.
TM 130

Class 35—Belting, Hose, Machinery Packing, and Nonmetallic Tires

354,916. Mar. 1, 1938. United States Rubber Products, Inc., New York, N. Y. Pub. by United States Rubber Company, New York, N. Y.

'HOMOHIDE'

For Composition Packing in the Form of Gaskets, Molded Cups, and Other Forms for Pumps, Engines, Bodies, and the Like.

Class 37—Paper and Stationery

353,399. Jan. 4, 1938. Cook Paint & Varnish Company, North Kansas City, Mo. Pub. by registrant.

Studies in Harmony...
WALLPAPER

For Wallpaper.

375,925. Mar. 5, 1940. The Buckeye Ribbon & Carbon Company, Cleveland, Ohio. Pub. by registrant.

PLYON

For Manifolding and Copying Sheets.

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TM 131

Class 50—Merchandise Not Otherwise Classified

383,598. Dec. 17, 1940. Godfrey Roller Company, Philadelphia, Pa. Pub. by registrant.

DAMPABASE

For Fabric Covers for Lithographic Rollers.

NAUGAHYDE

For Upholstery Material, More Specifically a Fabric Base Which Has Been Treated With Rubber and Other Substances Producing Artificial Leather.

Class 52—Detergents and Soaps

351,787. Nov. 9, 1937. Hercules Powder Company, Wilmington, Del. Pub. by registrant.

355,161. Mar. 8, 1938. Latex Fiber Industries, Inc., New York, N. Y. Pub. by registrant.

MIDSOLEX

For Sheet Material for Middle Soles, Comprising Fiber, Rubber, and Coloring.

DRESINATE

For Rosin Soap.

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 Driver-Harris Co., Harrison, N. J. 658,681, pub. 12-10-57. Cl. 14.
 Duncan, Flockhart & Co. Ltd., Edinburgh, Scotland. 658,713, pub. 12-10-57. Cl. 18.
 Du Pont, E. I., de Nemours and Co.: See—
 Ross & Roberts, Inc.
 Du Pont, E. I., de Nemours and Co., Wilmington, Del. 553,041, can. Cl. 42.
 Durable Paint Co., Inc., Brooklyn, N. Y. 658,686, pub. 12-10-57. Cl. 16.
 Eagle Electronics, Inc., New York, N. Y. 539,272, can. Cl. 21.
 Eastern Wine Corp., New York, N. Y. 658,901, pub. 12-10-57. Cl. 50.
 Eastman Kodak Co., Rochester, N. Y. 658,784, pub. 12-10-57. Cl. 26.
 Eaton Paper Corp., Pittsfield, Mass. 658,816, pub. 12-10-57. Cl. 37.
 Ehlers, Albert, Inc., Brooklyn, N. Y. 658,878, pub. 12-10-57. Cl. 46.
 Ehlers, Albert, Inc., Brooklyn, N. Y. 658,879, pub. 12-10-57. Cl. 46.
 Electriduct Co., Casper, Wyo. 658,737, pub. 11-20-56. Cl. 21.
 Electroweld Steel Corp., Azusa, Calif. 658,805, pub. 12-10-57. Cl. 32.
 Ellison of California, Los Angeles, Calif. 658,831, pub. 12-10-57. Cl. 39.
 Emco Service, Philadelphia, Pa. 658,772, pub. 12-10-57. Cl. 23.
 Ethylene Chemical Corp., Summit, N. J. 658,666, pub. 12-10-57. Cl. 13.
 Etienne, Myron E., Beverly Hills, Calif. 553,243, can. Cl. 100.
 Exeter Orange Growers Association, also d. b. a. Cooperative Citrus Association, Exeter, Calif. 552,946, can. Cl. 46.
 Fabulous Products Co.: See—
 Fabulous Products, Inc.: See—
 Fabulous Products, Inc.: See—
 Faibish Corp., Cathedral Station, New York, N. Y. 658,868, pub. 12-10-57. Cl. 46.
 Fairbanks, Robert M., Bradenton, Fla. 553,069, can. Cl. 21.
 Fairchild Publications, Inc.: See—
 Women's Wear Co.
 Farbenfabriken Bayer Aktiengesellschaft, Leverkusen-Bayerwerk, Germany. 658,694, pub. 12-10-57. Cl. 18.
 Fazio, C. & R., Del Ray, Calif. 658,886, pub. 12-10-57. Cl. 46.
 Fear, Fred, & Co.: See—
 Natural Sugars, Inc.
 Feature Ring Co., Inc., New York, N. Y. 658,800, pub. 12-10-57. Cl. 28.
 Feed Products, Inc., Fort Worth, Tex. 658,700, pub. 12-10-57. Cl. 18.
 Fir Door Institute, Tacoma, Wash. 553,254, can. Cl. 12.
 Florine Cates, Denver, Colo. 553,201, can. Cl. 3.
 Foremost Dairies, Inc., Jacksonville, Fla. 553,159, can. Cl. 46.
 Forstmann Woolen Co.: See—
 Forstmann Woolen Co., The.
 Forstmann Woolen Co., The, to Forstmann Woolen Co., Passaic, N. J. 300,236, can. Cl. 42.
 Fortuna-Werke Spezialmaschinenfabrik Aktiengesellschaft, Stuttgart-Bad Cannstatt, Germany. 658,755, pub. 7-5-55. Cl. 23.
 Foster's Finer Foods, Wichita Falls, Tex. 658,929, Cl. 40.
 Frank, S. M., & Co., Inc.: See—
 Kaufmann Bros. & Bondy, Inc.
 Frank Sale Service, Inc.: See—
 Stroock, Franklin C.
 Fred Fear & Co.: See—
 Natural Sugars, Inc.
 Fruit Belt Preserving Co., East Williamson, N. Y. 658,887, pub. 12-10-57. Cl. 46.
 Futura Camera Corp. of America, New York, N. Y. 658,790, pub. 12-10-57. Cl. 26.
 G. H. Bishop Co., Chicago, Ill. 553,027, can. Cl. 24.
 Gebrüder Junghans Aktiengesellschaft, Schramberg, Württemberg, Germany. 658,794, pub. 12-10-57. Cl. 27.
 General Aniline & Film Corp., New York, N. Y. 658,785, pub. 10-1-57. Cl. 28.
 General Electric Co.: See—
 Carbonyl Co., Inc.
 General Mills, Inc., Minneapolis, Minn. 658,877, pub. 12-10-57. Cl. 46.
 General Motors Corp., Detroit, Mich. 658,918, pub. 12-10-57. Cl. 103.
 Gibbons Food Products, Kansas City, Mo. 658,846, pub. 12-10-57. Cl. 46.
 Gibson, William, and Son Ltd., Nottingham, England. 658,822, pub. 12-3-57. Cl. 39.
 Gidumal, Hira, d. b. a. Gidumal and Sons, New York, N. Y. 552,990, can. Cl. 42.
 Gidumal and Sons: See—
 Gidumal, Hira.
 Girard's, Inc., San Rafael, Calif. 658,848, pub. 12-10-57. Cl. 46.
 Glenwood Range Co., Taunton, Mass. 553,231, can. Cl. 31.
 Godfrey Roller Co., Philadelphia, Pa. 383,598, 12(c) pub. 2-25-58. Cl. 50.
 Goggin Co., The: See—
 Moran, Frances T.

Goldberg, Carl, Inc., New York, N. Y. 553,262, can. Cl. 39.
 Goldfarb Bros., New York, N. Y. 553,143, can. Cl. 42.
 Goodrich, B. F., Co., The, d. b. a. B. F. Goodrich Chemical Co., New York, N. Y., and Akron, and Cleveland, Ohio. 552,997, can. Cl. 6.
 Goodrich Chemical Co.: See—
 Goodrich, B. F., Co., The.
 Gotham Broadcasting Corp., New York, N. Y. 658,922, pub. 12-10-57. Cl. 107.
 Grand Rapids Bookcase & Chair Co., Hastings, Mich. 658,806, pub. 12-10-57. Cl. 32.
 Grand Rapids Bookcase & Chair Co., Hastings, Mich. 658,807, pub. 12-10-57. Cl. 32.
 Gray Mfg. Co., The, Hartford, Conn. 658,740, pub. 12-10-57. Cl. 21.
 Great Atlantic and Pacific Tea Co., The, New York, N. Y. 658,842, pub. 12-10-57. Cl. 46.
 Great Lakes Carbon Corp., New York, N. Y. 553,044, can. Cl. 31.
 Green Cross Laboratories: See—
 Ogilvie, Fred B.
 Greenspoon Co., The: See—
 Greenspoon Clothing Co., Inc.
 Greenspoon Clothing Co., Inc., to The Greenspoon Co., St. Louis, Mo. 354,914, ren. 3-1-58. Cl. 39.
 Halma & Ettlinger, Inc., New York, N. Y. 658,823, pub. 12-10-57. Cl. 39.
 Haire Publishing Co., New York, N. Y. 553,297, can. Cl. 38.
 Halben Food Mfg. Co., Inc., St. Louis, Mo. 658,866, pub. 12-10-57. Cl. 46.
 Halladay, Ruel F., d. b. a. PFC, Oakland, Calif. 658,923, pub. 12-10-57. Cl. B.
 Hallmark Cards, Inc., Kansas City, Mo. 658,900, pub. 12-10-57. Cl. 50.
 Hamilton Dwight Co., Inc., New York, N. Y. 553,123, can. Cl. 16.
 Hammond Standish & Co., Detroit, Mich. 658,843, pub. 12-10-57. Cl. 46.
 Hanes, P. H., Knitting Co., Winston-Salem, N. C. 352,924, ren. 12-14-57. Cl. 39.
 Hardwood Products Corp., Neenah, Wis. 553,213, can. Cl. 12.
 Harper Wyman Co., Chicago, Ill. 658,789, pub. 12-10-57. Cl. 26.
 Hat Corp. of America, Norwalk, Conn. 355,402, ren. 3-15-58. Cl. 39.
 Hat Corp. of America, Norwalk, Conn. 553,289, can. Cl. 38.
 Hearsh Brothers, Los Angeles, Calif. 355,782, ren. 3-29-58. Cl. 46.
 Hecht Co., The, Washington, D. C. 553,284, can. Cl. 22.
 Helme & Co., New York, N. Y. 658,660, pub. 12-10-57. Cl. 6.
 Heller, Morris, d. b. a. Venice Importing Co., to Venice Importing Co., Inc., Brooklyn, N. Y. 358,411, ren. 1-4-58. Cl. 46.
 Henri, Hurst & McDonald, Inc., Chicago, Ill. 553,250, can. Cl. 101.
 Hercules Powder Co., Wilmington, Del. 351,537, 12(c) pub. 2-25-58. Cl. 6.
 Hercules Powder Co., Wilmington, Del. 351,787, 12(c) pub. 2-25-58. Cl. 52.
 Hercules Powder Co., Wilmington, Del. 353,196, ren. 12-25-57. Cl. 6.
 Hercules Steel Products Corp., Gallon, Ohio. 554,836, cor. Cl. 19.
 Herring-Hall-Martin Safe Co., Hamilton, Ohio. 658,680, pub. 12-10-57. Cl. 14.
 Hills Bros. Coffee, Inc., San Francisco, Calif. 658,860, pub. 12-10-57. Cl. 46.
 Holiday, Inc., Chicago, Ill. 553,200, can. Cl. 12.
 Holiday Coffee Corp., Walpole, Mass. 658,870, pub. 12-10-57. Cl. 46.
 Holland-Nahas Import & Export Co., New York, N. Y. 552,955, can. Cl. 39.
 Hudnut, Richard, New York, N. Y. 553,080, can. Cl. 51.
 Hung, Tang K., d. b. a. Wang Yick Fireworks Co., Victoria, Hong Kong. 553,065, can. Cl. 9.
 Hunter Douglas Corp., New York, N. Y. 553,171, can. Cl. 12.
 Iloca Camera: See—
 Witt, Wilhelm.
 Hurba: See—
 Villa, Juan L.
 Imel, Leroy, Evansville, Ind. 658,873, pub. 12-10-57. Cl. 46.
 Imperial International Corp., New York, N. Y. 658,767, pub. 12-10-57. Cl. 28.
 Independent Lock Co., Fitchburg, Mass. 357,204, ren. 5-24-58. Cl. 25.
 Independent Protection Co., Inc., Goshen, Ind. 553,125, can. Cl. 21.
 Ingersoll-Rand Co., New York, N. Y. 658,775, pub. 12-10-57. Cl. 23.
 Institut Dr. Ing. Reinhard Straumann A. G., Waldenburg, Switzerland. 658,795, pub. 12-10-57. Cl. 27.
 Interstate Folding Box Co., The, Middletown, Ohio. 351,910, 12(c) pub. 2-25-58. Cl. 2.
 International Housewares, Fishers, N. Y. 658,665, pub. 3-27-56. Cl. 13.
 International Labor Press Association, AFL-CIO, Washington, D. C. 658,818, pub. 12-10-57. Cl. 38.
 International Nickel Co., Inc., The, New York, N. Y. 658,472-4, pub. 12-10-57. Cl. 14.
 International Silver Co., The, Meriden, Conn. 658,776, pub. 12-10-57. Cl. 23.
 Intoco Tobacco Corp., New York, N. Y. 407,898, can. Cl. 17.
 Iowa Farm Milk Co., Bettendorf, Iowa. 658,853, pub. 12-10-57. Cl. 46.
 Irwin, Neisler and Co., Decatur, Ill. 658,699, pub. 12-10-57. Cl. 18.
 Iso-Sol Co., Inc., The, Lindenhurst, Long Island, N. Y. 658,927, Cl. 18.
 Jackson-Mitchell Pharmaceuticals, Inc.: See—
 Special Milk Products, Inc.
 Jamestown Paint & Varnish Co., Jamestown, Pa. 355,432, ren. 3-15-58. Cl. 16.
 Jensen-Salsbery Laboratories, Inc., Kansas City, Mo. 658,725, pub. 12-10-57. Cl. 18.
 Jet O Mat Inc., Minneapolis, Minn. 595,850, can. Cl. 21.
 Johnson, Andrew, Knudtson Ltd., Hull, England. 553,070, can. Cl. 46.
 Johnston, Edward P., New York, N. Y., to Douglas Laing & Co., Ltd., Glasgow, Scotland. 316,349, can. Cl. 49.
 Joseph & Feiss Co., Cleveland, Ohio. 355,600, ren. 3-22-58. Cl. 39.
 Karlson's Automatic Water Conditioner, Inc., Park Ridge, Ill. 658,925, Cl. 13.
 Karp, David, Co., Inc., New York, N. Y. 658,798, pub. 12-10-57. Cl. 28.
 Kaufmann Bros. & Bondy, Inc., West New York, N. J., to S. M. Frank & Co., Inc., New York, N. Y. 350,565, ren. 9-28-57. Cl. 8.
 Keiner Williams Stamping Co., New York and Richmond Hill, to Atlantic Stamping Co., Rochester, N. Y. 121,187, ren. 4-16-58. Cl. 2.
 Kenny, Dick: See—
 Kenny, Richard L.
 Kenny, Richard L., d. b. a. Dick Kenny, Stamford, Conn. 658,741, pub. 12-10-57. Cl. 21.
 Keystone Lubricating Co.: See—
 Buzby, Augustus C.
 Kig Shoyu Co., Ltd., Honolulu, Hawaii. 658,839, pub. 12-10-57. Cl. 46.
 Kinkade, Louise, Fremont, Nebr. 552,998, can. Cl. 52.
 Kirk, C. D., & Associates, Inc., Weslaco, Tex. 658,893, 12-10-57. Cl. 46.
 Kirk, Samuel, & Son, Inc., Baltimore, Md. 658,796-7, pub. 12-10-57. Cl. 28.
 Klepper, Hans, d. b. a. Klepper-Werke, Rosenheim, Bavaria, Germany. 658,821, pub. 12-10-57. Cl. 39.
 Klepper-Werke: See—
 Klepper, Hans.
 Kozma, J. A., Co.: See—
 Kozma, Joseph A., Sr.
 Kozma, Joseph A., Sr., d. b. a. J. A. Kozma Co., Dearborn, Mich. 658,812, pub. 12-10-57. Cl. 34.
 Krim-Ko Corp., Chicago, Ill. 658,867, pub. 12-10-57. Cl. 46.
 Kwan Yick Fireworks Co.: See—
 Tong, Tang B.
 Laboratoires Millot, Societe a Responsabilite Limitee, Paris, France. 658,703, pub. 12-10-57. Cl. 18.
 Lady Ann Food Products, Chicago, Ill. 553,208, can. Cl. 46.
 Lady Joan Laboratories: See—
 Bond, Frank L.
 Laing, Douglas, & Co., Ltd.: See—
 Johnston, Edward P.
 Landau, J. Co., New York, N. Y. 534,730, can. Cl. 16.
 Latex Fiber Industries, Inc., New York, N. Y. 355,161, 12(c) pub. 2-25-58. Cl. 50.
 Lauerburg, Weingut J., Fam. G. m. b. H., Bernkastel (Mosel), Germany. 658,895, pub. 12-10-57. Cl. 47.
 Lewis, Henry L., St. Louis, Mo. 658,835, pub. 6-7-55. Cl. 46.
 Lewis, Wayne, New York, N. Y. 552,958, can. Cl. 36.
 Lincoln Mfg. Co.: See—
 Rhoads, Delmar D.
 Lindsey-Robinson & Co., Inc., Roanoke, Va. 658,882, pub. 12-10-57. Cl. 46.
 Liska, John H., d. b. a. Sterling Sales Co., Jamaica, N. Y. 658,885, pub. 12-10-57. Cl. 46.
 "Little Joe" Wiesenfeld Co., Baltimore, Md. 553,144, can. Cl. 3.
 Liza-Jean Sweets, Inc., Cleveland, Ohio. 553,026, can. Cl. 46.
 Lloyd Brothers, Inc., Cincinnati, Ohio. 658,735, pub. 12-10-57. Cl. 18.
 Lohco, Inc., d. b. a. Alberto-Culver Co., Chicago, Ill. 658,904, 12-10-57. Cl. 51.
 Lockport Cotton Batting Co., to Lockport Mills, Inc., Lockport, N. Y. 354,371, ren. 2-8-58. Cl. 1.
 Lockport Mills, Inc.: See—
 Lockport Cotton Batting Co.
 Loeb Dietetic Food Co., Inc., New York, N. Y. 538,808, can. Cl. 46.
 Lovely Girl Inc., New York, N. Y. 553,259, can. Cl. 39.
 Luchow Products Corp., New York, N. Y. 658,841, pub. 12-10-57. Cl. 46.
 Lucy Frock, Inc., Hillsboro, Kans. 658,832, pub. 12-10-57. Cl. 39.
 Macboyle, Errol, to R. H. Walter and M. E. C. Walter, Santa Rosa, Calif. 354,486, ren. 2-15-58. Cl. 47.
 Macy, R. H., & Co., to R. H. Macy & Co., Inc., New York, N. Y. 12-27-58, ren. 1-29-58. Cl. 39.
 Macy, R. H., & Co., Inc.: See—
 Macy, R. H., & Co.
 Macy, R. H., & Co., Inc., New York, N. Y. 353,980, ren. 1-25-58. Cl. 16.
 Macy, R. H., & Co., Inc., New York, N. Y. 354,148, ren. 2-1-58. Cl. 49.
 Macy, R. H., & Co., Inc., New York, N. Y. 354,620, ren. 2-15-58. Cl. 46.
 Maler & Co. Fabrik fur Spezialmaschinen, Hallein, Austria. 658,771, pub. 12-10-57. Cl. 23.

- Marion Laboratories, Inc., Kansas City, Mo. 658,731-3, pub. 12-10-57. Cl. 18.
 Marquay, S. a. r. l., Paris, France. 658,906, pub. 12-10-57. Cl. 51.
 Massengil, S. E., Co., The, Bristol, Tenn. 553,175, canc. Cl. 18.
 Mattel, Inc., Los Angeles, Calif. 658,748-50, pub. 12-10-57. Cl. 22.
 Mayer, Frederick G., South Norwalk, to Zotox Pharmacal Co., Inc., Stamford, Conn. 658,690-1, pub. 6-15-54. Cl. 18.
 McManus Mfg.: See—
 McManus, William J.
 Mead Johnson & Co., Evansville, Ind. 531,808, ren. 2-25-58. Cl. 18.
 Mead Johnson & Co., Evansville, Ind. 532,894. Am. 7(d). Cl. 46.
 Mepa Watch Corp., New York, N. Y. 658,792, pub. 12-10-57. Cl. 27.
 Mercer Glass Works, Inc., New York, N. Y. 553,261, canc. Cl. 44.
 Merck & Co., Inc., Rahway, N. J. 658,714, pub. 12-10-57. Cl. 18.
 Mercon Inc., Portland, Oreg. 553,294, canc. Cl. 22.
 Merrill Candy Co., Merrill, Wis. 658,840, pub. 11-5-57. Cl. 46.
 Merrimac Hat Corp., Amesbury, Mass. 658,829, pub. 12-10-57. Cl. 39.
 Metabolic Products Corp., Boston, Mass. 658,705, pub. 12-10-57. Cl. 18.
 Meyer, Fred, of California, Inc., San Francisco, Calif. 658,813, pub. 12-10-57. Cl. 34.
 Micromatic Hone Corp., Detroit, Mich. 356,386, ren. 4-26-58. Cl. 23.
 Miles Laboratories, Inc., Elkhart, Ind. 658,695, pub. 12-10-57. Cl. 18.
 Miles Laboratories, Inc., Elkhart, Ind. 658,696, pub. 12-10-57. Cl. 18.
 Millo, Guy, Co.: See—
 Stasio, Guy B.
 Mitchell Bros., Inc.: See—
 Slipco.
 Mohawk Carpet Mills, Inc., Amsterdam, N. Y. 553,186, canc. Cl. 42.
 Monogram Pictures Corp., to Allied Artists Pictures Corp., New York, N. Y. 355,156, ren. 3-8-58. Cl. 26.
 Monsanto Chemical Co., St. Louis, Mo. 357,161, ren. 5-24-58. Cl. 6.
 Monsanto Chemical Co., St. Louis, Mo. 357,162, ren. 5-24-58. Cl. 6.
 Monsanto Chemical Co., St. Louis, Mo. 357,163, ren. 5-24-58. Cl. 6.
 Moran, Frances T., d. b. a. The Goggin Co., Arlington, Va. 538,549, canc. Cl. 46.
 Morton Salt Co., Chicago, Ill. 658,837, pub. 12-10-57. Cl. 46.
 Munro & Co. Ltd., Edinburgh, Scotland. 533,889, canc. Cl. 39.
 Murray Corp. of America, The, Detroit, Mich. 658,779, pub. 12-10-57. Cl. 24.
 Murray Corp. of America, The, Detroit, Mich. 658,780, pub. 12-10-57. Cl. 24.
 McDonald Co., The: See—
 McDonald Industries, Inc.
 McDonald Industries, Inc., to The McDonald Co., Boston, Mass. 553,030, canc. Cl. 6.
 McManus, William J., d. b. a. McManus Mfg., Hollywood, Calif. 658,924, Cl. 13.
 National Electronics, Inc., Geneva, Ill. 658,739, pub. 7-2-57. Cl. 21.
 National Export Packing Corp., New York, N. Y. 658,917, pub. 12-10-57. Cl. 100.
 National Industries for the Blind, New York, N. Y. 658,824, pub. 12-10-57. Cl. 39.
 Natural Sugars, Inc., New York, to Fred Fear & Co., Brooklyn, N. Y. 356,605, ren. 5-3-58. Cl. 45.
 Natural Sugars, Inc., New York, to Fred Fear & Co., Brooklyn, N. Y. 356,923, ren. 5-17-58. Cl. 46.
 New York Export & Sales Co.: See—
 Bared, Luis F.
 New York Feather Co. Inc., New York and Brooklyn, N. Y. 588,708, canc. Cl. 32.
 Niamco, Inc., Dallas, Tex. 658,664, pub. 12-10-57. Cl. 10.
 Nichols Wire & Aluminum Co., Davenport, Iowa. 658,668, pub. 12-10-57. Cl. 14.
 Nopco Chemical Co., Harrison, N. J. 658,702, pub. 12-10-57. Cl. 18.
 Nordmark-Werke Gesellschaft mit beschränkter Haftung, Hamburg, Germany. 658,701, pub. 12-10-57. Cl. 18.
 Norm-Mil Marine Paint Co., Paducah, Ky. 658,683, pub. 12-10-57. Cl. 10.
 Norton & McElroy Produce, Inc., Glendale, Ariz., by change of name from Westside Farms. 658,847, pub. 12-10-57. Cl. 46.
 Nutritional Science Corp., Lynwood, Calif. 658,721, pub. 12-10-57. Cl. 18.
 Oak Point Dairies of New Jersey, Newark, N. J. 658,858, pub. 12-10-57. Cl. 46.
 Ogilvie, Fred B., d. b. a. Green Cross Laboratories, Kansas City, Kans. 658,692, pub. 10-8-57. Cl. 18.
 Oliver Corp., The, Chicago, Ill. 552,977, canc. Cl. 23.
 Omega Machine Co., Providence, R. I. 553,001, canc. Cl. 31.
 Organon Inc., Orange, N. J. 658,722, pub. 12-10-57. Cl. 18.
 PFC: See—
 Halladay, Ruel F.
 Pacific Mutual Life Insurance Co., Los Angeles, Calif. 553,245, canc. Cl. 102.
 Panama Cooperative Fisheries, Inc.: See—
 Cooperativa Pesquera Panamena, S. A.

- Para Laboratories, New York, N. Y. 658,903, pub. 12-10-57. Cl. 51.
 Parke, L. H., Co., Philadelphia, Pa. 658,910, pub. 12-10-57. Cl. 52.
 Paser Mfg. Co., San Francisco, Calif. 658,762, pub. 12-10-57. Cl. 23.
 Patterson Foundry and Machine Co., The, East Liverpool, Ohio. 658,768, pub. 12-10-57. Cl. 23.
 Patterson Foundry and Machine Co., The, East Liverpool, Ohio. 658,769, pub. 12-10-57. Cl. 23.
 Payswell Products Corp., Chicago, Ill. 552,969, canc. Cl. 21.
 Perrin, Alden F., Chicago, Ill. 354,332, ren. 2-8-58. Cl. 38.
 Pasquera e Industrializadora de Guaymas, S. A., Guaymas, Sonora, Mexico. 553,046, canc. Cl. 46.
 Peters, Henry M., d. b. a. Tatch-A-Tray Products, Chicago, Ill. 553,092, canc. Cl. 13.
 Pfizer, Chas., & Co., Inc., Brooklyn, N. Y. 658,716, pub. 12-10-57. Cl. 18.
 Phebus Inc., Brooklyn, N. Y. 658,734, pub. 12-10-57. Cl. 18.
 Phosphate Mining Co., The, New York, N. Y. 388,224, canc. Cl. 10.
 Physicians' Drug & Supply Co., Philadelphia, Pa. 658,689, pub. 2-9-54. Cl. 18.
 Piedmont Garden & Supply, Piedmont, Calif. 531,911, canc. Cl. 10.
 Pike-Rithe Co., Inc., Pulaski, Wis. 658,857, pub. 12-10-57. Cl. 46.
 Planters Nut & Chocolate Co., Wilkes-Barre, Pa. 658,864, pub. 2-12-57. Cl. 46.
 Plastisign Corp. of America, Philadelphia, Pa. 553,008, canc. Cl. 50.
 Plunkett Chemical Co.: See—
 Plunkett, William H.
 Plunkett, William H., to Plunkett Chemical Co., Chicago, Ill. 119,773, ren. 12-11-57. Cl. 6.
 Porter-Scarpelli Macaroni Co., Portland, Oreg. 658,874, pub. 12-10-57. Cl. 46.
 Platt Luggage, Inc., Chicago, Ill. 553,172, canc. Cl. 3.
 Premier Jewelry Co. Inc., New York, N. Y. 658,801, pub. 12-10-57. Cl. 28.
 Procter & Gamble Co., The, Cincinnati, Ohio. 658,915, pub. 12-10-57. Cl. 52.
 Projectile & Engineering Co. Ltd., The, London, England. 658,764, pub. 12-10-57. Cl. 23.
 Prudential-Wares, Inc., Chicago, Ill. 658,765, pub. 12-10-57. Cl. 23.
 Purdue Frederick Co., The, New York, N. Y. 658,709, pub. 12-10-57. Cl. 18.
 Quaker Oats Co., The: See—
 Aunt Jemima Mills Co.
 Quality Mills, Inc., Mount Airy, N. C. 658,830, pub. 12-10-57. Cl. 39.
 Radel, Andrew, Oyster Co., The, South Norwalk, Conn. 658,855, pub. 12-10-57. Cl. 46.
 Rapid Electric Service Co.: See—
 Viola, James A.
 Raybestos-Manhattan, Inc.: See—
 Atlas Powder Co.
 Red Wing Shoe Co., Inc., Red Wing, Minn., and Dallas, Tex. 537,310, canc. Cl. 39.
 Red Wing Shoe Co., Inc., Red Wing, Minn., and Dallas, Tex. 537,311, canc. Cl. 39.
 Relch Bros. Mfg. Co., Inc., Terre Haute, Ind. 658,773, pub. 12-10-57. Cl. 23.
 Resisto-Loy Co., Inc., The, Grand Rapids, Mich. 658,675, pub. 12-10-57. Cl. 14.
 Resisto-Loy Co., Inc., The, Grand Rapids, Mich. 658,676, pub. 12-10-57. Cl. 14.
 Resisto-Loy Co., Inc., The, Grand Rapids, Mich. 658,677, pub. 12-10-57. Cl. 14.
 Resisto-Loy Co., Inc., The, Grand Rapids, Mich. 658,678, pub. 12-10-57. Cl. 14.
 Rhoads, Delmar D., d. b. a. Lincoln Mfg. Co., Fort Wayne, Ind. 658,808, pub. 12-10-57. Cl. 32.
 Robertson, James, Co., Los Angeles, Calif. 658,896, pub. 12-10-57. Cl. 49.
 Robertson Mfg. Co., Morrisville, Pa. 552,989, canc. Cl. 12.
 Rodriguez, Alejo, Astoria, N. Y. 658,916, pub. 12-10-57. Cl. 52.
 Rolley, Inc., South San Francisco, Calif., to Botany Mills, Inc., Passaic, N. J. 658,908, pub. 12-10-57. Cl. 51.
 Ronick, Murray, New York, N. Y. 553,083, canc. Cl. 26.
 Ronicker, J. E., Co.: See—
 Ronicker, John E.
 Ronicker, John E., d. b. a. J. E. Ronicker Co., West Milton, Ohio. 658,706, pub. 12-10-57. Cl. 18.
 Ross Packing Co., Selah, Wash. 575,711, canc. Cl. 46.
 Ross & Roberts, Inc., West Haven, Conn., to E. I. du Pont de Nemours and Co., Wilmington, Del. 553,006, canc. Cl. 42.
 Rossman, Jerry, Corp., New York, N. Y. 553,082, canc. Cl. 42.
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